Lucent Technologies
Bell Labs Innovations

Translation Guide
4ESS™ -2000 Switch
TG-4

234-010-100

Lucent Technologies Proprietary
See notice on the following page

Translation Guide
4ESS™-2000 Switch
TG-4

234-010-100

Developed by
Lucent Technologies
Systems for Network Operators/Switching and Access Systems Unit

Lucent Product Training 1-888-LT INFO6

LUCENT TECHNOLOGIES PROPRIETARY

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4ESS™ -2000 Switch
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4ESS™ -2000 Switch
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Division 2 — General

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Section 7	Routing Philosophy
Section 8	Recent Change Administration
Section 9	Verify System
Section 10	CCIS INWATS Routing
Section 11	Trunk Order Codes
Section 12	Line-Busy Verification
Section 13	MASS Announcement Service
Section 14	Translation Growth/Retrofit Administration

Ordering Information

General

This Translation Guide has been established for the purpose of furnishing the latest information for the construction and maintenance of the 4ESS™-2000 Switch trunking and routing database. This information is implemented into the database via specific input forms described herein and used by Engineering, Operations, and Administration personnel.

This document is entitled TG-4 for ordering purposes and is available through standard Lucent Technologies Standing Order Procedures.

The TG-4 document number 234-010-100 is ordered on a standing order basis. Every set of volumes ordered will receive periodic updates as translation data changes until the recipient cancels the standing order.

Ordering Procedure

Distribution of this document will be made on an individual or bulk basis from a standing order list. Additions or deletions to the existing standing order lists, changes of names or addresses and requests for individual pages should be forwarded to:

Lucent Technologies
Customer Information Center
2855 N. Franklin Road
P.O. Box 19901
Indianapolis, IN 46219-1385

Orders must include the telephone company area and accounting codes for billing purposes plus the complete information within the appropriate categories.

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ORDERING INFORMATION

Ordering Information, Continued

Ordering Procedure (cont'd.)

Standing Order

Addition to Standing Order:

(Quantity) Document TG-4, 4ESS™-2000 Switch Translation Guide, 234-010-100, complete (include binders and complete set of tabs for each document specified in quantity above) and all subsequent items.

Change of Names or Addresses on Existing Standing Order:

Document TG-4, 4ESS™-2000-Switch Translation Guide, 234-010-100

Change:

OLD - LOC ID (from address label) Name, Address, City, State, and ZIP Code.

NEW - Name, Address, City, State and ZIP Code.

Deletion of Addressee from Standing Order:

Document TG-4, 4ESS™-2000 Switch Translation Guide, 234-010-100.

Delete:

LOC ID (from address label) Name, Address, City, State and ZIP Code

Non-Recurring

Individual Items to Standing Order:

Document TG-4, 4ESS™-2000 Switch Translation Guide, 234-010-100

1. Pages: (quantity) Page Number, Section, Division
2. Binder (empty): (quantity) Volume Number
3. Index Tabs: (quantity) Tab number/s
4. Quantity: (for total amount of volume sets)
5. Include Name, Address, City, State, and ZIP Code on all orders.

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Translation Inquiry

General

A means of communication feedback has been established for the 4ESS™-2000 Switch TG-4 Translation Guide. The translation inquiry form (ESS400A) is the vehicle to be used for feedback relating to the Translation Guide. This inquiry may deal with problems in using translation forms, difficulties in interpreting written translation information, or any other problem involving translations.

The translation inquiry may also be used for suggestions and proposals relating to Translation Guide contents or arrangement. The objective is to provide a quick and efficient means for providing detailed translation feedback to the user of the Translation Guide.

Requests for feature development should not be submitted as a translation inquiry. This type of correspondence should be directed to the Lucent Technologies Engineering Department through normal channels.

Translation Inquiry Routine

A reproducible copy of the translation inquiry form (ESS400A) is located in Division 10 of this Translation Guide. This master should be reproduced locally to provide a standard format for submitting Translation Guide questions, corrections, or proposals.

Forward the completed ESS400A to Lucent Technologies. An inquiry number is assigned when the ESS400A is received. The inquiry will be reviewed by the TG-4 Coordinator to determine where it should be forwarded for appropriate consideration. The completed form, including details of the disposition, will be returned to the originator. A copy of the translation inquiry will be filed for possible future reference.

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Translation Inquiry, Continued

Form Preparation

The form is divided into three sections. Section A is for reference information, Section B is for the problem description or comment, and Section C is for Lucent Technologies administration.

Section A:

Reference Information - If the information included under Section B description or comment relates to a specific 4ESS™-2000 Switch, complete all of the blanks for office reference.

Section B:

Problem or proposal description -Include enough detail to fully describe the problem or proposal and make reference to division, section and paragraph or figure of the TG-4 document relating to the inquiry.

The inquiry should be dated and signed by a supervisor or manager of the person submitting the request. Include title and complete address. This address will be used for the acknowledged inquiry return.

Forward completed form to:

Sandra Amey - JFA2A7120
LUCENT TECHNOLOGIES
2000 Naperville Road
P.O. Box 3033
Naperville IL 60566-7033
630-979-5475
630-224-6118 Fax

Section C:

Administration - For Lucent Technologies use only to process the Translation Inquiry.

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Translation Inquiry, Continued

Form Preparation (cont'd.)

ESS 400A(12) TG-4 TRANSLATION INQUIRY
4ESS SWITCH

INQUIRY NUMBER _____
(LUCENT TECHNOLOGIES USE ONLY)

A. REFERENCE INFORMATION

OFFICE NAME _____LOCATION_____

GENERIC TYPE _____ NUMBER _____BASES&ECONTROL GROUP _____

TURNOVER DATE _____CUTOVER_DATE_____

FOR FURTHER INFORMATION CALL ____TELEPHONE_NUMBER _____

B. PROBLEM OR PROPOSAL DESCRIPTION AND EXAMPLE AS APPROPRIATE. USE REVERSE SIDE OF THIS SHEET IF NECESSARY. GIVE DETAILED DESCRIPTION INCLUDING DATE OR PAGE, PARAGRAPH OR FIGURE REFERENCED.

SIGNED _____

TITLE _____

TELEPHONE CO. _____

ADDRESS _____

_____
CITY STATE ZIP CODE

DATE _____

SEND COMPLETED COPY TO: S. AMEY, LUCENT TECHNOLOGIES - INDIAN HILL MAIN, 2000 NAPERVILLE ROAD, P.O. Box 3033, NAPERVILLE, ILLINOIS 60566-7033.

FAX NUMBER (630) 224-6119

C. FOR LUCENT TECHNOLOGIES USE ONLY

FORWARDING INFORMATION: ORGANIZATION _____ VIA _____

REPLY RECEIVED: DATE _____ BY _____ACTION_____

THIS FORM IS REPRODUCIBLE

Translation Inquiry, Continued

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Introduction to the TG-4 Translation Guide

General

The Translation Guide is the means for providing documentation relative to translations and office administration for the switch owner personnel.

The TG-4 for the 4ESS™-2000 Switch is available to all owners of the switch. See Division 2, Section 1 of this series for ordering information.

The TG-4 is updated on a monthly basis. It is being proposed that the updates in the future coincide with the quarterly generic releases.

Organization

The 4ESS™-2000 Switch Translation Guide documents information and instructions for creating, retrieving and modifying data in the switch database.

In each periodic update, the changes to text are noted by shaded background. The shading will be removed from the text in the subsequent update. The new text for that issue will be shaded. This shading will replace the current process for DIFF marking the updated text.

All three media used in the 4ESS™-2000 Switch translations (Office Data Assembler [ODA] input, Recent Change, and Verify System displays) use the same format. Common language keyword combinations are used to designate fields and entries in the fields. By designing the ODA input, Recent Change and Verify System display to use the same format and keywords, the amount of time required for familiarization and training is minimized.

As an introduction to the TG-4, the following paragraphs give a brief description of the function and intent of each division.

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Introduction to the TG-4 Translation Guide, Continued

Description

DIV 0: TG-4 Title Sheet

Section 0 - Table of Contents

Lists the topics covered within the entire TG-4 series specifically by Division and Section number.

DIV 1: Subject Index

Section 1 - Subject Index

Lists the keyword by subject and their associated reference sections.

DIV 2: General

Section 0 - Table of Contents

Section 1 - Ordering Information

Describes how to order the TG-4 on a Standing and Non-recurring order basis.

Section 2 - Translation Inquiry

Gives instruction on how to implement the communication from the customer to Lucent Technologies for comments, proposals or questions.

Section 3 - Introduction to the TG-4 Translation Guide

Lists the function, purpose, and arrangement of the TG-4 Translation Guide.

Section 4 - Introduction to the 4ESS™-2000 Switch Translations

Describes briefly and identifies the layout of the software translators.

Section 5 - Office Data Assembler

Reviews the ODA process of the 4ESS™-2000 Switch.

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Introduction to the TG-4 Translation Guide, Continued

Description (cont'd.)

Section 6 - Universal Terminating Test Lines

Describes the operation of the standard terminating test lines and the codes associated with each test line required.

Section 7 - Routing Philosophy

Gives a general overview of routing telephone traffic within the network.

Section 8 - Recent Change Administration

Introduces the on-line system used to modify the translations in a 4ESS™-2000 Switch office. All available Recent Changes are listed, as well as their locations, in this Translation Guide. The Administration of the Recent Change Activity is also explained.

Section 9 - Verify System

Outlines the translation verification procedures and specifies the input and output messages and their correlation to the ODA input forms and Recent Change Messages.

Section 10 - CCIS INWATS Routing

Describes routing, numbering, and screening for Common Channel Interoffice Signaling (CCIS) Inward Wide Area Telephone Service.

Section 11 - Trunk Order Codes

Describes the TOCs and the manner used in the Next Generation - Trunk Assignment Generation System (NXTGEN-TAGS) and Circuit Assignment Record Transfer System (CARTS) for ODA.

Section 12 - Line Busy Verification

Gives an overview of the feature permitting an operator to access a dedicated network for the purpose of verifying whether a called customer line is actually busy as opposed to out of order.

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Introduction to the TG-4 Translation Guide, Continued

Description (cont'd.)

Section 13 - MASS Announcement Service

Describes the various Public Announcement Services available for local, regional or national call-in promotions.

Section 14 - Translation Growth / Retrofit Administration

Identifies the activities associated with modifying the office database.

DIV 3: Recent Change And Verify

Explains the Recent Change and Verify Message fields and formats. Individual sections cover Recent Change (RC) functions for Trunking, Routing, and Miscellaneous controls. Also, specific verification formats are specified for each RC application.

DIV 4: Feature Descriptions

Presents the major features for the 4ESS™-2000 Switch in a structured format. The newer feature documents will initially be added to the TG-4 with a standardized structure, i.e., Description, Provisioning, Availability, & Environment. Each of these structure categories will also be divided to sub categories, i.e., Dependencies, Interaction, Software Resource, Assignment Rules, Recent Change, etc. Older feature documents will eventually be converted to this structure and updated to the TG-4. This Division is planned to serve as an ongoing resource for feature information to be periodically updated as required.

DIV 5: Translation Implementation Guidelines

Feature topics such as Numbering Plan Area (NPA) Splits, Multiple Treatment Screening, etc. The topics will be presented as considerations for engineering and translation administration planning.

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Introduction to the TG-4 Translation Guide, Continued

Description (cont'd.)

DIV 6: Office Data Assembler Form Preparation

Section 0 - Table of Contents

Section 1 - 406 Series / Miscellaneous

Identifies office parameter requirements for each ODA Form.

DIV 7: Recent Change

Explains the RC Message fields and formats. Individual sections cover RC functions for Trunking, Routing, and Miscellaneous controls

DIV 8: Verification

Lists all of the input and output messages.

DIV 9: Miscellaneous

Section 0 - Table of Contents

Section 1 - Keyword Glossary

Contains the alpha-numerical listing of all the keywords used in translations of the 4ESS™-2000 Switch system. Each keyword is defined by its application/s and associated with the valid entries related to each. This Glossary also will be periodically updated as newer keywords are available for future translation administration.

Section 2 - Keyword Cross-Reference

Lists the alphanumeric listing of all the keywords used in the 4ESS™2000-Switch translations. This listing associates all of the various translation forms having an input for each individual keyword. A viable asset to be used for implementing new translations or troubleshooting problems.

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Introduction to the TG-4 Translation Guide, Continued

Description (cont'd.)

Section 3 - TG-4 Page Inventory

Lists each page in the TG-4 guide by division, section and issue date. The quantity of pages is shown for each section. There are two issued date columns. The left column reflects the issue date that should presently be found in the TG-4. The right column shows the issue date of the section that is being provided in the periodical update package.

DIV 10: Traffic/Plant Measurement System

Presents the methods used to set and change schedules and databases relating to traffic measurements. Included are detailed message formats and instructions for Traffic Measurements Input and Output messages.

DIV 11: Data Management Systems

Covers the Common Network Interface (CNI) Recent Changes using the CNI Database Management System (DMS).

DIV 12: Reproducible Forms

Provides all 4ESS forms relating to translation administration. These are card stock masters intended for ongoing reproduction for onsite personnel use. All forms are provided even if the same form has totally different formats due to Generic use. All forms will reflect a generic/release issue number for control.

Introduction to the 4ESS™-2000 Switch Translations

4ESS™-2000 Switch Translations

Description

Translations is the name for the on-line, real time information storage and retrieval system used for call processing in the 4ESS Switch. This system provides an interface between the generic program and the physical equipment.

More specifically, translations is the means for storage and retrieving office and trunk information. Translations provides the center of knowledge for programs and retrieves the knowledge upon request. Descriptions for thousands of trunks and routing possibilities are available for quick retrieval.

Translations differ from most storage retrieval systems in that information can be uniquely categorized prior to actual storage. Each piece of data has a predefined structural location where it is always found and stored. If new requirements dictate a new category, then the system must be augmented with a new category.

File Structure

Information about trunks, routing and the 4ESS Switch is systematically organized into translators dependent upon the relationship of the data elements. A translator is a unit of memory 1,024 words long.

Call Store Sizing

Translators reside within the simplex call store unit of the 1B processor. The number of translators required is dependent on the quantity of trunks in service and the quantity of special features provided. Special features such as Service Switching Point (SSP) and special screening functions all contribute to the need for additional call store space.

Translation Types

Translations can be built in the 4ESS Switch on an Office Data Assembler (ODA) basis or on a Recent Change (RC) basis. There are, however, translation changes that can only be done on an ODA basis.

Continued on next page

Introduction to the 4ESS™-2000 Switch Translations,
Continued

4ESS™-2000 Switch Translations (cont'd.)

Office Data Assembler (ODA) Translations

Each 4ESS Switch contains a unique database consisting of equipment assignments and the generic parameters. This data base is referred to as the Office Dependent Data (ODD). Translations can be updated by accessing the ODD via the ODA system. Annually, the database will be updated when retrofitting to the next generic. At this time, specific ODA forms can be processed to change data in the ODD.

Recent Change (RC) Translations

The Recent Change (RC) system is part of the generic program. The RC system is designed to allow translation data to be modified on a real-time basis. Specific RC forms are used for changing trunking, routing and some equipment parameters.

Continued on next page

Introduction to the 4ESS™-2000 Switch Translations,
Continued

Trunk Identifiers

Description

The various ways of identifying trunks in the 4ESS Switch have been influenced strongly by hardware and software. These identifiers are used in call processing. If translation data fails the recent change edit, these identifiers are used to highlight the rejected data.

Trunk Scanner Numbers (TSN)

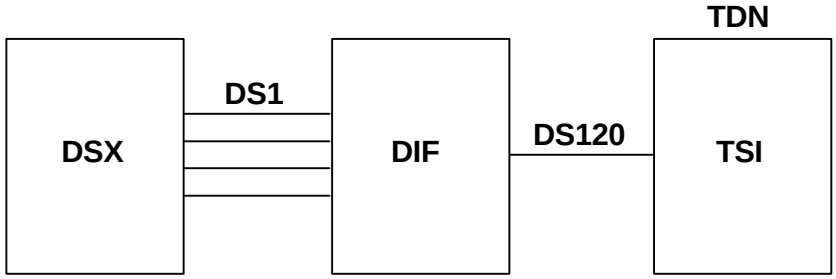
The TSN identifies the actual physical appearance of a trunk on the Digital Interface Frame (DIF) or Expanded Time Slot Interchange (XTSI) Frame. This is the main identifier used in the 1B Processor for call processing.

Continued on next page

Introduction to the 4ESS™-2000 Switch Translations,
Continued

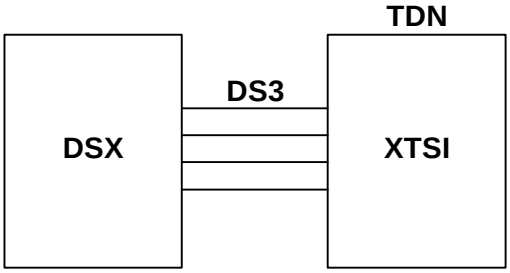
Trunk Identifiers (cont'd.)

TRUNK APPEARANCE NUMBER (DIF/TSI)



DIF - Digital Cross-Connect Frame
DSX - Digital Interface Frame
TDN - Time Division Network
TSI - Time Slot Interchange

TRUNK APPEARANCE NUMBER (XTSI)



DSX - Digital Interface Frame
TDN - Time Division Network
XTSI - Expanded Time Slot Interchange

Continued on next page

Introduction to the 4ESS™-2000 Switch Translations,
Continued

Trunk Identifiers
(cont'd.)

Trunk Appearance Number (TAN)

The TAN identifies a trunk appearance on the Time Slot Interchange (TSI) or Expanded Time Slot Interchange (XTSI) frame. This is the most common identifier used in human interface to the 1B Processor.

Trunk Number (TN)

The TN identifies a trunk appearance on the Time Division Network (TDN) after decorrelation to the Buffer B location on the TSI.

Trunk Block and Member Number (TBMN)

The TBMN is the internal software identifier for a trunk block and member number within a trunk block.

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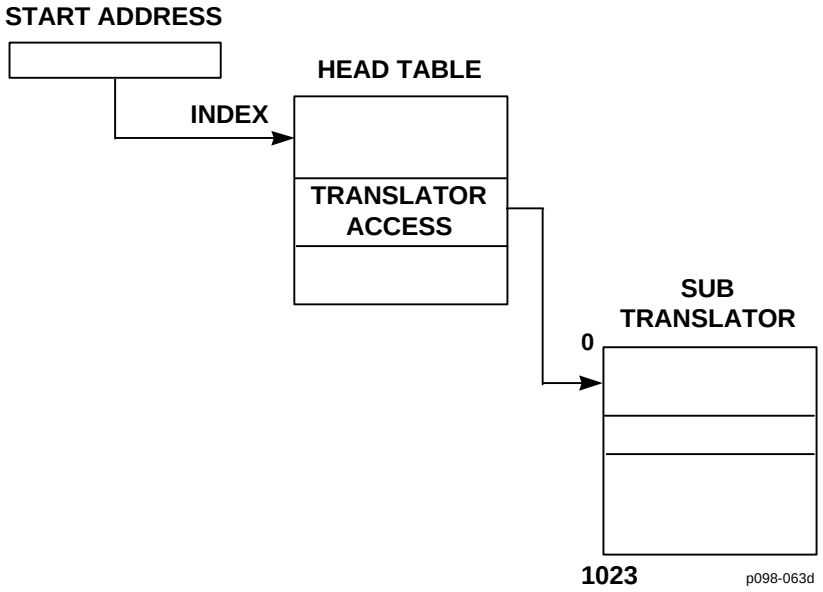
Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access

TRANSLATOR ACCESS



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Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access (cont'd.)

Translator access begins with a starting address, which exists in the generic program for each unique translation structure. The starting address defines the location of a unique head table in simplex call store.

The head table contains an address directory of all translators for a particular application, e.g., trunk block. The address within the head table points you to a subtranslator. The subtranslator either provides the data you need or another subtranslator address.

Call Setup

The four basic steps performed in the translation process for the setup of a call are as follows:

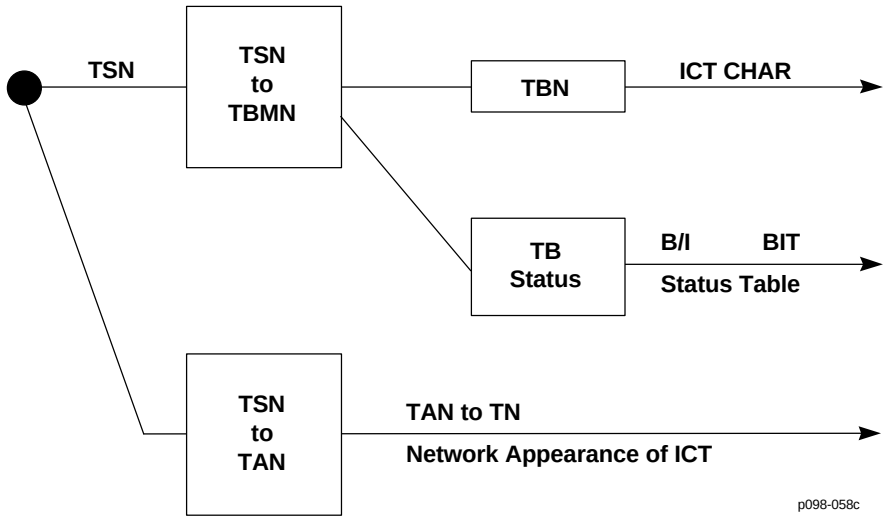
1. Incoming Call Translations
2. Digit Translations
3. Trunk Hunt
4. Outgoing Trunk Translations

Continued on next page

Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

INCOMING CALL TRANSLATIONS



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Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

Incoming Call Translations

Incoming Call Translations consist of the data derived from the trunk block. A trunk block contains certain information for up to 24 trunks. Additional trunks blocks are required when there are more than 24 trunks.

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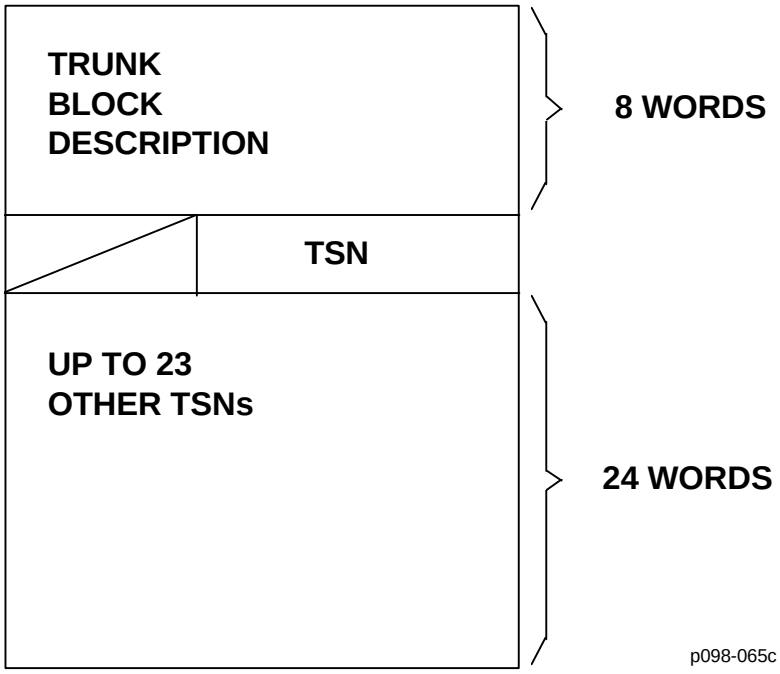
Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

TBN ENTRY



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Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

Trunk Block Translator Layout

WORDS 0 - 7

These words contain data required in the proper processing of a call This includes data such as type of trunks and the signaling type.

WORDS 8 - 31

Each word contains a Trunk Scanner Number (TSN) for one trunk. This TSN is used by the 1B Processor to identify the specific appearance of each trunk on the DIF or XTSI.

Note: Words 8 - 31 in the trunk block are only used on outgoing call setup. On an incoming call, the TSN is received from the DIF or XTSI.

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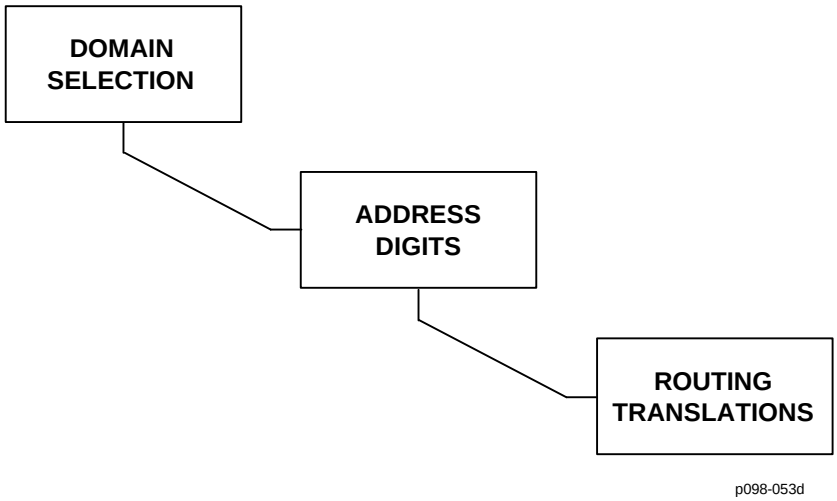
Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)



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Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

Digit Translations

After the incoming call translations have been retrieved, preparations are made to receive the incoming digits. The sequence of events is as follows:

1. Domain Selection - Initially it is based on the Domain (DOM) field on the incoming trunk Trunk Block (TB).

2. Address Digits - Digits received from the customer

3. Routing Translations - List of one or more Trunk Subgroups (TSGs) to be used based on the address digits.

Domain Selection

The 4ESS Switch has various domains available for assignments of traffic. A domain is defined as a category used to identify a specific type of traffic. The type of traffic to be carried on the incoming TSG determines the appropriate domain.

Address Digits

The 4ESS Switch is designed to always look at the first 3 digits received. The digits received and the incoming trunk subgroup characteristics start the call processing within the 3-digit head table subtranslator.

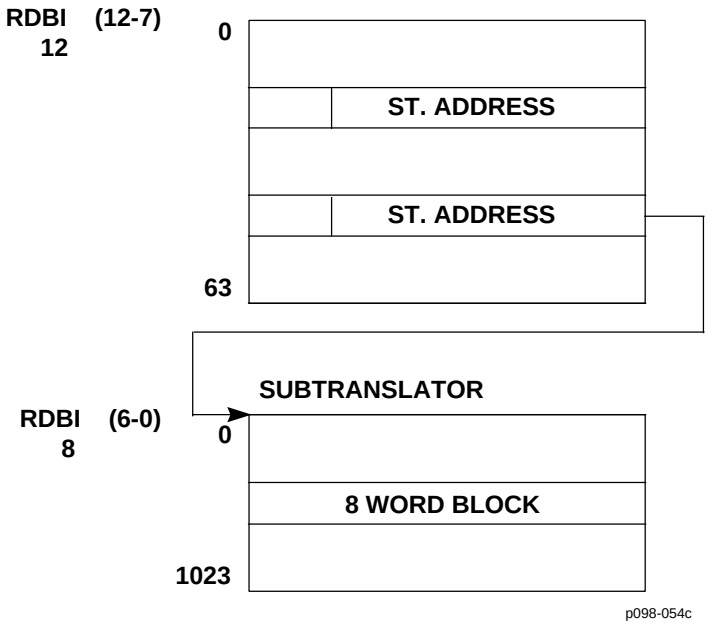
Each active domain in the head table points to a unique block of 1024 words which contains all routing treatments to apply to the first 3 digits in the range of 000-999.

Continued on next page

Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

ROUTING DATA BLOCK (RDB) TRANSLATOR



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Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

Routing Translations

Routing data is constructed using the code group tables. These tables define the number of digits to receive, the number of digits to use in translations, Call Type (CT) words, and how to handle the call.

If a valid routing data block index is found during digit translations, the next step is to access that Routing Data Block (RDB) to retrieve the list of TSGs. As with digit translations, the head table for the RDBs is entered to identify the location of the 1024 word translator containing the 8-word RDB subtranslator.

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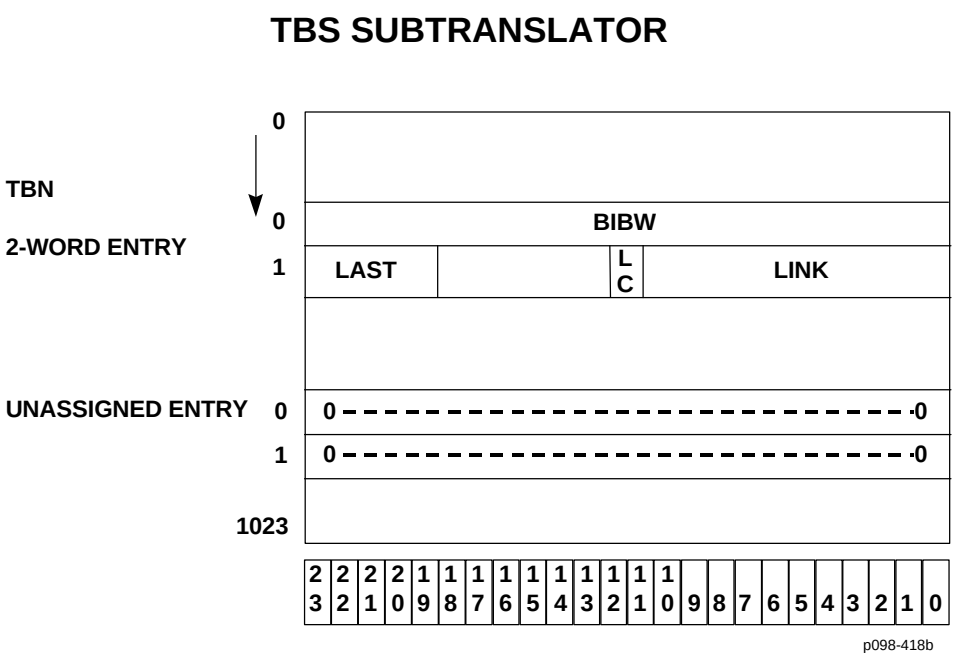
Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)



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Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

Trunk Hunt

After an outgoing trunk subgroup has been selected, the associated Trunk Subgroup Head Cell (TSGHC) is entered in the 1B software. The TSGHC identifies the location of the first Trunk Block Status (TBS) table. This table is used to identify an idle trunk.

Trunk Block Status Sub Translator Layout:

BIBW - Busy/Idle Bit Word

This field represents the busy idle status for a corresponding trunk in the trunk block.

Last - Last Used Member Number

The trunk hunt with memory capability. This is the member number of the last trunk that was hunted.

LC - Link

This field identifies the next choice TB. If a trunk hunt does not find an idle trunk in a TB, then it uses the next link to find the next TB that should be searched for an idle trunk. If link = 0, this indicates the end of the idle TB list.

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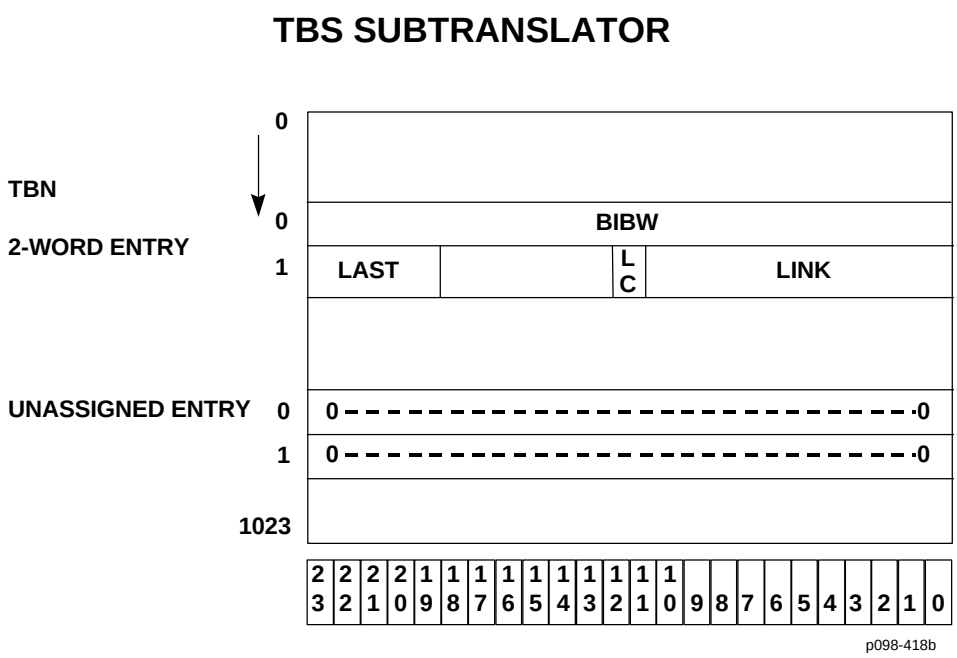
Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)



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Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

The 4ESS Switch trunk hunt is unique. Individual trunks are engineered by traffic numbers. The trunk hunt process searches for idle member numbers. Up to 24 sequential traffic numbers are assigned to a member number within the TB. The members are always numbered 0 - 23. When an idle member is selected, it is without regard to the traffic number.

Note: The far end switching system may dictate how trunk hunt is performed. Therefore, it is imperative to identify the equipment at the far end. Trunk hunt only applies to 1-way outgoing and 2-way TSGs.

Three RC fields are used to determine how hunting of trunks are performed on a 2-way TSG. These fields must be properly set at both ends of a 2-way TSG in order to first limit glare where both ends seize the same trunk at the same instant in time, and if glares occur, determine which office retains control while the other office does a retrial.

The three RC fields are:

Reverse

Glare

Trunk Hunt with Memory (MEM)

There is only one RC field (MEM) that determines trunk selection on a 1-way outgoing TSG.

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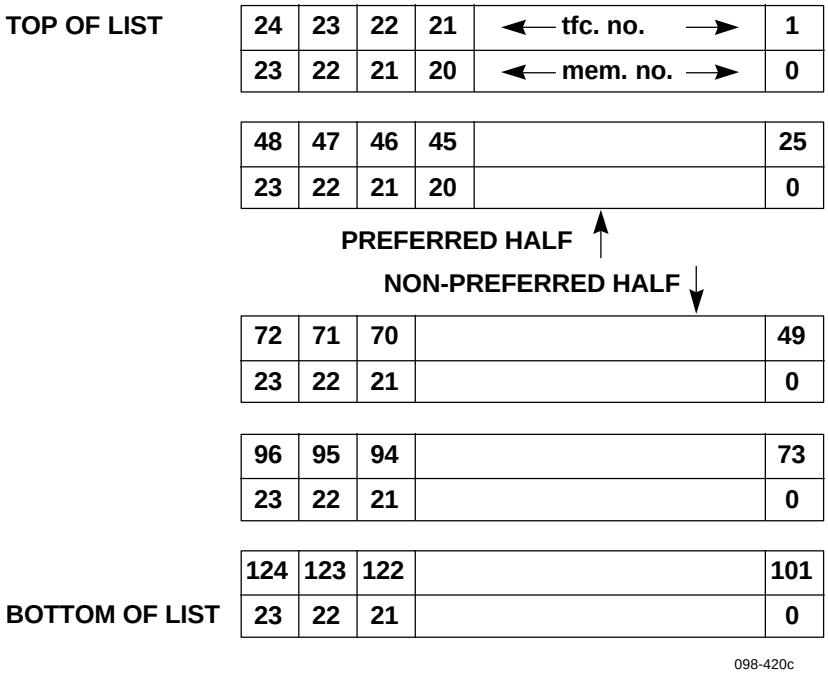
Introduction to the 4ESS™-2000 Switch Translations,
Continued

2-WAY MULTIPLE TRUNK BLOCK REV = N



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Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

Multiple Trunk Blocks

Reverse=N (2-way Trunk Subgroup)

The population of the reverse field determines the preferred and the nonpreferred trunks. If a trunk hunt does not find an idle trunk in a TB, then it uses the next link to find the next TB that should be searched for an idle trunk. The TB is put back on the top of the list when a preferred trunk is idle. Blocks, in the nonpreferred half when returned to the idle list, are placed at the bottom of the list in that half. The search is confined to the preferred half only accessing the nonpreferred as necessary.

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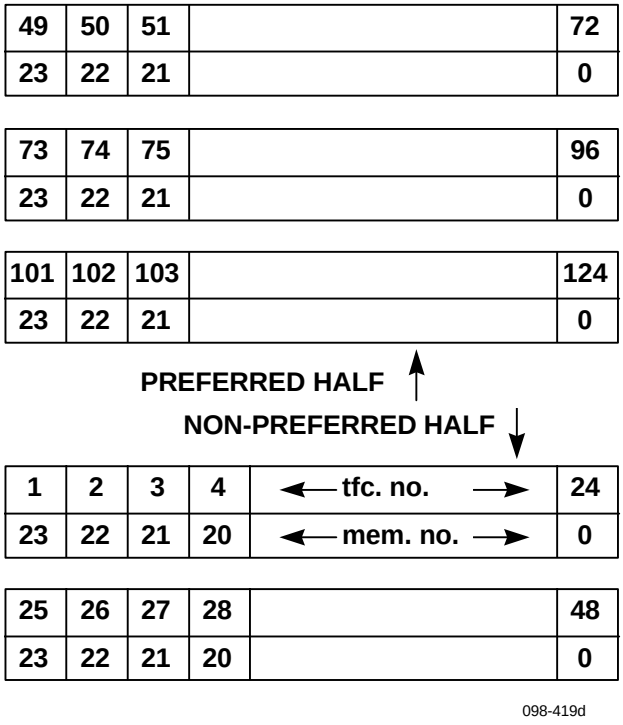
Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

2-WAY MULTIPLE TRUNK BLOCK REV = Y



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Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

Multiple Trunk Blocks

Reverse=Y (2 Way Trunk Subgroup)

With reverse set to "Y", the preferred TBs are those which have the higher traffic numbers. The linkage of the TBs is the same as previously described.

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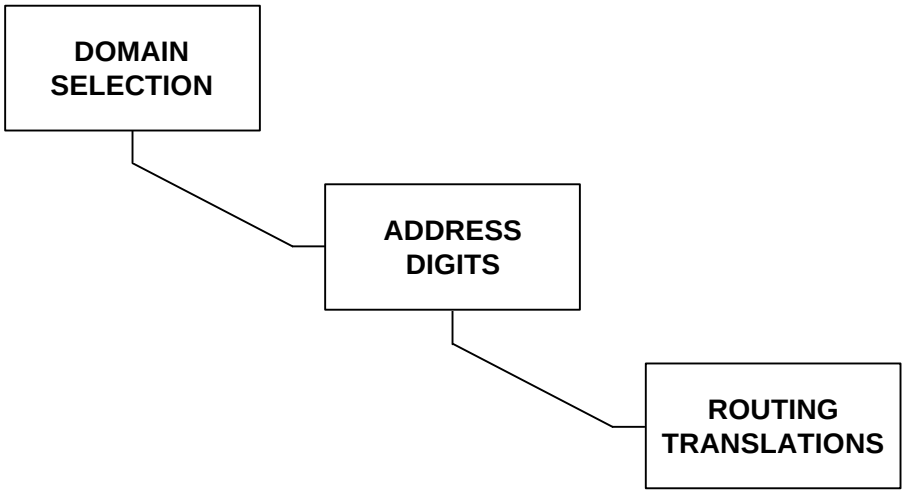
Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

DIGIT TRANSLATIONS



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Introduction to the 4ESS™-2000 Switch Translations,
Continued

Translator Access
(cont'd.)

Outgoing Trunk Translations

The sequence is as follows:

1. After the outgoing trunk is selected in the Trunk Block Status table, the bit is changed from a “1” to a “0” to mark the trunk busy.

2. Based on the bit made busy, the TB then is entered to retrieve the Outgoing Trunk (OGT) characteristics and the TSN.

3. The TSN then is used to access the TSN to TAN translator to retrieve the TDN appearance of the OGT.

4. The TAN is converted into the TN in order to be used in path hunt in the TDN.

Introduction to the 4ESS™-2000 Switch Translations,
Continued

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Office Data Assembler

Purpose

Database

The Office Data Assembler (ODA) is an off-line large scale data processing system which is used to generate office dependent translation and parameter data for 4ESS™-2000 Switch offices. The 4ESS™-2000 Switch ODA system requires all of the data for translations and parameters as input, utilizing the ODA and Recent Change (RC) forms in the TG-4 Translation Guide.

The ODA is an actual tape or electronic file of a database that is unique to each individual 4ESS™-2000 Switch. The file contains a profile of every type and quantity of equipment that is to be included in the office and consists of equipment planned for working and future use within the engineering period. The ODA also contains the office dependent parameters and all of the required translations for call processing. These translations relate to both trunking and routing.

The first manually prepared ODA is required for the 4ESS™-2000 Switch initialization. Initialization is the initial cutover process of the new switch system. This manual ODA input process is the only way to have all of the required information input to the file. Once the initial ODA is loaded, the 4ESS™-2000 Switch is ready to interface with its specific and unique application to the local or toll network.

Generic Retrofit

Subsequent to the initial cutover, a new ODA is required whenever an update is requested for the next generic. This is referred to as a generic retrofit. The plan is to include both new equipment requirements for service provisioning and office profile changes required for the next generic. This ODA is prepared using the existing 4ESS™-2000 Switch ODA as a foundation on which to grow. For the Local Exchange Carrier (LEC) switches, this "snap-shot" of time is taken 2 to 3 weeks prior to the actual ODA load via a tape from the 4ESS™-2000 Switch office. The snap-shot in time begins the start of the "Quiet Period." Any RC updates performed during the quiet period must be added back into the ODA. In addition, sometimes this data must be restructured for compatibility to the new generic being loaded. Therefore, it is important to limit the input activity during the quiet period.

Continued on next page

Office Data Assembler, Continued

TAGS or NXTGEN-TAGS

Next Generation Trunk Assignment Generation System (NXT GEN-TAGS)

When an ODA is required for a new office or a retrofit of an existing 4ESS™-2000 Switch, the process must begin at the basic foundation. This foundation is called Next Generation Trunk Assignment Generation System (NXT GEN-TAGS). This is administrated by the Lucent Technologies Next Generation ODA (NG-ODA) organization located at Indian Hill in Naperville, Illinois. This organization is responsible for a very large scale off-line data processing system that is used to generate office dependent translations and parameter data for the 4ESS™-2000 Switch offices. They are responsible for every new office cutover and subsequent generic retrofit. Each office has been assigned a date for the generic and ODA load. If one office fails to meet committed dates for inputs, that office cutover/retrofit may be jeopardized, as well as, other offices' schedules may be affected later.

The NXT GEN-TAGS is a program that creates the drawings for the office and sizes all of the required cabling for the 4ESS™-2000 Switch equipment. The cabling is down to actual circuit level within the confines of the switch. Every scan and distribute point is assigned to its appropriate equipment type and location. The Lucent Technologies Line Engineer uses the customer Telephone Equipment Order (TEO) to prepare the required forms for input to the NXT GEN-TAGS program. The fixed floor plan of the 4ESS™-2000 Switch location is input for critical data to size the lengths of required cabling. If any input errors occur, or if the customer desires to change an item on the Telephone Equipment Order (TEO), the NXT GEN-TAGS program has to be rerun. This can be costly and very penalizing for rigid time constraints

Continued on next page

Office Data Assembler, Continued

Office Drawings

The NXT GEN-TAGS provides drawings to the office, identifying every individual time slot. The only drawings that "must" be retained are those identifying the assignments for service circuits. These include:

464 Office Drawing

Remote Measurement System (RMS-D2) Assignments - Another use of the 464 drawings is to identify the Trunk Appearance Number (TAN) for the RMS-D2 system. The RMS-D2 system is a trunk testing system. It utilizes 24 consecutive TANs of each digroup.

464 Office Drawing

MF-DIU Assignments - The growth of Multifrequency-Digital Interface Unit (MF-DIU) through the RC process requires the TANs from this drawing.

465 Office Drawing

Multifrequency Signaling (MFS) frames. These frames contain a series of terminal strips for accumulating all of the miscellaneous services. Newer offices contain a pseudo MFS frame with only the terminal strips. These drawings should be retained to identify the terminal strip assignments.

Continued on next page

Office Data Assembler, Continued

CARTS

CARTS SUMMARY REPORT

NEAR END OFFICE		
TOWN	STATE	BLDG
SHOK	CA	02

TRUNK ASSIGNMENT WORKSHEET SUMMARY LISTING

2/6/97

CHANGE	CODE	TERMINAL EQUIPMENT					SP/ DIF FR NO	VIF/DTF /DIF		TAN				DISTRIBUTING FRAME			
		TYPE	LOCATION	TOC AOC	TOC OWN	CKT NO.		FR NO.	UN NO.	TSIF	SPC	LEVEL	TIME SLOT	LOCATION	PANEL	SIDE	JACK
		DIF	050526.01	0405	ATT	301	06	06	10	20	1	2	049	050300.09	02		003
		DIF	050526.01	0405	ATT	401	06	06	10	20	1	2	073	050300.09	02		004
		DIF	050526.01	0405	ATT	501	06	06	10	20	1	2	097	050300.09	02		005
		DIF	050526.01	0405	ATT	101	06	06	11	20	1	3	001	050300.09	02		006
		DIF	050526.01	0405	ATT	201	06	06	11	20	1	3	025	050300.09	02		007
		DIF	050526.01	0405	ATT	301	06	06	11	20	1	3	049	050300.09	02		008
		DIF	050526.01	0405	ATT	401	06	06	11	20	1	3	073	050300.09	02		009
		DIF	050526.01	0405	ATT	501	06	06	11	20	1	3	097	050300.09	02		010
		DIF	050526.01	0405	ATT	101	06	06	12	20	1	4	001	050300.09	02		011
		DIF	050526.01	0405	ATT	201	06	06	12	20	1	4	025	050300.09	02		012
		DIF	050526.01	0405	ATT	301	06	06	12	20	1	4	049	050300.09	02		013
		DIF	050526.01	0405	ATT	401	06	06	12	20	1	4	073	050300.09	02		014
		DIF	050526.01	0405	ATT	501	06	06	12	20	1	4	097	050300.09	02		015
		DIF	050526.01	0405	ATT	101	06	06	13	20	1	5	001	050300.09	02		016
		DIF	050526.01	0405	ATT	201	06	06	13	20	1	5	025	050300.09	02		017
		DIF	050526.01	0405	ATT	301	06	06	13	20	1	5	049	050300.09	02		018
		DIF	050526.01	0405	ATT	401	06	06	13	20	1	5	073	050300.09	02		019
		DIF	050526.01	0405	ATT	501	06	06	13	20	1	5	097	050300.09	02		020
		DIF	050526.01	0405	ATT	101	06	06	14	20	1	6	001	050300.09	02		021
		DIF	050526.01	0405	ATT	201	06	06	14	20	1	6	025	050300.09	02		022
		DIF	050526.01	0405	ATT	301	06	06	14	20	1	6	049	050300.09	02		023
		DIF	050526.01	0405	ATT	401	06	06	14	20	1	6	073	050300.09	02		024
		DIF	050526.01	0405	ATT	501	06	06	14	20	1	6	097	050300.09	02		025
		DIF	050526.01	0405	ATT	101	06	06	15	16	1	2	001	050300.09	02		026
		DIF	050526.01	0405	ATT	201	06	06	15	16	1	2	025	050300.09	02		027
		DIF	050526.01	0405	ATT	301	06	06	15	16	1	2	049	050300.09	02		028
		DIF	050526.01	0405	ATT	401	06	06	15	16	1	2	073	050300.09	02		029
		DIF	050526.01	0405	ATT	501	06	06	15	16	1	2	097	050300.09	02		030
		DIF	050526.01	0405	ATT	101	06	06	16	21	0	0	001	050300.09	02		031
		DIF	050526.01	0405	ATT	201	06	06	16	21	0	0	025	050300.09	02		032
		DIF	050526.01	0405	ATT	301	06	06	16	21	0	0	049	050300.09	02		033
		DIF	050526.01	0405	ATT	401	06	06	16	21	0	0	073	050300.09	02		034

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USE PURSUANT TO COMPANY INSTRUCTIONS

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Office Data Assembler, Continued

CARTS
(cont'd.)

Circuit Assignment Record Transfer System (CARTS)

The final NXT GEN-TAGS cable assignment data is input to a subsequent output function called Circuit Assignment Record Transfer System (CARTS). The distributing frame assignments for the 4ESS™-2000 Switch are inputs to NXT GEN-TAGS. These assignments are approximately 99 percent Digital Service Cross Connect (DSX) frame, panel and punching assignments for a 4ESS™-2000 Switch. The outputs generated from CARTS are the "Trunk Assignment Worksheets" or "CARTS Worksheets." These worksheets are a complete breakdown to the actual circuit level of all message type paths through the 4ESS™-2000 Switch. They list every TAN provided and each related Digital Interface Frame (DIF), DIU, circuit number, and appropriate DSX frame, panel, and punching.

The CARTS Summary Report shown on the opposite page reflects the following:

Terminating equipment type (usually a DIF)

Terminating equipment location

Trunk Order Code (TOC - usually 0405 for SM1B or 1200 for SM9)

DIF member number

DIU number

Base TAN

DSX frame location, panel, side, and jack number of its hard-cabled appearance (for each DIU/digroup terminating on the 4ESS™-2000 Switch).

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Office Data Assembler, Continued

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Office Data Assembler, Continued

Equipment Data Load

Connect VU

Equipment Data Load is performed via a Connect VU.G2 file. This is used to populate the Connect VU system with the added 4ESS™-2000 Switch equipment. This is the only means of inputting the assignable TAN information into the system. Circuit order activity of assigning trunks to TANs cannot transpire until this file is loaded into the Connect VU system. The Connect VU.G2 files are put on a tape and sent to the Connect VU site where it is loaded.

The CARTS Summary Report reflects all TAN digroups available for "message" type trunk assignments. Note: The TANs that have been listed on the 464 and 465 drawings for "miscellaneous and service circuits" are not shown on this drawing.

With CARTS, a complete new issue of the CARTS Summary Report and the related Connect VU file are sent to the Connect VU site prior to the office cutover or generic retrofit. The engineer at the Connect VU site should coordinate with the Telco Engineer so that a request is made in the Telco Equipment Order (TEO) for the provision of a separate issue of the changed CARTS Summary Report or new CARTS Summary Reports in addition to the complete issue.

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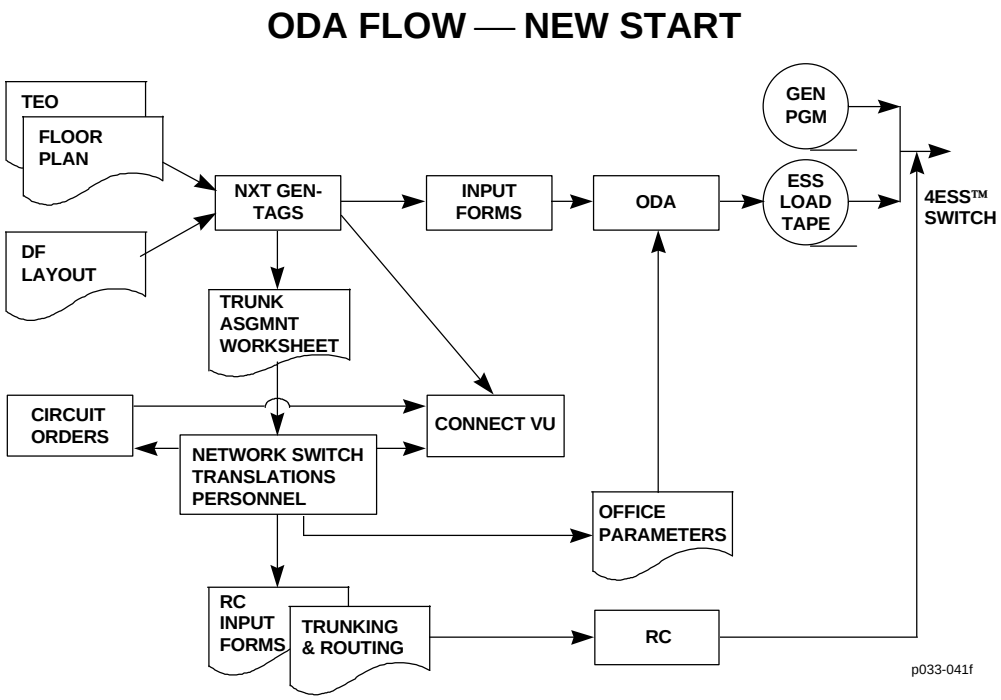
Office Data Assembler, Continued

ODA Flow ––New Start



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Office Data Assembler, Continued

ODA Flow ––New Start (cont'd.)

The ODA process for each Initial 4ESS™-2000 Switch is a very regimented structure. The flow is outlined as follows:

The Telco Engineer submits the Telephone Equipment Order (TEO), the proposed equipment floor plan, and the Distributing Frame (DF) assignments to the Lucent Technologies Line Engineer.

The Lucent Technologies Line Engineer enters the Telco data into the NXT GEN-TAGS system. Any conflicting data at this point is referred back to the Telco Engineer for resolution.

The first output from TAGS is used to populate the input forms for CARTS which creates an equipment load tape of the hardware assignments to be used for trunk assignments and miscellaneous service circuits.

The second output is input into Connect VU for the Telco translations use in the mechanized system.

The Network Switch Translations Personnel complete the "406C & 406Z" forms (office parameters) and forward to the Lucent Technologies line engineer for required memory sizing and input to the ODA tape.

The Network Switch Translations Personnel also prepare all of the required Recent Change Input forms for trunking and routing. These recent changes are manually entered to the switch subsequent to the Generic & ODA tape load.

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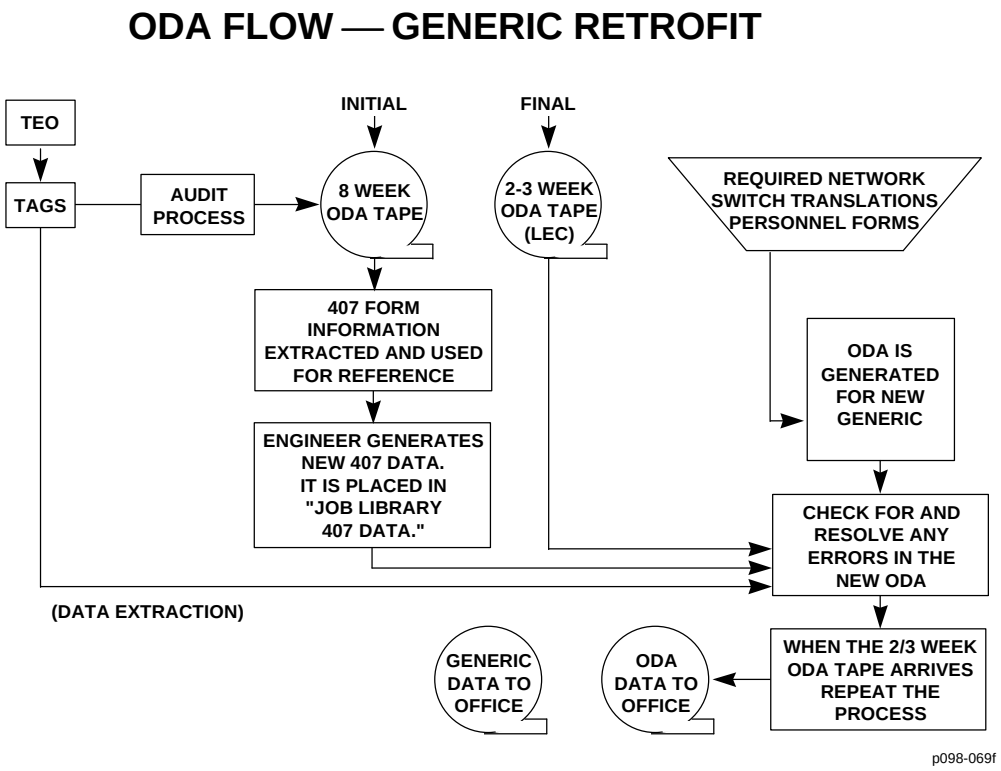
Office Data Assembler, Continued

ODA Flow ––Generic Retrofit



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Office Data Assembler, Continued

ODA Flow ––Generic Retrofit (cont'd.)

The ODA process for a Generic Retrofit is similar to the Initial but also must coordinate the newer equipment parameters with the existing 4ESS™-2000 Switch system. The Generic Retrofit may or may not be coincidental with any equipment additions. The following process outlined will assume that new equipment is being added for terminal assignments:

The Telco Engineer submits the TEO, the proposed growth area floor plan, and the growth DF assignments to the Lucent Technologies Line Engineer.

The Lucent Technologies Line Engineer enters the Telco data into the NXT GEN-TAGS system.

One output of the NXT GEN-TAGS system is part of the new equipment structure update to the new ODA load tape.

At the time frame of -8 weeks prior to Generic Load, the Telco must perform a Tape Write-Read Program (TWRP) tape from the 4ESS™-2000 Switch and forward it to Lucent Technologies for use as the first modification procedure of the new ODA load tape. This is merged with the Audit Process output from the NXT GEN-TAGS system and used to create the new 407 Type ODA forms for the new equipment. This tape is also used to perform any translations reformatting that may be required for the newer Generic to be loaded.

At the time frame of -2/3 weeks prior to Generic Load, a second TWRP ODA tape must be forward by Telco to Lucent Technologies. At the completion of this tape on site, the recent change "Quiet Period" begins. Any RCs made during this period must be reentered in the new format to the 4ESS™-2000 Switch.

The -2/3 tape is merged with data from the Job Library 407 Data from the -8 week tape, the NXT GEN-TAGS output, and any forms required from Telco to create the new ODA load tape for the new Generic.

Lucent Technologies checks the new ODA tape for any errors and resolves any if required.

The new ODA tape and Generic tape are forwarded to the Telco 4ESS™-2000 Switch site and loaded as required.

Telco reloads any RC translations that were performed previously during the "Quiet Period."

Office Data Assembler, Continued

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Universal Terminating Test Lines and Codes

General

This section will explain the operation of the standard terminating test lines and the codes associated with each test line.

For new start offices, all of the basic test call types 100, 101, 102, 103, 104, 105, 108, 109 and SYN (Synchronous) are automatically programmed in Office Data Assembler (ODA). In addition to the basic codes, a group of 6- or 7-digit numbers have been preassigned and automatically programmed in ODA for new start offices (see Table 55). These additional codes provide greater flexibility and consistency with other switching systems where different numbers are necessary for various reasons.

For offices undergoing a retrofit or growth, only those test codes which already existed in the office will be reinstated by the ODA process after the retrofit or growth. No new test codes will be automatically assigned. Additional test codes may be assigned using the RC 300 series of forms (see Division 3, Section 3, Code Grouping Forms).

The 109 Test Line is provided using the Digital Trunk Test Unit (DTTU). The 109 Call Type is automatically programmed by ODA for new start offices.

An office which is switching data over a dedicated network of digital trunks, is provided with a Data Test Line. ODA will automatically program the code 959-606d for the Data Test Line in a new start Data Office.

Continued on next page

Universal Terminating Test Lines and Codes, Continued

Description The following are Terminating Test Line descriptions:

- **Code 100** - Termination Test Line. This test line will provide a 5.5 second 1000 Hz milliwatt tone thru the switching network. The network connection is then taken down. After the network is taken down, a 600 ohm quiet termination is provided until the originating end goes idle. This circuit is used for noise and balance testing. If the number of 100 type test calls reaches the maximum number set in the generic program and another 100 type test call is attempted, that attempt will receive a busy tone (60 Interrupts Per Minute [I.P.M.]).

- **Code 101** - Communications Trunk. The 101 test line provides a communications circuit to a testboard position. It is used to contact a technician and to make transmission and supervisory tests in both directions. A call arriving at the 4ESS Switch as digits 101, 959-101, 959-151 or 959-970 will be directed to the particular testboard position that was designated for the two way or one way incoming Trunk Subgroup (TSG) by the entries in the CAREA and CPOS fields on the RC Form 100 Series. If a position other than that designated on the RC Form 100 Series is desired, or if testing is required on a one way outgoing trunk from the 4ESS Switch, the number received would be 101XXY or 9595XXY. The XX designates the particular testboard position to which the call will be routed. If when a call is directed to a particular 51A position either by the information on the RC Form 100 Series or by the digits received and that position is busy, the call will be terminated in a designated alternate position. If the alternate position is busy the call will be connected to busy tone (60 I.P.M.). If the call is directed to a particular Digital Trunk Test Unit (DTTU) test position by translations and the RC Form 100 Series, and the test position is busy, it will hunt for any acceptable DTTU test position in the office that may be available to receive the call. If the call is directed to a particular DTTU test position by digits XX, and both Test Access Trunks (TATs) are busy, a busy tone will be returned. If the call is directed to a particular TAT by digits XXY, and that particular individual trunk is busy, no hunt will be performed, and a busy tone will be returned. (The Y digit is an optional 0 or 1, which indicates Test Access Trunk 0 or 1.)

Continued on next page

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Universal Terminating Test Lines and Codes, Continued

Description (cont'd)

- **Code 102** - 1000 Hz Milliwatt Tone. This test line provides 1000 Hz milliwatt tone for a repeating sequence of 9 seconds of tone and 1 second of quiet termination until the incoming trunk abandons the call. It is used for one way manual transmission tests. When the number of 102 type test calls reaches the maximum number of terminations set in the Generic Programs and another 102 type call is attempted, that attempt will receive busy tone (60 I.P.M.).

- **Code 103** - Signaling Test Line. This test consists of a series of off hook to on hook transitions after two ring forward signals have been received on the incoming trunk. The flashing continues until the incoming trunk disconnects (goes on hook) or until the upper limit of transitions or flashes has been reached. There is no network connection but when the number of 103 type test calls reaches the maximum number of terminations set in the generic program and another 103 type call is attempted, that attempt will receive busy tone (60 I.P.M.). If a Common Channel Signaling 7 (CCS7) type of trunk requests a 103 type test line, a "call failure" signal will be returned to the originating office over the CCS7 signaling link.

- **Code 104** - Transmission Test Line. The 104 test line provides a connection to transmission measuring equipment which can be controlled by a person at a far end test position to perform 2 way loss and noise measurements. When an incoming trunk requests connection to a 104 test line, a test progress tone is returned to the originating end for at least 1 second and continues until a connection to a 104 test line can be made. Once the 104 test line is attached, the originator may send signals to perform loss or noise measurements. Upon completion of the tests, the incoming trunk disconnects and the 104 test line returns to the idle condition. (The 104 Test Line has been unused for numerous generics. In 4E21 and later, the two TSGs may have no circuits assigned. The DTTU Time Slot for the 104D has been re-assigned as an additional 109 Test Line.)

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Universal Terminating Test Lines and Codes, Continued

Description (cont'd)

- **SYN** - Synchronous Test Line. This test line consists of a series of off hook to on hook transitions or flashes of varying duration with no network connection. The start of the transitions is automatic, no ring forward is required. After the required flashes or supervisory transitions has been transmitted to the trunk, it is left in a quiet termination mode until the originator disconnects. When the total of SYN type test terminations reaches the maximum number set in the Generic Program and another SYN type test call is attempted that attempt will receive busy tone (60 I.P.M.). If a CCS7 type of trunk requests a SYN type test line a "call failure" signal will be returned to the originating office over the CCS7 signaling link.

- **Code 105** - Transmission Test Line - The 105 test line provides a connection to an Automatic Transmission Measuring System responder. When the TSG Sub Category is 105D, the responder is located in a DTTU (FMS-D2). When an incoming trunk attaches to the 105 test line a test progress tone is returned to the originating end for at least 900 MS and continues until the 105 test line connects to an idle responder. When the responder is attached, the originating director may send signals to the responder to make transmission or noise tests. Each Canceler test may also be performed. Upon completion of the tests in both directions the originating director sends a signal to the responder. The incoming trunk and the 105 test line are then restored to an idle condition.

- **Code 108** - Noninverting Digital Loopback Test Line. This test line is used for testing digital data without the assistance of a technician at the other end. Unlike the 959-606 (DATA) Loopback/Complement Test Line, which inverts the digital bit stream, the 108 test line provides a noninverting loopback of the digital bit stream. The digital loopback is provided by the time division network. The 4ESS Switch can provide a maximum of 32 simultaneous 108 test line terminations. If a 108 attempt is made and there are already 32 loopbacks active, a 60 I.P.M. busy tone will be returned.

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Universal Terminating Test Lines and Codes, Continued

Description (cont'd)

- **Code 109** - The 109 Test Line provides the terminations required to a DTTU responder. Prior to 4E21 this responder provided the capability to test Echo Suppressors/Cancelers as directed by the originating end of the trunk. Starting in 4E21 these DTTU responders are being downloaded with the capability to perform all of the same measurements as the 105 test line. The access and disconnect logic for this responder remains as previously defined for the 109 test line.

- **Code 110** - Termination Test Line. This test line will provide a 5.5 second 1004Hz tone at -10 dbm and is accessible to all types of trunks. This test line operates in the same manner as the 100 test line. The digits used to access the 110 test line are 959110X and are provided automatically by ODA for new start offices. Local assignments of other numbers are allowed.

- **DATA** - Loopback/Complement Test Line. The Data Test Line provides a connection to a channel unit plug-in in a D4 bank which performs a loopback/complement function. This test line is used for testing digital trunks that are dedicated for switching data calls. This testline connects the receive path to the transmit path after modifying the received bit stream in a predefined manner. The Data Test Line is used in combination with a test circuit at the far end office which transmits and receives data patterns and determines the bit or byte error rate of the trunk under test. If the far end office is a 4ESS Switch, the test circuit is in the Digital Trunk Test Unit (DTTU), Remote Measurement System (RMS).

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Universal Terminating Test Lines and Codes, Continued

Assignment Procedures for Test Lines

Since the synchronous and the 103 test lines are strictly software programs in the 4ESS Switch and do not use network connections, it is not necessary to make any assignments for these basic test lines in the ODA assignments.

The 100 and 102 test lines require a one milliwatt 1000 Hz tone supply. The milliwatt supply must be assigned in ODA. The milliwatt tone is supplied on a multipled TSI connection for all 100 and 102 test type calls.

The 104, 105, 109 and Data test lines require hardware in addition to the software programs. The test calls require machine assignments in ODA.

The 4ESS Switch provides for directed access to a particular test position. The 101 test line uses a test access trunk which then controls the further processing of the call and directs it to a particular position. The Test Access Trunk (TAT) must be assigned in ODA.

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Universal Terminating Test Lines and Codes, Continued

Test Line Code Assignment

In general, since the codes for the various test lines (100, 101, 102, 103, 104, 105, 108, 109, SYN, 959110X are universal for all 4 ESS new start toll switches. The ODA system will program these codes in every new start office which does not have these codes assigned to other call types. For a retrofit, only the call types already populated in the office will be rebuilt; no new test codes will be built automatically. If additional 3 or 6 digit codes are required, ODA must use TST in the CALLTYP field and the particular test line number in the CALLDATA field and list the additional codes in the ABC field.

In addition, the ODA program will allow 4, 5, 6, or 7 digits to be dialed, to access all of the test lines. The 4ESS Switch will ignore all digits after the test line number except on a 5 digit call of 101XX. The XX after the 101 will be used by the Generic Program to terminate the call to the test position identified by the two digits. Regardless of the number of digits received, only the first 3 digits are translated.

In addition to the standard test numbers ODA will generate additional test codes for new start offices using 959 as a prefix with 10Xd for test lines where X would indicate the specific test line and d could be any number or blank. The 4ESS Switch will accept either 6 or 7 digits using the 959-10Xd combination and will always translate six digits. This combination could be used by those offices that need to outpulse 6 or 7 digits, and want to test an intertoll trunk. See Table 55 for a complete listing of these codes.

Additional 6 or 7 digit codes have also been preprogrammed into new start offices for use by those offices that wish to test Toll Connecting trunks. These codes use 959 for the prefix also, but, instead of 10X for the test line code, 15Xd is used. The X will still get the specific test line as the 10X series, except, if X is a 3 it will access the synchronous test line instead of the 103 test line. The machine translates six digits for these codes.

These codes are programmed in the new start offices to allow offices that would be testing toll completing type trunks and need to outpulse 6 or 7 digits to use these codes. Refer to Table T4TGP-TAA for a complete listing of these codes.

Continued on next page

Universal Terminating Test Lines and Codes, Continued

Test Line Code Assignment (cont'd)

To permit even greater flexibility in test numbers to access the test positions, two additional 6 or 7 digit numbers have been assigned for new starts. These codes are 959-5XXd and 959-970d. The 959-5XXd will allow a particular test position to be accessed. The XX in the number directs the call to a specific testboard position (See notes in Table 55). The 959-970d number will access the 101 type test line and terminate to the test position indicated for the two way or one way incoming trunk indicated by CAREA and CPOS fields. Six or seven digits are acceptable for both of these codes and the digits received will be translated. If the receiving test position is on a DTTU, the d digit may be used to indicate a particular Test Access Trunk (TAT), 0 or 1.

If there is a need for additional 3, 4, 5, 6, or 7 digit codes to be routed to any of the 7 terminating test lines, they may be locally assigned using RC Form 300 Series, depending on the number of digits to be translated. Instructions for filling out these forms may be found in Division 3, Section 3 for Code Grouping.

Some switching offices have a 958 test line that terminates in the maintenance operating center, to a regular telephone. The 4ESS Switch does not have this type of test line. Therefore, if the 958 code is used, routing based on the "958" should cause the call to be sent to a local office. Using the 4ESS Switch ability to delete and prefix digits, the proper digits should be outpulsed to cause the local office to terminate the call on a telephone in the maintenance operating center. If fewer than 7 digits are required to terminate the call, then 3 digits will be deleted and the proper number of digits to complete the call will be prefixed and outpulsed. If 7 digits are required, then the 7th digit must always be an 8. Two digits are then deleted and the first six digits to be outpulsed will be prefixed. The 958 code would be listed in ODA and the routing would be done using an inchain Routing Data Block.

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Use pursuant to Company Instructions

Universal Terminating Test Lines and Codes, Continued

Table 55 **PREASSIGNED TERMINATING TEST NUMBERS**

Digits (Notes 1, 2)							Acceptable Digit Count	Number of Digits Translated	Note	
a	b	c	d	e	f	g				
1	0	0	d	d	d	d	3, 4, 5, 6, 7	3	9	100 type test line
1	0	1	d	d	d	d (101XXY)	3, 4, 5, 6, 7	3	3, 9	101 type test line
1	0	2	d	d	d	d	3, 4, 5, 6, 7	3	9	102 type test line
1	0	3	d	d	d	d	3, 4, 5, 6, 7	3	9	103 type test line
1	0	4	d	d	d	d	3, 4, 5, 6, 7	3	9	104 type test line
1	0	5	d	d	d	d	3, 4, 5, 6, 7	3	9	105 type test line
1	0	8	d	d	d	d	3, 4, 5, 6, 7	3	9	108 type test line
1	0	9					3	3	9	109 type test line
9	5	9	d	d	d	d	3, 4, 5, 6, 7	3	12	syn type test line
INTERTOLL										
9	5	9	1	0	0	d	6, 7	6		100 type test line
9	5	9	1	0	1	d	6, 7	6		101 type test line
9	5	9	1	0	2	d	6, 7	6		102 type test line
9	5	9	1	0	3	d	6, 7	6		103 type test line
9	5	9	1	0	4	d	6, 7	6		104 type test line
9	5	9	1	0	5	d	6, 7	6		105 type test line
9	5	9	1	0	8	d	6, 7	6		108 type test line
9	5	9	1	0	9	d				109 type test line
9	5	9	1	1	0	d	6, 7	6	6	110 type test line
9	5	9	6	0	6	d	6, 7	6	8	Data test line
TOLL COMPLETING										
9	5	9	1	5	0	d	6, 7	6	9	100 type test line
9	5	9	1	5	1	d	6, 7	6	9	101 type test line
9	5	9	1	5	2	d	6, 7	6	9	102 type test line
9	5	9	1	5	3	d	6, 7	6	9	syn type test line
9	5	9	1	5	4	d	6, 7	6	9	104 type test line
9	5	9	1	5	5	d	6, 7	6	9	105 type test line
9	5	9	1	5	8	d	6, 7	6	9	108 type test line
9	5	9	1	5	9	d	6, 7	6		109 type test line
9	5	9	5	X	X	Y	6, 7	6	4, 9	101 type test line
9	5	9	9	7	0	d	6, 7	6	9	101 type test line
LOCALLY ASSIGNED TEST NUMBERS										
N	X	X	X	X	X	X	3, 4, 5, 6, 7	3, 4, 5, 6, 7	5, 7	Locally assigned to 100, 101, 102, 103, 104, 105, 108, or synchronous type test lines

d = don't care
X = 0 to 9
N = 2 to 9
Y = optional 0 or 1

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Universal Terminating Test Lines and Codes, Continued

Table 55 (cont'd)

Notes for Table 55

1. All digit formats will be accepted on all 2-way and 1-way incoming trunks.

2. The apparent redundancy in number assignments is to provide consistency with other switching systems where the different numbers are necessary for various transmission level plans and physical reasons.

3. A "101" call of five or six digits will be directed by the test line to the test position identified by the d and e digits (10-99), and by the f digit 0 or 1 to Test Access Trunk (TAT) 0 or 1.

4. The test line will direct the call to the test position identified by the e and f digits (10-99), and by the g digit 0 or 1 to TAT 0 or 1.

5. The local assignment of any non-preassigned 3, 4, 5, 6, or 7 digit number to a terminating test line is permitted within the restrictions of the DDD numbering plan. The acceptable digit count will include all values from the number of digits translated through seven. Of course any restrictions in capability that exists in the generic program for routing translations for non-test-line routing also apply here.

6. The "110" test line is similar to the code "100" test line except the 1004Hz tone is returned at -10DBM. Local assignment of other than the ODA built 959110X is not permitted.

7. 101 Calls - all digits deleted, incoming call defaults to CAREA and CPOS assigned to the incoming trunk.

8. The Data Test Line is used for testing digital data trunks. Local assignment of other than the ODA built 959-606d is not permitted.

9. This Test Line is preassigned by the ODA for the DEV, DED, DEVP (<4E15), DEDP (<4E15) and SDNA domains in addition to the POTS domain.

Routing Philosophy

General

Routing in the telephone network is the process of directing a call dialed by a telephone customer to its ultimate destination. The manner of which the call reaches the destination may vary based on different factors established to complete or not complete the call depending on the service.

Basic Routing Plans

A basic routing plan describes the routing strategy that is used to complete a call through the network. There are many components that are factored into the composition of the routing plan:

Translation Parameters consisting of:

Geographic Area

- In order to perform proper digit translation, it is necessary to know the Point of Presence (POP) and the Local Access Transport Area (LATA) of the specific TSG.

Routing Pattern

- The routing pattern identifies how the TSG has been engineered. This determines if the TSG is to be direct routed only or if an alternate route has been engineered.

Type of Traffic

- The specific TSG has been engineered to carry a certain type and volume of traffic. Proper classification ensures that accurate screening is assigned to the TSG.

Domain

- Routing translations are categorized by the type of traffic to be carried on the TSG. These categories are classified as domains. Domain assignments are input on both the trunking and the routing translations.

Special Handling

- Routing translation allows for special handling on a TSG basis. Special handling includes the type of screening as well as the Call Handling Instructions (CHI) for Final Handling Treatment (FHT).

Continued on next page

Routing Philosophy, Continued

Basic Routing Plans (cont'd.)

Trunk Subgroup (TSG)

The 4ESS™-2000 Switch routes on a TSG basis instead of on a trunk basis. The TSG is another structure prepared in translations containing all of the specific and unique characteristics of each specific TSG. The TSG consists of trunks assigned to each TSG to carry the message service. The digits of a dialed call are received at the 4ESS™-2000 Switch on trunks of an incoming TSG. Of all the various translation items specified on the incoming TSG characteristics there are critical fields containing data that determines restrictions of how a call received will be handled or routed. Some of these fields are Domain (DOM), GoNoGo Screening (GNS), Multiple Treatment Screening Class (MTSC), Satellite (SAT), etc. If entries in these fields do not match the parameters on the Code Group "opened" for the incoming digits, or the "routed to" TSG characteristics, the call is final handled.

Code Group

The Code Group is a translation structure pre-built in ODA at initialization of the 4ESS™-2000 Switch. All possible digit codes are initially set to Call Type (CALLTYP) Final Handling Treatment (FHT) and Call Data (CALLDATA) to Vacant Code Announcement (VCA). When digits are received that match the three digits of a Code Group, it is at this point the customer is given the VCA final handling (" . . . this number is not in service . . ."). When it is determined this digit code group is to be "opened up," the 4ESS™-2000 Network Switch Translations personnel will prepare a code group form to change the FHT-VCA , i.e., CALLTYP-RDB and CALLDATA-104. This would change the treatment of these received digits to "point" to RDBI#104 and route to the TSG/s listed on the RDB. That is if the code group also met the parameters specified for Acceptable Digit Count (ADC) specified, the appropriate Domain (DOM), Area Code (AC) or not, various screening parameters, etc. If the incoming digits to the TSG do not meet all of the translations detailed, the call will be final handled.

Continued on next page

Routing Philosophy, Continued

Basic Routing Plans (cont'd.)

Routing Data Blocks (RDB)

The Routing Data Block is a software translations structure prepared to route a specifically translated call (per the incoming digits [code]) for completion out of the office to one or more specific Trunk Subgroups (TSGs). Each RDB will automatically be assigned its own unique index number (RDBI) for administration. If more than one TSG is specified, the first in order will be the one selected for routing the call. If none of the trunks in the first TSG are available (i.e. busy, maintenance, etc.), the routing selection will overflow to the next TSG in order on the list, etc., until there are no more TSGs on the list with trunks available. At that time, the call will be directed to the Final Handling Treatment (FHT) specified in the RDB structure, i.e., No Circuits Available (NCA), etc. At the point of routing the call from the specific RDB, the structure can also delete up to 15 digits and/or prefix digits up to 6 digits as specified for each TSG on the selection list. More than 1 RDB can point to a specific TSG, i.e., a TSG selection could be first and only on one RDB, and third of six on another.

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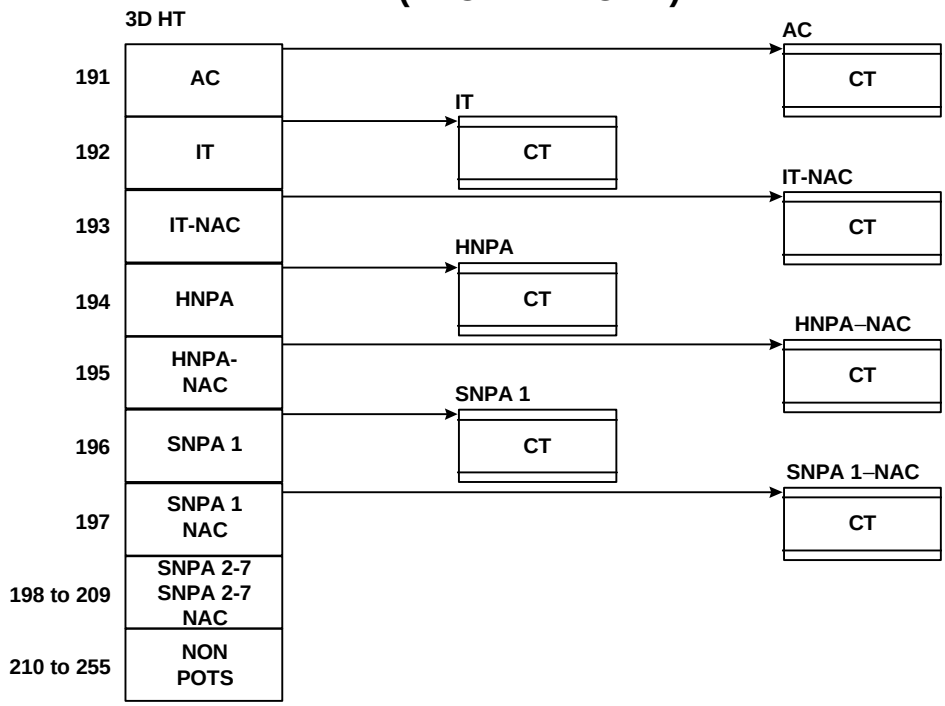
Routing Philosophy, Continued

Basic Routing Plans
(cont'd.)

Diagram of 3D HT Subtranslators



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Routing Philosophy, Continued

Domains

As previously discussed, all TSGs and Code Groupings are assigned to a specific domain. Domains are categorized as follows:

POTS (Plain Old Telephone Service)

Home NPA (HNPA) (POTS sub-domain)

Served NPA (SNPA) (POTS sub-domain)

Intertoll (IT) (POTS sub-domain)

Area Code (AC) (POTS sub-domain)

Non-Area Code (NAC) (POTS sub-domain)

Non-POTS

User Defined

Generically Defined Domains

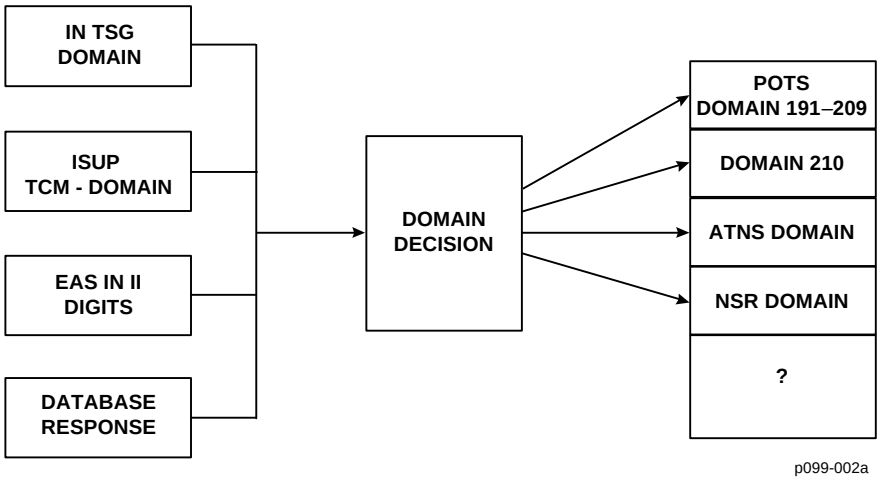
The preceding diagram shows the POTS Domains as assigned to the 3-Digit Head Table and the relationship to the 3-Digit Code Translators. The numbers by the Domains are the index values of each on the Head Table.

Continued on next page

Routing Philosophy, Continued

Domains
(cont'd.)

LEC DOMAIN SELECTION
INCOMING CALL



The above diagram depicts the domain selection process. The incoming trunk domain class, either by TSG characteristics, TCM, Database dip, or II digits can determine the completion handling of a call.

Continued on next page

Routing Philosophy, Continued

Domains (cont'd.)

Domain Selection for an incoming call is based on the following parameters:

Incoming Trunk Subgroup Domain: The initial domain used for digit translation is contained in the DOM field of the TSG characteristics. For most TSGs, the entry is POTS. In addition, special use domains are available for data and verify.

Traveling Class Mark (TCM) Domain: The out-of-band signaling system Integrated Services Digital Network (ISDN) User Part (ISUP) signaling provide for the change in DOM through the use of a TCM embedded in the message, i.e., ISUP TCMs are used on POTS domain TSGs to alter the routing domain.

II/OLI Digits: The Information Digits (II)/Originating Line Information in the Automatic Number Identification (ANI) stream also may be used to change the routing domain. A current list of II/OLI digits is show on the following page. For example, if the first 2 digits are 61 or 63, the call processing is changed from a POTS call to a cellular mobile type call.

Database Response: Information for calls requiring a database dip (for example, 800 service) may result in a change of the domain.

Continued on next page

Routing Philosophy, Continued

Domain
(cont'd.)

II/OLI DIGIT ASSIGNMENTS

2-Digit Code	Meaning
00	Identified Line - No Special Treatment
01	Operator Number Identification (Multiparty)
02	ANI Failure
06	Hotel Without Room Identification
07	Coinless, Hospital, Inmate, etc.
08	Inter-LATA Restricted
10	Test Call
12-19	Not Assignable
20	Automatic Identified Outward Dialing (AIOD) - Listed Directory Number Sent
23	No Coin/Noncoin Distinction
24	Translated 800 Number Local Exchange Carrier (LEC) Service Switching Point (SSP)
27	Coin Call
30	Blank Number Intercept
31	Trouble Intercept
32	Regular Intercept
34	Operator Handled
52	OUTWATS
66 & 67	Telecommunications Relay Service
61	Cellular Mobile Carrier (CMC) - Type 1
62	Cellular Mobile Carrier (CMC) - Type 2
63	Cellular Mobile Carrier (CMC) - Roaming
64	Advanced Intelligent Network
68	Inter-LATA Restricted - Hotel Line
78	Inter-LATA Restricted - Coinless Line, Etc.
93	Virtual Private Network
95	Test Call

Continued on next page

Routing Philosophy, Continued

Domain (cont'd.)

The II/OLI Digit table list the currently assigned II/OLI digits and their assigned identities. The Local Exchange Carriers (LEC) End Office originates the II/OLI digits.

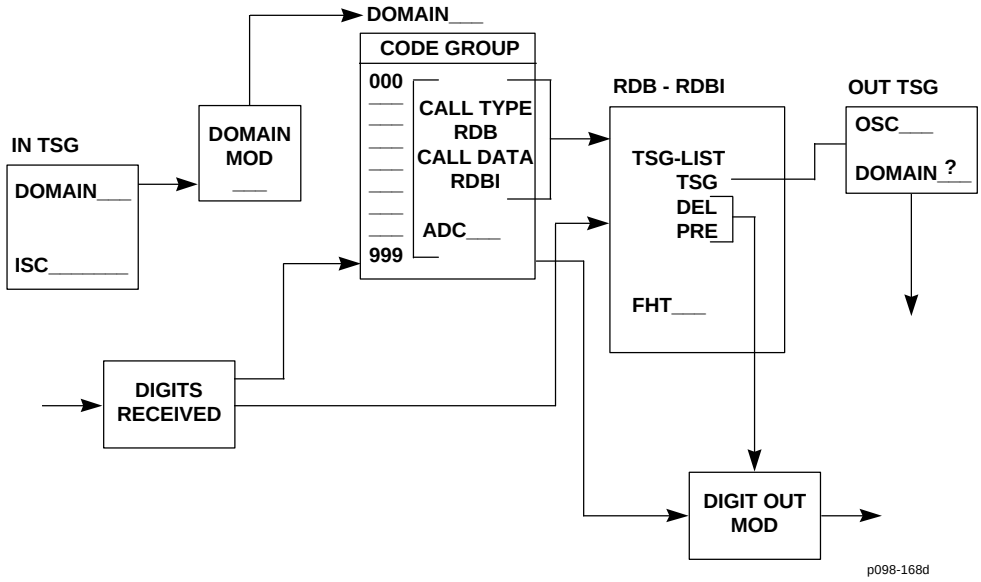
Note: With ISUP signaling, the LEC End Office sends OLI instead of II digits. The range for OLI is 0 to 255. Currently, the OLI values are equivalent to the II digits assignments.

Continued on next page

Routing Philosophy, Continued

Domain
(cont'd.)

BASIC CALL



Continued on next page

Routing Philosophy, Continued

Domain (cont'd.)

The BASIC CALL sequence of events is as follows:

The domain from the incoming TSG characteristics is identified.

The domain may be modified based on one of the previously described means.

The code group table for the appropriate domain is entered with the first 3 digits.

Eventually an RDB is identified.

The RDB, in turn, lists one or more TSGs that can be used to route the call, plus any digit modification that must be accomplished relative to digit prefixing or deleting.

Complete the path between the incoming trunk to the outgoing trunk.

The information for the administration of the Code Group and Routing Data Block is shown in the Recent Change division of this TG-4 Translation Guide Series.

Routing Philosophy, Continued

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Recent Change Administration

General

This section is intended to provided the 4ESS™-2000 Switch Network Translations Personnel with a general understanding of the Recent Change (RC) system and the internal RC support feature. Guidance is also provided for establishing the external procedures and controls necessary for maintaining up-to-date status of RC activity.

RC activity involves the many day-to-day changes made to the office translations database using the 4ESS™-2000 Switch RC system.

Continued on next page

Recent Change Administration, Continued

Recent Change System - Overview

The Recent Change system is divided into the following three programs:

The Recent Change Message Assembly (RCMA) program performs RC message input processing.

The Recent Change Message Processing (RCMP) program performs internal data change checking and computation.

The Recent Change Message Update (RCMU) program performs the actual update.

The RCMA program accepts all input to the RC system, performs various input message format and integrity checks, and returns an acceptance or rejection message to the input terminal.

The RCMP program performs various translator internal data change checks such as determining that the data to be changed actually exists. RCMP converts the input message language to the necessary internal data language required by the RCMU program to actually write the new data into translators.

The primary function of the RCMU program is to perform the translator data changes requested. The RCMU program replaces the existing data with the new data. The secondary function of RCMU is to perform rapid removal (Rollback) of RCs when necessary.

Continued on next page

Recent Change Administration, Continued

Recent Change System - Overview (cont'd.)

The three classes of input messages used with the RC system are listed below. The complete complement of RC messages are listed at the end of this section. All of the actual RC forms are covered in Division 3 of this TG-4 Translation Guide.

Recent Change Data Messages (RCDMs) messages are the input medium for data change requests. RCDM messages employ a fixed format form to specify the translator data changes desired. The RCDM itself changes no translation data. Once a RCDM is accepted by the RC system, the message is stored in a data buffer area to await further action by the RC system.

Recent Change Action Messages (RCAMs) are used to change the status of an RC message. As such, they initiate the testing and activation of a "Buffered" RC. They also cancel an individual Buffered RC message or cancel all Buffered messages.

Recent Change Administrative Messages (RCADs) are used to request administrative feedback such as: list of RC messages in the Buffer, print a Buffered message, print an RCDM form to be filled out, and print the amount of buffer area space remaining for use.

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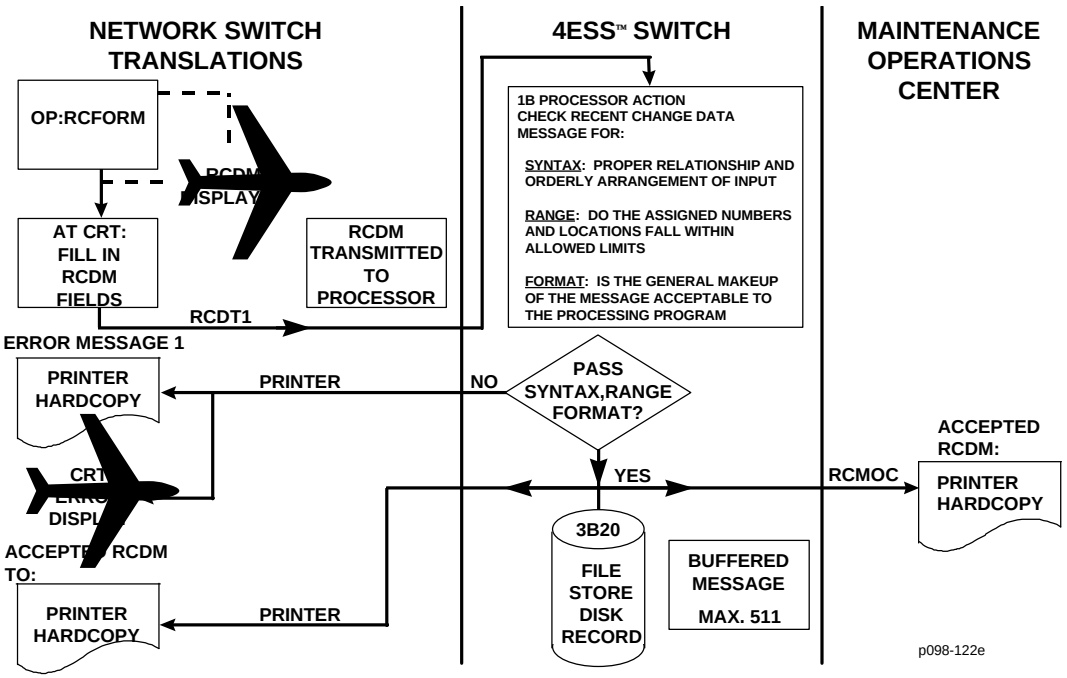
Recent Change Administration, Continued

Recent Change System - Overview (cont'd.)

INITIATING RCDMS TO THE BUFFER STATE



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Recent Change Administration, Continued

Recent Change System - Overview (cont'd.)

The preceding graphic depicts the message flow, the 4ESS™-2000 Switch areas affected, and a brief description of actions taken. RCDMs generally progress through the following three stages during the RC process:

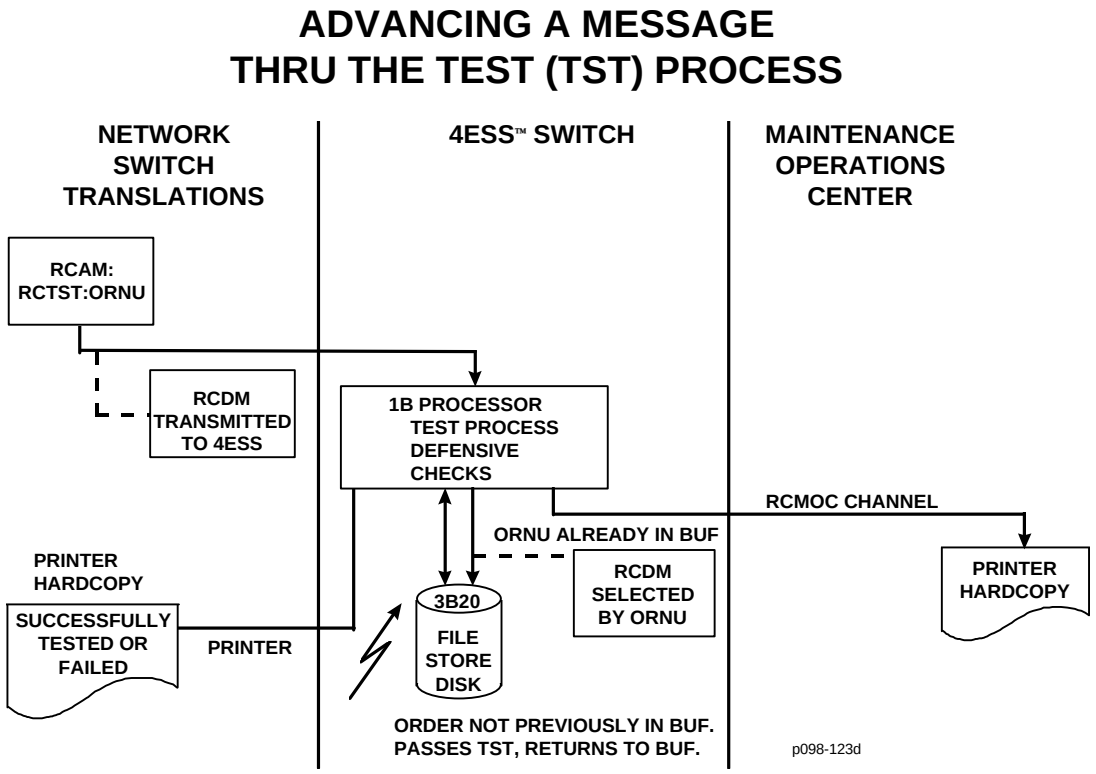
BUFFER STATE

To enter an RCDM into the Buffer, 4ESS™-2000 Switch personnel will use an RCAD message to call up the desired RC form display on a video monitor. (Example OP:RCFORM 101!) After entering data to all of the required form fields, the entire form (message) is transmitted to the RC process via keyboard command (BUF). This process checks the submitted RC form for syntax, range, and format errors. If any of the checks fail, the RC form is rejected and the process must start again. If the process is accepted, the RCDM resides in the RC Disk Buffer Storage Area until it is activated or canceled. The Buffer file has a maximum capacity of 511 messages. The Buffered RCDM is also recorded on a floppy disk unit. This serves as a permanent record of the RC activity. It could be used to restore the Buffered messages if the Buffer Disk Storage Area should be mutilated or lost.

Continued on next page

Recent Change Administration, Continued

Recent Change System - Overview (cont'd.)



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Recent Change Administration, Continued

Recent Change System - Overview (cont'd.)

TESTING

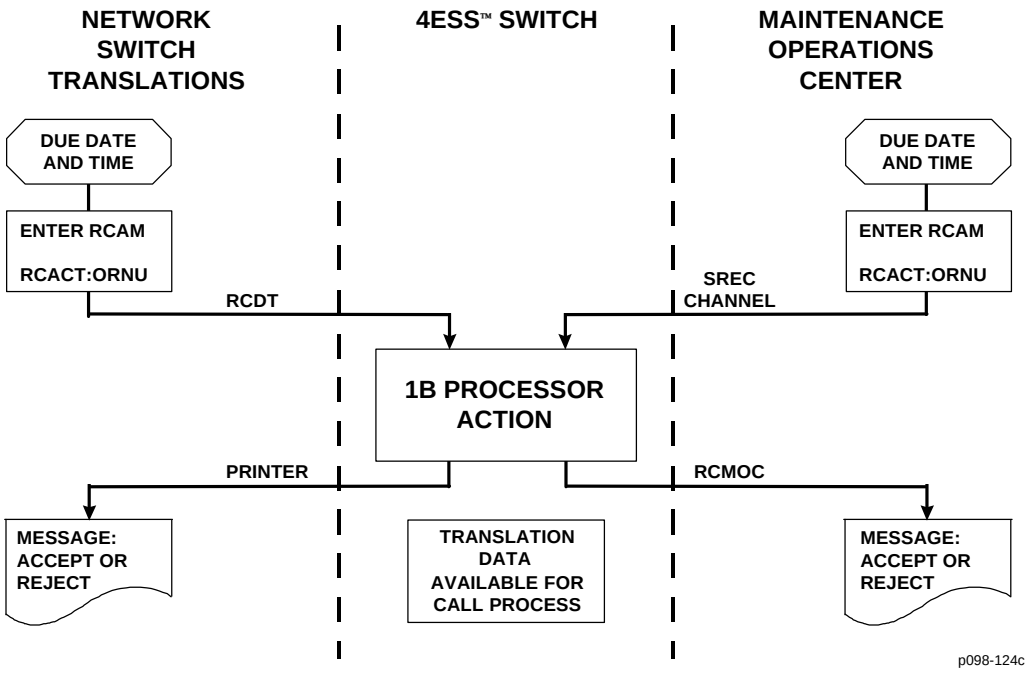
A buffered RCDM is sent through the Test Process (TST) by using an RCAM message. (Example: RCTST:ORNU 203!) At this stage, the RCDM is sent to the 1B Processor for defensive checks to assure the related translations are in the proper state for the new RC data to successfully complete. The failure or acceptance message of the test state process is then printed on the Recent Change and the Maintenance printers. This is the final state for Trunk Subgroup and Trunking RCs. All other types will be placed back into the buffer awaiting activation.

Continued on next page

Recent Change Administration, Continued

Recent Change System - Overview (cont'd.)

ADVANCE BUFFER MESSAGE TO THE ACTIVE STATE



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Recent Change Administration, Continued

Recent Change System - Overview (cont'd.)

ACTIVATION

An RCAM message is utilized to. activate an RCDM. (Example: RCACT:ORNU 102!) When the RCDM is activated, the new data is entered into the translators and is made available to call processing. The old translation data is entered into the RC Disk Rollback Area. The buffer entry is erased. An acceptance message is printed as well as a copy of the RCDM. Finally a copy of the RCDM is sent to the "Roll-Forward" floppy disk unit. The roll-forward floppy disk is used to recover from a rollback action described in a later section. Immediate activation can be requested by placing ACT in the action field on the form. In this mode, the testing and activation of the change is performed without buffering the message.

Fast RCAM

RCDMs can also be buffered, tested, and/or activated by using FTB (fast BUF), FTT (fast TST), and FTA (fast ACT). These fast RCAMs limit the output text to a success or failure message and the RCDMs will not be recorded on a floppy disk.

Recent Change Data Message Numbering

A very significant piece of information used in RC administration is the RC message number (ORNU field). A unique six digit number is to be assigned to each RCDM to assist administration of RC messages as they progress through the RC system. A typical numbering system used has the first three digits of the message number equal to the Julian Calendar day number, i.e., Feb 2 = 033. Also, typically, the fourth, fifth, & sixth digits are the RC number.

Continued on next page

Recent Change Administration, Continued

Rollback Feature

The RC system contains a feature known as "Rollback." The Rollback feature provides the capability for the RC system to Rollback (return) the translation data base to a pre-existing condition by removing activated RCs on a last in/first out basis. As each RC is rolled back, the affected translators are returned to the previous condition, prior to initial activation of the RCs being rolled back, using the old translation data stored in the Disk Rollback Area. The following describes the three types of Rollback.

TYPE I ROLLBACK is applicable only to a RCDM that is actively being processed. It can occur automatically and provides for automatically rolling back the translation data to its previous state when an interrupt is triggered while an RC is being processed. This is necessary to prevent the incomplete (partial) update of an RC. When a Type I Rollback occurs, a message will be received on the printer indicating that the RC activity was not accepted. This requires the affected RC be corrected and resubmitted.

Continued on next page

Recent Change Administration, Continued

Rollback Feature (cont'd.)

TYPE II ROLLBACK is applicable for rolling back RC messages previously processed by the system and active in the 4ESS™-2000 Switch. A Type II Rollback is manually requested usually in an attempt to return the switching system to a stable condition. Also, a phase 3 or 4 must be directed to accompany the Type II Rollback. This means impaired service for a given time. Normally, the decision to initiate a Type II Rollback is made by mutual agreement with the assistance of the Technical Support Organization. The rolling back of critical RCs will, in most cases, result in wrong routing and/or trunking configurations. The effect of traffic handling must be considered in the decision-making process. Several options are available using a Type II Rollback. The following output messages are used to list all the RCs affected by each Rollback option:

Rollback a particular recent change or certain quantity. **OP:RCRORNU, LAST __!**

Rollback all the RCDMs activated since the last ODA tape. **OP:RCRORNU, LAST TAPE __!**

Rollback all RCDMs in the entire rollback area. **OP:RCRORNU, ALL!**

Some quick but analytical troubleshooting must take precedence using output reports and RC logic to see how far back the rollback should go. Use of the last two options or rollback messages should be cautiously considered to assure the total impact of the result. But, more importantly, consider one of the last two before the decision to reinitialize with the last Tape Write-Read Program (TWRP) (ODA) tape.

Continued on next page

Recent Change Administration, Continued

Rollback Feature (cont'd.)

The TTY ROLLBACK is the most user friendly solution if the sanity of the 4ESS™-2000 Switch allows for its use. It is manually activated via an Input/Output (I/O) terminal message with "NO PHASE" initiation involved. Each message activation rolls back the last RC activated. Multiple Rollbacks are accomplished with a message for each RC in reverse order of activation. This is usually the most logical fix to a problem to a 4ESS™-2000 Switch that has its sanity. The input message is **RCCNL:ROLLBACK [;UCL]!** Trunking RCs may need the UCL (Unconditional) suffix since the trunks may not be in the correct state to honor RC. Routing RCs will not need the UCL. As stated for the previous Rollback types, careful interaction should transpire before any decision is made to initiate.

RECENT CHANGE ACTION - After the various Rollback options have been reviewed, it is still most prudent to fix any translation problems via the RC process. This will maintain the cleanest TWRP ODA tape at the next interval. If the RCs required to correct a service problem are trunking related and no trunk maintenance personnel are available to work the no-service states, the Machine Operations personnel can save the day. The Machine Operations personnel can enter the RCs required from the MTC I/O channel using the [;UCL]! (unconditional) suffix. **Phases and/or rolling back unnecessary RCs should be avoided whenever possible.**

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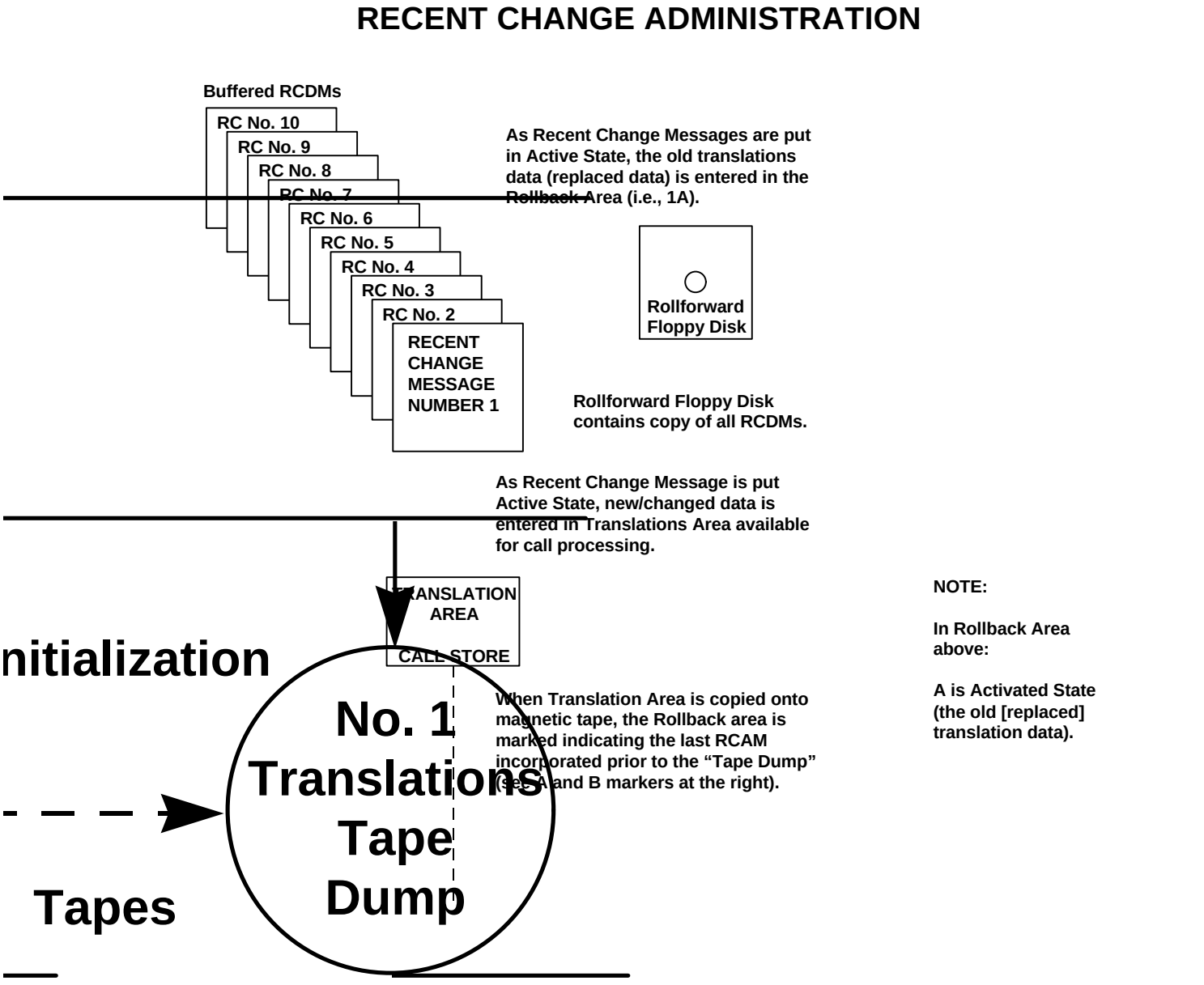
Recent Change Administration, Continued

Rollback Area - Overview (cont'd.)



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Recent Change Administration, Continued

Rollback Area - Overview

The rollback Area is a 16,000 word section of disk memory. This area is used to store Rollback information for RCDMs that have been activated. Since it is possible for RC activity to overflow the memory space available, a warning message is printed when memory is at 40, 60, 80, & 90 percent of capacity. If overflow is permitted to occur, new RC entries will wrap-around (over-write) previous entries, which will be lost.

The Rollback feature example on the preceding page depicts the various RC events and the resulting records produced. The example displays the sequence of events described as follows:

1. The development of the RC Rollback area begins at point "A." This will be Tape #1 (TWRP) Index placed in the Rollback area to indicate the last RC message entry prior to the ODA tape. This tape is a termed several names being a, Tape-Write-Read-Program (TWRP Tape), an) Office Data Assembler copy (ODA tape, a Re-initialization tape (if used to re-initialize the 4ESS™-2000 Switch to this point in time again), or a Back-up tape. It is a magnetic tape record of the translations based in the Call Stores at that point in time. This becomes the "Tape #1 Index" for now. Reference this at point "A."
2. If RCDM Number 2 is activated first, the actual data change will be made in the translation area of the Call Stores, making the new data available for call processing. The old translation data will be entered in the Rollback Area as entry 2A. A copy of the RCDM new data will be recorded on the "Rollforward Floppy Disk." An RC comment message will be recorded on the Rollforward floppy disk indicating RC message Number 2 has been activated.
3. If processing of RCDMs continues for RC message Numbers 1A, 6A, 4A, and 3A the same transactions as paragraph "B" take place. At this point, an ODA tape (TWRP) #2 is made. This will become "Tape #2 Index." Reference this point "B."

Continued on next page

Recent Change Administration, Continued

Rollback Area - Overview (cont'd.)

4. Processing of RC message Numbers 7A and 5A will result in actions and records also similar to previous paragraph "B."
5. At this point, an ODA tape (TWRP) #3 is made. Reference this point "C." The "Tape #2 Index" now moves to this point of the Rollback Area. And, also at this time, the "Tape #1 Index" moves from Reference point "A" to Reference point "B." As RC activity continues, the Tape #1 and #2 Indexes keep moving forward.
6. The "Tape #1 Index" is always referred to as the "NEXT TO THE LAST TAPE" and the "Tape #2 Index is the "LAST TAPE." When the Tape #3 was made in previous step "5," RCs are now made from Reference point "C" and forward. Access can only be made back to "THE LAST TAPE" (Tape #2 Index) or back to "NEXT TO THE LAST TAPE" (Tape #1 Index).
7. There is no common size for each type of RC form. Some require more words of space than others. As RCs now continue and if a new ODA tape (TWRP) is not made judicially, the area between point "B" to the last RC will exceed the maximum 16,000 word section of memory. This starts overwriting the memory that was forward of point.
8. Recent Change terminal, "ACCESS TO THE NEXT TO LAST TAPE IS NO LONGER AVAILABLE." This means a Rollback can only be performed back to Tape #2 Index (Reference point "C") or referred to as "THE LAST TAPE."
9. If additional RCs still continued from paragraph "7," and an ODA tape (TWRP) still is not performed, the memory area between the Tape #2 Index (Reference point "C") and the last RC made will eventually exceed 16,000 words. At this time, the message "ACCESS TO THE LAST TAPE IS NO LONGER AVAILABLE." From this point, NO Rollback activity can be performed. If reinitialization is required use the last TWRP tape or the one prior to that. Now the Translation Personnel will have to manually determine which RCs were made back to the point in time of the TWRP tape used for the Re-initialization. History must be recreated in translations.

Continued on next page

Recent Change Administration, Continued

Rollback Options

Manually initiated Type II Rollback provides four options for rolling back RCs on a last-in/first-out basis:

1. A request can be made that a specific number "X" of activated RCDMs be rolled back, not to exceed the number entered since the last ODA tape was made.

2. A request can be made to roll back all replaced translations data associated with RCDMs through a specific RC order number. This option will not roll back beyond the last ODA tape.

3. A request can be made to roll back all replaced translation data associated only with RCDMs which were activated since the last ODA tape.

4. A request can be made to roll back all replaced translation data associated with all activated RCDMs in the Rollback area, including those that were entered in the Rollback area prior to the last ODA tape, up the next to last ODA tape.

NOTE: These four options are only possible for the RCDMs that still exist in the Rollback area. If TWRP tapes were not performed correctly, some or all of the RCDMs could be overwritten and no longer available for Rollback.

Continued on next page

Recent Change Administration, Continued

Rollback Options (cont'd.)

The initiation of any of the four Type II Rollback options can seriously affect call processing and must be carefully considered before any Rollback action is taken. Traffic handling can be affected as follows:

1. When an activated RCDM adding trunks to a Trunk Subgroup (TSG) is rolled back, any calls on the added trunks during Rollback will be interrupted. The Rollback program itself may not interfere with established calls, but the audit program will remove connections since the added trunks no longer exist.

2. When an activated RCDM deleting trunks from a Trunk Sub-group is rolled back, the deleted trunks are not placed in an operational status following Rollback. To minimize routing problems, the restored trunks are placed in a special Rollback status associated with Trunks Out of Service List.

3. A very severe call processing problem can occur when an activated RCDM affecting "Unit Type" equipment changes is rolled back. For example, if an activated RCDM adding a new Time-Slot Interchange (TSI) is rolled back, all calls on the new TSI could be disconnected.

4. When an activated RCDM which established a new Routing Data Block is rolled back, a severe service interruption could result.

Continued on next page

Recent Change Administration, Continued

Administrative Guidelines for Recent Change Activity

The Network Translations Switch Personnel are responsible for managing the RC system in determining Rollback, Rollforward, and/or Reinitialization strategies. They should establish certain RC and Reinitialization records to assist in being fully aware of the status of activities that affect the machine translations database.

High-Volume Recent Change Activity - Given all of the full awareness rules just presented for RC activity with respect to preserving service at all costs, there is a time when to flex the procedure. There are times when a major RC activity project prevails, i.e., office re-home, fold in another switch to the 4ESS™-2000 Switch, etc. Under these conditions, if the MOC were to perform an ODA tape every time the rollback area reached 60% full, the project would never have a timely completion. Most often these projects are initiated on evenings and/or nights and must be completed by morning business. A management decision can be considered to just do an ODA tape function at the beginning of the project when hundreds of RCs will be activated. After the project is completed the final ODA tapes can then be made. The result is available re-initialization tapes for pre-project and post-project. The possibility of utilizing roll-back during the project is unlikely.

However, if the project size is small enough, another consideration would allow RC activity until the 90% Rollback area utilization is reached. Then, perform only one ODA tape (instead of the usual three) at each interval during the project to at least have Rollback possibility to the last tape, but preserve some productive time for RC activity. At the completion of the project, the final set of ODA tapes would be made.

Continued on next page

Recent Change Administration, Continued

Recent Change Form Correlation

The Recent Change section of this TG-4 is located in Division 3. Each type of RC form is covered under a dedicated Section of the Division. Following are the RC Form Numbers with the associated RC Message Identification and the Division 3 Section Number for each:

DIV-3 SECT	RC FORM	IDENTIFICATION
1a	100	RC:TSG;NEW;OPT(TWOWAY),___:
1b	101	RC:TSG;NEW;OPT(IN1WAY),___:
1c	102	RC:TSG;NEW;OPT(OUT1WAY),___:
1d	103	RC:TSG;OPT(VFL),___:
1e	104	RC:TSG;CHG;OPT(ADDTFNB)___:
1f	105	RC:TSG;CHG;OPT(OUTTFNB)___:
1g	106	RC:TSG;OUT;___:
1h	107	RC:TSG;CHG;OPT(TWOWAY),___:
1i	108	RC:TSG;CHG;OPT(IN1WAY),___:
1j	109	RC:TSG;CHG;OPT(OUT1WAY),___:
1k	110	RC:TSG;CHG;OPT(INSEP),___:
1l	111	RC:TSG;NEW;OPT(CCIS6,CCS7),__:
2a	200	RC:TRK;NEW;OPT(MANUAL),___:
2b	201	RC:TRK;NEW;OPT(DCHAN),___:
2c	202	RC:TRK;OUT;___:
2d	203	RC:TRK;NEW;OPT(MAN,CCIS),___:
2e	204	RC:TRK;NEW;OPT(VFL),___:
2f	205	RC:TRK;NEW;OPT(NAILUP),___:
2g	206	RC:TRK;OUT;OPT(NAILUP),___:
2h	207	RC:TRK;NEW;OPT(LACID),___:
2i	208	RC:TRK;CHG,___:
3a	300	RC:CODEGRP;CHG;OPT(DIG3),___:
3b	301	RC:CODEGRP;CHG;OPT(DIG456),___:
3c	302	RC:CODEGRP;CHG;OPT(DIG789),___:
3d	303	RC:CODEGRP;CHG;OPT(DIG12),___:
3e	304	RC:CODEGRP;CHG;OPT(SDX),___:
3f	305	RC:CODEGRP;OUT;OPT(SDX),___:
3h	307	RC:CODEGRP;NEW;OPT(SNPA),__:
3i	308	RC:CODEGRP;CHG;OPT(PROT),__:
3j	309	RC:CODEGRP;NEW;OPT(DOM),___:
3l	311	RC:CODEGRP;CHG;OPT(NTD),___:

Continued on next page

Recent Change Administration, Continued

Recent Change Form Correlation (cont').

DIV-3 SECT	RC FORM	IDENTIFICATION
3n	313	RC:CODEGRP;CHG;OPT(CCD),___:
3o	314	RC:CODEGRP;CHG;OPT(LD),___:
3p	315	RC:CODEGRP;CHG;OPT(NN1),___:
3q	316	RC:CODEGRP;CHG;OPT(NN2),___:
3r	317	RC:CODEGRP;NEW;OPT(CCD),___:
3s	318	RC:CODEGRP;OUT;OPT(CCD),___:
3t	319	RC:CODEGRP;NEW;OPT(DIGTYP),:
3u	320	RC:CODEGRP;OUT;OPT(DIGTYP)_:
3ab	327	RC:CODEGRP;CHG;OPT(3DESP)__:
3ac	328	RC:CODEGRP;CHG;OPT(6DESP)__:
3ad	329	RC:CODEGRP;CHG;OPT(9DESP)__:
3ae	330	RC:CODEGRP;CHG;OPT(12DESP)_:
3af	331	RC:CODEGRP;CHG;OPT(YCODE)_:
3ag	332	RC:CODEGRP;CHG;OPT(PRT),___:
3ah	333	RC:CODEGRP;OUT;OPT(PRT),___:
3ai	334	RC:EA;CHG;OPT(EAANI),___:
3aj	335	RC:CODEGRP;CHG;OPT(TNSI),___:
3ak	336	RC:CODEGRP;CHG;OPT(II,OLI),___:
3al	337	RC:EA;CHG;OPT(EASVC),___:
3am	338	RC:EA;CHG;OPT(SII),___:
3ap	341	RC:CODEGRP;CHG;OPT(EARDAT),:
3aq	342	RC:CODEGRP;CHG;OPT(EAR),___:
3ar	343	RC:CODEGRP;CHG;OPT(FCIC),___:
3as	344	RC:CODEGRP;CHG;OPT(DOMTYP):
3at	345	RC:AIN;OPT(LIST),___:
4a	400	RC:CAMSCRN;CHG;OPT(OOFCG),:
4b	401	RC:CAMASCRN;CHG;OPT(LCIBPAT):
4c	402	RC:CAMASCRN;CHG;OPT(LCIBPAT,NEWTNPA),___:
4d	403	RC:CAMASCRN;CHG;OPT(UNAREA):
4e	404	RC:CAMASCRN;CHG;OPT(UNAOFC):
4f	405	RC:CAMASCRN;CHG;OPT(COPY),__:
4g	406	RC:CAMASCRN;CHG;OPT(OUTTNPA
5a	500	RC:RDB;NEW:___:
5d	503	RC:RDB;CHG;OPT(RDBCHAR),___:

Continued on next page

Recent Change Administration, Continued

Recent Change Form Correlation (cont'd.)

DIV-3 SECT	RC FORM	IDENTIFICATION
5f	505	RC:RDB;CHG;OPT(ADDTSGS),___:
5i	508	RC:RDB;CHC;OPT(OUTTSGS),___:
5k	510	RC:RDB;OUT:___:
5n	513	RC:RDB;CHC;OPT(ADD1TSG),___:
5o	514	RC:RDB;CHC;OPT(DEL1TSG),___:
5r	517	RC:RDB;NEW;OPT(INTL),___:
5t	519	RC:RDB;CHC;OPT(ADDTSGS,INTL),:
5v	521	RC:TTS;NEW;___:
5w	522	RC:TTS;CHG;___:
5x	523	RC:TTS;OUT;___:
5y	524	RC:NDB;CHG;___:
5x	525	RC:NDB;OUT;___:
6a	600	RC:MISC;NEW;OPT(MULTACT),___:
6b	601	RC:DIALUP;NEW;___:
6c	602	RC:DIALUP;CHG;___:
6d	603	RC:DIALUP;OUT;___:
6e	604	RC:PAS;NEW;OPT(ANN);___:
6f	605	RC:PAS;CHG;OPT(ANN);___:
6g	606	RC:PAS;OUT;OPT(ANN;___:
6h	607	RC:PAS;NEW;OPT(TELEVOTE);___:
6i	608	RC:PAS;CHG;OPT(TELEVOTE);___:
6j	609	RC:PAS;OUT;OPT(TELEVOTE);___:
6k	610	RC:PAS;NEW;OPT(CUTTHRU);___:
6l	611	RC:PAS;CHG;OPT(CUTTHRU);___:
6m	612	RC:PAS;OUT;OPT(CUTTHRU);___:
6n	613	RC:TASI;NEW,___:
6o	614	RC:TASI;OUT,___:
6p	615	RC:DNHR;CHG;___:
6q	616	RC:IDAM;CHG;___:
6r	617	RC:FEN;NEW;___:
6s	618	RC:FEN;CHG;___:
6t	619	RC:FEN;OUT;___:
6u	620	RC:CRB;NEW;___:
6v	621	RC:CRB;OUT;___:

Continued on next page

Recent Change Administration, Continued

Recent Change Form Correlation (cont'd.)

DIV-3 SECT	RC FORM	IDENTIFICATION
6w	622	RC:CDB;NEW;___:
6x	623	RC:CDB;OUT:___:
6y	624	RC:ANN;CHG:___:
6z	625	RC:AMA;CHG:___:
6aa	626	RC:TOS;CHG:___:
6ad	629	RC:LATASTAT;CHG;OPT(AREAS),_:
6ae	630	RC:LATASTAT;CHG;OPT(MATRIX),_:
6af	631	RC:SERVICE;CHG;OPT(PARAMS),_:
6ag	632	RC:NPADPC;CHG,___:
6ah	633	RC:EA;CHG;OPT(CID),___:
6ai	634	RC:SCS;CHG;OPT(FHT),___:
6bi	660	RC:AIN;OPT(ANNUM):___:
6bm	664	RC:MISC;OPT(XTSIPM),__:
6dg		RC:MISC;FHT,FTA:AINTRIG_____:
7a	700	RC:UTYPE;CHG;OPT(EQP,GROW),TST:
7b	701	RC:UTYPE;CHG;OPT(EQP,DEGROW),TST:
7c	702	RC:UTYPE;CHG;OPT(DIU),TST:
7d	703	RC:UTYPE;CHG;OPT(SCU,TST:
7e	704	RC:UTYPE;CHG;OPT(D3U),___:
7f	705	RC:UTYPE;CHG;OPT(SUXTSI),___:
7h	707	RC:UTYPE;CHG;OPT(XTSIAB),___:
7j	709	RC:UTYPE;CHG;OPT;(SPPNODE),:
8a	800	RC:FUNC;CHG;OPT(ABSOLUTE),__:
8b	801	RC:FUNC;CHG;OPT(TRANS),___:
8c	802	RC:FUNC;CHG;OPT(TGNAME),___:
8d	803	RC:FUNC;CHG;OPT(ADDPAIR),___:
8e	804	RC:FUNC;CHG;OPT(DELPAIR),___:
8f	805	RC:FUNC;CHG;OPT(ADDBKBAND),_:
8g	806	RC:FUNC;CHG;OPT(DELBKBAND),_:
8h	807	RC:FUNC;CHG;OPT(BAND),___:
8i	808	RC:FUNC;CHG;OPT(REHOME),___:
8j	809	RC:FTR;CHG;OPT(BIT),___:
8k	810	RC:FTR;CHG;OPT(MSC),___:
8l	811	RC:FTR;CHG;OPT(FLD),___:
8m	812	RC:FUNC;CHG;OPT(ENHABS),___:

Continued on next page

Recent Change Administration, Continued

Recent Change Administrative Messages

RCADs are used to request administrative feedback such as: list of Recent Changes messages in the buffer, print a buffered message, print an RCDM form to be filled out, and print the amount of buffer area space remaining for use. These messages are described in detail in DIV. 3-Sec 9 of the TG-4. The following is a list of RC Administrative Messages:

```
OP:RCFORM___!
OP:RCBMSG,ORNU___!
OP:RCBORNU!
OP:RCBSPACE!
OP:RCRORNU,_____!
OP:RCTORNU!
```

Recent Change Action Messages

RCAMs are used to change the status of a Recent Change message. As such, they initiate the testing and activation of a "Buffered" Recent Change. They also cancel an individual Buffered RC message or cancel all Buffered messages. These messages are described in detail in DIV. 3-Sec 9 of the TG-4. Following is a list of RC Action Messages:

```
RCCNL:RCBORNU____!
RCTST:ORNU_____!
RCACT:ORNU_____!
RCCNL:RCTORNU!
RCCNL:ROLLBACK!
CLR:CHAN!
CLR:RCB!
```

Recent Change Administration, Continued

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Verify System

This section is currently under development.

Verify System, Continued

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CCIS INWATS Routing

This section is currently under development.

CCIS INWATS Routing, Continued

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Trunk Order Codes

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Trunk Order Codes, Continued

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Line-Busy Verification

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Line-Busy Verification, Continued

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MASS Announcement Service

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MASS Announcement Service, Continued

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Translation Growth/Retrofit Administration

General

This section is intended to provide 4ESS Switch office personnel with information concerning general procedures and guidelines for the successful management of the translations data during office transition period. Additional information can be found in Lucent Technologies Practices 234-185-XXX, where XXX depends on the issue of the Generic Program.

An office transition period is the extended interval encompassing major equipment additions and/or translations data base modifications beyond the scope of the existing Office Data Assembly (ODA) base and normal Recent Change (RC) procedures. Two types of transition periods are called GROWTH and RETROFIT:

1. GROWTH is defined as the introduction of a new Office Data Assembler (ODA) which expands the 4ESS Switch capacity to accommodate hardware additions compatible with the resident Generic Program.

2. RETROFIT is defined as the introduction of a new issue Generic Program which requires coincidental data base and/or hardware changes.

A GROWTH/RETROFIT period will be twelve (12) weeks. The overall transition period is broken into three consecutive steps; Planning and Preliminary Preparation, Initial ODA development, and Final ODA development and 4ESS Switch load/retrofit.

Support Organization - A support group will be providing assistance prior to and during retrofit, or an ODA growth. It may be one or more of the following:

1. National Electronic Systems Assistance Center (NESAC)

2. Lucent Technologies Network Software Center (NSC)

3. Switching Management Control Center (SMCC) (LEC)

4. Lucent Technologies Product Engineering Control Center (PECC) Diagnostic Center (PDC)

5. Lucent Technologies Technical Control Center (TCC).

Continued on next page

Translation Growth/Retrofit Administration, Continued

Planning And Preliminary Preparation

The Planning and Preliminary Preparation period is the time between the start of the project and twelve (12) weeks prior to the scheduled office retrofit date. The following paragraphs outline the 4ESS Switch personnel involvement.

The 4ESS Switch personnel should carefully review the complete project to identify exactly how the office is affected. In In cooperation with Lucent Technologies installation people, ensure that a comprehensive Method Of Procedure (MOP) is prepared covering all facets of the project. Every effort should be made to minimize interference with call processing. The Machine Administrator will approve the MOP before allowing any physical work to begin.

The Machine Administrator will be responsible for the generation of the initial office Tape, Write, Read Process (TWRP) dump to be used as input to the Lucent Technologies initial Office Data Assembly (ODA) decompile process. The initial tape dump (TWRP) is to be supplied to the Lucent Technologies ODA Software Database Management group at least twelve (12) weeks in advance of the scheduled office retrofit date.

The Machine Administrator and TELCO Engineer will need to schedule preparation of the necessary TG-4, Division 6, ODA input forms covering the new or revised translations data. The completed ODA input forms should be forwarded to Lucent Technologies coincident with the initial tape dump discussed above.

Initial ODA Development

The initial ODA development period is normally the eight week interval starting twelve (12) weeks prior to, and ending four weeks prior to the scheduled office retrofit date.

During the ODA development interval, the Machine Administrator and Routing Supervisor groups will be working with the Lucent Technologies ODA Software Database Management group to resolve any questions or discrepancies in the ODA translations.

The Machine Administrator will be responsible for the generation of a final office tape dump (TWRP) at the end of this interval. This input tape for the final ODA run is to be supplied to the ODA Software Database Management group four weeks in advance of the scheduled office retrofit date.

Continued on next page

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Translation Growth/Retrofit Administration, Continued

Final ODA Development - Office Load/Retrofit

The most critical period of any growth/retrofit project is the four-week period prior to the scheduled office retrofit date. The following paragraphs provide standard guidelines for 4ESS Switch retrofits to assure successful implementation and to minimize service risks.

A 4ESS Switch machine that is scheduled to undergo retrofit must meet system performance criteria as outlined in Lucent Technologies Practice 234-185-XXX (where XXX is the Generic Program number).

Special Recent Change procedures are to be initiated for this final four-week period:

1. Only very critical Recent Changes should be allowed during the four weeks following the Recent Change cut-off date. This procedure will minimize the volume of Recent Changes that need to be re-entered into the system after retrofit.

2. No absolute Recent Changes will be allowed during the entire four-week interval prior to the retrofit. Absolute Recent Changes cannot be applied to the new ODA using the RC Update process.

The retrofit occurs early on a Saturday morning. Generally, retrofits are not scheduled for a holiday weekend, due to the increased telephone usage on those weekends.

After the retrofit, Recent Change activity from the four-week quiet period must be applied to 4ESS Switch translations. This procedure is described in Division 2, Section 5, of the TG-4.

Translation Growth/Retrofit Administration, Continued

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Lucent Technologies
Bell Labs Innovations

Translation Guide
4ESS™ -2000 Switch
TG-4
Division 3 — Recent Change & Verify

234-010-100

TG-4 Table of Contents

DIVISION 3 **Recent Change & Verify**

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Section 2	Trunk Assignments
Section 3	Code Grouping
Section 4	CAMA Screening
Section 5	Routing Data Blocks
Section 6	Miscellaneous
Section 7	Unit Type
Section 8	Special
Section 9	Administrative

Trunk Subgroup (TSG) Characteristics Table Of Contents

SECTION	RC#
1a	100 - Establish A New Two-Way Trunk Subgroup
1b	101 - Establish A New One-Way Incoming Trunk Subgroup
1c	102 - Establish A New One-Way Outgoing Trunk Subgroup
1e	104 - Add A Traffic Number Block To An Existing Trunk Subgroup
1f	105 - Delete A Traffic Number Block From An Existing Trunk Subgroup
1g	106 - Delete A Trunk Subgroup
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1k	110 - Change The Incoming Separation Class Of An Existing Trunk Subgroup
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Continued on next page

Trunk Subgroup (TSG) Characteristics Table Of Contents, Continued

General

This information applies to all sections within this division:

1. The characters > and < are used to indicate which Generic Programs will apply.

   Examples:

   - 4E22> indicates 4E22 and later Generic Programs.
   - <4E22 indicate 4E22 and earlier Generic Programs.
   - 4E22 indicates the 4E22 Generic Program only.
   - >4E22 indicates all Generic Programs up to, but not including, 4E22.

2. Following the general section is a copy of the applicable Recent Change (RC) Form/s. Where there is more than one Generic published, the forms will be filed in ascending order by Generic.

3. The Keyword field names of the form entries in each section are listed in order of appearance on the latest Generic Recent Change Form. (Keywords deleted from the latest form issue will still remain in the form order of the last RC Form that it appeared until finally deleted).

4. The alphabetical "Keyword Index" of the field names is located at the end of each Recent Change Section, following the text, and any tables and/or graphics that may apply.

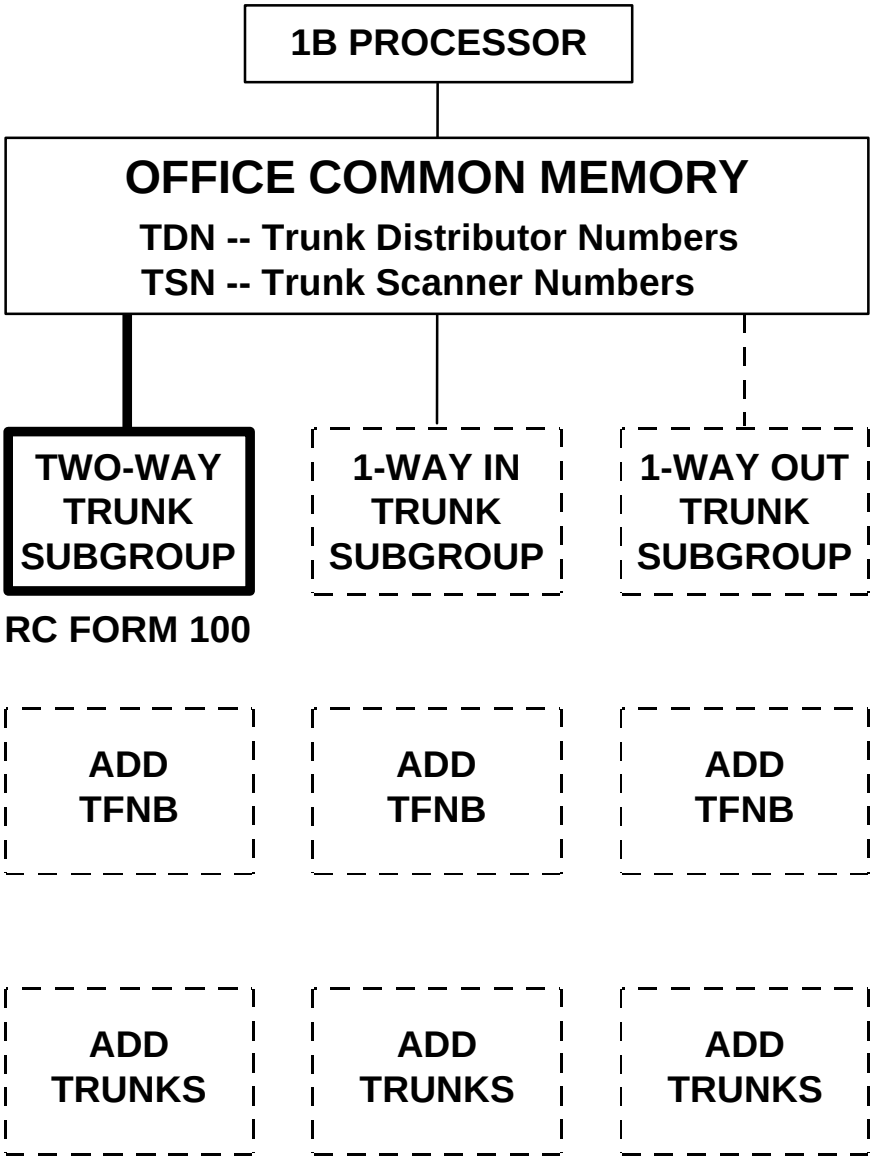
5. Each Keyword definition will only list the valid entries for the RC Form covered in each applicable section. Some Keywords may have additional valid entries related overall and may be found in the alphabetical Keyword Glossary (Div. 9, Sec. 1).

RC Form 100

General

Recent Change (RC) Form 100 establishes the translations for a new two-way Trunk Subgroup. This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section, starting on page 62.



Continued on next page

RC Form 100, Continued

General
(cont'd.)

```
# FORM 100           ADD A NEW TWO WAY TRUNK SUBGROUP
  4E22

RC:TSG;NEW;OPT(TWOWAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                    DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,   TOT ______, SAT _,             DOM _____, ACD _,  IT _, FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,         NPARINH _,
WATSBN ___________, PSBN _, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____,   CMERGE _,     SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,  IFITR _,  PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ONCID _, D3DBN _, MULAW _,     CSCSET ______,  CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _,
CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                      ASSOCIATED VERIFY MESSAGES

                      INPUT-11a-VER:TSG:CIN....
                      INPUT-11c-VER:TSG:TSGN....

             OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

              OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 100, Continued

General
(cont'd.)

```
# FORM 100           ADD A NEW TWO WAY TRUNK SUBGROUP
  4E23R1

RC:TSG;NEW;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF____,    AOPC __________,                           DPC __________,

FENCLASS _______, FENID _______,            TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,   TOT _____, SAT _,               DOM ____, ACD _,  IT _, FAI _,
FENPA ___,  FEOFC ___, FELATA ___,          FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,           MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,           DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                        REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,     GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _, PSCPN _,        ANISID ____, WANISID ____, PSUUI _,
BNPT  ____,  WBNPT ____,   CMERGE _,        SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,         PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,      DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN ____, BFTIS ___, BFTNI ___,         SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _, S5DIG _, SDS _, FVSR _,  IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS _________, CBN _,
ONCID _, D3DBN _, MULAW _,     CSCSET ______,  CID ____, ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FOLI _, FELN _, HUNT __, CSN __,

CAREA _,    CPOS _,   SINDEX __,            CODSC _,    NEOTR _,    TRIDX __,
OTSTT ____, OTSTN _________,                OTMTT ____, OTMTN _________,
XTSTT ____, XTSTN _________,                XTMTT ____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                      ASSOCIATED VERIFY MESSAGES

                      INPUT-11a-VER:TSG:CIN....
                      INPUT-11c-VER:TSG:TSGN....

             OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

              OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 100, Continued

General
(cont'd.)

```
# FORM 100           ADD A NEW TWO WAY TRUNK SUBGROUP
  4E24

RC:TSG;NEW;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                        TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                        DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP _____, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,   TOT _____, SAT _,              DOM _____, ACD _,  IT _, FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                          CCIS2WRE _, CBNPR _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,         NPARINH _,
WATSBN ___________, PSBN _, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____,   CMERGE _,     SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,  IFITR _,  PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ONCID _, D3DBN _, MULAW _,     CSCSET _____,  CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _, NCAR _, TTA _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FOLI _, FELN _, HUNT __, CSN __, CARSON __, SOIP __,
CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                      ASSOCIATED VERIFY MESSAGES

                      INPUT-11a-VER:TSG:CIN....
                      INPUT-11c-VER:TSG:TSGN....

             OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

              OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 100, Continued

General
(cont'd.)

```
# FORM 100          ADD A NEW TWO WAY TRUNK SUBGROUP
  4E25

RC:TSG;NEW;OPT(TWOWAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                      DPC __________,

FENCLASS _______, FENID _______,          TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,   TOT ______, SAT _,            DOM _____, ACD _,  IT _, FAI _,
FENPA ___,  FEOFC ___, FELATA ___,        FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR _,
OSC ________, RFMP _,   DPSTOP _,         DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                      REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,   GSDNPHSE _,  EAS _,         NPARINH _,
WATSBN ___________, PSBN _, PSCPN _,      ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____,   CMERGE _,    SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,       PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,    DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,      SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,  IFITR _,  PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ONCID _, D3DBN _, MULAW _,     CSCSET ______,  CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _, NCAR _, TTA _, EACC __, LCVT _, QPE _, NSA _,
ANCR _,  ACCID ___,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FOLI _, FELN _, HUNT __, CSN __, CARSON __, SOIP __, TCC __, STBI _,

CAREA _,    CPOS _,   SINDEX __,          CODSC _,    NEOTR _,    TRIDX __,
OTSTT ____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT ____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                    ASSOCIATED VERIFY MESSAGES

                    INPUT-11a-VER:TSG:CIN....
                    INPUT-11c-VER:TSG:TSGN....

          OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

           OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Form Entries

RC:TSG;NEW;OPT(TWOWAY),___:

Recent Change action field – Entries appended to the message header indicate the action to be taken by the Recent Change (RC) system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at a time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks, and also, the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast Activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast Test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number – The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the
4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

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Form Entries, Continued

TSG
(cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

Continued on next page

Form Entries, Continued

PCF

Point Code Format - This field is used to specify the format of the point code that is being entered in the point code field. If no entry is being made in the Destination Point Code (DPC) (Originating Point Code [OPC]) field, then this field must be left **"Blank"**. Three different formats are available for input: **ATT, ANSI,** or **ISPC**.

ATT is used for AT&T standard input/output which consists of a three digit network indicator, a two digit cluster region, a one digit cluster type, and a three digit cluster member.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CR**: Cluster Region - This value specifies the region of the signaling network where the office is located. Valid entries are **"00-31"**.

3. **CT**: Cluster Type - Valid entries are **"0-7"**.

4. **MEM**: - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

ANSI is used to indicate that the input/output is in the American National Standards Institute format which consists of a three digit network indicator, a three digit cluster, and a three digit member number.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CLU**: Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"000-255"**.

3. **MEM**: Member Number - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

Continued on next page

Form Entries, Continued

PCF
(cont'd)

ISPC is used for international signaling point code input/output which consists of a one digit world geographical zone, a three digit area/network identifier, and a one digit signaling point identifier. Reference: International Consultative Committee for International Telephone & Telegraph Signaling System (CCITT) Recommendation "Numbering of International Signaling Point Codes", Vol. VI, Rec. Q.708.

1. **WGZ**: World Geographical Zone - This value specifies the world geographical zone of the office. Valid entries are "**1-7"**.

2. **ANI**: Area/Network Identification - This value specifies a geographical area or network in a specific zone. Valid entries are **"000-255"**.

3. **SPID**: Signaling Point Identification - This value specifies a signaling point in a specific geographical area or network. Valid entries are **"0-7"**.

Continued on next page

Form Entries, Continued

AOPC

Alias Origination Point Code - This field will provide a unique combination of a Local Exchange Carrier (LEC) Signal Transfer Point (STP) Point Code (PC) and an AT&T STP PC for each Local Access Transport Area (LATA) dedicated D-link set via a logical point code. AOPC, if entered, must be entered in the ATT format. See the Point Code Format (PCF) field for the format description. AOPC may only be entered when the PCF field is not **"Blank"**.

DPC

Destination Point Code - This field is used to specify the Destination Point Code of the far-end switch.

This field entry is divided into three subfield entries:

1. NET - Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"Blank"**, **"000-255"**.

2. CLU - Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"Blank"**, **"000-255"**.

3. MEM - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"Blank"**, **"000-255"**.

For the Trunk Subgroup (TSG) forms, nine digits must be entered, depending on the format specified in the Point Code Format (PCF) field. Nine digits must be entered if PCF is American National Standards Institute (ANSI) format. An entry must be made in this field if either the Incoming Signaling Characteristics (ISC) or Outgoing Signaling Characteristics (OSC) field value is **"ISUP"**, **"INUP"**, or **"TUP"**; otherwise this field must be **"Blank"**.

Continued on next page

Form Entries, Continued

FENCLASS This field specifies the classification of the Far End Network (FEN). If the Trunk Subgroup (TSG) is not associated with any FEN, this field is left **"Blank"**. The FEN with which the TSG is to be associated must be described via 4ESS Switch RC 617.

For RC 524, this field identifies the class for accumulating counts.

The following classifications are available:

- **ACCESA** - This identifier specifies that the TSG is a link to an Inter-exchange Carrier (IC) or International Carrier (INC), and the 4ESS Switch is being used by a Local Exchange Carrier (LEC) as an Access Tandem (AT) and/or Service Switching Point (SSP) to switch calls from this TSG.

- **CMC** - Cellular Mobile Carrier - This identifier specifies that the FEN is a CMC. The TSG connects an Access Tandem (AT) and a CMC.

- **OWATS** - This identifier specifies that the TSG is a link to a Private Branch Exchange (PBX) over which only Outward Wide Band Area Telephone Service (WATS) calls are allowed.

- **OEO** - Other End Office connecting, meaning an Equal Access End Office (EAEO) owned by a different company. This identifier specifies that the FEN is an OEO. The TSG connects an Access Tandem (AT) and an OEO.

- **PBX** - This identifier specifies that the TSG is a link to a PBX.

- **POTS** - This identifier specifies that the TSG is a link to a switching machine serving either a Local Access Transport Area (LATA) of the Local Exchange Carrier (LEC) owning/sharing the 4ESS Switch, the Continental United States/Plain Old Telephone Service (POTS) (CUSP) network of the IEC owning/sharing the 4ESS Switch, or some other FEN to be treated similarly.

Continued on next page

Form Entries, Continued

FENID

Far End Network (FEN) Identification - This field distinguishes the specific FEN with which this Trunk Subgroup (TSG) is associated. One to six alphanumeric characters may be entered to distinguish among several FENs with the same classification, or the field may be left **"Blank"**. If FENCLASS is **"Blank"**, FENID must also be **"Blank"**.

When the FENCLASS is ACCESA or ACCESI, FENID should consist of type of feature group access and the 4 numeric digits of the Carrier Identification Code (CIC).

The type of feature group definitions are:

- **G** - All access types (B, C, & D).
- **B** - Feature Group B Access.
- **C** - Feature Group C Access.
- **D** - Feature Group D Access.

Examples include:

- **G0288** - Carrier ID 288 has Feature Group B, C, & D access.
- **BC0288** - Carrier ID 288 has Feature Group B & C access.
- **BD0288** - Carrier ID 288 has Feature Group B & D access.
- **B2882** - Carrier ID 2882 has Feature Group B access only.
- **D2882** - Carrier ID 2882 has Feature Group D access only.

For an access type, both B2882 and D2882 can exist but be for different carriers.

Continued on next page

Form Entries, Continued

TFG

Type of Feature Group - This field is used to specify whether the Type of Access for this Trunk Subgroup (TSG) is tariffed under Feature Group B, Feature Group C, or Feature Group D. An entry can only be made if the FENCLASS is ACCESA. If FENCLASS is ACCESA, a **"B"**, **"C"**, or **"D"** must be entered, corresponding to Feature Groups B, C, or D, respectively. FENCLASS is not ACCESA, this field must be left **"Blank"**.

TSGBBC

Trunk Subgroup (TSG) Broadband Capability - Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q.931 signaling systems allow for broadband switching. This entry specifies what type of circuits may be populated in this TSG. Valid entries are:

- **Blank** - 1 trunk circuit
- **0** - 1 trunk circuit
- **1** - 6 trunk circuits
- **2** - 24 trunk circuits
- **3** - Combined usage 1 and 6 trunk circuits
- **4** - Combined usage 1 and 24 trunk circuits
- **5** - Combined usage 6 and 24 trunk circuits
- **6** - Combined usage 1, 6, and 24 trunk circuits.

VDCAP

Not Applicable – Entries: **"Blank"**

DATAF

Not Applicable – Entries: **"Blank"**

FEAREA

Not Applicable – Entries: **"Blank"**

FESWID

Not Applicable – Entries: **"Blank"**

Continued on next page

Form Entries, Continued

EXSEQ Not Applicable – Entries: **"Blank"**

FEPTY Not Applicable – Entries: **"Blank"**

QTFN Quantity of Traffic Numbers - This field specifies the size of the block of traffic numbers to be reserved with this input form beginning with the Base Traffic Number (BTFN) for this Trunk Subgroup (TSG). Traffic numbers must be allocated in groups of 24. Enter a multiple of 24 in the range of **"24 -504"**. If more than 504 traffic numbers are required for a given TSG, additional blocks of 24 may be added using RC Form 104. The total quantity of reserved traffic numbers should be equal to or greater than (to the nearest 24) the maximum size projected for this TSG during the engineering interval. This total should not include other blocks of traffic numbers that may be assigned separately with RC Form 104.

The maximum number of trunks that can be assigned to one TSG is 1023. If a TSG requires more than 1023 trunks and consequently more than 1023 traffic numbers, it must be split into two TSGs. The breakpoint must be a multiple of 24 and less than 1023 which makes 1008 trunks the logical maximum for one TSG. If for example, 1300 trunks were required between point A and point B, two TSGs should be built. The first TSG would contain 1008 trunks, and the second TSG would contain 292 trunks. The two TSGs would be linked in the Routing Data Block (RDB).

The 4ESS Switch feature, Inward Wide Band Area Telephone Service (INWATS) terminating directly to a customer's Automatic Call Distributor, has a limitation of 1023 TSGs totaling 24552 trunks (1023 trunk blocks of 24 registers).

For Voice Frequency Link (VFL) TSGs, if the traffic numbers for the VFLs are separated by 100, e.g., 801 IPLS IN 01 MSP and 901 IPLS IN 01 MSP, the QTFN must be 24 for building new TSGs. Then build the second set of 24 traffic numbers using RC Form 104.

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Form Entries, Continued

TOT

Type of Trunk - This field specifies the trunk type for this Trunk Subgroup (TSG). TOT entries of **"ETC"** for End Office or Tandem Connecting, **"LCC"** for Local Exchange Carrier Connecting, and **"OCC"** for Other Carrier Connecting are used for network interconnect. When these TOT values are used on Integrated Services Digital Network User Part (ISUP)
trunks, the Local Exchange Carrier (LEC) (Bellcore TR-317) and/or network interconnect version (TR-394) of the ISUP protocol is used. For all other allowed TOT values, the AT&T version of the ISUP protocol is used. The codes that may be entered are as follows:

- **ETC** - End Office or Tandem Office Connecting - This Type of Trunk (TOT) is used to identify Equal Access (EA) or Intra Local Access Transport Area (IntraLATA) trunks at a switch serving as an Access Tandem (AT) or Service Switching Point (SSP) where the other end connects to an End Office. This TOT is also used to identify EA trunks between ATs or between an AT and a switch serving as an SSP. When the type of trunk is ETC, the signaling characteristic of the Trunk Subgroup (TSG) must be either Multifrequency Wink (MFWINK) or ISUP.

- **INTL** - International - International circuit with the far end outside of World Zone 1, and having signaling characteristics of International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5), CCITT6, International ISUP (INUP), and CCITT7 Telephone User Part (TUP).

- **INTLO** - International Overflow - International Overflow circuit (for overflow transit traffic) with the far end inside World Zone 1 in another International Switching Center (either the U.S. or foreign).

- **ITAND** - Inter Tandem - This TOT can be used to handle traffic between two tandem switchers in the same local calling area.

Continued on next page

Form Entries, Continued

TOT (cont'd)

- **ITOLL** - Intertoll - Intertoll trunks will carry toll traffic between class 4 or higher offices, or trunks dedicated to Inter-International Switching Center (inter-ISC) international overflow traffic. This includes final, full and high usage TSGs.

- **ITOPA** - International Operator Trunk A – International Operator Center 3C/3CL switchboards associated with Operator Bridged Access Trunks (OBAT). Each OBAT has two appearances on the A trunk and B trunk.

- **ITOPB** - International Operator OBAT B Trunk - Operator bridged access Trunk B from 3C/3CL switchboard.

- **LCC** - Local exchange Carrier Connecting - This TOT is used to identify EA trunks at an AT&T switch This identifier is also used for outgoing ISUP trunks from the Interexchange Carrier/International Exchange Carrier (IC/INC) to an SSP office. When the type of trunk is LCC, the signaling characteristic of the TSG must be either MFWINK or ISUP and the Equal Access Signaling (EAS) field must be marked as either **"E"**, **"A"**, **"D"** or **"R"**.

- **NSDSD** - Network Services Frame Direct Services Dialing Capability - This identifier indicates trunks in this TSG are used to interface the Network Services Frame (NSF) for Direct Services Dialing Capability (DSDC) features. This TSG may only have two way Common Channel Interoffice Signaling (CCIS) characteristics. This TSG is not hunted via normal routing mechanisms, so there can be only one TSG bearing this TOT designation (all trunks connecting a 4ESS Switch to its DSDC equipped NSF must be in the same TSG).

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Form Entries, Continued

TOT (cont'd)

- **OCC** - Other Carrier Connecting - This TOT is used to identify EA trunks at a switch serving as an AT or SSP where the other end connects to an IC or INC switch. This type of trunk should be used when the signaling on the TSG is MFWINK or ISUP.

- **PBX** - Private Branch Exchange - This identifier indicates that the trunks in this TSG terminate on a PBX unit. If the PBX interface is via a 2-wire PBX Channel Unit (J98726ST), then the Incoming Signaling Characteristics (ISC) should be Dial Pulse Immediate (DPIMMED) and the Outgoing Signaling Characteristics (OSC) should be Dial Pulse Wink (DPWINK).

- **SECIT** - Secondary Intertoll - These trunks interconnect toll switching machines and manually operated toll or assistance switchboards for routing of operator completed traffic.

- **STC** - Single Trunk Customer - This TOT is used to designate a TSG for single trunk terminations not supported by a PBX. When TOT is STC, the following TSG fields must be **"Blank"** or **"N"** as allowed: ANISID, APS, BRL, CCIS2WRE, DNHR, DPC, EAS, FAR4E, PBXAW, PBXESGD, REV, RFA, RFMP, SAT, SINDEX, TFG, TSGBBC, WANISID, XCPA.

- **TAND** - Tandem - This code is used for 2-way tandem, tandem completing and tandem connecting TSGs.

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Form Entries, Continued

SAT

Satellite – Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not this Trunk Subgroup (TSG) is associated with satellite facilities. This entry performs a screening function to avoid two satellite TSGs from being connected together to complete a call. If the incoming TSG has SAT = "Y", then call processing will insist the outgoing TSG must have SAT = "N". This can also be used for local screening functions even though the TSG is not via a satellite.

For Voice Frequency Link (VFL) TSGs, satellite facilities cannot be used for a domestic Common Channel Interoffice Signaling (CCIS) system, i.e. if DOM is Plain Old Telephone Service (POTS), then SAT must be **"N"**.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), International Direct Distance Dialing (IDDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (0 through 19). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be ITOLL, MISC, or TSPS or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e. CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.
- **I64C** -This transport domain is used to route 64 kbps clear international data calls up to an ISC.
- **I56D** -This transport domain is used to route 56 kbps international data calls up to an ISC.

Continued on next page

Form Entries, Continued

DOM (cont'd)

- **APN** - Action Point Numbering Plan - This domain is used as an access domain for originating Direct Connect voice or data calls. The calls arrive at the 4ESS Switch as 10-digit calls. When DOM equals APN, then TOT must be PBX or STC for TSG forms.

NOTE: For Voice Frequency Link (VFL) TSGs, this field identifies the domain in which this TSG operates. Valid inputs are "POTS" (if VFL is associated with a domestic Common Channel Interoffice Signaling [CCIS] system).

ACD

Automatic Call Distributor – This field is used to indicate whether or not this Trunk Subgroup (TSG) is used to terminate Inward Wide Band Area Telephone Service (INWATS) traffic. Enter **"Y"** if this TSG will terminate INWATS traffic. Enter **"T"** if INWATS Time Of Day (TOD) billing is required. Enter **"N"** or leave **"Blank"** if this TSG will not terminate INWATS traffic.

IT

Intertoll Treatment – This field is used when the domain of the Trunk Subgroup (TSG) is Plain Old Telephone Service (POTS) and the type of trunk is either End Office or Tandem Connecting (ETC) or Other Carrier Connecting (OCC) to specify whether the TSG should receive intertoll treatment (IT="**Y**") or toll connect treatment (IT=**"N"**) or **"Blank"**. Intertoll treatment means that the call is routed in the POTS intertoll domain, that is, a normal 7-digit call will be terminated in the home Numbering Plan Area (NPA).

(4E22>) - **Offices using Traditional routing only**. Toll connect treatment means the call is terminated in the NPA specified by the Far End Numbering Plan Area (FENPA) field. This field should be set to **"Y"** in any FENPA that is not the Home NPA.

(4E22>) - **Offices using Traditional routing only** or a served NPA.
This field can also be set to **"Y"** in the Home NPAs.

(4E22>) - **Offices using Traditional routing only** or Served NPAs to force the POTS-IT domain.

Continued on next page

Form Entries, Continued

FAI Not Applicable – Entries: **"Blank"**

FENPA Far End Numbering Plan Area/Trunk Subgroup (TSG) - Enter a 3-digit Numbering Plan Area (NPA) code to identify the far end of the subgroup. Valid entries range from **"200-999"**. With an International Trunk Subgroup, if the far end of the Trunk Subgroup is outside World Zone 1, enter the 1-, 2-, or 3-digit country code. Valid ranges of Country Code entries are **"2-9"**, **"20-99"**, and **"200-999"**.

This field is the NPA of the Far-End Office. If this office is not in the Home or Served area, then the Domain will be Plain Old Telephone Service-Intertoll/Intertandem (POTS-IT) and the IT field will be forced to **"Y"** in a Local Exchange Carrier (LEC) switch.

FEOFC Far End Office – This field is used to identify the office code of the far-end switch. Typically this value will range from **"200** to **999"**. Valid entries are: **"Blank"**, or **"000 - 999"**.

FELATA Far End Local Access Transport Area – This field is used to identify the Local Access Transport Area (LATA) of the far-end switch. Valid entries: **"Blank"** or **"000 - 999"**.

FESC6 Far End 6-Digit Screening – A **"Y"** for Yes or **"N"** for No indicates whether or not the far-end office which outpulsed the incoming digits is doing 6-digit screening. An **"N"** should be entered in this field if it cannot be determined if the far-end is doing 6-digit screening. If this field is equal to yes, then vacant code analysis assumes the far-end office will never outpulse a vacant central office code (NXX), vacant Numbering Plan Area (NPA) code, an originating Inward Wide Band Area Telephone Service (INWATS) call which has been denied originating capabilities, or an incorrect number of digits on this Trunk Subgroup (TSG).

Continued on next page

Form Entries, Continued

IWZ1 International World Zone 1 - Enter **"Y"** if this Trunk Subgroup (TSG) will carry international traffic within World Zone 1. Enter **"N"** or leave **"Blank"** if this TSG will not carry international traffic within World one 1. Valid entries are **"Blank"**, **"N"**, or "**Y**".

MEM Memory - This field is used to indicate if trunk hunt with memory is to be performed on this Trunk Subgroup (TSG) when searching for an idle trunk. Trunk hunt with memory is not performed on a TSG if the TSGBBC field is greater than zero (the MEM field should be set to **"N"** in this case). Enter **"N"** if trunk hunt with memory is not to be done. Enter **"Y"** or leave **"Blank"** if trunk hunt with memory is to be done.

PSES Prohibit Service Evaluation - An entry of **"N"** for No specifies that this Trunk Subgroup (TSG) is eligible for service evaluation by the No. 2 Service Evaluation System. An entry of **"Y"** for Yes specifies that the TSG is not eligible for service evaluation. Valid entries are **"Blank"**, **"Y"**, or **"N"**. Blank defaults to "**N**".

INSEP Incoming Traffic Separation Class – Enter a number in the range of **"0-255"** to indicate a traffic class for measurement purposes. This code will be used with the outgoing destination (Destination Separation [DESEP] on code group forms) to determine the peg and usage counts for traffic flow identification. Test position and test call Trunk Subgroups (TSGs) are generically assigned to Incoming Separation Class (INSEP) 31. This should be considered before assigning any other TSG to INSEP 31. Also, since service circuits, other non-message circuits, and 1-way outgoing TSGs have a generically assigned INSEP of zero, they will appear as part of TSG listings for INSEP zero. This fact should be considered before assigning any other Trunk Subgroup to INSEP zero.

Continued on next page

Form Entries, Continued

MTSC Multiple Treatment Screening Class - This field is used to assign an MTSC to this Trunk Subgroup (TSG). Multiple treatment screening may be used to separate routing treatments for TSGs in the same domain. An example is giving independent company trunks a different routing even though the received digits and domain are the same as some other TSG. All TSGs must have an MTSC in the range of **"0-63"**.

GNSC Go/No Go Screening Class - Go/No Go Screening may be used to block traffic dialing specific digits over a Trunk Subgroup (TSG). All incoming and two-way message TSGs are given a Go/No Go class in the range of **"0**-**3**". When this type of screening is required for a group of codes, those codes are correlated with a specific class and a "Go" or "No Go" condition (RC Forms 300-304). If a group of codes specify "Go" on a given class, those codes will be blocked on TSGs having a class other than the specified class. For a "No Go" correlation, a set of codes will not be blocked except on TSGs having the specified class. All blocked traffic is given the vacant code Final Handling Treatment (FHT).

GEOSEP Geographical Traffic Separation Class – Valid entries for this field are one or two digits in the range of **"0** to **31"** to indicate a traffic class for measurement purposes. This code is used with the Announcement Separation Class to score geographical survey counts in Mass Announcement System (MAS) offices.

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Form Entries, Continued

ISC

Incoming Signaling Characteristics - Enter one of the following codes to specify the incoming signaling characteristics required for this Trunk Subgroup (TSG).

- **DPDDSD** - Dial Pulse with Delay Dial/Start Dial.
- **DPIMADG** - Dial Pulse with Immediate start and "A" Digit reconstruction.
- **DPIMMED** - Dial Pulse with Immediate start (no delay).
- **DTMFWK** - Dual-Tone Multifrequency (DTMF) with Wink Start.
- **DTS** - Dial-Tone Start.
- **ISUP** - CCITT7 Integrated Services Digital Network (ISDN) User Part.
- **MFDDSD** - MF with Delay Dial/Start Dial.
- **MFOPWK** - MF Operator trunk with Wink start - International operator trunks.
- **MFWINK** - MF with Wink start.

RFA

Ring Forward Allowed – Enter a **"Y"** for Yes or **"N"** for No to indicate if ring forward is allowed. All intertoll (ITOLL) trunks (Type of Trunk [TOT] field is equal to ITOLL) will require the RFA feature. All trunks that have the possibility of receiving operator calls from lower class offices will also require this feature. Each 4ESS Switch office must determine which Trunk Subgroups (TSGs) may receive operator type calls. These TSGs must have the RFA feature assigned.

ADIG

"A" Digit - Reconstruction will be necessary when receiving digits from a machine that absorbs the first digit of a dialed address. Valid entries are **"0"** or **"2-9"** if International Switching Center (ISC) equals DPIMADG. This field is **"Blank"** for all other cases.

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Form Entries, Continued

CCIS2WRE Common Channel Interoffice Signaling (CCIS) 2Wire – This field should be **"Blank"** for a non-Common Channel Signaling (CCS) Trunk Subgroup (TSG). If this is a CCIS or Integrated Services Digital Network User Part (ISUP) TSG, then it must be determined whether the far end office will terminate the trunks in this TSG on a 2-wire or 4-wire switching network in order to perform the continuity check test on CCIS or ISUP trunks. The CCS continuity check tests will be performed by using the transceiver in either a transceive mode for 4-wire CCS trunks or in a transpond mode for 2-wire CCS trunks. Enter a **"Y"** for Yes if the far end office has a 2-wire network, e.g., 1 ESS/1A ESS 2-wire. Enter an **"N"** for No if the far end office has a 4-wire network, e.g., 1 ESS/1A ESS HILO, 4ESS, 5ESS®, etc.

CBNPR Calling Party Number/Billing Number (CPN/BN) Default Presentation Restriction Indicator – This field indicates whether the received CPN/BN can be passed from the network at the egress point or not. Enter **"Y"** if the default condition for the presentation of CPN/BN should be to restrict it. Enter **"N"** or leave **"Blank"** if the default condition for the presentation of CPN/BN should be unrestricted. This field applies to incoming trunks for which CPN/BN is pre-stored or on which CPN/BN can be received. For Integrated Services Digital Network User Part (ISUP) Trunk Subgroups (TSGs) with Type of Trunk (TOT) or Local Exchange Carrier Connecting (LCC), this field should be populated with a **"Y"**.

For 4E17 and later generics: Enter **"PA"** or **"Blank"** if the default condition for the presentation of CPN/BN should be unrestricted. Enter **"PR"** if the default condition for the presentation of CPN/BN should be to restrict it.

Continued on next page

Form Entries, Continued

OSC

Outgoing Signaling Characteristics - Enter one of the following codes to specify the outgoing signaling characteristics required for this Trunk Subgroup (TSG):

- **DPDDSD** - Dial Pulse with Delay Dial/Start Dial.
- **DPIMMED** - Dial Pulse with Immediate pulsing (no delay).
- **DPWINK** - Dial Pulse with Wink start.
- **DTMFWK** - DTMF with Wink Start.
- **ICOPNOP** - Integrity Check Operator trunk with No Outpulsing. Use this characteristic on trunk subgroups which return a wink signal.
- **ISUP** - CCITT7 ISDN User Part.
- **MFDDSD** - MF with Delay Dial/Start Dial.
- **MFWINK** - MF with WINK start.
- **MIOPNOP** - Miscellaneous Operator with No Outpulsing. This OSC. is used for information and other operator calls. This OSC may be used for Direct Connect calls on 1-way outgoing and 2-way TSGs when Type of Trunk (TOT) is Private Branch Exchange (PBX) or Single Trunk Customer (STC). Use this characteristic only on TSGs which do not return a wink signal.

RFMP

Ring Forward Miscellaneous Distributor Point - Leave **"Blank"** or enter **"N"** for No to indicate that a miscellaneous distributor point is not associated with the outgoing portion of the Trunk Subgroup (TSG). This feature is only required for outgoing trunks requiring 130V ring forward battery. This feature is presently not available on the outgoing portion of 2-way trunk circuits.

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Form Entries, Continued

DPSTOP	Dial Pulse Stop – Enter a **"Y"** for Yes if this Trunk Subgroup (TSG) terminates in a panel, step-by-step or other office that might not be able to receive a complete train of dial pulse digits without a pause between digits (Outgoing Signaling Characteristic [OSC] equal to DPWINK, DPDDSD, or DPIMMED). This feature will tell the program to look for a DPSTOP signal from the far-end office after any one of the first three digits is outpulsed. Enter an **"N"** for No if this feature is not required for DP outpulsing. For other types of outpulsing, leave this field **"Blank"**.
DELAY	Delay Interval – An entry must be made if the OSC is DTMFWK, MFWINK, or MFDDSD. Leave this field **"Blank"** if another OSC is specified. If OSC is MFWINK, MFDDSD, SIOPMFW, enter **20**, **80**, or **220** to indicate the delay in milliseconds before outpulsing is started. This delay interval starts when the wink or start dial signal from the other office is recognized. Twenty milliseconds is basic for most offices. A delay of 20 may be associated with 7 or 10 multifrequency digits per second. When the OSC is DTMFWK, enter **70**, **140**, **210**, or **280** to indicate the delay in milliseconds before outpulsing. This delay interval starts when the wink from the Private Branch Exchange (PBX) is received. 70 milliseconds is the minimum required for PBXs.
MFSPEED	Multifrequency Speed – If Outgoing Signaling Characteristic (OSC) is specified as MFWINK, MFDDSD, SIOPMFW, or TWOPMFW enter **"7"** or **"10"** to indicate the number of outpulsed Multifrequency (MF) digits per second. Enter **"10"** for Lucent Technologies ESS machines. Seven digits per second is used for all electromechanical machines. If OSC is equal to International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5), this field should indicate an MF speed of 10. Leave this field **"Blank"** for any other value of OSC.
DNHR	Not Applicable - Entries: **"N"**

Continued on next page

Form Entries, Continued

XCPA

Transceiver (XC) Pad Adjustment – This item will be left **"Blank"** for non-Common Channel Interoffice Signaling (CCIS) trunks. If the Outgoing Signaling Characteristic (OSC) is equal to International Consultative Committee for International Telephone & Telegraph Signaling System 6 (CCITT6), Domestic CCIS (DOMCCIS), Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), or CCITT7 Telephone User Part (TUP) enter a digit from **"0"** to **"3"** to indicate the pad setting for the CCIS transceiver. The correct entry can be determined by comparing the highest Inserted Connection Loss (ICL) value assigned to a trunk in this Trunk Subgroup (TSG) to the following table. The ICL can be obtained from the Circuit Order Layout Record (COLR) card.

DIGIT	ICL APPLICATION	PAD
• **0**	0 loss trunk	5 DB
• **1**	.1 to .8 loss	3.5 DB
• **2**	.9 to 1.7 loss	1.8 DB
• **3**	1.8 to 4.1 loss	0 DB

Continued on next page

Form Entries, Continued

DNP

Dialed Number Preferred – This field indicates whether the called user prefers to receive the original dialed number, if available, as delivered to the network rather than the routing number. Enter **"Y"** if the called user prefers receiving the original dialed number, otherwise, enter **"N"** or leave **"Blank"**. This field applies to outgoing Q.931 trunks only.

REV

Reverse Traffic Numbers - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not the hunt sequence for this Trunk Subgroup (TSG) is to be reversed. This is determined by comparing the name of the far-end office to the local office using the Common Language Location Identification (CLLI) code for each office. The last office alphabetically should be set to hunt in a reverse sequence. This determination is required only on 2-way TSGs in order to reduce the possibility of both offices seizing a trunk at the same time (a GLARE condition).

Internally, the trunks are stored in ascending traffic number order in the trunk block when REV is set to **"N"**. For non-broadband TSGs, the trunks are stored in descending traffic number order in the trunk block when REV is set to **"Y"**. Trunk hunt always starts searching from the beginning of the trunk block. For broadband TSGs, the trunks are always stored in ascending traffic number order in the trunk block regardless of whether REV is set to **"Y"** or **"N"**, however, when REV is **"Y"**, the busy-idle-bits are searched in a reverse order.

Continued on next page

Form Entries, Continued

GLARE

Glare Control – For domestic E&M trunks, enter an **"A"** for all if this office remains in control when a 2-way trunk is seized by both offices. The other office should be arranged to relinquish control. If the other office (far end) has control, enter an **"N"** for None.

For Integrated Services Digital Network User Part (ISUP) trunks, an "**O**" indicates that this office will control the odd labels. An "**E**" indicates that this office will control the even labels. The switch with the lower point code should be assigned to maintain control of the odd numbered Circuit Identification Codes (CICs). The switch with the higher point code should be assigned to maintain control of the even numbered CICs. The point codes to be compared are the Origination Point Code (OPC) and the Destination Point Code (DPC). Alternatively, for ISUP trunks, an **"A"** can be entered to indicate that the switch will control all CICs or an **"N"** can be entered to indicate that the switch will control no CICs.

The Machine Administrator should furnish this Trunk Subgroup (TSG) information.

PSOLI

Prohibit Sending Originating Line Identity - This field indicates whether OLI can be passed to a connecting network. Legal values are **"Blank"**, **"Y"** or **"N"**. **"Y"** specifies that OLI should not be sent. **"N"** specifies that OLI should be sent.

BN

Billing Number/Trunk Subgroup- This field is used to specify a BN associated with the TSG. It may be left **"Blank"**, or a **"3-"**, **"4-"**, or **"10-digit"** number may be entered. If FENCLASS is ACCESA or ACCESI, BN must be a 4-digit number (4-digit number if Type of Feature Group [TFG] is "B") equal to the (X)XXX corresponding to the inter-Local Area Transport Access (LATA) or International Carrier at the far end of the TSG. If FENCLASS is CMC, OWATS, or PBX, BN must be a 10-digit number. If the Automatic Call Distributor (ACD) field is **"Y"**, then BN must be a 10-digit number specifying the billing number of the INWATS ACD customer. If the ACD field is **"T"**, then BN must be **"199"**.

Continued on next page

Form Entries, Continued

BRL	Billing Record Length – This field is used to specify whether long or short Automatic Message Accounting (AMA) records should be created for calls on this Trunk Subgroup (TSG). An "**S**" should be entered if Short AMA records are required or an "**L**" should be entered if Long AMA records are required. If "**L**" is entered, both answered and unanswered calls are recorded. If "**S**" is entered, only answered calls are recorded. If this field is left "**Blank**", short AMA records will be made (if necessary). **NOTE: There is only one record length for Private Branch Exchange (PBX) calls, so this field should be used to indicate whether both answered and unanswered.**
ITC	Incoming Trunk Subgroup Class – This value identifies the incoming trunk as belonging to one of four incoming classes. The ITC is used in conjunction with Local Exchange Carrier (LEC) Service Switching Point (SSP) call routing instructions to identify which Number Services Data Block (NDB) will be selected for picking a trunk to an Interexchange Carrier/International Carrier (IC/INC). The use of this field is similar to that of Multiple Treatment Screening (MTS) but is associated with the BOC SSP feature. Legal entries are "**Blank**" or "**0**-**3**".
GSDN.tsg	Not Applicable - Entries: "**Blank**"
GSDNPHSE	Not Applicable - Entries: "**Blank**"

Continued on next page

Form Entries, Continued

EAS

Equal Access Signaling – This field is used to specify if Equal Access Signaling (EAS) will be received on this Trunk Subgroup (TSG), and if so, whether Automatic Number Identification (ANI) is expected for the EAS calls. Note that this field only applies to an Inter-Local Access Transport Area (LATA) Carrier switch receiving EAS or an office with the Service Switching Point (SSP) feature receiving EAS. This field must be set to **"N"** for None if EAS is not received on the TSG. If EAS can be received on the TSG, but ANI is not expected for the EAS calls, then an **"E"** must be entered. If EAS can be received on the TSG, and ANI is expected on the EAS calls, then an **"A"** must be entered.

Entries of **"D"** and **"R"** in the EAS field are used to designate Feature Group D (FGD) only. If only FGD is received on the TSG, but ANI is not expected, then a **"D"** must be entered. If only FGD is received on the TSG, and ANI is expected, then a **"R"** must be entered.

This field only applies to an Inter-LATA Carrier switch receiving Equal Access Signaling (EAS), i.e., the Type of Trunk (TOT) value is Local Exchange Carrier Connecting (LCC).

NPARINH

Inhibit Numbering Plan Area (NPA) Reconstruction – This field is used to specify whether NPA reconstruction for equal access calls or SDN should be inhibited on this TSG or not. ANI is taken to be NPA if only seven digits are received. If NPA reconstruction should be inhibited, enter **"Y"**, otherwise enter **"N"** or leave **"Blank"**. This field only applies to Local Exchange Carrier Connecting (LCC) Type of Trunks (TOTs). Valid entries are **"Blank"**, **"Y"**, or **"N"** .

WATSBN

General Wide Area Telephone Service (WATS) Billing Number - Enter a 10-digit billing number for each Trunk Subgroup (TSG) which will be used to carry WATS type traffic. If an entry is not required, then the field must be "**Blank**" . Valid entries are **"0000000000-999999999"** and **"Blank"** .

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Form Entries, Continued

PSBN

Prohibit Sending Billing Number – This field is used to indicate that the caller's billing number should not be sent in the outgoing signaling messages.

For 4E17 and earlier generic programs, enter **"Y"** if the billing number should not be forwarded. This value should only be used on Trunk Subgroups (TSGs) connecting to another network. Enter **"N"** or leave **"Blank"** if the billing number can be sent. This field applies to outgoing Integrated Services Digital Network User Part (ISUP) trunks only.

For 4E18 and later generic programs, this value should only be used on TSGs connecting to another network. Enter:

- **Blank** or **PNNA** - prohibit sending a billing number with a numbering plan type other than North American Numbering Plan (NANP).
- **SALL -** if the billing number can be sent, regardless of the numbering plan type.
- **PALL -** if all billing numbers are to be prohibited from being sent, regardless of the numbering plan type. This field only applies to outgoing ISUP and Q.931 trunks. The PALL value applies only to ISUP trunks.

PSCPN

Prohibit Sending Calling Party Number – This field is used to indicate that the caller's calling party number should not be sent in the outgoing signaling messages. Enter **"Y"** if the calling party number should not be forwarded. This value should only be used on Trunk Subgroups (TSGs) connecting to another network. Enter **"N"** or leave **"Blank"** if the calling party number can be sent. This field applies to outgoing Integrated Services Digital Network User Part (ISUP) and International ISUP (INUP) trunks only.

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Form Entries, Continued

ANISID ANI/SID requester value – This field specifies the type of calling party information which should be transmitted to the customer. Valid entries are:

Blank	- No information
NONE	- No information
ANI	- Automatic Number Identification (AIN) only
SID	- Service Identity (SID) only
PANI	- ANI or SID (prefer ANI)
PSID	- ANI or SID (prefer SID)
REQ	- Customer will use signaling to specify

WANISID Wide Area Telephone Service (WATS) Automatic Number Identification (ANI)/Service Identity (SID) requester value - This field specifies the type of calling party information which should be transmitted to the customer when Megacom* 800 type of traffic is delivered to the customer. Valid entries are:

Blank	- No information
NONE	- No information
ANI	- ANI only
SID	- SID only
PANI	- ANI or SID (prefer ANI)
PSID	- ANI or SID (prefer SID)
REQ	- Customer will use signaling to specify

*Megacom is a registered trademark of AT&T.

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Form Entries, Continued

PSUUI	Prohibit Sending User-to-User Information – This field indicates whether to accept/send Message Associated (MA) UUI on this Trunk Subgroup (TSG). Legal values are **"Blank"**, **"Y"**, or **"N"**. Enter **"Y"** if MA-UUI should not be sent. This value should be used on access TSGs to prohibit the receipt of MA-UUI, and it should be used on egress TSGs to prohibit the sending of MA-UUI. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only.
BNPT	Not Applicable – Entries: **"Blank"**
WBNPT	Not Applicable – Entries: **"Blank"**
CMERGE	Not Applicable – Entries: **"Blank"**
SCFN	Send Confusion Message – This field indicates if received Confusion messages are counted and if Confusion messages are to be sent when an unimplemented message is received. Valid entries are **"Blank"**, **"Y"**, or **"N"**.
OVLP	Overlap Signaling – This field indicates if Consultative Committee for International Telephone & Telegraph Signaling System 7 (CCITT7) Overlap Signaling is allowed when processing an International Integrated Services Digital network User Part (INUP) or CCITT7 Telephone User Part (TUP) call. If OVLP is set to **"Y"**, then Overlap Signaling will be allowed on transit non-operator, non-test calls. The default value for this field is: **"Blank"** (Overlap Signaling not allowed).
PRIT	Not Applicable – Entries: **"Blank"**

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Form Entries, Continued

APS

Accunet® Packet Service - This field is used to indicate if Accunet packet service can be performed on this Trunk Subgroup (TSG). Enter **"Y"** if Accunet packet service is allowed. Enter **"N"** or leave **"Blank"** if Accunet packet service is not allowed.

CHNEG

Channel Negotiation – This field is used to indicate whether channel negotiation can be performed on this Trunk Subgroup (TSG) or not. Enter **"Y"** if channel negotiation is allowed. Enter **"N"** or leave **Blank** if channel negotiation is not allowed.

PSATP

Prohibit Sending Access Transport Parameters – This field indicates whether Access Transport Parameters (ATP) can be passed to or from a connecting network. Legal values are **"Blank"**, **"Y"** or **"N"**. Enter **"Y"** if ATP should not be sent. This value should be used on access Trunk Subgroups (TSGs) to prohibit the receipt of ATP; it should be used on egress TSGs to prohibit the sending of ATP. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only. This new field will not affect the sending of ATP at an Access Tandem (AT) switch.

PBXESGD

Private Branch Exchange (PBX) Expect Station Group Designation – This field is used for the Software Defined Network (SDN) feature and is set equal to **"Y"** if the SDN customer has a direct connect PBX that will append an extra digit to the dialed number to indicate authorization of calling station. A **"Y"** or **"N"** must be entered in this field if Type Of Trunk (TOT) is PBX and Domain (DOM) is Software Defined Network Access (SDNA), otherwise it must be set to **"N"** or left **"Blank"**.

PBXAW

PBX Answer Withheld – This field is used to specify whether Answer Supervision can or cannot be sent to the PBX. An entry can only be made if TOT is PBX. A **"Y"** is entered if Answer Supervision is to be withheld. An **"N"** is entered if Answer Supervision should not be withheld (i.e., Answer Supervision is returned). If this field is left **"Blank"**, Answer Supervision is returned (not withheld).

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Form Entries, Continued

FAR4E	The FAR4E field is set to **"Y"** for Yes whenever the far end of the trunks in this Trunk Subgroup (TSG) is terminated on a 4ESS Switch with the international announcements. This is used in common channel signaling (Incoming Signaling Characteristics [ISC] is Domestic Common Channel Interoffice Signaling [DOMCCIS] or Integrated Services Digital Network User Part [ISUP]) to control sending backward failure messages on failed international calls. These switches are equipped with the international announcements. The FAR4E field also controls common channel signaling sending network management call preference data in a forward direction (OSC is DOMCCIS or ISUP). Such data must not be sent forward to switches not equipped to handle it. Enter **"N"** if the far end is not a 4ESS Switch or the 4ESS Switch does not have the international announcements. This field should be left **"Blank"** for International Consultative Committee for International Telephone & Telegraph Signaling System 7 [CCITT7] ISUP (INUP) trunks.
DOFP	Disable Outgoing Fraud Prevention – A **"Y"** indicates that Black Box and Blue Box fraud prevention controls are disabled on this Trunk Subgroup (TSG). An entry of **"N"** indicates that fraud prevention controls are enabled on this TSG.
SBRIV	Not Applicable – Entries: **"Blank"**
MEGC	Not Applicable – Entries: **"Blank"**
SDNA	Not Applicable – Entries: **"Blank"**
OWAT	Not Applicable – Entries: **"Blank"**
DATA	Not Applicable – Entries: **"Blank"**
CBC	Not Applicable – Entries: **"Blank"**

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Form Entries, Continued

DDD	Not Applicable – Entries: **"Blank"**
IDDD	Not Applicable – Entries: **"Blank"**
FOSPS	Not Applicable – Entries: **"Blank"**
CCIF	Not Applicable – Entries: **"Blank"**
SDNPLAN	Not Applicable – Entries: **"Blank"**
BFTIS	Backward Failure Treatment Integrated Services Digital Network User Part (ISUP) all the way. This field is used to specify whether an Announcement (ANN) should be played or a Release (REL) message should be sent when a call has gone ISUP all the way. On the Trunk Subgroup (TSG) Forms, this field is only used when signaling is ISUP and the type of trunk is OCC. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"REL"** when it applies. For Office Data Assembler (ODA) Form 406Z, this field is used for designating the action for intra-Local Access Transport Area (LATA) ISUP call failures occurring at the switch. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"REL"**.

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BFTNI

Backward Failure Treatment not Integrated Services Digital Network User Part (ISUP) all the way. This field is used to specify whether an Announcement (ANN) should be played or a Release (REL) message should be sent when a call has not gone ISUP all the way.

On the Trunk Subgroup (TSG) Forms, this field is only used when signaling is ISUP and the type of trunk is OCC. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"ANN"** when it applies.

For Office Data Assembler (ODA) Form 406Z, this field is used for designating the action for intra- Local Access Transport Area (LATA) ISUP call failures occurring at the switch when a call has not gone ISUP all the way. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"ANN"**.

SKSP

Not Applicable – Entries: **"Blank"**

PBXNWW

Private Branch Exchange (PBX) No Wait for Wink – An entry of **"Y"** in this field is used to specify that the Trunk Subgroup (TSG) has a PBX which does not wait for a wink from the 4ESS Switch before outpulsing digits. This field is used only for TSGs with a Type of Trunk (TOT) value of PBX and signaling of Dual Tone Multifrequency WINK (DTMFWK). Enter **"Y"** if the PBX does not wait for a wink from the 4ESS Switch. Otherwise, enter **"N"** or leave **"Blank"**.

HYBRD

Not Applicable – Entries: **"Blank"**

CCTT

Not Applicable – Entries: **"Blank"**

INCID

Number of Carrier ID digits to be received – An entry of **"3"** specifies that the Trunk Subgroup (TSG) should expect to receive a 3-digit CID. An entry of **"4"** specifies that the TSG should expect to receive a 4-digit CID. An entry of **"B"** specifies that the TSG should expect to receive a 3- or 4-digit CID.

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Form Entries, Continued

ITELCO	Not Applicable – Entries: **"Blank"**
S5DIG	Not Applicable – Entries: **"Blank"**
SDS	Not Applicable – Entries: **"Blank"**
FVSR	Not Applicable – Entries: **"Blank"**
IFITR	Not Applicable – Entries: **"Blank"**
PCPEACEL	Not Applicable – Entries: **"Blank"**
UT15DA	Not Applicable – Entries: **"Blank"**
LRN	Location Routing Number: (4E22R2>) - To support Local Number Portability (LNP), a location Routing Number (LRN) has been defined to identify a Local Service Provider (LSP) End Office. LRN is used to provide Jurisdiction Information Parameter (JIP) if not present in an initial Integrated Services Digital Network User Part (ISUP) Initial Address Message (IAM) or if Incoming Trunk (ICT) is Multifrequency (MF) type signaling. Valid entries: **"Blank"** or a **"10-digit number"**.
CBN DIGS.tsg	Incoming Trunk Subgroup (TSG) Connecting Network Access Billing Number Digits – a 10-digit TSG parameter. This field can only be populated if the CBN field is **"N"** - Non-Feature Group-D signaled calls or **"L"** - Local Number Portability (LNP) Non-Feature Group-D signaled calls. Entries: **"Blank"** or a **"10-Digit Number"**.

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Form Entries, Continued

CBN	Incoming Trunk Connecting Access Billing Number Option. (4E22R2>) –Valid entries are **"Blank"** – No special Automatic Message Accounting (AMA) recording options (default), **"N"** – Non-Feature Group-D signaled calls, or **"L"** – Local Number Portability (LNP) Non-Feature Group-D signaled calls.
ONCID	Number of Carrier ID digits to send – An entry of **"3"** specifies that the Trunk Subgroup (TSG) send a 3-digit CID. An entry of **"4"** specifies that the TSG send a 4-digit CID. If the TSG is not going to send a CID, leave **"Blank".**
D3DBN	Not Applicable – Entries: **"Blank"**
MULAW	This field is used to identify the type of encoding (A-law/Mu-law) used in the user information layer 1 protocol ID field of the User Service Information (USI) parameter. An entry of **"Y"** in this field along with an outgoing signaling characteristic of International Consultative Committee for International Telephone & Telegraph Signaling System 7 (CCITT7) Integrated Services Digital Network User Part (INUP) will indicate that Mu-law encoding is being used. A entry of **"N"** or leaving the field **"Blank"** will indicate that A-law encoding is being used.
CSCSET	Not Applicable – Entries: **"Blank"**
CID	Carrier ID. This field is populated with the pre-subscription carrier selected by the customer to handle inter-Local Access Transport Area (LATA) calls; and intra-LATA calls when intra-LATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. This field is only populated for ISC/OSC=Q.931.

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Form Entries, Continued

ITCENC

Information Transfer Capability Encoding - (4E21>) – This Trunk Subgroup (TSG) parameter indicates the allowed Information Transfer Capability (ITC) coding in the outgoing Initial Address Message (IAM). The parameter can have values shown below:

- **"Blank"**, **"N"** (use office): encode the outgoing IAM, User Service Information (USI) parameter ITC field, the same as used in the office indicator
- **"Y"** (use opposite of office): encode the outgoing IAM, USI parameter ITC field, with the opposite of what is used in the office indicator

The default is **"use office"**.

OFITR

Not Applicable – Entries: **"Blank"**

SPN

Signal Ported Number: (4E22R2>) – This Trunk Subgroup (TSG) indicator indicates if the destination switch is capable of supporting the Local Number Portability (LNP). If **"Blank"** or **"N"** (the default), the destination switch is considered LNP capable and the Local Routing Number (LRN) will be signaled. If **"Y"**, the destination switch is NOT considered LNP capable and only the Ported Number will be signaled and not the LRN.

LNPIC

Not Applicable – Entries: **"Blank"**

NCAR

Not Applicable – Entries: **"Blank"**

TTA

Not Applicable – Entries: **"Blank"**

EACC

Not Applicable – Entries: **"Blank"**

LCVT

Not Applicable – Entries: **"Blank"**

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QPE	Not Applicable – Entries: **"Blank"**
NSA	Not Applicable – Entries: **"Blank"**
ANCR	Not Applicable – Entries: **"Blank"**
ACCID	Not Applicable – Entries: **"Blank"**
PSTNG	Not Applicable – Entries: **"Blank"**
FLDSPR	Not Applicable – Entries: **"Blank"**
REVAMP	Not Applicable – Entries: **"Blank"**
E1T1	Not Applicable – Entries: **"Blank"**
SUPBLK	Not Applicable – Entries: **"Blank"**
ATRIG	AIN TSG Trigger (4E22>) – This Trunk Subgroup (TSG) parameter allows TSG circuits to trigger the Advanced Intelligent Network (AIN) processing. The parameter can have the values: **"Blank"** or **"N"** = Do not allow access **"Y"** = Allow access. The default entry is **"N"**
IXC	Not Applicable – Entries: **"Blank"**
FOLI	Not Applicable – Entries: **"Blank"**

Continued on next page

Form Entries, Continued

FELN	Not Applicable – Entries: **"Blank"**
HUNT	Not Applicable – Entries: **"Blank"**
CSN	Not Applicable – Entries: **"Blank"**
CARSON	Not Applicable – Entries: **"Blank"**
SOIP	Not Applicable - Entries: **"Blank"**
TCC	Not Applicable – Entries: **"Blank"**
STBI	Not Applicable – Entries: **"Blank"**

Continued on next page

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Form Entries, Continued

CAREA

Control Area - Valid input for this field is a single digit in the range of **"0-9"**. This number identifies the Control Area that is to be associated with this Trunk Subgroup (TSG) for trouble reporting. The number assignable in a given office is limited, however, to the highest control area assigned at Office Data Assembler (ODA) time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location.

Any test position can access every trunk assigned to the 4ESS Switch with the exception of international trunks. International trunks having Incoming Signaling Characteristic (ISC) or Outgoing Signaling Characteristic (OSC) equal to Consultative Committee for International Telephone & Telegraph 5 (CCITT5) must be assigned to a CAREA that is equipped with 51AL6 test positions. The 51AL6 test position can access any trunk assigned to the 4ESS Switch. However, the alarms, Teletype (TTY) printouts, and 101 calls associated with a particular TSG will only be transmitted to the CAREA and CPOS that is specified on the input form for a TSG. A single trouble receiving location could be specified for all TSGs in the office. Trouble tickets might be originated here and distributed to occupied test positions as necessary. Some other typical applications could be to assign the TSGs to testboard positions alphabetically, by direction, by ownership, or by Type of Trunk (TOT).

The only other restraint on assigning a TSG to a particular CAREA and CPOS is that all positions might not have the optional equipment required to satisfactorily test some Trunk Subgroups. The arrangement in a given office depends on the administrative decisions made for that office.

Continued on next page

Form Entries, Continued

CAREA
(cont'd.)

Position 00 (CAREA 0, CPOS 0) has been assigned to the Master Test and Control Channel (MTC) teletype in the Maintenance Operating Center (MOC). This position was established to receive trouble reports for certain non-message type TSGs. Lucent Technologies recommend that positions
01-09 not be assigned in an office at this time. The circuits that should be assigned to test position 00 are:

- ACI*DCHN - D-Channel circuits to the Common Network Interface (CNI) Ring
- CLN*DLPC - Loopback/complement Data Test
- MAS*BIPB - Mass Announcement System (MAS) Barge-in Playback Trunk
- MIS*AART - Auxiliary Audible Ring Trunk
- MIS*TERM - Common Channel Interoffice Signaling (CCIS) Terminals
- SVC*AIN* - Advanced Intelligent Network (AIN)
- SVC*DMRV - Dual-Tone Multifrequency (MF) Receivers (DTMFR)
- VC*DMXM - Dual-Tone Multifrequency Transmitters (DTMFT)
- SVC*MFR* - Multifrequency Receivers
- SVC*MFX* - Multifrequency Transmitters
- SVC*XCVR - CCIS Continuity Check Transceivers
- SVC*XCVT - CCIS Continuity Check Transceiver Test Circuit
- SVC*MFRT - Multifrequency Receiver Test Circuits
- SVC*MFXT - Multifrequency Transmitter Test Circuits
- SVC*SCAN - Service Circuit System Expanded Announcements
- SVC*SCBN - Service Circuit System Expanded Announcements
- SVC*SCNS - Network Services Complex Set S
- TAS*ANN* - Recorded announcements
- TAS*TONE - Tone Circuits
- TAS*MWAT - 1004 hz at 0 dBm
- TAS*MW10 - 1004 hz at 10 dBm

Continued on next page

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Form Entries, Continued

CAREA (cont'd.)

The balance of the non-message type TSG may be assigned to working testboard positions.

For RC Forms 604 and 605, this number identifies the Control Area that is to be associated with this announcement trouble report. The number assignable in a given office is limited, however, to the highest control area assigned at ODA time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location. If
CAREA 0, CPOS 0 is specified, all MAS messages will be sent to the MTC channel in the MOC.

CPOS

Control Position – Enter a number from **"0-9"** to specify the testboard position that is to be associated with the Trunk Subgroup (TSGs) and Control Area (CAREA) for test reporting purposes. This assignment together with the CAREA designation can be used to distribute the maintenance responsibility for Trunk Subgroups. This assignment does not prevent any test position from accessing a particular group of trunks. It is only for reporting purposes.

For RC Forms 604 and 605, enter a number from **"0-9"** to specify the testboard position that is to receive the announcement trouble reports. If CAREA is 0, only CPOS 0 is allowed. When the Message Announcement System (MAS) is administered by the Operations National Administration Center (ONAC), assign the CPOS that has been dedicated for its use.

SINDEX

Access Change Verification Sampling Rate Index value - This field specifies the rate at which calls will be sampled for access charge verification. Legal values are **"Blank"**, **"0"**, **"1"**, **"2"**, **"4"**, **"8"**, **"16"**, **"32"**, **"64". "Blank"** and **"0"** imply no verification recording. Otherwise, one call out of the number entered will be recorded.

Continued on next page

Form Entries, Continued

CODSC

Customer Premise Equipment (CPE) Outgoing Disconnect. An entry of **"Y"** in this field is used to specify (from the 4ESS Switch perspective) that a disconnect will be effected faster than normal when the called customer goes on-hook. This field is used only for TSGs with a type-of-trunk value of Private Branch Exchange (PBX) or Single Trunk Customer (STC) and with signaling other than Q.931. Valid entries are **"Blank"**, **"Y"**, or **"N"**.

(4E21>) - CPE Outgoing Disconnect or Signaling System 7 (SS7) Trunk Subgroup (TSG) Control of Per Channel Inhibit Signaling (PCIS) Bits. An entry of **"Y"** specifies that:

1. From the 4ESS Switch perspective, a disconnect will be effected faster than normal when the called customer goes on-hook. This application of CODSC is only for TSGs with a type-of-trunk value of PBX or STC and with signaling other than Q.931.

   or

2. The TSG is to have its PCIS bits reset to force a steady state AB bit indication. This application of CODSC is for non-AT&T offices where the TSG has type-of-trunk of Other Common Carrier (OCC) and outgoing signaling of Integrated Services Digital Network User Part (ISUP).

Valid entries are **"Blank"**, **"Y"**, or **"N"**.

NEOTR

Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not this office is responsible for the operational (signaling) test on outgoing trunks in this Trunk Subgroup (TSG). If a **"Y"** is entered in this field, then the OTSTT and/or OTMTT field(s) must have an entry other than **"N"**. If an **"N"** is entered in this field, then all test types are optional.

If OTSTT and OTMTT fields are **"N"**, then NEOTR must be **"N"**.

If an office has Near End Operational Test Responsibility but the far end office does not have a test number, an **"N"** should be entered in this field.

If Outgoing Signaling Characteristic (OSC) is equal to Domain Class (DOMCCIS) or Integrated Services Digital Network User Part (ISUP), then NEOTR should be **"N"** since operational tests cannot be made on Domestic Common Channel Signaling (CCS) trunks.

Continued on next page

Form Entries, Continued

TRIDX Not Applicable – Entries: **"Blank"**

OTSTT Operational Thru Switch Test Type - Certain offices (No. 5 Crossbar and 1ESS) can function both as a local and a tandem or as a local and toll office. These offices have trunks that can function in both a through switch mode and a terminating mode. As a result, more than one test is required to test both modes of operation. The OTSTT is used to specify an operational (signaling) test for a trunk in the tandem (thru switch) mode. OTSTT is also used to specify the ATME B test for Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) and Consultative Committee for International Telephone and Telegraph Signaling System Number 6 (CCITT6) trunks which have a far end test line capable of running this test. The following codes may be entered in the OTSTT field.

- **ATMB** - Siemens' ATME B test line - This is a signaling test which applies to CCITT5 and CCITT6 trunks only. The test consists of the far end test line returning a clear back/reanswer in response to a forward transfer.
- **CTX2** - Centrex II test - This test is made toward a No. 5 Crossbar office having Phase II Centrex features. CTX2 is similar to the SYNC test.
- **CTX3** - Centrex III - This test is made to a No. 5 Crossbar office having Phase III Centrex features. CTX3 is similar to the SYNC test.
- **SXS** - Step-by-Step - If the far end of this Trunk Subgroup (TSG) is working in to a Step-by-Step office, this test may be specified.
- **SYNC** - Synchronous test - This test is an automatic series of off hook/on hook transitions (flashes) on the M lead. In the 4ESS Switch, the SYNC test is software controlled and no external hardware is needed. A data table is used to specify the pulsing rate for each series of flashes. The test automatically advances from one pulsing rate to another via a timing procedure. In any system, after all of the flashes are complete, the trunk will be left in the quiet termination state.

Continued on next page

Form Entries, Continued

OTSTT (cont'd)

- **T103 -** 103 Test - The 103 Test is similar to the synchronous test in that a series of flashes are sent on the M lead. However, the sequence of pulses is controlled by the ring forward signal, rather than a timed automatic progression. Flashing of a given rate will continue until a ring forward signal is received, or, in 4ESS Switch, until an upper limit of flashes has been sent. At this point, the trunk will be put into the quiet termination state until disconnect.

- **"N" -** Enter **"N"** if no thru switch operational test is to be made on this TSG.

OTSTN

Operational Thru Switch Test Number – If Operational Thru Switch Test Type (OTSTT) is **"N"** for None, leave this item **"Blank"**. If a thru switch test of some type is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the OTSTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If OTSTT is Siemens' ATME B test line **(**ATMB), then OTSTN should specify a 062 for Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) trunks or a 2 for Consultative Committee for International Telephone and Telegraph Signaling System Number 6 (CCITT6) trunks when the far end has an ATME B test line. If the far end has an Siemens' ATME A test line (ATME A), OTSTT equals ATMB and OTSTN should specify 061 for CCITT5 or 1 for CCITT6 trunks.

Continued on next page

Form Entries, Continued

OTMTT Operational Terminating Test Type - If an operational (signaling) test is to be made directly to the far end of this Trunk Subgroup (TSG) terminating mode, enter a code to identify the test.

- **ATMC** - Siemens' ATME C test line - This is a signaling test used with Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) trunks only. The far end returns a busy flash from the test line.
- **CTX2** - Centrex II test - This test is made toward a No. 5 Crossbar office having Phase II Centrex features. This test is similar to the SYNC test.
- C**TX3** - Centrex III - This test is made towards a No. 5 Crossbar office having Phase III Centrex features. This test is similar to the SYNC test.
- **SXS** - Step-by-Step - If the far end of this TSG is working into a Step-by-Step office, this test may be specified.
- **SYNC** - Synchronous test - This test is an automatic series of on hook/off hook transitions (flashes) on the M lead. In the 4ESS Switch, the SYNC test is software controlled and no external hardware is needed. A data table is used to specify the pulsing rate for each series of flashes. The test automatically advances from one pulsing rate to another via a timing procedure. In any system, after all of the series of flashes are complete, the trunk will be left in the quiet termination state.

Continued on next page

Form Entries, Continued

OTMTT (cont'd)

- **T103** - 103 test - The 103 test is similar to the synchronous test in that a series of flashes are sent on the M lead. However, the sequence of pulses is controlled by the ring forward signal, rather than a timed automatic sequence. Flashing of a given rate will continue until a ring forward signal is received, or, in 4ESS Switch, until an upper limit of flashes has been sent. At this point, the trunk will be put into the quiet termination state until the originator disconnects.

- **"N"** - None - Enter an **"N"** if no test is to be made on this TSG.

OTMTN

Operational Terminating Test Number – If OTMTT is **"N"** for None, leave this field **"Blank"**. If a test is specified, then a corresponding test number in the range of "**000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the OTMTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If OTMTT equals Siemens' ATME C test line (ATMC), then OTMTN must specify **"063"**.

Continued on next page

Form Entries, Continued

XTSTT Transmission Thru Switch Test Type – If a transmission test is to be made in the thru switch (tandem) mode for this Trunk Subgroup (TSG), enter a code to identify the type of test.

- **ATMA** - Siemens' ATME A transmission test line - This entry provides access to an ATME A responder. The ATME A test permits automatic transmission loss and noise measurements in both directions for International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5),CCITT6, International Integrated Services Digital Network User Part (INUP), or CCITT7 Telephone User Part (TUP) trunks.

- **T100** - 100 code test - This test provides a quiet termination (600 ohms). In a 4ESS Switch, the 100 test provides a sequence of 1000 hz, milliwatt tone for 5.5 seconds followed by the quiet termination until disconnect.

- **T102** - 102 code test - The 102 test provides 1000 hz. milliwatt tone. The 4ESS Switch provides cycles of 9-second tone and 1-second quiet termination until disconnect.

- **T105** - 105 code test - This code provides access to an Automatic Trunk Measuring System (ATMS) responder. The 105 test permits automatic transmission loss and noise measurements in both directions.

- **N** - Enter **"N"** if no test is to be made OR if the presubscription carrier is to be populated.

Continued on next page

Form Entries, Continued

XTSTN

Transmission Thru Switch Test Number – Add Presubscription Carrier. If Transmission Thru Switch Test Type (XTSTT)=N and this field is non-**"Blank"**, then the field is populated with the presubscription carrier selected by the customer to handle inter Local Access Transport Area (interLATA) calls; and intraLATA calls when intraLATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. The presubscription carrier can only be populated for Incoming/Outgoing Signaling Characteristics (ISC/OSC) of Q931.

If XTSTT does not equal to N, and this field is non-**"Blank"** , then the field is populated with the transmission thru switch test number. If a test is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the XTSTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If XTSTT is Siemens' ATME A transmission test line (ATMA), the XTSTN should be specified as **"061"** for International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5) trunks or **"1"** for CCITT6, International Integrated Services Digital Network User Part (INUP), or CCITT7 Telephone User Part (TUP) trunks.

Continued on next page

Form Entries, Continued

XTMTT Transmission Terminating Test Type – If a transmission test is to be made directly to the far end of this Trunk Subgroup (TSG) in a terminating mode, enter a code to identify the type of test.

- **T100** - 100 code test - This test provides a quiet termination (600 ohms). In the 4ESS Switch, the 100 code test provides a sequence of 1000 hz. milliwatt tone for 5.5 seconds, followed by quiet termination until disconnect.
- **T102** - 102 code test - The 102 test provides 1000 hz. milliwatt tone. The 4ESS Switch provides cycles of 9-second tone and 1-second quiet termination until disconnect.
- **T105** - 105 code test - This code provides access to a Automatic Trunk Measuring System (ATMS) responder. The 105 test permits automatic transmission loss and noise measurements in both directions.
- If no test is to be made, enter **"N"** for None.

XTMTN Transmission Terminating Test Number – If Transmission Terminating Test Type (XTMTT) is **"N"** for None, leave this field **"Blank"** . If a test is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the XTMTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location.

Continued on next page

Form Entries, Continued

S1-10

These fields are reserved for future use in order to be able to implement new capabilities in a more timely fashion. When a new capability is requested for Generic Programs currently deployed in the field, one of these spare fields will be designated for use in implementing that capability.

S1 - Valid entries are **"Blank"**, or **"0-7"**.
S2-10 - Valid entries are **"Blank"**, **"Y"**, or **"N"**.

- S2 - (4E18/4E19/4E20) - An entry of **"Y"** in this field identifies Signaling System 7 (SS7) trunks which have their Per Channel Inhibit Signaling (PCIS) bits reset to force a steady state AB bit indication. Otherwise, enter **"N"** or leave **"Blank"**. In 4E21, the CODSC field will replace the use of S2 for this purpose.

- S2 - (4E21R4) This Trunk Subgroup (TSG) parameter allows TSG circuits to trigger the Advanced Intelligent Network (AIN) processing. The parameter can have the following values: **"Blank"**, **"N"** for no access allowed, and **"Y"** for access allowed. The default is **"N"**.

- S5 - Unassigned - Reserved for future use.

- S6 (4E18/19/20) - this Trunk Subgroup (TSG) parameter indicates the allowed Information Transfer Capability (ITC) coding in the outgoing Initial Address Message (IAM). The parameter can have the following values: **"Blank"**, **"N"** (use office) to encode the outgoing IAM, User Service Information (USI) parameter ITC field, the same as used in the office indicator, and **"Y"** (use opposite of office) to encode the outgoing IAM, USI parameter ITC field, with the opposite of what is used in the office indicator. The default is "use office".

NOTE: An entry of "0-7" in the S1 field or a "Y" in any of the fields S2 thru S10 without knowledge of the capability to which the field has been assigned may result in undesirable switch behavior.

Continued on next page

Form Entries, Continued

Table 1

TABLE 1
VALID CHARACTERISTICS FOR TWO-WAY TRUNK SUBGROUPS

ISC — TYPE OF TRUNK (TOT)

SIGNALING TYPES	ETC	INTL	INTLO	ITAND	ITOLL	ITOPA	LCC	LSP	NSDSD	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC
CCITT5		X	X													
CCITT6		X	X													
DOMCCIS				X	X				X				X		X	X
DPDDSD				X	X						X		X	X	X	X
DPIMADG				X	X								X	X	X	X
DPIMMED				X	X						X		X	X	X	X
DTMFWK											X			X		
DTS											X			X		
INUP		X	X													
ISUP	X			X	X		X	X		X	X	X	X		X	X
MFDDSD				X	X						X		X		X	X
MFOPWK						X										
MFWINK	X			X	X		X	X		X	X		X		X	X
Q931											X					
TUP		X	X													

RING FORWARD ALLOWED

(RFA)	Y/N	Y	Y	N	Y	Y	Y/N	Y/N	N	Y/N	N	Y/N	Y	N	Y/N	N

Continued on next page

Form Entries, Continued

Table 2

TABLE 2
VALID CHARACTERISTICS FOR TWO-WAY TRUNK SUBGROUPS

OSC	TYPE OF TRUNK (TOT)															
SIGNALING TYPES	ETC	INTL	INTLO	ITAND	ITOLL	ITOPA	LCC	LSP	NSDSD	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC
CCITT5		X	X													
CCITT6		X	X													
DOMCCIS				X	X				X				X		X	X
DPDDSD				X	X						X		X	X	X	X
DPIMMED				X	X						X		X	X	X	X
DPWINK				X	X						X		X	X	X	X
DTMFWK											X			X		
ICOPNOP						X					X			X		
INUP		X	X													
ISUP	X			X	X		X	X		X	X	X	X		X	X
MFDDSD				X	X		X				X		X		X	X
MFWINK	X			X	X		X	X		X	X		X		X	X
MIOPNOP											X			X		
Q931											X					
TUP		X	X													

Continued on next page

Form Entries, Continued

Table 3

TABLE 3
RELATIONSHIP BETWEEN CHARACTERISTICS AND STATE OF TRUNKS IN TRUNK SUBGROUP

CHARACTERISTIC	STATE OF TRUNKS IN TRUNK SUBGROUP		
	NO TRUNKS ALLOWED	MANUALLY DISABLED	ANY STATE
ISC (to or from CCITT5 or CCS)	X		
OSC (to or from CCITT5 or CCS)	X		
ISC (except to or from CCITT5 or CCS)		X	
OSC (except to or from CCITT5 or CCS)		X	
ADIG		X	
C1STO2W		X	
CCIS2WIRE	X		
DOM		X	
AOPC	X		
DPC		X	
REV	X		
RFMP	X		
TSGBBC		X	
ALL OTHER CHARACTERISTICS			X

CCS = Common Channel Signaling (CCITT6, DOMCCIS, INUP, Q931, TUP)

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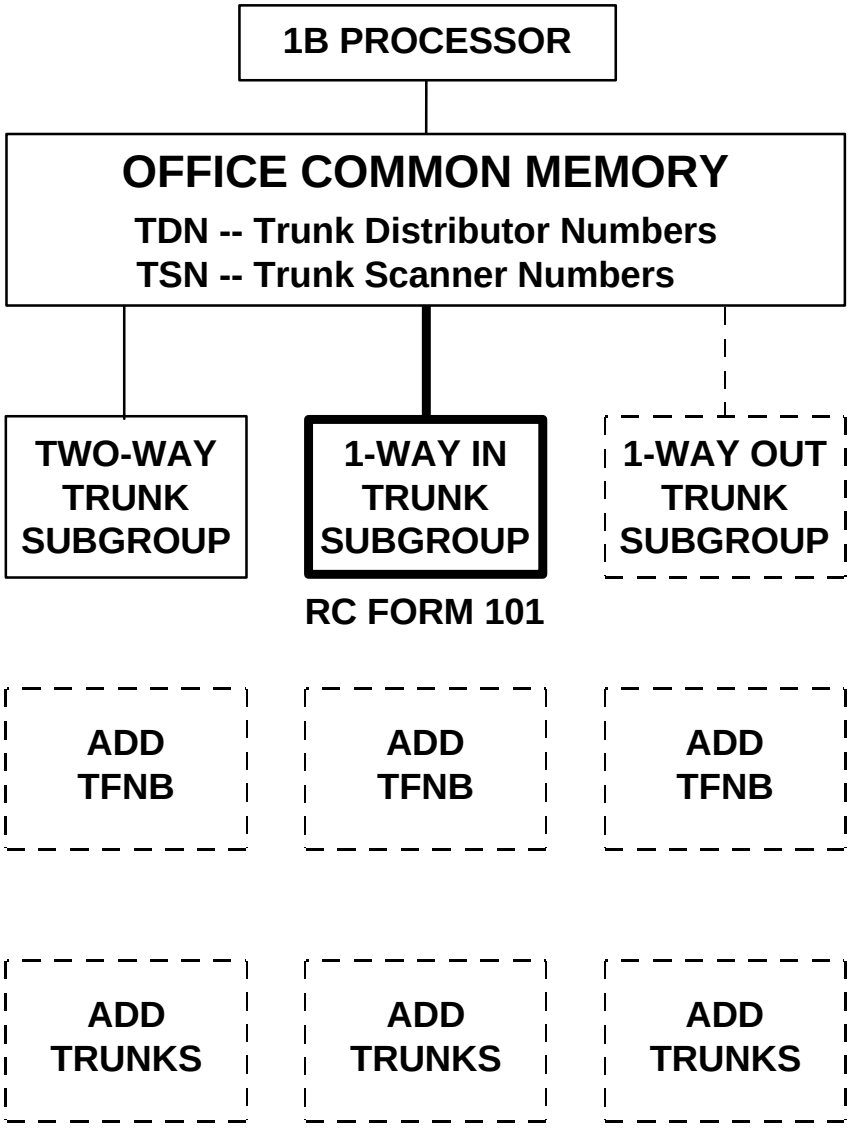
RC Form 101

General

Recent Change (RC) Form 101 establishes the translations for a new one-way incoming Trunk Subgroup (TSG). This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section, starting on page 44.



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RC Form 101, Continued

General
(cont'd.)

```
# FORM 101           ADD A NEW ONE WAY INCOMING TRUNK SUBGROUP
  4E22

RC:TSG;NEW;OPT(IN1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                      DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

QTFN ___,   TOT ______, SAT _,             DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                       CCIS2WRE _, CBNPR _,

BN ___________, BRL _,  ITC _,  GSDN _,   GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _,          PSATP _, PBXESGD _,        PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,  S5EIG _,  SDS _,  FVSR _,  IFITR _,  PCPEACEL _, UT15DA _,
LRN _______________, CBN DIGS ________, CBN _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _,
CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                        ASSOCIATED VERIFY MESSAGES

                        INPUT-11a-VER:TSG:CIN....
                        INPUT-11c-VER:TSG:TSGN....

               OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

                OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 101, Continued

General
(cont'd.)

```
# FORM 101           ADD A NEW ONE WAY INCOMING TRUNK SUBGROUP
  4E23R1

RC:TSG;NEW;OPT(IN1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                      DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

QTFN ___,   TOT ______, SAT _,             DOM _____,          IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                  PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _,           PSATP _, PBXESGD _,       PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,  IFITR _,  PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
CID _____,
ANCR _,  ACCID __,  PSTNG _,  FLDSPR _, REVAMP _, E1T1 _, SUPBLK _,  ATRIG _,
IXC _, FELN _, HUNT __, CSN __,
CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS _____________________________________________________!

                     ASSOCIATED VERIFY MESSAGES

                     INPUT-11a-VER:TSG:CIN....
                     INPUT-11c-VER:TSG:TSGN....

               OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

                OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 101, Continued

General
(cont'd.)

```
# FORM 101           ADD A NEW ONE WAY INCOMING TRUNK SUBGROUP
  4E24

RC:TSG;NEW;OPT(IN1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                      DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

QTFN ___,   TOT ______, SAT _,             DOM _____,          IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                       CCIS2WRE _, CBNPR _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                 PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _,           PSATP _, PBXESGD _,       PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5EIG _,  SDS _,  FVSR _,  IFITR _,  PCPEACEL _, UT15DA _,
LRN _______________, CBN DIGS ________, CBN _,
CID _____, NCAR _, TTA _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FELN _, HUNT __, CSN __, CARSON __, SOIP __,
CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS _____________________________________________________!

                       ASSOCIATED VERIFY MESSAGES

                       INPUT-11a-VER:TSG:CIN....
                       INPUT-11c-VER:TSG:TSGN....

              OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

               OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 101, Continued

General
(cont'd.)

```
# FORM 101   ADD A NEW ONE WAY INCOMING TRUNK SUBGROUP
  4E25

RC:TSG;NEW;OPT(IN1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                    DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

QTFN ___,   TOT ______, SAT _,             DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                 PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _,           PSATP _, PBXESGD _,       PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,   IFITR _, PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
CID _____, NCAR _, TTA _, EACC __, LCVT _, QPE _, NSA _,
ANCR _,  ACCID ___, PSTNG _,  FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FELN _, HUNT __, CSN __, CARSON _, SOIP _, TCC __, STBI _,

CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                        ASSOCIATED VERIFY MESSAGES

                        INPUT-11a-VER:TSG:CIN....
                        INPUT-11c-VER:TSG:TSGN....

              OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

               OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Form Entries

RC:TSG;NEW;OPT(IN1WAY),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

Continued on next page

Form Entries, Continued

PCF

Point Code Format - This field is used to specify the format of the point code that is being entered in the point code field. If no entry is being made in the Destination Point Code (DPC) (Originating Point Code [OPC]) field, then this field must be left **"Blank"**. Three different formats are available for input: **ATT, ANSI,** or **ISPC**.

ATT is used for AT&T standard input/output which consists of a three digit network indicator, a two digit cluster region, a one digit cluster type, and a three digit cluster member.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CR**: Cluster Region - This value specifies the region of the signaling network where the office is located. Valid entries are **"00-31"**.

3. **CT**: Cluster Type - Valid entries are **"0-7"**.

4. **MEM**: - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

ANSI is used to indicate that the input/output is in the American National Standards Institute format which consists of a three digit network indicator, a three digit cluster, and a three digit member number.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CLU**: Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"000-255"**.

3. **MEM**: Member Number - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

Continued on next page

Form Entries, Continued

PCF (cont'd)

ISPC is used for international signaling point code input/output which consists of a one digit world geographical zone, a three digit area/network identifier, and a one digit signaling point identifier. Reference: International Consultative Committee for International Telephone & Telegraph Signaling System (CCITT) Recommendation "Numbering of International Signaling Point Codes", Vol. VI, Rec. Q.708.

1. **WGZ**: World Geographical Zone - This value specifies the world geographical zone of the office. Valid entries are "**1-7**".

2. **ANI**: Area/Network Identification - This value specifies a geographical area or network in a specific zone. Valid entries are **"000-255"**.

3. **SPID**: Signaling Point Identification - This value specifies a signaling point in a specific geographical area or network. Valid entries are **"0-7"**.

AOPC

Alias Origination Point Code - This field will provide a unique combination of a Local Exchange Carrier (LEC) Signal Transfer Point (STP) Point Code (PC) and an AT&T STP PC for each Local Access Transport Area (LATA) dedicated D-link set via a logical point code. AOPC, if entered, must be entered in the ATT format. See the Point Code Format (PCF) field for the format description. AOPC may only be entered when the PCF field is not **"Blank"**.

Continued on next page

Form Entries, Continued

DPC

Destination Point Code - This field is used to specify the Destination Point Code of the far-end switch.

This field entry is divided into three subfield entries:

1. NET - Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"Blank"**, **"000-255"**.

2. CLU - Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"Blank"**, **"000-255"**.

3. MEM - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"Blank"**, **"000-255"**.

For the Trunk Subgroup (TSG) forms, nine digits must be entered, depending on the format specified in the Point Code Format (PCF) field. Nine digits must be entered if PCF is American National Standards Institute (ANSI) format. An entry must be made in this field if either the Incoming Signaling Characteristics (ISC) or Outgoing Signaling Characteristics (OSC) field value is **"ISUP"**, **"INUP"**, or **"TUP"**; otherwise this field must be **"Blank"**.

Continued on next page

Form Entries, Continued

FENCLASS This field specifies the classification of the Far End Network (FEN). If the Trunk Subgroup (TSG) is not associated with any FEN, this field is left **"Blank"**. The FEN with which the TSG is to be associated must be described via 4ESS Switch RC 617.

For RC 524, this field identifies the class for accumulating counts.

The following classifications are available:

- **ACCESA** - This identifier specifies that the TSG is a link to an Inter-exchange Carrier (IC) or International Carrier (INC), and the 4ESS Switch is being used by a Local Exchange Carrier (LEC) as an Access Tandem (AT) and/or Service Switching Point (SSP) to switch calls from this TSG.

- **CAMA** - This identifier specifies that the TSG is terminated on an office which delivers traffic on Centralized Automatic Message Accounting (CAMA) trunks.

- **CMC** - Cellular Mobile Carrier - This identifier specifies that the FEN is a CMC. The TSG connects an Access Tandem (AT) and a CMC.

- **OWATS** - This identifier specifies that the TSG is a link to a Private Branch Exchange (PBX) over which only Outward Wide Band Area Telephone Service (WATS) calls are allowed.

- **OEO** - Other End Office connecting, meaning an Equal Access End Office (EAEO) owned by a different company. This identifier specifies that the FEN is an OEO. The TSG connects an Access Tandem (AT) and an OEO.

- **PBX** - This identifier specifies that the TSG is a link to a PBX.

- **POTS** - This identifier specifies that the TSG is a link to a switching machine serving either a Local Access Transport Area (LATA) of the Local Exchange Carrier (LEC) owning/sharing the 4ESS Switch, the Continental United States/Plain Old Telephone Service (POTS) (CUSP) network of the IEC owning/sharing the 4ESS Switch, or some other FEN to be treated similarly.

Continued on next page

Form Entries, Continued

FENID

Far End Network (FEN) Identification - This field distinguishes the specific FEN with which this Trunk Subgroup (TSG) is associated. One to six alphanumeric characters may be entered to distinguish among several FENs with the same classification, or the field may be left **"Blank"**. If FENCLASS is **"Blank"**, FENID must also be **"Blank"**.

When the FENCLASS is ACCESA or ACCESI, FENID should consist of type of feature group access and the 4 numeric digits of the Carrier Identification Code (CIC).

The type of feature group definitions are:

- **G** - All access types (B, C, & D).
- **B** - Feature Group B Access.
- **C** - Feature Group C Access.
- **D** - Feature Group D Access.

Examples include:

- **G0288** - Carrier ID 288 has Feature Group B, C, & D access.
- **BC0288** - Carrier ID 288 has Feature Group B & C access.
- **BD0288** - Carrier ID 288 has Feature Group B & D access.
- **B2882** - Carrier ID 2882 has Feature Group B access only.
- **D2882** - Carrier ID 2882 has Feature Group D access only.

For an access type, both B2882 and D2882 can exist but be for different carriers.

Continued on next page

Form Entries, Continued

TFG

Type of Feature Group - This field is used to specify whether the Type of Access for this Trunk Subgroup (TSG) is tariffed under Feature Group B, Feature Group C, or Feature Group D. An entry can only be made if the FENCLASS is ACCESA. If FENCLASS is ACCESA, a **"B"**, **"C"**, or **"D"** must be entered, corresponding to Feature Groups B, C, or D, respectively. FENCLASS is not ACCESA, this field must be left **"Blank"**.

TSGBBC

Trunk Subgroup (TSG) Broadband Capability - Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q.931 signaling systems allow for broadband switching. This entry specifies what type of circuits may be populated in this TSG. Valid entries are:

- **Blank** - 1 trunk circuit
- **0** - 1 trunk circuit
- **1** - 6 trunk circuits
- **2** - 24 trunk circuits
- **3** - Combined usage 1 and 6 trunk circuits
- **4** - Combined usage 1 and 24 trunk circuits
- **5** - Combined usage 6 and 24 trunk circuits
- **6** - Combined usage 1, 6, and 24 trunk circuits.

Continued on next page

Form Entries, Continued

QTFN

Quantity of Traffic Numbers - This field specifies the size of the block of traffic numbers to be reserved with this input form beginning with the Base Traffic Number (BTFN) for this Trunk Subgroup (TSG). Traffic numbers must be allocated in groups of 24. Enter a multiple of 24 in the range of **"24 -504"**. If more than 504 traffic numbers are required for a given TSG, additional blocks of 24 may be added using RC Form 104. The total quantity of reserved traffic numbers should be equal to or greater than (to the nearest 24) the maximum size projected for this TSG during the engineering interval. This total should not include other blocks of traffic numbers that may be assigned separately with RC Form 104.

The maximum number of trunks that can be assigned to one TSG is 1023. If a TSG requires more than 1023 trunks and consequently more than 1023 traffic numbers, it must be split into two TSGs. The breakpoint must be a multiple of 24 and less than 1023 which makes 1008 trunks the logical maximum for one TSG. If for example, 1300 trunks were required between point A and point B, two TSGs should be built. The first TSG would contain 1008 trunks, and the second TSG would contain 292 trunks. The two TSGs would be linked in the Routing Data Block (RDB).

The 4ESS Switch feature, Inward Wide Band Area Telephone Service (INWATS) terminating directly to a customer's Automatic Call Distributor, has a limitation of 1023 TSGs totaling 24552 trunks (1023 trunk blocks of 24 registers).

For Voice Frequency Link (VFL) TSGs, if the traffic numbers for the VFLs are separated by 100, e.g., 801 IPLS IN 01 MSP and 901 IPLS IN 01 MSP, the QTFN must be 24 for building new TSGs. Then build the second set of 24 traffic numbers using RC Form 104.

Continued on next page

Form Entries, Continued

TOT

Type of Trunk - This field specifies the trunk type for this Trunk Subgroup (TSG). TOT entries of **"ETC"** for End Office or Tandem Connecting, **"LCC"** for Local Exchange Carrier Connecting, and **"OCC"** for Other Carrier Connecting are used for network interconnect. When these TOT values are used on Integrated Services Digital Network User Part (ISUP)
trunks, the Local Exchange Carrier (LEC) (Bellcore TR-317) and/or network interconnect version (TR-394) of the ISUP protocol is used. For all other allowed TOT values, the AT&T version of the ISUP protocol is used. The codes that may be entered are as follows:

- **CAMAA** – Centralized Automatic Message Accounting with Automatic Number Identification (ANI).
- **CAMAO** – Centralized Automatic Message Accounting with Operator Number Identification (ONI).
- **ETC** - End Office or Tandem Office Connecting - This Type of Trunk (TOT) is used to identify Equal Access (EA) or Intra Local Access Transport Area (IntraLATA) trunks at a switch serving as an Access Tandem (AT) or Service Switching Point (SSP) where the other end connects to an End Office. This TOT is also used to identify EA trunks between ATs or between an AT and a switch serving as an SSP. When the type of trunk is ETC, the signaling characteristic of the Trunk Subgroup (TSG) must be either Multifrequency Wink (MFWINK) or ISUP.
- **INTL** - International - International circuit with the far end outside of World Zone 1, and having signaling characteristics of International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5), CCITT6, International ISUP (INUP), and CCITT7 Telephone User Part (TUP).
- **INTLO** - International Overflow - International Overflow circuit (for overflow transit traffic) with the far end inside World Zone 1 in another International Switching Center (either the U.S. or foreign).
- **ITAND** - Inter Tandem - This TOT can be used to handle traffic between two tandem switchers in the same local calling area.

Continued on next page

Form Entries, Continued

TOT (cont'd)

- **ITOLL** - Intertoll - Intertoll trunks will carry toll traffic between class 4 or higher offices, or trunks dedicated to Inter-International Switching Center (inter-ISC) international overflow traffic. This includes final, full and high usage TSGs.
- **ITOP** - International Operator - International Operator tandem trunk from a No. 5 switchboard.
- **ITOPA** - International Operator Trunk A – International Operator Center 3C/3CL switchboards associated with Operator Bridged Access Trunks (OBAT). Each OBAT has two appearances on the A trunk and B trunk.
- **ITOPB** - International Operator OBAT B Trunk - Operator bridged access Trunk B from 3C/3CL switchboard.
- **LCC** - Local exchange Carrier Connecting - This TOT is used to identify EA trunks at an AT&T switch This identifier is also used for outgoing ISUP trunks from the Interexchange Carrier/International Exchange Carrier (IC/INC) to an SSP office. When the type of trunk is LCC, the signaling characteristic of the TSG must be either MFWINK or ISUP and the Equal Access Signaling (EAS) field must be marked as either "**E**", "**A**", "**D**" or "**R**".
- **MISC** - Miscellaneous - This designation is used for operator (except for inward, leave word or 2-way operator trunks), service circuit, and other miscellaneous TSGs.
- **NSDSD** - Network Services Frame Direct Services Dialing Capability - This identifier indicates trunks in this TSG are used to interface the Network Services Frame (NSF) for Direct Services Dialing Capability (DSDC) features. This TSG may only have two way Common Channel Interoffice Signaling (CCIS) characteristics. This TSG is not hunted via normal routing mechanisms, so there can be only one TSG bearing this TOT designation (all trunks connecting a 4ESS Switch to its DSDC equipped NSF must be in the same TSG).

Continued on next page

Form Entries, Continued

TOT (cont'd)

- **OCC** - Other Carrier Connecting - This TOT is used to identify EA trunks at a switch serving as an AT or SSP where the other end connects to an IC or INC switch. This type of trunk should be used when the signaling on the TSG is MFWINK or ISUP.

- **PBX** - Private Branch Exchange - This identifier indicates that the trunks in this TSG terminate on a PBX unit. If the PBX interface is via a 2-wire PBX Channel Unit (J98726ST), then the Incoming Signaling Characteristics (ISC) should be Dial Pulse Immediate (DPIMMED) and the Outgoing Signaling Characteristics (OSC) should be Dial Pulse Wink (DPWINK).

- **SECIT** - Secondary Intertoll - These trunks interconnect toll switching machines and manually operated toll or assistance switchboards for routing of operator completed traffic.

- **STC** - Single Trunk Customer - This TOT is used to designate a TSG for single trunk terminations not supported by a PBX. When TOT is STC, the following TSG fields must be **"Blank"** or **"N"** as allowed: ANISID, APS, BRL, CCIS2WRE, DNHR, DPC, EAS, FAR4E, PBXAW, PBXESGD, REV, RFA, RFMP, SAT, SINDEX, TFG, TSGBBC, WANISID, XCPA.

- **TAND** - Tandem - This code is used for 2-way tandem, tandem completing and tandem connecting TSGs.

- **TOLLC** - Toll Connecting or Completing - This code is used for Direct Distance Dialing (DDD) access, toll connecting or toll completing TSGs.

- **TSPS** - Traffic Service Position System - Enter this designation for TSGs associated with TSPS.

Continued on next page

Form Entries, Continued

SAT

Satellite - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not this Trunk Subgroup (TSG) is associated with satellite facilities. This entry performs a screening function to avoid two satellite TSGs from being connected together to complete a call. If the incoming TSG has SAT = "Y", then call processing will insist the outgoing TSG must have SAT = "N". This can also be used for local screening functions even though the TSG is not via a satellite.

For Voice Frequency Link (VFL) TSGs, satellite facilities cannot be used for a domestic Common Channel Interoffice Signaling (CCIS) system, i.e. if DOM is Plain Old Telephone Service (POTS), then SAT must be **"N"**.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), International Direct Distance Dialing (IDDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (0 through 19). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be ITOLL, MISC, or TSPS or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e. CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.
- **I64C** -This transport domain is used to route 64 kbps clear international data calls up to an ISC.
- **I56D** -This transport domain is used to route 56 kbps international data calls up to an ISC.

Continued on next page

Form Entries, Continued

DOM (cont'd)

- **APN** - Action Point Numbering Plan - This domain is used as an access domain for originating Direct Connect voice or data calls. The calls arrive at the 4ESS Switch as 10-digit calls. When DOM equals APN, then TOT must be PBX or STC for TSG forms.

NOTE: For Voice Frequency Link (VFL) TSGs, this field identifies the domain in which this TSG operates. Valid inputs are "POTS" (if VFL is associated with a domestic Common Channel Interoffice Signaling [CCIS] system).

IT

Intertoll Treatment - This field is used when the domain of the Trunk Subgroup (TSG) is Plain Old Telephone Service (POTS) and the type of trunk is either End Office or Tandem Connecting (ETC) or Other Carrier Connecting (OCC) to specify whether the TSG should receive intertoll treatment (IT="**Y**") or toll connect treatment (IT=**"N"**) or **"Blank"**. Intertoll treatment means that the call is routed in the POTS intertoll domain, that is, a normal 7-digit call will be terminated in the home Numbering Plan Area (NPA).

((4E22>) - Offices using Traditional routing only). Toll connect treatment means that the call is terminated in the NPA specified by the Far End Numbering Plan Area (FENPA) field.

This field should be set to "**Y**" in any FENPA that is not the Home NPA

((4E22>) - Offices using Traditional routing only) or a Served NPA. This field can also be set to "**Y**" in the Home NPAs

((4E22>) - Offices using Traditional routing only) or Served NPAs to force the POTS-IT domain.

FAI

Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

FENPA

Far End Numbering Plan Area/Trunk Subgroup (TSG) - Enter a 3-digit Numbering Plan Area (NPA) code to identify the far end of the subgroup. Valid entries range from **"200-999"**. With an International Trunk Subgroup, if the far end of the Trunk Subgroup is outside World Zone 1, enter the 1-, 2-, or 3-digit country code. Valid ranges of Country Code entries are **"2-9"**, **"20-99"**, and **"200-999"**.

This field is the NPA of the Far-End Office. If this office is not in the Home or Served area, then the Domain will be Plain Old Telephone Service-Intertoll/Intertandem (POTS-IT) and the IT field will be forced to **"Y"** in a Local Exchange Carrier (LEC) switch.

FEOFC

Far-End Office Code - This field is used to identify the office code of the far end switch. Typically this value will range from 200-999. Legal entries are: **"Blank"**, **000-999**.

FELATA

Far End Local Access Transport Area/Trunk Subgroup - This field is used to identify the Local Access Transport Area (LATA) of the far end switch. Legal entries are: **"Blank"**," **000-999"**.

FESC6

Far-End 6-Digit Screening - A **"Y"** for Yes or **"N"** for No indicates whether or not the far-end office which outpulsed the incoming digits is doing 6-digit screening. An **"N"** should be entered in this field if it cannot be determined whether or not the far-end is doing 6-digit screening.

If this field is equal to yes, then vacant code analysis assumes the far-end office will never outpulse a vacant central office code (NXX), vacant Numbering Plan Area (NPA) code, an originating Inward Wide Band Area Telephone Service (INWATS) call which has been denied originating capabilities, or an incorrect number of digits on this Trunk Subgroup (TSG).

Continued on next page

Form Entries, Continued

IWZ1 International World Zone 1 - Enter **"Y"** if this Trunk Subgroup (TSG) will carry international traffic within World Zone 1. Enter **"N"** or leave **"Blank"** if this TSG will not carry international traffic within World one 1. Valid entries are **"Blank"**, **"N"**, or "**Y**".

MEM Memory - This field is used to indicate if trunk hunt with memory is to be performed on this Trunk Subgroup (TSG) when searching for an idle trunk. Trunk hunt with memory is not performed on a TSG if the TSGBBC field is greater than zero (the MEM field should be set to **"N"** in this case). Enter **"N"** if trunk hunt with memory is not to be done. Enter **"Y"** or leave **"Blank"** if trunk hunt with memory is to be done.

PSES Prohibit Service Evaluation - An entry of **"N"** for No specifies that this Trunk Subgroup (TSG) is eligible for service evaluation by the No. 2 Service Evaluation System. An entry of **"Y"** for Yes specifies that the TSG is not eligible for service evaluation. Valid entries are **"Blank"**, **"Y"**, or **"N"**. Blank defaults to "**N**".

INSEP Incoming Traffic Separation Class - Enter a number in the range of **"0-255"** to indicate a traffic class for measurement purposes. This code will be used with the outgoing destination (Destination Separation [DESEP] on code group forms) to determine the peg and usage counts for traffic flow identification. Test position and test call Trunk Subgroups (TSGs) are generically assigned to Incoming Separation Class (INSEP) 31. This should be considered before assigning any other TSG to INSEP 31. Also, since service circuits, other non-message circuits, and 1-way outgoing TSGs have a generically assigned INSEP of zero, they will appear as part of TSG listings for INSEP zero. This fact should be considered before assigning any other Trunk Subgroup to INSEP zero.

Continued on next page

Form Entries, Continued

MTSC Multiple Treatment Screening Class - This field is used to assign an MTSC to this Trunk Subgroup (TSG). Multiple treatment screening may be used to separate routing treatments for TSGs in the same domain. An example is giving independent company trunks a different routing even though the received digits and domain are the same as some other TSG. All TSGs must have an MTSC in the range of **"0-63"**.

GNSC Go/No Go Screening Class - Go/No Go Screening may be used to block traffic dialing specific digits over a Trunk Subgroup (TSG). All incoming and two-way message TSGs are given a Go/No Go class in the range of **"0-3**". When this type of screening is required for a group of codes, those codes are correlated with a specific class and a "Go" or "No Go" condition (RC Forms 300-304). If a group of codes specify "Go" on a given class, those codes will be blocked on TSGs having a class other than the specified class. For a "No Go" correlation, a set of codes will not be blocked except on TSGs having the specified class. All blocked traffic is given the vacant code Final Handling Treatment (FHT).

GEOSEP Geographical Traffic Separation Class - Valid entries for this field are one or two digits in the range of "**0-31**" to indicate a traffic class for measurement purposes. This code is used with the Announcement Separation Class to score geographical survey counts in Mass Announcement System (MAS) offices.

Continued on next page

Form Entries, Continued

ISC

Incoming Signaling Characteristics - Enter one of the following codes to specify the incoming signaling characteristics required for this Trunk Subgroup (TSG).

- **DPDDSD** - Dial Pulse with Delay Dial/Start Dial.
- **DPIMADG** - Dial Pulse with Immediate start and "A" Digit reconstruction.
- **DPIMMED** - Dial Pulse with Immediate start (no delay).
- **DPIMPSW** - Dial Pulse Immediate Start Permanent Signal Wink Off.
- **DTMFWK** - Dual-Tone Multifrequency (DTMF) with Wink Start.
- **DTS** - Dial-Tone Start.
- **ISUP** - CCITT7 Integrated Services Digital Network (ISDN) User Part.
- **MFDDSD** - MF with Delay Dial/Start Dial.
- **MFOPWK** - MF Operator trunk with Wink start - International operator trunks.
- **MFWINK** - MF with Wink start.
- **TOLLMFD** - Toll operator MF Delay dial.
- **TSPSMFD** - Traffic Service Position System with MF Delay dial.
- **TSPSMFW** - Traffic Service Position System with MF Wink start.

Continued on next page

Form Entries, Continued

RFA

Ring Forward Allowed - Enter a **"Y"** for Yes or **"N"** for No to indicate if ring forward is allowed. All intertoll (ITOLL) trunks (Type of Trunk [TOT] field is equal to ITOLL) will require the RFA feature. All trunks that have the possibility of receiving operator calls from lower class offices will also require this feature. Each 4ESS Switch office must determine which Trunk Subgroups (TSGs) may receive operator type calls. These TSGs must have the RFA feature assigned.

ADIG

"A" Digit - Reconstruction will be necessary when receiving digits from a machine that absorbs the first digit of a dialed address. Valid entries are **"0"** or **"2-9"** if International Switching Center (ISC) equals DPIMADG. This field is **"Blank"** for all other cases.

CCIS2WRE

Common Channel Interoffice Signaling (CCIS) 2-Wire - This field should be **"Blank"** for a non-Common Channel Signaling (CCS) Trunk Subgroup (TSG). If this is a CCIS or Integrated Services Digital Network User Part (ISUP) TSG, then it must be determined whether the far end office will terminate the trunks in this TSG on a 2-wire or 4-wire switching network in order to perform the continuity check test on CCIS or ISUP trunks. The CCS continuity check tests will be performed by using the transceiver in either a transceive mode for 4-wire CCS trunks or in a transpond mode for 2-wire CCS trunks. Enter a **"Y"** for Yes if the far end office has a 2-wire network, e.g., 1 ESS/1A ESS 2-wire. Enter an **"N"** for No if the far end office has a 4-wire network, e.g., 1 ESS/1A ESS HILO, 4ESS, 5ESS®, etc.

Continued on next page

Form Entries, Continued

CBNPR

Calling Party Number/Billing Number Default Presentation Restriction Indicator - This field indicates whether the received CPN/BN can be passed from the network at the egress point or not. Enter **"Y"** if the default condition for the presentation of CPN/BN should be to restrict it. Enter **"N"** or leave **"Blank"** if the default condition for the presentation of CPN/BN should be unrestricted. This field applies to incoming trunks for which CPN/BN is pre-stored or on which CPN/BN can be received. For Integrated Services Digital Network User Part (ISUP) Trunk Subgroups (TSGs) with Type of Trunk (TOT) or Local Exchange Carrier Connecting (LCC), this field should be populated with a **"Y"**.

For 4E17 and later generics: Enter **"PA"** or **"Blank"** if the default condition for the presentation of CPN/BN should be unrestricted. Enter **"PR"** if the default condition for the presentation of CPN/BN should be to restrict it.

BN

Billing Number/Trunk Subgroup- This field is used to specify a BN associated with the TSG. It may be left **"Blank"**, or a **"3-"**, **"4-"**, or **"10-digit"** number may be entered. If FENCLASS is ACCESA or ACCESI, BN must be a 4-digit number (4-digit number if Type of Feature Group [TFG] is "B") equal to the (X)XXX corresponding to the inter-Local Area Transport Access (LATA) or International Carrier at the far end of the TSG. If FENCLASS is CMC, OWATS, or PBX, BN must be a 10-digit number. If the Automatic Call Distributor (ACD) field is **"Y"**, then BN must be a 10-digit number specifying the billing number of the INWATS ACD customer. If the ACD field is **"T"**, then BN must be **"199"**.

Continued on next page

Form Entries, Continued

BRL	Billing Record Length - This field is used to specify whether long or short Automatic Message Accounting (AMA) records should be created for calls on this Trunk Subgroup (TSG). An "**S**" should be entered if Short AMA records are required or an "**L**" should be entered if Long AMA records are required. If "**L**" is entered, both answered and unanswered calls are recorded. If "**S**" is entered, only answered calls are recorded. If this field is left "**Blank**", short AMA records will be made (if necessary). **NOTE: There is only one record length for Private Branch Exchange (PBX) calls, so this field should be used to indicate whether both answered and unanswered.**
ITC	Incoming Trunk Class - This value identifies the incoming trunk as belonging to one of four incoming classes. The ITC is used in conjunction with Local Exchange Carrier (LEC) Service Switching Point (SSP) call routing instructions to identify which Number Services Data Block (NDB) will be selected for picking a trunk to an Interexchange Carrier/International Carrier (IC/INC). The use of this field is similar to that of Multiple Treatment Screening (MTS) but is associated with the BOC SSP feature. Legal entries are "**Blank**" or "**0**-**3**".
GSDN.tsg	Not Applicable - Entries: "**Blank**"
GSDNPHSE	Not Applicable - Entries: "**Blank**"

Continued on next page

Form Entries, Continued

EAS

Equal Access Signaling - This field is used to specify if Equal Access Signaling (EAS) will be received on this Trunk Subgroup (TSG), and if so, whether Automatic Number Identification (ANI) is expected for the EAS calls. Note that this field only applies to an Inter-Local Access Transport Area (LATA) Carrier switch receiving EAS or an office with the Service Switching Point (SSP) feature receiving EAS. This field must be set to **"N"** for None if EAS is not received on the TSG. If EAS can be received on the TSG, but ANI is not expected for the EAS calls, then an **"E"** must be entered. If EAS can be received on the TSG, and ANI is expected on the EAS calls, then an **"A"** must be entered.

Entries of **"D"** and **"R"** in the EAS field are used to designate Feature Group D (FGD) only. If only FGD is received on the TSG, but ANI is not expected, then a **"D"** must be entered. If only FGD is received on the TSG, and ANI is expected, then a **"R"** must be entered.

This field only applies to an Inter-LATA Carrier switch receiving Equal Access Signaling (EAS), i.e., the Type of Trunk (TOT) value is Local Exchange Carrier Connecting (LCC).

CMTYP

Centralized Automatic Message Accounting (CAMA) Type - This field is used to specify the type of CAMA record made on this Trunk Subgroup (TSG). Enter **"1"** if the standard Operating Company CAMA record must be made on this TSG. Enter **"2"** if an Inter-Local Area Transport Access (LATA) Carrier CAMA record and an Operating Company access record must be made on this TSG. If TOT is not CAMAA or CAMAO, this field must be **"Blank"**.

NOTE: The entries correspond to the number of records which will be made.

Continued on next page

Form Entries, Continued

NPARINH	Inhibit Numbering Plan Area (NPA) Reconstruction - This field is used to specify whether NPA reconstruction for equal access calls or SDN should be inhibited on this TSG or not. ANI is taken to be NPA if only seven digits are received. If NPA reconstruction should be inhibited, enter **"Y"**, otherwise enter **"N"** or leave **"Blank"**. This field only applies to Local Exchange Carrier Connecting (LCC) Type of Trunks (TOTs). Valid entries are **"Blank"**, "**Y"**, or **"N"**.
WATSBN	General Wide Area Telephone Service (WATS) Billing Number - Enter a 10-digit billing number for each Trunk Subgroup (TSG) which will be used to carry WATS type traffic. If an entry is not required, then the field must be "**Blank**" . Valid entries are **"0000000000-999999999"** and **"Blank"** .
PSUUI	Prohibit Sending User-to-User Information - This field indicates whether to accept/send Message Associated (MA) UUI on this Trunk Subgroup (TSG). Legal values are **"Blank"**, **"Y"**, or **"N"**. Enter **"Y"** if MA-UUI should not be sent. This value should be used on access TSGs to prohibit the receipt of MA-UUI, and it should be used on egress TSGs to prohibit the sending of MA-UUI. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only.
BNPT	Not Applicable - Entries: **"Blank"**
WBNPT	Not Applicable - Entries: **"Blank"**
CMERGE	Not Applicable – Entries: **"Blank"**
SCFN	Send Confusion Messages - This field indicates if received Confusion messages are counted and if Confusion messages are to be sent when an unimplemented message is received. Valid entries are **"Blank"**, **"Y"**, or **"N"**.

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Form Entries, Continued

OVLP

Overlap Signaling- This field indicates if Consultative Committee for International Telephone & Telegraph Signaling System 7 (CCITT7) Overlap Signaling is allowed when processing an International Integrated Services Digital network User Part (INUP) or CCITT7 Telephone User Part (TUP) call. If OVLP is set to **"Y"**, then Overlap Signaling will be allowed on transit non-operator, non-test calls. The default value for this field is: **"Blank"** (Overlap Signaling not allowed).

PRIT

Not Applicable - Entries: **"Blank"**

APS

Accunet® Packet Service - This field is used to indicate if Accunet packet service can be performed on this Trunk Subgroup (TSG). Enter **"Y"** if Accunet packet service is allowed. Enter **"N"** or leave **"Blank"** if Accunet packet service is not allowed.

PSATP

Prohibit Sending Access Transport Parameters - This field indicates whether Access Transport Parameters (ATP) can be passed to or from a connecting network. Legal values are **"Blank"**, **"Y"** or **"N"**. Enter **"Y"** if ATP should not be sent. This value should be used on access Trunk Subgroups (TSGs) to prohibit the receipt of ATP; it should be used on egress TSGs to prohibit the sending of ATP. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only. This new field will not affect the sending of ATP at an Access Tandem (AT) switch.

PBXESGD

Private Branch Exchange (PBX) Expect Station Group Designation - This field is used for the Software Defined Network (SDN) feature and is set equal to **"Y"** if the SDN customer has a direct connect PBX that will append an extra digit to the dialed number to indicate authorization of calling station. A **"Y"** or **"N"** must be entered in this field if Type Of Trunk (TOT) is PBX and Domain (DOM) is Software Defined Network Access (SDNA), otherwise it must be set to **"N"** or left **"Blank"**.

Continued on next page

Form Entries, Continued

PBXAW	Private Branch Exchange Answer Withheld - This field is used to specify whether Answer Supervision can or cannot be sent to the PBX. An entry can only be made if Type Of Trunk (TOT) is PBX. A **"Y"** is entered if Answer Supervision is to be withheld. An **"N"** is entered if Answer Supervision should not be withheld (i.e., Answer Supervision is returned). If this field is left **"Blank"** Answer Supervision is returned (not withheld).
FAR4E	The FAR4E field is set to **"Y"** for Yes whenever the far end of the trunks in this Trunk Subgroup (TSG) is terminated on a 4ESS Switch with the international announcements. This is used in common channel signaling (Incoming Signaling Characteristics [ISC] is Domestic Common Channel Interoffice Signaling [DOMCCIS] or Integrated Services Digital Network User Part [ISUP]) to control sending backward failure messages on failed international calls. These switches are equipped with the international announcements. The FAR4E field also controls common channel signaling sending network management call preference data in a forward direction (OSC is DOMCCIS or ISUP). Such data must not be sent forward to switches not equipped to handle it. Enter **"N"** if the far end is not a 4ESS Switch or the 4ESS Switch does not have the international announcements. This field should be left **"Blank"** for International Consultative Committee for International Telephone & Telegraph Signaling System 7 [CCITT7] ISUP (INUP) trunks.
MEGC	Not Applicable – Entries: **"Blank"**
SDNA	Not Applicable - Entries: **"Blank"**
OWAT	Not Applicable - Entries: **"Blank"**
DATA	Not Applicable - Entries: **"Blank"**
CBC	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

DDD	Not Applicable - Entries: **"Blank"**
IDDD	Not Applicable - Entries: **"Blank"**
FOSPS	Not Applicable - Entries: **"Blank"**
SDNPLAN	Not Applicable - Entries: **"Blank"**
BFTIS	Backward Failure Treatment Integrated Services Digital Network User Part (ISUP) all the way. This field is used to specify whether an Announcement (ANN) should be played or a Release (REL) message should be sent when a call has gone ISUP all the way. On the Trunk Subgroup (TSG) Forms, this field is only used when signaling is ISUP and the type of trunk is OCC. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"REL"** when it applies. For Office Data Assembler (ODA) Form 406Z, this field is used for designating the action for intra-Local Access Transport Area (LATA) ISUP call failures occurring at the switch. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"REL"**.

Continued on next page

Form Entries, Continued

BFTNI

Backward Failure Treatment not Integrated Services Digital Network User Part (ISUP) all the way. This field is used to specify whether an Announcement (ANN) should be played or a Release (REL) message should be sent when a call has not gone ISUP all the way.

On the Trunk Subgroup (TSG) Forms, this field is only used when signaling is ISUP and the type of trunk is OCC. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"ANN"** when it applies.

For Office Data Assembler (ODA) Form 406Z, this field is used for designating the action for intra- Local Access Transport Area (LATA) ISUP call failures occurring at the switch when a call has not gone ISUP all the way. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"ANN"**.

SKSP

Not Applicable - Entries: **"Blank"**

PBXNWW

Private Branch Exchange (PBX) No Wait for Wink - An entry of **"Y"** in this field is used to specify that the Trunk Subgroup (TSG) has a PBX which does not wait for a wink from the 4ESS Switch before outpulsing digits. This field is used only for TSGs with a type-of-trunk value of PBX and signaling of Dual Tone Multifrequency Wink (DTMFWK). Enter **"Y"** if the PBX does not wait for a wink from the 4ESS Switch. Otherwise, enter **"N"** or leave **"Blank"**.

HYBRD

Not Applicable - Entries: **"Blank"**

CCTT

Not Applicable - Entries: **"Blank"**

INCID

Number of Carrier ID digits to be received - An entry of **"3"** specifies that the Trunk Subgroup (TSG) should expect to receive a 3-digit CID. An entry of **"4"** specifies that the TSG should expect to receive a 4-digit CID. An entry of **"B"** specifies that the TSG should expect to receive a 3- or 4-digit CID.

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Form Entries, Continued

ITELCO	Not Applicable - Entries: **"Blank"**
S5DIG	Not Applicable - Entries: **"Blank"**
SDS	Not Applicable - Entries: **"Blank"**
FVSR	Not Applicable - Entries: **"Blank"**
IFITR	Not Applicable - Entries: **"Blank"**
PCPEACEL	Not Applicable - Entries: **"Blank"**
UT15DA	Not Applicable - Entries: **"Blank"**
LRN	Location Routing Number: (4E22R2>) - To support Local Number Portability (LNP), a location Routing Number (LRN) has been defined to identify a Local Service Provider (LSP) End Office. LRN is used to provide Jurisdiction Information Parameter (JIP) if not present in an initial Integrated Services Digital Network User Part (ISUP) Initial Address Message (IAM) or if Incoming Trunk (ICT) is Multifrequency (MF) type signaling. Valid entries: **"Blank"** or a **"10-digit number"**.
CBN DIGS.tsg	(4E22R2>) Incoming Trunk TSG Connecting network access Billing Number Digits - a 10 digit TSG parameter. This field can only be populated if the CBN field is **"N"** - Non-Feature group-D signaled calls, or **"L"** - Local Number Portability (LNP) Non-Feature Group-D signaled calls. Entries: **"Blank"** or a **"10-Digit Number"**.

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Form Entries, Continued

CBN.tsg	Connecting network access Billing Number option. The following are the valid field entries: **"Blank"** - no special Automatic Message Accounting (AMA) recording options (the default), **"N"** - Non-Feature Group-D signaled calls, or **"L"** - Local Number Portability (LNP) Non-Feature Group-D signaled calls.
CID	Carrier ID. This field is populated with the pre-subscription carrier selected by the customer to handle inter-Local Access Transport Area (LATA) calls; and intra-LATA calls when intra-LATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. This field is only populated for ISC/OSC=Q.931.
NCAR	Not Applicable - Entries: **"Blank"**
TTA	Not Applicable - Entries: **"Blank"**
EACC	Not Applicable - Entries: **"Blank"**
LCVT	Not Applicable – Entries: **"Blank"**
QPE	Not Applicable – Entries: **"Blank"**
NSA	Not Applicable – Entries: **"Blank"**
ANCR	Not Applicable - Entries: **"Blank"**
ACCID	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

STNG	Not Applicable - Entries: **"Blank"**
FLDSPR	Not Applicable - Entries: **"Blank"**
REVAMP	Not Applicable - Entries: **"Blank"**
E1T1	Not Applicable - Entries: **"Blank"**
SUPBLK	Not Applicable - Entries: **"Blank"**
ATRIG	AIN TSG Trigger (4E22>) - This Trunk Subgroup (TSG) parameter allows TSG circuits to trigger the Advanced Intelligent Network (AIN) processing. The parameter can have the values: **"Blank"**, **"N"** (Do NOT allow access), **"Y"** (Allow access). The default is **"N"**.
IXC	Not Applicable - Entries: **"Blank"**
FELN	Not Applicable - Entries: **"Blank"**
HUNT	Not Applicable - Entries: **"Blank"**
CSN	Not Applicable - Entries: **"Blank"**
CARSON	Not Applicable - Entries: **"Blank"**
SOIP	Not Applicable - Entries: **"Blank"**

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

STBI Not Applicable - Entries: **"Blank"**

TCC Not Applicable - Entries: **"Blank"**

CAREA Control Area - Valid input for this field is a single digit in the range of **"0-9"**. This number identifies the Control Area that is to be associated with this Trunk Subgroup (TSG) for trouble reporting. The number assignable in a given office is limited, however, to the highest control area assigned at Office Data Assembler (ODA) time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location.

Any test position can access every trunk assigned to the 4ESS Switch with the exception of international trunks. International trunks having Incoming Signaling Characteristic (ISC) or Outgoing Signaling Characteristic (OSC) equal to Consultative Committee for International Telephone & Telegraph 5 (CCITT5) must be assigned to a CAREA that is equipped with 51AL6 test positions. The 51AL6 test position can access any trunk assigned to the 4ESS Switch. However, the alarms, Teletype (TTY) printouts, and 101 calls associated with a particular TSG will only be transmitted to the CAREA and CPOS that is specified on the input form for a TSG. A single trouble receiving location could be specified for all TSGs in the office. Trouble tickets might be originated here and distributed to occupied test positions as necessary. Some other typical applications could be to assign the TSGs to testboard positions alphabetically, by direction, by ownership, or by Type of Trunk (TOT).

The only other restraint on assigning a TSG to a particular CAREA and CPOS is that all positions might not have the optional equipment required to satisfactorily test some Trunk Subgroups. The arrangement in a given office depends on the administrative decisions made for that office.

Continued on next page

Form Entries, Continued

CAREA
(cont'd.)

Position 00 (CAREA 0, CPOS 0) has been assigned to the Master Test and Control Channel (MTC) teletype in the Maintenance Operating Center (MOC). This position was established to receive trouble reports for certain non-message type TSGs. Lucent Technologies recommend that positions
01-09 not be assigned in an office at this time. The circuits that should be assigned to test position 00 are:

- ACI*DCHN - D-Channel circuits to the Common Network Interface (CNI) Ring
- CLN*DLPC - Loopback/complement Data Test
- MAS*BIPB - Mass Announcement System (MAS) Barge-in Playback Trunk
- MIS*AART - Auxiliary Audible Ring Trunk
- MIS*TERM - Common Channel Interoffice Signaling (CCIS) Terminals
- SVC*AIN* - Advanced Intelligent Network (AIN)
- SVC*DMRV - Dual-Tone Multifrequency (MF) Receivers (DTMFR)
- VC*DMXM - Dual-Tone Multifrequency Transmitters (DTMFT)
- SVC*MFR* - Multifrequency Receivers
- SVC*MFX* - Multifrequency Transmitters
- SVC*XCVR - CCIS Continuity Check Transceivers
- SVC*XCVT - CCIS Continuity Check Transceiver Test Circuit
- SVC*MFRT - Multifrequency Receiver Test Circuits
- SVC*MFXT - Multifrequency Transmitter Test Circuits
- SVC*SCAN - Service Circuit System Expanded Announcements
- SVC*SCBN - Service Circuit System Expanded Announcements
- SVC*SCNS - Network Services Complex Set S
- TAS*ANN* - Recorded announcements
- TAS*TONE - Tone Circuits
- TAS*MWAT - 1004 hz at 0 dBm
- TAS*MW10 - 1004 hz at 10 dBm

Continued on next page

Form Entries, Continued

CAREA (cont'd.)

The balance of the non-message type TSG may be assigned to working testboard positions.

For RC Forms 604 and 605, this number identifies the Control Area that is to be associated with this announcement trouble report. The number assignable in a given office is limited, however, to the highest control area assigned at ODA time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location. If CAREA 0,
CPOS 0 is specified, all MAS messages will be sent to the MTC channel in the MOC.

CPOS

Control Position - Enter a number from **"0-9"** to specify the testboard position that is to be associated with the Trunk Subgroup (TSGs) and Control Area (CAREA) for test reporting purposes. This assignment together with the CAREA designation can be used to distribute the maintenance responsibility for Trunk Subgroups. This assignment does not prevent any test position from accessing a particular group of trunks. It is only for reporting purposes.

For RC Forms 604 and 605, enter a number from **"0-9"** to specify the testboard position that is to receive the announcement trouble reports. If CAREA is 0, only CPOS 0 is allowed. When the Message Announcement System (MAS) is administered by the Operations National Administration Center (ONAC), assign the CPOS that has been dedicated for its use.

SINDEX

Access Change Verification Sampling Rate Index value - This field specifies the rate at which calls will be sampled for access charge verification. Legal values are **"Blank"**, **"0"**, **"1"**, **"2"**, **"4"**, **"8"**, **"16"**, **"32"**, **"64". "Blank"** and **"0"** imply no verification recording. Otherwise, one call out of the number entered will be recorded.

Continued on next page

Form Entries, Continued

S1-10

These fields are reserved for future use in order to be able to implement new capabilities in a more timely fashion. When a new capability is requested for Generic Programs currently deployed in the field, one of these spare fields will be designated for use in implementing that capability.

S1 - Valid entries are **"Blank"**, or **"0-7"**.
S2-10 - Valid entries are **"Blank"**, **"Y"**, or **"N"**.

- S2 - (4E18/4E19/4E20) - An entry of **"Y"** in this field identifies Signaling System 7 (SS7) trunks which have their Per Channel Inhibit Signaling (PCIS) bits reset to force a steady state AB bit indication. Otherwise, enter **"N"** or leave **"Blank"**. In 4E21, the CODSC field will replace the use of S2 for this purpose.

- S2 - (4E21R4) This Trunk Subgroup (TSG) parameter allows TSG circuits to trigger the Advanced Intelligent Network (AIN) processing. The parameter can have the following values: **"Blank"**, **"N"** for no access allowed, and **"Y"** for access allowed. The default is **"N"**.

- S5 - Unassigned - Reserved for future use.

- S6 (4E18/19/20) - this Trunk Subgroup (TSG) parameter indicates the allowed Information Transfer Capability (ITC) coding in the outgoing Initial Address Message (IAM). The parameter can have the following values: **"Blank"**, **"N"** (use office) to encode the outgoing IAM, User Service Information (USI) parameter ITC field, the same as used in the office indicator, and **"Y"** (use opposite of office) to encode the outgoing IAM, USI parameter ITC field, with the opposite of what is used in the office indicator. The default is "use office".

NOTE: An entry of "0-7" in the S1 field or a "Y" in any of the fields S2 thru S10 without knowledge of the capability to which the field has been assigned may result in undesirable switch behavior.

Continued on next page

Form Entries, Continued

Table 4

TABLE 4
VALID CHARACTERISTICS FOR
ONE-WAY INCOMING TRUNK SUBGROUPS

ISC	TYPE OF TRUNK (TOT)																		
SIGNALING TYPES	CAMAA	CAMAO	ETC	INTL	INTLO	ITAND	ITOLL	ITOP	ITOPB	LCC	LSP	MISC	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC	TSPS
CCITT5				X	X															
CCITT6				X	X															
DOMCCIS						X	X									X		X	X	
DPDDSD	X	X				X	X					X		X		X	X	X	X	
DPIMADG	X	X				X	X					X					X	X	X	
DPIMMED	X	X				X	X					X		X		X	X	X	X	
DPIMPSW	X	X																		
DTMFWK														X			X			
DTS														X			X			
INUP				X	X															
ISUP			X			X	X			X	X		X	X	X	X		X	X	
MFDDSD	X	X				X	X					X		X		X		X	X	
MFOPWK								X	X											
MFWINK	X	X	X			X	X			X	X	X	X	X		X		X	X	
Q931														X						
TOLLMPD												X				X			X	X
TSPSMFD																X				X
TSPSMFW																X				X
TUP				X	X															

RING FORWARD ALLOWED

(RFA)	N	N	Y/N	Y	Y	N	Y	Y	Y	Y/N	Y/N	Y/N	Y/N	N	Y/N	Y	N	Y/N	N	Y

Continued on next page

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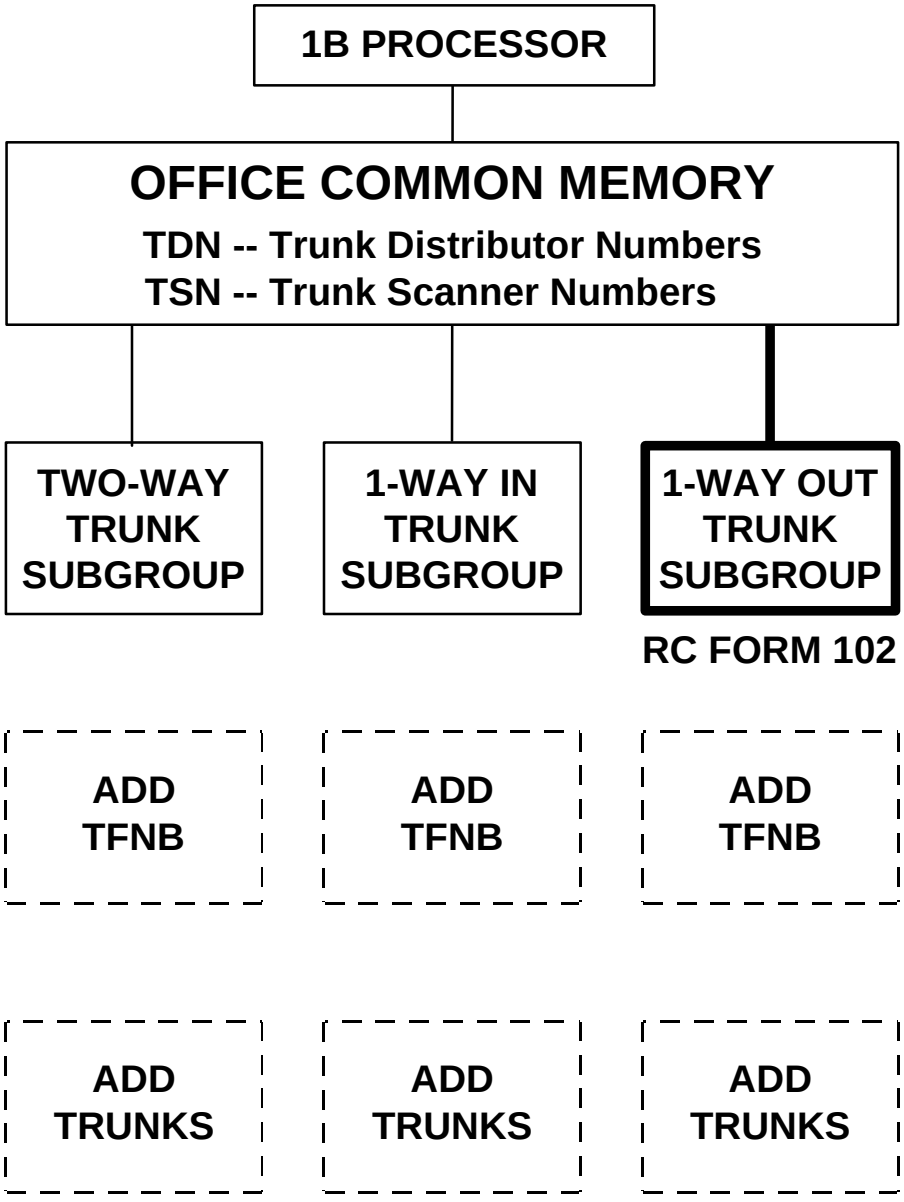
LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 102

General

Recent Change (RC) Form 102 establishes the translations for a new one-way outgoing Trunk Subgroup (TSG). This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section, starting on page 49.



Continued on next page

RC Form 102, Continued

General
(cont'd.)

```
# FORM 102          ADD A NEW ONE-WAY OUTGOING TRUNK SUBGROUP
  4E22

RC:TSG;NEW;OPT(OUT1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC ___________,                     DPC __________,

FENCLASS _______, FENID _______,          TFG _,    TSGBBC _,  VDCAP _____,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,
QTFN ___,   TOT ______, SAT _,            DOM _____, ACD _,              FAI _,
FENPA ___,  FEOFC ___, FELATA ___,                   IWZ1 _,
MEM _, PSES _,

                                                     CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,         DELAY ___,  MFSPEED __,
XCPA _,      DNP _,                                  PSOLI _,

BN ___________, BRL _,          GSDN _,
                PSBN _, PSCPN _,      ANISID _____, WANISID _____, PSUUI _,
BNPT _____,           CMERGE _,       SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                              DOFP _, SBRIV _,
                                                      FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,     CSCSET ______, CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _,
IXC _,
CAREA _,    CPOS _,   SINDEX __,          CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,             OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,             XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS _____________________________________________________!

                EQUIVALENT ODA INPUT FORM - ESS 401C

                     ASSOCIATED VERIFY MESSAGES

                     INPUT-11a-VER:TSG:CIN....
                     INPUT-11c-VER:TSG:TSGN....

              OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

               OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

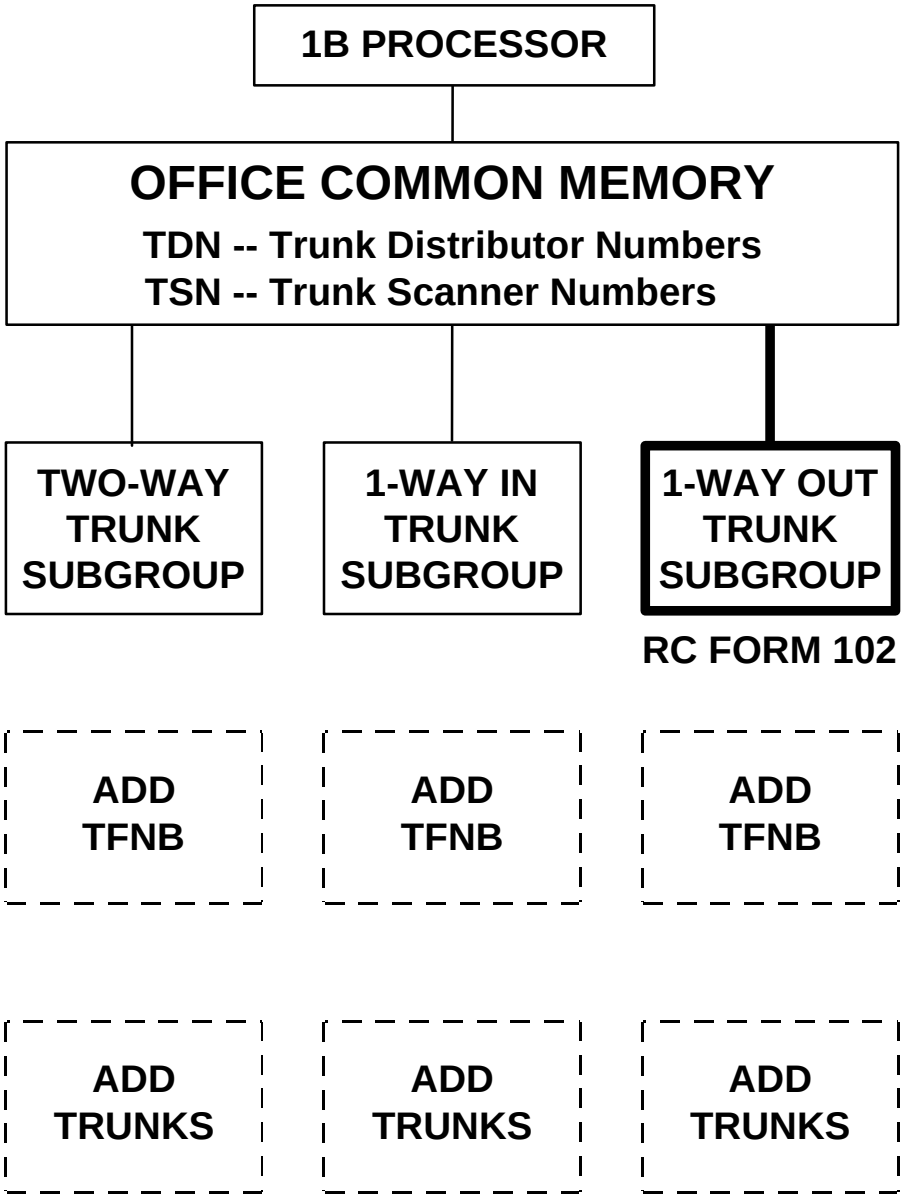
Continued on next page

RC Form 102

General

Recent Change (RC) Form 102 establishes the translations for a new one-way outgoing Trunk Subgroup (TSG). This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section, starting on page 49.



Continued on next page

RC Form 102, Continued

General
(cont'd.)

```
# FORM 102          ADD A NEW ONE-WAY OUTGOING TRUNK SUBGROUP
  4E22

RC:TSG;NEW;OPT(OUT1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC ___________,                     DPC __________,

FENCLASS _______, FENID _______,          TFG _,    TSGBBC _,  VDCAP _____,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,
QTFN ___,   TOT ______, SAT _,            DOM _____, ACD _,              FAI _,
FENPA ___,  FEOFC ___, FELATA ___,                   IWZ1 _,
MEM _, PSES _,

                                                     CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,         DELAY ___,  MFSPEED __,
XCPA _,      DNP _,                                  PSOLI _,

BN ___________, BRL _,          GSDN _,
                PSBN _, PSCPN _,      ANISID _____, WANISID _____, PSUUI _,
BNPT _____,           CMERGE _,       SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                              DOFP _, SBRIV _,
                                                      FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,     CSCSET ______, CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _,
IXC _,
CAREA _,    CPOS _,   SINDEX __,          CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,             OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,             XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS _____________________________________________________!

                EQUIVALENT ODA INPUT FORM - ESS 401C

                     ASSOCIATED VERIFY MESSAGES

                     INPUT-11a-VER:TSG:CIN....
                     INPUT-11c-VER:TSG:TSGN....

              OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

               OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 102, Continued

General
(cont'd.)

```
# FORM 102          ADD A NEW ONE-WAY OUTGOING TRUNK SUBGROUP
  4E23R1

RC:TSG;NEW;OPT(OUT1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC ___________,                     DPC ___________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,  VDCAP ______,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,
QTFN ___,   TOT ______, SAT _,             DOM _____, ACD _,            FAI _,
FENPA ___,  FEOFC ___, FELATA ___,                    IWZ1 _,
MEM _,      PSES _,

                                                      CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,  MFSPEED __,
XCPA _,      DNP _,                                   PSOLI _,

BN ___________, BRL _,          GSDN _,
                PSBN _, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,              CMERGE _,     SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                 DOFP _, SBRIV _,
                                                         FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,     CSCSET ______, CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _,
IXC _, FOLI _, FELN _, HUNT __, CSN __,
CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _, TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                EQUIVALENT ODA INPUT FORM - ESS 401C

                     ASSOCIATED VERIFY MESSAGES

                     INPUT-11a-VER:TSG:CIN....
                     INPUT-11c-VER:TSG:TSGN....

           OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

            OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 102, Continued

General
(cont'd.)

```
# FORM 102          ADD A NEW ONE-WAY OUTGOING TRUNK SUBGROUP
  4E24

RC:TSG;NEW;OPT(OUT1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC ___________,                     DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,  VDCAP ______,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,
QTFN ___,   TOT ______, SAT _,             DOM _____, ACD _,              FAI _,
FENPA ___,  FEOFC ___, FELATA ___,                    IWZ1 _,
MEM _, PSES _,

                                                      CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,  MFSPEED __,
XCPA _,      DNP _,                                   PSOLI _,

BN ___________, BRL _,          GSDN _,
                PSBN _, PSCPN _,      ANISID _____, WANISID _____, PSUUI _,
BNPT _____,              CMERGE _,    SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                               DOFP _, SBRIV _,
                                                       FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,     CSCSET ______, CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _, NCAR _, TTA _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _,
IXC _, FOLI _, FELN _, HUNT __, CSN __, CARSON __, SOIP __,
CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                EQUIVALENT ODA INPUT FORM - ESS 401C

                     ASSOCIATED VERIFY MESSAGES

                     INPUT-11a-VER:TSG:CIN....
                     INPUT-11c-VER:TSG:TSGN....

              OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

               OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 102, Continued

General
(cont'd.)

```
# FORM 102   ADD A NEW ONE WAY OUTGOING TRUNK SUBGROUP
  4E25

RC:TSG;NEW;OPT(OUT1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                      DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,    TOT ______, SAT _,            DOM _____, ACD _,           FAI _,
FENPA ___,   FEOFC ___, FELATA ___,                  IWZ1 _,
MEM _,       PSES _,

                                                     CCIS2WRE _,
OSC ________, RFMP _,    DPSTOP _,         DELAY ___,   MFSPEED __,
XCPA _,       DNP _,                                  PSOLI _,

BN ___________, BRL _,           GSDN _,
                PSBN _____, PSCPN _,   ANISID _____, WANISID _____, PSUUI _,
BNPT _____,              CMERGE _,        SCFN _,          PRIT _______,
APS _, CHNEG _, PSATP _,                                   DOFP _, SBRIV _,
                                                           FOSPS _, CCIF _,
ONCID _, D3DBN _,   MULAW _,   CSCSET _______, CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _, NCAR _, TTA _, EACC __, LCVT _, NSA _,
ANCR _,  ACCID ___,  PSTNG _,  FLDSPR _, REVAMP _, E1T1 _, SUPBLK _,
IXC _, FOLI_, FELN _, HUNT __, CSN __, CARSON _, SOIP _, TCC __, STBI _,

CAREA _,     CPOS _,   SINDEX __,          CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                EQUIVALENT ODA INPUT FORM - ESS 401C

                     ASSOCIATED VERIFY MESSAGES

                     INPUT-11a-VER:TSG:CIN....
                     INPUT-11c-VER:TSG:TSGN....

            OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

             OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Form Entries

RC:TSG;NEW;OPT(OUT1WAY),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

Continued on next page

Form Entries, Continued

PCF

Point Code Format - This field is used to specify the format of the point code that is being entered in the point code field. If no entry is being made in the Destination Point Code (DPC) (Originating Point Code [OPC]) field, then this field must be left **"Blank"**. Three different formats are available for input: **ATT, ANSI,** or **ISPC**.

ATT is used for AT&T standard input/output which consists of a three digit network indicator, a two digit cluster region, a one digit cluster type, and a three digit cluster member.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CR**: Cluster Region - This value specifies the region of the signaling network where the office is located. Valid entries are **"00-31"**.

3. **CT**: Cluster Type - Valid entries are **"0-7"**.

4. **MEM**: - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

ANSI is used to indicate that the input/output is in the American National Standards Institute format which consists of a three digit network indicator, a three digit cluster, and a three digit member number.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CLU**: Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"000-255"**.

3. **MEM**: Member Number - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

Continued on next page

Form Entries, Continued

PCF (cont'd)

ISPC is used for international signaling point code input/output which consists of a one digit world geographical zone, a three digit area/network identifier, and a one digit signaling point identifier. Reference: International Consultative Committee for International Telephone & Telegraph Signaling System (CCITT) Recommendation "Numbering of International Signaling Point Codes", Vol. VI, Rec. Q.708.

1. **WGZ**: World Geographical Zone - This value specifies the world geographical zone of the office. Valid entries are "**1-7**".

2. **ANI**: Area/Network Identification - This value specifies a geographical area or network in a specific zone. Valid entries are **"000-255"**.

3. **SPID**: Signaling Point Identification - This value specifies a signaling point in a specific geographical area or network. Valid entries are **"0-7"**.

AOPC

Alias Origination Point Code - This field will provide a unique combination of a Local Exchange Carrier (LEC) Signal Transfer Point (STP) Point Code (PC) and an AT&T STP PC for each Local Access Transport Area (LATA) dedicated D-link set via a logical point code. AOPC, if entered, must be entered in the ATT format. See the Point Code Format (PCF) field for the format description. AOPC may only be entered when the PCF field is not **"Blank"**.

Continued on next page

Form Entries, Continued

DPC

Destination Point Code - This field is used to specify the Destination Point Code of the far-end switch.

This field entry is divided into three subfield entries:

1. NET - Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"Blank"**, **"000-255"**.

2. CLU - Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"Blank"**, **"000-255"**.

3. MEM - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"Blank"**, **"000-255"**.

For the Trunk Subgroup (TSG) forms, nine digits must be entered, depending on the format specified in the Point Code Format (PCF) field. Nine digits must be entered if PCF is American National Standards Institute (ANSI) format. An entry must be made in this field if either the Incoming Signaling Characteristics (ISC) or Outgoing Signaling Characteristics (OSC) field value is **"ISUP"**, **"INUP"**, or **"TUP"**; otherwise this field must be **"Blank"**.

Continued on next page

Form Entries, Continued

FENCLASS This field specifies the classification of the Far End Network (FEN). If the Trunk Subgroup (TSG) is not associated with any FEN, this field is left **"Blank"**. The FEN with which the TSG is to be associated must be described via 4ESS Switch RC 617.

For RC 524, this field identifies the class for accumulating counts.

The following classifications are available:

- **ACCESA** - This identifier specifies that the TSG is a link to an Inter-exchange Carrier (IC) or International Carrier (INC), and the 4ESS Switch is being used by a Local Exchange Carrier (LEC) as an Access Tandem (AT) and/or Service Switching Point (SSP) to switch calls from this TSG.

- **CMC** - Cellular Mobile Carrier - This identifier specifies that the FEN is a CMC. The TSG connects an Access Tandem (AT) and a CMC.

- **OWATS** - This identifier specifies that the TSG is a link to a Private Branch Exchange (PBX) over which only Outward Wide Band Area Telephone Service (WATS) calls are allowed.

- **OEO** - Other End Office connecting, meaning an Equal Access End Office (EAEO) owned by a different company. This identifier specifies that the FEN is an OEO. The TSG connects an Access Tandem (AT) and an OEO.

- **PBX** - This identifier specifies that the TSG is a link to a PBX.

- **POTS** - This identifier specifies that the TSG is a link to a switching machine serving either a Local Access Transport Area (LATA) of the Local Exchange Carrier (LEC) owning/sharing the 4ESS Switch, the Continental United States/Plain Old Telephone Service (POTS) (CUSP) network of the IEC owning/sharing the 4ESS Switch, or some other FEN to be treated similarly.

Continued on next page

Form Entries, Continued

FENID

Far End Network (FEN) Identification - This field distinguishes the specific FEN with which this Trunk Subgroup (TSG) is associated. One to six alphanumeric characters may be entered to distinguish among several FENs with the same classification, or the field may be left **"Blank"**. If FENCLASS is **"Blank"**, FENID must also be **"Blank"**.

When the FENCLASS is ACCESA or ACCESI, FENID should consist of type of feature group access and the 4 numeric digits of the Carrier Identification Code (CIC).

The type of feature group definitions are:

- **G** - All access types (B, C, & D).
- **B** - Feature Group B Access.
- **C** - Feature Group C Access.
- **D** - Feature Group D Access.

Examples include:

- **G0288** - Carrier ID 288 has Feature Group B, C, & D access.
- **BC0288** - Carrier ID 288 has Feature Group B & C access.
- **BD0288** - Carrier ID 288 has Feature Group B & D access.
- **B2882** - Carrier ID 2882 has Feature Group B access only.
- **D2882** - Carrier ID 2882 has Feature Group D access only.

For an access type, both B2882 and D2882 can exist but be for different carriers.

Continued on next page

Form Entries, Continued

TFG

Type of Feature Group - This field is used to specify whether the Type of Access for this Trunk Subgroup (TSG) is tariffed under Feature Group B, Feature Group C, or Feature Group D. An entry can only be made if the FENCLASS is ACCESA. If FENCLASS is ACCESA, a **"B"**, **"C"**, or **"D"** must be entered, corresponding to Feature Groups B, C, or D, respectively. FENCLASS is not ACCESA, this field must be left **"Blank"**.

TSGBBC

Trunk Subgroup (TSG) Broadband Capability - Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q.931 signaling systems allow for broadband switching. This entry specifies what type of circuits may be populated in this TSG. Valid entries are:

- **Blank** - 1 trunk circuit
- **0** - 1 trunk circuit
- **1** - 6 trunk circuits
- **2** - 24 trunk circuits
- **3** - Combined usage 1 and 6 trunk circuits
- **4** - Combined usage 1 and 24 trunk circuits
- **5** - Combined usage 6 and 24 trunk circuits
- **6** - Combined usage 1, 6, and 24 trunk circuits.

VDCAP

Not Applicable - Entries: **"Blank"**

FEAREA

Not Applicable - Entries: **"Blank"**

FESWID

Not Applicable - Entries: **"Blank"**

EXSEQ

Not Applicable - Entries: **"Blank"**

FEPTY

Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

QTFN

Quantity of Traffic Numbers - This field specifies the size of the block of traffic numbers to be reserved with this input form beginning with the Base Traffic Number (BTFN) for this Trunk Subgroup (TSG). Traffic numbers must be allocated in groups of 24. Enter a multiple of 24 in the range of **"24 -504"**. If more than 504 traffic numbers are required for a given TSG, additional blocks of 24 may be added using RC Form 104. The total quantity of reserved traffic numbers should be equal to or greater than (to the nearest 24) the maximum size projected for this TSG during the engineering interval. This total should not include other blocks of traffic numbers that may be assigned separately with RC Form 104.

The maximum number of trunks that can be assigned to one TSG is 1023. If a TSG requires more than 1023 trunks and consequently more than 1023 traffic numbers, it must be split into two TSGs. The breakpoint must be a multiple of 24 and less than 1023 which makes 1008 trunks the logical maximum for one TSG. If for example, 1300 trunks were required between point A and point B, two TSGs should be built. The first TSG would contain 1008 trunks, and the second TSG would contain 292 trunks. The two TSGs would be linked in the Routing Data Block (RDB).

The 4ESS Switch feature, Inward Wide Band Area Telephone Service (INWATS) terminating directly to a customer's Automatic Call Distributor, has a limitation of 1023 TSGs totaling 24552 trunks (1023 trunk blocks of 24 registers).

For Voice Frequency Link (VFL) TSGs, if the traffic numbers for the VFLs are separated by 100, e.g., 801 IPLS IN 01 MSP and 901 IPLS IN 01 MSP, the QTFN must be 24 for building new TSGs. Then build the second set of 24 traffic numbers using RC Form 104.

Continued on next page

Form Entries, Continued

TOT

Type of Trunk - This field specifies the trunk type for this Trunk Subgroup (TSG). TOT entries of **"ETC"** for End Office or Tandem Connecting, **"LCC"** for Local Exchange Carrier Connecting, and **"OCC"** for Other Carrier Connecting are used for network interconnect. When these TOT values are used on Integrated Services Digital Network User Part (ISUP)
trunks, the Local Exchange Carrier (LEC) (Bellcore TR-317) and/or network interconnect version (TR-394) of the ISUP protocol is used. For all other allowed TOT values, the AT&T version of the ISUP protocol is used. The codes that may be entered are as follows:

- **ETC** - End Office or Tandem Office Connecting - This Type of Trunk (TOT) is used to identify Equal Access (EA) or Intra Local Access Transport Area (IntraLATA) trunks at a switch serving as an Access Tandem (AT) or Service Switching Point (SSP) where the other end connects to an End Office. This TOT is also used to identify EA trunks between ATs or between an AT and a switch serving as an SSP. When the type of trunk is ETC, the signaling characteristic of the Trunk Subgroup (TSG) must be either Multifrequency Wink (MFWINK) or ISUP.

- **INTL** - International - International circuit with the far end outside of World Zone 1, and having signaling characteristics of International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5), CCITT6, International ISUP (INUP), and CCITT7 Telephone User Part (TUP).

- **INTLO** - International Overflow - International Overflow circuit (for overflow transit traffic) with the far end inside World Zone 1 in another International Switching Center (either the U.S. or foreign).

- **ITAND** - Inter Tandem - This TOT can be used to handle traffic between two tandem switchers in the same local calling area.

- **ITOLL** - Intertoll - Intertoll trunks will carry toll traffic between class 4 or higher offices, or trunks dedicated to Inter-International Switching Center (inter-ISC) international overflow traffic. This includes final, full and high usage TSGs.

Continued on next page

Form Entries, Continued

TOT (cont'd)

- **ITOP** - International Operator - International Operator tandem trunk from a No. 5 switchboard.
- **LCC** - Local exchange Carrier Connecting - This TOT is used to identify EA trunks at an AT&T switch This identifier is also used for outgoing ISUP trunks from the Interexchange Carrier/International Exchange Carrier (IC/INC) to an SSP office. When the type of trunk is LCC, the signaling characteristic of the TSG must be either MFWINK or ISUP and the Equal Access Signaling (EAS) field must be marked as either **"E"**, **"A"**, **"D"** or **"R"**.
- **MISC** - Miscellaneous - This designation is used for operator (except for inward, leave word or 2-way operator trunks), service circuit, and other miscellaneous TSGs.
- **OCC** - Other Carrier Connecting - This TOT is used to identify EA trunks at a switch serving as an AT or SSP where the other end connects to an IC or INC switch. This type of trunk should be used when the signaling on the TSG is MFWINK or ISUP.
- **PBX** - Private Branch Exchange - This identifier indicates that the trunks in this TSG terminate on a PBX unit. If the PBX interface is via a 2-wire PBX Channel Unit (J98726ST), then the Incoming Signaling Characteristics (ISC) should be Dial Pulse Immediate (DPIMMED) and the Outgoing Signaling Characteristics (OSC) should be Dial Pulse Wink (DPWINK).
- **SECIT** - Secondary Intertoll - These trunks interconnect toll switching machines and manually operated toll or assistance switchboards for routing of operator completed traffic.
- **STC** - Single Trunk Customer - This TOT is used to designate a TSG for single trunk terminations not supported by a PBX. When TOT is STC, the following TSG fields must be **"Blank"** or **"N"** as allowed: ANISID, APS, BRL, CCIS2WRE, DNHR, DPC, EAS, FAR4E, PBXAW, PBXESGD, REV, RFA, RFMP, SAT, SINDEX, TFG, TSGBBC, WANISID, XCPA.

Continued on next page

Form Entries, Continued

TOT (cont'd)

- **TAND** - Tandem - This code is used for 2-way tandem, tandem completing and tandem connecting TSGs.
- **TOLLC** - Toll Connecting or Completing - This code is used for Direct Distance Dialing (DDD) access, toll connecting or toll completing TSGs.

SAT

Satellite - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not this Trunk Subgroup (TSG) is associated with satellite facilities. This entry performs a screening function to avoid two satellite TSGs from being connected together to complete a call. If the incoming TSG has SAT = "Y", then call processing will insist the outgoing TSG must have SAT = "N". This can also be used for local screening functions even though the TSG is not via a satellite.

For Voice Frequency Link (VFL) TSGs, satellite facilities cannot be used for a domestic Common Channel Interoffice Signaling (CCIS) system, i.e. if DOM is Plain Old Telephone Service (POTS), then SAT must be **"N"**.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), International Direct Distance Dialing (IDDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (0 through 19). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be ITOLL, MISC, or TSPS or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e. CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.
- **I64C** -This transport domain is used to route 64 kbps clear international data calls up to an ISC.
- **I56D** -This transport domain is used to route 56 kbps international data calls up to an ISC.

Continued on next page

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for the Software Defined Network (SDN) and Private Branch Exchange (PBX) Interface features:

- **SDNA** - Software Defined Network (SDN) Access - This domain is used to translate the digits of an originating SDN (voice or data) call and determine if the call is a 7-digit or 10-digit call. Trunks in the SDNA domain are dedicated to SDN calls. When DOM equals SDNA, then TOT must be CAMAA, CAMAO, ETC, LCC, PBX, STC, TAND, or TOLLC for Trunk Subgroup (TSG) forms or CALLTYP must be CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SDX, SSP, TEL, TST, or TTS for code group forms.

- **DEV** - Dedicated Egress Voice - This domain is available at the terminating 4ESS Switch to translate SDN and Direct Connect voice calls and route them to a directly connected PBX, via direct egress, or to a local office, via switched egress.

  This domain is also used as an access domain for originating Direct Connect voice calls. The calls arrive at the 4ESS Switch as 10-digit calls. When DOM equals DEV, then TOT must be PBX or Single Trunk Customer (STC) for TSG forms or CALLTYP must be CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SDX, SSP, TEL, TST, or TTS for code group forms.

- **DED** -Dedicated Egress Data - This domain is available at the terminating 4ESS Switch to translate the SDN data call and route it to a directly connected PBX, via direct egress, or to a local office, via switched egress.

  This domain is also used as an access domain for originating Direct Connect data calls. The calls arrive at the 4ESS Switch as 10-digit calls and are routed through the network (translations and facilities) via the data domain. When DOM equals DED, then TOT must be PBX or STC for TSG forms or CALLTYP must be CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SDX, SSP, TEL, TST, or TTS for code group forms.

Continued on next page

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.
- **APN** - Action Point Numbering Plan - This domain is used as an access domain for originating Direct Connect voice or data calls. The calls arrive at the 4ESS Switch as 10-digit calls. When DOM equals APN, then TOT must be PBX or STC for TSG forms.

NOTE: For Voice Frequency Link (VFL) TSGs, this field identifies the domain in which this TSG operates. Valid inputs are "POTS" (if VFL is associated with a domestic Common Channel Interoffice Signaling [CCIS] system).

ACD

Automatic Call Distributor - This field is used to indicate if this Trunk Subgroup (TSG) is used to terminate Inward Wide Band Area Telephone Service (INWATS) traffic. Enter **"Y"** if this TSG will terminate INWATS traffic. Enter **"T"** if INWATS Time of Day (TOD) billing is required. Enter **"N"** or leave **"Blank"** if this TSG will not terminate INWATS traffic.

FAI

Not Applicable - Entries: **"Blank"**

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Form Entries, Continued

FENPA

Far End Numbering Plan Area/Trunk Subgroup (TSG) - Enter a 3-digit Numbering Plan Area (NPA) code to identify the far end of the subgroup. Valid entries range from **"200-999"**. With an International Trunk Subgroup, if the far end of the Trunk Subgroup is outside World Zone 1, enter the 1-, 2-, or 3-digit country code. Valid ranges of Country Code entries are **"2-9"**, **"20-99"**, and **"200-999"**.

This field is the NPA of the Far-End Office. If this office is not in the Home or Served area, then the Domain will be Plain Old Telephone Service-Intertoll/Intertandem (POTS-IT) and the IT field will be forced to **"Y"** in a Local Exchange Carrier (LEC) switch.

FEOFC

Far-End Office Code - This field is used to identify the office code of the far end switch. Typically this value will range from 200-999. Legal entries are: **"Blank"**, **000-999**.

FELATA

Far End Local Access Transport Area/Trunk Subgroup - This field is used to identify the Local Access Transport Area (LATA) of the far end switch. Legal entries are: **"Blank"**," **000-999"**.

IWZ1

International World Zone 1 - Enter **"Y"** if this Trunk Subgroup (TSG) will carry international traffic within World Zone 1. Enter **"N"** or leave **"Blank"** if this TSG will not carry international traffic within World one 1. Valid entries are **"Blank"**, **"N"**, or "**Y**".

MEM

Memory - This field is used to indicate if trunk hunt with memory is to be performed on this Trunk Subgroup (TSG) when searching for an idle trunk. Trunk hunt with memory is not performed on a TSG if the TSGBBC field is greater than zero (the MEM field should be set to **"N"** in this case). Enter **"N"** if trunk hunt with memory is not to be done. Enter **"Y"** or leave **"Blank"** if trunk hunt with memory is to be done.

Continued on next page

Form Entries, Continued

PSES	Prohibit Service Evaluation - An entry of **"N"** for No specifies that this Trunk Subgroup (TSG) is eligible for service evaluation by the No. 2 Service Evaluation System. An entry of **"Y"** for Yes specifies that the TSG is not eligible for service evaluation. Valid entries are **"Blank"**, **"Y"**, or **"N"**. Blank defaults to **"N"**.
CCIS2WRE	Common Channel Interoffice Signaling (CCIS) 2-Wire - This field should be **"Blank"** for a non-Common Channel Signaling (CCS) Trunk Subgroup (TSG). If this is a CCIS or Integrated Services Digital Network User Part (ISUP) TSG, then it must be determined whether the far end office will terminate the trunks in this TSG on a 2-wire or 4-wire switching network in order to perform the continuity check test on CCIS or ISUP trunks. The CCS continuity check tests will be performed by using the transceiver in either a transceive mode for 4-wire CCS trunks or in a transpond mode for 2-wire CCS trunks. Enter a **"Y"** for Yes if the far end office has a 2-wire network, e.g., 1 ESS/1A ESS 2-wire. Enter an **"N"** for No if the far end office has a 4-wire network, e.g., 1 ESS/1A ESS HILO, 4ESS, 5ESS®, etc.

Continued on next page

Form Entries, Continued

OSC

Outgoing Signaling Characteristics - Enter one of the following codes to specify the outgoing signaling characteristics required for this Trunk Subgroup (TSG):

- **DPDDSD** - Dial Pulse with Delay Dial/Start Dial.
- **DPIMMED** - Dial Pulse with Immediate pulsing (no delay).
- **DPWINK** - Dial Pulse with Wink start.
- **DTMFWK** - DTMF with Wink Start.
- **ICOPNOP** - Integrity Check Operator trunk with No Outpulsing. Use this characteristic on trunk subgroups which return a wink signal.
- **ISUP** - CCITT7 ISDN User Part.
- **MFDDSD** - MF with Delay Dial/Start Dial.
- **MFWINK** - MF with WINK start.
- **MIOPNOP** - Miscellaneous Operator with No Outpulsing. This OSC. is used for information and other operator calls. This OSC may be used for Direct Connect calls on 1-way outgoing and 2-way TSGs when Type of Trunk (TOT) is Private Branch Exchange (PBX) or Single Trunk Customer (STC). Use this characteristic only on TSGs which do not return a wink signal.
- **SIOPMFW** - Secondary Intertoll Operator with MF and Wink start. This is used to route inward and leave word operator traffic to a Traffic Service Position System (TSPS) operator.
- **SIOPNOP** - Secondary Intertoll Operator with No Out Pulsing. This type of trunk is used only for the secondary intertoll operator treatment.
- **TWOPDPD** - 2-Way Operator Dial Pulse Delay.
- **TWOPDPI** - 2-Way Operator Dial Pulse Immediate.

Continued on next page

Form Entries, Continued

OSC (cont'd)

- **TWOPDPW** - 2-Way Operator Dial Pulse Wink.
- **TWOPMFW** - 2-Way Operator MF Wink.

RFMP

Ring Forward Miscellaneous Distributor Point - Leave **"Blank"** or enter **"N"** for No to indicate that a miscellaneous distributor point is not associated with the outgoing portion of the Trunk Subgroup (TSG). This feature is only required for outgoing trunks requiring 130V ring forward battery. This feature is presently not available on the outgoing portion of 2-way trunk circuits.

DPSTOP

Dial Pulse Stop - Enter a **"Y"** for Yes if this Trunk Subgroup (TSG) terminates in a panel, Step-by-Step or other office that might not be able to receive a complete train of dial pulse digits without a pause between digits (Outgoing Signaling Characteristic [OSC] equal to DPWINK, DPDDSD, DPIMMED, TWOPDPD, TWOPDPI, or TWOPDPW). This feature will tell the program to look for a DPSTOP signal from the far-end office after any one of the first three digits is outpulsed. Enter an **"N"** for No if this feature is not required for DP outpulsing. For other types of outpulsing, leave this field **"Blank"**.

DELAY

Delay Interval - An entry must be made if the Outgoing Signaling Characteristic (OSC) is CCITT5, DTMFWK, MFWINK, MFDDSD, SIOPMFW, or TWOPMFW. Leave this field **"Blank"**, if any other OSC is specified. If OSC is MFWINK, MFDDSD, SIOPMFW, or TWOPMFW, enter **"20"**, **"80"**, or **"220"** to indicate the delay in milliseconds before outpulsing is started. This delay interval starts when the wink or start dial signal from the other office is recognized. Twenty milliseconds is basic for most offices. A delay of 20 may be associated with 7 or 10 multifrequency digits per second. When the OSC is Dual Tone Multifrequency Wink (DTMFWK), enter **"70"**, **"140"**, **"210"**, or **"280"** to indicate the delay in milliseconds before outpulsing. This delay interval starts when the wink from the Private Branch Exchange (PBX) is received. **"70"** milliseconds is the minimum required for PBXs.

Continued on next page

Form Entries, Continued

MFSPEED Multifrequency Speed - If Outgoing Signaling Characteristic (OSC) is specified as MFWINK, MFDDSD, SIOPMFW, or TWOPMFW enter **"7"** or **"10"** to indicate the number of outpulsed Multifrequency (MF) digits per second. Enter **"10"** for Lucent Technologies ESS machines. Seven digits per second is used for all electromechanical machines. If OSC is equal to International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5), this field should indicate an MF speed of 10. Leave this field **"Blank"** for any other value of OSC.

XCPA Transceiver (XC) Pad Adjustment - This item will be left **"Blank"** for non-Common Channel Interoffice Signaling (CCIS) trunks. If the Outgoing Signaling Characteristic (OSC) is equal to International Consultative Committee for International Telephone & Telegraph Signaling System 6 (CCITT6), Domestic CCIS (DOMCCIS), Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), or CCITT7 Telephone User Part (TUP) enter a digit from **"0"** to **"3"** to indicate the pad setting for the CCIS transceiver. The correct entry can be determined by comparing the highest Inserted Connection Loss (ICL) value assigned to a trunk in this Trunk Subgroup (TSG) to the following table. The ICL can be obtained from the Circuit Order Layout Record (COLR) card.

DIGIT	ICL APPLICATION	PAD
• **0**	0 loss trunk	5 DB
• **1**	.1 to .8 loss	3.5 DB
• **2**	.9 to 1.7 loss	1.8 DB
• **3**	1.8 to 4.1 loss	0 DB

DNP Dialed Number Preferred - This field indicates whether the called user prefers to receive the original dialed number, if available, as delivered to the network rather than the routing number. Enter **"Y"** if the called user prefers receiving the original dialed number, otherwise, enter **"N"** or leave **"Blank"**. This field applies to outgoing Q.931 trunks only.

Continued on next page

Form Entries, Continued

PSOLI

Prohibit Sending Originating Line Identity - This field indicates whether OLI can be passed to a connecting network. Legal values are **"Blank"**, **"Y"** or **"N"**. **"Y"** specifies that OLI should not be sent. **"N"** specifies that OLI should be sent.

BN

Billing Number/Trunk Subgroup- This field is used to specify a BN associated with the TSG. It may be left **"Blank"**, or a **"3-"**, **"4-"**, or **"10-digit"** number may be entered. If FENCLASS is ACCESA or ACCESI, BN must be a 4-digit number (4-digit number if Type of Feature Group [TFG] is "B") equal to the (X)XXX corresponding to the inter-Local Area Transport Access (LATA) or International Carrier at the far end of the TSG. If FENCLASS is CMC, OWATS, or PBX, BN must be a 10-digit number. If the Automatic Call Distributor (ACD) field is **"Y"**, then BN must be a 10-digit number specifying the billing number of the INWATS ACD customer. If the ACD field is **"T"**, then BN must be **"199"**.

BRL

Billing Record Length - This field is used to specify whether long or short Automatic Message Accounting (AMA) records should be created for calls on this Trunk Subgroup (TSG). An "**S**" should be entered if Short AMA records are required or an **"L"** should be entered if Long AMA records are required. If **"L"** is entered, both answered and unanswered calls are recorded. If **"S"** is entered, only answered calls are recorded. If this field is left **"Blank"**, short AMA records will be made (if necessary).

NOTE: There is only one record length for Private Branch Exchange (PBX) calls, so this field should be used to indicate whether both answered and unanswered.

GSDN.tsg

Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

PSBN

Prohibit Sending Billing Number - This field is used to indicate that the caller's billing number should not be sent in the outgoing signaling messages.

For 4E17 and earlier generic programs, enter **"Y"** if the billing number should not be forwarded. This value should only be used on Trunk Subgroups (TSGs) connecting to another network. Enter **"N"** or leave **"Blank"** if the billing number can be sent. This field applies to outgoing Integrated Services Digital Network User Part (ISUP) trunks only.

For 4E18 and later generic programs, this value should only be used on TSGs connecting to another network. Enter:

- **Blank** or **PNNA** - prohibit sending a billing number with a numbering plan type other than North American Numbering Plan (NANP).
- **SALL -** if the billing number can be sent, regardless of the numbering plan type.
- **PALL -** if all billing numbers are to be prohibited from being sent, regardless of the numbering plan type. This field only applies to outgoing ISUP and Q.931 trunks. The PALL value applies only to ISUP trunks.

PSCPN

Prohibit Sending Calling Party Number - This field is used to indicate that the caller's calling party number should not be sent in the outgoing signaling messages. Enter **"Y"** if the calling party number should not be forwarded. This value should only be used on Trunk Subgroups (TSGs) connecting to another network. Enter **"N"** or leave **"Blank"** if the calling party number can be sent. This field applies to outgoing Integrated Services Digital Network User Part (ISUP) and International ISUP (INUP) trunks only.

Continued on next page

Form Entries, Continued

ANISID

ANI/SID requester value: This field specifies the type of calling party information which should be transmitted to the customer. Valid entries are:

- **Blank** No information
- **NONE** No information
- **ANI** Automatic Number Identification (ANI) only
- **SID** Service Identity (SID) only
- **PANI** ANI or SID (prefer ANI)
- **PSID** ANI or SID (prefer SID)
- **REQ** Customer will use signaling to specify.

WANISID

Wide Area Telephone Service (WATS) Automatic Number Identification (ANI)/Service Identity (SID) requester value - This field specifies the type of calling party information which should be transmitted to the customer when Megacom* 800 type of traffic is delivered to the customer. Valid entries are:

- **Blank** - No information
- **NONE** - No information
- **ANI** - ANI only
- **SID** - SID only
- **PANI** - ANI or SID (prefer ANI)
- **PSID** - ANI or SID (prefer SID)
- **REQ** - Customer will use signaling to specify.

*Megacom is a registered trademark of AT&T.

Continued on next page

Form Entries, Continued

PSUUI	Prohibit Sending User-to-User Information - This field indicates whether to accept/send Message Associated (MA) UUI on this Trunk Subgroup (TSG). Legal values are **"Blank"**, **"Y"**, or **"N"**. Enter **"Y"** if MA-UUI should not be sent. This value should be used on access TSGs to prohibit the receipt of MA-UUI, and it should be used on egress TSGs to prohibit the sending of MA-UUI. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only.
BNPT	Not Applicable - Entries: **"Blank"**
CMERGE	Not Applicable – Entries: **"Blank"**
SCFN	Send Confusion Messages - This field indicates if received Confusion messages are counted and if Confusion messages are to be sent when an unimplemented message is received. Valid entries are **"Blank"**, **"Y"**, or **"N"**.
PRIT	Not Applicable - Entries: **"Blank"**
APS	Accunet® Packet Service - This field is used to indicate if Accunet packet service can be performed on this Trunk Subgroup (TSG). Enter **"Y"** if Accunet packet service is allowed. Enter **"N"** or leave **"Blank"** if Accunet packet service is not allowed.
CHNEG	Channel Negotiation - This field is used to indicate whether channel negotiation can be performed on this Trunk Subgroup (TSG) or not. Enter **"Y"** if channel negotiation is allowed. Enter **"N"** or leave **"Blank"** if channel negotiation is not allowed.

Continued on next page

Form Entries, Continued

PSATP	Prohibit Sending Access Transport Parameters - This field indicates whether Access Transport Parameters (ATP) can be passed to or from a connecting network. Legal values are **"Blank"**, **"Y"** or **"N"**. Enter **"Y"** if ATP should not be sent. This value should be used on access Trunk Subgroups (TSGs) to prohibit the receipt of ATP; it should be used on egress TSGs to prohibit the sending of ATP. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only. This new field will not affect the sending of ATP at an Access Tandem (AT) switch.
DOFP	Disable Outgoing Fraud Prevention - **"Y"** indicates that Black Box and Blue Box fraud prevention controls are disabled on this Trunk Subgroup (TSG). **"N"** indicates that fraud prevention controls are enabled on this TSG.
SBRIV	Not Applicable - Entries: **"Blank"**
FOSPS	Not Applicable - Entries: **"Blank"**
CCIF	Not Applicable - Entries: **"Blank"**
ONCID	Number of Carrier ID digits to send - An entry of **"3"** specifies that the Trunk Subgroup (TSG) send a 3-digit CID. An entry of **"4"** specifies that the TSG send a 4-digit CID. If the TSG is not going to send a CID leave **"Blank"**.
D3DBN	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

MULAW This field is used to identify the type of encoding (A-law/Mu-law) used in the user information layer 1 protocol ID field of the User Service Information (USI) parameter. An entry of **"Y"** in this field along with an outgoing signaling characteristic of International Consultative Committee for International Telephone & Telegraph Signaling System 7 (CCITT7) Integrated Services Digital Network User Part (INUP) will indicate that Mu-law encoding is being used. A entry of **"N"** or leaving the field **"Blank"** will indicate that A-law encoding is being used.

CSCSET Not Applicable - Entries: **"Blank"**

CID Carrier ID. This field is populated with the pre-subscription carrier selected by the customer to handle inter-Local Access Transport Area (LATA) calls; and intra-LATA calls when intra-LATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. This field is only populated for ISC/OSC=Q.931.

ITCENC Information Transfer Capability Encoding - (4E21>) - This Trunk Subgroup (TSG) parameter indicates the allowed Information Transfer Capability (ITC) coding in the outgoing Initial Address Message (IAM). The parameter can have values shown below:

- **"Blank"**, **"N"** (use office): encode the outgoing IAM, User Service Information (USI) parameter ITC field, the same as used in the office indicator
- **"Y"** (use opposite of office): encode the outgoing IAM, USI parameter ITC field, with the opposite of what is used in the office indicator

The default is **"use office"**.

OFITR Not Applicable – Entries: **"Blank"**

Continued on next page

Form Entries, Continued

SPN	Signal Ported Number (SPN) outgoing Trunk Subgroup (TSG) indicator - This TSG indicator indicates if the destination switch is capable of supporting the Local Number Portability (LNP). If ""**Blank**"" or **"N"** (the default), the destination switch is considered LNP capable and the Local Routing Number (LRN) will be signaled. If **"Y"**, the destination switch is NOT considered LNP capable and only the Ported Number will be signaled not the LRN.
LNPIC	A Trunk Subgroup (TSG) field not used - valid entries are: **"Blank"**.
NCAR	Not Applicable - Entries: **"Blank"**
TTA	Not Applicable - Entries: **"Blank"**
EACC	Not Applicable - Entries: **"Blank"**
LCVT	Not Applicable – Entries: **"Blank"**
NSA	Not Applicable – Entries: **"Blank"**
ANCR	Not Applicable - Entries: **"Blank"**
ACCID	Not Applicable - Entries: **"Blank"**
PSTNG	Not Applicable - Entries: **"Blank"**
FLDSPR	Not Applicable – Entries: **"Blank"**

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Form Entries, Continued

REVAMP	Not Applicable – Entries: **"Blank"**
E1T1	Not Applicable – Entries: **"Blank"**
SUPBLK	Not Applicable – Entries: **"Blank"**
IXC	Not Applicable - Entries: **"Blank"**
FOLI	Not Applicable - Entries: **"Blank"**
FELN	Not Applicable – Entries: **"Blank"**
HUNT	Not Applicable - Entries: **"Blank"**
CSN	Not Applicable - Entries: **"Blank"**
CARSON	Not Applicable – Entries: **"Blank"**
SOIP	Not Applicable - Entries: **"Blank"**
TCC	Not Applicable - Entries: **"Blank"**
STBI	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

CAREA

Control Area - Valid input for this field is a single digit in the range of **"0-9"**. This number identifies the Control Area that is to be associated with this Trunk Subgroup (TSG) for trouble reporting. The number assignable in a given office is limited, however, to the highest control area assigned at Office Data Assembler (ODA) time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location.

Any test position can access every trunk assigned to the 4ESS Switch with the exception of international trunks. International trunks having Incoming Signaling Characteristic (ISC) or Outgoing Signaling Characteristic (OSC) equal to Consultative Committee for International Telephone & Telegraph 5 (CCITT5) must be assigned to a CAREA that is equipped with 51AL6 test positions. The 51AL6 test position can access any trunk assigned to the 4ESS Switch. However, the alarms, Teletype (TTY) printouts, and 101 calls associated with a particular TSG will only be transmitted to the CAREA and CPOS that is specified on the input form for a TSG. A single trouble receiving location could be specified for all TSGs in the office. Trouble tickets might be originated here and distributed to occupied test positions as necessary. Some other typical applications could be to assign the TSGs to testboard positions alphabetically, by direction, by ownership, or by Type of Trunk (TOT).

The only other restraint on assigning a TSG to a particular CAREA and CPOS is that all positions might not have the optional equipment required to satisfactorily test some Trunk Subgroups. The arrangement in a given office depends on the administrative decisions made for that office.

Continued on next page

Form Entries, Continued

CAREA
(cont'd.)

Position 00 (CAREA 0, CPOS 0) has been assigned to the Master Test and Control Channel (MTC) teletype in the Maintenance Operating Center (MOC). This position was established to receive trouble reports for certain non-message type TSGs. Lucent Technologies recommend that positions
01-09 not be assigned in an office at this time. The circuits that should be assigned to test position 00 are:

- ACI*DCHN - D-Channel circuits to the Common Network Interface (CNI) Ring
- CLN*DLPC - Loopback/complement Data Test
- MAS*BIPB - Mass Announcement System (MAS) Barge-in Playback Trunk
- MIS*AART - Auxiliary Audible Ring Trunk
- MIS*TERM - Common Channel Interoffice Signaling (CCIS) Terminals
- SVC*AIN* - Advanced Intelligent Network (AIN)
- SVC*DMRV - Dual-Tone Multifrequency (MF) Receivers (DTMFR)
- VC*DMXM - Dual-Tone Multifrequency Transmitters (DTMFT)
- SVC*MFR* - Multifrequency Receivers
- SVC*MFX* - Multifrequency Transmitters
- SVC*XCVR - CCIS Continuity Check Transceivers
- SVC*XCVT - CCIS Continuity Check Transceiver Test Circuit
- SVC*MFRT - Multifrequency Receiver Test Circuits
- SVC*MFXT - Multifrequency Transmitter Test Circuits
- SVC*SCAN - Service Circuit System Expanded Announcements
- SVC*SCBN - Service Circuit System Expanded Announcements
- SVC*SCNS - Network Services Complex Set S
- TAS*ANN* - Recorded announcements
- TAS*TONE - Tone Circuits
- TAS*MWAT - 1004 hz at 0 dBm
- TAS*MW10 - 1004 hz at 10 dBm

Continued on next page

Form Entries, Continued

CAREA (cont'd.)

The balance of the non-message type TSG may be assigned to working testboard positions.

For RC Forms 604 and 605, this number identifies the Control Area that is to be associated with this announcement trouble report. The number assignable in a given office is limited, however, to the highest control area assigned at ODA time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location. If CAREA 0,
CPOS 0 is specified, all MAS messages will be sent to the MTC channel in the MOC.

CPOS

Control Position - Enter a number from **"0-9"** to specify the testboard position that is to be associated with the Trunk Subgroup (TSGs) and Control Area (CAREA) for test reporting purposes. This assignment together with the CAREA designation can be used to distribute the maintenance responsibility for Trunk Subgroups. This assignment does not prevent any test position from accessing a particular group of trunks. It is only for reporting purposes.

For RC Forms 604 and 605, enter a number from **"0-9"** to specify the testboard position that is to receive the announcement trouble reports. If CAREA is 0, only CPOS 0 is allowed. When the Message Announcement System (MAS) is administered by the Operations National Administration Center (ONAC), assign the CPOS that has been dedicated for its use.

SINDEX

Access Change Verification Sampling Rate Index value - This field specifies the rate at which calls will be sampled for access charge verification. Legal values are **"Blank"**, **"0"**, **"1"**, **"2"**, **"4"**, **"8"**, **"16"**, **"32"**, **"64". "Blank"** and **"0"** imply no verification recording. Otherwise, one call out of the number entered will be recorded.

Continued on next page

Form Entries, Continued

CODSC

Customer Premise Equipment (CPE) Outgoing Disconnect. An entry of **"Y"** in this field is used to specify (from the 4ESS Switch perspective) that a disconnect will be effected faster than normal when the called customer goes on-hook. This field is used only for TSGs with a type-of-trunk value of Private Branch Exchange (PBX) or Single Trunk Customer (STC) and with signaling other than Q.931. Valid entries are **"Blank"**, **"Y"**, or **"N"**.

(4E21>) - CPE Outgoing Disconnect or Signaling System 7 (SS7) Trunk Subgroup (TSG) Control of Per Channel Inhibit Signaling (PCIS) Bits. An entry of **"Y"** specifies that:

1. From the 4ESS Switch perspective, a disconnect will be effected faster than normal when the called customer goes on-hook. This application of CODSC is only for TSGs with a type-of-trunk value of PBX or STC and with signaling other than Q.931.

   or

2. The TSG is to have its PCIS bits reset to force a steady state AB bit indication. This application of CODSC is for non-AT&T offices where the TSG has type-of-trunk of Other Common Carrier (OCC) and outgoing signaling of Integrated Services Digital Network User Part (ISUP).

Valid entries are **"Blank"**, **"Y"**, or **"N"**.

Continued on next page

Form Entries, Continued

NEOTR	Near Operational Test Responsibility - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not this office is responsible for the operational (signaling) test on outgoing trunks in this Trunk Subgroup (TSG). If a **"Y"** is entered in this field, then the OTSTT and/or OTMTT field(s) must have an entry other than **"N"**. If an **"N"** is entered in this field, then all test types are optional. If OTSTT and OTMTT fields are **"N"**, then NEOTR must be **"N"**. If an office has Near End Operational Test Responsibility but the far end office does not have a test number, an **"N"** should be entered in this field. If Outgoing Signaling Characteristic (OSC) is equal to Domain Class (DOMCCIS) or Integrated Services Digital Network User Part (ISUP), then NEOTR should be **"N"** since operational tests cannot be made on Domestic Common Channel Signaling (CCS) trunks.
TRIDX	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

OTSTT

Operational Thru Switch Test Type - Certain offices (No. 5 Crossbar and 1ESS) can function both as a local and a tandem or as a local and toll office. These offices have trunks that can function in both a through switch mode and a terminating mode. As a result, more than one test is required to test both modes of operation. The OTSTT is used to specify an operational (signaling) test for a trunk in the tandem (thru switch) mode. OTSTT is also used to specify the ATME B test for Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) and Consultative Committee for International Telephone and Telegraph Signaling System Number 6 (CCITT6) trunks which have a far end test line capable of running this test. The following codes may be entered in the OTSTT field.

- **ATMB** - Siemens' ATME B test line - This is a signaling test which applies to CCITT5 and CCITT6 trunks only. The test consists of the far end test line returning a clear back/reanswer in response to a forward transfer.

- **CTX2** - Centrex II test - This test is made toward a No. 5 Crossbar office having Phase II Centrex features. CTX2 is similar to the SYNC test.

- **CTX3** - Centrex III - This test is made to a No. 5 Crossbar office having Phase III Centrex features. CTX3 is similar to the SYNC test.

- **SXS** - Step-by-Step - If the far end of this Trunk Subgroup (TSG) is working in to a Step-by-Step office, this test may be specified.

- **SYNC** - Synchronous test - This test is an automatic series of off hook/on hook transitions (flashes) on the M lead. In the 4ESS Switch, the SYNC test is software controlled and no external hardware is needed. A data table is used to specify the pulsing rate for each series of flashes. The test automatically advances from one pulsing rate to another via a timing procedure. In any system, after all of the flashes are complete, the trunk will be left in the quiet termination state.

Continued on next page

Form Entries, Continued

OTSTT (cont'd)

- **T103 -** 103 Test - The 103 Test is similar to the synchronous test in that a series of flashes are sent on the M lead. However, the sequence of pulses is controlled by the ring forward signal, rather than a timed automatic progression. Flashing of a given rate will continue until a ring forward signal is received, or, in 4ESS Switch, until an upper limit of flashes has been sent. At this point, the trunk will be put into the quiet termination state until disconnect.

- **"N" -** Enter **"N"** if no thru switch operational test is to be made on this TSG.

OTSTN

Operational Thru Switch Test Number - If Operational Thru Switch Test Type (OTSTT) is **"N"** for None, leave this item **"Blank"**. If a thru switch test of some type is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the OTSTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If OTSTT is Siemens' ATME B test line **(**ATMB), then OTSTN should specify a 062 for Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) trunks or a 2 for Consultative Committee for International Telephone and Telegraph Signaling System Number 6 (CCITT6) trunks when the far end has an ATME B test line. If the far end has an Siemens' ATME A test line **(**ATME A), OTSTT equals ATMB and OTSTN should specify 061 for CCITT5 or 1 for CCITT6 trunks.

Continued on next page

Form Entries, Continued

OTMTT Operational Terminating Test Type - If an operational (signaling) test is to be made directly to the far end of this Trunk Subgroup (TSG) terminating mode, enter a code to identify the test.

- **ATMC** - Siemens' ATME C test line - This is a signaling test used with Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) trunks only. The far end returns a busy flash from the test line.
- **CTX2** - Centrex II test - This test is made toward a No. 5 Crossbar office having Phase II Centrex features. This test is similar to the SYNC test.
- C**TX3** - Centrex III - This test is made towards a No. 5 Crossbar office having Phase III Centrex features. This test is similar to the SYNC test.
- **SXS** - Step-by-Step - If the far end of this TSG is working into a Step-by-Step office, this test may be specified.
- **SYNC** - Synchronous test - This test is an automatic series of on hook/off hook transitions (flashes) on the M lead. In the 4ESS Switch, the SYNC test is software controlled and no external hardware is needed. A data table is used to specify the pulsing rate for each series of flashes. The test automatically advances from one pulsing rate to another via a timing procedure. In any system, after all of the series of flashes are complete, the trunk will be left in the quiet termination state.
- **T103** - 103 test - The 103 test is similar to the synchronous test in that a series of flashes are sent on the M lead. However, the sequence of pulses is controlled by the ring forward signal, rather than a timed automatic sequence. Flashing of a given rate will continue until a ring forward signal is received, or, in 4ESS Switch, until an upper limit of flashes has been sent. At this point, the trunk will be put into the quiet termination state until the originator disconnects.
- **"N"** - None - Enter an **"N"** if no test is to be made on this TSG.

Continued on next page

Form Entries, Continued

OTMTN

Operational Terminating Test Number - If OTMTT is **"N"** for None, leave this field **"Blank"**. If a test is specified, then a corresponding test number in the range of "**000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the OTMTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If OTMTT equals Siemens' ATME C test line **(**ATMC), then OTMTN must specify **"063"**.

XTSTT

Transmission Thru Switch Test Type - If a transmission test is to be made in the thru switch (tandem) mode for this Trunk Subgroup (TSG), enter a code to identify the type of test.

- **ATMA** - Siemens' ATME A transmission test line - This entry provides access to an ATME A responder. The ATME A test permits automatic transmission loss and noise measurements in both directions for International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5),CCITT6, International Integrated Services Digital Network User Part (INUP), or CCITT7 Telephone User Part (TUP) trunks.

- **T100** - 100 code test - This test provides a quiet termination (600 ohms). In the 4ESS Switch, the 100 test provides a sequence of 1000 hz, milliwatt tone for 5.5 seconds followed by the quiet termination until disconnect.

- **T102** - 102 code test - The 102 test provides 1000 hz. milliwatt tone. The 4ESS Switch provides cycles of 9-second tone and 1-second quiet termination until disconnect.

- **T105** - 105 code test - This code provides access to an Automatic Trunk Measuring System (ATMS) responder. The 105 test permits automatic transmission loss and noise measurements in both directions.

- **N** - Enter **"N"** if no test is to be made OR if the presubscription carrier is to be populated.

Continued on next page

Form Entries, Continued

XTSTN

Transmission Thru Switch Test Number - Add Presubscription Carrier. If Transmission Thru Switch Test Type (XTSTT)=N and this field is non-**"Blank"**, then the field is populated with the presubscription carrier selected by the customer to handle inter Local Access Transport Area (interLATA) calls; and intraLATA calls when intraLATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. The presubscription carrier can only be populated for Incoming/Outgoing Signaling Characteristics (ISC/OSC) of Q931.

If XTSTT does not equal to N, and this field is non-**"Blank"** , then the field is populated with the transmission thru switch test number. If a test is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the XTSTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If XTSTT is Siemens' ATME A transmission test line (ATMA), the XTSTN should be specified as **"061"** for International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5) trunks or **"1"** for CCITT6, International Integrated Services Digital Network User Part (INUP), or CCITT7 Telephone User Part (TUP) trunks.

XTMTT

Transmission Terminating Test Type - If a transmission test is to be made directly to the far end of this Trunk Subgroup (TSG) in a terminating mode, enter a code to identify the type of test.

- **T100** - 100 code test - This test provides a quiet termination (600 ohms). In the 4ESS Switch, the 100 code test provides a sequence of 1000 hz. milliwatt tone for 5.5 seconds, followed by quiet termination until disconnect.
- **T102** - 102 code test - The 102 test provides 1000 hz. milliwatt tone. The 4ESS Switch provides cycles of 9-second tone and 1-second quiet termination until disconnect.
- **T105** - 105 code test - This code provides access to a Automatic Trunk Measuring System (ATMS) responder. The 105 test permits automatic transmission loss and noise measurements in both directions.
- If no test is to be made, enter **"N"** for None.

Continued on next page

Form Entries, Continued

XTMTN	Transmission Terminating Test Number - If Transmission Terminating Test Type (XTMTT) is **"N"** for None, leave this field **"Blank"**. If a test is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the XTMTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location.

Continued on next page

Form Entries, Continued

S1-10

These fields are reserved for future use in order to be able to implement new capabilities in a more timely fashion. When a new capability is requested for Generic Programs currently deployed in the field, one of these spare fields will be designated for use in implementing that capability.

S1 - Valid entries are **"Blank"**, or **"0-7"**.
S2-10 - Valid entries are **"Blank"**, **"Y"**, or **"N"**.

- S2 - (4E18/4E19/4E20) - An entry of **"Y"** in this field identifies Signaling System 7 (SS7) trunks which have their Per Channel Inhibit Signaling (PCIS) bits reset to force a steady state AB bit indication. Otherwise, enter **"N"** or leave **"Blank"**. In 4E21, the CODSC field will replace the use of S2 for this purpose.

- S2 - (4E21R4) This Trunk Subgroup (TSG) parameter allows TSG circuits to trigger the Advanced Intelligent Network (AIN) processing. The parameter can have the following values: **"Blank"**, **"N"** for no access allowed, and **"Y"** for access allowed. The default is **"N"**.

- S5 - Unassigned - Reserved for future use.

- S6 (4E18/19/20) - this Trunk Subgroup (TSG) parameter indicates the allowed Information Transfer Capability (ITC) coding in the outgoing Initial Address Message (IAM). The parameter can have the following values: **"Blank"**, **"N"** (use office) to encode the outgoing IAM, User Service Information (USI) parameter ITC field, the same as used in the office indicator, and **"Y"** (use opposite of office) to encode the outgoing IAM, USI parameter ITC field, with the opposite of what is used in the office indicator. The default is "use office".

NOTE: An entry of "0-7" in the S1 field or a "Y" in any of the fields S2 thru S10 without knowledge of the capability to which the field has been assigned may result in undesirable switch behavior.

Continued on next page

Form Entries, Continued

Table 5

TABLE 5
VALID CHARACTERISTICS FOR
ONE-WAY OUTGOING TRUNK SUBGROUPS

OSC	TYPE OF TRUNK (TOT)															
SIGNALING TYPES	ETC	INTL	INTLO	ITAND	ITOLL	ITOP	LCC	LSP	MISC	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC
CCITT5		X	X													
CCITT6		X	X													
DOMCCIS				X	X				X				X		X	X
DPDDSD				X	X				X		X		X	X	X	X
DPIMMED				X	X				X		X		X	X	X	X
DPWINK				X	X				X		X		X	X	X	X
DTMFWK											X			X		
ICOPNOP						X			X		X			X		
INUP		X	X													
ISUP	X			X	X		X	X	X	X	X	X	X		X	X
MFDDSD				X	X		X		X		X		X		X	X
MFWINK	X			X	X		X	X	X	X	X		X		X	X
MIOPNOP									X		X			X		
Q931											X					
SIOPMFW													X			
SIOPNOP													X			
TUP		X	X													
TWOPDPD																X
TWOPDPI																X
TWOPDPW																X
TWOPMFW																X

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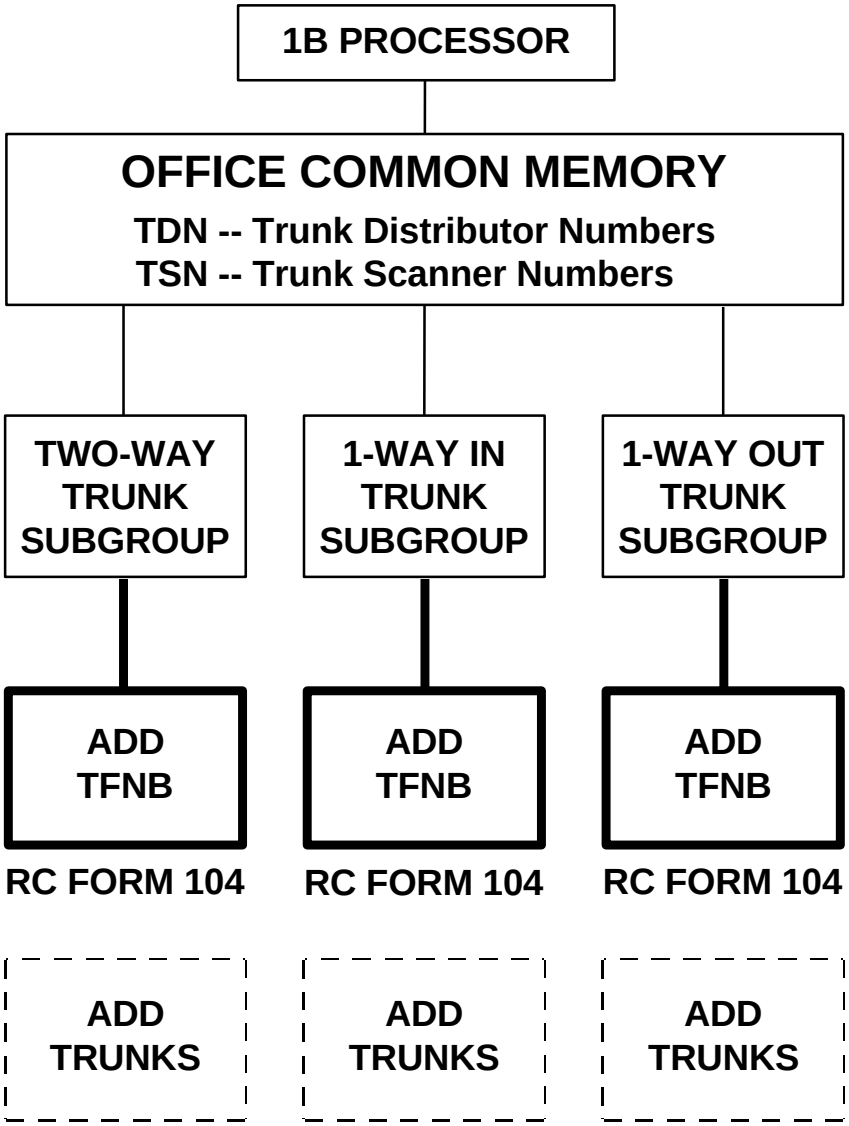
RC Form 104

General

Recent Change (RC) Form 104 adds a Traffic Number Block(s) (TFNB) to an existing Trunk Subgroup (TSG). This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 10.



Continued on next page

RC Form 104, Continued

General (cont'd.)

The traffic number block (TFNB) is explained previously under "QTFN" in the RC 100 Section. It must be structured in multiples of 24 traffic numbers each. The original TSG will have the original TFNB(s) created by the entry in QTFN on the appropriate TSG RC FORM. If the original TSG required adding more the 504 trunks, then the administrator would be required to use this RC FORM to build additional traffic numbers from 24 to 504. However, if the traffic numbering is "modular", i.e., no traffic numbers 0, 97, 98, & 99, not more than 96 could be entered in QTFN. An additional RC 104 would have to be entered for each additional 96 traffic numbers. If trunks were to be augmented to the specific TSG at a later date and more traffic numbers were required, this RC FORM would again be used following the same guidelines.

Attention should be given to the planning of the TFNB arrangement while building the original TSG. This attention should not only be the specific quantity of the traffic numbers required but also the Reverse (REV) entry. As explained in the RC 100 Section, the REV determines the traffic numbering of each block to be in either forward or reverse order from top to bottom. If the initial REV decision is found to be in error and creates a “Glare” condition, the REV entry must be changed. Before the REV entry can be changed, all of the assigned trunks must be placed in CADOOS state and removed from the TSG. The RC 105 would be used to remove all of the assigned TFNB(s), and the REV entry can be changed to the alternative selection. At that time, this RC 104 would be used to rebuild all of the required TFNB(s) before reassigning all of the trunks to the TSG. As this operation could have a definite service impact, the work usually would have to be performed out of normal business hours unless an adequate traffic reroute could be implemented for the duration.

Continued on next page

RC Form 104, Continued

General
(cont'd.)

```
# FORM 104   ADD A TRAFFIC NUMBER BLOCK TO AN EXISTING TRUNK SUBGROUP

RC:TSG;NEW;OPT(ADDTFNB),___:                    BTFN TOWN ST BL FBS NBS

ORNU _______,                                TSG _____ _____ __ __ ___ ___,

QTFN ___,   FTFN _____,

REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 401D

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-11e-VER:TFNB:TG

                           OUTPUT-1h-VER:TFNB
```

Form Entries

RC:TSG;NEW;OPT(ADDTFNB),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG
(cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

Continued on next page

Form Entries, Continued

QTFN

Quantity of Traffic Numbers - This field specifies the size of the block of traffic numbers to be reserved with this input form beginning with the Base Traffic Number (BTFN) for this Trunk Subgroup (TSG). Traffic numbers must be allocated in groups of 24. Enter a multiple of 24 in the range of **"24 -504"**. If more than 504 traffic numbers are required for a given TSG, additional blocks of 24 may be added using RC Form 104. The total quantity of reserved traffic numbers should be equal to or greater than (to the nearest 24) the maximum size projected for this TSG during the engineering interval. This total should not include other blocks of traffic numbers that may be assigned separately with RC Form 104.

The maximum number of trunks that can be assigned to one TSG is 1023. If a TSG requires more than 1023 trunks and consequently more than 1023 traffic numbers, it must be split into two TSGs. The breakpoint must be a multiple of 24 and less than 1023 which makes 1008 trunks the logical maximum for one TSG. If for example, 1300 trunks were required between point A and point B, two TSGs should be built. The first TSG would contain 1008 trunks, and the second TSG would contain 292 trunks. The two TSGs would be linked in the Routing Data Block (RDB).

The 4ESS Switch feature, Inward Wide Band Area Telephone Service (INWATS) terminating directly to a customer's Automatic Call Distributor, has a limitation of 1023 TSGs totaling 24552 trunks (1023 trunk blocks of 24 registers).

For Voice Frequency Link (VFL) TSGs, if the traffic numbers for the VFLs are separated by 100, e.g., 801 IPLS IN 01 MSP and 901 IPLS IN 01 MSP, the QTFN must be 24 for building new TSGs. Then build the second set of 24 traffic numbers using RC Form 104.

Continued on next page

Form Entries, Continued

FTFN

First Traffic Number - For each line under FTFN, enter the FTN of the block of traffic numbers being assigned on that line. The quantity of trunks assigned on each line will be numbered sequentially by an internal program manipulation beginning with the FTFN specified. Valid inputs are **"0-9999**". Quantity of Trunks (QTRK) plus FTFN must be less than 10001.

For RC 104, this field should specify the first traffic number of the new block of traffic numbers that is being added to the Trunk Subgroup. Valid inputs are **"0-9976"**.

Continued on next page

Form Entries, Continued

Keyword Index

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TSG	5

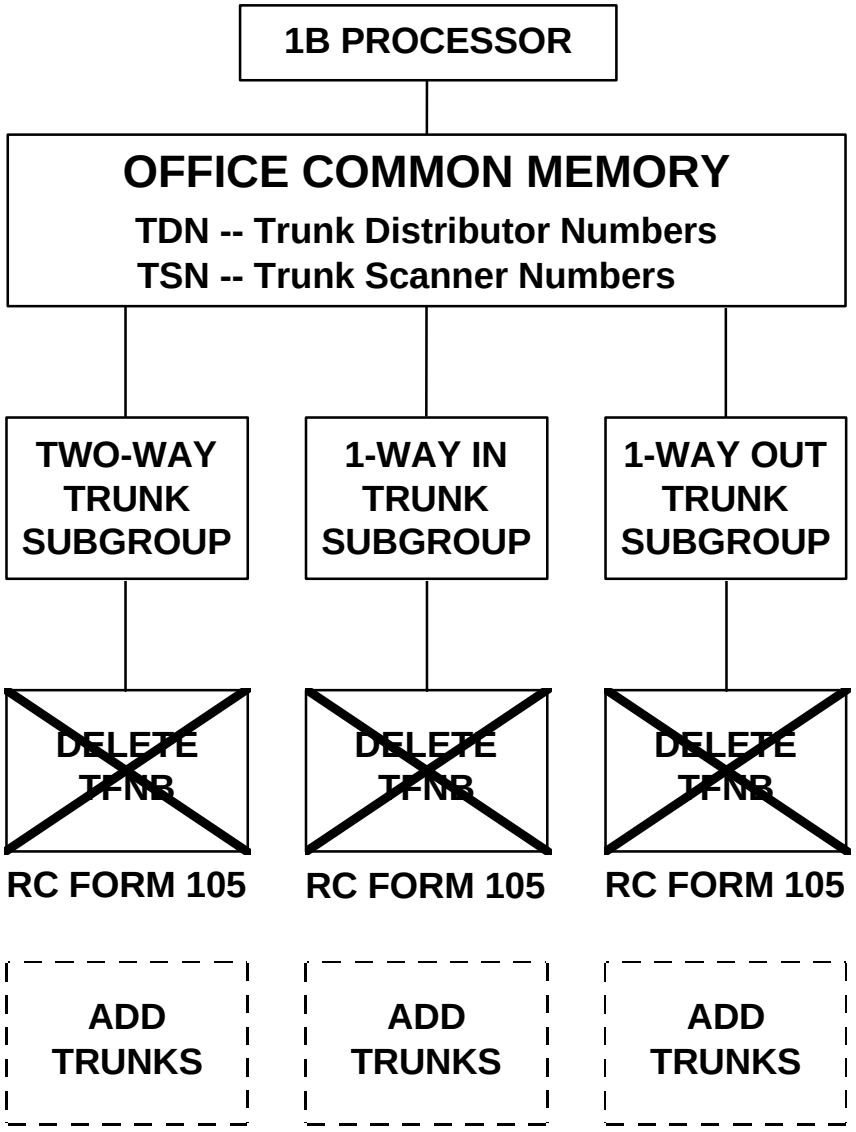
LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 105

General

Recent Change (RC) Form 105 removes a Traffic Number Block(s) (TFNB) from an existing Trunk Subgroup (TSG). This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 10.



Continued on next page

RC Form 105, Continued

General (cont'd.)

The Traffic Number Block (TFNB) is explained previously under "QTFN" in the RC Form 100 Section. It must be structured in multiples of 24 traffic numbers each. This RCDM allows the removal of each assigned TFNB one at a time per activation. Therefore, the QTFN for this RCDM is preprinted as **"24"** on the blank form. Prior to activation, the associated trunks must be put to the CADOOS state and removed from translations. At this time, the TFNB can be removed in the reverse order in which it was initially installed. Subsequent RC Form 105s can remove TFNBs one at a time. Typically, this RCDM will be used for one of three reasons.

1. To remove a TSG entirely. All trunks and TFNBs must be removed prior to removing the TSG structure.

2. To change the trunk numbering scheme. This RCDM would be required to remove the TFNBs for the trunks related to the number assignment change or possibly all of them if the Base Traffic Number (BTFN) of the TSG also had to be changed.

3. To change the Reverse (REV) entry on the TSG form due to a Glare trunk problem. This also requires all trunks to CADOSS and the removal of all trunks and TFNBs prior to changing the REV value on the RC Form 100. After the REV entry change, the RC Form 104 would be used to rebuild all of the required TFNB(s) before reassigning all of the trunks to the TSG.

The TFNB removal operation could have a definite service impact; therefore, the work usually would have to be performed out of normal business hours unless an adequate traffic reroute could be implemented for the duration.

Continued on next page

RC Form 105, Continued

General
(cont'd.)

```
# FORM 105  DELETE A TRAFFIC NUMBER BLOCK FROM AN EXISTING TRUNK SUBGROUP

RC:TSG;CHG;OPT(OUTTFNB),___:                    BTFN TOWN ST BL FBS NBS

ORNU ______,                                TSG ____ ____ __ __ ___ ___,

QTFN   24,   FTFN ____,

REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-11e-VER:TFNB:TG

                           OUTPUT-1h-VER:TFNB
```

Form Entries

RC:TSG;OPT(OUTTFNB),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG
(cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

Continued on next page

Form Entries, Continued

QTFN

Quantity of Traffic Numbers - This field specifies the size of the block of traffic numbers to be reserved with this input form beginning with the Base Traffic Number (BTFN) for this Trunk Subgroup (TSG). Traffic numbers must be allocated in groups of 24. Enter a multiple of 24 in the range of **"24 -504"**. If more than 504 traffic numbers are required for a given TSG, additional blocks of 24 may be added using RC Form 104. The total quantity of reserved traffic numbers should be equal to or greater than (to the nearest 24) the maximum size projected for this TSG during the engineering interval. This total should not include other blocks of traffic numbers that may be assigned separately with RC Form 104.

The maximum number of trunks that can be assigned to one TSG is 1023. If a TSG requires more than 1023 trunks and consequently more than 1023 traffic numbers, it must be split into two TSGs. The breakpoint must be a multiple of 24 and less than 1023 which makes 1008 trunks the logical maximum for one TSG. If for example, 1300 trunks were required between point A and point B, two TSGs should be built. The first TSG would contain 1008 trunks, and the second TSG would contain 292 trunks. The two TSGs would be linked in the Routing Data Block (RDB).

The 4ESS Switch feature, Inward Wide Band Area Telephone Service (INWATS) terminating directly to a customer's Automatic Call Distributor, has a limitation of 1023 TSGs totaling 24552 trunks (1023 trunk blocks of 24 registers).

For Voice Frequency Link (VFL) TSGs, if the traffic numbers for the VFLs are separated by 100, e.g., 801 IPLS IN 01 MSP and 901 IPLS IN 01 MSP, the QTFN must be 24 for building new TSGs. Then build the second set of 24 traffic numbers using RC Form 104.

Continued on next page

Form Entries, Continued

FTFN

First Traffic Number - For each line under FTFN, enter the FTN of the block of traffic numbers being assigned on that line. The quantity of trunks assigned on each line will be numbered sequentially by an internal program manipulation beginning with the FTFN specified. Valid inputs are **"0-9999**". Quantity of Trunks (QTRK) plus FTFN must be less than 10001.

For RC 104, this field should specify the first traffic number of the new block of traffic numbers that is being added to the Trunk Subgroup. Valid inputs are **"0-9976"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
FTFN	9
ORNU	4
QTFN	8
RC:TSG;OPT(OUTTFNB),---:	4
TSG	5

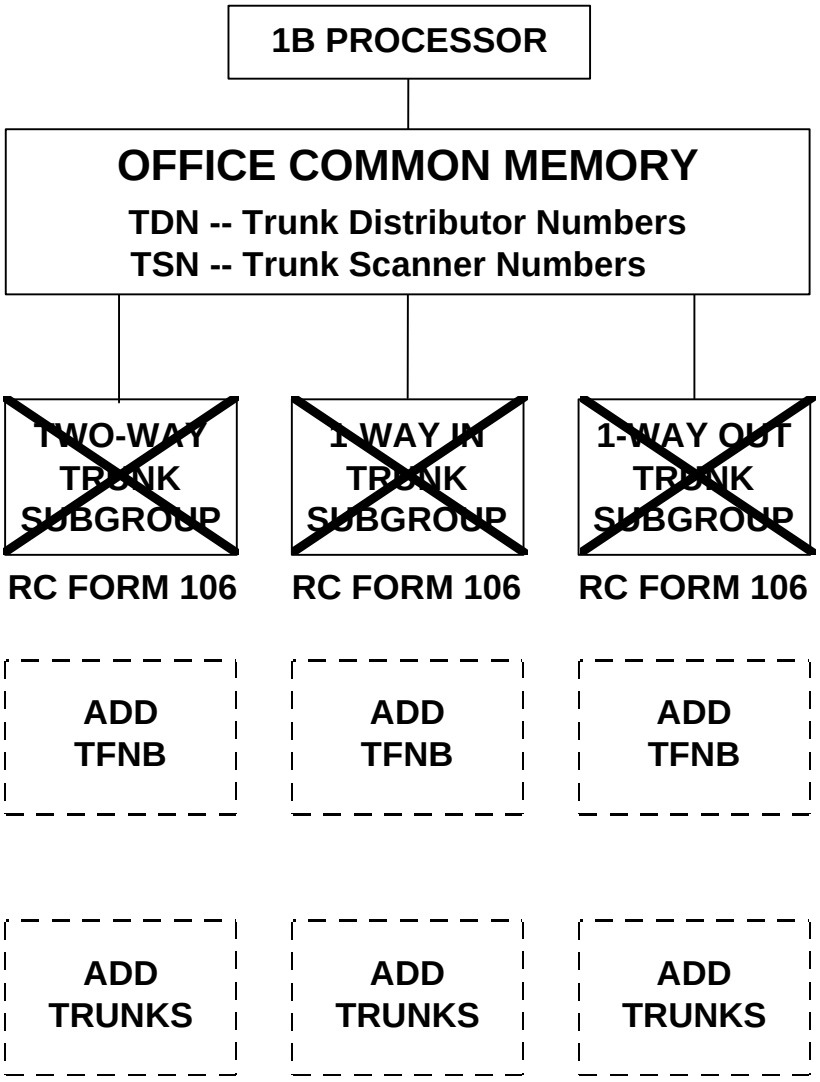
RC Form 106

General

Recent Change (RC) Form 106 is used to delete an entire Trunk Subgroup (TSG) from translations of the 4ESS-2000 Switch. This message is classed as a Recent Change Data Message (RCDM).

Prior to activating this RC, all trunks and Traffic Number Blocks (TFNBs) must be removed. Also, the TSG to be removed cannot appear on any routing translators, network management controls, network management studies, or measurement reports.

An alphabetical keyword list is included in this section on page 9.



Continued on next page

RC Form 106, Continued

General
(cont'd.)

```
# FORM 106                DELETE A TRUNK SUBGROUP

RC:TSG;OUT;___:                                  BTFN TOWN ST BL FBS NBS

ORNU _______,                                TSG _____ _____ __ __ ___ ___,

REMARKS ____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                          INPUT-11a-VER:TSG...

                   OUTPUT-1a/1b/1c-VER:TSG...(ALL ZEROS)
```

Form Entries

RC:TSG;OUT:---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message. FTT – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG
(cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG
(cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

Continued on next page

Form Entries, Continued

QTFN

Quantity of Traffic Numbers - This field specifies the size of the block of traffic numbers to be reserved with this input form beginning with the Base Traffic Number (BTFN) for this Trunk Subgroup (TSG). Traffic numbers must be allocated in groups of 24. Enter a multiple of 24 in the range of **"24 -504"**. If more than 504 traffic numbers are required for a given TSG, additional blocks of 24 may be added using RC Form 104. The total quantity of reserved traffic numbers should be equal to or greater than (to the nearest 24) the maximum size projected for this TSG during the engineering interval. This total should not include other blocks of traffic numbers that may be assigned separately with RC Form 104.

The maximum number of trunks that can be assigned to one TSG is 1023. If a TSG requires more than 1023 trunks and consequently more than 1023 traffic numbers, it must be split into two TSGs. The breakpoint must be a multiple of 24 and less than 1023 which makes 1008 trunks the logical maximum for one TSG. If for example, 1300 trunks were required between point A and point B, two TSGs should be built. The first TSG would contain 1008 trunks, and the second TSG would contain 292 trunks. The two TSGs would be linked in the Routing Data Block (RDB).

The 4 ESS feature, Inward Wide Band Area Telephone Service (INWATS) terminating directly to a customer's Automatic Call Distributor, has a limitation of 1023 TSGs totaling 24552 trunks (1023 trunk blocks of 24 registers).

For Voice Frequency Link (VFL) TSGs, if the traffic numbers for the VFLs are separated by 100, e.g., 801 IPLS IN 01 MSP and 901 IPLS IN 01 MSP, the QTFN must be 24 for building new TSGs. Then build the second set of 24 traffic numbers using RC Form 104.

Continued on next page

Form Entries, Continued

FTFN

First Traffic Number - For each line under FTFN, enter the FTN of the block of traffic numbers being assigned on that line. The quantity of trunks assigned on each line will be numbered sequentially by an internal program manipulation beginning with the FTFN specified. Valid inputs are **"0-9999**". Quantity of Trunks (QTRK) plus FTFN must be less than 10001.

For RC 104, this field should specify the first traffic number of the new block of traffic numbers that is being added to the Trunk Subgroup. Valid inputs are **"0-9976"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
FTFN	8
ORNU	3
QTFN	7
RC:TSG;OUT:---:	3
TSG	4

Form Entries, Continued

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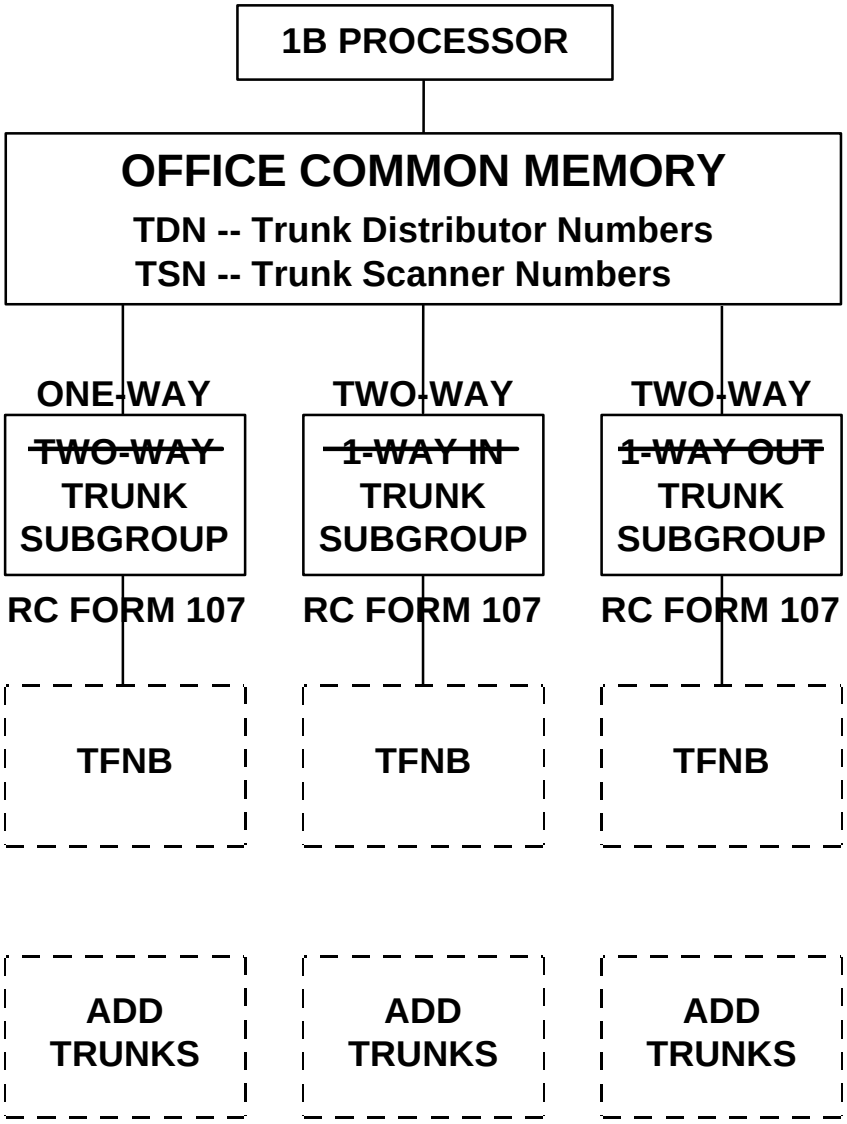
RC Form 107

General

Recent Change (RC) Form 107 changes the translations for an existing two-way Trunk Subgroup (TSG). This form can also be used to convert a one-way TSG to a two-way TSG. This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section, starting on page 66.



Continued on next page

RC Form 107, Continued

General (cont'd.)

RC FORM 107 changes the translations for an existing two-way Trunk Subgroup (TSG). This form can also be used to convert a one-way TSG to a two-way TSG. This message is classed as a Recent Change Data Message (RCDM).

There are two characteristics that are not changeable with this form: the Circuit Identification Name (CIN) (use form 802) and the Quantity of Traffic Numbers (QTFN) (use forms 104 or 105).

The restrictions imposed for changing the Domain (DOM) are:

- The existing domain has to be in the range of 20 through 69.
- The new domain has to be in the range of 20 through 69.

All other changes to the Domain are prohibited.

Certain characteristics cannot be changed unless all trunks in the TSG are in a particular state. For more information, Refer to Table 3 – Relationship Between Characteristics and State of Trunks in Trunk Subgroup. This table confirms that almost all of the popular characteristics related to a TSG change require the trunks to be either put in the CADOOS state or removed. Therefore, it should be noted that it may be much easier and more efficient (maintaining service) to build the new TSG. Then, as the trunks from the old TSG are put to the CADOOS state, they can be removed from the old TSG and reassigned to the new TSG. This is a prudent choice as service could be working on both TSGs as some of the trunks are being turned down and reassigned to the new TSG. Also, the new two-way TSG is more apt to have the more accurate Traffic Numbering Block (TFNB) scheme as a result of the Reverse (REV) considerations while building the new TSG. After all of the trunks are removed from the old TSG (this transition could be over a number of days if desired), it can be entirely removed.

Continued on next page

RC Form 107, Continued

General
(cont'd.)

```
# FORM 107          CHANGE A TWO WAY TRUNK SUBGROUP
  4E22

RC:TSG;CHG;OPT(TWOWAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,
PCF _____,    AOPC __________,                   DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

C1WTO2W _,  TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,     INSEP ___,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,     ADIG _,                        CCIS2WRE _, CBNPR _,
OSC ________, RFMP _,    DPSTOP _,         DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,  IFITR _,  PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ONCID _, D3DBN _, MULAW _,     CSCSET ______, CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _,
CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,     TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6, _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                      ASSOCIATED VERIFY MESSAGES

                      INPUT-11a-VER:TSG:CIN....
                      INPUT-11c-VER:TSG:TSGN....

            OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

             OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 107, Continued

General
(cont'd.)

```
# FORM 107          CHANGE A TWO WAY TRUNK SUBGROUP
  4E23R1

RC:TSG;CHG;OPT(TWOWAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                    DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

C1WTO2W _,  TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,      DNP _,                        REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,      NPARINH _,
WATSBN ___________, PSBN _, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5DIG _,  SDS _, FVSR _,  IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ONCID _, D3DBN _,   MULAW _,   CSCSET ______, CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _,  REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FOLI _, FELN _, HUNT __, CSN __,
CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,     TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                      ASSOCIATED VERIFY MESSAGES

                      INPUT-11a-VER:TSG:CIN....
                      INPUT-11c-VER:TSG:TSGN....

             OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

              OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 107, Continued

General
(cont'd.)

```
# FORM 107          CHANGE A TWO WAY TRUNK SUBGROUP
  4E24

RC:TSG;CHG;OPT(TWOWAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,
PCF _____,    AOPC __________,                   DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

C1WTO2W _,  TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,     INSEP ___,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,     ADIG _,                        CCIS2WRE _, CBNPR _,
OSC ________, RFMP _,    DPSTOP _,         DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,  IFITR _,  PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ONCID _, D3DBN _, MULAW _,     CSCSET ______, CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _, NCAR _, TTA _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FOLI _, FELN _, HUNT __, CSN __, CARSON __, SOIP __,
CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,     TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6, _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                      ASSOCIATED VERIFY MESSAGES

                      INPUT-11a-VER:TSG:CIN....
                      INPUT-11c-VER:TSG:TSGN....

             OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

              OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 107, Continued

General
(cont'd.)

```
# FORM 107   CHANGE A TWO WAY TRUNK SUBGROUP
  4E25

RC:TSG;CHG;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

C1WTO2W _,  TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,      DNP _,                        REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,      NPARINH _,
WATSBN ___________, PSBN ____, PSCPN _,    ANISID ____, WANISID ____, PSUUI _,
BNPT ____,   WBNPT ____, CMERGE _,         SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN ____, BFTIS ___, BFTNI ___,        SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5DIG _, SDS _,  FVSR _,   IFITR _, PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ONCID _, D3DBN _,   MULAW _,   CSCSET _______, CID ____, ITCENC _, OFITR _,
SPN _, LNPIC _, NCAR _, TTA _, EACC __, LCVT _, QPE _, NSA _,
ANCR _,  ACCID ___, PSTNG _,  FLDSPR _, REVAMP _, E1T1 _,  SUPBLK _, ATRIG _,
IXC _, FOLI _, FELN _, HUNT __, CSN __, CARSON _, SOIP _, TCC __, STBI _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT ____, OTSTN _________,               OTMTT ____, OTMTN _________,
XTSTT ____, XTSTN _________,               XTMTT ____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6, _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                      ASSOCIATED VERIFY MESSAGES

                      INPUT-11a-VER:TSG:CIN....
                      INPUT-11c-VER:TSG:TSGN....

            OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

             OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Form Entries

RC:TSG;CHG;OPT(TWOWAY),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG
(cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

Continued on next page

Form Entries, Continued

PCF

Point Code Format - This field is used to specify the format of the point code that is being entered in the point code field. If no entry is being made in the Destination Point Code (DPC) (Originating Point Code [OPC]) field, then this field must be left **"Blank"**. Three different formats are available for input: **ATT, ANSI,** or **ISPC**.

ATT is used for AT&T standard input/output which consists of a three digit network indicator, a two digit cluster region, a one digit cluster type, and a three digit cluster member.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CR**: Cluster Region - This value specifies the region of the signaling network where the office is located. Valid entries are **"00-31"**.

3. **CT**: Cluster Type - Valid entries are **"0-7"**.

4. **MEM**: - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

ANSI is used to indicate that the input/output is in the American National Standards Institute format which consists of a three digit network indicator, a three digit cluster, and a three digit member number.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CLU**: Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"000-255"**.

3. **MEM**: Member Number - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

Continued on next page

Form Entries, Continued

PCF (cont'd)

ISPC is used for international signaling point code input/output which consists of a one digit world geographical zone, a three digit area/network identifier, and a one digit signaling point identifier. Reference: International Consultative Committee for International Telephone & Telegraph Signaling System (CCITT) Recommendation "Numbering of International Signaling Point Codes", Vol. VI, Rec. Q.708.

1. **WGZ**: World Geographical Zone - This value specifies the world geographical zone of the office. Valid entries are "**1-7"**.

2. **ANI**: Area/Network Identification - This value specifies a geographical area or network in a specific zone. Valid entries are **"000-255"**.

3. **SPID**: Signaling Point Identification - This value specifies a signaling point in a specific geographical area or network. Valid entries are **"0-7"**.

AOPC

Alias Origination Point Code - This field will provide a unique combination of a Local Exchange Carrier (LEC) Signal Transfer Point (STP) Point Code (PC) and an AT&T STP PC for each Local Access Transport Area (LATA) dedicated D-link set via a logical point code. AOPC, if entered, must be entered in the ATT format. See the Point Code Format (PCF) field for the format description. AOPC may only be entered when the PCF field is not **"Blank"**.

Continued on next page

Form Entries, Continued

DPC

Destination Point Code - This field is used to specify the Destination Point Code of the far-end switch.

This field entry is divided into three subfield entries:

1. NET - Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"Blank"**, **"000-255"**.

2. CLU - Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"Blank"**, **"000-255"**.

3. MEM - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"Blank"**, **"000-255"**.

For the Trunk Subgroup (TSG) forms, nine digits must be entered, depending on the format specified in the Point Code Format (PCF) field. Nine digits must be entered if PCF is American National Standards Institute (ANSI) format. An entry must be made in this field if either the Incoming Signaling Characteristics (ISC) or Outgoing Signaling Characteristics (OSC) field value is **"ISUP"**, **"INUP"**, or **"TUP"**; otherwise this field must be **"Blank"**.

Continued on next page

Form Entries, Continued

FENCLASS This field specifies the classification of the Far End Network (FEN). If the Trunk Subgroup (TSG) is not associated with any FEN, this field is left **"Blank"**. The FEN with which the TSG is to be associated must be described via 4ESS Switch RC 617.

For RC 524, this field identifies the class for accumulating counts.

The following classifications are available:

- **ACCESA** - This identifier specifies that the TSG is a link to an Inter-exchange Carrier (IC) or International Carrier (INC), and the 4ESS Switch is being used by a Local Exchange Carrier (LEC) as an Access Tandem (AT) and/or Service Switching Point (SSP) to switch calls from this TSG.

- **ACCESI** -This identifier specifies that the TSG is a link to an International Carrier (INC), and the 4ESS Switch is being used by an Interexchange Carrier (IC) (e.g., AT&T-C) to switch calls from this TSG.

- **ACCESO** - This identifier specifies that the TSG is a link to an Operating Company and the 4ESS Switch is used as an IC.

- **CAMA** - This identifier specifies that the TSG is terminated on an office which delivers traffic on Centralized Automatic Message Accounting (CAMA) trunks.

- **CMC** - Cellular Mobile Carrier - This identifier specifies that the FEN is a CMC. The TSG connects an Access Tandem (AT) and a CMC.

- **INTL** - This identifier specifies that the TSG is an international link with the far end outside World Zone 1 and that the 4ESS Switch is being used as an International Switching Center (ISC)

- **OWATS** - This identifier specifies that the TSG is a link to a Private Branch Exchange (PBX) over which only Outward Wide Band Area Telephone Service (WATS) calls are allowed.

Continued on next page

Form Entries, Continued

FENCLASS (cont'd)

- **OEO** - Other End Office connecting, meaning an Equal Access End Office (EAEO) owned by a different company. This identifier specifies that the FEN is an OEO. The TSG connects an Access Tandem (AT) and an OEO.
- **PBX** - This identifier specifies that the TSG is a link to a PBX.
- **POTS** - This identifier specifies that the TSG is a link to a switching machine serving either a Local Access Transport Area (LATA) of the Local Exchange Carrier (LEC) owning/sharing the 4ESS Switch, the Continental United States/Plain Old Telephone Service (POTS) (CUSP) network of the IEC owning/sharing the 4ESS Switch, or some other FEN to be treated similarly.

Continued on next page

Form Entries, Continued

FENID

Far End Network (FEN) Identification - This field distinguishes the specific FEN with which this Trunk Subgroup (TSG) is associated. One to six alphanumeric characters may be entered to distinguish among several FENs with the same classification, or the field may be left **"Blank"**. If FENCLASS is **"Blank"**, FENID must also be **"Blank"**.

When the FENCLASS is ACCESA or ACCESI, FENID should consist of type of feature group access and the 4 numeric digits of the Carrier Identification Code (CIC).

The type of feature group definitions are:

- **G** - All access types (B, C, & D).
- **B** - Feature Group B Access.
- **C** - Feature Group C Access.
- **D** - Feature Group D Access.

Examples include:

- **G0288** - Carrier ID 288 has Feature Group B, C, & D access.
- **BC0288** - Carrier ID 288 has Feature Group B & C access.
- **BD0288** - Carrier ID 288 has Feature Group B & D access.
- **B2882** - Carrier ID 2882 has Feature Group B access only.
- **D2882** - Carrier ID 2882 has Feature Group D access only.

For an access type, both B2882 and D2882 can exist but be for different carriers.

Continued on next page

Form Entries, Continued

TFG

Type of Feature Group - This field is used to specify whether the Type of Access for this Trunk Subgroup (TSG) is tariffed under Feature Group B, Feature Group C, or Feature Group D. An entry can only be made if the FENCLASS is ACCESA. If FENCLASS is ACCESA, a **"B"**, **"C"**, or **"D"** must be entered, corresponding to Feature Groups B, C, or D, respectively. FENCLASS is not ACCESA, this field must be left **"Blank"**.

TSGBBC

Trunk Subgroup (TSG) Broadband Capability - Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q.931 signaling systems allow for broadband switching. This entry specifies what type of circuits may be populated in this TSG. Valid entries are:

- **Blank** - 1 trunk circuit
- **0** - 1 trunk circuit
- **1** - 6 trunk circuits
- **2** - 24 trunk circuits
- **3** - Combined usage 1 and 6 trunk circuits
- **4** - Combined usage 1 and 24 trunk circuits
- **5** - Combined usage 6 and 24 trunk circuits
- **6** - Combined usage 1, 6, and 24 trunk circuits.

VDCAP

Not Applicable - Entries: **"Blank"**

DATAF

Not Applicable - Entries: **"Blank"**

FEAREA

Not Applicable - Entries: **"Blank"**

FESWID

Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

EXSEQ	Not Applicable - Entries: **"Blank"**
FEPTY	Not Applicable - Entries: **"Blank"**
C1WTO2W	Convert a One-way Trunk Subgroup(TSG) to a Two-way Trunk Subgroup -This specifies a one-way TSG (incoming or outgoing) is to be converted to a two-way TSG. Valid entries are **"Blank"**, **"Y"**, or **"N"**.

Continued on next page

Form Entries, Continued

TOT

Type of Trunk - This field specifies the trunk type for this Trunk Subgroup (TSG). TOT entries of **"ETC"** for End Office or Tandem Connecting, **"LCC"** for Local Exchange Carrier Connecting, and **"OCC"** for Other Carrier Connecting are used for network interconnect. When these TOT values are used on Integrated Services Digital Network User Part (ISUP)
trunks, the Local Exchange Carrier (LEC) (Bellcore TR-317) and/or network interconnect version (TR-394) of the ISUP protocol is used. For all other allowed TOT values, the AT&T version of the ISUP protocol is used. The codes that may be entered are as follows:

- **ETC** - End Office or Tandem Office Connecting - This Type of Trunk (TOT) is used to identify Equal Access (EA) or Intra Local Access Transport Area (IntraLATA) trunks at a switch serving as an Access Tandem (AT) or Service Switching Point (SSP) where the other end connects to an End Office. This TOT is also used to identify EA trunks between ATs or between an AT and a switch serving as an SSP. When the type of trunk is ETC, the signaling characteristic of the Trunk Subgroup (TSG) must be either Multifrequency Wink (MFWINK) or ISUP.

- **INTL** - International - International circuit with the far end outside of World Zone 1, and having signaling characteristics of International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5), CCITT6, International ISUP (INUP), and CCITT7 Telephone User Part (TUP).

- **INTLO** - International Overflow - International Overflow circuit (for overflow transit traffic) with the far end inside World Zone 1 in another International Switching Center (either the U.S. or foreign).

- **ITAND** - Inter Tandem - This TOT can be used to handle traffic between two tandem switchers in the same local calling area.

- **ITOLL** - Intertoll - Intertoll trunks will carry toll traffic between class 4 or higher offices, or trunks dedicated to Inter-International Switching Center (inter-ISC) international overflow traffic. This includes final, full and high usage TSGs.

Continued on next page

Form Entries, Continued

TOT (cont'd)

- **ITOPA** - International Operator Trunk A – International Operator Center 3C/3CL switchboards associated with Operator Bridged Access Trunks (OBAT). Each OBAT has two appearances on the A trunk and B trunk.

- **LCC** - Local exchange Carrier Connecting - This TOT is used to identify EA trunks at an AT&T switch This identifier is also used for outgoing ISUP trunks from the Interexchange Carrier/International Exchange Carrier (IC/INC) to an SSP office. When the type of trunk is LCC, the signaling characteristic of the TSG must be either MFWINK or ISUP and the Equal Access Signaling (EAS) field must be marked as either **"E"**, **"A"**, **"D"** or **"R"**.

- **NSDSD** - Network Services Frame Direct Services Dialing Capability - This identifier indicates trunks in this TSG are used to interface the Network Services Frame (NSF) for Direct Services Dialing Capability (DSDC) features. This TSG may only have two way Common Channel Interoffice Signaling (CCIS) characteristics. This TSG is not hunted via normal routing mechanisms, so there can be only one TSG bearing this TOT designation (all trunks connecting a 4ESS Switch to its DSDC equipped NSF must be in the same TSG).

- **OCC** - Other Carrier Connecting - This TOT is used to identify EA trunks at a switch serving as an AT or SSP where the other end connects to an IC or INC switch. This type of trunk should be used when the signaling on the TSG is MFWINK or ISUP.

- **PBX** - Private Branch Exchange - This identifier indicates that the trunks in this TSG terminate on a PBX unit. If the PBX interface is via a 2-wire PBX Channel Unit (J98726ST), then the Incoming Signaling Characteristics (ISC) should be Dial Pulse Immediate (DPIMMED) and the Outgoing Signaling Characteristics (OSC) should be Dial Pulse Wink (DPWINK).

- **SECIT** - Secondary Intertoll - These trunks interconnect toll switching machines and manually operated toll or assistance switchboards for routing of operator completed traffic.

Continued on next page

Form Entries, Continued

TOT (cont'd)

- **STC** - Single Trunk Customer - This TOT is used to designate a TSG for single trunk terminations not supported by a PBX. When TOT is STC, the following TSG fields must be **"Blank"** or **"N"** as allowed: ANISID, APS, BRL, CCIS2WRE, DNHR, DPC, EAS, FAR4E, PBXAW, PBXESGD, REV, RFA, RFMP, SAT, SINDEX, TFG, TSGBBC, WANISID, XCPA.

- **TAND** - Tandem - This code is used for 2-way tandem, tandem completing and tandem connecting TSGs.

- **TOLLC** - Toll Connecting or Completing - This code is used for Direct Distance Dialing (DDD) access, toll connecting or toll completing TSGs.

SAT

Satellite - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not this Trunk Subgroup (TSG) is associated with satellite facilities. This entry performs a screening function to avoid two satellite TSGs from being connected together to complete a call. If the incoming TSG has SAT = "Y", then call processing will insist the outgoing TSG must have SAT = "N". This can also be used for local screening functions even though the TSG is not via a satellite.

For Voice Frequency Link (VFL) TSGs, satellite facilities cannot be used for a domestic Common Channel Interoffice Signaling (CCIS) system, i.e. if DOM is Plain Old Telephone Service (POTS), then SAT must be **"N"**.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), International Direct Distance Dialing (IDDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (0 through 19). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be ITOLL, MISC, or TSPS or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e. CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.
- **I64C** -This transport domain is used to route 64 kbps clear international data calls up to an ISC.
- **I56D** -This transport domain is used to route 56 kbps international data calls up to an ISC.

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Form Entries, Continued

DOM (cont'd)

The following translations domains are used for the Software Defined Network (SDN) and Private Branch Exchange (PBX) Interface features:

- **SDNA** - Software Defined Network (SDN) Access - This domain is used to translate the digits of an originating SDN (voice or data) call and determine if the call is a 7-digit or 10-digit call. Trunks in the SDNA domain are dedicated to SDN calls. When DOM equals SDNA, then TOT must be CAMAA, CAMAO, ETC, LCC, PBX, STC, TAND, or TOLLC for Trunk Subgroup (TSG) forms or CALLTYP must be CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SDX, SSP, TEL, TST, or TTS for code group forms.

- **DEV** - Dedicated Egress Voice - This domain is available at the terminating 4ESS Switch to translate SDN and Direct Connect voice calls and route them to a directly connected PBX, via direct egress, or to a local office, via switched egress.

  This domain is also used as an access domain for originating Direct Connect voice calls. The calls arrive at the 4ESS Switch as 10-digit calls. When DOM equals DEV, then TOT must be PBX or Single Trunk Customer (STC) for TSG forms or CALLTYP must be CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SDX, SSP, TEL, TST, or TTS for code group forms.

- **DED** -Dedicated Egress Data - This domain is available at the terminating 4ESS Switch to translate the SDN data call and route it to a directly connected PBX, via direct egress, or to a local office, via switched egress.

  This domain is also used as an access domain for originating Direct Connect data calls. The calls arrive at the 4ESS Switch as 10-digit calls and are routed through the network (translations and facilities) via the data domain. When DOM equals DED, then TOT must be PBX or STC for TSG forms or CALLTYP must be CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SDX, SSP, TEL, TST, or TTS for code group forms.

Continued on next page

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.
- **APN** - Action Point Numbering Plan - This domain is used as an access domain for originating Direct Connect voice or data calls. The calls arrive at the 4ESS Switch as 10-digit calls. When DOM equals APN, then TOT must be PBX or STC for TSG forms.

NOTE: For Voice Frequency Link (VFL) TSGs, this field identifies the domain in which this TSG operates. Valid inputs are "POTS" (if VFL is associated with a domestic Common Channel Interoffice Signaling [CCIS] system).

ACD

Automatic Call Distributor - This field is used to indicate if this Trunk Subgroup (TSG) is used to terminate Inward Wide Band Area Telephone Service (INWATS) traffic. Enter **"Y"** if this TSG will terminate INWATS traffic. Enter **"T"** if INWATS Time of Day (TOD) billing is required. Enter **"N"** or leave **"Blank"** if this TSG will not terminate INWATS traffic.

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Use pursuant to Company Instructions

Form Entries, Continued

IT

Intertoll Treatment - This field is used when the domain of the Trunk Subgroup (TSG) is Plain Old Telephone Service (POTS) and the type of trunk is either End Office or Tandem Connecting (ETC) or Other Carrier Connecting (OCC) to specify whether the TSG should receive intertoll treatment (IT="**Y**") or toll connect treatment (IT=**"N"**) or **"Blank"**. Intertoll treatment means that the call is routed in the POTS intertoll domain, that is, a normal 7-digit call will be terminated in the home Numbering Plan Area (NPA).

((4E22>) - Offices using Traditional routing only). Toll connect treatment means that the call is terminated in the NPA specified by the Far End Numbering Plan Area (FENPA) field.

This field should be set to "**Y**" in any FENPA that is not the Home NPA

((4E22>) - Offices using Traditional routing only) or a Served NPA. This field can also be set to "**Y**" in the Home NPAs

((4E22>) - Offices using Traditional routing only) or Served NPAs to force the POTS-IT domain.

FAI

Not Applicable - Entries: **"Blank"**

FENPA

Far End Numbering Plan Area/Trunk Subgroup (TSG) - Enter a 3-digit Numbering Plan Area (NPA) code to identify the far end of the subgroup. Valid entries range from **"200-999"**. With an International Trunk Subgroup, if the far end of the Trunk Subgroup is outside World Zone 1, enter the 1-, 2-, or 3-digit country code. Valid ranges of Country Code entries are **"2-9"**, **"20-99"**, and **"200-999"**.

This field is the NPA of the Far-End Office. If this office is not in the Home or Served area, then the Domain will be Plain Old Telephone Service-Intertoll/Intertandem (POTS-IT) and the IT field will be forced to **"Y"** in a Local Exchange Carrier (LEC) switch.

Continued on next page

Form Entries, Continued

FEOFC Far-End Office Code - This field is used to identify the office code of the far end switch. Typically this value will range from 200-999. Legal entries are: **"Blank"**, **000-999**.

FELATA Far End Local Access Transport Area/Trunk Subgroup - This field is used to identify the Local Access Transport Area (LATA) of the far end switch. Legal entries are: **"Blank"**," **000-999"**.

FESC6 Far-End 6-Digit Screening - A **"Y"** for Yes or **"N"** for No indicates whether or not the far-end office which outpulsed the incoming digits is doing 6-digit screening. An **"N"** should be entered in this field if it cannot be determined whether or not the far-end is doing 6-digit screening.

If this field is equal to yes, then vacant code analysis assumes the far-end office will never outpulse a vacant central office code (NXX), vacant Numbering Plan Area (NPA) code, an originating Inward Wide Band Area Telephone Service (INWATS) call which has been denied originating capabilities, or an incorrect number of digits on this Trunk Subgroup (TSG).

IWZ1 International World Zone 1 - Enter **"Y"** if this Trunk Subgroup (TSG) will carry international traffic within World Zone 1. Enter **"N"** or leave **"Blank"** if this TSG will not carry international traffic within World one 1. Valid entries are **"Blank"**, **"N"**, or "**Y**".

MEM Memory - This field is used to indicate if trunk hunt with memory is to be performed on this Trunk Subgroup (TSG) when searching for an idle trunk. Trunk hunt with memory is not performed on a TSG if the TSGBBC field is greater than zero (the MEM field should be set to **"N"** in this case). Enter **"N"** if trunk hunt with memory is not to be done. Enter **"Y"** or leave **"Blank"** if trunk hunt with memory is to be done.

Continued on next page

Form Entries, Continued

PSES Prohibit Service Evaluation - An entry of **"N"** for No specifies that this Trunk Subgroup (TSG) is eligible for service evaluation by the No. 2 Service Evaluation System. An entry of **"Y"** for Yes specifies that the TSG is not eligible for service evaluation. Valid entries are **"Blank"**, **"Y"**, or **"N"**. Blank defaults to "**N**".

INSEP Incoming Traffic Separation Class - Enter a number in the range of **"0-255"** to indicate a traffic class for measurement purposes. This code will be used with the outgoing destination (Destination Separation [DESEP] on code group forms) to determine the peg and usage counts for traffic flow identification. Test position and test call Trunk Subgroups (TSGs) are generically assigned to Incoming Separation Class (INSEP) 31. This should be considered before assigning any other TSG to INSEP 31. Also, since service circuits, other non-message circuits, and 1-way outgoing TSGs have a generically assigned INSEP of zero, they will appear as part of TSG listings for INSEP zero. This fact should be considered before assigning any other Trunk Subgroup to INSEP zero.

MTSC Multiple Treatment Screening Class - This field is used to assign an MTSC to this Trunk Subgroup (TSG). Multiple treatment screening may be used to separate routing treatments for TSGs in the same domain. An example is giving independent company trunks a different routing even though the received digits and domain are the same as some other TSG. All TSGs must have an MTSC in the range of **"0-63"**.

GNSC Go/No Go Screening Class - Go/No Go Screening may be used to block traffic dialing specific digits over a Trunk Subgroup (TSG). All incoming and two-way message TSGs are given a Go/No Go class in the range of **"0-3**". When this type of screening is required for a group of codes, those codes are correlated with a specific class and a "Go" or "No Go" condition (RC Forms 300-304). If a group of codes specify "Go" on a given class, those codes will be blocked on TSGs having a class other than the specified class. For a "No Go" correlation, a set of codes will not be blocked except on TSGs having the specified class. All blocked traffic is given the vacant code Final Handling Treatment (FHT).

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Form Entries, Continued

GEOSEP

Geographical Traffic Separation Class - Valid entries for this field are one or two digits in the range of "**0**-**31**" to indicate a traffic class for measurement purposes. This code is used with the Announcement Separation Class to score geographical survey counts in Mass Announcement System (MAS) offices.

ISC

Incoming Signaling Characteristics - Enter one of the following codes to specify the incoming signaling characteristics required for this Trunk Subgroup (TSG).

- **DPDDSD** - Dial Pulse with Delay Dial/Start Dial.
- **DPIMADG** - Dial Pulse with Immediate start and "A" Digit reconstruction.
- **DPIMMED** - Dial Pulse with Immediate start (no delay).
- **DTMFWK** - Dual-Tone Multifrequency (DTMF) with Wink Start.
- **DTS** - Dial-Tone Start.
- **ISUP** - CCITT7 Integrated Services Digital Network (ISDN) User Part.
- **MFDDSD** - MF with Delay Dial/Start Dial.
- **MFOPWK** - MF Operator trunk with Wink start - International operator trunks.
- **MFWINK** - MF with Wink start.

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LUCENT TECHNOLOGIES PROPRIETARY
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Form Entries, Continued

RFA	Ring Forward Allowed - Enter a **"Y"** for Yes or **"N"** for No to indicate if ring forward is allowed. All intertoll (ITOLL) trunks (Type of Trunk [TOT] field is equal to ITOLL) will require the RFA feature. All trunks that have the possibility of receiving operator calls from lower class offices will also require this feature. Each 4ESS Switch office must determine which Trunk Subgroups (TSGs) may receive operator type calls. These TSGs must have the RFA feature assigned.
ADIG	"A" Digit - Reconstruction will be necessary when receiving digits from a machine that absorbs the first digit of a dialed address. Valid entries are **"0"** or **"2-9"** if International Switching Center (ISC) equals DPIMADG. This field is **"Blank"** for all other cases.
CCIS2WRE	Common Channel Interoffice Signaling (CCIS) 2-Wire - This field should be **"Blank"** for a non-Common Channel Signaling (CCS) Trunk Subgroup (TSG). If this is a CCIS or Integrated Services Digital Network User Part (ISUP) TSG, then it must be determined whether the far end office will terminate the trunks in this TSG on a 2-wire or 4-wire switching network in order to perform the continuity check test on CCIS or ISUP trunks. The CCS continuity check tests will be performed by using the transceiver in either a transceive mode for 4-wire CCS trunks or in a transpond mode for 2-wire CCS trunks. Enter a **"Y"** for Yes if the far end office has a 2-wire network, e.g., 1 ESS/1A ESS 2-wire. Enter an **"N"** for No if the far end office has a 4-wire network, e.g., 1 ESS/1A ESS HILO, 4ESS, 5ESS®, etc.

Continued on next page

Form Entries, Continued

CBNPR

Calling Party Number/Billing Number Default Presentation Restriction Indicator - This field indicates whether the received CPN/BN can be passed from the network at the egress point or not. Enter **"Y"** if the default condition for the presentation of CPN/BN should be to restrict it. Enter **"N"** or leave **"Blank"** if the default condition for the presentation of CPN/BN should be unrestricted. This field applies to incoming trunks for which CPN/BN is pre-stored or on which CPN/BN can be received. For Integrated Services Digital Network User Part (ISUP) Trunk Subgroups (TSGs) with Type of Trunk (TOT) or Local Exchange Carrier Connecting (LCC), this field should be populated with a **"Y"**.

For 4E17 and later generics: Enter **"PA"** or **"Blank"** if the default condition for the presentation of CPN/BN should be unrestricted. Enter **"PR"** if the default condition for the presentation of CPN/BN should be to restrict it.

Continued on next page

Form Entries, Continued

OSC

Outgoing Signaling Characteristics - Enter one of the following codes to specify the outgoing signaling characteristics required for this Trunk Subgroup (TSG):

- **DPDDSD** - Dial Pulse with Delay Dial/Start Dial.
- **DPIMMED** - Dial Pulse with Immediate pulsing (no delay).
- **DPWINK** - Dial Pulse with Wink start.
- **DTMFWK** - DTMF with Wink Start.
- **ICOPNOP** - Integrity Check Operator trunk with No Outpulsing. Use this characteristic on trunk subgroups which return a wink signal.
- **ISUP** - CCITT7 ISDN User Part.
- **MFDDSD** - MF with Delay Dial/Start Dial.
- **MFWINK** - MF with WINK start.
- **MIOPNOP** - Miscellaneous Operator with No Outpulsing. This OSC. is used for information and other operator calls. This OSC may be used for Direct Connect calls on 1-way outgoing and 2-way TSGs when Type of Trunk (TOT) is Private Branch Exchange (PBX) or Single Trunk Customer (STC). Use this characteristic only on TSGs which do not return a wink signal.

Continued on next page

Form Entries, Continued

RFMP

Ring Forward Miscellaneous Distributor Point - Leave **"Blank"** or enter **"N"** for No to indicate that a miscellaneous distributor point is not associated with the outgoing portion of the Trunk Subgroup (TSG). This feature is only required for outgoing trunks requiring 130V ring forward battery. This feature is presently not available on the outgoing portion of 2-way trunk circuits.

DPSTOP

Dial Pulse Stop - Enter a **"Y"** for Yes if this Trunk Subgroup (TSG) terminates in a panel, Step-by-Step or other office that might not be able to receive a complete train of dial pulse digits without a pause between digits (Outgoing Signaling Characteristic [OSC] equal to DPWINK, DPDDSD, or DPIMMED). This feature will tell the program to look for a DPSTOP signal from the far-end office after any one of the first three digits is outpulsed. Enter an **"N"** for No if this feature is not required for DP outpulsing. For other types of outpulsing, leave this field **"Blank"**.

DELAY

Delay Interval - An entry must be made if the Outgoing Signaling Characteristic (OSC) is CCITT5, DTMFWK, MFWINK, or MFDDSD. Leave this field **"Blank"**, if any other OSC is specified. If OSC is MFWINK, MFDDSD, SIOPMFW, or TWOPMFW, enter **"20"**, **"80"**, or **"220"** to indicate the delay in milliseconds before outpulsing is started. This delay interval starts when the wink or start dial signal from the other office is recognized. Twenty milliseconds is basic for most offices. A delay of 20 may be associated with 7 or 10 multifrequency digits per second. When the OSC is Dual Tone Multifrequency Wink (DTMFWK), enter **"70"**, **"140"**, **"210"**, or **"280"** to indicate the delay in milliseconds before outpulsing. This delay interval starts when the wink from the Private Branch Exchange (PBX) is received. **"70"** milliseconds is the minimum required for PBXs.

Continued on next page

Form Entries, Continued

MFSPEED Multifrequency Speed - If Outgoing Signaling Characteristic (OSC) is specified as MFWINK, MFDDSD, SIOPMFW, or TWOPMFW enter **"7"** or **"10"** to indicate the number of outpulsed Multifrequency (MF) digits per second. Enter **"10"** for Lucent Technologies ESS machines. Seven digits per second is used for all electromechanical machines. If OSC is equal to International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5), this field should indicate an MF speed of 10. Leave this field **"Blank"** for any other value of OSC.

DNHR Not Applicable - Entries: **"N"**

XCPA Transceiver (XC) Pad Adjustment - This item will be left **"Blank"** for non-Common Channel Interoffice Signaling (CCIS) trunks. If the Outgoing Signaling Characteristic (OSC) is equal to International Consultative Committee for International Telephone & Telegraph Signaling System 6 (CCITT6), Domestic CCIS (DOMCCIS), Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), or CCITT7 Telephone User Part (TUP) enter a digit from **"0"** to **"3"** to indicate the pad setting for the CCIS transceiver. The correct entry can be determined by comparing the highest Inserted Connection Loss (ICL) value assigned to a trunk in this Trunk Subgroup (TSG) to the following table. The ICL can be obtained from the Circuit Order Layout Record (COLR) card.

DIGIT	ICL APPLICATION	PAD
• **0**	0 loss trunk	5 DB
• **1**	.1 to .8 loss	3.5 DB
• **2**	.9 to 1.7 loss	1.8 DB
• **3**	1.8 to 4.1 loss	0 DB

Continued on next page

Form Entries, Continued

DNP

Dialed Number Preferred - This field indicates whether the called user prefers to receive the original dialed number, if available, as delivered to the network rather than the routing number. Enter **"Y"** if the called user prefers receiving the original dialed number, otherwise, enter **"N"** or leave **"Blank"**. This field applies to outgoing Q.931 trunks only.

REV

Reverse Traffic Numbers - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not the hunt sequence for this Trunk Subgroup (TSG) is to be reversed. This is determined by comparing the name of the far-end office to the local office using the Common Language Location Identification (CLLI) code for each office. The last office alphabetically should be set to hunt in a reverse sequence. This determination is required only on 2-way TSGs in order to reduce the possibility of both offices seizing a trunk at the same time (a GLARE condition).

Internally, the trunks are stored in ascending traffic number order in the trunk block when REV is set to **"N"**. For non-broadband TSGs, the trunks are stored in descending traffic number order in the trunk block when REV is set to **"Y"**. Trunk hunt always starts searching from the beginning of the trunk block. For broadband TSGs, the trunks are always stored in ascending traffic number order in the trunk block regardless of whether REV is set to **"Y"** or **"N"**, however, when REV is **"Y"**, the busy-idle-bits are searched in a reverse order.

Continued on next page

Form Entries, Continued

GLARE

Glare Control - For domestic E&M trunks, enter an **"A"** for all if this office remains in control when a 2-way trunk is seized by both offices. The other office should be arranged to relinquish control. If the other office (far end) has control, enter an **"N"** for None.

For Integrated Services Digital Network User Part (ISUP) trunks, an "**O**" indicates that this office will control the odd labels. An "**E**" indicates that this office will control the even labels. The switch with the lower point code should be assigned to maintain control of the odd numbered Circuit Identification Codes (CICs). The switch with the higher point code should be assigned to maintain control of the even numbered CICs. The point codes to be compared are the Origination Point Code (OPC) and the Destination Point Code (DPC). Alternatively, for ISUP trunks, an **"A"** can be entered to indicate that the switch will control all CICs or an **"N"** can be entered to indicate that the switch will control no CICs.

The Machine Administrator should furnish this Trunk Subgroup (TSG) information.

Continued on next page

Form Entries, Continued

PSOLI	Prohibit Sending Originating Line Identity - This field indicates whether OLI can be passed to a connecting network. Legal values are **"Blank"**, **"Y"** or **"N"**. **"Y"** specifies that OLI should not be sent. **"N"** specifies that OLI should be sent.
BN	Billing Number/Trunk Subgroup- This field is used to specify a BN associated with the TSG. It may be left **"Blank"**, or a **"3-"**, **"4-"**, or **"10-digit"** number may be entered. If FENCLASS is ACCESA or ACCESI, BN must be a 4-digit number (4-digit number if Type of Feature Group [TFG] is "B") equal to the (X)XXX corresponding to the inter-Local Area Transport Access (LATA) or International Carrier at the far end of the TSG. If FENCLASS is CMC, OWATS, or PBX, BN must be a 10-digit number. If the Automatic Call Distributor (ACD) field is **"Y"**, then BN must be a 10-digit number specifying the billing number of the INWATS ACD customer. If the ACD field is **"T"**, then BN must be **"199"**.
BRL	Billing Record Length - This field is used to specify whether long or short Automatic Message Accounting (AMA) records should be created for calls on this Trunk Subgroup (TSG). An "**S**" should be entered if Short AMA records are required or an **"L"** should be entered if Long AMA records are required. If **"L"** is entered, both answered and unanswered calls are recorded. If **"S"** is entered, only answered calls are recorded. If this field is left **"Blank"**, short AMA records will be made (if necessary). **NOTE: There is only one record length for Private Branch Exchange (PBX) calls, so this field should be used to indicate whether both answered and unanswered.**

Continued on next page

Form Entries, Continued

ITC	Incoming Trunk Class - This value identifies the incoming trunk as belonging to one of four incoming classes. The ITC is used in conjunction with Local Exchange Carrier (LEC) Service Switching Point (SSP) call routing instructions to identify which Number Services Data Block (NDB) will be selected for picking a trunk to an Interexchange Carrier/International Carrier (IC/INC). The use of this field is similar to that of Multiple Treatment Screening (MTS) but is associated with the BOC SSP feature. Legal entries are "**Blank**" or "**0**-**3**".
GSDN.tsg	Not Applicable - Entries: **"Blank"**
GSDNPHSE	Not Applicable - Entries: **"Blank"**
EAS	Equal Access Signaling - This field is used to specify if Equal Access Signaling (EAS) will be received on this Trunk Subgroup (TSG), and if so, whether Automatic Number Identification (ANI) is expected for the EAS calls. Note that this field only applies to an Inter-Local Access Transport Area (LATA) Carrier switch receiving EAS or an office with the Service Switching Point (SSP) feature receiving EAS. This field must be set to **"N"** for None if EAS is not received on the TSG. If EAS can be received on the TSG, but ANI is not expected for the EAS calls, then an **"E"** must be entered. If EAS can be received on the TSG, and ANI is expected on the EAS calls, then an **"A"** must be entered. Entries of **"D"** and **"R"** in the EAS field are used to designate Feature Group D (FGD) only. If only FGD is received on the TSG, but ANI is not expected, then a **"D"** must be entered. If only FGD is received on the TSG, and ANI is expected, then a **"R"** must be entered. This field only applies to an Inter-LATA Carrier switch receiving Equal Access Signaling (EAS), i.e., the Type of Trunk (TOT) value is Local Exchange Carrier Connecting (LCC).

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Form Entries, Continued

NPARINH Inhibit Numbering Plan Area (NPA) Reconstruction - This field is used to specify whether NPA reconstruction for equal access calls or SDN should be inhibited on this TSG or not. ANI is taken to be NPA if only seven digits are received. If NPA reconstruction should be inhibited, enter **"Y"**, otherwise enter **"N"** or leave **"Blank"**. This field only applies to Local Exchange Carrier Connecting (LCC) Type of Trunks (TOTs). Valid entries are **"Blank"**, "**Y"**, or **"N"**.

WATSBN General Wide Area Telephone Service (WATS) Billing Number - Enter a 10-digit billing number for each Trunk Subgroup (TSG) which will be used to carry WATS type traffic. If an entry is not required, then the field must be "**Blank**" . Valid entries are **"0000000000-999999999"** and **"Blank"**.

PSBN Prohibit Sending Billing Number - This field is used to indicate that the caller's billing number should not be sent in the outgoing signaling messages.

For 4E17 and earlier generic programs, enter **"Y"** if the billing number should not be forwarded. This value should only be used on Trunk Subgroups (TSGs) connecting to another network. Enter **"N"** or leave **"Blank"** if the billing number can be sent. This field applies to outgoing Integrated Services Digital Network User Part (ISUP) trunks only.

For 4E18 and later generic programs, this value should only be used on TSGs connecting to another network. Enter:

- **Blank** or **PNNA** - prohibit sending a billing number with a numbering plan type other than North American Numbering Plan (NANP).
- **SALL** - if the billing number can be sent, regardless of the numbering plan type.
- **PALL** - if all billing numbers are to be prohibited from being sent, regardless of the numbering plan type. This field only applies to outgoing ISUP and Q.931 trunks. The PALL value applies only to ISUP trunks.

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Form Entries, Continued

PSCPN

Prohibit Sending Calling Party Number - This field is used to indicate that the caller's calling party number should not be sent in the outgoing signaling messages. Enter **"Y"** if the calling party number should not be forwarded. This value should only be used on Trunk Subgroups (TSGs) connecting to another network. Enter **"N"** or leave **"Blank"** if the calling party number can be sent. This field applies to outgoing Integrated Services Digital Network User Part (ISUP) and International ISUP (INUP) trunks only.

ANISID

ANI/SID requester value: This field specifies the type of calling party information which should be transmitted to the customer. Valid entries are:

- **Blank** No information
- **NONE** No information
- **ANI** Automatic Number Identification (ANI) only
- **SID** Service Identity (SID) only
- **PANI** ANI or SID (prefer ANI)
- **PSID** ANI or SID (prefer SID)
- **REQ** Customer will use signaling to specify.

Continued on next page

Form Entries, Continued

WANISID Wide Area Telephone Service (WATS) Automatic Number Identification (ANI)/Service Identity (SID) requester value - This field specifies the type of calling party information which should be transmitted to the customer when Megacom* 800 type of traffic is delivered to the customer. Valid entries are:

- **Blank** - No information
- **NONE** - No information
- **ANI** - ANI only
- **SID** - SID only
- **PANI** - ANI or SID (prefer ANI)
- **PSID** - ANI or SID (prefer SID)
- **REQ** - Customer will use signaling to specify.

*Megacom is a registered trademark of AT&T.

PSUUI Prohibit Sending User-to-User Information - This field indicates whether to accept/send Message Associated (MA) UUI on this Trunk Subgroup (TSG). Legal values are **"Blank"**, **"Y"**, or **"N"**. Enter **"Y"** if MA-UUI should not be sent. This value should be used on access TSGs to prohibit the receipt of MA-UUI, and it should be used on egress TSGs to prohibit the sending of MA-UUI. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only.

BNPT Not Applicable - Entries: **"Blank"**

WBNPT Not Applicable - Entries: **"Blank"**

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Form Entries, Continued

CMERGE	Not Applicable – Entries: **"Blank"**
SCFN	Send Confusion Messages - This field indicates if received Confusion messages are counted and if Confusion messages are to be sent when an unimplemented message is received. Valid entries are **"Blank"**, **"Y"**, or **"N"**.
OVLP	Overlap Signaling- This field indicates if Consultative Committee for International Telephone & Telegraph Signaling System 7 (CCITT7) Overlap Signaling is allowed when processing an International Integrated Services Digital network User Part (INUP) or CCITT7 Telephone User Part (TUP) call. If OVLP is set to **"Y"**, then Overlap Signaling will be allowed on transit non-operator, non-test calls. The default value for this field is: **"Blank"** (Overlap Signaling not allowed).
PRIT	Not Applicable - Entries: **"Blank"**
APS	Accunet® Packet Service - This field is used to indicate if Accunet packet service can be performed on this Trunk Subgroup (TSG). Enter **"Y"** if Accunet packet service is allowed. Enter **"N"** or leave **"Blank"** if Accunet packet service is not allowed.
CHNEG	Channel Negotiation - This field is used to indicate whether channel negotiation can be performed on this Trunk Subgroup (TSG) or not. Enter **"Y"** if channel negotiation is allowed. Enter **"N"** or leave **"Blank"** if channel negotiation is not allowed.

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Form Entries, Continued

PSATP

Prohibit Sending Access Transport Parameters - This field indicates whether Access Transport Parameters (ATP) can be passed to or from a connecting network. Legal values are **"Blank"**, **"Y"** or **"N"**. Enter **"Y"** if ATP should not be sent. This value should be used on access Trunk Subgroups (TSGs) to prohibit the receipt of ATP; it should be used on egress TSGs to prohibit the sending of ATP. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only. This new field will not affect the sending of ATP at an Access Tandem (AT) switch.

PBXESGD

Private Branch Exchange (PBX) Expect Station Group Designation - This field is used for the Software Defined Network (SDN) feature and is set equal to **"Y"** if the SDN customer has a direct connect PBX that will append an extra digit to the dialed number to indicate authorization of calling station. A **"Y"** or **"N"** must be entered in this field if Type Of Trunk (TOT) is PBX and Domain (DOM) is Software Defined Network Access (SDNA), otherwise it must be set to **"N"** or left **"Blank"**.

PBXAW

Private Branch Exchange Answer Withheld - This field is used to specify whether Answer Supervision can or cannot be sent to the PBX. An entry can only be made if Type Of Trunk (TOT) is PBX. A **"Y"** is entered if Answer Supervision is to be withheld. An **"N"** is entered if Answer Supervision should not be withheld (i.e., Answer Supervision is returned). If this field is left **"Blank"** Answer Supervision is returned (not withheld).

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Form Entries, Continued

FAR4E	The FAR4E field is set to **"Y"** for Yes whenever the far end of the trunks in this Trunk Subgroup (TSG) is terminated on a 4ESS Switch with the international announcements. This is used in common channel signaling (Incoming Signaling Characteristics [ISC] is Domestic Common Channel Interoffice Signaling [DOMCCIS] or Integrated Services Digital Network User Part [ISUP]) to control sending backward failure messages on failed international calls. These switches are equipped with the international announcements. The FAR4E field also controls common channel signaling sending network management call preference data in a forward direction (OSC is DOMCCIS or ISUP). Such data must not be sent forward to switches not equipped to handle it. Enter **"N"** if the far end is not a 4ESS Switch or the 4ESS Switch does not have the international announcements. This field should be left **"Blank"** for International Consultative Committee for International Telephone & Telegraph Signaling System 7 [CCITT7] ISUP (INUP) trunks.
DOFP	Disable Outgoing Fraud Prevention - **"Y"** indicates that Black Box and Blue Box fraud prevention controls are disabled on this Trunk Subgroup (TSG). **"N"** indicates that fraud prevention controls are enabled on this TSG.
SBRIV	Not Applicable - Entries: **"Blank"**
MEGC	Not Applicable – Entries: **"Blank"**
SDNA	Not Applicable - Entries: **"Blank"**
OWAT	Not Applicable – Entries: **"Blank"**
DATA	Not Applicable - Entries: **"Blank"**
CBC	Not Applicable - Entries: **"Blank"**

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Form Entries, Continued

DDD	Not Applicable - Entries: **"Blank"**
IDDD	Not Applicable - Entries: **"Blank"**
FOSPS	Not Applicable - Entries: **"Blank"**
CCIF	Not Applicable - Entries: **"Blank"**
SDNPLAN	Not Applicable - Entries: **"Blank"**
BFTIS	Backward Failure Treatment Integrated Services Digital Network User Part (ISUP) all the way. This field is used to specify whether an Announcement (ANN) should be played or a Release (REL) message should be sent when a call has gone ISUP all the way. On the Trunk Subgroup (TSG) Forms, this field is only used when signaling is ISUP and the type of trunk is OCC. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"REL"** when it applies. For Office Data Assembler (ODA) Form 406Z, this field is used for designating the action for intra-Local Access Transport Area (LATA) ISUP call failures occurring at the switch. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"REL"**.

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Form Entries, Continued

BFTNI

Backward Failure Treatment not Integrated Services Digital Network User Part (ISUP) all the way. This field is used to specify whether an Announcement (ANN) should be played or a Release (REL) message should be sent when a call has not gone ISUP all the way.

On the Trunk Subgroup (TSG) Forms, this field is only used when signaling is ISUP and the type of trunk is OCC. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"ANN"** when it applies.

For Office Data Assembler (ODA) Form 406Z, this field is used for designating the action for intra- Local Access Transport Area (LATA) ISUP call failures occurring at the switch when a call has not gone ISUP all the way. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"ANN"**.

SKSP

Not Applicable - Entries: **"Blank"**

PBXNWW

Private Branch Exchange (PBX) No Wait for Wink - An entry of **"Y"** in this field is used to specify that the Trunk Subgroup (TSG) has a PBX which does not wait for a wink from the 4ESS Switch before outpulsing digits. This field is used only for TSGs with a type-of-trunk value of PBX and signaling of Dual Tone Multifrequency Wink (DTMFWK). Enter **"Y"** if the PBX does not wait for a wink from the 4ESS Switch. Otherwise, enter **"N"** or leave **"Blank"**.

HYBRD

Not Applicable – Entries: **"Blank"**

CCTT

Not Applicable - Entries: **"Blank"**

INCID

Number of Carrier ID digits to be received - An entry of **"3"** specifies that the Trunk Subgroup (TSG) should expect to receive a 3-digit CID. An entry of **"4"** specifies that the TSG should expect to receive a 4-digit CID. An entry of **"B"** specifies that the TSG should expect to receive a 3- or 4-digit CID.

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Form Entries, Continued

ITELCO	Not Applicable - Entries: **"Blank"**
S5DIG	Not Applicable - Entries: **"Blank"**
SDS	Not Applicable - Entries: **"Blank"**
FVSR	Not Applicable - Entries: **"Blank"**
IFITR	Not Applicable – Entries: **"Blank"**
PCPEACEL	Not Applicable – Entries: **"Blank"**
UT15DA	Not Applicable - Entries: **"Blank"**
LRN	Location Routing Number: (4E22R2>) - To support Local Number Portability (LNP), a location Routing Number (LRN) has been defined to identify a Local Service Provider (LSP) End Office. LRN is used to provide Jurisdiction Information Parameter (JIP) if not present in an initial Integrated Services Digital Network User Part (ISUP) Initial Address Message (IAM) or if Incoming Trunk (ICT) is Multifrequency (MF) type signaling. Valid entries: **"Blank"** or a **"10-digit number"**.
CBN DIGS.tsg	(4E22R2>) Incoming Trunk TSG Connecting network access Billing Number Digits - a 10 digit TSG parameter. This field can only be populated if the CBN field is **"N"** - Non-Feature group-D signaled calls, or **"L"** - Local Number Portability (LNP) Non-Feature Group-D signaled calls. Entries: **"Blank"** or a **"10-Digit Number"**.

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Form Entries, Continued

CBN	Call Back Number - CBN is a seven or 10 digit telephone number associated with the Centralized Automatic Reporting On Trunks (CAROT) control location. It is used by the 4ESS Switch as part of the CAROT/ROTL interface.
ONCID	Number of Carrier ID digits to send - An entry of **"3"** specifies that the Trunk Subgroup (TSG) send a 3-digit CID. An entry of **"4"** specifies that the TSG send a 4-digit CID. If the TSG is not going to send a CID leave **"Blank"**.
D3DBN	Not Applicable - Entries: **"Blank"**
MULAW	This field is used to identify the type of encoding (A-law/Mu-law) used in the user information layer 1 protocol ID field of the User Service Information (USI) parameter. An entry of **"Y"** in this field along with an outgoing signaling characteristic of International Consultative Committee for International Telephone & Telegraph Signaling System 7 (CCITT7) Integrated Services Digital Network User Part (INUP) will indicate that Mu-law encoding is being used. A entry of **"N"** or leaving the field **"Blank"** will indicate that A-law encoding is being used.
CSCSET	Not Applicable - Entries: **"Blank"**
CID	Carrier ID. This field is populated with the pre-subscription carrier selected by the customer to handle inter-Local Access Transport Area (LATA) calls; and intra-LATA calls when intra-LATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. This field is only populated for ISC/OSC=Q.931.

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Form Entries, Continued

ITCENC

Information Transfer Capability Encoding - (4E21>) - This Trunk Subgroup (TSG) parameter indicates the allowed Information Transfer Capability (ITC) coding in the outgoing Initial Address Message (IAM). The parameter can have values shown below:

- **"Blank"**, **"N"** (use office): encode the outgoing IAM, User Service Information (USI) parameter ITC field, the same as used in the office indicator
- **"Y"** (use opposite of office): encode the outgoing IAM, USI parameter ITC field, with the opposite of what is used in the office indicator

The default is **"use office"**.

OFITR

Not Applicable – Entries: **"Blank"**

SPN

Signal Ported Number (SPN) outgoing Trunk Subgroup (TSG) indicator - This TSG indicator indicates if the destination switch is capable of supporting the Local Number Portability (LNP). If ""**Blank**"" or **"N"** (the default), the destination switch is considered LNP capable and the Local Routing Number (LRN) will be signaled. If **"Y"**, the destination switch is NOT considered LNP capable and only the Ported Number will be signaled not the LRN.

LNPIC

A Trunk Subgroup (TSG) field not used - valid entries are: **"Blank"**.

NCAR

Not Applicable - Entries: **"Blank"**

TTA

Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

EACC	Not Applicable - Entries: **"Blank"**
LCVT	Not Applicable – Entries: **"Blank"**
QPE	Not Applicable – Entries: **"Blank"**
NSA	Not Applicable – Entries: **"Blank"**
ANCR	Not Applicable - Entries: **"Blank"**
ACCID	Not Applicable - Entries: **"Blank"**
PSTNG	Not Applicable - Entries: **"Blank"**
FLDSPR	Not Applicable - Entries: **"Blank"**
REVAMP	Not Applicable - Entries: **"Blank"**
E1T1	Not Applicable - Entries: **"Blank"**
SUPBLK	Not Applicable - Entries: **"Blank"**
ATRIG	AIN TSG Trigger (4E22>) - This Trunk Subgroup (TSG) parameter allows TSG circuits to trigger the Advanced Intelligent Network (AIN) processing. The parameter can have the values: **"Blank"**, **"N"** (Do NOT allow access), **"Y"** (Allow access). The default is **"N"**.

Continued on next page

Form Entries, Continued

IXC	Not Applicable - Entries: **"Blank"**
FOLI	Not Applicable - Entries: **"Blank"**
FELN	Not Applicable - Entries: **"Blank"**
HUNT	Not Applicable - Entries: **"Blank"**
CSN	Not Applicable - Entries: **"Blank"**
CARSON	Not Applicable - Entries: **"Blank"**
SOIP	Not Applicable - Entries: **"Blank"**
TCC.tsg	Not Applicable - Entries: **"Blank"**
STBI.tsg	Not Applicable - Entries: **"Blank"**

Continued on next page

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Form Entries, Continued

CAREA

Control Area - Valid input for this field is a single digit in the range of **"0-9"**. This number identifies the Control Area that is to be associated with this Trunk Subgroup (TSG) for trouble reporting. The number assignable in a given office is limited, however, to the highest control area assigned at Office Data Assembler (ODA) time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location.

Any test position can access every trunk assigned to the 4ESS Switch with the exception of international trunks. International trunks having Incoming Signaling Characteristic (ISC) or Outgoing Signaling Characteristic (OSC) equal to Consultative Committee for International Telephone & Telegraph 5 (CCITT5) must be assigned to a CAREA that is equipped with 51AL6 test positions. The 51AL6 test position can access any trunk assigned to the 4ESS Switch. However, the alarms, Teletype (TTY) printouts, and 101 calls associated with a particular TSG will only be transmitted to the CAREA and CPOS that is specified on the input form for a TSG. A single trouble receiving location could be specified for all TSGs in the office. Trouble tickets might be originated here and distributed to occupied test positions as necessary. Some other typical applications could be to assign the TSGs to testboard positions alphabetically, by direction, by ownership, or by Type of Trunk (TOT).

The only other restraint on assigning a TSG to a particular CAREA and CPOS is that all positions might not have the optional equipment required to satisfactorily test some Trunk Subgroups. The arrangement in a given office depends on the administrative decisions made for that office.

Continued on next page

Form Entries, Continued

CAREA
(cont'd.)

Position 00 (CAREA 0, CPOS 0) has been assigned to the Master Test and Control Channel (MTC) teletype in the Maintenance Operating Center (MOC). This position was established to receive trouble reports for certain non-message type TSGs. Lucent Technologies recommend that positions
01-09 not be assigned in an office at this time. The circuits that should be assigned to test position 00 are:

- ACI*DCHN - D-Channel circuits to the Common Network Interface (CNI) Ring
- CLN*DLPC - Loopback/complement Data Test
- MAS*BIPB - Mass Announcement System (MAS) Barge-in Playback Trunk
- MIS*AART - Auxiliary Audible Ring Trunk
- MIS*TERM - Common Channel Interoffice Signaling (CCIS) Terminals
- SVC*AIN* - Advanced Intelligent Network (AIN)
- SVC*DMRV - Dual-Tone Multifrequency (MF) Receivers (DTMFR)
- VC*DMXM - Dual-Tone Multifrequency Transmitters (DTMFT)
- SVC*MFR* - Multifrequency Receivers
- SVC*MFX* - Multifrequency Transmitters
- SVC*XCVR - CCIS Continuity Check Transceivers
- SVC*XCVT - CCIS Continuity Check Transceiver Test Circuit
- SVC*MFRT - Multifrequency Receiver Test Circuits
- SVC*MFXT - Multifrequency Transmitter Test Circuits
- SVC*SCAN - Service Circuit System Expanded Announcements
- SVC*SCBN - Service Circuit System Expanded Announcements
- SVC*SCNS - Network Services Complex Set S
- TAS*ANN* - Recorded announcements
- TAS*TONE - Tone Circuits
- TAS*MWAT - 1004 hz at 0 dBm
- TAS*MW10 - 1004 hz at 10 dBm

Continued on next page

Form Entries, Continued

CAREA (cont'd.)

The balance of the non-message type TSG may be assigned to working testboard positions.

For RC Forms 604 and 605, this number identifies the Control Area that is to be associated with this announcement trouble report. The number assignable in a given office is limited, however, to the highest control area assigned at ODA time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location. If CAREA 0,
CPOS 0 is specified, all MAS messages will be sent to the MTC channel in the MOC.

CPOS

Control Position - Enter a number from **"0-9"** to specify the testboard position that is to be associated with the Trunk Subgroup (TSGs) and Control Area (CAREA) for test reporting purposes. This assignment together with the CAREA designation can be used to distribute the maintenance responsibility for Trunk Subgroups. This assignment does not prevent any test position from accessing a particular group of trunks. It is only for reporting purposes.

For RC Forms 604 and 605, enter a number from **"0-9"** to specify the testboard position that is to receive the announcement trouble reports. If CAREA is 0, only CPOS 0 is allowed. When the Message Announcement System (MAS) is administered by the Operations National Administration Center (ONAC), assign the CPOS that has been dedicated for its use.

SINDEX

Access Change Verification Sampling Rate Index value - This field specifies the rate at which calls will be sampled for access charge verification. Legal values are **"Blank"**, **"0"**, **"1"**, **"2"**, **"4"**, **"8"**, **"16"**, **"32"**, **"64". "Blank"** and **"0"** imply no verification recording. Otherwise, one call out of the number entered will be recorded.

Continued on next page

Form Entries, Continued

CODSC

Customer Premise Equipment (CPE) Outgoing Disconnect. An entry of **"Y"** in this field is used to specify (from the 4ESS Switch perspective) that a disconnect will be effected faster than normal when the called customer goes on-hook. This field is used only for TSGs with a type-of-trunk value of Private Branch Exchange (PBX) or Single Trunk Customer (STC) and with signaling other than Q.931. Valid entries are **"Blank"**, **"Y"**, or **"N"**.

(4E21>) - CPE Outgoing Disconnect or Signaling System 7 (SS7) Trunk Subgroup (TSG) Control of Per Channel Inhibit Signaling (PCIS) Bits. An entry of **"Y"** specifies that:

1. From the 4ESS Switch perspective, a disconnect will be effected faster than normal when the called customer goes on-hook. This application of CODSC is only for TSGs with a type-of-trunk value of PBX or STC and with signaling other than Q.931.

   or

2. The TSG is to have its PCIS bits reset to force a steady state AB bit indication. This application of CODSC is for non-AT&T offices where the TSG has type-of-trunk of Other Common Carrier (OCC) and outgoing signaling of Integrated Services Digital Network User Part (ISUP).

Valid entries are **"Blank"**, **"Y"**, or **"N"**.

Continued on next page

Form Entries, Continued

NEOTR	Near Operational Test Responsibility - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not this office is responsible for the operational (signaling) test on outgoing trunks in this Trunk Subgroup (TSG). If a **"Y"** is entered in this field, then the OTSTT and/or OTMTT field(s) must have an entry other than **"N"**. If an **"N"** is entered in this field, then all test types are optional. If OTSTT and OTMTT fields are **"N"**, then NEOTR must be **"N"**. If an office has Near End Operational Test Responsibility but the far end office does not have a test number, an **"N"** should be entered in this field. If Outgoing Signaling Characteristic (OSC) is equal to Domain Class (DOMCCIS) or Integrated Services Digital Network User Part (ISUP), then NEOTR should be **"N"** since operational tests cannot be made on Domestic Common Channel Signaling (CCS) trunks.
TRIDX	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

OTSTT Operational Thru Switch Test Type - Certain offices (No. 5 Crossbar and 1ESS) can function both as a local and a tandem or as a local and toll office. These offices have trunks that can function in both a through switch mode and a terminating mode. As a result, more than one test is required to test both modes of operation. The OTSTT is used to specify an operational (signaling) test for a trunk in the tandem (thru switch) mode. OTSTT is also used to specify the ATME B test for Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) and Consultative Committee for International Telephone and Telegraph Signaling System Number 6 (CCITT6) trunks which have a far end test line capable of running this test. The following codes may be entered in the OTSTT field.

- **ATMB** - Siemens' ATME B test line - This is a signaling test which applies to CCITT5 and CCITT6 trunks only. The test consists of the far end test line returning a clear back/reanswer in response to a forward transfer.
- **CTX2** - Centrex II test - This test is made toward a No. 5 Crossbar office having Phase II Centrex features. CTX2 is similar to the SYNC test.
- **CTX3** - Centrex III - This test is made to a No. 5 Crossbar office having Phase III Centrex features. CTX3 is similar to the SYNC test.
- **SXS** - Step-by-Step - If the far end of this Trunk Subgroup (TSG) is working in to a Step-by-Step office, this test may be specified.
- **SYNC** - Synchronous test - This test is an automatic series of off hook/on hook transitions (flashes) on the M lead. In the 4ESS Switch, the SYNC test is software controlled and no external hardware is needed. A data table is used to specify the pulsing rate for each series of flashes. The test automatically advances from one pulsing rate to another via a timing procedure. In any system, after all of the flashes are complete, the trunk will be left in the quiet termination state.

Continued on next page

Form Entries, Continued

OTSTT (cont'd)

- **T103 -** 103 Test - The 103 Test is similar to the synchronous test in that a series of flashes are sent on the M lead. However, the sequence of pulses is controlled by the ring forward signal, rather than a timed automatic progression. Flashing of a given rate will continue until a ring forward signal is received, or, in 4ESS Switch, until an upper limit of flashes has been sent. At this point, the trunk will be put into the quiet termination state until disconnect.

- **"N"** - Enter **"N"** if no thru switch operational test is to be made on this TSG.

OTSTN

Operational Thru Switch Test Number - If Operational Thru Switch Test Type (OTSTT) is **"N"** for None, leave this item **"Blank"**. If a thru switch test of some type is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the OTSTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If OTSTT is Siemens' ATME B test line (ATMB), then OTSTN should specify a 062 for Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) trunks or a 2 for Consultative Committee for International Telephone and Telegraph Signaling System Number 6 (CCITT6) trunks when the far end has an ATME B test line. If the far end has an Siemens' ATME A test line (ATME A), OTSTT equals ATMB and OTSTN should specify 061 for CCITT5 or 1 for CCITT6 trunks.

Continued on next page

Form Entries, Continued

OTMTT Operational Terminating Test Type - If an operational (signaling) test is to be made directly to the far end of this Trunk Subgroup (TSG) terminating mode, enter a code to identify the test.

- **ATMC** - Siemens' ATME C test line - This is a signaling test used with Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) trunks only. The far end returns a busy flash from the test line.
- **CTX2** - Centrex II test - This test is made toward a No. 5 Crossbar office having Phase II Centrex features. This test is similar to the SYNC test.
- C**TX3** - Centrex III - This test is made towards a No. 5 Crossbar office having Phase III Centrex features. This test is similar to the SYNC test.
- **SXS** - Step-by-Step - If the far end of this TSG is working into a Step-by-Step office, this test may be specified.
- **SYNC** - Synchronous test - This test is an automatic series of on hook/off hook transitions (flashes) on the M lead. In the 4ESS Switch, the SYNC test is software controlled and no external hardware is needed. A data table is used to specify the pulsing rate for each series of flashes. The test automatically advances from one pulsing rate to another via a timing procedure. In any system, after all of the series of flashes are complete, the trunk will be left in the quiet termination state.
- **T103** - 103 test - The 103 test is similar to the synchronous test in that a series of flashes are sent on the M lead. However, the sequence of pulses is controlled by the ring forward signal, rather than a timed automatic sequence. Flashing of a given rate will continue until a ring forward signal is received, or, in 4ESS Switch, until an upper limit of flashes has been sent. At this point, the trunk will be put into the quiet termination state until the originator disconnects.
- "**N**" - None - Enter an "**N**" if no test is to be made on this TSG.

Continued on next page

Form Entries, Continued

OTMTN

Operational Terminating Test Number - If OTMTT is **"N"** for None, leave this field **"Blank"**. If a test is specified, then a corresponding test number in the range of "**000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the OTMTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If OTMTT equals Siemens' ATME C test line (ATMC), then OTMTN must specify **"063"**.

XTSTT

Transmission Thru Switch Test Type - If a transmission test is to be made in the thru switch (tandem) mode for this Trunk Subgroup (TSG), enter a code to identify the type of test.

- **ATMA** - Siemens' ATME A transmission test line - This entry provides access to an ATME A responder. The ATME A test permits automatic transmission loss and noise measurements in both directions for International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5),CCITT6, International Integrated Services Digital Network User Part (INUP), or CCITT7 Telephone User Part (TUP) trunks.

- **T100** - 100 code test - This test provides a quiet termination (600 ohms). In the 4ESS Switch, the 100 test provides a sequence of 1000 hz, milliwatt tone for 5.5 seconds followed by the quiet termination until disconnect.

- **T102** - 102 code test - The 102 test provides 1000 hz. milliwatt tone. The 4ESS Switch provides cycles of 9-second tone and 1-second quiet termination until disconnect.

- **T105** - 105 code test - This code provides access to an Automatic Trunk Measuring System (ATMS) responder. The 105 test permits automatic transmission loss and noise measurements in both directions.

- **N** - Enter **"N"** if no test is to be made OR if the presubscription carrier is to be populated.

Continued on next page

Form Entries, Continued

XTSTN

Transmission Thru Switch Test Number - Add Presubscription Carrier. If Transmission Thru Switch Test Type (XTSTT)=N and this field is non-**"Blank"**, then the field is populated with the presubscription carrier selected by the customer to handle inter Local Access Transport Area (interLATA) calls; and intraLATA calls when intraLATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. The presubscription carrier can only be populated for Incoming/Outgoing Signaling Characteristics (ISC/OSC) of Q931.

If XTSTT does not equal to N, and this field is non-**"Blank"**, then the field is populated with the transmission thru switch test number. If a test is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the XTSTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If XTSTT is Siemens' ATME A transmission test line (ATMA), the XTSTN should be specified as **"061"** for International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5) trunks or **"1"** for CCITT6, International Integrated Services Digital Network User Part (INUP), or CCITT7 Telephone User Part (TUP) trunks.

XTMTT

Transmission Terminating Test Type - If a transmission test is to be made directly to the far end of this Trunk Subgroup (TSG) in a terminating mode, enter a code to identify the type of test.

- **T100** - 100 code test - This test provides a quiet termination (600 ohms). In the 4ESS Switch, the 100 code test provides a sequence of 1000 hz. milliwatt tone for 5.5 seconds, followed by quiet termination until disconnect.
- **T102** - 102 code test - The 102 test provides 1000 hz. milliwatt tone. The 4ESS Switch provides cycles of 9-second tone and 1-second quiet termination until disconnect.
- **T105** - 105 code test - This code provides access to a Automatic Trunk Measuring System (ATMS) responder. The 105 test permits automatic transmission loss and noise measurements in both directions.
- If no test is to be made, enter **"N"** for None.

Continued on next page

Form Entries, Continued

XTMTN	Transmission Terminating Test Number - If Transmission Terminating Test Type (XTMTT) is **"N"** for None, leave this field **"Blank"**. If a test is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the XTMTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location.

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Form Entries, Continued

S1-10

These fields are reserved for future use in order to be able to implement new capabilities in a more timely fashion. When a new capability is requested for Generic Programs currently deployed in the field, one of these spare fields will be designated for use in implementing that capability.

S1 - Valid entries are **"Blank"**, or **"0-7"**.
S2-10 - Valid entries are **"Blank"**, **"Y"**, or **"N"**.

- S2 - (4E18/4E19/4E20) - An entry of **"Y"** in this field identifies Signaling System 7 (SS7) trunks which have their Per Channel Inhibit Signaling (PCIS) bits reset to force a steady state AB bit indication. Otherwise, enter **"N"** or leave **"Blank"**. In 4E21, the CODSC field will replace the use of S2 for this purpose.

- S2 - (4E21R4) This Trunk Subgroup (TSG) parameter allows TSG circuits to trigger the Advanced Intelligent Network (AIN) processing. The parameter can have the following values: **"Blank"**, **"N"** for no access allowed, and **"Y"** for access allowed. The default is **"N"**.

- S5 - Unassigned - Reserved for future use.

- S6 (4E18/19/20) - this Trunk Subgroup (TSG) parameter indicates the allowed Information Transfer Capability (ITC) coding in the outgoing Initial Address Message (IAM). The parameter can have the following values: **"Blank"**, **"N"** (use office) to encode the outgoing IAM, User Service Information (USI) parameter ITC field, the same as used in the office indicator, and **"Y"** (use opposite of office) to encode the outgoing IAM, USI parameter ITC field, with the opposite of what is used in the office indicator. The default is "use office".

NOTE: An entry of "0-7" in the S1 field or a "Y" in any of the fields S2 thru S10 without knowledge of the capability to which the field has been assigned may result in undesirable switch behavior.

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Form Entries, Continued

Table 1

TABLE 1
VALID CHARACTERISTICS FOR TWO-WAY TRUNK SUBGROUPS

ISC **TYPE OF TRUNK (TOT)**

SIGNALING TYPES	ETC	INTL	INTLO	ITAND	ITOLL	ITOPA	LCC	LSP	NSDSD	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC
CCITT5		X	X													
CCITT6		X	X													
DOMCCIS				X	X				X				X		X	X
DPDDSD				X	X						X		X	X	X	X
DPIMADG				X	X								X	X	X	X
DPIMMED				X	X						X		X	X	X	X
DTMFWK											X			X		
DTS											X			X		
INUP		X	X													
ISUP	X			X	X		X	X		X	X	X	X		X	X
MFDDSD				X	X						X		X		X	X
MFOPWK						X										
MFWINK	X			X	X		X	X		X	X		X		X	X
Q931											X					
TUP		X	X													

RING FORWARD ALLOWED

(RFA)	Y/N	Y	Y	N	Y	Y	Y/N	Y/N	N	Y/N	N	Y/N	Y	N	Y/N	N

Continued on next page

Form Entries, Continued

Table 2

TABLE 2
VALID CHARACTERISTICS FOR TWO-WAY TRUNK SUBGROUPS

	OSC	TYPE OF TRUNK (TOT)														
SIGNALING TYPES	**ETC**	**INTL**	**INTLO**	**ITAND**	**ITOLL**	**ITOPA**	**LCC**	**LSP**	**NSDSD**	**OCC**	**PBX**	**RCC**	**SECIT**	**STC**	**TAND**	**TOLLC**
CCITT5		X	X													
CCITT6		X	X													
DOMCCIS				X	X				X				X		X	X
DPDDSD				X	X						X		X	X	X	X
DPIMMED				X	X						X		X	X	X	X
DPWINK				X	X						X		X	X	X	X
DTMFWK											X			X		
ICOPNOP						X					X			X		
INUP		X	X													
ISUP	X			X	X		X	X		X	X	X	X		X	X
MFDDSD				X	X		X				X		X		X	X
MFWINK	X			X	X		X	X		X	X		X		X	X
MIOPNOP											X			X		
Q931											X					
TUP		X	X													

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Form Entries, Continued

Table 3

TABLE 3
RELATIONSHIP BETWEEN CHARACTERISTICS AND STATE OF TRUNKS IN TRUNK SUBGROUP

CHARACTERISTIC	STATE OF TRUNKS IN TRUNK SUBGROUP		
	NO TRUNKS ALLOWED	MANUALLY DISABLED	ANY STATE
ISC (to or from CCITT5 or CCS)	X		
OSC (to or from CCITT5 or CCS)	X		
ISC (except to or from CCITT5 or CCS)		X	
OSC (except to or from CCITT5 or CCS)		X	
ADIG		X	
C1STO2W		X	
CCIS2WIRE	X		
DOM		X	
AOPC	X		
DPC		X	
REV	X		
RFMP	X		
TSGBBC		X	
ALL OTHER CHARACTERISTICS			X

CCS = Common Channel Signaling (CCITT6, DOMCCIS, INUP, Q931, TUP)

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LUCENT TECHNOLOGIES PROPRIETARY
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RC Form 108

General

Recent Change (RC) Form 108 changes the translations for a one-way incoming Trunk Subgroup (TSG). This message is classed as a Recent Change Data Message (RCDM). There are two characteristics that are not changeable with this form: The Circuit Identification Name (CIN) (use RC Form 802) and the Quantity of Traffic Numbers (QTFN) (use RC Forms 104 or 105).

The restrictions imposed for changing the Domain (DOM) are:

- The existing domain has to be in the range of 20 through 69.
- The new domain has to be in the range of 20 through 69.

All other changes to the Domain are prohibited.

Certain characteristics cannot be changed unless all trunks in the TSG are in a particular state. For more information, Refer to Table 3 – Relationship Between Characteristics and State of Trunks in Trunk Subgroup. This table confirms that almost all of the popular characteristics related to a TSG change require the trunks to be either put in the CADOOS state or removed. Therefore, it should be noted that it may be much easier and more efficient (maintaining service) to build the new TSG. Then, as the trunks from the old TSG are put to the CADOOS state, they can be removed from the old TSG and reassigned to the new TSG. This is a prudent choice as service could be working on both TSGs as some of the trunks are being turned down and reassigned to the new TSG. Also, the new two-way TSG is more apt to have the more accurate TFNB numbering scheme as a result of the Reverse (REV) considerations while building the new TSG. After all of the trunks are removed from the old TSG (this transition could be over a number of days if desired), it can be entirely removed.

If input to the FEAREA and/or IWZ1 field are modified, the RC Form must update Routing Data Block (RDB) Alternate Route Lists. If the Roll back Area becomes full from these updates, the Form will print a warning message that not all of the RDB Route Lists have been updated and that the TSG form must be reentered. The user must reenter the form to complete building the RDB Route Lists.

An alphabetical keyword list is included in this section, starting on page 45.

Continued on next page

RC Form 108, Continued

General
(cont'd.)

```
# FORM 108           CHANGE A ONE WAY INCOMING TRUNK SUBGROUP
  4E22

RC:TSG;CHG;OPT(IN1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                    DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

             TOT ______, SAT _,            DOM _____,         IT _,  FAI _,
FENPA ___,   FEOFC ___, FELATA ___,        FESC6 _,  IWZ1 _,
MEM _,       PSES _,    INSEP ___,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                 PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT ______,
APS _,           PSATP _, PBXESGD _,       PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _, S5DIG _,  SDS _,  FVSR _,  IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _,
CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                        ASSOCIATED VERIFY MESSAGES

                        INPUT-11a-VER:TSG:CIN....
                        INPUT-11c-VER:TSG:TSGN....

               OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

                OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 108, Continued

General
(cont'd.)

```
# FORM 108           CHANGE A ONE WAY INCOMING TRUNK SUBGROUP
  4E23R1

RC:TSG;CHG;OPT(IN1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                    DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

            TOT ______, SAT _,             DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                 PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT ______,
APS _,          PSATP _, PBXESGD _,        PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _, S5DIG _,  SDS _,  FVSR _,  IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
CID _____,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FELN _, HUNT __, CSN __,
CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS _____________________________________________________!

                        ASSOCIATED VERIFY MESSAGES

                        INPUT-11a-VER:TSG:CIN....
                        INPUT-11c-VER:TSG:TSGN....

               OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

                OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 108, Continued

General
(cont'd.)

```
# FORM 108           CHANGE A ONE WAY INCOMING TRUNK SUBGROUP
  4E24

RC:TSG;CHG;OPT(IN1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                     TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                     DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

            TOT ______, SAT _,             DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                 PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT ______,
APS _,          PSATP _, PBXESGD _,        PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _, S5DIG _,  SDS _,  FVSR _,  IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
CID _____, NCAR _, TTA _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FELN _, HUNT __, CSN __, CARSON __, SOIP __,

CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                      ASSOCIATED VERIFY MESSAGES

                      INPUT-11a-VER:TSG:CIN....
                      INPUT-11c-VER:TSG:TSGN....

            OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

             OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 108, Continued

General
(cont'd.)

```
# FORM 108   CHANGE A ONE WAY INCOMING TRUNK SUBGROUP
  4E25

RC:TSG;CHG;OPT(IN1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                    DPC __________,

FENCLASS _______, FENID _______,          TFG _,    TSGBBC _,

            TOT ______, SAT _,            DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,        FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,   GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                  PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,      SCFN _,  OVLP _,  PRIT _______,
APS _,           PSATP _, PBXESGD _,      PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,    DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,      SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5DIG _, SDS _,  FVSR _,   IFITR _, PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
CID _____, NCAR _, TTA _, EACC __, LCVT _, QPE _, NSA _,
ANCR _,  ACCID ___, PSTNG _,  FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FELN _, HUNT __, CSN __, CARSON _, SOIP _, TCC __, STBI _,

CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                      ASSOCIATED VERIFY MESSAGES

                      INPUT-11a-VER:TSG:CIN....
                      INPUT-11c-VER:TSG:TSGN....

            OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

             OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Form Entries

RC:TSG;CHG;OPT(IN1WAY),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

Continued on next page

Form Entries, Continued

PCF

Point Code Format - This field is used to specify the format of the point code that is being entered in the point code field. If no entry is being made in the Destination Point Code (DPC) (Originating Point Code [OPC]) field, then this field must be left **"Blank"**. Three different formats are available for input: **ATT, ANSI,** or **ISPC**.

ATT is used for AT&T standard input/output which consists of a three digit network indicator, a two digit cluster region, a one digit cluster type, and a three digit cluster member.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CR**: Cluster Region - This value specifies the region of the signaling network where the office is located. Valid entries are **"00-31"**.

3. **CT**: Cluster Type - Valid entries are **"0-7"**.

4. **MEM**: - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

ANSI is used to indicate that the input/output is in the American National Standards Institute format which consists of a three digit network indicator, a three digit cluster, and a three digit member number.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CLU**: Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"000-255"**.

3. **MEM**: Member Number - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

Continued on next page

Form Entries, Continued

PCF (cont'd)

ISPC is used for international signaling point code input/output which consists of a one digit world geographical zone, a three digit area/network identifier, and a one digit signaling point identifier. Reference: International Consultative Committee for International Telephone & Telegraph Signaling System (CCITT) Recommendation "Numbering of International Signaling Point Codes", Vol. VI, Rec. Q.708.

1. **WGZ**: World Geographical Zone - This value specifies the world geographical zone of the office. Valid entries are "**1-7**".

2. **ANI**: Area/Network Identification - This value specifies a geographical area or network in a specific zone. Valid entries are **"000-255"**.

3. **SPID**: Signaling Point Identification - This value specifies a signaling point in a specific geographical area or network. Valid entries are **"0-7"**.

AOPC

Alias Origination Point Code - This field will provide a unique combination of a Local Exchange Carrier (LEC) Signal Transfer Point (STP) Point Code (PC) and an AT&T STP PC for each Local Access Transport Area (LATA) dedicated D-link set via a logical point code. AOPC, if entered, must be entered in the ATT format. See the Point Code Format (PCF) field for the format description. AOPC may only be entered when the PCF field is not **"Blank"**.

Continued on next page

Form Entries, Continued

DPC

Destination Point Code - This field is used to specify the Destination Point Code of the far-end switch.

This field entry is divided into three subfield entries:

1. NET - Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"Blank"**, **"000-255"**.

2. CLU - Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"Blank"**, **"000-255"**.

3. MEM - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"Blank"**, **"000-255"**.

For the Trunk Subgroup (TSG) forms, nine digits must be entered, depending on the format specified in the Point Code Format (PCF) field. Nine digits must be entered if PCF is American National Standards Institute (ANSI) format. An entry must be made in this field if either the Incoming Signaling Characteristics (ISC) or Outgoing Signaling Characteristics (OSC) field value is **"ISUP"**, **"INUP"**, or **"TUP"**; otherwise this field must be **"Blank"**.

Continued on next page

Form Entries, Continued

FENCLASS This field specifies the classification of the Far End Network (FEN). If the Trunk Subgroup (TSG) is not associated with any FEN, this field is left **"Blank"**. The FEN with which the TSG is to be associated must be described via 4ESS Switch RC 617.

For RC 524, this field identifies the class for accumulating counts.

The following classifications are available:

- **ACCESA** - This identifier specifies that the TSG is a link to an Inter-exchange Carrier (IC) or International Carrier (INC), and the 4ESS Switch is being used by a Local Exchange Carrier (LEC) as an Access Tandem (AT) and/or Service Switching Point (SSP) to switch calls from this TSG.

- **ACCESI** -This identifier specifies that the TSG is a link to an International Carrier (INC), and the 4ESS Switch is being used by an Interexchange Carrier (IC) (e.g., AT&T-C) to switch calls from this TSG.

- **ACCESO** - This identifier specifies that the TSG is a link to an Operating Company and the 4ESS Switch is used as an IC.

- **CAMA** - This identifier specifies that the TSG is terminated on an office which delivers traffic on Centralized Automatic Message Accounting (CAMA) trunks.

- **CMC** - Cellular Mobile Carrier - This identifier specifies that the FEN is a CMC. The TSG connects an Access Tandem (AT) and a CMC.

- **INTL** - This identifier specifies that the TSG is an international link with the far end outside World Zone 1 and that the 4ESS Switch is being used as an International Switching Center (ISC)

- **OWATS** - This identifier specifies that the TSG is a link to a Private Branch Exchange (PBX) over which only Outward Wide Band Area Telephone Service (WATS) calls are allowed.

Continued on next page

Form Entries, Continued

FENCLASS (cont'd)

- **OEO** - Other End Office connecting, meaning an Equal Access End Office (EAEO) owned by a different company. This identifier specifies that the FEN is an OEO. The TSG connects an Access Tandem (AT) and an OEO.
- **PBX** - This identifier specifies that the TSG is a link to a PBX.
- **POTS** - This identifier specifies that the TSG is a link to a switching machine serving either a Local Access Transport Area (LATA) of the Local Exchange Carrier (LEC) owning/sharing the 4ESS Switch, the Continental United States/Plain Old Telephone Service (POTS) (CUSP) network of the IEC owning/sharing the 4ESS Switch, or some other FEN to be treated similarly.

Continued on next page

Form Entries, Continued

FENID

Far End Network (FEN) Identification - This field distinguishes the specific FEN with which this Trunk Subgroup (TSG) is associated. One to six alphanumeric characters may be entered to distinguish among several FENs with the same classification, or the field may be left **"Blank"**. If FENCLASS is **"Blank"**, FENID must also be **"Blank"**.

When the FENCLASS is ACCESA or ACCESI, FENID should consist of type of feature group access and the 4 numeric digits of the Carrier Identification Code (CIC).

The type of feature group definitions are:

- **G** - All access types (B, C, & D).
- **B** - Feature Group B Access.
- **C** - Feature Group C Access.
- **D** - Feature Group D Access.

Examples include:

- **G0288** - Carrier ID 288 has Feature Group B, C, & D access.
- **BC0288** - Carrier ID 288 has Feature Group B & C access.
- **BD0288** - Carrier ID 288 has Feature Group B & D access.
- **B2882** - Carrier ID 2882 has Feature Group B access only.
- **D2882** - Carrier ID 2882 has Feature Group D access only.

For an access type, both B2882 and D2882 can exist but be for different carriers.

Continued on next page

Form Entries, Continued

TFG

Type of Feature Group - This field is used to specify whether the Type of Access for this Trunk Subgroup (TSG) is tariffed under Feature Group B, Feature Group C, or Feature Group D. An entry can only be made if the FENCLASS is ACCESA. If FENCLASS is ACCESA, a **"B"**, **"C"**, or **"D"** must be entered, corresponding to Feature Groups B, C, or D, respectively. FENCLASS is not ACCESA, this field must be left **"Blank"**.

TSGBBC

Trunk Subgroup (TSG) Broadband Capability - Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q.931 signaling systems allow for broadband switching. This entry specifies what type of circuits may be populated in this TSG. Valid entries are:

- **Blank** - 1 trunk circuit
- **0** - 1 trunk circuit
- **1** - 6 trunk circuits
- **2** - 24 trunk circuits
- **3** - Combined usage 1 and 6 trunk circuits
- **4** - Combined usage 1 and 24 trunk circuits
- **5** - Combined usage 6 and 24 trunk circuits
- **6** - Combined usage 1, 6, and 24 trunk circuits.

Continued on next page

Form Entries, Continued

TOT

Type of Trunk - This field specifies the trunk type for this Trunk Subgroup (TSG). TOT entries of **"ETC"** for End Office or Tandem Connecting, **"LCC"** for Local Exchange Carrier Connecting, and **"OCC"** for Other Carrier Connecting are used for network interconnect. When these TOT values are used on Integrated Services Digital Network User Part (ISUP)
trunks, the Local Exchange Carrier (LEC) (Bellcore TR-317) and/or network interconnect version (TR-394) of the ISUP protocol is used. For all other allowed TOT values, the AT&T version of the ISUP protocol is used. The codes that may be entered are as follows:

- **CAMAA** – Centralized Automatic Message Accounting with Automatic Number Identification (ANI).
- **CAMAO** – Centralized Automatic Message Accounting with Operator Number Identification (ONI).
- **ETC** - End Office or Tandem Office Connecting - This Type of Trunk (TOT) is used to identify Equal Access (EA) or Intra Local Access Transport Area (IntraLATA) trunks at a switch serving as an Access Tandem (AT) or Service Switching Point (SSP) where the other end connects to an End Office. This TOT is also used to identify EA trunks between ATs or between an AT and a switch serving as an SSP. When the type of trunk is ETC, the signaling characteristic of the Trunk Subgroup (TSG) must be either Multifrequency Wink (MFWINK) or ISUP.
- **INTL** - International - International circuit with the far end outside of World Zone 1, and having signaling characteristics of International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5), CCITT6, International ISUP (INUP), and CCITT7 Telephone User Part (TUP).
- **INTLO** - International Overflow - International Overflow circuit (for overflow transit traffic) with the far end inside World Zone 1 in another International Switching Center (either the U.S. or foreign).
- **ITAND** - Inter Tandem - This TOT can be used to handle traffic between two tandem switchers in the same local calling area.

Continued on next page

Form Entries, Continued

TOT (cont'd)

- **ITOLL** - Intertoll - Intertoll trunks will carry toll traffic between class 4 or higher offices, or trunks dedicated to Inter-International Switching Center (inter-ISC) international overflow traffic. This includes final, full and high usage TSGs.
- **ITOP** - International Operator - International Operator tandem trunk from a No. 5 switchboard.
- **ITOPB** - International Operator OBAT B Trunk - Operator bridged access Trunk B from 3C/3CL switchboard.
- **LCC** - Local exchange Carrier Connecting - This TOT is used to identify EA trunks at an AT&T switch This identifier is also used for outgoing ISUP trunks from the Interexchange Carrier/International Exchange Carrier (IC/INC) to an SSP office. When the type of trunk is LCC, the signaling characteristic of the TSG must be either MFWINK or ISUP and the Equal Access Signaling (EAS) field must be marked as either "**E**", "**A**", "**D**" or "**R**".
- **MISC** - Miscellaneous - This designation is used for operator (except for inward, leave word or 2-way operator trunks), service circuit, and other miscellaneous TSGs.
- **OCC** - Other Carrier Connecting - This TOT is used to identify EA trunks at a switch serving as an AT or SSP where the other end connects to an IC or INC switch. This type of trunk should be used when the signaling on the TSG is MFWINK or ISUP.
- **PBX** - Private Branch Exchange - This identifier indicates that the trunks in this TSG terminate on a PBX unit. If the PBX interface is via a 2-wire PBX Channel Unit (J98726ST), then the Incoming Signaling Characteristics (ISC) should be Dial Pulse Immediate (DPIMMED) and the Outgoing Signaling Characteristics (OSC) should be Dial Pulse Wink (DPWINK).
- **SECIT** - Secondary Intertoll - These trunks interconnect toll switching machines and manually operated toll or assistance switchboards for routing of operator completed traffic.

Continued on next page

Form Entries, Continued

TOT (cont'd)

- **STC** - Single Trunk Customer - This TOT is used to designate a TSG for single trunk terminations not supported by a PBX. When TOT is STC, the following TSG fields must be **"Blank"** or **"N"** as allowed: ANISID, APS, BRL, CCIS2WRE, DNHR, DPC, EAS, FAR4E, PBXAW, PBXESGD, REV, RFA, RFMP, SAT, SINDEX, TFG, TSGBBC, WANISID, XCPA.

- **TAND** - Tandem - This code is used for 2-way tandem, tandem completing and tandem connecting TSGs.

- **TOLLC** - Toll Connecting or Completing - This code is used for Direct Distance Dialing (DDD) access, toll connecting or toll completing TSGs.

- **TSPS** - Traffic Service Position System - Enter this designation for TSGs associated with TSPS.

SAT

Satellite - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not this Trunk Subgroup (TSG) is associated with satellite facilities. This entry performs a screening function to avoid two satellite TSGs from being connected together to complete a call. If the incoming TSG has SAT = "Y", then call processing will insist the outgoing TSG must have SAT = "N". This can also be used for local screening functions even though the TSG is not via a satellite.

For Voice Frequency Link (VFL) TSGs, satellite facilities cannot be used for a domestic Common Channel Interoffice Signaling (CCIS) system, i.e. if DOM is Plain Old Telephone Service (POTS), then SAT must be **"N"**.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), International Direct Distance Dialing (IDDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (0 through 19). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be ITOLL, MISC, or TSPS or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e. CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.
- **I64C** -This transport domain is used to route 64 kbps clear international data calls up to an ISC.
- **I56D** -This transport domain is used to route 56 kbps international data calls up to an ISC.

Continued on next page

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for the Software Defined Network (SDN) and Private Branch Exchange (PBX) Interface features:

- **SDNA** - Software Defined Network (SDN) Access - This domain is used to translate the digits of an originating SDN (voice or data) call and determine if the call is a 7-digit or 10-digit call. Trunks in the SDNA domain are dedicated to SDN calls. When DOM equals SDNA, then TOT must be CAMAA, CAMAO, ETC, LCC, PBX, STC, TAND, or TOLLC for Trunk Subgroup (TSG) forms or CALLTYP must be CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SDX, SSP, TEL, TST, or TTS for code group forms.

- **DEV** - Dedicated Egress Voice - This domain is available at the terminating 4ESS Switch to translate SDN and Direct Connect voice calls and route them to a directly connected PBX, via direct egress, or to a local office, via switched egress.

  This domain is also used as an access domain for originating Direct Connect voice calls. The calls arrive at the 4ESS Switch as 10-digit calls. When DOM equals DEV, then TOT must be PBX or Single Trunk Customer (STC) for TSG forms or CALLTYP must be CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SDX, SSP, TEL, TST, or TTS for code group forms.

- **DED** -Dedicated Egress Data - This domain is available at the terminating 4ESS Switch to translate the SDN data call and route it to a directly connected PBX, via direct egress, or to a local office, via switched egress.

  This domain is also used as an access domain for originating Direct Connect data calls. The calls arrive at the 4ESS Switch as 10-digit calls and are routed through the network (translations and facilities) via the data domain. When DOM equals DED, then TOT must be PBX or STC for TSG forms or CALLTYP must be CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SDX, SSP, TEL, TST, or TTS for code group forms.

Continued on next page

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.
- **APN** - Action Point Numbering Plan - This domain is used as an access domain for originating Direct Connect voice or data calls. The calls arrive at the 4ESS Switch as 10-digit calls. When DOM equals APN, then TOT must be PBX or STC for TSG forms.

NOTE: For Voice Frequency Link (VFL) TSGs, this field identifies the domain in which this TSG operates. Valid inputs are "POTS" (if VFL is associated with a domestic Common Channel Interoffice Signaling [CCIS] system).

IT

Intertoll Treatment - This field is used when the domain of the Trunk Subgroup (TSG) is Plain Old Telephone Service (POTS) and the type of trunk is either End Office or Tandem Connecting (ETC) or Other Carrier Connecting (OCC) to specify whether the TSG should receive intertoll treatment (IT="**Y**") or toll connect treatment (IT=**"N"**) or **"Blank"**. Intertoll treatment means that the call is routed in the POTS intertoll domain, that is, a normal 7-digit call will be terminated in the home Numbering Plan Area (NPA).

((4E22>) - Offices using Traditional routing only). Toll connect treatment means that the call is terminated in the NPA specified by the Far End Numbering Plan Area (FENPA) field.

This field should be set to "**Y**" in any FENPA that is not the Home NPA

((4E22>) - Offices using Traditional routing only) or a Served NPA. This field can also be set to "**Y**" in the Home NPAs

((4E22>) - Offices using Traditional routing only) or Served NPAs to force the POTS-IT domain.

Continued on next page

Form Entries, Continued

FAI	Not Applicable - Entries: **"Blank"**
FENPA	Far End Numbering Plan Area/Trunk Subgroup (TSG) - Enter a 3-digit Numbering Plan Area (NPA) code to identify the far end of the subgroup. Valid entries range from **"200-999"**. With an International Trunk Subgroup, if the far end of the Trunk Subgroup is outside World Zone 1, enter the 1-, 2-, or 3-digit country code. Valid ranges of Country Code entries are **"2-9"**, **"20-99"**, and **"200-999"**. This field is the NPA of the Far-End Office. If this office is not in the Home or Served area, then the Domain will be Plain Old Telephone Service-Intertoll/Intertandem (POTS-IT) and the IT field will be forced to **"Y"** in a Local Exchange Carrier (LEC) switch.
FEOFC	Far-End Office Code - This field is used to identify the office code of the far end switch. Typically this value will range from 200-999. Legal entries are: **"Blank"**, **000-999**.
FELATA	Far End Local Access Transport Area/Trunk Subgroup - This field is used to identify the Local Access Transport Area (LATA) of the far end switch. Legal entries are: **"Blank"**," **000-999"**.
FESC6	Far-End 6-Digit Screening - A **"Y"** for Yes or **"N"** for No indicates whether or not the far-end office which outpulsed the incoming digits is doing 6-digit screening. An **"N"** should be entered in this field if it cannot be determined whether or not the far-end is doing 6-digit screening. If this field is equal to yes, then vacant code analysis assumes the far-end office will never outpulse a vacant central office code (NXX), vacant Numbering Plan Area (NPA) code, an originating Inward Wide Band Area Telephone Service (INWATS) call which has been denied originating capabilities, or an incorrect number of digits on this Trunk Subgroup (TSG).

Continued on next page

Form Entries, Continued

IWZ1	International World Zone 1 - Enter **"Y"** if this Trunk Subgroup (TSG) will carry international traffic within World Zone 1. Enter **"N"** or leave **"Blank"** if this TSG will not carry international traffic within World one 1. Valid entries are **"Blank"**, **"N"**, or "**Y**".
MEM	Memory - This field is used to indicate if trunk hunt with memory is to be performed on this Trunk Subgroup (TSG) when searching for an idle trunk. Trunk hunt with memory is not performed on a TSG if the TSGBBC field is greater than zero (the MEM field should be set to **"N"** in this case). Enter **"N"** if trunk hunt with memory is not to be done. Enter **"Y"** or leave **"Blank"** if trunk hunt with memory is to be done.
PSES	Prohibit Service Evaluation - An entry of **"N"** for No specifies that this Trunk Subgroup (TSG) is eligible for service evaluation by the No. 2 Service Evaluation System. An entry of **"Y"** for Yes specifies that the TSG is not eligible for service evaluation. Valid entries are **"Blank"**, **"Y"**, or **"N"**. Blank defaults to "**N**".
INSEP	Incoming Traffic Separation Class - Enter a number in the range of **"0-255"** to indicate a traffic class for measurement purposes. This code will be used with the outgoing destination (Destination Separation [DESEP] on code group forms) to determine the peg and usage counts for traffic flow identification. Test position and test call Trunk Subgroups (TSGs) are generically assigned to Incoming Separation Class (INSEP) 31. This should be considered before assigning any other TSG to INSEP 31. Also, since service circuits, other non-message circuits, and 1-way outgoing TSGs have a generically assigned INSEP of zero, they will appear as part of TSG listings for INSEP zero. This fact should be considered before assigning any other Trunk Subgroup to INSEP zero.

Continued on next page

Form Entries, Continued

MTSC	Multiple Treatment Screening Class - This field is used to assign an MTSC to this Trunk Subgroup (TSG). Multiple treatment screening may be used to separate routing treatments for TSGs in the same domain. An example is giving independent company trunks a different routing even though the received digits and domain are the same as some other TSG. All TSGs must have an MTSC in the range of **"0-63"**.
GNSC	Go/No Go Screening Class - Go/No Go Screening may be used to block traffic dialing specific digits over a Trunk Subgroup (TSG). All incoming and two-way message TSGs are given a Go/No Go class in the range of **"0-3**". When this type of screening is required for a group of codes, those codes are correlated with a specific class and a "Go" or "No Go" condition (RC Forms 300-304). If a group of codes specify "Go" on a given class, those codes will be blocked on TSGs having a class other than the specified class. For a "No Go" correlation, a set of codes will not be blocked except on TSGs having the specified class. All blocked traffic is given the vacant code Final Handling Treatment (FHT).
GEOSEP	Geographical Traffic Separation Class - Valid entries for this field are one or two digits in the range of "**0-31**" to indicate a traffic class for measurement purposes. This code is used with the Announcement Separation Class to score geographical survey counts in Mass Announcement System (MAS) offices.

Continued on next page

Form Entries, Continued

ISC

Incoming Signaling Characteristics - Enter one of the following codes to specify the incoming signaling characteristics required for this Trunk Subgroup (TSG).

- **DPDDSD** - Dial Pulse with Delay Dial/Start Dial.
- **DPIMADG** - Dial Pulse with Immediate start and "A" Digit reconstruction.
- **DPIMMED** - Dial Pulse with Immediate start (no delay).
- **DPIMPSW** - Dial Pulse Immediate Start Permanent Signal Wink Off.
- **DTMFWK** - Dual-Tone Multifrequency (DTMF) with Wink Start.
- **DTS** - Dial-Tone Start.
- **ISUP** - CCITT7 Integrated Services Digital Network (ISDN) User Part.
- **MFDDSD** - MF with Delay Dial/Start Dial.
- **MFOPWK** - MF Operator trunk with Wink start - International operator trunks.
- **MFWINK** - MF with Wink start.
- **TOLLMFD** - Toll operator MF Delay dial.
- **TSPSMFD** - Traffic Service Position System with MF Delay dial.
- **TSPSMFW** - Traffic Service Position System with MF Wink start.

Continued on next page

Form Entries, Continued

RFA	Ring Forward Allowed - Enter a **"Y"** for Yes or **"N"** for No to indicate if ring forward is allowed. All intertoll (ITOLL) trunks (Type of Trunk [TOT] field is equal to ITOLL) will require the RFA feature. All trunks that have the possibility of receiving operator calls from lower class offices will also require this feature. Each 4ESS Switch office must determine which Trunk Subgroups (TSGs) may receive operator type calls. These TSGs must have the RFA feature assigned.
ADIG	"A" Digit - Reconstruction will be necessary when receiving digits from a machine that absorbs the first digit of a dialed address. Valid entries are **"0"** or **"2-9"** if International Switching Center (ISC) equals DPIMADG. This field is **"Blank"** for all other cases.

Continued on next page

Form Entries, Continued

CCIS2WRE Common Channel Interoffice Signaling (CCIS) 2-Wire - This field should be **"Blank"** for a non-Common Channel Signaling (CCS) Trunk Subgroup (TSG). If this is a CCIS or Integrated Services Digital Network User Part (ISUP) TSG, then it must be determined whether the far end office will terminate the trunks in this TSG on a 2-wire or 4-wire switching network in order to perform the continuity check test on CCIS or ISUP trunks. The CCS continuity check tests will be performed by using the transceiver in either a transceive mode for 4-wire CCS trunks or in a transpond mode for 2-wire CCS trunks. Enter a **"Y"** for Yes if the far end office has a 2-wire network, e.g., 1 ESS/1A ESS 2-wire. Enter an **"N"** for No if the far end office has a 4-wire network, e.g., 1 ESS/1A ESS HILO, 4ESS, 5ESS®, etc.

CBNPR Calling Party Number/Billing Number Default Presentation Restriction Indicator - This field indicates whether the received CPN/BN can be passed from the network at the egress point or not. Enter **"Y"** if the default condition for the presentation of CPN/BN should be to restrict it. Enter **"N"** or leave **"Blank"** if the default condition for the presentation of CPN/BN should be unrestricted. This field applies to incoming trunks for which CPN/BN is pre-stored or on which CPN/BN can be received. For Integrated Services Digital Network User Part (ISUP) Trunk Subgroups (TSGs) with Type of Trunk (TOT) or Local Exchange Carrier Connecting (LCC), this field should be populated with a **"Y"**.

For 4E17 and later generics: Enter **"PA"** or **"Blank"** if the default condition for the presentation of CPN/BN should be unrestricted. Enter **"PR"** if the default condition for the presentation of CPN/BN should be to restrict it.

Continued on next page

Form Entries, Continued

BN	Billing Number/Trunk Subgroup- This field is used to specify a BN associated with the TSG. It may be left **"Blank"**, or a **"3-"**, **"4-"**, or **"10-digit"** number may be entered. If FENCLASS is ACCESA or ACCESI, BN must be a 4-digit number (4-digit number if Type of Feature Group [TFG] is "B") equal to the (X)XXX corresponding to the inter-Local Area Transport Access (LATA) or International Carrier at the far end of the TSG. If FENCLASS is CMC, OWATS, or PBX, BN must be a 10-digit number. If the Automatic Call Distributor (ACD) field is **"Y"**, then BN must be a 10-digit number specifying the billing number of the INWATS ACD customer. If the ACD field is **"T"**, then BN must be **"199"**.
BRL	Billing Record Length - This field is used to specify whether long or short Automatic Message Accounting (AMA) records should be created for calls on this Trunk Subgroup (TSG). An "**S"** should be entered if Short AMA records are required or an **"L"** should be entered if Long AMA records are required. If **"L"** is entered, both answered and unanswered calls are recorded. If **"S"** is entered, only answered calls are recorded. If this field is left **"Blank"**, short AMA records will be made (if necessary). **NOTE: There is only one record length for Private Branch Exchange (PBX) calls, so this field should be used to indicate whether both answered and unanswered.**
ITC	Incoming Trunk Class - This value identifies the incoming trunk as belonging to one of four incoming classes. The ITC is used in conjunction with Local Exchange Carrier (LEC) Service Switching Point (SSP) call routing instructions to identify which Number Services Data Block (NDB) will be selected for picking a trunk to an Interexchange Carrier/International Carrier (IC/INC). The use of this field is similar to that of Multiple Treatment Screening (MTS) but is associated with the BOC SSP feature. Legal entries are **"Blank"** or "**0**-**3**".
GSDN.tsg	Not Applicable - Entries: **"Blank"**

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Form Entries, Continued

GSDNPHSE Not Applicable - Entries: **"Blank"**

EAS Equal Access Signaling - This field is used to specify if Equal Access Signaling (EAS) will be received on this Trunk Subgroup (TSG), and if so, whether Automatic Number Identification (ANI) is expected for the EAS calls. Note that this field only applies to an Inter-Local Access Transport Area (LATA) Carrier switch receiving EAS or an office with the Service Switching Point (SSP) feature receiving EAS. This field must be set to **"N"** for None if EAS is not received on the TSG. If EAS can be received on the TSG, but ANI is not expected for the EAS calls, then an **"E"** must be entered. If EAS can be received on the TSG, and ANI is expected on the EAS calls, then an **"A"** must be entered.

Entries of **"D"** and **"R"** in the EAS field are used to designate Feature Group D (FGD) only. If only FGD is received on the TSG, but ANI is not expected, then a **"D"** must be entered. If only FGD is received on the TSG, and ANI is expected, then a **"R"** must be entered.

This field only applies to an Inter-LATA Carrier switch receiving Equal Access Signaling (EAS), i.e., the Type of Trunk (TOT) value is Local Exchange Carrier Connecting (LCC).

CMTYP Centralized Automatic Message Accounting (CAMA) Type - This field is used to specify the type of CAMA record made on this Trunk Subgroup (TSG). Enter **"1"** if the standard Operating Company CAMA record must be made on this TSG. Enter **"2"** if an Inter-Local Area Transport Access (LATA) Carrier CAMA record and an Operating Company access record must be made on this TSG. If TOT is not CAMAA or CAMAO, this field must be **"Blank"**.

NOTE: The entries correspond to the number of records which will be made.

Continued on next page

Form Entries, Continued

NPARINH	Inhibit Numbering Plan Area (NPA) Reconstruction - This field is used to specify whether NPA reconstruction for equal access calls or SDN should be inhibited on this TSG or not. ANI is taken to be NPA if only seven digits are received. If NPA reconstruction should be inhibited, enter **"Y"**, otherwise enter **"N"** or leave **"Blank"**. This field only applies to Local Exchange Carrier Connecting (LCC) Type of Trunks (TOTs). Valid entries are **"Blank"**, "**Y"**, or **"N"**.
WATSBN	General Wide Area Telephone Service (WATS) Billing Number - Enter a 10-digit billing number for each Trunk Subgroup (TSG) which will be used to carry WATS type traffic. If an entry is not required, then the field must be "**Blank**" . Valid entries are **"0000000000-999999999"** and **"Blank"** .
PSUUI	Prohibit Sending User-to-User Information - This field indicates whether to accept/send Message Associated (MA) UUI on this Trunk Subgroup (TSG). Legal values are **"Blank"**, **"Y"**, or **"N"**. Enter **"Y"** if MA-UUI should not be sent. This value should be used on access TSGs to prohibit the receipt of MA-UUI, and it should be used on egress TSGs to prohibit the sending of MA-UUI. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only.
BNPT	Not Applicable - Entries: **"Blank"**
WBNPT	Not Applicable - Entries: **"Blank"**
CMERGE	Not Applicable - Entries: **"Blank"**
SCFN	Send Confusion Messages - This field indicates if received Confusion messages are counted and if Confusion messages are to be sent when an unimplemented message is received. Valid entries are **"Blank"**, **"Y"**, or **"N"**.

Continued on next page

Form Entries, Continued

OVLP	Overlap Signaling- This field indicates if Consultative Committee for International Telephone & Telegraph Signaling System 7 (CCITT7) Overlap Signaling is allowed when processing an International Integrated Services Digital network User Part (INUP) or CCITT7 Telephone User Part (TUP) call. If OVLP is set to **"Y"**, then Overlap Signaling will be allowed on transit non-operator, non-test calls. The default value for this field is: **"Blank"** (Overlap Signaling not allowed).
PRIT	Not Applicable - Entries: **"Blank"**
APS	Accunet® Packet Service - This field is used to indicate if Accunet packet service can be performed on this Trunk Subgroup (TSG). Enter **"Y"** if Accunet packet service is allowed. Enter **"N"** or leave **"Blank"** if Accunet packet service is not allowed.
PSATP	Prohibit Sending Access Transport Parameters - This field indicates whether Access Transport Parameters (ATP) can be passed to or from a connecting network. Legal values are **"Blank"**, **"Y"** or **"N"**. Enter **"Y"** if ATP should not be sent. This value should be used on access Trunk Subgroups (TSGs) to prohibit the receipt of ATP; it should be used on egress TSGs to prohibit the sending of ATP. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only. This new field will not affect the sending of ATP at an Access Tandem (AT) switch.
PBXESGD	Private Branch Exchange (PBX) Expect Station Group Designation - This field is used for the Software Defined Network (SDN) feature and is set equal to **"Y"** if the SDN customer has a direct connect PBX that will append an extra digit to the dialed number to indicate authorization of calling station. A **"Y"** or **"N"** must be entered in this field if Type Of Trunk (TOT) is PBX and Domain (DOM) is Software Defined Network Access (SDNA), otherwise it must be set to **"N"** or left **"Blank"**.

Continued on next page

Form Entries, Continued

PBXAW	Private Branch Exchange Answer Withheld - This field is used to specify whether Answer Supervision can or cannot be sent to the PBX. An entry can only be made if Type Of Trunk (TOT) is PBX. A **"Y"** is entered if Answer Supervision is to be withheld. An **"N"** is entered if Answer Supervision should not be withheld (i.e., Answer Supervision is returned). If this field is left **"Blank"** Answer Supervision is returned (not withheld).
FAR4E	The FAR4E field is set to **"Y"** for Yes whenever the far end of the trunks in this Trunk Subgroup (TSG) is terminated on a 4ESS Switch with the international announcements. This is used in common channel signaling (Incoming Signaling Characteristics [ISC] is Domestic Common Channel Interoffice Signaling [DOMCCIS] or Integrated Services Digital Network User Part [ISUP]) to control sending backward failure messages on failed international calls. These switches are equipped with the international announcements. The FAR4E field also controls common channel signaling sending network management call preference data in a forward direction (OSC is DOMCCIS or ISUP). Such data must not be sent forward to switches not equipped to handle it. Enter **"N"** if the far end is not a 4ESS Switch or the 4ESS Switch does not have the international announcements. This field should be left **"Blank"** for International Consultative Committee for International Telephone & Telegraph Signaling System 7 [CCITT7] ISUP (INUP) trunks.
MEGC	Not Applicable - Entries: **"Blank"**
SDNA	Not Applicable - Entries: **"Blank"**
OWAT	Not Applicable - Entries: **"Blank"**
DATA	Not Applicable - Entries: **"Blank"**
CBC	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

DDD	Not Applicable - Entries: **"Blank"**
IDDD	Not Applicable - Entries: **"Blank"**
FOSPS	Not Applicable - Entries: **"Blank"**
SDNPLAN	Not Applicable - Entries: **"Blank"**
BFTIS	Backward Failure Treatment Integrated Services Digital Network User Part (ISUP) all the way. This field is used to specify whether an Announcement (ANN) should be played or a Release (REL) message should be sent when a call has gone ISUP all the way. On the Trunk Subgroup (TSG) Forms, this field is only used when signaling is ISUP and the type of trunk is OCC. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"REL"** when it applies. For Office Data Assembler (ODA) Form 406Z, this field is used for designating the action for intra-Local Access Transport Area (LATA) ISUP call failures occurring at the switch. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"REL"**.

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Form Entries, Continued

BFTNI

Backward Failure Treatment not Integrated Services Digital Network User Part (ISUP) all the way. This field is used to specify whether an Announcement (ANN) should be played or a Release (REL) message should be sent when a call has not gone ISUP all the way.

On the Trunk Subgroup (TSG) Forms, this field is only used when signaling is ISUP and the type of trunk is OCC. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"ANN"** when it applies.

For Office Data Assembler (ODA) Form 406Z, this field is used for designating the action for intra- Local Access Transport Area (LATA) ISUP call failures occurring at the switch when a call has not gone ISUP all the way. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"ANN"**.

SKSP

Not Applicable - Entries: **"Blank"**

PBXNWW

Private Branch Exchange (PBX) No Wait for Wink - An entry of **"Y"** in this field is used to specify that the Trunk Subgroup (TSG) has a PBX which does not wait for a wink from the 4ESS Switch before outpulsing digits. This field is used only for TSGs with a type-of-trunk value of PBX and signaling of Dual Tone Multifrequency Wink (DTMFWK). Enter **"Y"** if the PBX does not wait for a wink from the 4ESS Switch. Otherwise, enter **"N"** or leave **"Blank"**.

HYBRD

Not Applicable - Entries: **"Blank"**

CCTT

Not Applicable - Entries: **"Blank"**

INCID

Number of Carrier ID digits to be received - An entry of **"3"** specifies that the Trunk Subgroup (TSG) should expect to receive a 3-digit CID. An entry of **"4"** specifies that the TSG should expect to receive a 4-digit CID. An entry of **"B"** specifies that the TSG should expect to receive a 3- or 4-digit CID.

Continued on next page

Form Entries, Continued

ITELCO	Not Applicable - Entries: **"Blank"**
S5DIG	Not Applicable - Entries: **"Blank"**
SDS	Not Applicable - Entries: **"Blank"**
FVSR	Not Applicable - Entries: **"Blank"**
IFITR	Not Applicable – Entries: **"Blank"**
PCPEACEL	Not Applicable - Entries: **"Blank"**
UT15DA	Not Applicable - Entries: **"Blank"**
LRN	Location Routing Number: (4E22R2>) - To support Local Number Portability (LNP), a location Routing Number (LRN) has been defined to identify a Local Service Provider (LSP) End Office. LRN is used to provide Jurisdiction Information Parameter (JIP) if not present in an initial Integrated Services Digital Network User Part (ISUP) Initial Address Message (IAM) or if Incoming Trunk (ICT) is Multifrequency (MF) type signaling. Valid entries: **"Blank"** or a **"10-digit number"**.
CBN DIGS.tsg	Connecting network access Billing Number option. The following are the valid field entries: **"Blank"** - no special Automatic Message Accounting (AMA) recording options (the default), **"N"** - Non-Feature Group-D signaled calls, or **"L"** - Local Number Portability (LNP) Non-Feature Group-D signaled calls.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

CBN	Call Back Number - CBN is a seven or 10 digit telephone number associated with the Centralized Automatic Reporting On Trunks (CAROT) control location. It is used by the 4ESS Switch as part of the CAROT/ROTL interface.
CID	Carrier ID. This field is populated with the pre-subscription carrier selected by the customer to handle inter-Local Access Transport Area (LATA) calls; and intra-LATA calls when intra-LATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. This field is only populated for ISC/OSC=Q.931.
NCAR	Not Applicable - Entries: **"Blank"**
TTA	Not Applicable - Entries: **"Blank"**
EACC	Not Applicable – Entries: **"Blank"**
QPE	Not Applicable – Entries: **"Blank"**
NSA	Not Applicable – Entries: **"Blank"**
LCVT	Not Applicable – Entries: **"Blank"**
ANCR	Not Applicable - Entries: **"Blank"**
ACCID	Not Applicable - Entries: **"Blank"**
PSTNG	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

FLDSPR	Not Applicable - Entries: **"Blank"**
REVAMP	Not Applicable - Entries: **"Blank"**
E1T1	Not Applicable - Entries: **"Blank"**
SUPBLK	Not Applicable - Entries: **"Blank"**
ATRIG	AIN TSG Trigger (4E22>) - This Trunk Subgroup (TSG) parameter allows TSG circuits to trigger the Advanced Intelligent Network (AIN) processing. The parameter can have the values: **"Blank"**, **"N"** (Do NOT allow access), **"Y"** (Allow access). The default is **"N"**.
IXC	Not Applicable - Entries: **"Blank"**
FELN	Not Applicable - Entries: **"Blank"**
HUNT	Not Applicable - Entries: **"Blank"**
CSN	Not Applicable - Entries: **"Blank"**
CARSON	Not Applicable - Entries: **"Blank"**
SOIP	Not Applicable - Entries: **"Blank"**
TCC.tsg	Not Applicable - Entries: **"Blank"**

Continued on next page

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Form Entries, Continued

STBI.tsg Not Applicable - Entries: **"Blank"**

CAREA Control Area - Valid input for this field is a single digit in the range of **"0-9"**. This number identifies the Control Area that is to be associated with this Trunk Subgroup (TSG) for trouble reporting. The number assignable in a given office is limited, however, to the highest control area assigned at Office Data Assembler (ODA) time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location.

Any test position can access every trunk assigned to the 4ESS Switch with the exception of international trunks. International trunks having Incoming Signaling Characteristic (ISC) or Outgoing Signaling Characteristic (OSC) equal to Consultative Committee for International Telephone & Telegraph 5 (CCITT5) must be assigned to a CAREA that is equipped with 51AL6 test positions. The 51AL6 test position can access any trunk assigned to the 4ESS Switch However, the alarms, Teletype (TTY) printouts, and 101 calls associated with a particular TSG will only be transmitted to the CAREA and CPOS that is specified on the input form for a TSG. A single trouble receiving location could be specified for all TSGs in the office. Trouble tickets might be originated here and distributed to occupied test positions as necessary. Some other typical applications could be to assign the TSGs to testboard positions alphabetically, by direction, by ownership, or by Type of Trunk (TOT).

The only other restraint on assigning a TSG to a particular CAREA and CPOS is that all positions might not have the optional equipment required to satisfactorily test some Trunk Subgroups. The arrangement in a given office depends on the administrative decisions made for that office.

Continued on next page

Form Entries, Continued

CAREA
(cont'd.)

Position 00 (CAREA 0, CPOS 0) has been assigned to the Master Test and Control Channel (MTC) teletype in the Maintenance Operating Center (MOC). This position was established to receive trouble reports for certain non-message type TSGs. Lucent Technologies recommend that positions
01-09 not be assigned in an office at this time. The circuits that should be assigned to test position 00 are:

- ACI*DCHN - D-Channel circuits to the Common Network Interface (CNI) Ring
- CLN*DLPC - Loopback/complement Data Test
- MAS*BIPB - Mass Announcement System (MAS) Barge-in Playback Trunk
- MIS*AART - Auxiliary Audible Ring Trunk
- MIS*TERM - Common Channel Interoffice Signaling (CCIS) Terminals
- SVC*AIN* - Advanced Intelligent Network (AIN)
- SVC*DMRV - Dual-Tone Multifrequency (MF) Receivers (DTMFR)
- VC*DMXM - Dual-Tone Multifrequency Transmitters (DTMFT)
- SVC*MFR* - Multifrequency Receivers
- SVC*MFX* - Multifrequency Transmitters
- SVC*XCVR - CCIS Continuity Check Transceivers
- SVC*XCVT - CCIS Continuity Check Transceiver Test Circuit
- SVC*MFRT - Multifrequency Receiver Test Circuits
- SVC*MFXT - Multifrequency Transmitter Test Circuits
- SVC*SCAN - Service Circuit System Expanded Announcements
- SVC*SCBN - Service Circuit System Expanded Announcements
- SVC*SCNS - Network Services Complex Set S
- TAS*ANN* - Recorded announcements
- TAS*TONE - Tone Circuits
- TAS*MWAT - 1004 hz at 0 dBm
- TAS*MW10 - 1004 hz at 10 dBm

Continued on next page

Form Entries, Continued

CAREA (cont'd.)

The balance of the non-message type TSG may be assigned to working testboard positions.

For RC Forms 604 and 605, this number identifies the Control Area that is to be associated with this announcement trouble report. The number assignable in a given office is limited, however, to the highest control area assigned at ODA time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location. If CAREA 0,
CPOS 0 is specified, all MAS messages will be sent to the MTC channel in the MOC.

CPOS

Control Position - Enter a number from **"0-9"** to specify the testboard position that is to be associated with the Trunk Subgroup (TSGs) and Control Area (CAREA) for test reporting purposes. This assignment together with the CAREA designation can be used to distribute the maintenance responsibility for Trunk Subgroups. This assignment does not prevent any test position from accessing a particular group of trunks. It is only for reporting purposes.

For RC Forms 604 and 605, enter a number from **"0-9"** to specify the testboard position that is to receive the announcement trouble reports. If CAREA is 0, only CPOS 0 is allowed. When the Message Announcement System (MAS) is administered by the Operations National Administration Center (ONAC), assign the CPOS that has been dedicated for its use.

SINDEX

Access Change Verification Sampling Rate Index value - This field specifies the rate at which calls will be sampled for access charge verification. Legal values are **"Blank"**, **"0"**, **"1"**, **"2"**, **"4"**, **"8"**, **"16"**, **"32"**, **"64". "Blank"** and **"0"** imply no verification recording. Otherwise, one call out of the number entered will be recorded.

Continued on next page

Form Entries, Continued

S1-10

These fields are reserved for future use in order to be able to implement new capabilities in a more timely fashion. When a new capability is requested for Generic Programs currently deployed in the field, one of these spare fields will be designated for use in implementing that capability.

S1 - Valid entries are **"Blank"**, or **"0-7"**.
S2-10 - Valid entries are **"Blank"**, **"Y"**, or **"N"**.

- S2 - (4E18/4E19/4E20) - An entry of **"Y"** in this field identifies Signaling System 7 (SS7) trunks which have their Per Channel Inhibit Signaling (PCIS) bits reset to force a steady state AB bit indication. Otherwise, enter **"N"** or leave **"Blank"**. In 4E21, the CODSC field will replace the use of S2 for this purpose.

- S2 - (4E21R4) This Trunk Subgroup (TSG) parameter allows TSG circuits to trigger the Advanced Intelligent Network (AIN) processing. The parameter can have the following values: **"Blank"**, **"N"** for no access allowed, and **"Y"** for access allowed. The default is **"N"**.

- S5 - Unassigned - Reserved for future use.

- S6 (4E18/19/20) - this Trunk Subgroup (TSG) parameter indicates the allowed Information Transfer Capability (ITC) coding in the outgoing Initial Address Message (IAM). The parameter can have the following values: **"Blank"**, **"N"** (use office) to encode the outgoing IAM, User Service Information (USI) parameter ITC field, the same as used in the office indicator, and **"Y"** (use opposite of office) to encode the outgoing IAM, USI parameter ITC field, with the opposite of what is used in the office indicator. The default is "use office".

NOTE: An entry of "0-7" in the S1 field or a "Y" in any of the fields S2 thru S10 without knowledge of the capability to which the field has been assigned may result in undesirable switch behavior.

Continued on next page

Form Entries, Continued

Table 3

TABLE 3
RELATIONSHIP BETWEEN CHARACTERISTICS AND STATE OF TRUNKS IN TRUNK SUBGROUP

CHARACTERISTIC	STATE OF TRUNKS IN TRUNK SUBGROUP		
	NO TRUNKS ALLOWED	MANUALLY DISABLED	ANY STATE
ISC (to or from CCITT5 or CCS)	X		
OSC (to or from CCITT5 or CCS)	X		
ISC (except to or from CCITT5 or CCS)		X	
OSC (except to or from CCITT5 or CCS)		X	
ADIG		X	
C1STO2W		X	
CCIS2WIRE	X		
DOM		X	
AOPC	X		
DPC		X	
REV	X		
RFMP	X		
TSGBBC		X	
ALL OTHER CHARACTERISTICS			X

CCS = Common Channel Signaling (CCITT6, DOMCCIS, INUP, Q931, TUP)

Continued on next page

Form Entries, Continued

Table 4

TABLE 4
VALID CHARACTERISTICS FOR
ONE-WAY INCOMING TRUNK SUBGROUPS

ISC	TYPE OF TRUNK (TOT)																		
SIGNALING TYPES	CAMAA	CAMAO	ETC	INTL	INTLO	ITAND	ITOLL	ITOP	ITOPB	LCC	LSP	MISC	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC	TSPS
CCITT5				X	X															
CCITT6				X	X															
DOMCCIS						X	X									X		X	X	
DPDDSD	X	X				X	X					X		X		X	X	X	X	
DPIMADG	X	X				X	X					X					X	X	X	
DPIMMED	X	X				X	X					X		X		X	X	X	X	
DPIMPSW	X	X																		
DTMFWK														X			X			
DTS														X			X			
INUP				X	X															
ISUP			X			X	X			X	X		X	X	X	X		X	X	
MFDDSD	X	X				X	X					X		X		X		X	X	
MFOPWK								X	X											
MFWINK	X	X	X			X	X			X	X	X	X	X		X		X	X	
Q931														X						
TOLLMPD												X				X			X	X
TSPSMFD																X				X
TSPSMFW																X				X
TUP				X	X															

RING FORWARD ALLOWED

(RFA)	N	N	Y/N	Y	Y	N	Y	Y	Y	Y/N	Y/N	Y/N	Y/N	N	Y/N	Y	N	Y/N	N	Y

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RC Form 109

General

Recent Change (RC) Form 109 changes the translations for a one-way Outgoing Trunk Subgroup (TSG). This message is classed as a Recent Change Data Message (RCDM). There are two characteristics that are not changeable with this form: the Circuit Identification Name (CIN) (use RC Form 802) and the Quantity of Traffic Numbers (QTFN) (use RC Forms 104 or 105).

The restrictions imposed for changing the Domain (DOM) are:

- The existing domain has to be in the range of 20 through 69.
- The new domain has to be in the range of 20 through 69.

All other changes to the Domain are prohibited.

Certain characteristics cannot be changed unless all trunks in the TSG are in a particular state. For more information, Refer to Table 3 – Relationship Between Characteristics and State of Trunks in Trunk Subgroup. This table confirms that almost all of the popular characteristics related to a TSG change require the trunks to be either put in the CADOOS state or removed. Therefore, it should be noted that it may be much easier and more efficient (maintaining service) to build the new TSG. Then, as the trunks from the old TSG are put to the CADOOS state, they can be removed from the old TSG and reassigned to the new TSG. This is a prudent choice as service could be working on both TSGs as some of the trunks are being turned down and reassigned to the new TSG. Also, the new two-way TSG is more apt to have the more accurate TFNB numbering scheme as a result of the Reverse (REV) considerations while building the new TSG. After all of the trunks are removed from the old TSG (this transition could be over a number of days if desired), it can be entirely removed.

If input to the FEAREA and/or IWZ1 field are modified, the RC Form must update Routing Data Block (RDB) Alternate Route Lists. If the Roll Back Area becomes full from these updates, the Form will print a warning message that not all of the RDB Route Lists have been updated and that the TSG form must be reentered. The user must reenter the form to complete building the RDB Route Lists.

An alphabetical keyword list is included in this section, starting on page 51.

Continued on next page

RC Form 109, Continued

General
(cont'd.)

```
# FORM 109          CHANGE A ONE-WAY OUTGOING TRUNK SUBGROUP
  4E22

RC:TSG;CHG;OPT(OUT1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC ___________,                     DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _, VDCAP _____,
FEAREA _____________, FESWID _____________,  EXSEQ _,  FEPTY _,

             TOT _____, SAT _,             DOM _____, ACD _,              FAI _,
FENPA ___,   FEOFC ___, FELATA ___,                   IWZ1 _,
MEM _,       PSES _,

                                                        CCIS2WRE _,
OSC ________, RFMP _,    DPSTOP _,          DELAY ___,  MFSPEED __,
XCPA _,       DNP _,                                    PSOLI _,

BN ___________, BRL _,          GSDN _,
                PSBN _____, PSCPN _,        ANISID ___, WANISID ___, PSUUI _,
BNPT ____,              CMERGE _,           SCFN _,          PRIT ______,
APS _, CHNEG _, PSATP _,                                     DOFP _, SBRIV _,
                                                             FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,      CSCSET ______, CID _____,  ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _,   REVAMP _, E1T1 _, SUPBLK _,
IXC _,

CAREA _,    CPOS _,   SINDEX __,          CODSC _,     NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,             OTMTT ______, OTMTN _________,
XTSTT _____, XTSTN _________,             XTMTT ______, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 401C

                       ASSOCIATED VERIFY MESSAGES

                       INPUT-11a-VER:TSG:CIN....
                       INPUT-11c-VER:TSG:TSGN....

              OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

               OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

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RC Form 109, Continued

General
(cont'd.)

```
# FORM 109          CHANGE A ONE-WAY OUTGOING TRUNK SUBGROUP
  4E23R1

RC:TSG;CHG;OPT(OUT1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC ___________,                     DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _, VDCAP ______,
FEAREA _____________, FESWID _____________,  EXSEQ _,  FEPTY _,

            TOT ______, SAT _,             DOM _____, ACD _,              FAI _,
FENPA ___,  FEOFC ___, FELATA ___,                    IWZ1 _,
MEM _,      PSES _,

                                                        CCIS2WRE _,
OSC ________, RFMP _,    DPSTOP _,          DELAY ___,  MFSPEED __,
XCPA _,      DNP _,                                     PSOLI _,

BN ___________, BRL _,          GSDN _,
               PSBN _____, PSCPN _,        ANISID ___, WANISID ___, PSUUI _,
BNPT _____,              CMERGE _,         SCFN _,          PRIT _______,
APS _, CHNEG _, PSATP _,                                   DOFP _, SBRIV _,
                                                           FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,      CSCSET ______, CID _____,  ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _,   REVAMP _, E1T1 _, SUPBLK _,
IXC _, FOLI _, FELN _, HUNT __, CSN __,

CAREA _,    CPOS _,   SINDEX __,          CODSC _,     NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,             OTMTT ______, OTMTN _________,
XTSTT _____, XTSTN _________,             XTMTT ______, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 401C

                       ASSOCIATED VERIFY MESSAGES

                       INPUT-11a-VER:TSG:CIN....
                       INPUT-11c-VER:TSG:TSGN....

              OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

               OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 109, Continued

General
(cont'd.)

```
# FORM 109          CHANGE A ONE-WAY OUTGOING TRUNK SUBGROUP
  4E24

RC:TSG;CHG;OPT(OUT1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC ___________,                     DPC __________,

FENCLASS _______, FENID _______,            TFG _,    TSGBBC _, VDCAP _____,
FEAREA _____________, FESWID _____________,  EXSEQ _,  FEPTY _,

             TOT _____, SAT _,              DOM _____, ACD _,              FAI _,
FENPA ___,   FEOFC ___, FELATA ___,                    IWZ1 _,
MEM _,       PSES _,

                                                          CCIS2WRE _,
OSC ________, RFMP _,    DPSTOP _,           DELAY ___,   MFSPEED __,
XCPA _,       DNP _,                                      PSOLI _,

BN ___________, BRL _,           GSDN _,
                PSBN _____, PSCPN _,         ANISID ___, WANISID ___, PSUUI _,
BNPT ____,               CMERGE _,           SCFN _,          PRIT ______,
APS _, CHNEG _, PSATP _,                                      DOFP _, SBRIV _,
                                                              FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,       CSCSET ______, CID _____,  ITCENC _, OFITR _,
SPN _, LNPIC _, NCAR _, TTA _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _,    REVAMP _, E1T1 _, SUPBLK _,
IXC _, FOLI _, FELN _, HUNT __, CSN __, CARSON __, SOIP __,

CAREA _,     CPOS _,    SINDEX __,          CODSC _,      NEOTR _,     TRIDX __,
OTSTT _____, OTSTN _________,               OTMTT ______, OTMTN _________,
XTSTT _____, XTSTN _________,               XTMTT ______, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 401C

                       ASSOCIATED VERIFY MESSAGES

                       INPUT-11a-VER:TSG:CIN....
                       INPUT-11c-VER:TSG:TSGN....

              OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

               OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

RC Form 109, Continued

General
(cont'd.)

```
# FORM 109   CHANGE A ONE WAY OUTGOING TRUNK SUBGROUP
  4E25

RC:TSG;CHG;OPT(OUT1WAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                      TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                      DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

            TOT ______, SAT _,             DOM _____, ACD _,           FAI _,
FENPA ___,  FEOFC ___, FELATA ___,                    IWZ1 _,
MEM _,      PSES _,

                                                        CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __,
XCPA _,       DNP _,                                    PSOLI _,

BN ___________, BRL _,           GSDN _,
                PSBN _____, PSCPN _,   ANISID _____, WANISID _____, PSUUI _,
BNPT _____,              CMERGE _,        SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                    DOFP _, SBRIV _,
                                                            FOSPS _, CCIF _,
ONCID _, D3DBN _,   MULAW _,   CSCSET _______, CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _, NCAR _, TTA _, EACC __, LCVT _, NSA _,
ANCR _,  ACCID ___,  PSTNG _,  FLDSPR _, REVAMP _, E1T1 _, SUPBLK _,
IXC _, FOLI _, FELN _, HUNT __, CSN __, CARSON _, SOIP _, TCC __, STBI _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                EQUIVALENT ODA INPUT FORM - ESS 401C

                     ASSOCIATED VERIFY MESSAGES

                     INPUT-11a-VER:TSG:CIN....
                     INPUT-11c-VER:TSG:TSGN....

            OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

             OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Form Entries

RC:TSG;CHG;OPT(OUT1WAY),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG
(cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

Continued on next page

Form Entries, Continued

PCF

Point Code Format - This field is used to specify the format of the point code that is being entered in the point code field. If no entry is being made in the Destination Point Code (DPC) (Originating Point Code [OPC]) field, then this field must be left **"Blank"**. Three different formats are available for input: **ATT, ANSI,** or **ISPC**.

ATT is used for AT&T standard input/output which consists of a three digit network indicator, a two digit cluster region, a one digit cluster type, and a three digit cluster member.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CR**: Cluster Region - This value specifies the region of the signaling network where the office is located. Valid entries are **"00-31"**.

3. **CT**: Cluster Type - Valid entries are **"0-7"**.

4. **MEM**: - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

ANSI is used to indicate that the input/output is in the American National Standards Institute format which consists of a three digit network indicator, a three digit cluster, and a three digit member number.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CLU**: Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"000-255"**.

3. **MEM**: Member Number - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

Continued on next page

Form Entries, Continued

PCF (cont'd)

ISPC is used for international signaling point code input/output which consists of a one digit world geographical zone, a three digit area/network identifier, and a one digit signaling point identifier. Reference: International Consultative Committee for International Telephone & Telegraph Signaling System (CCITT) Recommendation "Numbering of International Signaling Point Codes", Vol. VI, Rec. Q.708.

1. **WGZ**: World Geographical Zone - This value specifies the world geographical zone of the office. Valid entries are "**1-7**".

2. **ANI**: Area/Network Identification - This value specifies a geographical area or network in a specific zone. Valid entries are **"000-255"**.

3. **SPID**: Signaling Point Identification - This value specifies a signaling point in a specific geographical area or network. Valid entries are **"0-7"**.

AOPC

Alias Origination Point Code - This field will provide a unique combination of a Local Exchange Carrier (LEC) Signal Transfer Point (STP) Point Code (PC) and an AT&T STP PC for each Local Access Transport Area (LATA) dedicated D-link set via a logical point code. AOPC, if entered, must be entered in the ATT format. See the Point Code Format (PCF) field for the format description. AOPC may only be entered when the PCF field is not **"Blank"**.

Continued on next page

Form Entries, Continued

DPC

Destination Point Code - This field is used to specify the Destination Point Code of the far-end switch.

This field entry is divided into three subfield entries:

1. NET - Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"Blank"**, **"000-255"**.

2. CLU - Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"Blank"**, **"000-255"**.

3. MEM - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"Blank"**, **"000-255"**.

For the Trunk Subgroup (TSG) forms, nine digits must be entered, depending on the format specified in the Point Code Format (PCF) field. Nine digits must be entered if PCF is American National Standards Institute (ANSI) format. An entry must be made in this field if either the Incoming Signaling Characteristics (ISC) or Outgoing Signaling Characteristics (OSC) field value is **"ISUP"**, **"INUP"**, or **"TUP"**; otherwise this field must be **"Blank"**.

Continued on next page

Form Entries, Continued

FENCLASS This field specifies the classification of the Far End Network (FEN). If the Trunk Subgroup (TSG) is not associated with any FEN, this field is left **"Blank"**. The FEN with which the TSG is to be associated must be described via 4ESS Switch RC 617.

For RC 524, this field identifies the class for accumulating counts.

The following classifications are available:

- **ACCESA** - This identifier specifies that the TSG is a link to an Inter-exchange Carrier (IC) or International Carrier (INC), and the 4ESS Switch is being used by a Local Exchange Carrier (LEC) as an Access Tandem (AT) and/or Service Switching Point (SSP) to switch calls from this TSG.

- **ACCESI** -This identifier specifies that the TSG is a link to an International Carrier (INC), and the 4ESS Switch is being used by an Interexchange Carrier (IC) (e.g., AT&T-C) to switch calls from this TSG.

- **ACCESO** - This identifier specifies that the TSG is a link to an Operating Company and the 4ESS Switch is used as an IC.

- **CMC** - Cellular Mobile Carrier - This identifier specifies that the FEN is a CMC. The TSG connects an Access Tandem (AT) and a CMC.

- **INTL** - This identifier specifies that the TSG is an international link with the far end outside World Zone 1 and that the 4ESS Switch is being used as an International Switching Center (ISC)

- **OWATS** - This identifier specifies that the TSG is a link to a Private Branch Exchange (PBX) over which only Outward Wide Band Area Telephone Service (WATS) calls are allowed.

Continued on next page

Form Entries, Continued

FENCLASS (cont'd)

- **OEO** - Other End Office connecting, meaning an Equal Access End Office (EAEO) owned by a different company. This identifier specifies that the FEN is an OEO. The TSG connects an Access Tandem (AT) and an OEO.
- **PBX** - This identifier specifies that the TSG is a link to a PBX.
- **POTS** - This identifier specifies that the TSG is a link to a switching machine serving either a Local Access Transport Area (LATA) of the Local Exchange Carrier (LEC) owning/sharing the 4ESS Switch, the Continental United States/Plain Old Telephone Service (POTS) (CUSP) network of the IEC owning/sharing the 4ESS Switch, or some other FEN to be treated similarly.

Continued on next page

Form Entries, Continued

FENID

Far End Network (FEN) Identification - This field distinguishes the specific FEN with which this Trunk Subgroup (TSG) is associated. One to six alphanumeric characters may be entered to distinguish among several FENs with the same classification, or the field may be left **"Blank"**. If FENCLASS is **"Blank"**, FENID must also be **"Blank"**.

When the FENCLASS is ACCESA or ACCESI, FENID should consist of type of feature group access and the 4 numeric digits of the Carrier Identification Code (CIC).

The type of feature group definitions are:

- **G** - All access types (B, C, & D).
- **B** - Feature Group B Access.
- **C** - Feature Group C Access.
- **D** - Feature Group D Access.

Examples include:

- **G0288** - Carrier ID 288 has Feature Group B, C, & D access.
- **BC0288** - Carrier ID 288 has Feature Group B & C access.
- **BD0288** - Carrier ID 288 has Feature Group B & D access.
- **B2882** - Carrier ID 2882 has Feature Group B access only.
- **D2882** - Carrier ID 2882 has Feature Group D access only.

For an access type, both B2882 and D2882 can exist but be for different carriers.

Continued on next page

Form Entries, Continued

TFG

Type of Feature Group - This field is used to specify whether the Type of Access for this Trunk Subgroup (TSG) is tariffed under Feature Group B, Feature Group C, or Feature Group D. An entry can only be made if the FENCLASS is ACCESA. If FENCLASS is ACCESA, a **"B"**, **"C"**, or **"D"** must be entered, corresponding to Feature Groups B, C, or D, respectively. FENCLASS is not ACCESA, this field must be left **"Blank"**.

TSGBBC

Trunk Subgroup (TSG) Broadband Capability - Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q.931 signaling systems allow for broadband switching. This entry specifies what type of circuits may be populated in this TSG. Valid entries are:

- **Blank** - 1 trunk circuit
- **0** - 1 trunk circuit
- **1** - 6 trunk circuits
- **2** - 24 trunk circuits
- **3** - Combined usage 1 and 6 trunk circuits
- **4** - Combined usage 1 and 24 trunk circuits
- **5** - Combined usage 6 and 24 trunk circuits
- **6** - Combined usage 1, 6, and 24 trunk circuits.

VDCAP

Not Applicable - Entries: **"Blank"**

FEAREA

Not Applicable - Entries: **"Blank"**

FESWID

Not Applicable - Entries: **"Blank"**

EXSEQ

Not Applicable - Entries: **"Blank"**

Continued on next page

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Form Entries, Continued

FEPTY Not Applicable - Entries: **"Blank"**

TOT Type of Trunk - This field specifies the trunk type for this Trunk Subgroup (TSG). TOT entries of **"ETC"** for End Office or Tandem Connecting, **"LCC"** for Local Exchange Carrier Connecting, and **"OCC"** for Other Carrier Connecting are used for network interconnect. When these TOT values are used on Integrated Services Digital Network User Part (ISUP) trunks, the Local Exchange Carrier (LEC) (Bellcore TR-317) and/or network interconnect version (TR-394) of the ISUP protocol is used. For all other allowed TOT values, the AT&T version of the ISUP protocol is used. The codes that may be entered are as follows:

- **ETC** - End Office or Tandem Office Connecting - This Type of Trunk (TOT) is used to identify Equal Access (EA) or Intra Local Access Transport Area (IntraLATA) trunks at a switch serving as an Access Tandem (AT) or Service Switching Point (SSP) where the other end connects to an End Office. This TOT is also used to identify EA trunks between ATs or between an AT and a switch serving as an SSP. When the type of trunk is ETC, the signaling characteristic of the Trunk Subgroup (TSG) must be either Multifrequency Wink (MFWINK) or ISUP.

- **INTL** - International - International circuit with the far end outside of World Zone 1, and having signaling characteristics of International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5), CCITT6, International ISUP (INUP), and CCITT7 Telephone User Part (TUP).

- **INTLO** - International Overflow - International Overflow circuit (for overflow transit traffic) with the far end inside World Zone 1 in another International Switching Center (either the U.S. or foreign).

- **ITAND** - Inter Tandem - This TOT can be used to handle traffic between two tandem switchers in the same local calling area.

Continued on next page

Form Entries, Continued

TOT
(cont'd)

- **ITOLL** - Intertoll - Intertoll trunks will carry toll traffic between class 4 or higher offices, or trunks dedicated to Inter-International Switching Center (inter-ISC) international overflow traffic. This includes final, full and high usage TSGs.

- **ITOP** - International Operator - International Operator tandem trunk from a No. 5 switchboard.

- **LCC** - Local exchange Carrier Connecting - This TOT is used to identify EA trunks at an AT&T switch This identifier is also used for outgoing ISUP trunks from the Interexchange Carrier/International Exchange Carrier (IC/INC) to an SSP office. When the type of trunk is LCC, the signaling characteristic of the TSG must be either MFWINK or ISUP and the Equal Access Signaling (EAS) field must be marked as either **"E"**, **"A"**, **"D"** or **"R"**.

- **MISC** - Miscellaneous - This designation is used for operator (except for inward, leave word or 2-way operator trunks), service circuit, and other miscellaneous TSGs.

- **OCC** - Other Carrier Connecting - This TOT is used to identify EA trunks at a switch serving as an AT or SSP where the other end connects to an IC or INC switch. This type of trunk should be used when the signaling on the TSG is MFWINK or ISUP.

- **PBX** - Private Branch Exchange - This identifier indicates that the trunks in this TSG terminate on a PBX unit. If the PBX interface is via a 2-wire PBX Channel Unit (J98726ST), then the Incoming Signaling Characteristics (ISC) should be Dial Pulse Immediate (DPIMMED) and the Outgoing Signaling Characteristics (OSC) should be Dial Pulse Wink (DPWINK).

- **SECIT** - Secondary Intertoll - These trunks interconnect toll switching machines and manually operated toll or assistance switchboards for routing of operator completed traffic.

Continued on next page

Form Entries, Continued

TOT (cont'd)

- **STC** - Single Trunk Customer - This TOT is used to designate a TSG for single trunk terminations not supported by a PBX. When TOT is STC, the following TSG fields must be **"Blank"** or **"N"** as allowed: ANISID, APS, BRL, CCIS2WRE, DNHR, DPC, EAS, FAR4E, PBXAW, PBXESGD, REV, RFA, RFMP, SAT, SINDEX, TFG, TSGBBC, WANISID, XCPA.

- **TAND** - Tandem - This code is used for 2-way tandem, tandem completing and tandem connecting TSGs.

- **TOLLC** - Toll Connecting or Completing - This code is used for Direct Distance Dialing (DDD) access, toll connecting or toll completing TSGs.

SAT

Satellite - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not this Trunk Subgroup (TSG) is associated with satellite facilities. This entry performs a screening function to avoid two satellite TSGs from being connected together to complete a call. If the incoming TSG has SAT = "Y", then call processing will insist the outgoing TSG must have SAT = "N". This can also be used for local screening functions even though the TSG is not via a satellite.

For Voice Frequency Link (VFL) TSGs, satellite facilities cannot be used for a domestic Common Channel Interoffice Signaling (CCIS) system, i.e. if DOM is Plain Old Telephone Service (POTS), then SAT must be **"N"**.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), International Direct Distance Dialing (IDDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (0 through 19). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be ITOLL, MISC, or TSPS or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e. CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.
- **I64C** -This transport domain is used to route 64 kbps clear international data calls up to an ISC.
- **I56D** -This transport domain is used to route 56 kbps international data calls up to an ISC.

Continued on next page

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for the Software Defined Network (SDN) and Private Branch Exchange (PBX) Interface features:

- **SDNA** - Software Defined Network (SDN) Access - This domain is used to translate the digits of an originating SDN (voice or data) call and determine if the call is a 7-digit or 10-digit call. Trunks in the SDNA domain are dedicated to SDN calls. When DOM equals SDNA, then TOT must be CAMAA, CAMAO, ETC, LCC, PBX, STC, TAND, or TOLLC for Trunk Subgroup (TSG) forms or CALLTYP must be CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SDX, SSP, TEL, TST, or TTS for code group forms.

- **DEV** - Dedicated Egress Voice - This domain is available at the terminating 4ESS Switch to translate SDN and Direct Connect voice calls and route them to a directly connected PBX, via direct egress, or to a local office, via switched egress.

  This domain is also used as an access domain for originating Direct Connect voice calls. The calls arrive at the 4ESS Switch as 10-digit calls. When DOM equals DEV, then TOT must be PBX or Single Trunk Customer (STC) for TSG forms or CALLTYP must be CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SDX, SSP, TEL, TST, or TTS for code group forms.

- **DED** -Dedicated Egress Data - This domain is available at the terminating 4ESS Switch to translate the SDN data call and route it to a directly connected PBX, via direct egress, or to a local office, via switched egress.

  This domain is also used as an access domain for originating Direct Connect data calls. The calls arrive at the 4ESS Switch as 10-digit calls and are routed through the network (translations and facilities) via the data domain. When DOM equals DED, then TOT must be PBX or STC for TSG forms or CALLTYP must be CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SDX, SSP, TEL, TST, or TTS for code group forms.

Continued on next page

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.
- **APN** - Action Point Numbering Plan - This domain is used as an access domain for originating Direct Connect voice or data calls. The calls arrive at the 4ESS Switch as 10-digit calls. When DOM equals APN, then TOT must be PBX or STC for TSG forms.

NOTE: For Voice Frequency Link (VFL) TSGs, this field identifies the domain in which this TSG operates. Valid inputs are "POTS" (if VFL is associated with a domestic Common Channel Interoffice Signaling [CCIS] system).

ACD

Automatic Call Distributor - This field is used to indicate if this Trunk Subgroup (TSG) is used to terminate Inward Wide Band Area Telephone Service (INWATS) traffic. Enter **"Y"** if this TSG will terminate INWATS traffic. Enter **"T"** if INWATS Time of Day (TOD) billing is required. Enter **"N"** or leave **"Blank"** if this TSG will not terminate INWATS traffic.

FAI

Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

FENPA

Far End Numbering Plan Area/Trunk Subgroup (TSG) - Enter a 3-digit Numbering Plan Area (NPA) code to identify the far end of the subgroup. Valid entries range from **"200-999"**. With an International Trunk Subgroup, if the far end of the Trunk Subgroup is outside World Zone 1, enter the 1-, 2-, or 3-digit country code. Valid ranges of Country Code entries are **"2-9"**, **"20-99"**, and **"200-999"**.

This field is the NPA of the Far-End Office. If this office is not in the Home or Served area, then the Domain will be Plain Old Telephone Service-Intertoll/Intertandem (POTS-IT) and the IT field will be forced to **"Y"** in a Local Exchange Carrier (LEC) switch.

FEOFC

Far-End Office Code - This field is used to identify the office code of the far end switch. Typically this value will range from 200-999. Legal entries are: **"Blank"**, **000-999**.

FELATA

Far End Local Access Transport Area/Trunk Subgroup - This field is used to identify the Local Access Transport Area (LATA) of the far end switch. Legal entries are: **"Blank"**," **000-999"**.

IWZ1

International World Zone 1 - Enter **"Y"** if this Trunk Subgroup (TSG) will carry international traffic within World Zone 1. Enter **"N"** or leave **"Blank"** if this TSG will not carry international traffic within World one 1. Valid entries are **"Blank"**, **"N"**, or "**Y**".

MEM

Memory - This field is used to indicate if trunk hunt with memory is to be performed on this Trunk Subgroup (TSG) when searching for an idle trunk. Trunk hunt with memory is not performed on a TSG if the TSGBBC field is greater than zero (the MEM field should be set to **"N"** in this case). Enter **"N"** if trunk hunt with memory is not to be done. Enter **"Y"** or leave **"Blank"** if trunk hunt with memory is to be done.

Continued on next page

Form Entries, Continued

PSES Prohibit Service Evaluation - An entry of **"N"** for No specifies that this Trunk Subgroup (TSG) is eligible for service evaluation by the No. 2 Service Evaluation System. An entry of **"Y"** for Yes specifies that the TSG is not eligible for service evaluation. Valid entries are **"Blank"**, **"Y"**, or **"N"**. Blank defaults to "**N**".

CCIS2WRE Common Channel Interoffice Signaling (CCIS) 2-Wire - This field should be **"Blank"** for a non-Common Channel Signaling (CCS) Trunk Subgroup (TSG). If this is a CCIS or Integrated Services Digital Network User Part (ISUP) TSG, then it must be determined whether the far end office will terminate the trunks in this TSG on a 2-wire or 4-wire switching network in order to perform the continuity check test on CCIS or ISUP trunks. The CCS continuity check tests will be performed by using the transceiver in either a transceive mode for 4-wire CCS trunks or in a transpond mode for 2-wire CCS trunks. Enter a **"Y"** for Yes if the far end office has a 2-wire network, e.g., 1 ESS/1A ESS 2-wire. Enter an **"N"** for No if the far end office has a 4-wire network, e.g., 1 ESS/1A ESS HILO, 4ESS, 5ESS®, etc.

Continued on next page

Form Entries, Continued

OSC

Outgoing Signaling Characteristics - Enter one of the following codes to specify the outgoing signaling characteristics required for this Trunk Subgroup (TSG):

- **DPDDSD** - Dial Pulse with Delay Dial/Start Dial.
- **DPIMMED** - Dial Pulse with Immediate pulsing (no delay).
- **DPWINK** - Dial Pulse with Wink start.
- **DTMFWK** - DTMF with Wink Start.
- **ICOPNOP** - Integrity Check Operator trunk with No Outpulsing. Use this characteristic on trunk subgroups which return a wink signal.
- **ISUP** - CCITT7 ISDN User Part.
- **MFDDSD** - MF with Delay Dial/Start Dial.
- **MFWINK** - MF with WINK start.
- **MIOPNOP** - Miscellaneous Operator with No Outpulsing. This OSC. is used for information and other operator calls. This OSC may be used for Direct Connect calls on 1-way outgoing and 2-way TSGs when Type of Trunk (TOT) is Private Branch Exchange (PBX) or Single Trunk Customer (STC). Use this characteristic only on TSGs which do not return a wink signal.
- **SIOPMFW** - Secondary Intertoll Operator with MF and Wink start. This is used to route inward and leave word operator traffic to a Traffic Service Position System (TSPS) operator.
- **SIOPNOP** - Secondary Intertoll Operator with No Out Pulsing. This type of trunk is used only for the secondary intertoll operator treatment.
- **TWOPDPD** - 2-Way Operator Dial Pulse Delay.
- **TWOPDPI** - 2-Way Operator Dial Pulse Immediate.

Continued on next page

Form Entries, Continued

OSC (cont'd)

- **TWOPDPW** - 2-Way Operator Dial Pulse Wink.
- **TWOPMFW** - 2-Way Operator MF Wink.

RFMP

Ring Forward Miscellaneous Distributor Point - Leave **"Blank"** or enter **"N"** for No to indicate that a miscellaneous distributor point is not associated with the outgoing portion of the Trunk Subgroup (TSG). This feature is only required for outgoing trunks requiring 130V ring forward battery. This feature is presently not available on the outgoing portion of 2-way trunk circuits.

DPSTOP

Dial Pulse Stop - Enter a **"Y"** for Yes if this Trunk Subgroup (TSG) terminates in a panel, Step-by-Step or other office that might not be able to receive a complete train of dial pulse digits without a pause between digits (Outgoing Signaling Characteristic [OSC] equal to DPWINK, DPDDSD, DPIMMED, TWOPDPD, TWOPDPI, or TWOPDPW). This feature will tell the program to look for a DPSTOP signal from the far-end office after any one of the first three digits is outpulsed. Enter an **"N"** for No if this feature is not required for DP outpulsing. For other types of outpulsing, leave this field **"Blank"**.

DELAY

Delay Interval - An entry must be made if the Outgoing Signaling Characteristic (OSC) is CCITT5, DTMFWK, MFWINK, MFDDSD, SIOPMFW, or TWOPMFW. Leave this field **"Blank"**, if any other OSC is specified. If OSC is MFWINK, MFDDSD, SIOPMFW, or TWOPMFW, enter **"20"**, **"80"**, or **"220"** to indicate the delay in milliseconds before outpulsing is started. This delay interval starts when the wink or start dial signal from the other office is recognized. Twenty milliseconds is basic for most offices. A delay of 20 may be associated with 7 or 10 multifrequency digits per second. When the OSC is Dual Tone Multifrequency Wink (DTMFWK), enter **"70"**, **"140"**, **"210"**, or **"280"** to indicate the delay in milliseconds before outpulsing. This delay interval starts when the wink from the Private Branch Exchange (PBX) is received. **"70"** milliseconds is the minimum required for PBXs.

Continued on next page

Form Entries, Continued

MFSPEED	Multifrequency Speed - If Outgoing Signaling Characteristic (OSC) is specified as MFWINK, MFDDSD, SIOPMFW, or TWOPMFW enter **"7"** or **"10"** to indicate the number of outpulsed Multifrequency (MF) digits per second. Enter **"10"** for Lucent Technologies ESS machines. Seven digits per second is used for all electromechanical machines. If OSC is equal to International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5), this field should indicate an MF speed of 10. Leave this field **"Blank"** for any other value of OSC.

Continued on next page

Form Entries, Continued

XCPA

Transceiver (XC) Pad Adjustment - This item will be left **"Blank"** for non-Common Channel Interoffice Signaling (CCIS) trunks. If the Outgoing Signaling Characteristic (OSC) is equal to International Consultative Committee for International Telephone & Telegraph Signaling System 6 (CCITT6), Domestic CCIS (DOMCCIS), Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), or CCITT7 Telephone User Part (TUP) enter a digit from **"0"** to **"3"** to indicate the pad setting for the CCIS transceiver. The correct entry can be determined by comparing the highest Inserted Connection Loss (ICL) value assigned to a trunk in this Trunk Subgroup (TSG) to the following table. The ICL can be obtained from the Circuit Order Layout Record (COLR) card.

DIGIT	ICL APPLICATION	PAD
• **0**	0 loss trunk	5 DB
• **1**	.1 to .8 loss	3.5 DB
• **2**	.9 to 1.7 loss	1.8 DB
• **3**	1.8 to 4.1 loss	0 DB

DNP

Dialed Number Preferred - This field indicates whether the called user prefers to receive the original dialed number, if available, as delivered to the network rather than the routing number. Enter **"Y"** if the called user prefers receiving the original dialed number, otherwise, enter **"N"** or leave **"Blank"**. This field applies to outgoing Q.931 trunks only.

PSOLI

Prohibit Sending Originating Line Identity - This field indicates whether OLI can be passed to a connecting network. Legal values are **"Blank"**, **"Y"** or **"N"**. **"Y"** specifies that OLI should not be sent. **"N"** specifies that OLI should be sent.

Continued on next page

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Form Entries, Continued

BN

Billing Number/Trunk Subgroup- This field is used to specify a BN associated with the TSG. It may be left **"Blank"**, or a **"3-"**, **"4-"**, or **"10-digit"** number may be entered. If FENCLASS is ACCESA or ACCESI, BN must be a 4-digit number (4-digit number if Type of Feature Group [TFG] is "B") equal to the (X)XXX corresponding to the inter-Local Area Transport Access (LATA) or International Carrier at the far end of the TSG. If FENCLASS is CMC, OWATS, or PBX, BN must be a 10-digit number. If the Automatic Call Distributor (ACD) field is **"Y"**, then BN must be a 10-digit number specifying the billing number of the INWATS ACD customer. If the ACD field is **"T"**, then BN must be **"199"**.

BRL

Billing Record Length - This field is used to specify whether long or short Automatic Message Accounting (AMA) records should be created for calls on this Trunk Subgroup (TSG). An **"S"** should be entered if Short AMA records are required or an **"L"** should be entered if Long AMA records are required. If **"L"** is entered, both answered and unanswered calls are recorded. If **"S"** is entered, only answered calls are recorded. If this field is left **"Blank"**, short AMA records will be made (if necessary).

NOTE: There is only one record length for Private Branch Exchange (PBX) calls, so this field should be used to indicate whether both answered and unanswered.

GSDN

Global Software Defined Network/Code Group - This field specifies the index that is used to select a routing treatment when a GSDN type of subsequent digit entry is encountered. Valid entries are **"0-1"**.

Continued on next page

Form Entries, Continued

PSBN

Prohibit Sending Billing Number - This field is used to indicate that the caller's billing number should not be sent in the outgoing signaling messages.

For 4E17 and earlier generic programs, enter **"Y"** if the billing number should not be forwarded. This value should only be used on Trunk Subgroups (TSGs) connecting to another network. Enter **"N"** or leave **"Blank"** if the billing number can be sent. This field applies to outgoing Integrated Services Digital Network User Part (ISUP) trunks only.

For 4E18 and later generic programs, this value should only be used on TSGs connecting to another network. Enter:

- **Blank** or **PNNA** - prohibit sending a billing number with a numbering plan type other than North American Numbering Plan (NANP).
- **SALL -** if the billing number can be sent, regardless of the numbering plan type.
- **PALL -** if all billing numbers are to be prohibited from being sent, regardless of the numbering plan type. This field only applies to outgoing ISUP and Q.931 trunks. The PALL value applies only to ISUP trunks.

PSCPN

Prohibit Sending Calling Party Number - This field is used to indicate that the caller's calling party number should not be sent in the outgoing signaling messages. Enter **"Y"** if the calling party number should not be forwarded. This value should only be used on Trunk Subgroups (TSGs) connecting to another network. Enter **"N"** or leave **"Blank"** if the calling party number can be sent. This field applies to outgoing Integrated Services Digital Network User Part (ISUP) and International ISUP (INUP) trunks only.

Continued on next page

Form Entries, Continued

ANISID

ANI/SID requester value: This field specifies the type of calling party information which should be transmitted to the customer. Valid entries are:

- **Blank** No information
- **NONE** No information
- **ANI** Automatic Number Identification (ANI) only
- **SID** Service Identity (SID) only
- **PANI** ANI or SID (prefer ANI)
- **PSID** ANI or SID (prefer SID)
- **REQ** Customer will use signaling to specify.

WANISID

Wide Area Telephone Service (WATS) Automatic Number Identification (ANI)/Service Identity (SID) requester value - This field specifies the type of calling party information which should be transmitted to the customer when Megacom* 800 type of traffic is delivered to the customer. Valid entries are:

- **Blank** - No information
- **NONE** - No information
- **ANI** - ANI only
- **SID** - SID only
- **PANI** - ANI or SID (prefer ANI)
- **PSID** - ANI or SID (prefer SID)
- **REQ** - Customer will use signaling to specify.

*Megacom is a registered trademark of AT&T.

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Form Entries, Continued

PSUUI	Prohibit Sending User-to-User Information - This field indicates whether to accept/send Message Associated (MA) UUI on this Trunk Subgroup (TSG). Legal values are **"Blank"**, **"Y"**, or **"N"**. Enter **"Y"** if MA-UUI should not be sent. This value should be used on access TSGs to prohibit the receipt of MA-UUI, and it should be used on egress TSGs to prohibit the sending of MA-UUI. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only.
BNPT	Not Applicable - Entries: **"Blank"**
CMERGE	Not Applicable – Entries: **"Blank"**
SCFN	Send Confusion Messages - This field indicates if received Confusion messages are counted and if Confusion messages are to be sent when an unimplemented message is received. Valid entries are **"Blank"**, **"Y"**, or **"N"**.
PRIT	Not Applicable - Entries: **"Blank"**
APS	Accunet® Packet Service - This field is used to indicate if Accunet packet service can be performed on this Trunk Subgroup (TSG). Enter **"Y"** if Accunet packet service is allowed. Enter **"N"** or leave **"Blank"** if Accunet packet service is not allowed.
CHNEG	Channel Negotiation - This field is used to indicate whether channel negotiation can be performed on this Trunk Subgroup (TSG) or not. Enter **"Y"** if channel negotiation is allowed. Enter **"N"** or leave **"Blank"** if channel negotiation is not allowed.

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Form Entries, Continued

PSATP	Prohibit Sending Access Transport Parameters - This field indicates whether Access Transport Parameters (ATP) can be passed to or from a connecting network. Legal values are **"Blank"**, **"Y"** or **"N"**. Enter **"Y"** if ATP should not be sent. This value should be used on access Trunk Subgroups (TSGs) to prohibit the receipt of ATP; it should be used on egress TSGs to prohibit the sending of ATP. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only. This new field will not affect the sending of ATP at an Access Tandem (AT) switch.
DOFP	Disable Outgoing Fraud Prevention - **"Y"** indicates that Black Box and Blue Box fraud prevention controls are disabled on this Trunk Subgroup (TSG). **"N"** indicates that fraud prevention controls are enabled on this TSG.
SBRIV	Not Applicable - Entries: **"Blank"**
FOSPS	Not Applicable - Entries: **"Blank"**
CCIF	Not Applicable - Entries: **"Blank"**
ONCID	Number of Carrier ID digits to send - An entry of **"3"** specifies that the Trunk Subgroup (TSG) send a 3-digit CID. An entry of **"4"** specifies that the TSG send a 4-digit CID. If the TSG is not going to send a CID leave **"Blank"**.
D3DBN	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

MULAW

This field is used to identify the type of encoding (A-law/Mu-law) used in the user information layer 1 protocol ID field of the User Service Information (USI) parameter. An entry of **"Y"** in this field along with an outgoing signaling characteristic of International Consultative Committee for International Telephone & Telegraph Signaling System 7 (CCITT7) Integrated Services Digital Network User Part (INUP) will indicate that Mu-law encoding is being used. A entry of **"N"** or leaving the field **"Blank"** will indicate that A-law encoding is being used.

CSCSET

Not Applicable - Entries: **"Blank"**

CID

Carrier ID. This field is populated with the pre-subscription carrier selected by the customer to handle inter-Local Access Transport Area (LATA) calls; and intra-LATA calls when intra-LATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. This field is only populated for ISC/OSC=Q.931.

ITCENC

Information Transfer Capability Encoding - (4E21>) - This Trunk Subgroup (TSG) parameter indicates the allowed Information Transfer Capability (ITC) coding in the outgoing Initial Address Message (IAM). The parameter can have values shown below:

- **"Blank"**, **"N"** (use office): encode the outgoing IAM, User Service Information (USI) parameter ITC field, the same as used in the office indicator
- **"Y"** (use opposite of office): encode the outgoing IAM, USI parameter ITC field, with the opposite of what is used in the office indicator

The default is **"use office"**.

OFITR

Not Applicable – Entries: **"Blank"**

Continued on next page

Form Entries, Continued

SPN	Signal Ported Number (SPN) outgoing Trunk Subgroup (TSG) indicator - This TSG indicator indicates if the destination switch is capable of supporting the Local Number Portability (LNP). If ""**Blank**"" or **"N"** (the default), the destination switch is considered LNP capable and the Local Routing Number (LRN) will be signaled. If **"Y"**, the destination switch is NOT considered LNP capable and only the Ported Number will be signaled not the LRN.
LNPIC	A Trunk Subgroup (TSG) field not used - valid entries are: **"Blank"**.
NCAR	Not Applicable - Entries: **"Blank"**
TTA	Not Applicable - Entries: **"Blank"**
EACC	Not Applicable - Entries: **"Blank"**
LCVT	Not Applicable – Entries: **"Blank"**
NSA	Not Applicable – Entries: **"Blank"**
ANCR	Not Applicable - Entries: **"Blank"**
ACCID	Not Applicable - Entries: **"Blank"**
PSTNG	Not Applicable - Entries: **"Blank"**
FLDSPR	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

REVAMP	Not Applicable - Entries: **"Blank"**
E1T1	Not Applicable - Entries: **"Blank"**
SUPBLK	Not Applicable - Entries: **"Blank"**
IXC	Not Applicable - Entries: **"Blank"**
FOLI	Not Applicable - Entries: **"Blank"**
FELN	Not Applicable - Entries: **"Blank"**
HUNT	Not Applicable - Entries: **"Blank"**
CSN	Not Applicable - Entries: **"Blank"**
CARSON	Not Applicable - Entries: **"Blank"**
SOIP	Not Applicable - Entries: **"Blank"**
TCC	Not Applicable - Entries: **"Blank"**
STBI	Not Applicable - Entries: **"Blank"**

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Form Entries, Continued

CAREA

Control Area - Valid input for this field is a single digit in the range of **"0-9"**. This number identifies the Control Area that is to be associated with this Trunk Subgroup (TSG) for trouble reporting. The number assignable in a given office is limited, however, to the highest control area assigned at Office Data Assembler (ODA) time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location.

Any test position can access every trunk assigned to the 4ESS Switch with the exception of international trunks. International trunks having Incoming Signaling Characteristic (ISC) or Outgoing Signaling Characteristic (OSC) equal to Consultative Committee for International Telephone & Telegraph 5 (CCITT5) must be assigned to a CAREA that is equipped with 51AL6 test positions. The 51AL6 test position can access any trunk assigned to the 4ESS Switch. However, the alarms, Teletype (TTY) printouts, and 101 calls associated with a particular TSG will only be transmitted to the CAREA and CPOS that is specified on the input form for a TSG. A single trouble receiving location could be specified for all TSGs in the office. Trouble tickets might be originated here and distributed to occupied test positions as necessary. Some other typical applications could be to assign the TSGs to testboard positions alphabetically, by direction, by ownership, or by Type of Trunk (TOT).

The only other restraint on assigning a TSG to a particular CAREA and CPOS is that all positions might not have the optional equipment required to satisfactorily test some Trunk Subgroups. The arrangement in a given office depends on the administrative decisions made for that office.

Continued on next page

Form Entries, Continued

CAREA
(cont'd.)

Position 00 (CAREA 0, CPOS 0) has been assigned to the Master Test and Control Channel (MTC) teletype in the Maintenance Operating Center (MOC). This position was established to receive trouble reports for certain non-message type TSGs. Lucent Technologies recommend that positions
01-09 not be assigned in an office at this time. The circuits that should be assigned to test position 00 are:

- ACI*DCHN - D-Channel circuits to the Common Network Interface (CNI) Ring
- CLN*DLPC - Loopback/complement Data Test
- MAS*BIPB - Mass Announcement System (MAS) Barge-in Playback Trunk
- MIS*AART - Auxiliary Audible Ring Trunk
- MIS*TERM - Common Channel Interoffice Signaling (CCIS) Terminals
- SVC*AIN* - Advanced Intelligent Network (AIN)
- SVC*DMRV - Dual-Tone Multifrequency (MF) Receivers (DTMFR)
- VC*DMXM - Dual-Tone Multifrequency Transmitters (DTMFT)
- SVC*MFR* - Multifrequency Receivers
- SVC*MFX* - Multifrequency Transmitters
- SVC*XCVR - CCIS Continuity Check Transceivers
- SVC*XCVT - CCIS Continuity Check Transceiver Test Circuit
- SVC*MFRT - Multifrequency Receiver Test Circuits
- SVC*MFXT - Multifrequency Transmitter Test Circuits
- SVC*SCAN - Service Circuit System Expanded Announcements
- SVC*SCBN - Service Circuit System Expanded Announcements
- SVC*SCNS - Network Services Complex Set S
- TAS*ANN* - Recorded announcements
- TAS*TONE - Tone Circuits
- TAS*MWAT - 1004 hz at 0 dBm
- TAS*MW10 - 1004 hz at 10 dBm

Continued on next page

Form Entries, Continued

CAREA (cont'd.)

The balance of the non-message type TSG may be assigned to working testboard positions.

For RC Forms 604 and 605, this number identifies the Control Area that is to be associated with this announcement trouble report. The number assignable in a given office is limited, however, to the highest control area assigned at ODA time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location. If CAREA 0,
CPOS 0 is specified, all MAS messages will be sent to the MTC channel in the MOC.

CPOS

Control Position - Enter a number from **"0-9"** to specify the testboard position that is to be associated with the Trunk Subgroup (TSGs) and Control Area (CAREA) for test reporting purposes. This assignment together with the CAREA designation can be used to distribute the maintenance responsibility for Trunk Subgroups. This assignment does not prevent any test position from accessing a particular group of trunks. It is only for reporting purposes.

For RC Forms 604 and 605, enter a number from **"0-9"** to specify the testboard position that is to receive the announcement trouble reports. If CAREA is 0, only CPOS 0 is allowed. When the Message Announcement System (MAS) is administered by the Operations National Administration Center (ONAC), assign the CPOS that has been dedicated for its use.

SINDEX

Access Change Verification Sampling Rate Index value - This field specifies the rate at which calls will be sampled for access charge verification. Legal values are **"Blank"**, **"0"**, **"1"**, **"2"**, **"4"**, **"8"**, **"16"**, **"32"**, **"64". "Blank"** and **"0"** imply no verification recording. Otherwise, one call out of the number entered will be recorded.

Continued on next page

Form Entries, Continued

CODSC

Customer Premise Equipment (CPE) Outgoing Disconnect. An entry of **"Y"** in this field is used to specify (from the 4ESS Switch perspective) that a disconnect will be effected faster than normal when the called customer goes on-hook. This field is used only for TSGs with a type-of-trunk value of Private Branch Exchange (PBX) or Single Trunk Customer (STC) and with signaling other than Q.931. Valid entries are **"Blank"**, **"Y"**, or **"N"**.

(4E21>) - CPE Outgoing Disconnect or Signaling System 7 (SS7) Trunk Subgroup (TSG) Control of Per Channel Inhibit Signaling (PCIS) Bits. An entry of **"Y"** specifies that:

1. From the 4ESS Switch perspective, a disconnect will be effected faster than normal when the called customer goes on-hook. This application of CODSC is only for TSGs with a type-of-trunk value of PBX or STC and with signaling other than Q.931.

   or

2. The TSG is to have its PCIS bits reset to force a steady state AB bit indication. This application of CODSC is for non-AT&T offices where the TSG has type-of-trunk of Other Common Carrier (OCC) and outgoing signaling of Integrated Services Digital Network User Part (ISUP).

Valid entries are **"Blank"**, **"Y"**, or **"N"**.

Continued on next page

Form Entries, Continued

NEOTR	Near Operational Test Responsibility - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not this office is responsible for the operational (signaling) test on outgoing trunks in this Trunk Subgroup (TSG). If a **"Y"** is entered in this field, then the OTSTT and/or OTMTT field(s) must have an entry other than **"N"**. If an **"N"** is entered in this field, then all test types are optional. If OTSTT and OTMTT fields are **"N"**, then NEOTR must be **"N"**. If an office has Near End Operational Test Responsibility but the far end office does not have a test number, an **"N"** should be entered in this field. If Outgoing Signaling Characteristic (OSC) is equal to Domain Class (DOMCCIS) or Integrated Services Digital Network User Part (ISUP), then NEOTR should be **"N"** since operational tests cannot be made on Domestic Common Channel Signaling (CCS) trunks.
TRIDX	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

OTSTT Operational Thru Switch Test Type - Certain offices (No. 5 Crossbar and 1ESS) can function both as a local and a tandem or as a local and toll office. These offices have trunks that can function in both a through switch mode and a terminating mode. As a result, more than one test is required to test both modes of operation. The OTSTT is used to specify an operational (signaling) test for a trunk in the tandem (thru switch) mode. OTSTT is also used to specify the ATME B test for Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) and Consultative Committee for International Telephone and Telegraph Signaling System Number 6 (CCITT6) trunks which have a far end test line capable of running this test. The following codes may be entered in the OTSTT field.

- **ATMB** - Siemens' ATME B test line - This is a signaling test which applies to CCITT5 and CCITT6 trunks only. The test consists of the far end test line returning a clear back/reanswer in response to a forward transfer.
- **CTX2** - Centrex II test - This test is made toward a No. 5 Crossbar office having Phase II Centrex features. CTX2 is similar to the SYNC test.
- **CTX3** - Centrex III - This test is made to a No. 5 Crossbar office having Phase III Centrex features. CTX3 is similar to the SYNC test.
- **SXS** - Step-by-Step - If the far end of this Trunk Subgroup (TSG) is working in to a Step-by-Step office, this test may be specified.
- **SYNC** - Synchronous test - This test is an automatic series of off hook/on hook transitions (flashes) on the M lead. In the 4ESS Switch, the SYNC test is software controlled and no external hardware is needed. A data table is used to specify the pulsing rate for each series of flashes. The test automatically advances from one pulsing rate to another via a timing procedure. In any system, after all of the flashes are complete, the trunk will be left in the quiet termination state.

Continued on next page

Form Entries, Continued

OTSTT (cont'd)

- **T103 -** 103 Test - The 103 Test is similar to the synchronous test in that a series of flashes are sent on the M lead. However, the sequence of pulses is controlled by the ring forward signal, rather than a timed automatic progression. Flashing of a given rate will continue until a ring forward signal is received, or, in the 4ESS Switch, until an upper limit of flashes has been sent. At this point, the trunk will be put into the quiet termination state until disconnect.

- **"N"** - Enter **"N"** if no thru switch operational test is to be made on this TSG.

OTSTN

Operational Thru Switch Test Number - If Operational Thru Switch Test Type (OTSTT) is **"N"** for None, leave this item **"Blank"**. If a thru switch test of some type is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the OTSTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If OTSTT is Siemens' ATME B test line (ATMB), then OTSTN should specify a 062 for Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) trunks or a 2 for Consultative Committee for International Telephone and Telegraph Signaling System Number 6 (CCITT6) trunks when the far end has an ATME B test line. If the far end has an Siemens' ATME A test line (ATME A), OTSTT equals ATMB and OTSTN should specify 061 for CCITT5 or 1 for CCITT6 trunks.

Continued on next page

Form Entries, Continued

OTMTT Operational Terminating Test Type - If an operational (signaling) test is to be made directly to the far end of this Trunk Subgroup (TSG) terminating mode, enter a code to identify the test.

- **ATMC** - Siemens' ATME C test line - This is a signaling test used with Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) trunks only. The far end returns a busy flash from the test line.
- **CTX2** - Centrex II test - This test is made toward a No. 5 Crossbar office having Phase II Centrex features. This test is similar to the SYNC test.
- C**TX3** - Centrex III - This test is made towards a No. 5 Crossbar office having Phase III Centrex features. This test is similar to the SYNC test.
- **SXS** - Step-by-Step - If the far end of this TSG is working into a Step-by-Step office, this test may be specified.
- **SYNC** - Synchronous test - This test is an automatic series of on hook/off hook transitions (flashes) on the M lead. In the 4ESS Switch, the SYNC test is software controlled and no external hardware is needed. A data table is used to specify the pulsing rate for each series of flashes. The test automatically advances from one pulsing rate to another via a timing procedure. In any system, after all of the series of flashes are complete, the trunk will be left in the quiet termination state.
- **T103** - 103 test - The 103 test is similar to the synchronous test in that a series of flashes are sent on the M lead. However, the sequence of pulses is controlled by the ring forward signal, rather than a timed automatic sequence. Flashing of a given rate will continue until a ring forward signal is received, or, in the 4ESS Switch, until an upper limit of flashes has been sent. At this point, the trunk will be put into the quiet termination state until the originator disconnects.
- "**N**" - None - Enter an "**N**" if no test is to be made on this TSG.

Continued on next page

Form Entries, Continued

OTMTN Operational Terminating Test Number - If OTMTT is **"N"** for None, leave this field **"Blank"**. If a test is specified, then a corresponding test number in the range of "**000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the OTMTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If OTMTT equals Siemens' ATME C test line (ATMC), then OTMTN must specify **"063"**.

XTSTT Transmission Thru Switch Test Type - If a transmission test is to be made in the thru switch (tandem) mode for this Trunk Subgroup (TSG), enter a code to identify the type of test.

- **ATMA** - Siemens' ATME A transmission test line - This entry provides access to an ATME A responder. The ATME A test permits automatic transmission loss and noise measurements in both directions for International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5),CCITT6, International Integrated Services Digital Network User Part (INUP), or CCITT7 Telephone User Part (TUP) trunks.

- **T100** - 100 code test - This test provides a quiet termination (600 ohms). In the 4ESS Switch, the 100 test provides a sequence of 1000 hz, milliwatt tone for 5.5 seconds followed by the quiet termination until disconnect.

- **T102** - 102 code test - The 102 test provides 1000 hz. milliwatt tone. The 4ESS Switch provides cycles of 9-second tone and 1-second quiet termination until disconnect.

- **T105** - 105 code test - This code provides access to an Automatic Trunk Measuring System (ATMS) responder. The 105 test permits automatic transmission loss and noise measurements in both directions.

- **N** - Enter **"N"** if no test is to be made OR if the presubscription carrier is to be populated.

Continued on next page

Form Entries, Continued

XTSTN

Transmission Thru Switch Test Number - Add Presubscription Carrier. If Transmission Thru Switch Test Type (XTSTT)=N and this field is non-**"Blank"** , then the field is populated with the presubscription carrier selected by the customer to handle inter Local Access Transport Area (interLATA) calls; and intraLATA calls when intraLATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. The presubscription carrier can only be populated for Incoming/Outgoing Signaling Characteristics (ISC/OSC) of Q931.

If XTSTT does not equal to N, and this field is non-**"Blank"** , then the field is populated with the transmission thru switch test number. If a test is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the XTSTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If XTSTT is Siemens' ATME A transmission test line (ATMA), the XTSTN should be specified as **"061"** for International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5) trunks or **"1"** for CCITT6, International Integrated Services Digital Network User Part (INUP), or CCITT7 Telephone User Part (TUP) trunks.

XTMTT

Transmission Terminating Test Type - If a transmission test is to be made directly to the far end of this Trunk Subgroup (TSG) in a terminating mode, enter a code to identify the type of test.

- **T100** - 100 code test - This test provides a quiet termination (600 ohms). In the 4ESS Switch, the 100 code test provides a sequence of 1000 hz. milliwatt tone for 5.5 seconds, followed by quiet termination until disconnect.
- **T102** - 102 code test - The 102 test provides 1000 hz. milliwatt tone. The 4ESS Switch provides cycles of 9-second tone and 1-second quiet termination until disconnect.
- **T105** - 105 code test - This code provides access to a Automatic Trunk Measuring System (ATMS) responder. The 105 test permits automatic transmission loss and noise measurements in both directions.
- If no test is to be made, enter **"N"** for None.

Continued on next page

Form Entries, Continued

XTMTN	Transmission Terminating Test Number - If Transmission Terminating Test Type (XTMTT) is **"N"** for None, leave this field **"Blank"** . If a test is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the XTMTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location.

Continued on next page

Form Entries, Continued

S1-10

These fields are reserved for future use in order to be able to implement new capabilities in a more timely fashion. When a new capability is requested for Generic Programs currently deployed in the field, one of these spare fields will be designated for use in implementing that capability.

S1 - Valid entries are **"Blank"**, or **"0-7"**.
S2-10 - Valid entries are **"Blank"**, **"Y"**, or **"N"**.

- S2 - (4E18/4E19/4E20) - An entry of **"Y"** in this field identifies Signaling System 7 (SS7) trunks which have their Per Channel Inhibit Signaling (PCIS) bits reset to force a steady state AB bit indication. Otherwise, enter **"N"** or leave **"Blank"**. In 4E21, the CODSC field will replace the use of S2 for this purpose.

- S2 - (4E21R4) This Trunk Subgroup (TSG) parameter allows TSG circuits to trigger the Advanced Intelligent Network (AIN) processing. The parameter can have the following values: **"Blank"**, **"N"** for no access allowed, and **"Y"** for access allowed. The default is **"N"**.

- S5 - Unassigned - Reserved for future use.

- S6 (4E18/19/20) - this Trunk Subgroup (TSG) parameter indicates the allowed Information Transfer Capability (ITC) coding in the outgoing Initial Address Message (IAM). The parameter can have the following values: **"Blank"**, **"N"** (use office) to encode the outgoing IAM, User Service Information (USI) parameter ITC field, the same as used in the office indicator, and **"Y"** (use opposite of office) to encode the outgoing IAM, USI parameter ITC field, with the opposite of what is used in the office indicator. The default is "use office".

NOTE: An entry of "0-7" in the S1 field or a "Y" in any of the fields S2 thru S10 without knowledge of the capability to which the field has been assigned may result in undesirable switch behavior.

Continued on next page

Form Entries, Continued

Table 3

TABLE 3
RELATIONSHIP BETWEEN CHARACTERISTICS AND STATE OF TRUNKS IN TRUNK SUBGROUP

CHARACTERISTIC	STATE OF TRUNKS IN TRUNK SUBGROUP		
	NO TRUNKS ALLOWED	MANUALLY DISABLED	ANY STATE
ISC (to or from CCITT5 or CCS)	X		
OSC (to or from CCITT5 or CCS)	X		
ISC (except to or from CCITT5 or CCS)		X	
OSC (except to or from CCITT5 or CCS)		X	
ADIG		X	
C1STO2W		X	
CCIS2WIRE	X		
DOM		X	
AOPC	X		
DPC		X	
REV	X		
RFMP	X		
TSGBBC		X	
ALL OTHER CHARACTERISTICS			X

CCS = Common Channel Signaling (CCITT6, DOMCCIS, INUP, Q931, TUP)

Continued on next page

Form Entries, Continued

Table 5

TABLE 5
VALID CHARACTERISTICS FOR
ONE-WAY OUTGOING TRUNK SUBGROUPS

OSC	TYPE OF TRUNK (TOT)															
SIGNALING TYPES	ETC	INTL	INTLO	ITAND	ITOLL	ITOP	LCC	LSP	MISC	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC
CCITT5		X	X													
CCITT6		X	X													
DOMCCIS				X	X				X				X		X	X
DPDDSD				X	X				X		X		X	X	X	X
DPIMMED				X	X				X		X		X	X	X	X
DPWINK				X	X				X		X		X	X	X	X
DTMFWK											X			X		
ICOPNOP						X			X		X			X		
INUP		X	X													
ISUP	X			X	X		X	X	X	X	X	X	X		X	X
MFDDSD				X	X		X		X		X		X		X	X
MFWINK	X			X	X		X	X	X	X	X		X		X	X
MIOPNOP									X		X			X		
Q931											X					
SIOPMFW													X			
SIOPNOP													X			
TUP		X	X													
TWOPDPD																X
TWOPDPI																X
TWOPDPW																X
TWOPMFW																X

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FENID	15
FENPA	23
FEOFC	23
FEPTY	17
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OTSTN	43
OTSTT	42
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PRIT	32
PSATP	33
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PSCPN	30
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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index (cont'd)

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Form Entries, Continued

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RC FORM 110

General

Recent Change (RC) Form 110 is used to change the Incoming Separation Class of an existing Trunk Subgroup (TSG) with specifying other TSG characteristics.

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC FORM 110, Continued

General
(cont'd)

```
# FORM 110       CHANGE THE INCOMING SEPARATION CLASS
                      OF AN EXISTING TRUNK SUBGROUP

     RC:TSG;CHG:OPT(INSEP),---:

     ORNU ------,

              CIN                                      OLD        NEW
     BTFN TOWN ST BL FBS NBS                          INSEP      INSEP

     ---- ---- -- -- --- ---,                          ---,       ---,
     ---- ---- -- -- --- ---,                          ---,       ---,
     ---- ---- -- -- --- ---,                          ---,       ---,
     ---- ---- -- -- --- ---,                          ---,       ---,
     ---- ---- -- -- --- ---,                          ---,       ---,
     ---- ---- -- -- --- ---,                          ---,       ---,
     ---- ---- -- -- --- ---,                          ---,       ---,
     ---- ---- -- -- --- ---,                          ---,       ---,
     ---- ---- -- -- --- ---,                          ---,       ---,

     REMARKS ------------------------------------------------!

                    EQUIVALENT ODA INPUT FORM - NONE

                   ASSOCIATED VERIFY MESSAGES - NONE
```

Form Entries

RC:TSG;CHG;OPT(INSEP),---:

Recent Change action field – Entries appended to the message header indicate the action to be taken by the Recent Change (RC) system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at a time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks, and also, the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast Activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast Test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

CIN

Circuit Identification Name - This is the method of naming Trunk Subgroups (TSGs). Typically the CIN is a reference to the location at the far end of the TSG from a specific switching entity. The BTFN is usually the first circuit number assigned to a TSG but is not a requirement for operation in the 4ESS-2000 Switch. The breakdown of the CIN is as follows:

- **BTFN** - Base Traffic Number - Valid entries: **"0-9976"**
- **TOWN** - Town - Valid entries: Four alphabetic characters
- **ST** - State - Valid entries: Two alphabetic characters
- **BL** - Building name - Valid entries: Two alphanumeric characters
- **FBS** -Far end Building Subdivision - Valid entries: Three alphanumeric characters
- **NBS** - Near end Building Subdivision - Valid entries: Three alphanumeric characters.

INSEP

Incoming Traffic Separation Class - Enter a number in the range of **"0-255"** to indicate a traffic class for measurement purposes. This code will be used with the outgoing destination (Destination Separation [DESEP] on code group forms) to determine the peg and usage counts for traffic flow identification. Test position and test call Trunk Subgroups (TSGs) are generically assigned to Incoming Separation Class (INSEP) 31. This should be considered before assigning any other TSG to INSEP 31. Also, since service circuits, other non-message circuits, and 1-way outgoing TSGs have a generically assigned INSEP of zero, they will appear as part of TSG listings for INSEP zero. This fact should be considered before assigning any other Trunk Subgroup to INSEP zero.

Continued on next page

Form Entries, Continued

Keyword Index

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INSEP	4
ORNU	3
RC:TSG;CHG;OPT(INSEP),---:	3

Form Entries, Continued

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RC FORM 112

General

Recent Change (RC) Form 112 provides the capability to change the traffic number of an existing Trunk Subgroup (TSG) from an old range to a new range. The first traffic number of the old range must match with the first traffic number of an existing traffic number block. All numbers in the new traffic block range must not overlap any part of an existing traffic number block range for any of the TSGs in the affected trunk group. This message is classed as a Recent Change Data Message (RCDM).

WARNING! - If the Old First Traffic Number (OLDFTFN) matches the Base Traffic Number (BTFN) of the TSG, then the New First Traffic Number (NEWFTFN) will be the new BTFN identifying the TSG.

This change capability is prohibited for TSGs with Integrated Services Digital Network User Part (ISUP), International ISDN User Part (INUP), and Consultative Committee for International Telephone & Telegraph Signaling 7 [CCITT7] Telephone User Part (TUP) signaling.

All trunks in the affected trunk blocks must be in the Manually Disabled state.

This message is not allowed for non-message TSGs.

An alphabetical keyword list is included in this section on page 7.

Continued on next page

RC FORM 112, Continued

General
(cont'd)

```
# FORM 112   CHANGE THE FIRST TRAFFIC NUMBER OF AN EXISTING TRUNK SUBGROUP
                            TRAFFIC NUMBER BLOCK

RC:TSG;CHG;OPT(CHGTFNB),___:                    BTFN TOWN ST BL FBS NBS

ORNU _______,                                TSG _____ _____ __ __ ___ ___,

OLDFTFN _____,   NEWFTFN _____,

REMARKS ____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-11e-VER:TFNB:TG

                           OUTPUT-1h-VER:TFNB
```

Form Entries

RC:TSG;CHG;OPT(CHGTFNB),---:

Recent Change action field – Entries appended to the message header indicate the action to be taken by the Recent Change (RC) system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at a time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks, and also, the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast Activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast Test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

RC FORM 112, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

RC FORM 112, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

RC FORM 112, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

OLDFTFN Old First Traffic Number - The old first traffic number for a block of traffic numbers of a Trunk Subgroup (TSG). Valid entries are **"0-9976"**.

NEWFTFN New First Traffic Number - The new first traffic number for a block of traffic numbers of a Trunk Subgroup (TSG). Valid entries are" **0-9976"**.

Continued on next page

RC FORM 112, Continued

Keyword Index

KEYWORD	PAGE
NEWFTFN	6
OLDFTFN	6
ORNU	3
RC:TSG;CHG;OPT(CHGTFNB),---:	3
TSG	4

RC FORM 112, Continued

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RC FORM 113

General

Recent Change (RC) Form 113 provides the capability to populate a list of Carrier Identification Codes (CICs) associated with a Trunk Subgroup (TSG).

Populating all CIC fields with blanks will delete the CIC list for the TSG.

An alphabetical keyword list is included in this section on page 8.

Continued on next page

RC FORM 113, Continued

General
(cont'd)

```
# FORM 113   REPLACE CARRIER IDENTIFICATION CODE LIST
  <4E22R2

RC:TSG;CHG;OPT(CICS),___:                        BTFN TOWN ST BL FBS NBS

ORNU ______,                                  TSG ____ ____ __ __ ___ ___,

                 CIC    CIC    CIC    CIC

                ----,  ----,  ----,  ----,
                ----,  ----,  ----,  ----,
                ----,  ----,  ----,  ----,
                ----,  ----,  ----,  ----,

REMARKS _____________________________________________________!

                     EQUIVALENT ODA INPUT FORM - NONE
                        ASSOCIATED VERIFY MESSAGES
                  INPUT-VER:MISC CIP:CIN 201KSCYMO0914T! (EOT)
                         OUTPUT-1i-VER:TSG;OPT(CICS)
```

Continued on next page

RC FORM 113, Continued

General
(cont'd)

```
# FORM 113   REPLACE CARRIER IDENTIFICATION CODE LIST
  4E22 R3>

RC:TSG;CHG;OPT(CICS),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                  TSG _____ _____ __ __ ___ ___,

CIC    CIC    CIC    CIC    CIC    CIC    CIC    CIC    CIC

----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
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----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,

REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE
                       ASSOCIATED VERIFY MESSAGES
                 INPUT-VER:MISC CIP:CIN 201KSCYMO0914T! (EOT)
                       OUTPUT-1i-VER:TSG;OPT(CICS)
```

Form Entries

RC:TSG;CHG;OPT(CICS),---:

Recent Change action field – Entries appended to the message header indicate the action to be taken by the Recent Change (RC) system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at a time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks, and also, the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast Activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast Test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

CIC

Carrier Identification Code. The Carrier Identification Code provides the capability to consolidate trunk groups from Local Exchange Carrier (LEC) switching offices (end or tandem) to Interexchange Carrier (IC) switching offices by delivering carrier code information associated with individual calls to the IC. Up to 16 Carrier Identification Codes can be provisioned per Trunk Subgroup (TSG). If the TSG is provisioned for 3-digit CIC expansion (ONCID=3), then all CICs must be provisioned with a leading zero. Valid entries are: **"Blank"**, **"0000-9999"**. **"Blank"** is treated as a delete.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
CIN	7
ORNU	4
RC:TSG;CHG;OPT(CICS),---:	4
TSG	5

Trunk Assignments Table Of Contents

SECTION	RC#
2a	200 - Add New Trunks, Assign TANs Manually
2d	203 - Add New Common Channel Signaling (CCS) Trunks
2f	205 - Add New TAN Nailups
2g	206 - Delete TAN Nailups
2i	208 - Change Trunk Characteristics

Continued on next page

Trunk Assignments Table Of Contents, Continued

General

This information applies to all sections within this division:

1. The characters > and < are used to indicate which Generic Programs will apply.

   Examples:

   - 4E22> indicates 4E22 and later Generic Programs.
   - <4E22 indicate 4E22 and earlier Generic Programs.
   - 4E22 indicates the 4E22 Generic Program only.
   - >4E22 indicates all Generic Programs up to, but not including, 4E22.

2. Following the general section is a copy of the applicable Recent Change (RC) Form/s. Where there is more than one Generic published, the forms will be filed in ascending order by Generic.

3. The Keyword field names of the form entries in each section are listed in order of appearance on the latest Generic Recent Change Form. (Keywords deleted from the latest form issue will still remain in the form order of the last RC Form that it appeared until finally deleted).

4. The alphabetical "Keyword Index" of the field names is located at the end of each Recent Change Section, following the text, and any tables and/or graphics that may apply.

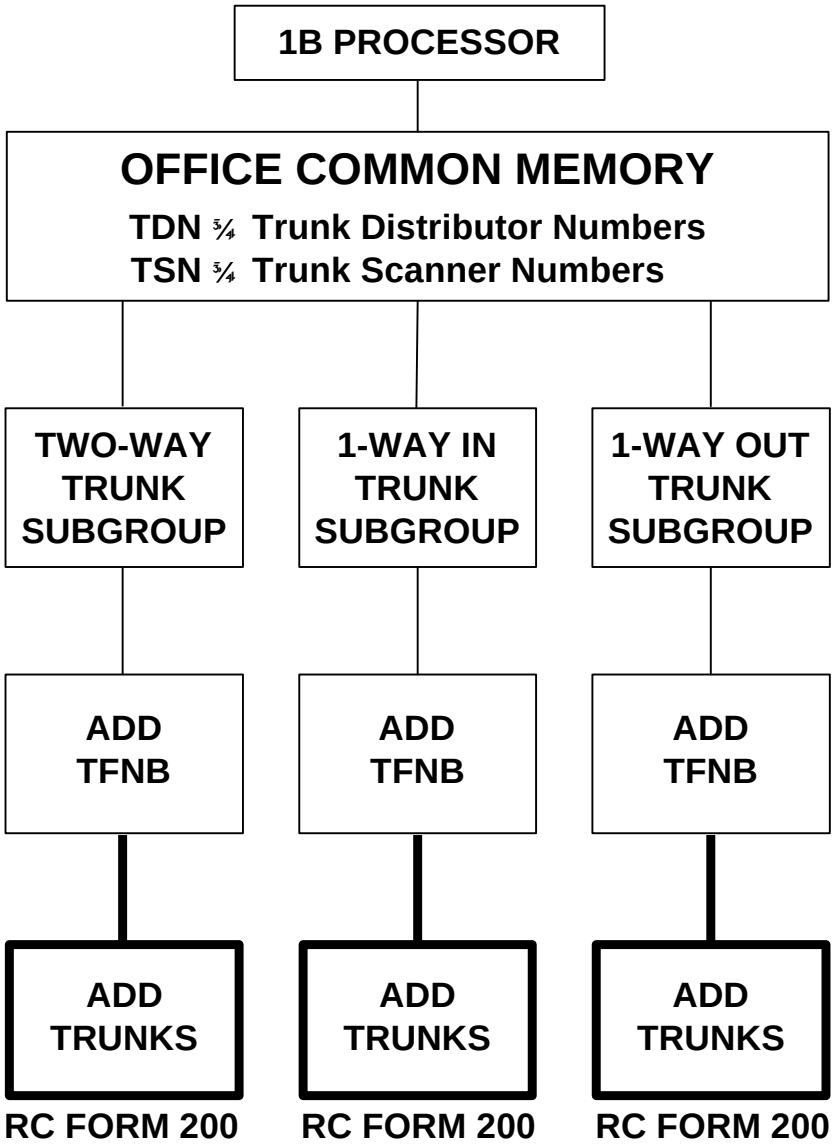
5. Each Keyword definition will only list the valid entries for the RC Form covered in each applicable section. Some Keywords may have additional valid entries related overall and may be found in the alphabetical Keyword Glossary (Div. 9, Sec. 1).

RC Form 200

General

Recent Change (RC) Form 200 changes the translations for an existing two-way Trunk Subgroup (TSG). This form can also be used to convert a one-way TSG to a two-way TSG. This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section, starting on page 12.



Continued on next page

RC Form 200, Continued

General
(cont'd.)

```
# FORM 200   ADD NEW TRUNKS, ASSIGN TANS MANUALLY
  4E18>

RC:TRK;NEW;OPT(MANUAL),---:                        BTFN TOWN ST BL FBS NBS

ORNU ------,                                    TSG ---- ---- -- -- --- ---,

ES ----,                              D1D2 --,

                     TAN
QTRK  FTFN      TSI SPC LVL FTS FCHAN     LACID FAC FTRID    VCR  BBC   SCGA

---,  ----,     --,  -,  -, ---,  --,     ----, --,  ---,    ---,  -,     -,
---,  ----,     --,  -,  -, ---,  --,     ----, --,  ---,    ---,  -,     -,
---,  ----,     --,  -,  -, ---,  --,     ----, --,  ---,    ---,  -,     -,
---,  ----,     --,  -,  -, ---,  --,     ----, --,  ---,    ---,  -,     -,
---,  ----,     --,  -,  -, ---,  --,     ----, --,  ---,    ---,  -,     -,
---,  ----,     --,  -,  -, ---,  --,     ----, --,  ---,    ---,  -,     -,

REMARKS ------------------------------------------------!

                  EQUIVALENT ODA INPUT FORM - ESS 402A

                       ASSOCIATED VERIFY MESSAGES

                           INPUT-12a-VER:TRK:

                           OUTPUT-2a-VER:TRK:
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:TRK;NEW;OPT(MANUAL),---:

Recent Change action field – Entries appended to the message header indicate the action to be taken by the Recent Change (RC) system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at a time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks, and also, the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast Activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast Test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

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Form Entries, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

ES

Not Applicable - Entries: **"N"**

D1D2

This field is only used if the trunks being assigned are connected to a far-end D1D or D2 channel bank and to a digroup in the 4ESS Switch. Enter **"D1"** or **"D2"** in order to indicate a far-end D1D or D2 channel bank, respectively. When D1 or D2 is entered, then the FCHAN field must also contain an entry. For non-D1D or D2 far-end trunks, leave this field **"Blank"**.

An entry in this field will cause the software program to internally assign the time slot of the Trunk Appearance Number (TAN) to correspond to the time slot on the far-end D1D or D2 channel bank. This will internally correct the TAN to traffic number mismatch that occurs when a digroup is connected to a far-end D1D or D2 channel bank.

Continued on next page

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Form Entries, Continued

QTRK

Quantity of Trunks - For each line under QTRK, valid entries are a quantity of trunks from **"1-120"** to be assigned sequentially. The QTRK plus the First Time Slot (FTS) must be less than 122.

For RC 200, trunks connected to a far-end D1D or D2 channel bank, international trunks, and service circuits must obey special constraints. Valid entries for trunks to be connected to a D1D or D2 channel bank are **"1-24"**. Valid entries for service circuits depend upon the corresponding Trunk Subgroups (TSGs). Following are the legal ranges of values for the corresponding TSGs:

TSG	QTRK
SVC*DMRV	16, 32, 48, 64 (for digital circuits)
SVC*DMXM	16, 32, 48, 64 (for digital circuits)
SVC*MFR*	1 to 32 (for analog circuits)
SVC*MFR*	16, 32, 48, 64 (for digital circuits)
SVC*MFX*	1 to 32 (for analog circuits)
SVC*MFX*	16, 32, 48, 64 (for digital circuits)
SVC*XCVR	1 to 12
SVC*MFCI	24
SVC*MFCO	24
SVC*SCAN	24
SVC*SCBN	24
SVC*SCNS	24

The Recent Change (RC) System will allow any quantity of trunks from 1 to 64 for digital service circuits (both Multifrequency [MF] and Dual Tone Multifrequency [DTMF]). However, since the hardware for digital service circuits must be grown in increments of 16, it is recommended that only the indicated values above be entered (e.g., 16, 32, 48, 64).

Continued on next page

Form Entries, Continued

FTFN

First Traffic Number - For each line under FTFN, enter the FTN of the block of traffic numbers being assigned on that line. The quantity of trunks assigned on each line will be numbered sequentially by an internal program manipulation beginning with the FTFN specified. Valid inputs are **"0-9999**". Quantity of Trunks (QTRK) plus FTFN must be less than 10001.

For RC 104, this field should specify the first traffic number of the new block of traffic numbers that is being added to the Trunk Subgroup. Valid inputs are **"0-9976"**.

TAN

Trunk Appearance Number - Each block of trunks may be assigned a series of TANs. The TAN defines a fixed relationship to the switching equipment. The first TAN will be associated with the First Traffic Number in the block (FTFN) and the remainder of the TANs will be sequentially assigned to the remaining trunks in the block.

- **TSI** - Time Slot Interchange - The Time slot Interchange (TSI) frame number is assigned in this field. Valid entries are **"0-63"**.
- **SPC** - Switching Permuting Circuit - The SPC identification may be **"0"** or **"1"**.
- **LVL** - Level - The TSI Level appears in this field. Valid entries are **"0"** to **"6"**. For D3U applications, valid entries are **"0-7"** (4E21>).
- **FTS** - First Time Slot - The FTS indicates the specific appearance of the TAN. Valid entries are **"001-120"**; however, the FTS plus the Quantity of Trunks (QTRK) must be less than 122 for each line. For D3U applications (4E21>):
  - When the LVL is **"0"**, FTS is **"1-127"**.
  - When the LVL is **"1-6"**, FTS is **"0-127"**.
  - When the LVL is **"7"**, FTS is **"0-112"**.

Continued on next page

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Form Entries, Continued

FCHAN	Far End Channel - If the D1D2 field on this form is **"Blank"**, this field is left **"Blank"**. If the D1D2 field contains D1 or D2, valid entries for the FCHAN field range from **"1-24"**. FCHAN is the first (far end) channel. Channels are numbered 1 to 24 and they are assigned to 24 sequential Trunk Assignment Numbers (TANs). FCHAN plus Quantity of Trunks (QTRK) must be equal to or less than 25. This means that each line is restricted to one group of 24 TANs and that a channel number of 25 or greater for any trunk is not acceptable. For each channel, the TAN is determined as follows: the Time Slot Interchange (TSI), Switching and Permuting Circuit (SPC), and Level (LVL) of the block of TANs to be used are entered on the line in the input form. The TS (Time Slot) for each TAN is derived internally from the channel number and First Time Slot (FTS).
LACID	Not Applicable - Entries: **"Blank"**
FAC	Not Applicable - Entries: **"Blank"**
FTRID	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

VCR

Voice Path Assurance Cancellation Rate - This field specifies the cancellation rate of the Voice Path Assurance (VPA) test. This allows savings of real time processing on Integrated Services Digital Network User Part (ISUP) calls using digitally protected carrier facilities. Valid entries are **"100"**, **"87"**, **"50"**, and **"0"**.

- **100** - 100% cancellation allowed on trunks between 4E-4E and 4E-5E when the entire facility is **"T"**- Carrier or other protected digital carrier.
- **87** - 87 1/2% cancellation on 4E - 1/1A ESS Digital Carrier Trunks (DCT) using protected digital carrier.
- **50** - 50 - 50% cancellation on 4E-Network Service Center (NSC) and 4E to other switches where the D-Bank is at the far end and the carrier facility is digitally protected.
- **0** - "0%" cancellation is the default or used when switches or facilities are analog or unknown.

BBC

Not Applicable - Entries: **"Blank"**

SCGA

Software Carrier Group Alarm - This carrier alarm feature is only used on analog facilities. Valid entries are **"Y"** or **"N"**. For trunks assigned to digital facilities, leave **"Blank"**.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Table 6

TABLE 6
D1D/D2 CHANNEL/TIME SLOT CONVERSION

Far End D Channel Assignment Conversion

D1D Channel	D2D Channel	BUF "A" Time Slot
1	12	FTS+0
13	13	FTS+1
2	1	FTS+2
14	17	FTS+3
3	5	FTS+4
15	21	FTS+5
4	9	FTS+6
16	15	FTS+7
5	3	FTS+8
17	19	FTS+9
6	7	FTS+10
18	23	FTS+11
7	11	FTS+12
19	14	FTS+13
7	2	FTS+14
20	18	FTS+15
9	6	FTS+16
21	22	FTS+17
10	10	FTS+18
22	16	FTS+19
11	4	FTS+20
23	20	FTS+21
12	8	FTS+22
24	24	FTS+23

FTS = 1, 25, 49, 73, or 97 depending on what digroup is assigned to BUF "A" Level.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
BBC	10
D1D2	6
ES	6
FAC	9
FCHAN	9
FTFN	8
FTRID	9
LACID	9
ORNU	3
QTRK	7
RC:TRK;NEW;OPT(MANUAL),---:	3
SCGA	10
TAN	8
TSG	4
VCR	10

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Use pursuant to Company Instructions

RC Form 202

General

Recent Change (RC) Form 202 is used to delete non-Common Channel Signaling (CCS) and CCS message trunks from existing message Trunk Subgroup (TSG). This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section, starting on page 9.

Continued on next page

RC Form 202, Continued

General
(cont'd.)

```
# FORM 202   DELETE MESSAGE TRUNKS

RC:TRK;OUT;---:                                    BTFN TOWN ST BL FBS NBS

ORNU ------,                                    TSG ---- ---- -- -- --- ---,

QTRK    FTFN

---,    ----,
---,    ----,
---,    ----,
---,    ----,
---,    ----,
---,    ----,

REMARKS ------------------------------------------------!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                          INPUT-11a-VER:TSG...

     OUTPUT(CHARACTERISTICS)-1a/1b/1c-VER:TSG,OPT(TWOWAY/IN1WAY/OUT1WAY/VFL):

              OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:TRK;OUT;---:

Recent Change action field – Entries appended to the message header indicate the action to be taken by the Recent Change (RC) system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at a time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks, and also, the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast Activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast Test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Form Entries, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG
(cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Form Entries, Continued

QTRK

Quantity of Trunks - For each line under QTRK, valid entries are a quantity of trunks from **"1-120"** to be assigned sequentially. The QTRK plus the First Time Slot (FTS) must be less than 122.

For RC 200, trunks connected to a far-end D1D or D2 channel bank, international trunks, and service circuits must obey special constraints. Valid entries for trunks to be connected to a D1D or D2 channel bank are **"1-24"**. Valid entries for service circuits depend upon the corresponding Trunk Subgroups (TSGs). Following are the legal ranges of values for the corresponding TSGs:

TSG	QTRK
SVC*DMRV	16, 32, 48, 64 (for digital circuits)
SVC*DMXM	16, 32, 48, 64 (for digital circuits)
SVC*MFR*	1 to 32 (for analog circuits)
SVC*MFR*	16, 32, 48, 64 (for digital circuits)
SVC*MFX*	1 to 32 (for analog circuits)
SVC*MFX*	16, 32, 48, 64 (for digital circuits)
SVC*XCVR	1 to 12
SVC*MFCI	24
SVC*MFCO	24
SVC*SCAN	24
SVC*SCBN	24
SVC*SCNS	24

The Recent Change (RC) System will allow any quantity of trunks from 1 to 64 for digital service circuits (both Multifrequency [MF] and Dual Tone Multifrequency [DTMF]). However, since the hardware for digital service circuits must be grown in increments of 16, it is recommended that only the indicated values above be entered (e.g., 16, 32, 48, 64).

Continued on next page

Form Entries, Continued

FTFN

First Traffic Number - For each line under FTFN, enter the FTN of the block of traffic numbers being assigned on that line. The quantity of trunks assigned on each line will be numbered sequentially by an internal program manipulation beginning with the FTFN specified. Valid inputs are **"0-9999**". Quantity of Trunks (QTRK) plus FTFN must be less than 10001.

For RC 104, this field should specify the first traffic number of the new block of traffic numbers that is being added to the Trunk Subgroup. Valid inputs are **"0-9976"**.

Continued on next page

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Use pursuant to Company Instructions

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TSG	4

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Use pursuant to Company Instructions

RC Form 203

General

This form provides the capability to add Common Channel Signaling (CCS) trunks to a Trunk Subgroup (TSG) which has incoming or outgoing signaling characteristics of Integrated Services Digital Network User Part (ISUP).

This message is classed as a Recent Change Data Message (RCDM).

For a Digital Interface Frame (DIF), the Base TANs of a Digital Interface Unit (DIU) are easily determined because the 5 DS1s in a DIU always have a Base TAN in which the First Time Slot (FTS) is either 1, 25, 49, 73, or 97.

For XTSI D3Us, the Base Trunk Appearance Number (TAN) depends on the D3U & DS1 number and "XTSI D3U Base TAN - TABLE F" must be used to determine the Switching and Permuting Circuit (SPC), Level (LVL), and First Time Slot (FTS) of the Base TAN.

An alphabetical keyword list is included in this section on page 14.

Continued on next page

RC Form 203, Continued

General
(cont'd.)

```
# FORM 203   ADD NEW CCS TRUNKS, ASSIGN TANS MANUALLY

RC:TRK;NEW;OPT(MANUAL,CCS),---:                  BTFN TOWN ST BL FBS NBS

ORNU ------,                                  TSG ---- ---- -- -- --- ---,

ES ----,                                  PTERM ---,
                                          STERM ---,

                      TAN             LABEL
QTRK  FTFN    TSI SPC LVL FTS    FBAND FMEMN   FCIC    VCR  BBC  SCGA

---,  ----,   --,  -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
---,  ----,   --,  -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
---,  ----,   --,  -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
---,  ----,   --,  -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
---,  ----,   --,  -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
---,  ----,   --,  -,  -, ---,   ---,   --,    -----,  ---,  -,   -,

REMARKS ------------------------------------------------!

                  EQUIVALENT ODA INPUT FORM - ESS 402C

                       ASSOCIATED VERIFY MESSAGES

                           INPUT-12a-VER:TRK:

                       OUTPUT-2b-VER:TRK;OPT(CCS):
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:TRK;NEW;OPT(MANUAL,CCS),---:

Recent Change action field – Entries appended to the message header indicate the action to be taken by the Recent Change (RC) system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at a time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks, and also, the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast Activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast Test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG (cont'd)	• **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field. • **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.
ES	Not Applicable - Entries: **"N"**
PTERM	Not Applicable - Entries: **"Blank"**
STERM	Not Applicable - Entries: **"Blank"**

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

QTRK

Quantity of Trunks - For each line under QTRK, valid entries are a quantity of trunks from **"1-120"** to be assigned sequentially. The QTRK plus the First Time Slot (FTS) must be less than 122.

For RC 200, trunks connected to a far-end D1D or D2 channel bank, international trunks, and service circuits must obey special constraints. Valid entries for trunks to be connected to a D1D or D2 channel bank are **"1-24"**. Valid entries for service circuits depend upon the corresponding Trunk Subgroups (TSGs). Following are the legal ranges of values for the corresponding TSGs:

TSG	QTRK
SVC*DMRV	16, 32, 48, 64 (for digital circuits)
SVC*DMXM	16, 32, 48, 64 (for digital circuits)
SVC*MFR*	1 to 32 (for analog circuits)
SVC*MFR*	16, 32, 48, 64 (for digital circuits)
SVC*MFX*	1 to 32 (for analog circuits)
SVC*MFX*	16, 32, 48, 64 (for digital circuits)
SVC*XCVR	1 to 12
SVC*MFCI	24
SVC*MFCO	24
SVC*SCAN	24
SVC*SCBN	24
SVC*SCNS	24

The Recent Change (RC) System will allow any quantity of trunks from 1 to 64 for digital service circuits (both Multifrequency [MF] and Dual Tone Multifrequency [DTMF]). However, since the hardware for digital service circuits must be grown in increments of 16, it is recommended that only the indicated values above be entered (e.g., 16, 32, 48, 64).

Continued on next page

Form Entries, Continued

FTFN

First Traffic Number - For each line under FTFN, enter the FTN of the block of traffic numbers being assigned on that line. The quantity of trunks assigned on each line will be numbered sequentially by an internal program manipulation beginning with the FTFN specified. Valid inputs are **"0-9999**". Quantity of Trunks (QTRK) plus FTFN must be less than 10001.

For RC 104, this field should specify the first traffic number of the new block of traffic numbers that is being added to the Trunk Subgroup. Valid inputs are **"0-9976"**.

TAN

Trunk Appearance Number - Each block of trunks may be assigned a series of TANs. The TAN defines a fixed relationship to the switching equipment. The first TAN will be associated with the First Traffic Number in the block (FTFN) and the remainder of the TANs will be sequentially assigned to the remaining trunks in the block.

- **TSI** - Time Slot Interchange - The Time slot Interchange (TSI) frame number is assigned in this field. Valid entries are **"0-63"**.
- **SPC** - Switching Permuting Circuit - The SPC identification may be **"0"** or **"1"**.
- **LVL** - Level - The TSI Level appears in this field. Valid entries are **"0"** to **"6"**. For D3U applications, valid entries are **"0-7"** (4E21>).
- **FTS** - First Time Slot - The FTS indicates the specific appearance of the TAN. Valid entries are **"001-120"**; however, the FTS plus the Quantity of Trunks (QTRK) must be less than 122 for each line. For D3U applications (4E21>):
  - When the LVL is **"0"**, FTS is **"1-127"**.
  - When the LVL is **"1-6"**, FTS is **"0-127"**.
  - When the LVL is **"7"**, FTS is **"0-112"**.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

LABEL	Not Applicable - Entries: **"Blank"**
FCIC	Not Applicable - Entries: **"Blank"**
VCR	Voice Path Assurance Cancellation Rate - This field specifies the cancellation rate of the Voice Path Assurance (VPA) test. This allows savings of real time processing on Integrated Services Digital Network User Part (ISUP) calls using digitally protected carrier facilities. Valid entries are **"100"**, **"87"**, **"50"**, and **"0"**. • **100** - 100% cancellation allowed on trunks between 4E-4E and 4E-5E when the entire facility is **"T"**- Carrier or other protected digital carrier. • **87** - 87 1/2% cancellation on 4E - 1/1A ESS Digital Carrier Trunks (DCT) using protected digital carrier. • **50** - 50 - 50% cancellation on 4E-Network Service Center (NSC) and 4E to other switches where the D-Bank is at the far end and the carrier facility is digitally protected. • **0** - "0%" cancellation is the default or used when switches or facilities are analog or unknown.
BBC	Not Applicable - Entries: **"Blank"**
SCGA	Software Carrier Group Alarm - This carrier alarm feature is only used on analog facilities. Valid entries are **"Y"** or **"N"**. For trunks assigned to digital facilities, leave **"Blank"**.

Continued on next page

Form Entries, Continued

Table 7

TABLE 7

D1D CHANNEL BANK

Channel	Time Slot
1	1
2	3
3	5
4	7
5	9
6	11
7	13
8	15
9	17
10	19
11	21
12	23
13	2
14	4
15	6
16	8
17	10
18	12
19	14
20	16
21	18
22	20
23	22
24	24

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Table 8

TABLE 8

D2 CHANNEL BANK

Channel	Time Slot
1	3
2	15
3	9
4	21
5	5
6	17
7	11
8	23
9	7
10	19
11	13
12	1
13	2
14	14
15	8
16	20
17	4
18	16
19	10
20	22
21	6
22	18
23	12
24	24

Continued on next page

Form Entries, Continued

Table 9 **XTSI D3U BASE TANs FOR EVEN MEMBER NUMBERED XTSIs (Even TSI Member Number)**

XTSI		TAN			XTSI		TAN		
D3U	DS1	SPC	LVL	FTS	D3U	DS1	SPC	LVL	FTS
0	1	0	0	001	0	15	1	0	001
0	2	0	0	025	0	16	1	0	025
0	3	0	0	049	0	17	1	0	049
0	4	0	0	073	0	18	1	0	073
0	5	0	0	097	0	19	1	0	097
0	6	0	0	121	0	20	1	0	121
0	7	0	1	017	0	21	1	1	017
0	8	0	1	041	0	22	1	1	041
0	9	0	1	065	0	23	1	1	065
0	10	0	1	089	0	24	1	1	089
0	11	0	1	113	0	25	1	1	113
0	12	0	2	009	0	26	1	2	009
0	13	0	2	033	0	27	1	2	033
0	14	0	2	057	0	28	1	2	057
1	1	0	2	081	1	15	1	2	081
1	2	0	2	105	1	16	1	2	105
1	3	0	3	001	1	17	1	3	001
1	4	0	3	025	1	18	1	3	025
1	5	0	3	049	1	19	1	3	049
1	6	0	3	073	1	20	1	3	073
1	7	0	3	097	1	21	1	3	097
1	8	0	3	121	1	22	1	3	121
1	9	0	4	017	1	23	1	4	017
1	10	0	4	041	1	24	1	4	041
1	11	0	4	065	1	25	1	4	065
1	12	0	4	089	1	26	1	4	089
1	13	0	4	113	1	27	1	4	113
1	14	0	5	009	1	28	1	5	009
2	1	0	5	033	2	15	1	5	033
2	2	0	5	057	2	16	1	5	057
2	3	0	5	081	2	17	1	5	081
2	4	0	5	105	2	18	1	5	105
2	5	0	6	001	2	19	1	6	001
2	6	0	6	025	2	20	1	6	025
2	7	0	6	049	2	21	1	6	049
2	8	0	6	073	2	22	1	6	073
2	9	0	6	097	2	23	1	6	097
2	10	0	6	121	2	24	1	6	121
2	11	0	7	017	2	25	1	7	017
2	12	0	7	041	2	26	1	7	041
2	13	0	7	065	2	27	1	7	065
2	14	0	7	089	2	28	1	7	089

Maintenance Channels are defined as TANs when LVL & FTS are 0 and when LVL is 7 & FTS is 113 through 127. Maintenance Channels cannot be assigned.

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Continued on next page

Form Entries, Continued

Table 10 **XTSI D3U BASE TANs FOR ODD MEMBER NUMBERED XTSIs (Odd TSI Member Number)**

XTSI		TAN			XTSI		TAN		
D3U	DS1	SPC	LVL	FTS	D3U	DS1	SPC	LVL	FTS
3	1	0	0	001	3	15	1	0	001
3	2	0	0	025	3	16	1	0	025
3	3	0	0	049	3	17	1	0	049
3	4	0	0	073	3	18	1	0	073
3	5	0	0	097	3	19	1	0	097
3	6	0	0	121	3	20	1	0	121
3	7	0	1	017	3	21	1	1	017
3	8	0	1	041	3	22	1	1	041
3	9	0	1	065	3	23	1	1	065
3	10	0	1	089	3	24	1	1	089
3	11	0	1	113	3	25	1	1	113
3	12	0	2	009	3	26	1	2	009
3	13	0	2	033	3	27	1	2	033
3	14	0	2	057	3	28	1	2	057
4	1	0	2	081	4	15	1	2	081
4	2	0	2	105	4	16	1	2	105
4	3	0	3	001	4	17	1	3	001
4	4	0	3	025	4	18	1	3	025
4	5	0	3	049	4	19	1	3	049
4	6	0	3	073	4	20	1	3	073
4	7	0	3	097	4	21	1	3	097
4	8	0	3	121	4	22	1	3	121
4	9	0	4	017	4	23	1	4	017
4	10	0	4	041	4	24	1	4	041
4	11	0	4	065	4	25	1	4	065
4	12	0	4	089	4	26	1	4	089
4	13	0	4	113	4	27	1	4	113
4	14	0	5	009	4	28	1	5	009
5	1	0	5	033	5	15	1	5	033
5	2	0	5	057	5	16	1	5	057
5	3	0	5	081	5	17	1	5	081
5	4	0	5	105	5	18	1	5	105
5	5	0	6	001	5	19	1	6	001
5	6	0	6	025	5	20	1	6	025
5	7	0	6	049	5	21	1	6	049
5	8	0	6	073	5	22	1	6	073
5	9	0	6	097	5	23	1	6	097
5	10	0	6	121	5	24	1	6	121
5	11	0	7	017	5	25	1	7	017
5	12	0	7	041	5	26	1	7	041
5	13	0	7	065	5	27	1	7	065
5	14	0	7	089	5	28	1	7	089

Maintenance Channels are defined as TANs when LVL & FTS are 0 and when LVL is 7 & FTS is 113 through 127. Maintenance Channels cannot be assigned.

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RC Form 205

General

Recent Change (RC) Form 205 is used to nail-up trunks. All trunks being nailed up must be in the CAD.DSA state prior to activating the RC. After the RC activation, transmission paths remain open until the input message **"ORD:TL;RLS:CIN_ _ _ "** is entered for each trunk. This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section, starting on page 7.

Continued on next page

RC Form 205, Continued

General
(cont'd.)

```
# FORM 205   ADD NEW NAILUP ASSIGNMENTS

RC:TRK;NEW;OPT(NAILUP),---:

ORNU ------,

                    TAN                         TAN
QTRK           TSI SPC LVL FTS            TSI SPC LVL FTS      TYP      RDC

 --,           --,  -,  -, ---,           --,  -,  -, ---,     ---,      -,
 --,           --,  -,  -, ---,           --,  -,  -, ---,     ---,      -,
 --,           --,  -,  -, ---,           --,  -,  -, ---,     ---,      -,
 --,           --,  -,  -, ---,           --,  -,  -, ---,     ---,      -,
 --,           --,  -,  -, ---,           --,  -,  -, ---,     ---,      -,
 --,           --,  -,  -, ---,           --,  -,  -, ---,     ---,      -,

REMARKS ------------------------------------------------!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                          INPUT-12d-VER:NAILUP

                          OUTPUT-2n-VER:NAILUP
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:TRK;NEW;OPT(NAILUP),---:

Recent Change action field – Entries appended to the message header indicate the action to be taken by the Recent Change (RC) system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at a time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks, and also, the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast Activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast Test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

QTRK

Quantity of Trunks - For each line under QTRK, valid entries are a quantity of trunks from **"1-120"** to be assigned sequentially. The QTRK plus the First Time Slot (FTS) must be less than 122.

For RC 200, trunks connected to a far-end D1D or D2 channel bank, international trunks, and service circuits must obey special constraints. Valid entries for trunks to be connected to a D1D or D2 channel bank are **"1-24"**. Valid entries for service circuits depend upon the corresponding Trunk Subgroups (TSGs). Following are the legal ranges of values for the corresponding TSGs:

TSG	QTRK
SVC*DMRV	16, 32, 48, 64 (for digital circuits)
SVC*DMXM	16, 32, 48, 64 (for digital circuits)
SVC*MFR*	1 to 32 (for analog circuits)
SVC*MFR*	16, 32, 48, 64 (for digital circuits)
SVC*MFX*	1 to 32 (for analog circuits)
SVC*MFX*	16, 32, 48, 64 (for digital circuits)
SVC*XCVR	1 to 12
SVC*MFCI	24
SVC*MFCO	24
SVC*SCAN	24
SVC*SCBN	24
SVC*SCNS	24

The Recent Change (RC) System will allow any quantity of trunks from 1 to 64 for digital service circuits (both Multifrequency [MF] and Dual Tone Multifrequency [DTMF]). However, since the hardware for digital service circuits must be grown in increments of 16, it is recommended that only the indicated values above be entered (e.g., 16, 32, 48, 64).

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

TAN

Trunk Appearance Number - Each block of trunks may be assigned a series of TANs. The TAN defines a fixed relationship to the switching equipment. The first TAN will be associated with the First Traffic Number in the block (FTFN) and the remainder of the TANs will be sequentially assigned to the remaining trunks in the block.

- **TSI** - Time Slot Interchange - The Time slot Interchange (TSI) frame number is assigned in this field. Valid entries are **"0-63"**.
- **SPC** - Switching Permuting Circuit - The SPC identification may be **"0"** or **"1"**.
- **LVL** - Level - The TSI Level appears in this field. Valid entries are **"0"** to **"6"**. For D3U applications, valid entries are **"0-7"** (4E21>).
- **FTS** - First Time Slot - The FTS indicates the specific appearance of the TAN. Valid entries are **"001-120"**; however, the FTS plus the Quantity of Trunks (QTRK) must be less than 122 for each line. For D3U applications (4E21>):
  - When the LVL is **"0"**, FTS is **"1-127"**.
  - When the LVL is **"1-6"**, FTS is **"0-127"**.
  - When the LVL is **"7"**, FTS is **"0-112"**.

Continued on next page

Form Entries, Continued

TYP

This field indicates the type of nail-up transmission desired.

- **Blank**
- **C64** - 64 kbs Clear transmission
- **DCH** - D-Channel signaling connection
- **FSP** - Four State Pass Through transmission
- **LNK** - Signaling link connection
- **R56** - 56 kbs Restricted transmission
- **R64** - 64 kbs Restricted transmission

If this field is **"Blank"** and the trunk terminates on a Digital Interface Frame (DIF), the value of the field will be equal to **R64**. If this field is **"Blank"** and the trunk does NOT terminate on a DIF, the value of the field will be equal to **R56**.

RDC

Red Circuit Handling - This field will contain an **"N"** to indicate no special circuit handling or **"Y"** to indicate that special circuit handling is required.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

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QTRK	4
RC:TRK;NEW;OPT(NAILUP),---:	3
RDC	6
TAN	5
TYP.trk	6

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 206

General

Recent Change (RC) Form 206 is used to delete TAN nailups. This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section, starting on page 6.

Continued on next page

RC Form 206, Continued

General
(cont'd.)

```
# FORM 206   DELETE NAILUP ASSIGNMENTS

     RC:TRK;OUT;OPT(NAILUP),---:

     ORNU ------,

                          TAN                          TAN
     QTRK           TSI  SPC LVL FTS           TSI  SPC LVL FTS      RDC

      --,            --,  -,  -, ---,           --,  -,  -, ---,      -,
      --,            --,  -,  -, ---,           --,  -,  -, ---,      -,
      --,            --,  -,  -, ---,           --,  -,  -, ---,      -,
      --,            --,  -,  -, ---,           --,  -,  -, ---,      -,
      --,            --,  -,  -, ---,           --,  -,  -, ---,      -,
      --,            --,  -,  -, ---,           --,  -,  -, ---,      -,

     REMARKS ------------------------------------------------!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                          INPUT-12d-VER:NAILUP

                          OUTPUT-2n-VER:NAILUP
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:TRK;OUT;OPT(NAILUP),---:

Recent Change action field – Entries appended to the message header indicate the action to be taken by the Recent Change (RC) system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at a time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks, and also, the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast Activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast Test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

QTRK

Quantity of Trunks - For each line under QTRK, valid entries are a quantity of trunks from **"1-120"** to be assigned sequentially. The QTRK plus the First Time Slot (FTS) must be less than 122.

For RC 200, trunks connected to a far-end D1D or D2 channel bank, international trunks, and service circuits must obey special constraints. Valid entries for trunks to be connected to a D1D or D2 channel bank are **"1-24"**. Valid entries for service circuits depend upon the corresponding Trunk Subgroups (TSGs). Following are the legal ranges of values for the corresponding TSGs:

TSG	QTRK
SVC*DMRV	16, 32, 48, 64 (for digital circuits)
SVC*DMXM	16, 32, 48, 64 (for digital circuits)
SVC*MFR*	1 to 32 (for analog circuits)
SVC*MFR*	16, 32, 48, 64 (for digital circuits)
SVC*MFX*	1 to 32 (for analog circuits)
SVC*MFX*	16, 32, 48, 64 (for digital circuits)
SVC*XCVR	1 to 12
SVC*MFCI	24
SVC*MFCO	24
SVC*SCAN	24
SVC*SCBN	24
SVC*SCNS	24

The Recent Change (RC) System will allow any quantity of trunks from 1 to 64 for digital service circuits (both Multifrequency [MF] and Dual Tone Multifrequency [DTMF]). However, since the hardware for digital service circuits must be grown in increments of 16, it is recommended that only the indicated values above be entered (e.g., 16, 32, 48, 64).

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

TAN

Trunk Appearance Number - Each block of trunks may be assigned a series of TANs. The TAN defines a fixed relationship to the switching equipment. The first TAN will be associated with the First Traffic Number in the block (FTFN) and the remainder of the TANs will be sequentially assigned to the remaining trunks in the block.

- **TSI** - Time Slot Interchange - The Time slot Interchange (TSI) frame number is assigned in this field. Valid entries are **"0-63"**.
- **SPC** - Switching Permuting Circuit - The SPC identification may be **"0"** or **"1"**.
- **LVL** - Level - The TSI Level appears in this field. Valid entries are **"0"** to **"6"**. For D3U applications, valid entries are **"0-7"** (4E21>).
- **FTS** - First Time Slot - The FTS indicates the specific appearance of the TAN. Valid entries are **"001-120"**; however, the FTS plus the Quantity of Trunks (QTRK) must be less than 122 for each line. For D3U applications (4E21>):
  - When the LVL is **"0"**, FTS is **"1-127"**.
  - When the LVL is **"1-6"**, FTS is **"0-127"**.
  - When the LVL is **"7"**, FTS is **"0-112"**.

RDC

Red Circuit Handling - This field will contain an **"N"** to indicate no special circuit handling or **"Y"** to indicate that special circuit handling is required.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ORNU	3
QTRK	4
RC:TRK;OUT;OPT(NAILUP),---:	3
RDC	5
TAN	5

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 208

General

Recent Change (RC) Form 208 is used to Change trunk characteristics.. This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section, starting on page 10.

Continued on next page

RC Form 208, Continued

General
(cont'd.)

```
# FORM 208   CHANGE TRUNK CHARACTERISTICS
  4E18>

RC:TRK;CHG,---:                                    BTFN TOWN ST BL FBS NBS

ORNU ------,                                    TSG ---- ---- -- -- --- ---,

QTRK  FTFN       LACID FAC FTRID    VCR   BBC   SCGA   ES

---,  ----,      ----, --,  ---,    ---,   -,    -,   ----,
---,  ----,      ----, --,  ---,    ---,   -,    -,   ----,
---,  ----,      ----, --,  ---,    ---,   -,    -,   ----,
---,  ----,      ----, --,  ---,    ---,   -,    -,   ----,
---,  ----,      ----, --,  ---,    ---,   -,    -,   ----,
---,  ----,      ----, --,  ---,    ---,   -,    -,   ----,

REMARKS ------------------------------------------------!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                           INPUT-12a-VER:TRK:

                           OUTPUT-2a-VER:TRK:
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:TRK;CHG,---:

Recent Change action field – Entries appended to the message header indicate the action to be taken by the Recent Change (RC) system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at a time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks, and also, the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast Activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast Test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

•

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

TSG
(cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

-

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

QTRK

Quantity of Trunks - For each line under QTRK, valid entries are a quantity of trunks from **"1-120"** to be assigned sequentially. The QTRK plus the First Time Slot (FTS) must be less than 122.

For RC 200, trunks connected to a far-end D1D or D2 channel bank, international trunks, and service circuits must obey special constraints. Valid entries for trunks to be connected to a D1D or D2 channel bank are **"1-24"**. Valid entries for service circuits depend upon the corresponding Trunk Subgroups (TSGs). Following are the legal ranges of values for the corresponding TSGs:

TSG	QTRK
SVC*DMRV	16, 32, 48, 64 (for digital circuits)
SVC*DMXM	16, 32, 48, 64 (for digital circuits)
SVC*MFR*	1 to 32 (for analog circuits)
SVC*MFR*	16, 32, 48, 64 (for digital circuits)
SVC*MFX*	1 to 32 (for analog circuits)
SVC*MFX*	16, 32, 48, 64 (for digital circuits)
SVC*XCVR	1 to 12
SVC*MFCI	24
SVC*MFCO	24
SVC*SCAN	24
SVC*SCBN	24
SVC*SCNS	24

The Recent Change (RC) System will allow any quantity of trunks from 1 to 64 for digital service circuits (both Multifrequency [MF] and Dual Tone Multifrequency [DTMF]). However, since the hardware for digital service circuits must be grown in increments of 16, it is recommended that only the indicated values above be entered (e.g., 16, 32, 48, 64).

Continued on next page

Form Entries, Continued

FTFN	First Traffic Number - For each line under FTFN, enter the FTN of the block of traffic numbers being assigned on that line. The quantity of trunks assigned on each line will be numbered sequentially by an internal program manipulation beginning with the FTFN specified. Valid inputs are **"0-9999**". Quantity of Trunks (QTRK) plus FTFN must be less than 10001. For RC 104, this field should specify the first traffic number of the new block of traffic numbers that is being added to the Trunk Subgroup. Valid inputs are **"0-9976"**.
LACID	Not Applicable - Entries: **"Blank"**
FAC	Not Applicable - Entries: **"Blank"**
FTRID	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

VCR

Voice Path Assurance Cancellation Rate - This field specifies the cancellation rate of the Voice Path Assurance (VPA) test. This allows savings of real time processing on Integrated Services Digital Network User Part (ISUP) calls using digitally protected carrier facilities. Valid entries are **"100"**, **"87"**, **"50"**, and **"0"**.

- **100** - 100% cancellation allowed on trunks between 4E-4E and 4E-5E when the entire facility is **"T"**- Carrier or other protected digital carrier.
- **87** - 87 1/2% cancellation on 4E - 1/1A ESS Digital Carrier Trunks (DCT) using protected digital carrier.
- **50** - 50 - 50% cancellation on 4E-Network Service Center (NSC) and 4E to other switches where the D-Bank is at the far end and the carrier facility is digitally protected.
- **0** - "0%" cancellation is the default or used when switches or facilities are analog or unknown.

BBC

Not Applicable - Entries: **"Blank"**

SCGA

Software Carrier Group Alarm - This carrier alarm feature is only used on analog facilities. Valid entries are **"Y"** or **"N"**. For trunks assigned to digital facilities, leave **"Blank"**.

ES

Not Applicable - Entries: **"N"**

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
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ES	9
FAC	8
FTFN	8
FTRID	8
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LUCENT TECHNOLOGIES PROPRIETARY
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Code Grouping Table Of Contents

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3a	300 - Change 3 Digit Translation
3b	301 - Change 4, 5, or 6 Digit Translation
3c	302 - Change 7, 8, or 9 Digit Translation
3d	303 - Change 10, 11, or 12 Digit Translation
3i	308 - Protect Terminating Office Codes
3j	309 - Add a new Non POTS Domain
3l	311 - Change Number of Translatable Digits
3r	317 - Add Country Code
3s	318 - Delete Country Code
3t	319 - Add Three Digit Type
3u	320 - Delete Three Digit Type
3ab	327 - Change DESEPS for 3 Digit Translaitons
3ac	328 - Change DESEPS for 4, 5, or 6 Digit Translations
3ad	329 - Change DESEPS for 7, 8, or 9, Digit Translations
3af	331 - Change 00Y Translations
3ai	334 - Change Equal Access Signaling II Digits and/or OLI Values
3aj	335 - Change NX or ZZ to TNS Translator
3ak	336 - Change II Digits to OLI or OLI to II Digits Translator
3am	338 - Change Service Identity Index Related Information
3ap	341 - Emergency Alternate Routing Database
3aq	342 - Emergency Alternate Routing Activate/Deactivate
3ar	343 - FG-D CIC Expansion
3as	344 - Add/Delete Domain Type Information
3at	345 - Set/Reset AIN Trigger

Continued on next page

Code Grouping Table Of Contents, Continued

General

This information applies to all sections within this division:

1. The characters > and < are used to indicate which Generic Programs will apply.

   Examples:

   - 4E22> indicates 4E22 and later Generic Programs.
   - <4E22 indicate 4E22 and earlier Generic Programs.
   - 4E22 indicates the 4E22 Generic Program only.
   - >4E22 indicates all Generic Programs up to, but not including, 4E22.

2. Following the general section is a copy of the applicable Recent Change (RC) Form/s. Where there is more than one Generic published, the forms will be filed in ascending order by Generic.

3. The Keyword field names of the form entries in each section are listed in order of appearance on the latest Generic Recent Change Form. (Keywords deleted from the latest form issue will still remain in the form order of the last RC Form that it appeared until finally deleted).

4. The alphabetical "Keyword Index" of the field names is located at the end of each Recent Change Section, following the text, and any tables and/or graphics that may apply.

5. Each Keyword definition will only list the valid entries for the RC Form covered in each applicable section. Some Keywords may have additional valid entries related overall and may be found in the alphabetical Keyword Glossary (Div. 9, Sec. 1).

RC Form 300

General

The Recent Change (RC) Form 300 is used to change the treatment of a group of three digit codes in the translations of the 4ESS™-2000 Switch. This message is classed as a Recent Change Data Message (RCDM).

"Table 7" shows the code group population rules. "Table 8" shows the Go/No Go Screening conditions.

An alphabetical keyword list is included in this section on page 35

Continued on next page

RC Form 300, Continued

General
(cont'd.)

```
# FORM 300   CHANGE 3 DIGIT TRANSLATION
    <4E22R4

  RC:CODEGRP;CHG;OPT(DIG3),___:                  DOM ____, NTD 3,   AC _,

  ORNU _______,

       CALLTYP     CALLDATA          AD1     AD2     SC    CHI  DESEP   DNST

  OLD   ___, ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                  AD3 ________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  NEW   ___,  ____________________,  _____,  _______,  _____,  _____, ___,  _______,

                  AD3 ________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ABC  ABC  ABC  ABC  ABC  ABC  ABC  ABC

  ___, ___, ___, ___, ___, ___, ___, ___,
  ___, ___, ___, ___, ___, ___, ___, ___,
  ___, ___, ___, ___, ___, ___, ___, ___,
  ___, ___, ___, ___, ___, ___, ___, ___,

  REMARKS ____________________________________________________!

               EQUIVALENT ODA INPUT FORM - ESS 403D

                   ASSOCIATED VERIFY MESSAGES

                     INPUT-13b-VER:CODEGRP

                  OUTPUT-3a-VER:CODEGRP;OPT(DIG3)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 300, Continued

General
(cont'd.)

```
# FORM 300   CHANGE 3 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG3),___:                    DOM ____, NTD 3,   AC _,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC    CHI  DESEP   DNST
OLD   ___, ____________________,  ____,  _______,  ____,  ____,  ___,  _______,

               AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  ____,  _______,  ____,  ____, ___,  _______,

               AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

ABC  ABC  ABC  ABC  ABC  ABC  ABC  ABC

___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________________________________________________!

             EQUIVALENT ODA INPUT FORM - ESS 403D

                 ASSOCIATED VERIFY MESSAGES

                   INPUT-13b-VER:CODEGRP

                OUTPUT-3a-VER:CODEGRP;OPT(DIG3)
```

Form Entries

RC:CODEGRP;CHG;OPT(DIG3),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be MISC or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e., CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

Continued on next page

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)
- **ATNS** - Access Tandem Transit Network Selection - This domain is used to translate equal access Integrated Services Digital Network User Part (ISUP) parameters to obtain the routing information.

NTD

Number of Translated Digits - This field specifies the number of digits to be analyzed for this code grouping. For domestic code grouping, this number may range from 3 to 12 depending on the code group form. The first three digits are listed under the ABC field, the remaining digits, if any, are listed in the DEF, GHI, and JKL fields. Valid entry for the RC Form 300 is only **"3"** because the form only changes the ABC digits. Other digit combination changes are performed on subsequent forms.

AC

Area Code - A **"Y"** for Yes indicates that all of the 3-digit codes (ABC digits) on this form are Area Codes. If the ABC digits are office codes, test codes or other non-Area Codes, AC will be **"N"** for No. This field is left **"Blank"** when Domain (DOM) is not equal to Plain Old Telephone Service (POTS).

Continued on next page

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Form Entries, Continued

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

CALLTYP The Call Type is used to define the major category for the disposition of the codes listed on this form. The valid Call Type categories are as follows:

- **EAR** - The Emergency Alternate Routing feature will be used to reroute calls. The EAR Call Type will be used for code groups which must be screened for this feature and will indicate that one or more destination numbers in the code group have this feature. This feature allows business customers to redirect calls from a primary location to an alternate location when the primary location is the victim of a natural disaster, a bomb threat, or other terrorist activity.
- **FHT** - Final Handling Treatment. This identifier specifies that the listed codes will be directed to a Final Handling Treatment (FHT) announcement or tone.
- **GNS** - Go/No Go Screening - GNS specifies that this group of codes will be given GNS before the routing is determined. If this call type is entered. GN and GNSC fields must be completed.
- **PAS** - Public Announcement System - This identifier specifies that the codes listed will terminate the customer to the announcement specified in the CALLDATA field.
- **RDB** - Routing Data Block - RDB is used to specify that the set of codes listed in this form will be routed directly to Trunk Subgroups (TSGs) defined by a Routing Data Block (RDB).
- **SDX** - Subsequent Digit Index - This Call Type is used to reference a subsequent digit entry which contains several alternative routing treatments that are selected on the basis of an index determined by the type value entered as AD1. In memory, the SDX call type contains data stating the grid table size: **"1"** meaning a size of 16 entries, **"2"** meaning 128, **"3"** meaning 1024. To obtain the number of SDs, use the VER:CODEGRP:SDINDEX message (4E23>).

Continued on next page

Form Entries, Continued

CALLTYP (cont'd.)

- **SSP** - Service Switching Point - This identifier is used to designate the processing of a Numbered Services call.
- **TEL** - TELEVOTE with Public Announcement System - This identifier specifies that the codes listed will terminate the customer to the announcement specified in the CALLDATA field. TEL is only valid in the Plain Old Telephone Service (POTS) Domain.
- **TST** - Test - This identifier is used for the code line test combinations within a translation domain. Three digit codes under this call type would include 10X codes and the synchronous test.

CALLDATA

This field further defines the treatment given to the group of codes listed on this form. CALLDATA is an extension of the Call Type (CALLTYP). For a given CALLTYP, the CALLDATA will define the specific code group treatment. CALLTYP/CALLDATA correlation is shown below.

- **Emergency Alternate Routing (EAR) Call Type** - The CALLDATA for EAR is an RDB index in the range of **"1-8191"**.
- **FHT Call Type** - The Final Handling Treatment (FHT) CALLTYP is used to point a group of codes directly to an announcement or tone. The CALLDATA field identifies that tone or announcement circuit. Valid entries are : **"AR"**, **"BT"**, **"EA1-EA7"**, **"HW"**, **"IFF"**, **"INC"**, **"IVC"**, **"MCA"**, **"NCA"**, **"NCC"**, **"NCD"**, **"NWC"**, **"OOB"**, **"ROA"**, **"SP1"**, **"SP2"**, **"T"**, **"VCA"**, **"DNN"**, **"DPP"**, **E01-E02"**, **"I01-I30"**, **"INF"**, **"ISB"**, **"LDV"**, **"LOB"**, **"LSA"**, **"NCB"**, **"NWN"**, **"OOA"**, **"OTS"**, **"R01-R10"**, **"S01-S19"**, **"SNA"**, **"STO"**, **"TDN"**, **"UNN"**, **"VMA"**, **"WAT"**. Consult Lucent Practices 781-031-100 for further definition of various tones and announcements. See the Routing Data Block Final Handling Treatment (RDBFHT) description for the identifiers that may be specified.

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Form Entries, Continued

CALLDATA (cont'd.)

- **GNS Call Type** - If the GNS CALLTYP identifier is used, the CALLDATA field will contain a Routing Data Block Index (RDBI) from **"1-8191"**. This index will be used to direct the call if the Go/No Go Screening (GNSC) passes. The Go No Go (G/N) and GNSC fields specify the Go/No Go conditions. If the GNSC fails, the call is directed to the vacant code Final Handling Treatment (FHT).

- **PAS Call Type** - If Public Announcement System (PAS) Call Type is used, the CALLDATA field must contain a 12-digit announcement identifier. This identifier is made up of the 5-digit Voice Storage System Identity (VSSID) and 7-digit Service Identity (SID).

- **RDB Call Type** - For RDB, the CALLDATA field will contain a Routing Data Block Index (RDBI) from **"1-8191"**. This number will specifically identify a given set of routing parameters as listed in the RDB form with that same RDBI. The RDB entry is used to directly point a group of codes toward routing information.

- **SDX Call Type** - The CALLDATA for SDX is a Subsequent Digit Index (SDX) which identifies a particular subsequent digit entry. Valid values are **"1-16383"**.

- **SSP Call Type** - If Service Switching Point (SSP) Call Type is used, the CALLDATA field must contain one of the following identifiers:

  - **RT** - Retranslate Carrier ID (CID) and Type Of Service (TOS) plus Incoming Trunk Class (ITC) in the Number Services Routing (NSR) domain.
  - **RT00Y** - Retranslate CID TOS plus ITC in the NSR domain with a 00Y for Numbering Plan Area (NPA) lookup.
  - **RTCOIN** - Retranslate CID TOS plus ITC in the NSR domain for a 00X coin call.
  - **ACPN** - The 0ZZ-XXX[X] (or Transit Network Selection [TNS]) translation indicates Analyze the Called Party Number". For the Equal Access Multifrequency (EAMF), the switch will receive the second/third stages of digits and proceeds with digit translation looking for Called Number Triggers.

Continued on next page

Form Entries, Continued

CALLDATA (cont'd.)

- **AIIO** - The 0ZZ-XXX[X] (or TNS) translation indicates "Analyze the Information Digit/Originating Line Information (II/OLI)". This causes the switch to intercept the second and third stages of digits in for EAMF, and to check II/OLI for the "Send Advanced Intelligent Network (AIN) Information Collected Query" (SIAQ) value.
- **DB** - TOS and Database query.
- **DB7** - TOS and Database query for a 7-digit dialed number.
- **DB00Y** - TOS and Database query with a 00Y or NPA lookup.
- **DBCOIN** - TOS and Database query for a 00X coin call.
- **EASDNA** - Receive the Equal Access (EA) sequence and retranslate the address sequence in the Software Defined Network (SDN) Access (SDNA) domain.
- **EASEQ** - Collect the 2nd and 3rd stage digits EA format.
- **NCP12** - 12- or 9-digit address returned from the SDN NCP, the first two digits of which are deleted by the 4ESS Switch before outpulsing, retranslate the CID, TOS, and ITC in the NSR domain.
- **NDB** - Interexchange Carrier/International Carrier (IC/INC) routing. Requires Call Handling Instruction (CHI) entry of Number Services Data Block (ND), Number Services/Inhibit Black Box (NDB) or Number Services/Inhibit Black Box and Blue Box (NDBB).
- **RTP** - Retranslate the routing digits in Plain Old Telephone Service (POTS).
- **SFA** - Subscribed Footprint Area (4E22R4>)
- **SIAQ** - Send Information and Analyze Query.
- **SICQ** - The 0ZZ-XXX[X] (or TNS) translation indicates "Send AIN Information Collected Query". This causes the switch to intercept the second and third stages of digits in the EAMF case and the indicated query is sent to the Service Control Point (SCP) without any analysis of the called number.

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Form Entries, Continued

CALLDATA (cont'd.)

- **TNSND** - Access Tandem Transit Network Selection Digits -This identifier is used at an Access Tandem (AT) switch to handle incoming calls from equal access Integrated Services Digital Network User Part (ISUP) to outgoing equal access ISUP or MFWINK. This subtype is only used in the Access Tandem Transit Network Selection (ATNS) domain.

- **TEL** Call Type - If TEL Call Type is used, the CALLDATA field must contain a 12-digit announcement identifier. This identifier is made up of the 5-digit VSSID and 7-digit SID.

- **TST** Call Type - This identifier specifies that the group of codes on this form are test codes. The CALLDATA field will identify the test. The following combinations may be assigned.

  - **100** - Balance - provides a quiet termination.
  - **101** - Communication - provides a link to a test board or test position.
  - **102** - Milliwatt - source of 1000 hertz test tone.
  - **103** - Signal/Supervisory - This test provides a series of on-hook/off-hook transitions.
  - **105** - Automatic Transmission Measuring System (ATMS) - provides a connection to an ATMS responder.
  - **108** - Echo Suppressor - The 108 test is used to test Echo Suppressor operation.
  - **109** - This test is used to test Echo Canceller operation.
  - **DLC -** Data loopback/complement test trunk.
  - **SYN** - Synchronous - SYN specifies a signaling/supervision test similar to 103 but on an automatic timed basis.

Continued on next page

Form Entries, Continued

AD1

Additional Data 1 - This field further defines the treatment given to a code group translation. AD1 is an extension of the Call Type (CALLTYP) and CALLDATA words. For a given CALLTYPE and CALLDATA, the AD1 will define the specific code group treatment. Valid entries for the appropriate services are:

- **"Blank"**
- **"GNS" (Go/No Go Screening)** - If GNS Call Type is used, the AD1 field is used to enter the Go/No Go value for the Call Type. The field may contain a Go **("G")** or No Go **("N")** condition for the list of codes that appear on this form. The indication is linked with a given GNS Class in the next field. All two-way and incoming Trunk Subgroups (TSGs) are assigned a GNS Class. By manipulating the Go/No Go conditions for a group of codes, incoming traffic can be denied (sent to vacant code) on one or more TSGs and allowed to complete on others.
- **"SDTYPE" (Subsequent Digit Index Type)** - The AD1 field for SDX Call Type is used to identify the type of index that must be used to index the subsequent digit entry. Valid entries are as follows:
  - **MTS** Multiple Treatment Screening class from an incoming trunk. Valid entries are **"Blank"** or **"0 - 63"**.
  - **DC** Digit Count of the incoming call. Valid entries are **"3 - 15"**.
  - **DRTC** Data Rate Transfer Capability for Integrated Services Digital Network user Part (ISUP) to Multifrequency (MF) interworking. Valid entries are **"0 - 7"**.
  - **IPR** ISUP Preference Routing. Valid entries are:
    "0" - ISUP Preferred. The outgoing trunks should be mostly ISUP.
    "1" - ISUP not required. The outgoing trunks should be mostly non-ISUP.
    "2" - ISUP Required. All outgoing trunks must be ISUP.
    "3" - Spare
  - **V31K** - Voice or 3.1kHZ indicator. Valid entries are:
    "0" - 3.1kHZ
    "1" - Voice.

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Form Entries, Continued

AD1
(cont'd.)

- **"SSP" (Service Switching Point)** Call Type - If SSP Call Type is used, the AD1 field is used to enter either the Type of Service (TOS) indicator value for the CALLDATA of NCP12, RT, RT00Y, RTCOIN, SICQ, DB, DB7, DB00Y, or DBCOIN or the Number Services Data Block (NDB) for the CALLDATA of NDB or TNSND, or the Subscribed Footprint Area Index (SFAI) for the CALLDATA of Subscribed Footprint Area (SFA).
  - **NDBI** - Number Services Data Block Index value defines which Interexchange Carrier or International Carrier routing control block will be used for the call. Valid input values are **"1-1023"**.
  - **SFAI** - Subscribed Footprint Area Index used to calculate a corresponding SFA domain. Valid input is **"0-6"** (**"0-39"** for 4E23>).
  - **TOS** - Type of Service entry defines which number service will be identified with this Call Type entry. Valid input is a number between **"0"** and **"31"**.
- **"SAPN"** - This field is used to specify the Slave Application Number (SAPN) assigned when the Call Type is TEL. Valid range is **"0-63"**.

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Form Entries, Continued

AD2

Additional Data 2 - This field further defines the treatment given to the group of codes listed on this form. AD2 is an extension of the Call Type (CALLTYP), CALLDATA, and AD1. For a given CALLTYPE, CALLDATA, and AD1, the AD2 will define the specific code group treatment. CALLTYPE/CALLDATA/AD1/AD2 correlation is shown below:

- **GNS (Go/No Go Screening)** Call Type - If GNS Call Type is used, the AD2 field is used to enter the Go/No Go Screening Class for the Call Type.
  - This field will have an entry when CALLTYP is GNS and AD1 is not **"Blank"**. The Go/No Go Screening Class specifies the Trunk Subgroup (TSG) class that will be allowed or denied completion to the regular routing. A range of **"0-3"** may appear in this field.
- **SSP (Service Switching Point)** Call Type - If SSP Call Type is used, the AD2 field is used to enter the Carrier IDentification (CID) indicator value for the CALLDATA of NCP12, RT, RT00Y, or RTCOIN.
  - CID - Carrier IDentification number defines which Interexchange Carrier or International Carrier will be used to route the call. Valid input is **"0000-9999"**.

  If either:
  - the DOM is Super Tandem Carrier ID (STCD) and the CALLDATA is Access Tandem Transit Network Selection Digits (TNSND) or
  - the DOM is Number Service Routing (NSR) and CALLDATA is Number Services Data Block (NDB),

  then the AD2 field specifies if the associated Carrier is allowed to receive all possible Information Digit/ Originating Line Information (II/OLI) values or is restricted only to certain values (Restrict II/OLI [RIO]). Allowed entries are:
  - **"Blank"** or **"N"** (Restrict II/OLI forwarding [DEFAULT])
  - **"Y"** (Allow II/OLI forwarding).

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SC

Service Category/Code Group. This field identifies the Service Category (SC) of the code group. This category is used to perform incoming screening on calls received from other carriers. Also, it is used to determine for which calls an Automatic Message Accounting (AMA) record or Access Charge record should be made.

As examples of screening, an Operating Company Access Tandem (AT) switch must deny calls from an Interexchange Carrier (IC) that do not terminate in the Local Access Transport Area (LATA) served by the AT.

As an example of recording, an AT must make a terminating Access Charge record for all calls it receives from an IC or INC which terminate in the LATA.

The SC defines the screening and recording classification to be used for the code group. The SC field only applies if the CALLTYP is CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, TST, or TTS. SC will also be used to specify for which calls a query will be sent to the Network Call Denial (NCD) database.

Valid Service Category entries are:

- **Blank** - If this field is **"Blank"**, the SC is unspecified.
- **ALAP** - Alaskan Plain Old Telephone Service (POTS). ALAP is the classification for POTS code groups in the Alaskan World Zone 1 area.
- **ATAP** - Access Tandem Area Pots. ATAP is only applicable if the 4ESS Switch is owned or leased by an Operating Company and used as an Access Tandem (AT) for a LATA. ATAP is the classification for the POTS code groups in the LATA served by the AT. In addition, ATAP is the category for POTS code groups in Independent Operating Company areas also served by the Tandem Switch.

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Form Entries, Continued

SC
(cont'd)

- **CANP** - Canadian POTS. CANP is the classification for POTS code groups in the Canadian World Zone 1 area.
- **CARP** - Caribbean, NON-U.S. Territories, POTS. CARP is the classification for POTS code groups in the Caribbean World Zone1 area which do not include United States territories.
- **CUSP** - Continental U. S. POTS. CUSP is the classification for POTS code groups in the continental U. S., which could not also be classified ATAP.
- **CUTP** - Caribbean, U. S. Territories, POTS. CUTP is the classification for POTS code groups in the part of the Caribbean World Zone 1 area which includes United States territories.
- **DA** - Directory Assistance. DA is used to classify code groups assigned to Directory Assistance.
- **DLT** - DIAl-It*. DLT is used to classify DIAL-It code groups.
- **DSD** - Direct Services Dialing. DSD is used to classify Direct Services Dialing code groups.
- **EASC** - Exchange Access Signaling Code. EASC is used to classify the code groups used for Exchange Access Signaling (EAS) to an Interexchange (IC) or International Carrier (INC).
- **HAWP** - Hawaiian POTS. HAWP is the classification for POTS code groups in the Hawaiian World Zone 1 area.
- **ICIN** - Inter-LATA Carrier switch owner's International Carrier (INC). ICIN is used to classify code groups for calls to the Inter-LATA Carrier switch owner's International Carrier.

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SC
(cont'd)

- **INCN** - International Carrier but not inter-LATA Carrier switch owner's International Carrier. INCN is used to classify code groups from an Inter-LATA Carrier switch to an International Carrier which is not owned by the Inter-LATA Carrier. In addition, these code groups are not destined for International Operators.

- **INCO** - International Carrier Operator. INCO is the classification for code groups used for calls to an International Carrier Operator.

- **INET** - This is used for Interim Nationwide Emergency Telecommunications System code groups. INW = Inward WATS.

- **INW** is used for Inward WATS code groups. IOP = Inward Operator.

- **IOP** is used to classify code groups assigned to Inward Operator positions.

- **LDA** - Local Directory Assistance. This service category is used to generate the appropriate billing record when used in conjunction with a Centralized Automatic Message Accounting (CAMA) Far End Network (FEN) block.

- **MCPP** - Multiquest Calling Party-Paid. MCPP is used to classify Multiquest code groups paid for by the calling party.

- **MULT** - Multiquest. MULT is used to classify Multiquest code groups.

- **MSC1** through **MSC4** - These miscellaneous categories can be used to classify code groups into miscellaneous categories. These may be especially useful if the 4ESS Switch is shared by an Operating Company and an Interexchange Carrier (IC). In this case, the general categories could be used to classify code groups by the carrier which owns the switch and the miscellaneous categories used for code groups handled by the carrier leasing capacity on the switch.

- **NWZ1** - Non-World Zone 1. NWZ1 is the classification for the code groups used for calls to Non-World Zone 1 area.

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Form Entries, Continued

SC
(cont'd)

- **RSYS** - Restricted System Codes. RSYS is used to classify code groups assigned as special purpose restricted system codes.
- **SC1** through **SC36** - Spare Category 1 through Spare Category 36. These SCs can be used to classify codes in up to 36 SCs. One use for these categories is screening of IntraLATA calls at an Inter-LATA Carrier Switch. For this use, a different category would be assigned to the codes for each LATA to which the InterLATA Carrier Switch connects. Another possible use for these categories is for screening International Switching Center (ISC) terminating and transit traffic. For this use, the SCs would be assigned to the Overseas codes for which special screening is required. Yet another use is extensions of the current use of the Miscellaneous Service Categories (MSCs) (e.g., at shared switches).
- **SDN** - Software Defined Network. SDN is used for calls to a Software Defined Network.
- **SDND** - SDN Data. SDND is used for Software Defined Network Data calls.
- **SPDI** - Sponsor-Paid Dial-It. SPDI is used to classify DIAL-It code groups paid for by the sponsor.
- **SSP** - Local Exchange Carrier (LEC) Service Switching Point (SSP). SSP is used to identify calls that will have SSP processing applied to them.
- **TC** - Teleconferencing. TC is used to classify code groups assigned to network Teleconferencing services.
- **TST** - Test Line. TST is used to classify code groups assigned to trunk test lines.
- **UNSP** - Unspecified. This entry is used for a verify input request of codes that contain no SC.

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CHI

Call Handling Instructions. This field is used to specify some call handling actions to override present Outgoing Signaling Characteristics (OSCs), recording, and/or fraud prevention controls. This field is needed because of the new call handling requirements for Interexchange Carrier (IC) and International Carrier (INC) Access. The CHI field only applies if the CALLTYP is CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, RDB, RNR, SSP, TEL, TST, or TTS.

NOTE: This field must be populated for some existing code groups, such as those used for 2-stage International calls and ADD-ON Teleconferencing calls. Failure to populate this field for these calls will result in failure to complete these calls.

Valid entries for CHI field are:

- **"Blank"** - If this field is **"Blank"**, no special call handling instructions are taken.
- **AAT2** - Access Tandem (AT) to IC Traditional Two-stage. This CHI value is used at the AT or Service Switching Point (SSP) to identify that a traditional two-stage international incoming call to the AT/SSP is being passed to the carrier via equal access using Integrated Services Digital Network User Part (ISUP) signaling.
- **ABBB** - Same as ACD, but in addition, disable Black Box and Blue Box fraud prevention.
- **ABLK** - Same as ACD, but in addition, disable Black Box Fraud prevention.
- **ACD** - Inward Wide Band Area Telephone Service (INWATS) ACD. Specifies that a terminating INWATS ACD record is to be made.
- **EAAR** - Expect Automatic Number identification (ANI) Assist Request. EAAR specifies actions at an intermediate toll switch for a call on which an ANI Assist Request is expected. For example, an ANI Assist Request is expected on a call to establish an ADD-ON Teleconference.

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Form Entries, Continued

CHI (cont'd.)

- **EGRH** - Egress Handling. Specifies actions at the egress switch for Direct Connect and Software Defined Network (SDN) calls. Usually, these calls will be directly terminating to a Private Branch Exchange (PBX). However, in some SDN cases, they will terminate to a local switch, either via a dedicated Trunk Subgroup (TSG) or via special NXX codes (unused office codes). EGRH can only be specified if DOM is APN, DED, or DEV. Note that it must be specified for all DED and DEV calls at the Egress switch (and not at intermediate switches) to allow the Direct Connect and/or the SDN (Offnet Egress Privilege) features.
- **ESD2** - Expect Second Start Dial 2. ESD2 specifies actions at an intermediate toll switch for a 3-stage Exchange Access call to an International Carrier (INC), including the Interexchange Carrier (IC) International Switching Center when it is able to receive Exchange Access calls.
- **ESSD** - Expect Second Start Dial. ESSD specifies actions at an intermediate toll switch for a 2-stage International call to an IC International Switching Center.
- **FGB** - Feature Group B. FGB specifies actions for calls to an IC or INC.
- **IBBB** - Same as ICDR, but in addition, disable Black Box and Blue Box fraud prevention.
- **IBLK** - Same as ICDR, but in addition, disable Black Box Fraud prevention.
- **ICDR** - International Call Detail Recording. Specifies that an ICDR record is to be made.
- **IEA** - Interim Exchange Access. IEA specifies actions for calls from an End Office (EO) unequipped to do Exchange Access signaling to an IC or INC able to handle Exchange Access signaling. (Initial plans call for these calls to have ABC digits of 950.)
- **MSC1, MSC2** - Miscellaneous 1 and 2. Two miscellaneous values are included. These can be assigned if an unforeseen set of calls require special call handling instructions.
- **ND** - Number Services Data Block information for outpulsing control.

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CHI (cont'd.)

- **NDB** - Number Services Data Block information for outpulsing control, inhibit Black Box.
- **NDBB** - Number Services Data Block information for outpulsing control, inhibit Black Box and Blue Box.
- **NONE** - This entry is used for a verify input request of codes that contain no Call Handling Instruction.
- **WACK** - Wait For Acknowledgment. WACK specifies actions for calls to an INC for which a trunk is seized and digits outpulsed. The talking path is not cut through until an Acknowledgment signal is received from the INC. This entry only applies to a 4ESS Switch owned or operated by an Operating Company as an Access Tandem (AT).
- **WAC2** - Specifies the signaling actions to be performed by an AT when connecting an Equal Access End Office (EAEO) to an INC (possibly through an Intermediate Carrier).
- **WSNO** - Wink Start No Outpulse. WSNO specifies actions for calls for which a trunk to an IC or INC is to be seized but no digits outpulsed. This is one option allowed in Exchange Access signaling, and is chosen by the IC or INC.

DESEP

Destination Separation is used to identify destinations for traffic flow purposes. Peg and usage counts are made as a function of the Trunk Sub-Group (TSG) incoming class (INSEP) and the outgoing destination class (DESEP). All outgoing or successfully terminated traffic is assigned a given destination class from **"1-255"**.

NOTE: DESEP class 63 is assigned generically for test calls. Any other assignment to class 63 should take this fact into consideration.

For code group forms, a DESEP class will be assigned only when the CALLTYP is equal to CRB, DSN, EAR, GNS, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, or TTS. This field is **"Blank"** for any other Call Type value.

Continued on next page

Form Entries, Continued

DNST Not Applicable - Entries: **"Blank"**

AD3 Not Applicable - Entries: **"Blank"**

ADC Acceptable Digit Count/Code Group - This field specifies the total number of incoming digits expected for a call routed to this Call Type. This field must be entered for the following Call Types: CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, TST, and TTS.

The legal values for this field are digit counts from **"3-15"** for domestic routing.

For the Call Types requiring that an ADC be input, at least one number must be specified. More than one number may be listed as valid. For example, if the Call Type points to an Routing Data Block (RDB), 6, 8 or 10 digits may be valid. Note that the number of incoming digits specified is the number of incoming digits actually received before modification by deletion or prefixing in the RDB but after A-digit reconstruction. When the Call Type treatment points to an international transit RDB (International Domain [IDOM] equals **"T"** on the RDB form) or an international originating RDB (IDOM equals **"O"**), the Language Digit (LD) is never counted in the number of digits that make up the ADC regardless of whether the LD is translated or not.

Dial Pulse (DP) and Dual Tone Multifrequency (DTMF) rely on collecting digits one-at-a-time. A range of **"3-15"** entry causes DP or DTMF critical digit timing (5 second recognize end of dialing) after each digit beyond the third digit since each digit is potentially the last. On any DP or DTMF call with less than 15 digits it causes a five second post dialing delay.

Continued on next page

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Form Entries, Continued

ADC (cont'd.)

MF, CCIS, CCITT5, ISUP, and Q931 are en-block (not-one-at-a-time) digit collectors. When the complete address is received on en-block digit collectors or when a 5-second timeout occurs on the one-at-a-time digit collectors, the number of digits received is compared with the various totals specified by the ADC in the Call Type word to which this call has been directed. If the number of digits received does not match one of the totals specified by ADC and this is an en-block call, the call will be given partial dial Final Handling Treatment (FHT). If the number of digits received does not match one of the totals specified by ADC and this is a one-at-a-time call, an additional 10 seconds (total of 15 seconds) will be allowed. If no additional digit is received during this interval, the call is given partial dial FHT (Partial Dial Timeout). If the number of digits on a one-at-a-time call does match one of the totals specified by ADC and no additional digit is received within a 5-second delay, the call will be routed on the number of digits received even if there are additional digits that have not been received yet. Therefore, the ADC should not be set any lower than the number of digits needed to correctly route the call for one-at-a-time digit collectors.

Continued on next page

Form Entries, Continued

ABC The first three digits of a given set of digits (A, B, and C) - This field lists all of the 3-digit codes that make up a code group. If the Area Code (AC) field is marked **"Yes"**, this code group may consist of 3-digit combinations in the range of **"200-999"**. If this code group is not an Area Code grouping (AC = **No**), then any number combination from **"000-999"** is valid. When the AC field is **"Blank"**, ABC may be equal to **"000-999"**.

If DOM equals Plain Old Telephone Service (POTS), the 3-digit code corresponding to the Home Numbering Plan Area (HNPA) may be assigned as ABC digits if permissive dialing is allowed on the HNPA and AC = **"N"** (Offices using Traditional Routing only - (4E22>).

Continued on next page

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Form Entries, Continued

Table 7

Table 7
4E22/4E23 GENERICS CALL TYPE POPULATION TABLE

CALL TYPE	CALL DATA	AD1	AD2	AD3	ADC	SC	CHI	DESEP	DNST
CRB	CRBI				req'd	optional	optional	1..255	optional
DSD	IQ10			optional	req'd (10)	opt (DSD)	optional		optional
	SQ7			optional	req'd (7)	opt (DSD)	optional		optional
	SQ10			optional	req'd (10)	opt (DSD)	optional		optional
	IN10			optional	req'd (10)	opt (DSD)	optional		optional
	IN12			optional	req'd	opt (DSD)	optional		optional
	ITS			optional	req'd	opt (DSD)	optional		optional
	GSDN			optional	req'd (8-15)	opt (DSD)	optional		optional
	SDN7			optional	req'd (7)	opt (DSD)	optional		optional
	SD10			optional	req'd (10)	opt (DSD)	optional		optional
	ARA			optional	req'd (10)	opt (DSD)	optional		optional
	IQAR			optional	req'd (10)	opt (DSD)	optional		optional
	RDOM	DOM1		optional	req'd (10)	opt (DSD)	optional		optional
	NRAS			optional	req'd (10)	opt (DSD)	optional		optional
	D1ST			optional	req'd (10)	opt (DSD)	optional		optional
	S710			optional	req'd (7,10)	opt (DSD)	optional		optional
	S012			optional	req'd	opt (DSD)	optional		optional
	DSD1-DSD12			optional	req'd	opt (DSD)	optional		optional
DSN	NSN			optional	req'd	optional	optional	1..255	optional
EAR	RDBI			optional	req'd	optional	optional	1..255	optional
FHT	FHTI	CDNT							
GNS	RDBI	GN	GNSC entry	optional	req'd	optional	optional	1..255	
INW	blank	TFNPA		optional	req'd (10)	opt (INW)	optional		optional
	blank,0..999			optional	req'd (10)	opt (INW)	optional		optional
IRA	EAORI				req'd	optional	optional		optional
	EASXP				req'd	optional	optional		optional
	EASIN				req'd	optional	optional		optional
	TRD81				req'd	optional	optional		optional
	TRDIN				req'd	optional	optional		optional
	RTRIN	DOM2			req'd	optional	optional		optional
	D2RIN	DOM2			req'd	optional	optional		optional
	RTRDOM	DOM3			req'd (10)	optional	optional		optional
	EASDN	DOM4			req'd	optional	optional		optional
	D3RDOM	DOM3			req'd (13)	optional	optional		optional
MCT	MCTI			optional	req'd	optional	optional	1..255	optional
MMT	RDBI			optional	req'd	optional	optional	1..255	optional
MRT	MRTI	blank,INH		optional	req'd	optional	optional	1..255	optional
NVD	NVDI								
PAS	12 digit #			optional	req'd (7,10)	optional	optional	1..255	optional
PRT	PRTI			optional	req'd	optional	optional	1..255	optional
RDB	RDBI		blank,OP0-OP7	optional	req'd	optional	optional	1..255	optional
RNR	RDBI			optional	req'd	optional	optional	1..255	optional

Continued on next page

Form Entries, Continued

Table 7 (cont'd)

4E22/4E23 GENERICS CALL TYPE POPULATION TABLE

CALL TYPE	CALL DATA	AD1	AD2	AD3	ADC	SC	CHI	DESEP	DNST
SDX	SDINDEX	SDTYPE							
SD1	SDINDEX	SDTYPE							
SD2	SDINDEX	SDTYPE							
SD3	SDINDEX	SDTYPE							
SSP	RT	TOS	CID		req'd	optional	optional		
	RTOOY	TOS	CID		req'd	optional	optional		
	RTCOIN	TOS	CID		req'd	optional	optional		
	NCP12	TOS	CID		req'd (9,12)	optional	optional		
	DB	TOS			req'd (10)	optional	optional		
	DB7	TOS			req'd (7)	optional	optional		
	DBOOY	TOS			req'd (10)	optional	optional		
	DBCOIN	TOS			req'd (10)	optional	optional		
	EASDNA				req'd	optional	optional		
	EASEQ				req'd	optional	optional		
	NDB	NDBI			req'd	optional	ND,NDB, NDBB	1..255	
	TNSND	NDBI	CIDT		req'd	optional	ND,NDB, NDBB	1..255	
	RTP				req'd	optional	optional	1..255	
	SIAQ	TOS			req'd	optional	optional		
	SICQ	TOS			req'd	optional	optional		
	AIIO				req'd	optional	optional		
	ACPN				req'd	optional	optional		
	SFA	SFAI			req'd	optional	optional		
TEL	12 digit #	SAPN		optional	req'd (7,10)	opt (DLT)	optional	1..255	optional
TST	100..105				req'd	opt (TST)	optional		
	108, 109				req'd	opt (TST)	optional		
	SYN				req'd	opt (TST)	optional		
TTS	TTSI	GN entry optional	GNSC entry req'd if AD1	optional	req'd	optional	optional	1..255	optional

( ) - indicates standard entries < > - comments

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Form Entries, Continued

Table 7 (cont'd)

4E22/4E23 GENERICS CALL TYPE POPULATION TABLE

AD1	AD2	ADC Values	SC		CHI	
blank	blank	blank	blank	INW	blank	IBLK
Go/Nogo entry	GN Screening	2..15 International	ALAP	IOP	AAT2	ICDR
SAPN entry	Class	3..15 Domestic	ATAP	LDA	ABBB	IEA
Type of Ser (TOS)	Carrier ID (CID)		CANP	MCPP	ABLK	MSC1
LATA entry	State entry		CARP	MSC1..4	ACD	MSC2
NDBI entry	CIDT entry		CUSP	MULT	ATOS	ND
DELETE entry	entry		CUTP	NWZ1	CP00..CP19	NDB
SD index TYPE			DA	QTM	EAAR	NDBB
DOM1 entry			DLT	RSYS	EGRH	PR00..PR19
DOM2 entry			DSD	SC1..36	ESD2	WAC2
DOM3 entry			EASC	SDN	ESSD	WACK
DOM4			HAWP	SDND	FGB	WSNO
CDNT entry			ICIN	SPDI	IBBB	
TFNPA entry			INCN	SSP		
SFAI entry			INCO	TC		
	OP0..OP7		INET	TST		

AD3

Mnemonic	Calltypes	Application
A	MRT,RDB,MCT,PRT	EGRESS indicator
B	CRB,DSD,DSN,GNS,INW,PAS,PRT,RDB,TEL,TTS,MRT	Hicap indicator
C	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	Shared ABC-DEF (or ABC) (<4E21)
C	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	TSAA Provider Present (4E22>)
D	CRB,DSN,GNS,MCT,MRT,PRT,RDB,RNR	1+DL indicator
E	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	non-LEC Number
F	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	ECOS Operator Code
G	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	International Advanced Fax
H	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	Project R Phase 2 feature (4E22R4>)

Legal Values --->

|| CID = 0000..9999
|| CRBI = 1..32767
|| DELETE = 0..15 or blank
|| GNSC = 0..3
|| LATA = 000..999
|| MCTI = 1..127(255,4E20>)
||
|| MRTI = 1..8191
|| NDBI = 1..1023
|| NSN = 1..167
|| NVDI = 0..127
||
||
|| PRTI = 1..127
|| RDBI = 1..8191
|| SFAI = 0..6(39,4E23>)
|| SAPN = 0..63
|| SDINDEX = 1..16383
|| TOS = 0..31
|| TTSI = 1..31
|| CDNT = blank, ITRA*,PRIV*, CORR*, ITER*, WZ1*
|| TFNPA = blank or 8YY (Y=0,2-8)

DNST = blank,UNAS,HC800,I800,INWATS,TC,D900,DSD800, NETS,MQ,DNST1-DNST23

Go/Nogo = (G,N)
STATE = two alphabetic characters
SDTYPE = MTS,RSI,DC,DRTC,GSDN,TPC,SDN,IPR,CSRT,FPR,V31K LRN (4E22R2>),LSIX (4E22R3>)

FHTI = AR,BT,EA1-EA7,HW,IFF,INC,IVC,MCA,NCA,NCC, NCD,NWC,OOB,ROA,SP1,SP2,T,VCA,DNN,DOO,INF, E01-E20,I01-I30,ISB,LDV,LOB,LSA,NCB,NWN,OOA,OTS, R01-R10,S01-S19,SNA,STO,TDN,UNN,VMA,WAT
DOM1 = HNPA,IT,20-83,DED,DEV,DEC0,DEC1,DEC6, DER0,DER1,DER6,INCD,IVT,APN,NH0C,NH1C
DOM2 = INTO,IO56,IO64,IOH0,IOH1
DOM2 = INTO,IO56,IO64,IOH0,IOH1
DOM3 = HNPA,IT,20-83,DED,DEV,DEC6,DER6,INCD, I56D,I64C,I384,N64C,N64R,IVT,APN,NH0C,NH1C,IH1C
DOM4 = HNPA,IT,20-83,SDNA,DED,DEV,DEC6,DER6, I56D,I64C,N64C,N64R,IVT,APN
CIDT = blank,INTA,INTR,IAIR,INTL,IRIL,CIII

*DAVT domain only with CALLDATA=LSA

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Form Entries, Continued

Table 7 (cont'd)

Table 7
4E24 GENERICS CALL TYPE POPULATION TABLE

CALL TYPE	CALL DATA	AD1	AD2	AD3	ADC	SC	CHI	DESEP	DNST
CRB	CRBI				req'd	optional	optional	1..255	optional
DSD	IQ10			optional	req'd (10)	opt (DSD)	optional		optional
	SQ7			optional	req'd (7)	opt (DSD)	optional		optional
	SQ10			optional	req'd (10)	opt (DSD)	optional		optional
	IN10			optional	req'd (10)	opt (DSD)	optional		optional
	IN12			optional	req'd	opt (DSD)	optional		optional
	ITS			optional	req'd	opt (DSD)	optional		optional
	GSDN			optional	req'd (8-15)	opt (DSD)	optional		optional
	SDN7			optional	req'd (7)	opt (DSD)	optional		optional
	SD10			optional	req'd (10)	opt (DSD)	optional		optional
	ARA			optional	req'd (10)	opt (DSD)	optional		optional
	IQAR			optional	req'd (10)	opt (DSD)	optional		optional
	RDOM	DOM1		optional	req'd (10)	opt (DSD)	optional		optional
	NRAS			optional	req'd (10)	opt (DSD)	optional		optional
	D1ST			optional	req'd (10)	opt (DSD)	optional		optional
	S710			optional	req'd (7,10)	opt (DSD)	optional		optional
	S012			optional	req'd	opt (DSD)	optional		optional
	DSD1-DSD12			optional	req'd	opt (DSD)	optional		optional
DSN	NSN			optional	req'd	optional	optional	1..255	optional
EAR	RDBI			optional	req'd	optional	optional	1..255	optional
FHT	FHTI	CDNT							
GNS	RDBI	GN	GNSC entry	optional	req'd	optional	optional	1..255	
INW	blank	TFNPA		optional	req'd (10)	opt (INW)	optional		optional
	blank,0..999			optional	req'd (10)	opt (INW)	optional		optional
IRA	EAORI				req'd	optional	optional		optional
	EAORI				req'd	optional	optional		optional
	EASXP				req'd	optional	optional		optional
	EASIN				req'd	optional	optional		optional
	TRD81				req'd	optional	optional		optional
	TRDIN				req'd	optional	optional		optional
	RTRIN	DOM2			req'd	optional	optional		optional
	D2RIN	DOM2			req'd	optional	optional		optional
	RTRDOM	DOM3			req'd (10)	optional	optional		optional
	EASDN	DOM4			req'd	optional	optional		optional
	D3RDOM	DOM3			req'd (13)	optional	optional		optional
LSI	APN	LATA	STATE						
	NANP	LATA	STATE						
MCT	MCTI			optional	req'd	optional	optional	1..255	optional
MMT	RDBI			optional	req'd	optional	optional	1..255	optional
MRT	MRTI	blank,INH		optional	req'd	optional	optional	1..255	optional
NVD	NVDI								

Continued on next page

Form Entries, Continued

Table 7 (cont'd)

4E24 GENERICS CALL TYPE POPULATION TABLE

CALL TYPE	CALL DATA	AD1	AD2	AD3	ADC	SC	CHI	DESEP	DNST
PAS	12 digit #			optional	req'd (7,10)	optional	optional	1..255	optional
PRT	PRTI			optional	req'd	optional	optional	1..255	optional
RDB	RDBI		blank,OP0-OP7	optional	req'd	optional	optional	1..255	optional
RNR	RDBI			optional	req'd	optional	optional	1..255	optional
SDX	SDINDEX	SDTYPE	blank,CTR						
SD1 SD2 SD3	SDINDEX SDINDEX SDINDEX	SDTYPE SDTYPE SDTYPE							
SSP	RT RTOOY RTCOIN NCP12 DB DB7 DBOOY DBCOIN EASDNA EASEQ NDB TNSND RTP SIAQ SICQ AIIO ACPN SFA	TOS TOS TOS TOS TOS TOS TOS TOS NDBI NDBI TOS TOS SFAI	CID CID CID CID RIO RIO 		req'd req'd req'd req'd (9,12) req'd (10) req'd (7) req'd (10) req'd (10) req'd req'd req'd req'd req'd req'd req'd req'd req'd req'd	optional optional optional optional optional optional optional optional optional optional optional optional optional optional optional optional optional optional	optional optional optional optional optional optional optional optional optional optional ND,NDB, NDBB ND,NDB, NDBB optional optional optional optional optional optional	 1..255 1..255 1..255	
TEL	12 digit #	SAPN		optional	req'd (7,10)	opt (DLT)	optional	1..255	optional
TST	100..105 108, 109 SYN				req'd req'd req'd	opt (TST) opt (TST) opt (TST)	optional optional optional		
TTS	TTSI	GN entry optional	GNSC entry req'd if AD1	optional	req'd	optional	optional	1..255	optional

( ) - indicates standard entries < > - comments

Continued on next page

Form Entries, Continued

Table 7 (cont'd)

4E24 GENERICS CALL TYPE POPULATION TABLE

AD1	AD2	ADC Values	SC		CHI	
blank	blank	blank	blank	INW	blank	IBLK
Go/Nogo entry	GN Screening	2..15 International	ALAP	IOP	AAT2	ICDR
SAPN entry	Class	3..15 Domestic	ATAP	LDA	ABBB	IEA
Type of Ser (TOS)	Carrier ID (CID)		CANP	MCPP	ABLK	MSC1
LATA entry	State entry		CARP	MSC1..4	ACD	MSC2
NDBI entry	RIO entry		CUSP	MULT	ATOS	ND
DELETE entry	entry		CUTP	NWZ1	CP00..CP19	NDB
SD index TYPE	CTR		DA	QTM	EAAR	NDBB
DOM1 entry			DLT	RSYS	EGRH	PR00..PR19
DOM2 entry			DSD	SC1..36	ESD2	WAC2
DOM3 entry			EASC	SDN	ESSD	WACK
DOM4			HAWP	SDND	FGB	WSNO
TFNPA entry			ICIN	SPDI	IBBB	
SFAI entry			INCN	SSP		
	OP0..OP7		INCO	TC		
			INET	TST		

AD3Mnemonic	Calltypes	Application
A	MRT,RDB,MCT,PRT	EGRESS indicator
B	CRB,DSD,DSN,GNS,INW,PAS,PRT,RDB,TEL,TTS,MRT	Hicap indicator
C	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	TSAA Provider Present
D	CRB,DSN,GNS,MCT,MRT,PRT,RDB,RNR	1+DL indicator
E	none	No meaning - unassigned
F	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	ECOS Operator Code
G	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	International Advanced Fax
H	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	Project R Phase 2 feature (4E22R4>)
I	none	No meaning - unassigned
J	none	No meaning - unassigned
K	none	No meaning - unassigned
L	none	No meaning - unassigned

Legal Values --->

|| CID = 0000..9999
|| CRBI = 1..32767
|| DELETE = 0..15 or blank
|| GNSC = 0..3
|| LATA = 000..999
|| MCTI = 1..255
|| MRTI = 1..8191
|| NDBI = 1..1023
|| NSN = 1..167
|| NVDI = 0..127
||
||
|| PRTI = 1.127
|| RDBI = 1.8191
|| SFAI = 0..6(39,4E23>)
|| SAPN = 0..63
|| SDINDEX = 1..16383
|| TOS = 0..31
|| TTSI = 1..31
|| RIO = blank,N,Y
|| TFNPA = blank or 8YY (Y=0,2-8)

DNST = blank,UNAS,HC800,I800,INWATS,TC,D900,DSD800,
NETS,MQ,DNST1-DNST23

Go/Nogo = (G,N)
STATE = two alphabetic characters
SDTYPE = MTS,RSI,DC,DRTC,GSDN,TPC,SDN,IPR,CSRT,FPR,V31K
LRN (4E22R2>)
FHTI = AR,BT,EA1-EA7,HW,IFF,INC,IVC,MCA,NCA,NCC,
NCD,NWC,OOB,ROA,SP1,SP2,T,VCA,DNN,DOO,INF,
E01-E20,I01-I30,ISB,LDV,LOB,LSA,NCB,NWN,OOA,OTS,
R01-R10,S01-S19,SNA,STO,TDN,UNN,VMA,WAT

DOM1 = HNPA,IT,20-83,DED,DEV,DEC0,DEC1,DEC6,
DER0,DER1,DER6,INCD,IVT,APN,NH0C,NH1C
DOM2 = INTO,IO56,IO64,IOH0,IOH1
DOM2 = INTO,IO56,IO64,IOH0,IOH1
DOM3 = HNPA,IT,20-83,DED,DEV,DEC6,DER6,INCD,
I56D,I64C,I384,N64C,N64R,IVT,APN,NH0C,NH1C,IH1C
DOM4 = HNPA,IT,20-83,SDNA,DED,DEV,DEC6,DER6,
I56D,I64C,N64C,N64R,IVT,APN

Continued on next page

Form Entries, Continued

Table 7 (cont'd)

Table 7
4E25 AND LATER GENERICS CALL TYPE POPULATION TABLE

CALL TYPE	CALL DATA	AD1	AD2	AD3	ADC	SC	CHI	DESEP	DNST
CRB	CRBI				req'd	optional	optional	1..255	optional
DSD	IQ10			optional	req'd (10)	opt (DSD)	optional		optional
	SQ7			optional	req'd (7)	opt (DSD)	optional		optional
	SQ10			optional	req'd (10)	opt (DSD)	optional		optional
	IN10			optional	req'd (10)	opt (DSD)	optional		optional
	IN12			optional	req'd	opt (DSD)	optional		optional
	ITS			optional	req'd	opt (DSD)	optional		optional
	GSDN			optional	req'd (8-15)	opt (DSD)	optional		optional
	SDN7			optional	req'd (7)	opt (DSD)	optional		optional
	SD10			optional	req'd (10)	opt (DSD)	optional		optional
	ARA			optional	req'd (10)	opt (DSD)	optional		optional
	IQAR			optional	req'd (10)	opt (DSD)	optional		optional
	RDOM	DOM1		optional	req'd (10)	opt (DSD)	optional		optional
	NRAS			optional	req'd (10)	opt (DSD)	optional		optional
	D1ST			optional	req'd (10)	opt (DSD)	optional		optional
	S710			optional	req'd (7,10)	opt (DSD)	optional		optional
	S012			optional	req'd	opt (DSD)	optional		optional
	DSD1-DSD12			optional	req'd	opt (DSD)	optional		optional
DSN	NSN			optional	req'd	optional	optional	1..255	optional
EAR	RDBI			optional	req'd	optional	optional	1..255	optional
FHT	FHTI	CDNT							
GNS	RDBI	GN	GNSC entry	optional	req'd	optional	optional	1..255	
INW	blank	TFNPA		optional	req'd (10)	opt (INW)	optional		optional
	blank,0..999			optional	req'd (10)	opt (INW)	optional		optional
IRA	EAORI				req'd	optional	optional		optional
	EAORI				req'd	optional	optional		optional
	EASXP				req'd	optional	optional		optional
	EASIN				req'd	optional	optional		optional
	TRD81				req'd	optional	optional		optional
	TRDIN				req'd	optional	optional		optional
	RTRIN	DOM2			req'd	optional	optional		optional
	D2RIN	DOM2			req'd	optional	optional		optional
	RTRDOM	DOM3			req'd (10)	optional	optional		optional
	EASDN	DOM4			req'd	optional	optional		optional
	D3RDOM	DOM3			req'd (13)	optional	optional		optional
LSI	APN	LATA	STATE						
	NANP	LATA	STATE						
MCT	MCTI			optional	req'd	optional	optional	1..255	optional
MMT	RDBI			optional	req'd	optional	optional	1..255	optional
MRT	MRTI	blank,INH		optional	req'd	optional	optional	1..255	optional
NVD	NVDI								

Continued on next page

Form Entries, Continued

Table 7 (cont'd)

4E25 AND LATER GENERICS CALL TYPE POPULATION TABLE

CALL TYPE	CALL DATA	AD1	AD2	AD3	ADC	SC	CHI	DESEP	DNST
PAS	12 digit #			optional	req'd (7,10)	optional	optional	1..255	optional
PRT	PRTI			optional	req'd	optional	optional	1..255	optional
RDB	RDBI		blank,OP0-OP7	optional	req'd	optional	optional	1..255	optional
RNR	RDBI			optional	req'd	optional	optional	1..255	optional
SDX	SDINDEX	SDTYPE	blank,CTR						
SD1	SDINDEX	SDTYPE							
SD2	SDINDEX	SDTYPE							
SD3	SDINDEX	SDTYPE							
SSP	RT	TOS	CID		req'd	optional	optional		
	RTOOY	TOS	CID		req'd	optional	optional		
	RTCOIN	TOS	CID		req'd	optional	optional		
	NCP12	TOS	CID		req'd (9,12)	optional	optional		
	DB	TOS			req'd (10)	optional	optional		
	DB7	TOS			req'd (7)	optional	optional		
	DBOOY	TOS			req'd (10)	optional	optional		
	DBCOIN	TOS			req'd (10)	optional	optional		
	EASDNA				req'd	optional	optional		
	EASEQ				req'd	optional	optional		
	NDB	NDBI	RIO		req'd	optional	ND,NDB, NDBB	1..255	
	TNSND	NDBI	RIO		req'd	optional	ND,NDB, NDBB	1..255	
	RTP				req'd	optional	optional	1..255	
	SIAQ	TOS			req'd	optional	optional		
	SICQ	TOS			req'd	optional	optional		
	AIIO				req'd	optional	optional		
	ACPN				req'd	optional	optional		
	SFA	SFAI			req'd	optional	optional		
TEL	12 digit #	SAPN		optional	req'd (7,10)	opt (DLT)	optional	1..255	optional
TST	100..105				req'd	opt (TST)	optional		
	108, 109				req'd	opt (TST)	optional		
	SYN				req'd	opt (TST)	optional		
TTS	TTSI	GN entry optional	GNSC entry req'd if AD1	optional	req'd	optional	optional	1..255	optional

( ) - indicates standard entries < > - comments

Continued on next page

Form Entries, Continued

Table 7 (cont'd)

4E25 AND LATER GENERICS CALL TYPE POPULATION TABLE

AD1	AD2	ADC Values	SC		CHI	
blank	blank	blank	blank	INW	blank	IBLK
Go/Nogo entry	GN Screening	2..15 International	ALAP	IOP	AAT2	ICDR
SAPN entry	Class	3..15 Domestic	ATAP	LDA	ABBB	IEA
Type of Ser (TOS)	Carrier ID (CID)		CANP	MCPP	ABLK	MSC1
LATA entry	State entry		CARP	MSC1..4	ACD	MSC2
NDBI entry	RIO entry		CUSP	MULT	ATOS	ND
DELETE entry	entry		CUTP	NWZ1	CP00..CP19	NDB
SD index TYPE	CTR		DA	QTM	EAAR	NDBB
DOM1 entry			DLT	RSYS	EGRH	PR00..PR19
DOM2 entry			DSD	SC1..36	ESD2	WAC2
DOM3 entry			EASC	SDN	ESSD	WACK
DOM4			HAWP	SDND	FGB	WSNO
TFNPA entry			ICIN	SPDI	IBBB	
SFAI entry			INCN	SSP		
	OP0..OP7		INCO	TC		
			INET	TST		

AD3Mnemonic	Calltypes	Application
A	MRT,RDB,MCT,PRT	EGRESS indicator
B	CRB,DSD,DSN,GNS,INW,PAS,PRT,RDB,TEL,TTS,MRT	Hicap indicator
C	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	TSAA Provider Present
D	CRB,DSN,GNS,MCT,MRT,PRT,RDB,RNR	1+DL indicator
E	none	No meaning - unassigned
F	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	ECOS Operator Code
G	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	International Advanced Fax
H	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	Project R Phase 2 feature (4E22R4>)
I	none	No meaning - unassigned
J	none	No meaning - unassigned
K	none	No meaning - unassigned
L	none	No meaning - unassigned

Legal Values --->

|| CID = 0000..9999
|| CRBI = 1..32767
|| DELETE = 0..15 or blank
|| GNSC = 0..3
|| LATA = 000..999
|| MCTI = 1..255
|| MRTI = 1..8191
|| NDBI = 1..1023
|| NSN = 1..167
|| NVDI = 0..127
||
||
|| PRTI = 1.127
|| RDBI = 1.8191
|| SFAI = 0..6(39,4E23>)
|| SAPN = 0..63
|| SDINDEX = 1..16383
|| TOS = 0..31
|| TTSI = 1..31
|| RIO = blank,N,Y
|| TFNPA = blank or 8YY (Y=0,2-8)

DNST = blank,UNAS,HC800,I800,INWATS,TC,D900,DSD800,
NETS,MQ,DNST1-DNST23

Go/Nogo = (G,N)
STATE = two alphabetic characters
SDTYPE = MTS,RSI,DC,DRTC,GSDN,TPC,SDN,IPR,CSRT,FPR,V31K
LRN (4E22R2>)
FHTI = AR,BT,EA1-EA7,HW,IFF,INC,IVC,MCA,NCA,NCC,
NCD,NWC,OOB,ROA,SP1,SP2,T,VCA,DNN,DOO,INF,
E01-E20,I01-I30,ISB,LDV,LOB,LSA,NCB,NWN,OOA,OTS,
R01-R10,S01-S19,SNA,STO,TDN,UNN,VMA,WAT

DOM1 = HNPA,IT,20-83,DED,DEV,DEC0,DEC1,DEC6,
DER0,DER1,DER6,INCD,IVT,APN,NH0C,NH1C
DOM2 = INTO,IO56,IO64,IOH0,IOH1
DOM2 = INTO,IO56,IO64,IOH0,IOH1
DOM3 = HNPA,IT,20-83,DED,DEV,DEC6,DER6,INCD,
I56D,I64C,I384,N64C,N64R,IVT,APN,NH0C,NH1C,IH1C
DOM4 = HNPA,IT,20-83,SDNA,DED,DEV,DEC6,DER6,
I56D,I64C,N64C,N64R,IVT,APN

Continued on next page

Form Entries, Continued

Table 8

Table 8
GO/NO GO SCREENING CONDITIONS

GN FIELD		GNSC FIELD	TREATMENT
Go	On	0	If the subgroup class is 0, advance to routing. For subgroup class 1, 2, and 3, go to vacant code Final Handling Treatment.
Go	On	1	Class 1 to routing, class 0, 2, and 3 denied.
Go	On	2	Class 2 to routing, class 0, 1, and 3 denied.
Go	On	3	Class 3 to routing, class 0, 1, and 2 denied.
No Go	On	0	If the subgroup class is 0, go to final handling (vacant code). Allow classes 1, 2, and 3 to advance to the regular routing.
No Go	On	1	Deny class1, allow 0, 2, and 3 to advance.
No Go	On	2	Deny class 2, allow 0, 1, and 3 to advance.
No Go	On	3	Deny class 3, allow 0, 1, and 2 to advance.

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Form Entries, Continued

Keyword Index

KEYWORD	PAGE
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RC 301

General

The Recent Change (RC) Form 301 changes the treatment of a 4, 5, or 6 digit codes in the translations of the 4ESS™-2000 Switch. This message is classed as a Recent Change Data Message (RCDM).

"Table 9" shows the corresponding code group DEF/EFG digits for a given Incoming Trunk Class, Type of Service, and International Indicator bit grouping.

"Table 10" shows the corresponding code group DE/EF digits for converting the international indicator bit and Access Tandem Transit Network Selection index.

See "Table 7" of Division 3 Section 3a for the code group population rules and "Table 8" of the same section for the Go/No Go Screening conditions.

An alphabetical keyword list is included in this section on page 31.

Continued on next page

RC 301, Continued

General (cont'd.)

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  <4E22R4

RC:CODEGRP;CHG;OPT(DIG6),___:                          DOM _____, NTD _,   AC _,
                                                       ABC ___,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI   DESEP   DNST
OLD   ___, ____________________,   _____,  _______,  _____,  _____,  ___,  _______,

                AD3 ________,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 ________,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________________________________________________________!

                    EQUIVALENT ODA INPUT FORM - ESS 403E

                         ASSOCIATED VERIFY MESSAGES

                           INPUT-13b-VER:CODEGRP

                        OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 301, Continued

General (cont'd.)

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                          DOM _____, NTD _,   AC _,
                                                       ABC ___,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI   DESEP   DNST

OLD   ___, ____________________,   _____,  _______,  _____,  _____,  ___,  _______,

                AD3 ________,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 ________,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - ESS 403E

                         ASSOCIATED VERIFY MESSAGES

                           INPUT-13b-VER:CODEGRP

                        OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

Form Entries

RC:CODEGRP;CHG;OPT(DIG6),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

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Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be MISC or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e., CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

Continued on next page

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)
- **ATNS** - Access Tandem Transit Network Selection - This domain is used to translate equal access Integrated Services Digital Network User Part (ISUP) parameters to obtain the routing information.
- **NSR** - Number Services Routing - This domain will be populated with entries to perform Service Switching Point (SSP) Interexchange Carrier (IC) and International Carrier (INC) routing.

NTD

Number of Translated Digits - This field specifies the number of digits to be analyzed for this code grouping. For domestic code grouping, this number may range from 3 to 12 depending on the code group form. The first three digits are listed under the ABC field, the remaining digits, if any, are listed in the DEF, GHI, and JKL fields. Valid entry for the RC Form 300 is only **"3"** because the form only changes the ABC digits. Other digit combination changes are performed on subsequent forms.

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Form Entries, Continued

AC Area Code - A **"Y"** for Yes indicates that all of the 3-digit codes (ABC digits) on this form are Area Codes. If the ABC digits are office codes, test codes or other non-Area Codes, AC will be **"N"** for No. This field is left **"Blank"** when Domain (DOM) is not equal to Plain Old Telephone Service (POTS).

ABC The first three digits of a given set of digits (A, B, and C) - This field lists all of the 3-digit codes that make up a code group. If the Area Code (AC) field is marked **"Yes"**, this code group may consist of 3-digit combinations in the range of **"200-999"**. If this code group is not an Area Code grouping (AC = **No**), then any number combination from **"000-999"** is valid. When the AC field is **"Blank"**, ABC may be equal to **"000-999"**.

If DOM equals Plain Old Telephone Service (POTS), the 3-digit code corresponding to the Home Numbering Plan Area (HNPA) may be assigned as ABC digits if permissive dialing is allowed on the HNPA and AC = **"N"** (Offices using Traditional Routing only - (4E22>).

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

CALLTYP The Call Type is used to define the major category for the disposition of the codes listed on this form. The valid Call Type categories are as follows:

- **EAR** - The Emergency Alternate Routing feature will be used to reroute calls. The EAR Call Type will be used for code groups which must be screened for this feature and will indicate that one or more destination numbers in the code group have this feature. This feature allows business customers to redirect calls from a primary location to an alternate location when the primary location is the victim of a natural disaster, a bomb threat, or other terrorist activity.

- **FHT** - Final Handling Treatment. This identifier specifies that the listed codes will be directed to a Final Handling Treatment (FHT) announcement or tone.

- **GNS** - Go/No Go Screening - GNS specifies that this group of codes will be given GNS before the routing is determined. If this call type is entered. GN and GNSC fields must be completed.

- **PAS** - Public Announcement System - This identifier specifies that the codes listed will terminate the customer to the announcement specified in the CALLDATA field.

- **RDB** - Routing Data Block - RDB is used to specify that the set of codes listed in this form will be routed directly to Trunk Subgroups (TSGs) defined by a Routing Data Block (RDB).

- **SDX** - Subsequent Digit Index - This Call Type is used to reference a subsequent digit entry which contains several alternative routing treatments that are selected on the basis of an index determined by the type value entered as AD1. In memory, the SDX call type contains data stating the grid table size: **"1"** meaning a size of 16 entries, **"2"** meaning 128, **"3"** meaning 1024. To obtain the number of SDs, use the VER:CODEGRP:SDINDEX message (4E23>).

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Form Entries, Continued

CALLTYP (cont'd.)

- **SSP** - Service Switching Point - This identifier is used to designate the processing of a Numbered Services call.
- **TEL** - TELEVOTE with Public Announcement System - This identifier specifies that the codes listed will terminate the customer to the announcement specified in the CALLDATA field. TEL is only valid in the Plain Old Telephone Service (POTS) Domain.
- **TST** - Test - This identifier is used for the code line test combinations within a translation domain. Three digit codes under this call type would include 10X codes and the synchronous test.

CALLDATA

This field further defines the treatment given to the group of codes listed on this form. CALLDATA is an extension of the Call Type (CALLTYP). For a given CALLTYP, the CALLDATA will define the specific code group treatment. CALLTYP/CALLDATA correlation is shown below.

- **Emergency Alternate Routing (EAR) Call Type** - The CALLDATA for EAR is an RDB index in the range of **"1-8191"**.
- **FHT Call Type** - The Final Handling Treatment (FHT) CALLTYP is used to point a group of codes directly to an announcement or tone. The CALLDATA field identifies that tone or announcement circuit. Valid entries are : **"AR"**, **"BT"**, **"EA1-EA7"**, **"HW"**, **"IFF"**, **"INC"**, **"IVC"**, **"MCA"**, **"NCA"**, **"NCC"**, **"NCD"**, **"NWC"**, **"OOB"**, **"ROA"**, **"SP1"**, **"SP2"**, **"T"**, **"VCA"**, **"DNN"**, **"DPP"**, **E01-E02"**, **"I01-I30"**, **"INF"**, **"ISB"**, **"LDV"**, **"LOB"**, **"LSA"**, **"NCB"**, **"NWN"**, **"OOA"**, **"OTS"**, **"R01-R10"**, **"S01-S19"**, **"SNA"**, **"STO"**, **"TDN"**, **"UNN"**, **"VMA"**, **"WAT"**. Consult Lucent Practices 781-031-100 for further definition of various tones and announcements. See the Routing Data Block Final Handling Treatment (RDBFHT) description for the identifiers that may be specified.

Continued on next page

Form Entries, Continued

CALLDATA (cont'd.)

- **GNS Call Type** - If the GNS CALLTYP identifier is used, the CALLDATA field will contain a Routing Data Block Index (RDBI) from **"1-8191"**. This index will be used to direct the call if the Go/No Go Screening (GNSC) passes. The Go No Go (G/N) and GNSC fields specify the Go/No Go conditions. If the GNSC fails, the call is directed to the vacant code Final Handling Treatment (FHT).
- **PAS Call Type** - If Public Announcement System (PAS) Call Type is used, the CALLDATA field must contain a 12-digit announcement identifier. This identifier is made up of the 5-digit Voice Storage System Identity (VSSID) and 7-digit Service Identity (SID).
- **RDB Call Type** - For RDB, the CALLDATA field will contain a Routing Data Block Index (RDBI) from **"1-8191"**. This number will specifically identify a given set of routing parameters as listed in the RDB form with that same RDBI. The RDB entry is used to directly point a group of codes toward routing information.
- **SDX Call Type** - The CALLDATA for SDX is a Subsequent Digit Index (SDX) which identifies a particular subsequent digit entry. Valid values are **"1-16383"**.
- **SSP Call Type** - If Service Switching Point (SSP) Call Type is used, the CALLDATA field must contain one of the following identifiers:
  - **RT** - Retranslate Carrier ID (CID) and Type Of Service (TOS) plus Incoming Trunk Class (ITC) in the Number Services Routing (NSR) domain.
  - **RT00Y** - Retranslate CID TOS plus ITC in the NSR domain with a 00Y for Numbering Plan Area (NPA) lookup.
  - **RTCOIN** - Retranslate CID TOS plus ITC in the NSR domain for a 00X coin call.
  - **ACPN** - The 0ZZ-XXX[X] (or Transit Network Selection [TNS]) translation indicates Analyze the Called Party Number". For the Equal Access Multifrequency (EAMF), the switch will receive the second/third stages of digits and proceeds with digit translation looking for Called Number Triggers.

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Form Entries, Continued

CALLDATA (cont'd.)

- **AIIO** - The 0ZZ-XXX[X] (or TNS) translation indicates "Analyze the Information Digit/Originating Line Information (II/OLI)". This causes the switch to intercept the second and third stages of digits in for EAMF, and to check II/OLI for the "Send Advanced Intelligent Network (AIN) Information Collected Query" (SIAQ) value.
- **DB** - TOS and Database query.
- **DB7** - TOS and Database query for a 7-digit dialed number.
- **DB00Y** - TOS and Database query with a 00Y or NPA lookup.
- **DBCOIN** - TOS and Database query for a 00X coin call.
- **EASDNA** - Receive the Equal Access (EA) sequence and retranslate the address sequence in the Software Defined Network (SDN) Access (SDNA) domain.
- **EASEQ** - Collect the 2nd and 3rd stage digits EA format.
- **NCP12** - 12- or 9-digit address returned from the SDN NCP, the first two digits of which are deleted by the 4ESS Switch before outpulsing, retranslate the CID, TOS, and ITC in the NSR domain.
- **NDB** - Interexchange Carrier/International Carrier (IC/INC) routing. Requires Call Handling Instruction (CHI) entry of Number Services Data Block (ND), Number Services/Inhibit Black Box (NDB) or Number Services/Inhibit Black Box and Blue Box (NDBB).
- **RTP** - Retranslate the routing digits in Plain Old Telephone Service (POTS).
- **SFA** - Subscribed Footprint Area (4E22R4>)
- **SIAQ** - Send Information and Analyze Query.
- **SICQ** - The 0ZZ-XXX[X] (or TNS) translation indicates "Send AIN Information Collected Query". This causes the switch to intercept the second and third stages of digits in the EAMF case and the indicated query is sent to the Service Control Point (SCP) without any analysis of the called number.

Continued on next page

Form Entries, Continued

CALLDATA (cont'd.)

- **TNSND** - Access Tandem Transit Network Selection Digits -This identifier is used at an Access Tandem (AT) switch to handle incoming calls from equal access Integrated Services Digital Network User Part (ISUP) to outgoing equal access ISUP or MFWINK. This subtype is only used in the Access Tandem Transit Network Selection (ATNS) domain.

- **TEL** Call Type - If TEL Call Type is used, the CALLDATA field must contain a 12-digit announcement identifier. This identifier is made up of the 5-digit VSSID and 7-digit SID.

- **TST** Call Type - This identifier specifies that the group of codes on this form are test codes. The CALLDATA field will identify the test. The following combinations may be assigned.

  - **100** - Balance - provides a quiet termination.
  - **101** - Communication - provides a link to a test board or test position.
  - **102** - Milliwatt - source of 1000 hertz test tone.
  - **103** - Signal/Supervisory - This test provides a series of on-hook/off-hook transitions.
  - **105** - Automatic Transmission Measuring System (ATMS) - provides a connection to an ATMS responder.
  - **108** - Echo Suppressor - The 108 test is used to test Echo Suppressor operation.
  - **109** - This test is used to test Echo Canceller operation.
  - **DLC -** Data loopback/complement test trunk.
  - **SYN** - Synchronous - SYN specifies a signaling/supervision test similar to 103 but on an automatic timed basis.

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Form Entries, Continued

AD1 Additional Data 1 - This field further defines the treatment given to a code group translation. AD1 is an extension of the Call Type (CALLTYP) and CALLDATA words. For a given CALLTYPE and CALLDATA, the AD1 will define the specific code group treatment. Valid entries for the appropriate services are:

- **"Blank"**
- **"GNS" (Go/No Go Screening)** - If GNS Call Type is used, the AD1 field is used to enter the Go/No Go value for the Call Type. The field may contain a Go **("G")** or No Go **("N")** condition for the list of codes that appear on this form. The indication is linked with a given GNS Class in the next field. All two-way and incoming Trunk Subgroups (TSGs) are assigned a GNS Class. By manipulating the Go/No Go conditions for a group of codes, incoming traffic can be denied (sent to vacant code) on one or more TSGs and allowed to complete on others.
- **"SDTYPE" (Subsequent Digit Index Type)** - The AD1 field for SDX Call Type is used to identify the type of index that must be used to index the subsequent digit entry. Valid entries are as follows:
  - **MTS** Multiple Treatment Screening class from an incoming trunk. Valid entries are **"Blank"** or **"0 - 63"**.
  - **DC** Digit Count of the incoming call. Valid entries are **"3 - 15"**.
  - **DRTC** Data Rate Transfer Capability for Integrated Services Digital Network user Part (ISUP) to Multifrequency (MF) interworking. Valid entries are **"0 - 7"**.
  - **IPR** ISUP Preference Routing. Valid entries are:
    "0" - ISUP Preferred. The outgoing trunks should be mostly ISUP.
    "1" - ISUP not required. The outgoing trunks should be mostly non-ISUP.
    "2" - ISUP Required. All outgoing trunks must be ISUP.
    "3" - Spare
  - **V31K** Voice or 3.1kHZ indicator. Valid entries are:
    "0" - 3.1kHZ
    "1" - Voice.

Continued on next page

Form Entries, Continued

AD1
(cont'd.)

- **"SSP" (Service Switching Point)** Call Type - If SSP Call Type is used, the AD1 field is used to enter either the Type of Service (TOS) indicator value for the CALLDATA of NCP12, RT, RT00Y, RTCOIN, SICQ, DB, DB7, DB00Y, or DBCOIN or the Number Services Data Block (NDB) for the CALLDATA of NDB or TNSND, or the Subscribed Footprint Area Index (SFAI) for the CALLDATA of Subscribed Footprint Area (SFA).
  - **NDBI** - Number Services Data Block Index value defines which Interexchange Carrier or International Carrier routing control block will be used for the call. Valid input values are **"1-1023"**.
  - **SFAI** - Subscribed Footprint Area Index used to calculate a corresponding SFA domain. Valid input is **"0-6"** (**"0-39"** for 4E23>).
  - **TOS** - Type of Service entry defines which number service will be identified with this Call Type entry. Valid input is a number between **"0"** and **"31"**.
- **"SAPN"** - This field is used to specify the Slave Application Number (SAPN) assigned when the Call Type is TEL. Valid range is **"0-63"**.

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Form Entries, Continued

AD2

Additional Data 2 - This field further defines the treatment given to the group of codes listed on this form. AD2 is an extension of the Call Type (CALLTYP), CALLDATA, and AD1. For a given CALLTYPE, CALLDATA, and AD1, the AD2 will define the specific code group treatment. CALLTYPE/CALLDATA/AD1/AD2 correlation is shown below:

- **GNS (Go/No Go Screening)** Call Type - If GNS Call Type is used, the AD2 field is used to enter the Go/No Go Screening Class for the Call Type.
  - This field will have an entry when CALLTYP is GNS and AD1 is not **"Blank"**. The Go/No Go Screening Class specifies the Trunk Subgroup (TSG) class that will be allowed or denied completion to the regular routing. A range of **"0-3"** may appear in this field.
- **SSP (Service Switching Point)** Call Type - If SSP Call Type is used, the AD2 field is used to enter the Carrier IDentification (CID) indicator value for the CALLDATA of NCP12, RT, RT00Y, or RTCOIN.
  - CID - Carrier IDentification number defines which Interexchange Carrier or International Carrier will be used to route the call. Valid input is **"0000-9999"**.

  If either:
  - the DOM is Super Tandem Carrier ID (STCD) and the CALLDATA is Access Tandem Transit Network Selection Digits (TNSND) or
  - the DOM is Number Service Routing (NSR) and CALLDATA is Number Services Data Block (NDB),

  then the AD2 field specifies if the associated Carrier is allowed to receive all possible Information Digit/ Originating Line Information (II/OLI) values or is restricted only to certain values (Restrict II/OLI [RIO]). Allowed entries are:
  - **"Blank"** or **"N"** (Restrict II/OLI forwarding [DEFAULT])
  - **"Y"** (Allow II/OLI forwarding).

Continued on next page

Form Entries, Continued

SC

Service Category/Code Group. This field identifies the Service Category (SC) of the code group. This category is used to perform incoming screening on calls received from other carriers. Also, it is used to determine for which calls an Automatic Message Accounting (AMA) record or Access Charge record should be made.

As examples of screening, an Operating Company Access Tandem (AT) switch must deny calls from an Interexchange Carrier (IC) that do not terminate in the Local Access Transport Area (LATA) served by the AT.

As an example of recording, an AT must make a terminating Access Charge record for all calls it receives from an IC or INC which terminate in the LATA.

The SC defines the screening and recording classification to be used for the code group. The SC field only applies if the CALLTYP is CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, TST, or TTS. SC will also be used to specify for which calls a query will be sent to the Network Call Denial (NCD) database.

Valid Service Category entries are:

- **Blank** - If this field is **"Blank"**, the SC is unspecified.
- **ALAP** - Alaskan Plain Old Telephone Service (POTS). ALAP is the classification for POTS code groups in the Alaskan World Zone 1 area.
- **ATAP** - Access Tandem Area Pots. ATAP is only applicable if the 4ESS Switch is owned or leased by an Operating Company and used as an Access Tandem (AT) for a LATA. ATAP is the classification for the POTS code groups in the LATA served by the AT. In addition, ATAP is the category for POTS code groups in Independent Operating Company areas also served by the Tandem Switch.

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Form Entries, Continued

SC
(cont'd)

- **CANP** - Canadian POTS. CANP is the classification for POTS code groups in the Canadian World Zone 1 area.
- **CARP** - Caribbean, NON-U.S. Territories, POTS. CARP is the classification for POTS code groups in the Caribbean World Zone1 area which do not include United States territories.
- **CUSP** - Continental U. S. POTS. CUSP is the classification for POTS code groups in the continental U. S., which could not also be classified ATAP.
- **CUTP** - Caribbean, U. S. Territories, POTS. CUTP is the classification for POTS code groups in the part of the Caribbean World Zone 1 area which includes United States territories.
- **DA** - Directory Assistance. DA is used to classify code groups assigned to Directory Assistance.
- **DLT** - DIAl-It*. DLT is used to classify DIAL-It code groups.
- **DSD** - Direct Services Dialing. DSD is used to classify Direct Services Dialing code groups.
- **EASC** - Exchange Access Signaling Code. EASC is used to classify the code groups used for Exchange Access Signaling (EAS) to an Interexchange (IC) or International Carrier (INC).
- **HAWP** - Hawaiian POTS. HAWP is the classification for POTS code groups in the Hawaiian World Zone 1 area.
- **ICIN** - Inter-LATA Carrier switch owner's International Carrier (INC). ICIN is used to classify code groups for calls to the Inter-LATA Carrier switch owner's International Carrier.

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Form Entries, Continued

SC
(cont'd)

- **INCN** - International Carrier but not inter-LATA Carrier switch owner's International Carrier. INCN is used to classify code groups from an Inter-LATA Carrier switch to an International Carrier which is not owned by the Inter-LATA Carrier. In addition, these code groups are not destined for International Operators.

- **INCO** - International Carrier Operator. INCO is the classification for code groups used for calls to an International Carrier Operator.

- **INET** - This is used for Interim Nationwide Emergency Telecommunications System code groups. INW = Inward WATS.

- **INW** is used for Inward WATS code groups. IOP = Inward Operator.

- **IOP** is used to classify code groups assigned to Inward Operator positions.

- **LDA** - Local Directory Assistance. This service category is used to generate the appropriate billing record when used in conjunction with a Centralized Automatic Message Accounting (CAMA) Far End Network (FEN) block.

- **MCPP** - Multiquest Calling Party-Paid. MCPP is used to classify Multiquest code groups paid for by the calling party.

- **MULT** - Multiquest. MULT is used to classify Multiquest code groups.

- **MSC1** through **MSC4** - These miscellaneous categories can be used to classify code groups into miscellaneous categories. These may be especially useful if the 4ESS Switch is shared by an Operating Company and an Interexchange Carrier (IC). In this case, the general categories could be used to classify code groups by the carrier which owns the switch and the miscellaneous categories used for code groups handled by the carrier leasing capacity on the switch.

- **NWZ1** - Non-World Zone 1. NWZ1 is the classification for the code groups used for calls to Non-World Zone 1 area.

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Form Entries, Continued

SC
(cont'd)

- **RSYS** - Restricted System Codes. RSYS is used to classify code groups assigned as special purpose restricted system codes.

- **SC1** through **SC36** - Spare Category 1 through Spare Category 36. These SCs can be used to classify codes in up to 36 SCs. One use for these categories is screening of IntraLATA calls at an Inter-LATA Carrier Switch. For this use, a different category would be assigned to the codes for each LATA to which the InterLATA Carrier Switch connects. Another possible use for these categories is for screening International Switching Center (ISC) terminating and transit traffic. For this use, the SCs would be assigned to the Overseas codes for which special screening is required. Yet another use is extensions of the current use of the Miscellaneous Service Categories (MSCs) (e.g., at shared switches).

- **SDN** - Software Defined Network. SDN is used for calls to a Software Defined Network.

- **SDND** - SDN Data. SDND is used for Software Defined Network Data calls.

- **SPDI** - Sponsor-Paid Dial-It. SPDI is used to classify DIAL-It code groups paid for by the sponsor.

- **SSP** - Local Exchange Carrier (LEC) Service Switching Point (SSP). SSP is used to identify calls that will have SSP processing applied to them.

- **TC** - Teleconferencing. TC is used to classify code groups assigned to network Teleconferencing services.

- **TST** - Test Line. TST is used to classify code groups assigned to trunk test lines.

- **UNSP** - Unspecified. This entry is used for a verify input request of codes that contain no SC.

Continued on next page

Form Entries, Continued

CHI

Call Handling Instructions. This field is used to specify some call handling actions to override present Outgoing Signaling Characteristics (OSCs), recording, and/or fraud prevention controls. This field is needed because of the new call handling requirements for Interexchange Carrier (IC) and International Carrier (INC) Access. The CHI field only applies if the CALLTYP is CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, RDB, RNR, SSP, TEL, TST, or TTS.

NOTE: This field must be populated for some existing code groups, such as those used for 2-stage International calls and ADD-ON Teleconferencing calls. Failure to populate this field for these calls will result in failure to complete these calls.

Valid entries for CHI field are:

- **"Blank"** - If this field is **"Blank"**, no special call handling instructions are taken.
- **AAT2** - Access Tandem (AT) to IC Traditional Two-stage. This CHI value is used at the AT or Service Switching Point (SSP) to identify that a traditional two-stage international incoming call to the AT/SSP is being passed to the carrier via equal access using Integrated Services Digital Network User Part (ISUP) signaling.
- **ABBB** - Same as ACD, but in addition, disable Black Box and Blue Box fraud prevention.
- **ABLK** - Same as ACD, but in addition, disable Black Box Fraud prevention.
- **ACD** - Inward Wide Band Area Telephone Service (INWATS) ACD. Specifies that a terminating INWATS ACD record is to be made.
- **EAAR** - Expect Automatic Number identification (ANI) Assist Request. EAAR specifies actions at an intermediate toll switch for a call on which an ANI Assist Request is expected. For example, an ANI Assist Request is expected on a call to establish an ADD-ON Teleconference.

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Form Entries, Continued

CHI (cont'd.)

- **EGRH** - Egress Handling. Specifies actions at the egress switch for Direct Connect and Software Defined Network (SDN) calls. Usually, these calls will be directly terminating to a Private Branch Exchange (PBX). However, in some SDN cases, they will terminate to a local switch, either via a dedicated Trunk Subgroup (TSG) or via special NXX codes (unused office codes). EGRH can only be specified if DOM is APN, DED, or DEV. Note that it must be specified for all DED and DEV calls at the Egress switch (and not at intermediate switches) to allow the Direct Connect and/or the SDN (Offnet Egress Privilege) features.
- **ESD2** - Expect Second Start Dial 2. ESD2 specifies actions at an intermediate toll switch for a 3-stage Exchange Access call to an International Carrier (INC), including the Interexchange Carrier (IC) International Switching Center when it is able to receive Exchange Access calls.
- **ESSD** - Expect Second Start Dial. ESSD specifies actions at an intermediate toll switch for a 2-stage International call to an IC International Switching Center.
- **FGB** - Feature Group B. FGB specifies actions for calls to an IC or INC.
- **IBBB** - Same as ICDR, but in addition, disable Black Box and Blue Box fraud prevention.
- **IBLK** - Same as ICDR, but in addition, disable Black Box Fraud prevention.
- **ICDR** - International Call Detail Recording. Specifies that an ICDR record is to be made.
- **IEA** - Interim Exchange Access. IEA specifies actions for calls from an End Office (EO) unequipped to do Exchange Access signaling to an IC or INC able to handle Exchange Access signaling. (Initial plans call for these calls to have ABC digits of 950.)
- **MSC1, MSC2** - Miscellaneous 1 and 2. Two miscellaneous values are included. These can be assigned if an unforeseen set of calls require special call handling instructions.
- **ND** - Number Services Data Block information for outpulsing control.

Continued on next page

Form Entries, Continued

CHI (cont'd.)

- **NDB** - Number Services Data Block information for outpulsing control, inhibit Black Box.
- **NDBB** - Number Services Data Block information for outpulsing control, inhibit Black Box and Blue Box.
- **NONE** - This entry is used for a verify input request of codes that contain no Call Handling Instruction.
- **WACK** - Wait For Acknowledgment. WACK specifies actions for calls to an INC for which a trunk is seized and digits outpulsed. The talking path is not cut through until an Acknowledgment signal is received from the INC. This entry only applies to a 4ESS Switch owned or operated by an Operating Company as an Access Tandem (AT).
- **WAC2** - Specifies the signaling actions to be performed by an AT when connecting an Equal Access End Office (EAEO) to an INC (possibly through an Intermediate Carrier).
- **WSNO** - Wink Start No Outpulse. WSNO specifies actions for calls for which a trunk to an IC or INC is to be seized but no digits outpulsed. This is one option allowed in Exchange Access signaling, and is chosen by the IC or INC.

DESEP

Destination Separation is used to identify destinations for traffic flow purposes. Peg and usage counts are made as a function of the Trunk Sub-Group (TSG) incoming class (INSEP) and the outgoing destination class (DESEP). All outgoing or successfully terminated traffic is assigned a given destination class from **"1-255"**.

NOTE: DESEP class 63 is assigned generically for test calls. Any other assignment to class 63 should take this fact into consideration.

For code group forms, a DESEP class will be assigned only when the CALLTYP is equal to CRB, DSN, EAR, GNS, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, or TTS. This field is **"Blank"** for any other Call Type value.

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Form Entries, Continued

DNST Not Applicable - Entries: **"Blank"**

AD3 Not Applicable - Entries: **"Blank"**

ADC Acceptable Digit Count/Code Group - This field specifies the total number of incoming digits expected for a call routed to this Call Type. This field must be entered for the following Call Types: CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, TST, and TTS.

The legal values for this field are digit counts from **"3-15"** for domestic routing.

For the Call Types requiring that an ADC be input, at least one number must be specified. More than one number may be listed as valid. For example, if the Call Type points to an Routing Data Block (RDB), 6, 8 or 10 digits may be valid. Note that the number of incoming digits specified is the number of incoming digits actually received before modification by deletion or prefixing in the RDB but after A-digit reconstruction. When the Call Type treatment points to an international transit RDB (International Domain [IDOM] equals **"T"** on the RDB form) or an international originating RDB (IDOM equals **"O"**), the Language Digit (LD) is never counted in the number of digits that make up the ADC regardless of whether the LD is translated or not.

Dial Pulse (DP) and Dual Tone Multifrequency (DTMF) rely on collecting digits one-at-a-time. A range of **"3-15"** entry causes DP or DTMF critical digit timing (5 second recognize end of dialing) after each digit beyond the third digit since each digit is potentially the last. On any DP or DTMF call with less than 15 digits it causes a five second post dialing delay.

Continued on next page

Form Entries, Continued

ADC (cont'd.)

MF, CCIS, CCITT5, ISUP, and Q931 are en-block (not-one-at-a-time) digit collectors. When the complete address is received on en-block digit collectors or when a 5-second timeout occurs on the one-at-a-time digit collectors, the number of digits received is compared with the various totals specified by the ADC in the Call Type word to which this call has been directed. If the number of digits received does not match one of the totals specified by ADC and this is an en-block call, the call will be given partial dial Final Handling Treatment (FHT). If the number of digits received does not match one of the totals specified by ADC and this is a one-at-a-time call, an additional 10 seconds (total of 15 seconds) will be allowed. If no additional digit is received during this interval, the call is given partial dial FHT (Partial Dial Timeout). If the number of digits on a one-at-a-time call does match one of the totals specified by ADC and no additional digit is received within a 5-second delay, the call will be routed on the number of digits received even if there are additional digits that have not been received yet. Therefore, the ADC should not be set any lower than the number of digits needed to correctly route the call for one-at-a-time digit collectors.

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Form Entries, Continued

DEF

The fourth (D) fifth (E) and sixth (F) digits of a series. This field may contain one, two or three digits. It lists all of the four to six digits (including the three in the ABC field) combinations that belong to this Code Group. A single digit (D) specifies 4-digit translation, two digits (D and E) specifies 5-digit, and all three (DEF) requires 6-digit translation. A numeric or an **"X"** may be used to specify translation. The numeric will define a specific code while the **"X"** will represent all non-vacant numeric from **"0**-**9"**. Translation must be specified equal to the Number of Translated Digits (NTD). A numeric may not follow an **"X"**.

An **"X"** may be used for one, two, or three positions of the DEF field determined by NTD. If one **"X"** is used it must be in the F position if there are two numerics. If two "Xs" are used, they must be in the EF positions. All codes not listed will be routed to Final Handling Treatment-Vacant Code Analysis (FHT-VCA) by the Office Data Assembler (ODA) program.

If NPA + XXX is used with Area Code (AC) equal to yes, then codes 000-199 will be routed to Vacant Code. If it is necessary to route certain codes in the 000-199 range, they should be routed in the following manner.

Example:

- NPA + 0XX to a principal city for Numbering Plan Area (NPA)
- NPA + 1XX to a principal city for NPA
- NPA + XXX to city "A" in NPA.

If Domain (DOM) equals Plain Old Telephone Service (POTS), AC equals Yes, and the ABC digits equal the 3-digit code associated with a Served NPA, then the 3-digit codes corresponding to the Home NPA (Traditional Routing Only - (4E22>)) and the Served NPA must not be assigned as DEF digits.

Continued on next page

Form Entries, Continued

TABLE 9

Table 9
Code Group DEF/EFG Digits

ITC = 0[1] ITL = 0[3] OPER = 0[6]			ITC = 1[1] ITL = 0[3] OPER = 0[6]			ITC = 2[1] ITL = 0[3] OPER = 0[6]			ITC = 3[1] ITL = 0[3] OPER = 0[6]		
	<4E17 4E18>			<4E17 4E18>			<4E17 4E18>			<4E17 4E18>	
TOS [2]	DEF [4]	EFG [5]	TOS [2]	DEF [4]	EFG [5]	TOS [2]	DEF [4]	EFG [5]	TOS [2]	DEF [4]	EFG [5]
0	000	000	0	064	001	0	128	002	0	192	003
1	002	010	1	066	011	1	130	012	1	194	013
2	004	020	2	068	021	2	132	022	2	196	023
3	006	030	3	070	031	3	134	032	3	198	033
4	008	040	4	072	041	4	136	042	4	200	043
5	010	050	5	074	051	5	138	052	5	202	053
6	012	060	6	076	061	6	140	062	6	204	063
7	014	070	7	078	071	7	142	072	7	206	073
8	016	080	8	080	081	8	144	082	8	208	083
9	018	090	9	082	091	9	146	092	9	210	093
10	020	100	10	084	101	10	148	102	10	212	103
11	022	110	11	086	111	11	150	112	11	214	113
12	024	120	12	088	121	12	152	122	12	216	123
13	026	130	13	090	131	13	154	132	13	218	133
14	028	140	14	092	141	14	156	142	14	220	143
15	030	150	15	094	151	15	158	152	15	222	153
16	032	160	16	096	161	16	160	162	16	224	163
17	034	170	17	098	171	17	162	172	17	226	173
18	036	180	18	100	181	18	164	182	18	228	183
19	038	190	19	102	191	19	166	192	19	230	193
20	040	200	20	104	201	20	168	202	20	232	203
21	042	210	21	106	211	21	170	212	21	234	213
22	044	220	22	108	221	22	172	222	22	236	223
23	046	230	23	110	231	23	174	232	23	238	233
24	048	240	24	112	241	24	176	242	24	240	243
25	050	250	25	114	251	25	178	252	25	242	253
26	052	260	26	116	261	26	180	262	26	244	263
27	054	270	27	118	271	27	182	272	27	246	273
28	056	280	28	120	281	28	184	282	28	248	283
29	058	290	29	122	291	29	186	292	29	250	293
30	060	300	30	124	301	30	188	302	30	252	303
31	062	310	31	126	311	31	190	312	31	254	313

[1] ITC = Incoming Trunk Class
[2] TOS = Type Of Service
[3] ITL = International Bit
[4] DEF = DEF Digits
[5] EFG = EFG Digits
[6] OPER = Route to Operator Position

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Form Entries, Continued

TABLE 9
(cont'd)

Table 9
Code Group DEF/EFG Digits

ITC = 0[1] ITL = 0[3] OPER = 0[6]			ITC = 1[1] ITL = 0[3] OPER = 0[6]			ITC = 2[1] ITL = 0[3] OPER = 0[6]			ITC = 3[1] ITL = 0[3] OPER = 0[6]		
	<4E17	4E18>		<4E17	4E18>		<4E17	4E18>		<4E17	4E18>
TOS [2]	DEF [4]	EFG [5]	TOS [2]	DEF [4]	EFG [5]	TOS [2]	DEF [4]	EFG [5]	TOS [2]	DEF [4]	EFG [5]
0	001	004	0	065	005	0	129	006	0	193	007
1	003	014	1	067	015	1	131	016	1	195	017
2	005	024	2	069	025	2	133	026	2	197	027
3	007	034	3	071	035	3	135	036	3	199	037
4	009	044	4	073	045	4	137	046	4	201	047
5	011	054	5	075	055	5	139	056	5	203	057
6	013	064	6	077	065	6	141	066	6	205	067
7	015	074	7	079	075	7	143	076	7	207	077
8	017	084	8	081	085	8	145	086	8	209	087
9	019	094	9	083	095	9	147	096	9	211	097
10	021	104	10	085	105	10	149	106	10	213	107
11	023	114	11	087	115	11	151	116	11	215	117
12	025	124	12	089	125	12	153	126	12	217	127
13	027	134	13	091	135	13	155	136	13	219	137
14	029	144	14	093	145	14	157	146	14	221	147
15	031	154	15	095	155	15	159	156	15	223	157
16	033	164	16	097	165	16	161	166	16	225	167
17	035	174	17	099	175	17	163	176	17	227	177
18	037	184	18	101	185	18	165	186	18	229	187
19	039	194	19	103	195	19	167	196	19	231	197
20	041	204	20	105	205	20	169	206	20	233	207
21	043	214	21	107	215	21	171	216	21	235	217
22	045	224	22	109	225	22	173	226	22	237	227
23	047	234	23	111	235	23	175	236	23	239	237
24	049	244	24	113	245	24	177	246	24	241	247
25	051	254	25	115	255	25	179	256	25	243	257
26	053	264	26	117	265	26	181	266	26	245	267
27	055	274	27	119	275	27	183	276	27	247	277
28	057	284	28	121	285	28	185	286	28	249	287
29	059	294	29	123	295	29	187	296	29	251	297
30	061	304	30	125	305	30	189	306	30	253	307
31	063	314	31	127	315	31	191	316	31	255	317

[1] ITC = Incoming Trunk Class
[2] TOS = Type Of Service
[3] ITL = International Bit
[4] DEF = DEF Digits
[5] EFG = EFG Digits
[6] OPER = Route to Operator Position

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Form Entries, Continued

TABLE 9
(cont'd)

Table 9
Code Group DEF/EFG Digits

ITC = 0[1] ITL = 0[3] OPER = 0[6]			ITC = 1[1] ITL = 0[3] OPER = 0[6]			ITC = 2[1] ITL = 0[3] OPER = 0[6]			ITC = 3[1] ITL = 0[3] OPER = 0[6]		
	<4E17	4E18>		<4E17	4E18>		<4E17	4E18>		<4E17	4E18>
TOS [2]	DEF [4]	EFG [5]	TOS [2]	DEF [4]	EFG [5]	TOS [2]	DEF [4]	EFG [5]	TOS [2]	DEF [4]	EFG [5]
0	000	320	0	064	321	0	128	322	0	192	323
1	002	330	1	066	331	1	130	332	1	194	333
2	004	340	2	068	341	2	132	342	2	196	343
3	006	350	3	070	351	3	134	352	3	198	353
4	008	360	4	072	361	4	136	362	4	200	363
5	010	370	5	074	371	5	138	372	5	202	373
6	012	380	6	076	381	6	140	382	6	204	383
7	014	390	7	078	391	7	142	392	7	206	393
8	016	400	8	080	401	8	144	402	8	208	403
9	018	410	9	082	411	9	146	412	9	210	413
10	020	420	10	084	421	10	148	422	10	212	423
11	022	430	11	086	431	11	150	432	11	214	433
12	024	440	12	088	441	12	152	442	12	216	443
13	026	450	13	090	451	13	154	452	13	218	453
14	028	460	14	092	461	14	156	462	14	220	463
15	030	470	15	094	471	15	158	472	15	222	473
16	032	480	16	096	481	16	160	482	16	224	483
17	034	490	17	098	491	17	162	492	17	226	493
18	036	500	18	100	501	18	164	502	18	228	503
19	038	510	19	102	511	19	166	512	19	230	513
20	040	520	20	104	521	20	168	522	20	232	523
21	042	530	21	106	531	21	170	532	21	234	533
22	044	540	22	108	541	22	172	542	22	236	543
23	046	550	23	110	551	23	174	552	23	238	553
24	048	560	24	112	561	24	176	562	24	240	563
25	050	570	25	114	571	25	178	572	25	242	573
26	052	580	26	116	581	26	180	582	26	244	583
27	054	590	27	118	591	27	182	592	27	246	593
28	056	600	28	120	601	28	184	602	28	248	603
29	058	610	29	122	611	29	186	612	29	250	613
30	060	620	30	124	621	30	188	622	30	252	623
31	063	630	31	126	631	31	190	632	31	254	633

[1] ITC = Incoming Trunk Class
[2] TOS = Type Of Service
[3] ITL = International Bit
[4] DEF = DEF Digits
[5] EFG = EFG Digits
[6] OPER = Route to Operator Position

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Form Entries, Continued

TABLE 9
(cont'd)

Table 9
Code Group DEF/EFG Digits

ITC = 0[1] ITL = 0[3] OPER = 0[6]			ITC = 1[1] ITL = 0[3] OPER = 0[6]			ITC = 2[1] ITL = 0[3] OPER = 0[6]			ITC = 3[1] ITL = 0[3] OPER = 0[6]		
	<4E17	4E18>		<4E17	4E18>		<4E17	4E18>		<4E17	4E18>
TOS [2]	DEF [4]	EFG [5]	TOS [2]	DEF [4]	EFG [5]	TOS [2]	DEF [4]	EFG [5]	TOS [2]	DEF [4]	EFG [5]
0	001	324	0	065	325	0	129	326	0	193	327
1	003	334	1	067	335	1	131	336	1	195	337
2	005	344	2	069	345	2	133	346	2	197	347
3	007	354	3	071	355	3	135	356	3	199	357
4	009	364	4	073	365	4	137	366	4	201	367
5	011	374	5	075	375	5	139	376	5	203	377
6	013	384	6	077	385	6	141	386	6	205	387
7	015	394	7	079	395	7	143	396	7	207	397
8	017	404	8	081	405	8	145	406	8	209	407
9	019	414	9	083	415	9	147	416	9	211	417
0	021	424	10	085	425	10	149	426	10	213	427
11	023	434	11	087	435	11	151	436	11	215	437
12	025	444	12	089	445	12	153	446	12	217	447
13	027	454	13	091	455	13	155	456	13	219	457
14	029	464	14	093	465	14	157	466	14	221	467
15	031	474	15	095	475	15	159	476	15	223	477
16	033	484	16	097	485	16	161	486	16	225	487
17	035	494	17	099	495	17	163	496	17	227	497
18	037	504	18	101	505	18	165	506	18	229	507
19	039	514	19	103	515	19	167	516	19	231	517
20	041	524	20	105	525	20	169	526	20	233	527
21	043	534	21	107	535	21	171	536	21	235	537
22	045	544	22	109	545	22	173	546	22	237	547
23	047	554	23	111	555	23	175	556	23	239	557
24	049	564	24	113	565	24	177	566	24	241	567
25	051	574	25	115	575	25	179	576	25	243	577
26	053	584	26	117	585	26	181	586	26	245	587
27	055	594	27	119	595	27	183	596	27	247	597
28	057	604	28	121	605	28	185	606	28	249	607
29	059	614	29	123	615	29	187	616	29	251	617
30	061	624	30	125	625	30	189	626	30	253	627
31	063	634	31	127	635	31	191	636	31	255	637

[1] ITC = Incoming Trunk Class
[2] TOS = Type Of Service
[3] ITL = International Bit
[4] DEF = DEF Digits
[5] EFG = EFG Digits
[6] OPER = Route to Operator Position

Continued on next page

Form Entries, Continued

TABLE 10

Table 10
Code Group DE/EF Digits

ITL = 0[2]			ITL = 1[2]		
TNSI [1]	<4E17 DE [3]	4E18> EF [4]	TNSI [1]	<4E17 DE [3]	4E18> EF [4]
0	00	00	0	16	16
1	01	01	1	17	17
2	02	02	2	18	18
3	03	03	3	19	19
4	04	04	4	20	20
5	05	05	5	21	21
6	06	06	6	22	22
7	07	07	7	23	23
8	08	08	8	24	24
9	09	09	9	25	25
10	10	10	10	26	26
11	11	11	11	27	27
12	12	12	12	28	28
13	13	13	13	29	29
14	14	14	14	30	30
15	15	15	15	31	31

[1] TNSI = Access Tandem Transit Network Selection Index
[2] ITL = International Bit
[3] DE = DE Digits
[4] EF = EF Digits

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ABC	7
AC	7
AD1	13
AD2	15
AD3	23
ADC	23
CALLDATA	9
CALLTYP	8
CHI	20
DEF	25
DESEP	22
DNST	23
DOM	5
NTD	6
ORNU	7
RC:CODEGRP;CHG;OPT(DIG6),- - -:	4
SC	16

Continued on next page

Form Entries, Continued

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RC 302

General

The Recent Change (RC) Form 302 changes the treatment of a 7, 8, or 9 digit codes in the translations of the 4ESS™-2000 Switch. This message is classed as a Recent Change Data Message (RCDM).

See "Table 7" of Division 3 Section 3a for the code group population rules and "Table 8" of the same section for the Go/No Go Screening conditions.

See "Table 9" of Division 3 Section 3b for defining for a given Incoming Trunk Class, Type of Service, and International Indicator bit grouping.

An alphabetical keyword list is included in this section on page 25.

Continued on next page

RC 302, Continued

General
(cont'd.)

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
      <4E22R4

    RC:CODEGRP;CHG;OPT(DIG9),___:                    DOM _____, NTD _,   AC _,
                                                     ABC ___,  DEF ___,

  ORNU _______,

       CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP   DNST
  OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                  AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                  AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

     GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

     ___, ___, ___, ___, ___, ___, ___, ___,
     ___, ___, ___, ___, ___, ___, ___, ___,
     ___, ___, ___, ___, ___, ___, ___, ___,
     ___, ___, ___, ___, ___, ___, ___, ___,

     REMARKS ____________________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 403F

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-13b-VER:CODEGRP

                      OUTPUT-3e-VER:CODEGRP;OPT(DIG9)
```

Continued on next page

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RC 302, Continued

General
(cont'd.)

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
     4E23R1>

   RC:CODEGRP;CHG;OPT(DIG9),___:                    DOM _____, NTD _,   AC _,
                                                    ABC ___,  DEF ___,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP   DNST

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

   GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

   ___, ___, ___, ___, ___, ___, ___, ___,
   ___, ___, ___, ___, ___, ___, ___, ___,
   ___, ___, ___, ___, ___, ___, ___, ___,
   ___, ___, ___, ___, ___, ___, ___, ___,

   REMARKS ____________________________________________________!

                EQUIVALENT ODA INPUT FORM - ESS 403F

                     ASSOCIATED VERIFY MESSAGES

                       INPUT-13b-VER:CODEGRP

                   OUTPUT-3e-VER:CODEGRP;OPT(DIG9)
```

Form Entries

RC:CODEGRP;CHG;OPT(DIG789),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

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Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be MISC or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e., CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

Continued on next page

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)
- **ATNS** - Access Tandem Transit Network Selection - This domain is used to translate equal access Integrated Services Digital Network User Part (ISUP) parameters to obtain the routing information.
- **NSR** - Number Services Routing - This domain will be populated with entries to perform Service Switching Point (SSP) Interexchange Carrier (IC) and International Carrier (INC) routing.

NTD

Number of Translated Digits - This field specifies the number of digits to be analyzed for this code grouping. For domestic code grouping, this number may range from 3 to 12 depending on the code group form. The first three digits are listed under the ABC field, the remaining digits, if any, are listed in the DEF, GHI, and JKL fields. Valid entry for the RC Form 300 is only **"3"** because the form only changes the ABC digits. Other digit combination changes are performed on subsequent forms.

AC

Area Code - A **"Y"** for Yes indicates that all of the 3-digit codes (ABC digits) on this form are Area Codes. If the ABC digits are office codes, test codes or other non-Area Codes, AC will be **"N"** for No. This field is left **"Blank"** when Domain (DOM) is not equal to Plain Old Telephone Service (POTS).

Continued on next page

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Form Entries, Continued

ABC The first three digits of a given set of digits (A, B, and C) - This field lists all of the 3-digit codes that make up a code group. If the Area Code (AC) field is marked **"Yes"**, this code group may consist of 3-digit combinations in the range of **"200-999"**. If this code group is not an Area Code grouping (AC = **No**), then any number combination from **"000-999"** is valid. When the AC field is **"Blank"**, ABC may be equal to **"000-999"**.

If DOM equals Plain Old Telephone Service (POTS), the 3-digit code corresponding to the Home Numbering Plan Area (HNPA) may be assigned as ABC digits if permissive dialing is allowed on the HNPA and AC = **"N"** (Offices using Traditional Routing only - (4E22>).

DEF This field lists the fourth (D) fifth (E) and sixth (F) digits of the code group definition. This field contains three digits.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

CALLTYP The Call Type is used to define the major category for the disposition of the codes listed on this form. The valid Call Type categories are as follows:

- **EAR** - The Emergency Alternate Routing feature will be used to reroute calls. The EAR Call Type will be used for code groups which must be screened for this feature and will indicate that one or more destination numbers in the code group have this feature. This feature allows business customers to redirect calls from a primary location to an alternate location when the primary location is the victim of a natural disaster, a bomb threat, or other terrorist activity.

- **FHT** - Final Handling Treatment. This identifier specifies that the listed codes will be directed to a Final Handling Treatment (FHT) announcement or tone.

- **GNS** - Go/No Go Screening - GNS specifies that this group of codes will be given GNS before the routing is determined. If this call type is entered. GN and GNSC fields must be completed.

- **PAS** - Public Announcement System - This identifier specifies that the codes listed will terminate the customer to the announcement specified in the CALLDATA field.

- **RDB** - Routing Data Block - RDB is used to specify that the set of codes listed in this form will be routed directly to Trunk Subgroups (TSGs) defined by a Routing Data Block (RDB).

- **SDX** - Subsequent Digit Index - This Call Type is used to reference a subsequent digit entry which contains several alternative routing treatments that are selected on the basis of an index determined by the type value entered as AD1. In memory, the SDX call type contains data stating the grid table size: **"1"** meaning a size of 16 entries, **"2"** meaning 128, **"3"** meaning 1024. To obtain the number of SDs, use the VER:CODEGRP:SDINDEX message (4E23>).

Continued on next page

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Form Entries, Continued

CALLTYP (cont'd.)

- **SSP** - Service Switching Point - This identifier is used to designate the processing of a Numbered Services call.
- **TEL** - TELEVOTE with Public Announcement System - This identifier specifies that the codes listed will terminate the customer to the announcement specified in the CALLDATA field. TEL is only valid in the Plain Old Telephone Service (POTS) Domain.
- **TST** - Test - This identifier is used for the code line test combinations within a translation domain. Three digit codes under this call type would include 10X codes and the synchronous test.

CALLDATA

This field further defines the treatment given to the group of codes listed on this form. CALLDATA is an extension of the Call Type (CALLTYP). For a given CALLTYP, the CALLDATA will define the specific code group treatment. CALLTYP/CALLDATA correlation is shown below.

- **Emergency Alternate Routing (EAR) Call Type** - The CALLDATA for EAR is an RDB index in the range of **"1-8191"**.
- **FHT Call Type** - The Final Handling Treatment (FHT) CALLTYP is used to point a group of codes directly to an announcement or tone. The CALLDATA field identifies that tone or announcement circuit. Valid entries are : **"AR"**, **"BT"**, **"EA1-EA7"**, **"HW"**, **"IFF"**, **"INC"**, **"IVC"**, **"MCA"**, **"NCA"**, **"NCC"**, **"NCD"**, **"NWC"**, **"OOB"**, **"ROA"**, **"SP1"**, **"SP2"**, **"T"**, **"VCA"**, **"DNN"**, **"DPP"**, **E01-E02"**, **"I01-I30"**, **"INF"**, **"ISB"**, **"LDV"**, **"LOB"**, **"LSA"**, **"NCB"**, **"NWN"**, **"OOA"**, **"OTS"**, **"R01-R10"**, **"S01-S19"**, **"SNA"**, **"STO"**, **"TDN"**, **"UNN"**, **"VMA"**, **"WAT"**. Consult Lucent Practices 781-031-100 for further definition of various tones and announcements. See the Routing Data Block Final Handling Treatment (RDBFHT) description for the identifiers that may be specified.

Continued on next page

Form Entries, Continued

CALLDATA (cont'd.)

- **GNS Call Type** - If the GNS CALLTYP identifier is used, the CALLDATA field will contain a Routing Data Block Index (RDBI) from **"1-8191"**. This index will be used to direct the call if the Go/No Go Screening (GNSC) passes. The Go No Go (G/N) and GNSC fields specify the Go/No Go conditions. If the GNSC fails, the call is directed to the vacant code Final Handling Treatment (FHT).

- **PAS Call Type** - If Public Announcement System (PAS) Call Type is used, the CALLDATA field must contain a 12-digit announcement identifier. This identifier is made up of the 5-digit Voice Storage System Identity (VSSID) and 7-digit Service Identity (SID).

- **RDB Call Type** - For RDB, the CALLDATA field will contain a Routing Data Block Index (RDBI) from **"1-8191"**. This number will specifically identify a given set of routing parameters as listed in the RDB form with that same RDBI. The RDB entry is used to directly point a group of codes toward routing information.

- **SDX Call Type** - The CALLDATA for SDX is a Subsequent Digit Index (SDX) which identifies a particular subsequent digit entry. Valid values are **"1-16383"**.

- **SSP Call Type** - If Service Switching Point (SSP) Call Type is used, the CALLDATA field must contain one of the following identifiers:

  - **RT** - Retranslate Carrier ID (CID) and Type Of Service (TOS) plus Incoming Trunk Class (ITC) in the Number Services Routing (NSR) domain.
  - **RT00Y** - Retranslate CID TOS plus ITC in the NSR domain with a 00Y for Numbering Plan Area (NPA) lookup.
  - **RTCOIN** - Retranslate CID TOS plus ITC in the NSR domain for a 00X coin call.
  - **ACPN** - The 0ZZ-XXX[X] (or Transit Network Selection [TNS]) translation indicates Analyze the Called Party Number". For the Equal Access Multifrequency (EAMF), the switch will receive the second/third stages of digits and proceeds with digit translation looking for Called Number Triggers.

Continued on next page

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Form Entries, Continued

CALLDATA (cont'd.)

- **AIIO** - The 0ZZ-XXX[X] (or TNS) translation indicates "Analyze the Information Digit/Originating Line Information (II/OLI)". This causes the switch to intercept the second and third stages of digits in for EAMF, and to check II/OLI for the "Send Advanced Intelligent Network (AIN) Information Collected Query" (SIAQ) value.
- **DB** - TOS and Database query.
- **DB7** - TOS and Database query for a 7-digit dialed number.
- **DB00Y** - TOS and Database query with a 00Y or NPA lookup.
- **DBCOIN** - TOS and Database query for a 00X coin call.
- **EASDNA** - Receive the Equal Access (EA) sequence and retranslate the address sequence in the Software Defined Network (SDN) Access (SDNA) domain.
- **EASEQ** - Collect the 2nd and 3rd stage digits EA format.
- **NCP12** - 12- or 9-digit address returned from the SDN NCP, the first two digits of which are deleted by the 4ESS Switch before outpulsing, retranslate the CID, TOS, and ITC in the NSR domain.
- **NDB** - Interexchange Carrier/International Carrier (IC/INC) routing. Requires Call Handling Instruction (CHI) entry of Number Services Data Block (ND), Number Services/Inhibit Black Box (NDB) or Number Services/Inhibit Black Box and Blue Box (NDBB).
- **RTP** - Retranslate the routing digits in Plain Old Telephone Service (POTS).
- **SFA** - Subscribed Footprint Area (4E22R4>)
- **SIAQ** - Send Information and Analyze Query.
- **SICQ** - The 0ZZ-XXX[X] (or TNS) translation indicates "Send AIN Information Collected Query". This causes the switch to intercept the second and third stages of digits in the EAMF case and the indicated query is sent to the Service Control Point (SCP) without any analysis of the called number.

Continued on next page

Form Entries, Continued

CALLDATA (cont'd.)

- **TNSND** - Access Tandem Transit Network Selection Digits -This identifier is used at an Access Tandem (AT) switch to handle incoming calls from equal access Integrated Services Digital Network User Part (ISUP) to outgoing equal access ISUP or MFWINK. This subtype is only used in the Access Tandem Transit Network Selection (ATNS) domain.

- **TEL** Call Type - If TEL Call Type is used, the CALLDATA field must contain a 12-digit announcement identifier. This identifier is made up of the 5-digit VSSID and 7-digit SID.

- **TST** Call Type - This identifier specifies that the group of codes on this form are test codes. The CALLDATA field will identify the test. The following combinations may be assigned.

  - **100** - Balance - provides a quiet termination.
  - **101** - Communication - provides a link to a test board or test position.
  - **102** - Milliwatt - source of 1000 hertz test tone.
  - **103** - Signal/Supervisory - This test provides a series of on-hook/off-hook transitions.
  - **105** - Automatic Transmission Measuring System (ATMS) - provides a connection to an ATMS responder.
  - **108** - Echo Suppressor - The 108 test is used to test Echo Suppressor operation.
  - **109** - This test is used to test Echo Canceller operation.
  - **DLC -** Data loopback/complement test trunk.
  - **SYN** - Synchronous - SYN specifies a signaling/supervision test similar to 103 but on an automatic timed basis.

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Form Entries, Continued

AD1 Additional Data 1 - This field further defines the treatment given to a code group translation. AD1 is an extension of the Call Type (CALLTYP) and CALLDATA words. For a given CALLTYPE and CALLDATA, the AD1 will define the specific code group treatment. Valid entries for the appropriate services are:

- **"Blank"**
- **"GNS" (Go/No Go Screening)** - If GNS Call Type is used, the AD1 field is used to enter the Go/No Go value for the Call Type. The field may contain a Go **("G")** or No Go **("N")** condition for the list of codes that appear on this form. The indication is linked with a given GNS Class in the next field. All two-way and incoming Trunk Subgroups (TSGs) are assigned a GNS Class. By manipulating the Go/No Go conditions for a group of codes, incoming traffic can be denied (sent to vacant code) on one or more TSGs and allowed to complete on others.
- **"SDTYPE" (Subsequent Digit Index Type)** - The AD1 field for SDX Call Type is used to identify the type of index that must be used to index the subsequent digit entry. Valid entries are as follows:
  - **MTS** Multiple Treatment Screening class from an incoming trunk. Valid entries are **"Blank"** or **"0 - 63"**.
  - **DC** Digit Count of the incoming call. Valid entries are **"3 - 15"**.
  - **DRTC** Data Rate Transfer Capability for Integrated Services Digital Network user Part (ISUP) to Multifrequency (MF) interworking. Valid entries are **"0 - 7"**.
  - **IPR** ISUP Preference Routing. Valid entries are:
    "0" - ISUP Preferred. The outgoing trunks should be mostly ISUP.
    "1" - ISUP not required. The outgoing trunks should be mostly non-ISUP.
    "2" - ISUP Required. All outgoing trunks must be ISUP.
    "3" - Spare
  - **V31K** Voice or 3.1kHZ indicator. Valid entries are:
    "0" - 3.1kHZ
    "1" - Voice.

Continued on next page

Form Entries, Continued

AD1
(cont'd.)

- **"SSP" (Service Switching Point)** Call Type - If SSP Call Type is used, the AD1 field is used to enter either the Type of Service (TOS) indicator value for the CALLDATA of NCP12, RT, RT00Y, RTCOIN, SICQ, DB, DB7, DB00Y, or DBCOIN or the Number Services Data Block (NDB) for the CALLDATA of NDB or TNSND, or the Subscribed Footprint Area Index (SFAI) for the CALLDATA of Subscribed Footprint Area (SFA).
  - **NDBI** - Number Services Data Block Index value defines which Interexchange Carrier or International Carrier routing control block will be used for the call. Valid input values are **"1-1023"**.
  - **SFAI** - Subscribed Footprint Area Index used to calculate a corresponding SFA domain. Valid input is **"0-6"** (**"0-39"** for 4E23>).
  - **TOS** - Type of Service entry defines which number service will be identified with this Call Type entry. Valid input is a number between **"0"** and **"31"**.
- **"SAPN"** - This field is used to specify the Slave Application Number (SAPN) assigned when the Call Type is TEL. Valid range is **"0-63"**.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

AD2

Additional Data 2 - This field further defines the treatment given to the group of codes listed on this form. AD2 is an extension of the Call Type (CALLTYP), CALLDATA, and AD1. For a given CALLTYPE, CALLDATA, and AD1, the AD2 will define the specific code group treatment. CALLTYPE/CALLDATA/AD1/AD2 correlation is shown below:

- **GNS (Go/No Go Screening)** Call Type - If GNS Call Type is used, the AD2 field is used to enter the Go/No Go Screening Class for the Call Type.
  - This field will have an entry when CALLTYP is GNS and AD1 is not **"Blank"**. The Go/No Go Screening Class specifies the Trunk Subgroup (TSG) class that will be allowed or denied completion to the regular routing. A range of **"0-3"** may appear in this field.
- **SSP (Service Switching Point)** Call Type - If SSP Call Type is used, the AD2 field is used to enter the Carrier IDentification (CID) indicator value for the CALLDATA of NCP12, RT, RT00Y, or RTCOIN.
  - CID - Carrier IDentification number defines which Interexchange Carrier or International Carrier will be used to route the call. Valid input is **"0000-9999"**.

  If either:
  - the DOM is Super Tandem Carrier ID (STCD) and the CALLDATA is Access Tandem Transit Network Selection Digits (TNSND) or
  - the DOM is Number Service Routing (NSR) and CALLDATA is Number Services Data Block (NDB),

  then the AD2 field specifies if the associated Carrier is allowed to receive all possible Information Digit/ Originating Line Information (II/OLI) values or is restricted only to certain values (Restrict II/OLI [RIO]). Allowed entries are:
  - **"Blank"** or **"N"** (Restrict II/OLI forwarding [DEFAULT])
  - **"Y"** (Allow II/OLI forwarding).

Continued on next page

Form Entries, Continued

SC

Service Category/Code Group. This field identifies the Service Category (SC) of the code group. This category is used to perform incoming screening on calls received from other carriers. Also, it is used to determine for which calls an Automatic Message Accounting (AMA) record or Access Charge record should be made.

As examples of screening, an Operating Company Access Tandem (AT) switch must deny calls from an Interexchange Carrier (IC) that do not terminate in the Local Access Transport Area (LATA) served by the AT.

As an example of recording, an AT must make a terminating Access Charge record for all calls it receives from an IC or INC which terminate in the LATA.

The SC defines the screening and recording classification to be used for the code group. The SC field only applies if the CALLTYP is CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, TST, or TTS. SC will also be used to specify for which calls a query will be sent to the Network Call Denial (NCD) database.

Valid Service Category entries are:

- **Blank** - If this field is **"Blank"**, the SC is unspecified.
- **ALAP** - Alaskan Plain Old Telephone Service (POTS). ALAP is the classification for POTS code groups in the Alaskan World Zone 1 area.
- **ATAP** - Access Tandem Area Pots. ATAP is only applicable if the 4ESS Switch is owned or leased by an Operating Company and used as an Access Tandem (AT) for a LATA. ATAP is the classification for the POTS code groups in the LATA served by the AT. In addition, ATAP is the category for POTS code groups in Independent Operating Company areas also served by the Tandem Switch.

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Form Entries, Continued

SC
(cont'd)

- **CANP** - Canadian POTS. CANP is the classification for POTS code groups in the Canadian World Zone 1 area.
- **CARP** - Caribbean, NON-U.S. Territories, POTS. CARP is the classification for POTS code groups in the Caribbean World Zone1 area which do not include United States territories.
- **CUSP** - Continental U. S. POTS. CUSP is the classification for POTS code groups in the continental U. S., which could not also be classified ATAP.
- **CUTP** - Caribbean, U. S. Territories, POTS. CUTP is the classification for POTS code groups in the part of the Caribbean World Zone 1 area which includes United States territories.
- **DA** - Directory Assistance. DA is used to classify code groups assigned to Directory Assistance.
- **DLT** - DIAl-It*. DLT is used to classify DIAL-It code groups.
- **DSD** - Direct Services Dialing. DSD is used to classify Direct Services Dialing code groups.
- **EASC** - Exchange Access Signaling Code. EASC is used to classify the code groups used for Exchange Access Signaling (EAS) to an Interexchange (IC) or International Carrier (INC).
- **HAWP** - Hawaiian POTS. HAWP is the classification for POTS code groups in the Hawaiian World Zone 1 area.
- **ICIN** - Inter-LATA Carrier switch owner's International Carrier (INC). ICIN is used to classify code groups for calls to the Inter-LATA Carrier switch owner's International Carrier.

* DIAL-It is a registered trademark of AT&T

Continued on next page

Form Entries, Continued

SC
(cont'd)

- **INCN** - International Carrier but not inter-LATA Carrier switch owner's International Carrier. INCN is used to classify code groups from an Inter-LATA Carrier switch to an International Carrier which is not owned by the Inter-LATA Carrier. In addition, these code groups are not destined for International Operators.

- **INCO** - International Carrier Operator. INCO is the classification for code groups used for calls to an International Carrier Operator.

- **INET** - This is used for Interim Nationwide Emergency Telecommunications System code groups. INW = Inward WATS.

- **INW** is used for Inward WATS code groups. IOP = Inward Operator.

- **IOP** is used to classify code groups assigned to Inward Operator positions.

- **LDA** - Local Directory Assistance. This service category is used to generate the appropriate billing record when used in conjunction with a Centralized Automatic Message Accounting (CAMA) Far End Network (FEN) block.

- **MCPP** - Multiquest Calling Party-Paid. MCPP is used to classify Multiquest code groups paid for by the calling party.

- **MULT** - Multiquest. MULT is used to classify Multiquest code groups.

- **MSC1** through **MSC4** - These miscellaneous categories can be used to classify code groups into miscellaneous categories. These may be especially useful if the 4ESS Switch is shared by an Operating Company and an Interexchange Carrier (IC). In this case, the general categories could be used to classify code groups by the carrier which owns the switch and the miscellaneous categories used for code groups handled by the carrier leasing capacity on the switch.

- **NWZ1** - Non-World Zone 1. NWZ1 is the classification for the code groups used for calls to Non-World Zone 1 area.

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LUCENT TECHNOLOGIES PROPRIETARY
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Form Entries, Continued

SC
(cont'd)

- **RSYS** - Restricted System Codes. RSYS is used to classify code groups assigned as special purpose restricted system codes.

- **SC1** through **SC36** - Spare Category 1 through Spare Category 36. These SCs can be used to classify codes in up to 36 SCs. One use for these categories is screening of IntraLATA calls at an Inter-LATA Carrier Switch. For this use, a different category would be assigned to the codes for each LATA to which the InterLATA Carrier Switch connects. Another possible use for these categories is for screening International Switching Center (ISC) terminating and transit traffic. For this use, the SCs would be assigned to the Overseas codes for which special screening is required. Yet another use is extensions of the current use of the Miscellaneous Service Categories (MSCs) (e.g., at shared switches).

- **SDN** - Software Defined Network. SDN is used for calls to a Software Defined Network.

- **SDND** - SDN Data. SDND is used for Software Defined Network Data calls.

- **SPDI** - Sponsor-Paid Dial-It. SPDI is used to classify DIAL-It code groups paid for by the sponsor.

- **SSP** - Local Exchange Carrier (LEC) Service Switching Point (SSP). SSP is used to identify calls that will have SSP processing applied to them.

- **TC** - Teleconferencing. TC is used to classify code groups assigned to network Teleconferencing services.

- **TST** - Test Line. TST is used to classify code groups assigned to trunk test lines.

- **UNSP** - Unspecified. This entry is used for a verify input request of codes that contain no SC.

Continued on next page

Form Entries, Continued

CHI

Call Handling Instructions. This field is used to specify some call handling actions to override present Outgoing Signaling Characteristics (OSCs), recording, and/or fraud prevention controls. This field is needed because of the new call handling requirements for Interexchange Carrier (IC) and International Carrier (INC) Access. The CHI field only applies if the CALLTYP is CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, RDB, RNR, SSP, TEL, TST, or TTS.

NOTE: This field must be populated for some existing code groups, such as those used for 2-stage International calls and ADD-ON Teleconferencing calls. Failure to populate this field for these calls will result in failure to complete these calls.

Valid entries for CHI field are:

- **"Blank"** - If this field is **"Blank"**, no special call handling instructions are taken.
- **AAT2** - Access Tandem (AT) to IC Traditional Two-stage. This CHI value is used at the AT or Service Switching Point (SSP) to identify that a traditional two-stage international incoming call to the AT/SSP is being passed to the carrier via equal access using Integrated Services Digital Network User Part (ISUP) signaling.
- **ABBB** - Same as ACD, but in addition, disable Black Box and Blue Box fraud prevention.
- **ABLK** - Same as ACD, but in addition, disable Black Box Fraud prevention.
- **ACD** - Inward Wide Band Area Telephone Service (INWATS) ACD. Specifies that a terminating INWATS ACD record is to be made.
- **EAAR** - Expect Automatic Number identification (ANI) Assist Request. EAAR specifies actions at an intermediate toll switch for a call on which an ANI Assist Request is expected. For example, an ANI Assist Request is expected on a call to establish an ADD-ON Teleconference.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

CHI (cont'd.)

- **EGRH** - Egress Handling. Specifies actions at the egress switch for Direct Connect and Software Defined Network (SDN) calls. Usually, these calls will be directly terminating to a Private Branch Exchange (PBX). However, in some SDN cases, they will terminate to a local switch, either via a dedicated Trunk Subgroup (TSG) or via special NXX codes (unused office codes). EGRH can only be specified if DOM is APN, DED, or DEV. Note that it must be specified for all DED and DEV calls at the Egress switch (and not at intermediate switches) to allow the Direct Connect and/or the SDN (Offnet Egress Privilege) features.
- **ESD2** - Expect Second Start Dial 2. ESD2 specifies actions at an intermediate toll switch for a 3-stage Exchange Access call to an International Carrier (INC), including the Interexchange Carrier (IC) International Switching Center when it is able to receive Exchange Access calls.
- **ESSD** - Expect Second Start Dial. ESSD specifies actions at an intermediate toll switch for a 2-stage International call to an IC International Switching Center.
- **FGB** - Feature Group B. FGB specifies actions for calls to an IC or INC.
- **IBBB** - Same as ICDR, but in addition, disable Black Box and Blue Box fraud prevention.
- **IBLK** - Same as ICDR, but in addition, disable Black Box Fraud prevention.
- **ICDR** - International Call Detail Recording. Specifies that an ICDR record is to be made.
- **IEA** - Interim Exchange Access. IEA specifies actions for calls from an End Office (EO) unequipped to do Exchange Access signaling to an IC or INC able to handle Exchange Access signaling. (Initial plans call for these calls to have ABC digits of 950.)
- **MSC1, MSC2** - Miscellaneous 1 and 2. Two miscellaneous values are included. These can be assigned if an unforeseen set of calls require special call handling instructions.
- **ND** - Number Services Data Block information for outpulsing control.

Continued on next page

Form Entries, Continued

CHI (cont'd.)

- **NDB** - Number Services Data Block information for outpulsing control, inhibit Black Box.
- **NDBB** - Number Services Data Block information for outpulsing control, inhibit Black Box and Blue Box.
- **NONE** - This entry is used for a verify input request of codes that contain no Call Handling Instruction.
- **WACK** - Wait For Acknowledgment. WACK specifies actions for calls to an INC for which a trunk is seized and digits outpulsed. The talking path is not cut through until an Acknowledgment signal is received from the INC. This entry only applies to a 4ESS Switch owned or operated by an Operating Company as an Access Tandem (AT).
- **WAC2** - Specifies the signaling actions to be performed by an AT when connecting an Equal Access End Office (EAEO) to an INC (possibly through an Intermediate Carrier).
- **WSNO** - Wink Start No Outpulse. WSNO specifies actions for calls for which a trunk to an IC or INC is to be seized but no digits outpulsed. This is one option allowed in Exchange Access signaling, and is chosen by the IC or INC.

DESEP

Destination Separation is used to identify destinations for traffic flow purposes. Peg and usage counts are made as a function of the Trunk Sub-Group (TSG) incoming class (INSEP) and the outgoing destination class (DESEP). All outgoing or successfully terminated traffic is assigned a given destination class from **"1-255"**.

NOTE: DESEP class 63 is assigned generically for test calls. Any other assignment to class 63 should take this fact into consideration.

For codegroup forms, a DESEP class will be assigned only when the CALLTYP is equal to CRB, DSN, EAR, GNS, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, or TTS. This field is **"Blank"** for any other Call Type value.

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Form Entries, Continued

DNST	Not Applicable – Entries: **"Blank"**
AD3	Not Applicable - Entries: **"Blank"**
ADC	Acceptable Digit Count/Code Group - This field specifies the total number of incoming digits expected for a call routed to this Call Type. This field must be entered for the following Call Types: CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, TST, and TTS. The legal values for this field are digit counts from **"3-15"** for domestic routing. For the Call Types requiring that an ADC be input, at least one number must be specified. More than one number may be listed as valid. For example, if the Call Type points to an Routing Data Block (RDB), 6, 8 or 10 digits may be valid. Note that the number of incoming digits specified is the number of incoming digits actually received before modification by deletion or prefixing in the RDB but after A-digit reconstruction. When the Call Type treatment points to an international transit RDB (International Domain [IDOM] equals **"T"** on the RDB form) or an international originating RDB (IDOM equals **"O"**), the Language Digit (LD) is never counted in the number of digits that make up the ADC regardless of whether the LD is translated or not. Dial Pulse (DP) and Dual Tone Multifrequency (DTMF) rely on collecting digits one-at-a-time. A range of **"3-15"** entry causes DP or DTMF critical digit timing (5 second recognize end of dialing) after each digit beyond the third digit since each digit is potentially the last. On any DP or DTMF call with less than 15 digits it causes a five second post dialing delay.

Continued on next page

Form Entries, Continued

ADC (cont'd.)

MF, CCIS, CCITT5, ISUP, and Q931 are en-block (not-one-at-a-time) digit collectors. When the complete address is received on en-block digit collectors or when a 5-second timeout occurs on the one-at-a-time digit collectors, the number of digits received is compared with the various totals specified by the ADC in the Call Type word to which this call has been directed. If the number of digits received does not match one of the totals specified by ADC and this is an en-block call, the call will be given partial dial Final Handling Treatment (FHT). If the number of digits received does not match one of the totals specified by ADC and this is a one-at-a-time call, an additional 10 seconds (total of 15 seconds) will be allowed. If no additional digit is received during this interval, the call is given partial dial FHT (Partial Dial Timeout). If the number of digits on a one-at-a-time call does match one of the totals specified by ADC and no additional digit is received within a 5-second delay, the call will be routed on the number of digits received even if there are additional digits that have not been received yet. Therefore, the ADC should not be set any lower than the number of digits needed to correctly route the call for one-at-a-time digit collectors.

GHI

This field lists the seventh (G), eighth (H) and ninth (I) digits that complete the code group definition. One (7-digit translation), two (8-digit) or three (9-digit translation required) digits may be listed in this field. A numeric or an **"X"** may be used to specify translation. A numeric may not follow an **"X"**. The numeric will define a specific code while the **"X"** will represent all numerics from 0 to 9. Translation must be specified equal to the Number of Translated Digits (NTD). An **"X"** may be used for one, two, or three positions of GHI field, determined by the NTD. If only one **"X"** is used, it must be in the I position if there are two numerics. If two "**X**s" are used they must be in the HI position if there is one numeric. Any code not specified will be routed to vacant code Final Handling Treatment (FHT) by the Office Data Assembler (ODA) program.

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RC 303

General

The Recent Change (RC) Form 303 changes the treatment of a 10, 11, or 12 digit codes in the translations of the 4ESS™-2000 Switch. This message is classed as a Recent Change Data Message (RCDM).

See "Table 7" of Division 3 Section 3a for the code group population rules and "Table 8" of the same section for the Go/No Go Screening conditions.

An alphabetical keyword list is included in this section on page 25.

Continued on next page

RC 303, Continued

General (cont'd.)

```
# FORM 303   CHANGE 10, 11, OR 12 DIGIT TRANSLATION
      <4E22R4

     RC:CODEGRP;CHG;OPT(DIG12),___:                DOM _____, NTD __,  AC _,
                                                   ABC ____,  DEF ____, GHI ____,

     ORNU _______,

       CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP   DNST

  OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                 AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                 AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

     JKL  JKL  JKL  JKL  JKL  JKL  JKL  JKL

     ___, ___, ___, ___, ___, ___, ___, ___,
     ___, ___, ___, ___, ___, ___, ___, ___,
     ___, ___, ___, ___, ___, ___, ___, ___,
     ___, ___, ___, ___, ___, ___, ___, ___,

     REMARKS ____________________________________________________!

                 EQUIVALENT ODA INPUT FORM - ESS 403V

                      ASSOCIATED VERIFY MESSAGES

                        INPUT-13b-VER:CODEGRP

                     OUTPUT-3v-VER:CODEGRP;OPT(DIG12)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 303, Continued

General (cont'd.)

```
# FORM 303   CHANGE 10, 11, OR 12 DIGIT TRANSLATION
     4E23R1>

   RC:CODEGRP;CHG;OPT(DIG12),___:                DOM _____, NTD __,  AC _,
                                                 ABC ____,  DEF ____, GHI ____,

   ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP   DNST

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

   JKL  JKL  JKL  JKL  JKL  JKL  JKL  JKL

   ___, ___, ___, ___, ___, ___, ___, ___,
   ___, ___, ___, ___, ___, ___, ___, ___,
   ___, ___, ___, ___, ___, ___, ___, ___,
   ___, ___, ___, ___, ___, ___, ___, ___,

   REMARKS ____________________________________________________!

              EQUIVALENT ODA INPUT FORM - ESS 403V

                   ASSOCIATED VERIFY MESSAGES

                     INPUT-13b-VER:CODEGRP

                  OUTPUT-3v-VER:CODEGRP;OPT(DIG12)
```

Form Entries

RC:CODEGRP;CHG;OPT(DIG12),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

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Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be MISC or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e., CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

Continued on next page

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)
- **ATNS** - Access Tandem Transit Network Selection - This domain is used to translate equal access Integrated Services Digital Network User Part (ISUP) parameters to obtain the routing information.

NTD

Number of Translated Digits - This field specifies the number of digits to be analyzed for this code grouping. For domestic code grouping, this number may range from 3 to 12 depending on the code group form. The first three digits are listed under the ABC field, the remaining digits, if any, are listed in the DEF, GHI, and JKL fields. Valid entry for the RC Form 300 is only **"3"** because the form only changes the ABC digits. Other digit combination changes are performed on subsequent forms.

AC

Area Code - A **"Y"** for Yes indicates that all of the 3-digit codes (ABC digits) on this form are Area Codes. If the ABC digits are office codes, test codes or other non-Area Codes, AC will be **"N"** for No. This field is left **"Blank"** when Domain (DOM) is not equal to Plain Old Telephone Service (POTS).

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

ABC	The first three digits of a given set of digits (A, B, and C) - This field lists all of the 3-digit codes that make up a code group. If the Area Code (AC) field is marked **"Yes"**, this code group may consist of 3-digit combinations in the range of **"200-999"**. If this code group is not an Area Code grouping (AC = **No**), then any number combination from **"000-999"** is valid. When the AC field is **"Blank"**, ABC may be equal to **"000-999"**. If DOM equals Plain Old Telephone Service (POTS), the 3-digit code corresponding to the Home Numbering Plan Area (HNPA) may be assigned as ABC digits if permissive dialing is allowed on the HNPA and AC = **"N"** (Offices using Traditional Routing only - (4E22>).
DEF	This field lists the fourth (D) fifth (E) and sixth (F) digits of the code group definition. This field contains three digits.
GHI	This field lists the seventh (G), eighth (H) and ninth (I) digits of the code group definition. Three digits must be listed in this field.
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

CALLTYP The Call Type is used to define the major category for the disposition of the codes listed on this form. The valid Call Type categories are as follows:

- **EAR** - The Emergency Alternate Routing feature will be used to reroute calls. The EAR Call Type will be used for code groups which must be screened for this feature and will indicate that one or more destination numbers in the code group have this feature. This feature allows business customers to redirect calls from a primary location to an alternate location when the primary location is the victim of a natural disaster, a bomb threat, or other terrorist activity.

- **FHT** - Final Handling Treatment. This identifier specifies that the listed codes will be directed to a Final Handling Treatment (FHT) announcement or tone.

- **GNS** - Go/No Go Screening - GNS specifies that this group of codes will be given GNS before the routing is determined. If this call type is entered. GN and GNSC fields must be completed.

- **PAS** - Public Announcement System - This identifier specifies that the codes listed will terminate the customer to the announcement specified in the CALLDATA field.

- **RDB** - Routing Data Block - RDB is used to specify that the set of codes listed in this form will be routed directly to Trunk Subgroups (TSGs) defined by a Routing Data Block (RDB).

- **SDX** - Subsequent Digit Index - This Call Type is used to reference a subsequent digit entry which contains several alternative routing treatments that are selected on the basis of an index determined by the type value entered as AD1. In memory, the SDX call type contains data stating the grid table size: **"1"** meaning a size of 16 entries, **"2"** meaning 128, **"3"** meaning 1024. To obtain the number of SDs, use the VER:CODEGRP:SDINDEX message (4E23>).

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Form Entries, Continued

CALLTYP (cont'd.)

- **SSP** - Service Switching Point - This identifier is used to designate the processing of a Numbered Services call.
- **TEL** - TELEVOTE with Public Announcement System - This identifier specifies that the codes listed will terminate the customer to the announcement specified in the CALLDATA field. TEL is only valid in the Plain Old Telephone Service (POTS) Domain.
- **TST** - Test - This identifier is used for the code line test combinations within a translation domain. Three digit codes under this call type would include 10X codes and the synchronous test.

CALLDATA

This field further defines the treatment given to the group of codes listed on this form. CALLDATA is an extension of the Call Type (CALLTYP). For a given CALLTYP, the CALLDATA will define the specific code group treatment. CALLTYP/CALLDATA correlation is shown below.

- **Emergency Alternate Routing (EAR) Call Type** - The CALLDATA for EAR is an RDB index in the range of **"1-8191"**.
- **FHT Call Type** - The Final Handling Treatment (FHT) CALLTYP is used to point a group of codes directly to an announcement or tone. The CALLDATA field identifies that tone or announcement circuit. Valid entries are : **"AR"**, **"BT"**, **"EA1-EA7"**, **"HW"**, **"IFF"**, **"INC"**, **"IVC"**, **"MCA"**, **"NCA"**, **"NCC"**, **"NCD"**, **"NWC"**, **"OOB"**, **"ROA"**, **"SP1"**, **"SP2"**, **"T"**, **"VCA"**, **"DNN"**, **"DPP"**, **E01-E02"**, **"I01-I30"**, **"INF"**, **"ISB"**, **"LDV"**, **"LOB"**, **"LSA"**, **"NCB"**, **"NWN"**, **"OOA"**, **"OTS"**, **"R01-R10"**, **"S01-S19"**, **"SNA"**, **"STO"**, **"TDN"**, **"UNN"**, **"VMA"**, **"WAT"**. Consult Lucent Practices 781-031-100 for further definition of various tones and announcements. See the Routing Data Block Final Handling Treatment (RDBFHT) description for the identifiers that may be specified.

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Form Entries, Continued

CALLDATA (cont'd.)

- **GNS Call Type** - If the GNS CALLTYP identifier is used, the CALLDATA field will contain a Routing Data Block Index (RDBI) from **"1-8191"**. This index will be used to direct the call if the Go/No Go Screening (GNSC) passes. The Go No Go (G/N) and GNSC fields specify the Go/No Go conditions. If the GNSC fails, the call is directed to the vacant code Final Handling Treatment (FHT).

- **PAS Call Type** - If Public Announcement System (PAS) Call Type is used, the CALLDATA field must contain a 12-digit announcement identifier. This identifier is made up of the 5-digit Voice Storage System Identity (VSSID) and 7-digit Service Identity (SID).

- **RDB Call Type** - For RDB, the CALLDATA field will contain a Routing Data Block Index (RDBI) from **"1-8191"**. This number will specifically identify a given set of routing parameters as listed in the RDB form with that same RDBI. The RDB entry is used to directly point a group of codes toward routing information.

- **SDX Call Type** - The CALLDATA for SDX is a Subsequent Digit Index (SDX) which identifies a particular subsequent digit entry. Valid values are **"1-16383"**.

- **SSP Call Type** - If Service Switching Point (SSP) Call Type is used, the CALLDATA field must contain one of the following identifiers:

  - **RT** - Retranslate Carrier ID (CID) and Type Of Service (TOS) plus Incoming Trunk Class (ITC) in the Number Services Routing (NSR) domain.
  - **RT00Y** - Retranslate CID TOS plus ITC in the NSR domain with a 00Y for Numbering Plan Area (NPA) lookup.
  - **RTCOIN** - Retranslate CID TOS plus ITC in the NSR domain for a 00X coin call.
  - **ACPN** - The 0ZZ-XXX[X] (or Transit Network Selection [TNS]) translation indicates Analyze the Called Party Number". For the Equal Access Multifrequency (EAMF), the switch will receive the second/third stages of digits and proceeds with digit translation looking for Called Number Triggers.

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Form Entries, Continued

CALLDATA (cont'd.)

- **AIIO** - The 0ZZ-XXX[X] (or TNS) translation indicates "Analyze the Information Digit/Originating Line Information (II/OLI)". This causes the switch to intercept the second and third stages of digits in for EAMF, and to check II/OLI for the "Send Advanced Intelligent Network (AIN) Information Collected Query" (SIAQ) value.
- **DB** - TOS and Database query.
- **DB7** - TOS and Database query for a 7-digit dialed number.
- **DB00Y** - TOS and Database query with a 00Y or NPA lookup.
- **DBCOIN** - TOS and Database query for a 00X coin call.
- **EASDNA** - Receive the Equal Access (EA) sequence and retranslate the address sequence in the Software Defined Network (SDN) Access (SDNA) domain.
- **EASEQ** - Collect the 2nd and 3rd stage digits EA format.
- **NCP12** - 12- or 9-digit address returned from the SDN NCP, the first two digits of which are deleted by the 4ESS Switch before outpulsing, retranslate the CID, TOS, and ITC in the NSR domain.
- **NDB** - Interexchange Carrier/International Carrier (IC/INC) routing. Requires Call Handling Instruction (CHI) entry of Number Services Data Block (ND), Number Services/Inhibit Black Box (NDB) or Number Services/Inhibit Black Box and Blue Box (NDBB).
- **RTP** - Retranslate the routing digits in Plain Old Telephone Service (POTS).
- **SFA** - Subscribed Footprint Area (4E22R4>)
- **SIAQ** - Send Information and Analyze Query.
- **SICQ** - The 0ZZ-XXX[X] (or TNS) translation indicates "Send AIN Information Collected Query". This causes the switch to intercept the second and third stages of digits in the EAMF case and the indicated query is sent to the Service Control Point (SCP) without any analysis of the called number.

Continued on next page

Form Entries, Continued

CALLDATA (cont'd.)

- **TNSND** - Access Tandem Transit Network Selection Digits -This identifier is used at an Access Tandem (AT) switch to handle incoming calls from equal access Integrated Services Digital Network User Part (ISUP) to outgoing equal access ISUP or MFWINK. This subtype is only used in the Access Tandem Transit Network Selection (ATNS) domain.

- **TEL** Call Type - If TEL Call Type is used, the CALLDATA field must contain a 12-digit announcement identifier. This identifier is made up of the 5-digit VSSID and 7-digit SID.

- **TST** Call Type - This identifier specifies that the group of codes on this form are test codes. The CALLDATA field will identify the test. The following combinations may be assigned.

  - **100** - Balance - provides a quiet termination.
  - **101** - Communication - provides a link to a test board or test position.
  - **102** - Milliwatt - source of 1000 hertz test tone.
  - **103** - Signal/Supervisory - This test provides a series of on-hook/off-hook transitions.
  - **105** - Automatic Transmission Measuring System (ATMS) - provides a connection to an ATMS responder.
  - **108** - Echo Suppressor - The 108 test is used to test Echo Suppressor operation.
  - **109** - This test is used to test Echo Canceller operation.
  - **DLC -** Data loopback/complement test trunk.
  - **SYN** - Synchronous - SYN specifies a signaling/supervision test similar to 103 but on an automatic timed basis.

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Form Entries, Continued

AD1 Additional Data 1 - This field further defines the treatment given to a code group translation. AD1 is an extension of the Call Type (CALLTYP) and CALLDATA words. For a given CALLTYPE and CALLDATA, the AD1 will define the specific code group treatment. Valid entries for the appropriate services are:

- **"Blank"**
- **"GNS" (Go/No Go Screening)** - If GNS Call Type is used, the AD1 field is used to enter the Go/No Go value for the Call Type. The field may contain a Go **("G")** or No Go **("N")** condition for the list of codes that appear on this form. The indication is linked with a given GNS Class in the next field. All two-way and incoming Trunk Subgroups (TSGs) are assigned a GNS Class. By manipulating the Go/No Go conditions for a group of codes, incoming traffic can be denied (sent to vacant code) on one or more TSGs and allowed to complete on others.
- **"SDTYPE" (Subsequent Digit Index Type)** - The AD1 field for SDX Call Type is used to identify the type of index that must be used to index the subsequent digit entry. Valid entries are as follows:
  - **MTS** Multiple Treatment Screening class from an incoming trunk. Valid entries are **"Blank"** or **"0 - 63"**.
  - **DC** Digit Count of the incoming call. Valid entries are **"3 - 15"**.
  - **DRTC** Data Rate Transfer Capability for Integrated Services Digital Network user Part (ISUP) to Multifrequency (MF) interworking. Valid entries are **"0 - 7"**.
  - **IPR** ISUP Preference Routing. Valid entries are:
    "0" - ISUP Preferred. The outgoing trunks should be mostly ISUP.
    "1" - ISUP not required. The outgoing trunks should be mostly non-ISUP.
    "2" - ISUP Required. All outgoing trunks must be ISUP.
    "3" - Spare
  - **V31K** Voice or 3.1kHZ indicator. Valid entries are:
    "0" - 3.1kHZ
    "1" - Voice.

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Form Entries, Continued

AD1
(cont'd.)

- **"SSP" (Service Switching Point)** Call Type - If SSP Call Type is used, the AD1 field is used to enter either the Type of Service (TOS) indicator value for the CALLDATA of NCP12, RT, RT00Y, RTCOIN, SICQ, DB, DB7, DB00Y, or DBCOIN or the Number Services Data Block (NDB) for the CALLDATA of NDB or TNSND, or the Subscribed Footprint Area Index (SFAI) for the CALLDATA of Subscribed Footprint Area (SFA).
  - **NDBI** - Number Services Data Block Index value defines which Interexchange Carrier or International Carrier routing control block will be used for the call. Valid input values are **"1-1023"**.
  - **SFAI** - Subscribed Footprint Area Index used to calculate a corresponding SFA domain. Valid input is **"0-6"** (**"0-39"** for 4E23>).
  - **TOS** - Type of Service entry defines which number service will be identified with this Call Type entry. Valid input is a number between **"0"** and **"31"**.
- **"SAPN"** - This field is used to specify the Slave Application Number (SAPN) assigned when the Call Type is TEL. Valid range is **"0-63"**.

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Form Entries, Continued

AD2

Additional Data 2 - This field further defines the treatment given to the group of codes listed on this form. AD2 is an extension of the Call Type (CALLTYP), CALLDATA, and AD1. For a given CALLTYPE, CALLDATA, and AD1, the AD2 will define the specific code group treatment. CALLTYPE/CALLDATA/AD1/AD2 correlation is shown below:

- **GNS (Go/No Go Screening)** Call Type - If GNS Call Type is used, the AD2 field is used to enter the Go/No Go Screening Class for the Call Type.
  - This field will have an entry when CALLTYP is GNS and AD1 is not **"Blank"**. The Go/No Go Screening Class specifies the Trunk Subgroup (TSG) class that will be allowed or denied completion to the regular routing. A range of **"0-3"** may appear in this field.
- **SSP (Service Switching Point)** Call Type - If SSP Call Type is used, the AD2 field is used to enter the Carrier IDentification (CID) indicator value for the CALLDATA of NCP12, RT, RT00Y, or RTCOIN.
  - CID - Carrier IDentification number defines which Interexchange Carrier or International Carrier will be used to route the call. Valid input is **"0000-9999"**.

  If either:
  - the DOM is Super Tandem Carrier ID (STCD) and the CALLDATA is Access Tandem Transit Network Selection Digits (TNSND) or
  - the DOM is Number Service Routing (NSR) and CALLDATA is Number Services Data Block (NDB),

  then the AD2 field specifies if the associated Carrier is allowed to receive all possible Information Digit/ Originating Line Information (II/OLI) values or is restricted only to certain values (Restrict II/OLI [RIO]). Allowed entries are:
  - **"Blank"** or **"N"** (Restrict II/OLI forwarding [DEFAULT])
  - **"Y"** (Allow II/OLI forwarding).

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Form Entries, Continued

SC

Service Category/Code Group. This field identifies the Service Category (SC) of the code group. This category is used to perform incoming screening on calls received from other carriers. Also, it is used to determine for which calls an Automatic Message Accounting (AMA) record or Access Charge record should be made.

As examples of screening, an Operating Company Access Tandem (AT) switch must deny calls from an Interexchange Carrier (IC) that do not terminate in the Local Access Transport Area (LATA) served by the AT.

As an example of recording, an AT must make a terminating Access Charge record for all calls it receives from an IC or INC which terminate in the LATA.

The SC defines the screening and recording classification to be used for the code group. The SC field only applies if the CALLTYP is CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, TST, or TTS. SC will also be used to specify for which calls a query will be sent to the Network Call Denial (NCD) database.

Valid Service Category entries are:

- **Blank** - If this field is **"Blank"**, the SC is unspecified.
- **ALAP** - Alaskan Plain Old Telephone Service (POTS). ALAP is the classification for POTS code groups in the Alaskan World Zone 1 area.
- **ATAP** - Access Tandem Area Pots. ATAP is only applicable if the 4ESS Switch is owned or leased by an Operating Company and used as an Access Tandem (AT) for a LATA. ATAP is the classification for the POTS code groups in the LATA served by the AT. In addition, ATAP is the category for POTS code groups in Independent Operating Company areas also served by the Tandem Switch.

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SC
(cont'd)

- **CANP** - Canadian POTS. CANP is the classification for POTS code groups in the Canadian World Zone 1 area.
- **CARP** - Caribbean, NON-U.S. Territories, POTS. CARP is the classification for POTS code groups in the Caribbean World Zone1 area which do not include United States territories.
- **CUSP** - Continental U. S. POTS. CUSP is the classification for POTS code groups in the continental U. S., which could not also be classified ATAP.
- **CUTP** - Caribbean, U. S. Territories, POTS. CUTP is the classification for POTS code groups in the part of the Caribbean World Zone 1 area which includes United States territories.
- **DA** - Directory Assistance. DA is used to classify code groups assigned to Directory Assistance.
- **DLT** - DIAl-It*. DLT is used to classify DIAL-It code groups.
- **DSD** - Direct Services Dialing. DSD is used to classify Direct Services Dialing code groups.
- **EASC** - Exchange Access Signaling Code. EASC is used to classify the code groups used for Exchange Access Signaling (EAS) to an Interexchange (IC) or International Carrier (INC).
- **HAWP** - Hawaiian POTS. HAWP is the classification for POTS code groups in the Hawaiian World Zone 1 area.
- **ICIN** - Inter-LATA Carrier switch owner's International Carrier (INC). ICIN is used to classify code groups for calls to the Inter-LATA Carrier switch owner's International Carrier.

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Form Entries, Continued

SC
(cont'd)

- **INCN** - International Carrier but not inter-LATA Carrier switch owner's International Carrier. INCN is used to classify code groups from an Inter-LATA Carrier switch to an International Carrier which is not owned by the Inter-LATA Carrier. In addition, these code groups are not destined for International Operators.

- **INCO** - International Carrier Operator. INCO is the classification for code groups used for calls to an International Carrier Operator.

- **INET** - This is used for Interim Nationwide Emergency Telecommunications System code groups. INW = Inward WATS.

- **INW** is used for Inward WATS code groups. IOP = Inward Operator.

- **IOP** is used to classify code groups assigned to Inward Operator positions.

- **LDA** - Local Directory Assistance. This service category is used to generate the appropriate billing record when used in conjunction with a Centralized Automatic Message Accounting (CAMA) Far End Network (FEN) block.

- **MCPP** - Multiquest Calling Party-Paid. MCPP is used to classify Multiquest code groups paid for by the calling party.

- **MULT** - Multiquest. MULT is used to classify Multiquest code groups.

- **MSC1** through **MSC4** - These miscellaneous categories can be used to classify code groups into miscellaneous categories. These may be especially useful if the 4ESS Switch is shared by an Operating Company and an Interexchange Carrier (IC). In this case, the general categories could be used to classify code groups by the carrier which owns the switch and the miscellaneous categories used for code groups handled by the carrier leasing capacity on the switch.

- **NWZ1** - Non-World Zone 1. NWZ1 is the classification for the code groups used for calls to Non-World Zone 1 area.

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SC
(cont'd)

- **RSYS** - Restricted System Codes. RSYS is used to classify code groups assigned as special purpose restricted system codes.

- **SC1** through **SC36** - Spare Category 1 through Spare Category 36. These SCs can be used to classify codes in up to 36 SCs. One use for these categories is screening of IntraLATA calls at an Inter-LATA Carrier Switch. For this use, a different category would be assigned to the codes for each LATA to which the InterLATA Carrier Switch connects. Another possible use for these categories is for screening International Switching Center (ISC) terminating and transit traffic. For this use, the SCs would be assigned to the Overseas codes for which special screening is required. Yet another use is extensions of the current use of the Miscellaneous Service Categories (MSCs) (e.g., at shared switches).

- **SDN** - Software Defined Network. SDN is used for calls to a Software Defined Network.

- **SDND** - SDN Data. SDND is used for Software Defined Network Data calls.

- **SPDI** - Sponsor-Paid Dial-It. SPDI is used to classify DIAL-It code groups paid for by the sponsor.

- **SSP** - Local Exchange Carrier (LEC) Service Switching Point (SSP). SSP is used to identify calls that will have SSP processing applied to them.

- **TC** - Teleconferencing. TC is used to classify code groups assigned to network Teleconferencing services.

- **TST** - Test Line. TST is used to classify code groups assigned to trunk test lines.

- **UNSP** - Unspecified. This entry is used for a verify input request of codes that contain no SC.

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Form Entries, Continued

CHI

Call Handling Instructions. This field is used to specify some call handling actions to override present Outgoing Signaling Characteristics (OSCs), recording, and/or fraud prevention controls. This field is needed because of the new call handling requirements for Interexchange Carrier (IC) and International Carrier (INC) Access. The CHI field only applies if the CALLTYP is CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, RDB, RNR, SSP, TEL, TST, or TTS.

NOTE: This field must be populated for some existing code groups, such as those used for 2-stage International calls and ADD-ON Teleconferencing calls. Failure to populate this field for these calls will result in failure to complete these calls.

Valid entries for CHI field are:

- **"Blank"** - If this field is **"Blank"**, no special call handling instructions are taken.
- **AAT2** - Access Tandem (AT) to IC Traditional Two-stage. This CHI value is used at the AT or Service Switching Point (SSP) to identify that a traditional two-stage international incoming call to the AT/SSP is being passed to the carrier via equal access using Integrated Services Digital Network User Part (ISUP) signaling.
- **ABBB** - Same as ACD, but in addition, disable Black Box and Blue Box fraud prevention.
- **ABLK** - Same as ACD, but in addition, disable Black Box Fraud prevention.
- **ACD** - Inward Wide Band Area Telephone Service (INWATS) ACD. Specifies that a terminating INWATS ACD record is to be made.
- **EAAR** - Expect Automatic Number identification (ANI) Assist Request. EAAR specifies actions at an intermediate toll switch for a call on which an ANI Assist Request is expected. For example, an ANI Assist Request is expected on a call to establish an ADD-ON Teleconference.

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CHI (cont'd.)

- **EGRH** - Egress Handling. Specifies actions at the egress switch for Direct Connect and Software Defined Network (SDN) calls. Usually, these calls will be directly terminating to a Private Branch Exchange (PBX). However, in some SDN cases, they will terminate to a local switch, either via a dedicated Trunk Subgroup (TSG) or via special NXX codes (unused office codes). EGRH can only be specified if DOM is APN, DED, or DEV. Note that it must be specified for all DED and DEV calls at the Egress switch (and not at intermediate switches) to allow the Direct Connect and/or the SDN (Offnet Egress Privilege) features.
- **ESD2** - Expect Second Start Dial 2. ESD2 specifies actions at an intermediate toll switch for a 3-stage Exchange Access call to an International Carrier (INC), including the Interexchange Carrier (IC) International Switching Center when it is able to receive Exchange Access calls.
- **ESSD** - Expect Second Start Dial. ESSD specifies actions at an intermediate toll switch for a 2-stage International call to an IC International Switching Center.
- **FGB** - Feature Group B. FGB specifies actions for calls to an IC or INC.
- **IBBB** - Same as ICDR, but in addition, disable Black Box and Blue Box fraud prevention.
- **IBLK** - Same as ICDR, but in addition, disable Black Box Fraud prevention.
- **ICDR** - International Call Detail Recording. Specifies that an ICDR record is to be made.
- **IEA** - Interim Exchange Access. IEA specifies actions for calls from an End Office (EO) unequipped to do Exchange Access signaling to an IC or INC able to handle Exchange Access signaling. (Initial plans call for these calls to have ABC digits of 950.)
- **MSC1, MSC2** - Miscellaneous 1 and 2. Two miscellaneous values are included. These can be assigned if an unforeseen set of calls require special call handling instructions.
- **ND** - Number Services Data Block information for outpulsing control.

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Form Entries, Continued

CHI (cont'd.)

- **NDB** - Number Services Data Block information for outpulsing control, inhibit Black Box.
- **NDBB** - Number Services Data Block information for outpulsing control, inhibit Black Box and Blue Box.
- **NONE** - This entry is used for a verify input request of codes that contain no Call Handling Instruction.
- **WACK** - Wait For Acknowledgment. WACK specifies actions for calls to an INC for which a trunk is seized and digits outpulsed. The talking path is not cut through until an Acknowledgment signal is received from the INC. This entry only applies to a 4ESS Switch owned or operated by an Operating Company as an Access Tandem (AT).
- **WAC2** - Specifies the signaling actions to be performed by an AT when connecting an Equal Access End Office (EAEO) to an INC (possibly through an Intermediate Carrier).
- **WSNO** - Wink Start No Outpulse. WSNO specifies actions for calls for which a trunk to an IC or INC is to be seized but no digits outpulsed. This is one option allowed in Exchange Access signaling, and is chosen by the IC or INC.

DESEP

Destination Separation is used to identify destinations for traffic flow purposes. Peg and usage counts are made as a function of the Trunk Sub-Group (TSG) incoming class (INSEP) and the outgoing destination class (DESEP). All outgoing or successfully terminated traffic is assigned a given destination class from **"1-255"**.

NOTE: DESEP class 63 is assigned generically for test calls. Any other assignment to class 63 should take this fact into consideration.

For code group forms, a DESEP class will be assigned only when the CALLTYP is equal to CRB, DSN, EAR, GNS, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, or TTS. This field is **"Blank"** for any other Call Type value.

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DNST Not Applicable - Entries: **"Blank"**

AD3 Not Applicable - Entries: **"Blank"**

ADC Acceptable Digit Count/Code Group - This field specifies the total number of incoming digits expected for a call routed to this Call Type. This field must be entered for the following Call Types: CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, TST, and TTS.

The legal values for this field are digit counts from **"3-15"** for domestic routing.

For the Call Types requiring that an ADC be input, at least one number must be specified. More than one number may be listed as valid. For example, if the Call Type points to an Routing Data Block (RDB), 6, 8 or 10 digits may be valid. Note that the number of incoming digits specified is the number of incoming digits actually received before modification by deletion or prefixing in the RDB but after A-digit reconstruction. When the Call Type treatment points to an international transit RDB (International Domain [IDOM] equals **"T"** on the RDB form) or an international originating RDB (IDOM equals **"O"**), the Language Digit (LD) is never counted in the number of digits that make up the ADC regardless of whether the LD is translated or not.

Dial Pulse (DP) and Dual Tone Multifrequency (DTMF) rely on collecting digits one-at-a-time. A range of **"3-15"** entry causes DP or DTMF critical digit timing (5 second recognize end of dialing) after each digit beyond the third digit since each digit is potentially the last. On any DP or DTMF call with less than 15 digits it causes a five second post dialing delay.

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Form Entries, Continued

ADC (cont'd.)

MF, CCIS, CCITT5, ISUP, and Q931 are en-block (not-one-at-a-time) digit collectors. When the complete address is received on en-block digit collectors or when a 5-second timeout occurs on the one-at-a-time digit collectors, the number of digits received is compared with the various totals specified by the ADC in the Call Type word to which this call has been directed. If the number of digits received does not match one of the totals specified by ADC and this is an en-block call, the call will be given partial dial Final Handling Treatment (FHT). If the number of digits received does not match one of the totals specified by ADC and this is a one-at-a-time call, an additional 10 seconds (total of 15 seconds) will be allowed. If no additional digit is received during this interval, the call is given partial dial FHT (Partial Dial Timeout). If the number of digits on a one-at-a-time call does match one of the totals specified by ADC and no additional digit is received within a 5-second delay, the call will be routed on the number of digits received even if there are additional digits that have not been received yet. Therefore, the ADC should not be set any lower than the number of digits needed to correctly route the call for one-at-a-time digit collectors.

JKL

This field lists the tenth (J), eleventh (K), and twelfth (L) digits that complete the code group definition. One (10-digit translation), two (11-digit), or three (12-digit translation required) digits may be listed in this field. A numeric or an **"X"** may be used to specify translation. A numeric may not follow an **"X"**. The numeric will define a specific code while the **"X"** will represent all numerics from "**0**-**9**". Translation must be specified equal to the Number of Translated Digits (NTD). An **"X"** may be used for one, two, or three positions of GHI field, determined by the NTD. If only one **"X"** is used, it must be in the I position if there are two numerics. If two **"Xs"** are used they must be in the KL position if there is one numeric. Any code not specified will be routed to vacant code Final Handling Treatment (FHT) by the Office Data Assembler (ODA) program.

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DNST	23
DOM	5
GHI	7
JKL	24
NTD	6
ORNU	7
RC:CODEGRP;CHG;OPT(DIG12),- - -:	4
SC	16

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 304

General

The Recent Change Form 304 is used to create or change a subsequent digit entry.

"Table 11" - Valid Call Types And Domain Class For PRT Blocks - shows which call types are valid for each domain class.

See "Table 7" of Division 3 Section 3a for the code group population rules and "Table 8" of the same section for the Go/No Go Screening conditions.

An alphabetical keyword list is included in this section, starting on page 25.

Continued on next page

RC 304, Continued

General
(cont'd.)

```
# FORM 304   CHANGE SUBSEQUENT DIGIT ROUTING
    <4E22R4

  RC:CODEGRP;CHG;OPT(SDX),___:          SDINDEX _____, SIZE _, DOMCLASS ____,

  ORNU _______,  ACTION _,

  INDEX  CALLTYP     CALLDATA        AD1    AD2     SC     CHI   DESEP   DNST

  ____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

     REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 403G

                       ASSOCIATED VERIFY MESSAGES

                    INPUT-13c-VER:CODEGRP:SDINDEX

                    OUTPUT-3g-VER:CODEGRP;OPT(SDX)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 304, Continued

General
(cont'd.)

```
# FORM 304   CHANGE SUBSEQUENT DIGIT ROUTING
   4E23R1>

 RC:CODEGRP;CHG;OPT(SDX),___:          SDINDEX ______, SIZE _, DOMCLASS ____,

 ORNU _______,  ACTION _,

 INDEX  CALLTYP     CALLDATA         AD1    AD2     SC     CHI   DESEP   DNST

 ____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

 ____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

 ____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,
____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,  ____________________, ____, _______,  ____,  ____,   ___,  _______,
                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

    REMARKS ____________________________________________________!

                EQUIVALENT ODA INPUT FORM - ESS 403G

                     ASSOCIATED VERIFY MESSAGES

                   INPUT-13c-VER:CODEGRP:SDINDEX

                   OUTPUT-3g-VER:CODEGRP;OPT(SDX)
```

Form Entries

RC:CODEGRP;CHG;OPT(SDX),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

SDINDEX Subsequent Digit Routing Index - This number specifies the subsequent digit entry being affected. Legal inputs are: **"1-16383"**.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Form Entries, Continued

SIZE

This number specifies the size of the subsequent digit entry that is being created. Legal inputs are: **"1"**, **"2"**, **"3"**.

- A size of 1 will create a 16-word block (index values 0-14).
- A size of 2 will create a 128-word block (index values 0-126).
- A size of 3 will create a 1024-word block (index values 0-1022).

DOMCLASS

Domain class - This field is used to specify the class of routing that the SDX block will be used for. Each class of SDX block is only allowed in certain domains. Valid entries are **"DOM"** (domestic), **"NSR"** (number services routing), and **"ATNS"** (access tandem transit network selection). . The domains in which the class of SDX block are allowed are as follows:

CLASS	DOMAIN
DOM	POTS, nonPOTS (20-80,82,83), SDNA, DEV, DED, SF00-SF06 (4E22R4>), SF07-SF039 (4E23R1>), DEC6, DER6, DEC0, DER0, DEC1, DER1, INCD, N64C, N64R, NH0C, NH1C.
NSR	NSR.
ATNS	STCD (4E22R4>), ATNS.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

ACTION

Action - Add, Change, or Delete. Enter **"A"** if the associated data on this form is being added. Enter **"C"** if the associated data on this form changes existing data.

INDEX

This number specifies the index number of the SDTYPE entered in AD1 of the appropriate code group RC Form. Legal values are:

SIZE	INDEX
1	0 - 14
2	0 - 126
3	0 - 1022

When the index values are of the Data Rate Transfer Capability (DRTC) subsequent digit type (the Subsequent Digit Index [SDINDEX] is pointed to by a code group with Additional Data 1 [AD1] of DRTC), the INDEX values of 0 to 6 are defined as follows: voice (0), 3.1 kb modem (1), 56 kb (2), 64 kb restricted (3), 64 kb clear (4), 384 kb (5), and 1536 kb (6). Value 7 is currently undefined.

When the index values are of the Voice or 3.1 kHZ Indicator (V31K) subsequent digit type, this field specifies the index that is used to select a routing treatment when a V31K type of subsequent digit entry is encountered. Index 0 will be interpreted as 3.1 kHZ, and Index 1 will be interpreted as normal speed.

The treatments for all unspecified INDEXes will be defaulted to Final Handling Treatment-Vacant Code Analysis (FHT-VCA).

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Form Entries, Continued

CALLTYP The Call Type is used to define the major category for the disposition of the codes listed on this form. The valid Call Type categories are as follows:

- **EAR** - The Emergency Alternate Routing feature will be used to reroute calls. The EAR Call Type will be used for code groups which must be screened for this feature and will indicate that one or more destination numbers in the code group have this feature. This feature allows business customers to redirect calls from a primary location to an alternate location when the primary location is the victim of a natural disaster, a bomb threat, or other terrorist activity.

- **FHT** - Final Handling Treatment. This identifier specifies that the listed codes will be directed to a Final Handling Treatment (FHT) announcement or tone.

- **GNS** - Go/No Go Screening - GNS specifies that this group of codes will be given GNS before the routing is determined. If this call type is entered. GN and GNSC fields must be completed.

- **PAS** - Public Announcement System - This identifier specifies that the codes listed will terminate the customer to the announcement specified in the CALLDATA field.

- **RDB** - Routing Data Block - RDB is used to specify that the set of codes listed in this form will be routed directly to Trunk Subgroups (TSGs) defined by a Routing Data Block (RDB).

- **SDX** - Subsequent Digit Index - This Call Type is used to reference a subsequent digit entry which contains several alternative routing treatments that are selected on the basis of an index determined by the type value entered as AD1. In memory, the SDX call type contains data stating the grid table size: **"1"** meaning a size of 16 entries, **"2"** meaning 128, **"3"** meaning 1024. To obtain the number of SDs, use the VER:CODEGRP:SDINDEX message (4E23>).

Continued on next page

Form Entries, Continued

CALLTYP (cont'd.)

- **SSP** - Service Switching Point - This identifier is used to designate the processing of a Numbered Services call.
- **TEL** - TELEVOTE with Public Announcement System - This identifier specifies that the codes listed will terminate the customer to the announcement specified in the CALLDATA field. TEL is only valid in the Plain Old Telephone Service (POTS) Domain.
- **TST** - Test - This identifier is used for the code line test combinations within a translation domain. Three digit codes under this call type would include 10X codes and the synchronous test.

CALLDATA

This field further defines the treatment given to the group of codes listed on this form. CALLDATA is an extension of the Call Type (CALLTYP). For a given CALLTYP, the CALLDATA will define the specific code group treatment. CALLTYP/CALLDATA correlation is shown below.

- **Emergency Alternate Routing (EAR) Call Type** - The CALLDATA for EAR is an RDB index in the range of **"1-8191"**.
- **FHT Call Type** - The Final Handling Treatment (FHT) CALLTYP is used to point a group of codes directly to an announcement or tone. The CALLDATA field identifies that tone or announcement circuit. Valid entries are : **"AR"**, **"BT"**, **"EA1-EA7"**, **"HW"**, **"IFF"**, **"INC"**, **"IVC"**, **"MCA"**, **"NCA"**, **"NCC"**, **"NCD"**, **"NWC"**, **"OOB"**, **"ROA"**, **"SP1"**, **"SP2"**, **"T"**, **"VCA"**, **"DNN"**, **"DPP"**, **E01-E02"**, **"I01-I30"**, **"INF"**, **"ISB"**, **"LDV"**, **"LOB"**, **"LSA"**, **"NCB"**, **"NWN"**, **"OOA"**, **"OTS"**, **"R01-R10"**, **"S01-S19"**, **"SNA"**, **"STO"**, **"TDN"**, **"UNN"**, **"VMA"**, **"WAT"**. Consult Lucent Practices 781-031-100 for further definition of various tones and announcements. See the Routing Data Block Final Handling Treatment (RDBFHT) description for the identifiers that may be specified.

Continued on next page

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Form Entries, Continued

CALLDATA (cont'd.)

- **GNS Call Type** - If the GNS CALLTYP identifier is used, the CALLDATA field will contain a Routing Data Block Index (RDBI) from **"1-8191"**. This index will be used to direct the call if the Go/No Go Screening (GNSC) passes. The Go No Go (G/N) and GNSC fields specify the Go/No Go conditions. If the GNSC fails, the call is directed to the vacant code Final Handling Treatment (FHT).

- **PAS Call Type** - If Public Announcement System (PAS) Call Type is used, the CALLDATA field must contain a 12-digit announcement identifier. This identifier is made up of the 5-digit Voice Storage System Identity (VSSID) and 7-digit Service Identity (SID).

- **RDB Call Type** - For RDB, the CALLDATA field will contain a Routing Data Block Index (RDBI) from **"1-8191"**. This number will specifically identify a given set of routing parameters as listed in the RDB form with that same RDBI. The RDB entry is used to directly point a group of codes toward routing information.

- **SDX Call Type** - The CALLDATA for SDX is a Subsequent Digit Index (SDX) which identifies a particular subsequent digit entry. Valid values are **"1-16383"**.

- **SSP Call Type** - If Service Switching Point (SSP) Call Type is used, the CALLDATA field must contain one of the following identifiers:

  - **RT** - Retranslate Carrier ID (CID) and Type Of Service (TOS) plus Incoming Trunk Class (ITC) in the Number Services Routing (NSR) domain.
  - **RT00Y** - Retranslate CID TOS plus ITC in the NSR domain with a 00Y for Numbering Plan Area (NPA) lookup.
  - **RTCOIN** - Retranslate CID TOS plus ITC in the NSR domain for a 00X coin call.
  - **ACPN** - The 0ZZ-XXX[X] (or Transit Network Selection [TNS]) translation indicates Analyze the Called Party Number". For the Equal Access Multifrequency (EAMF), the switch will receive the second/third stages of digits and proceeds with digit translation looking for Called Number Triggers.

Continued on next page

Form Entries, Continued

CALLDATA (cont'd.)

- **AIIO** - The 0ZZ-XXX[X] (or TNS) translation indicates "Analyze the Information Digit/Originating Line Information (II/OLI)". This causes the switch to intercept the second and third stages of digits in for EAMF, and to check II/OLI for the "Send Advanced Intelligent Network (AIN) Information Collected Query" (SIAQ) value.
- **DB** - TOS and Database query.
- **DB7** - TOS and Database query for a 7-digit dialed number.
- **DB00Y** - TOS and Database query with a 00Y or NPA lookup.
- **DBCOIN** - TOS and Database query for a 00X coin call.
- **EASDNA** - Receive the Equal Access (EA) sequence and retranslate the address sequence in the Software Defined Network (SDN) Access (SDNA) domain.
- **EASEQ** - Collect the 2nd and 3rd stage digits EA format.
- **NCP12** - 12- or 9-digit address returned from the SDN NCP, the first two digits of which are deleted by the 4ESS Switch before outpulsing, retranslate the CID, TOS, and ITC in the NSR domain.
- **NDB** - Interexchange Carrier/International Carrier (IC/INC) routing. Requires Call Handling Instruction (CHI) entry of Number Services Data Block (ND), Number Services/Inhibit Black Box (NDB) or Number Services/Inhibit Black Box and Blue Box (NDBB).
- **RTP** - Retranslate the routing digits in Plain Old Telephone Service (POTS).
- **SFA** - Subscribed Footprint Area (4E22R4>)
- **SIAQ** - Send Information and Analyze Query.
- **SICQ** - The 0ZZ-XXX[X] (or TNS) translation indicates "Send AIN Information Collected Query". This causes the switch to intercept the second and third stages of digits in the EAMF case and the indicated query is sent to the Service Control Point (SCP) without any analysis of the called number.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Form Entries, Continued

CALLDATA (cont'd.)

- **TNSND** - Access Tandem Transit Network Selection Digits -This identifier is used at an Access Tandem (AT) switch to handle incoming calls from equal access Integrated Services Digital Network User Part (ISUP) to outgoing equal access ISUP or MFWINK. This subtype is only used in the Access Tandem Transit Network Selection (ATNS) domain.

- **TEL** Call Type - If TEL Call Type is used, the CALLDATA field must contain a 12-digit announcement identifier. This identifier is made up of the 5-digit VSSID and 7-digit SID.

- **TST** Call Type - This identifier specifies that the group of codes on this form are test codes. The CALLDATA field will identify the test. The following combinations may be assigned.

  - **100** - Balance - provides a quiet termination.
  - **101** - Communication - provides a link to a test board or test position.
  - **102** - Milliwatt - source of 1000 hertz test tone.
  - **103** - Signal/Supervisory - This test provides a series of on-hook/off-hook transitions.
  - **105** - Automatic Transmission Measuring System (ATMS) - provides a connection to an ATMS responder.
  - **108** - Echo Suppressor - The 108 test is used to test Echo Suppressor operation.
  - **109** - This test is used to test Echo Canceller operation.
  - **DLC -** Data loopback/complement test trunk.
  - **SYN** - Synchronous - SYN specifies a signaling/supervision test similar to 103 but on an automatic timed basis.

Continued on next page

Form Entries, Continued

AD1 Additional Data 1 - This field further defines the treatment given to a code group translation. AD1 is an extension of the Call Type (CALLTYP) and CALLDATA words. For a given CALLTYPE and CALLDATA, the AD1 will define the specific code group treatment. Valid entries for the appropriate services are:

- **"Blank"**
- **"GNS" (Go/No Go Screening)** - If GNS Call Type is used, the AD1 field is used to enter the Go/No Go value for the Call Type. The field may contain a Go **("G")** or No Go **("N")** condition for the list of codes that appear on this form. The indication is linked with a given GNS Class in the next field. All two-way and incoming Trunk Subgroups (TSGs) are assigned a GNS Class. By manipulating the Go/No Go conditions for a group of codes, incoming traffic can be denied (sent to vacant code) on one or more TSGs and allowed to complete on others.
- **"SDTYPE" (Subsequent Digit Index Type)** - The AD1 field for SDX Call Type is used to identify the type of index that must be used to index the subsequent digit entry. Valid entries are as follows:
  - **MTS** Multiple Treatment Screening class from an incoming trunk. Valid entries are **"Blank"** or **"0 - 63"**.
  - **DC** Digit Count of the incoming call. Valid entries are **"3 - 15"**.
  - **DRTC** Data Rate Transfer Capability for Integrated Services Digital Network user Part (ISUP) to Multifrequency (MF) interworking. Valid entries are **"0 - 7"**.
  - **IPR** ISUP Preference Routing. Valid entries are:
    "0" - ISUP Preferred. The outgoing trunks should be mostly ISUP.
    "1" - ISUP not required. The outgoing trunks should be mostly non-ISUP.
    "2" - ISUP Required. All outgoing trunks must be ISUP.
    "3" - Spare
  - **V31K** Voice or 3.1kHZ indicator. Valid entries are:
    "0" - 3.1kHZ
    "1" - Voice.

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Form Entries, Continued

AD1
(cont'd.)

- **"SSP" (Service Switching Point)** Call Type - If SSP Call Type is used, the AD1 field is used to enter either the Type of Service (TOS) indicator value for the CALLDATA of NCP12, RT, RT00Y, RTCOIN, SICQ, DB, DB7, DB00Y, or DBCOIN or the Number Services Data Block (NDB) for the CALLDATA of NDB or TNSND, or the Subscribed Footprint Area Index (SFAI) for the CALLDATA of Subscribed Footprint Area (SFA).
  - **NDBI** - Number Services Data Block Index value defines which Interexchange Carrier or International Carrier routing control block will be used for the call. Valid input values are **"1-1023"**.
  - **SFAI** - Subscribed Footprint Area Index used to calculate a corresponding SFA domain. Valid input is **"0-6"** (**"0-39"** for 4E23>).
  - **TOS** - Type of Service entry defines which number service will be identified with this Call Type entry. Valid input is a number between **"0"** and **"31"**.
- **"SAPN"** - This field is used to specify the Slave Application Number (SAPN) assigned when the Call Type is TEL. Valid range is **"0-63"**.

Continued on next page

Form Entries, Continued

AD2

Additional Data 2 - This field further defines the treatment given to the group of codes listed on this form. AD2 is an extension of the Call Type (CALLTYP), CALLDATA, and AD1. For a given CALLTYPE, CALLDATA, and AD1, the AD2 will define the specific code group treatment. CALLTYPE/CALLDATA/AD1/AD2 correlation is shown below:

- **GNS (Go/No Go Screening)** Call Type - If GNS Call Type is used, the AD2 field is used to enter the Go/No Go Screening Class for the Call Type.
  - This field will have an entry when CALLTYP is GNS and AD1 is not **"Blank"**. The Go/No Go Screening Class specifies the Trunk Subgroup (TSG) class that will be allowed or denied completion to the regular routing. A range of **"0-3"** may appear in this field.
- **SSP (Service Switching Point)** Call Type - If SSP Call Type is used, the AD2 field is used to enter the Carrier IDentification (CID) indicator value for the CALLDATA of NCP12, RT, RT00Y, or RTCOIN.
  - CID - Carrier IDentification number defines which Interexchange Carrier or International Carrier will be used to route the call. Valid input is **"0000-9999"**.

  If either:
  - the DOM is Super Tandem Carrier ID (STCD) and the CALLDATA is Access Tandem Transit Network Selection Digits (TNSND) or
  - the DOM is Number Service Routing (NSR) and CALLDATA is Number Services Data Block (NDB),

  then the AD2 field specifies if the associated Carrier is allowed to receive all possible Information Digit/ Originating Line Information (II/OLI) values or is restricted only to certain values (Restrict II/OLI [RIO]). Allowed entries are:
  - **"Blank"** or **"N"** (Restrict II/OLI forwarding [DEFAULT])
  - **"Y"** (Allow II/OLI forwarding).

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Form Entries, Continued

SC

Service Category/Code Group. This field identifies the Service Category (SC) of the code group. This category is used to perform incoming screening on calls received from other carriers. Also, it is used to determine for which calls an Automatic Message Accounting (AMA) record or Access Charge record should be made.

As examples of screening, an Operating Company Access Tandem (AT) switch must deny calls from an Interexchange Carrier (IC) that do not terminate in the Local Access Transport Area (LATA) served by the AT.

As an example of recording, an AT must make a terminating Access Charge record for all calls it receives from an IC or INC which terminate in the LATA.

The SC defines the screening and recording classification to be used for the code group. The SC field only applies if the CALLTYP is CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, TST, or TTS. SC will also be used to specify for which calls a query will be sent to the Network Call Denial (NCD) database.

Valid Service Category entries are:

- **Blank** - If this field is **"Blank"**, the SC is unspecified.
- **ALAP** - Alaskan Plain Old Telephone Service (POTS). ALAP is the classification for POTS code groups in the Alaskan World Zone 1 area.
- **ATAP** - Access Tandem Area Pots. ATAP is only applicable if the 4ESS Switch is owned or leased by an Operating Company and used as an Access Tandem (AT) for a LATA. ATAP is the classification for the POTS code groups in the LATA served by the AT. In addition, ATAP is the category for POTS code groups in Independent Operating Company areas also served by the Tandem Switch.

Continued on next page

Form Entries, Continued

SC
(cont'd)

- **CANP** - Canadian POTS. CANP is the classification for POTS code groups in the Canadian World Zone 1 area.
- **CARP** - Caribbean, NON-U.S. Territories, POTS. CARP is the classification for POTS code groups in the Caribbean World Zone1 area which do not include United States territories.
- **CUSP** - Continental U. S. POTS. CUSP is the classification for POTS code groups in the continental U. S., which could not also be classified ATAP.
- **CUTP** - Caribbean, U. S. Territories, POTS. CUTP is the classification for POTS code groups in the part of the Caribbean World Zone 1 area which includes United States territories.
- **DA** - Directory Assistance. DA is used to classify code groups assigned to Directory Assistance.
- **DLT** - DIAl-It*. DLT is used to classify DIAL-It code groups.
- **DSD** - Direct Services Dialing. DSD is used to classify Direct Services Dialing code groups.
- **EASC** - Exchange Access Signaling Code. EASC is used to classify the code groups used for Exchange Access Signaling (EAS) to an Interexchange (IC) or International Carrier (INC).
- **HAWP** - Hawaiian POTS. HAWP is the classification for POTS code groups in the Hawaiian World Zone 1 area.
- **ICIN** - Inter-LATA Carrier switch owner's International Carrier (INC). ICIN is used to classify code groups for calls to the Inter-LATA Carrier switch owner's International Carrier.

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Form Entries, Continued

SC
(cont'd)

- **INCN** - International Carrier but not inter-LATA Carrier switch owner's International Carrier. INCN is used to classify code groups from an Inter-LATA Carrier switch to an International Carrier which is not owned by the Inter-LATA Carrier. In addition, these code groups are not destined for International Operators.

- **INCO** - International Carrier Operator. INCO is the classification for code groups used for calls to an International Carrier Operator.

- **INET** - This is used for Interim Nationwide Emergency Telecommunications System code groups. INW = Inward WATS.

- **INW** is used for Inward WATS code groups. IOP = Inward Operator.

- **IOP** is used to classify code groups assigned to Inward Operator positions.

- **LDA** - Local Directory Assistance. This service category is used to generate the appropriate billing record when used in conjunction with a Centralized Automatic Message Accounting (CAMA) Far End Network (FEN) block.

- **MCPP** - Multiquest Calling Party-Paid. MCPP is used to classify Multiquest code groups paid for by the calling party.

- **MULT** - Multiquest. MULT is used to classify Multiquest code groups.

- **MSC1** through **MSC4** - These miscellaneous categories can be used to classify code groups into miscellaneous categories. These may be especially useful if the 4ESS Switch is shared by an Operating Company and an Interexchange Carrier (IC). In this case, the general categories could be used to classify code groups by the carrier which owns the switch and the miscellaneous categories used for code groups handled by the carrier leasing capacity on the switch.

- **NWZ1** - Non-World Zone 1. NWZ1 is the classification for the code groups used for calls to Non-World Zone 1 area.

Continued on next page

Form Entries, Continued

SC
(cont'd)

- **RSYS** - Restricted System Codes. RSYS is used to classify code groups assigned as special purpose restricted system codes.
- **SC1** through **SC36** - Spare Category 1 through Spare Category 36. These SCs can be used to classify codes in up to 36 SCs. One use for these categories is screening of IntraLATA calls at an Inter-LATA Carrier Switch. For this use, a different category would be assigned to the codes for each LATA to which the InterLATA Carrier Switch connects. Another possible use for these categories is for screening International Switching Center (ISC) terminating and transit traffic. For this use, the SCs would be assigned to the Overseas codes for which special screening is required. Yet another use is extensions of the current use of the Miscellaneous Service Categories (MSCs) (e.g., at shared switches).
- **SDN** - Software Defined Network. SDN is used for calls to a Software Defined Network.
- **SDND** - SDN Data. SDND is used for Software Defined Network Data calls.
- **SPDI** - Sponsor-Paid Dial-It. SPDI is used to classify DIAL-It code groups paid for by the sponsor.
- **SSP** - Local Exchange Carrier (LEC) Service Switching Point (SSP). SSP is used to identify calls that will have SSP processing applied to them.
- **TC** - Teleconferencing. TC is used to classify code groups assigned to network Teleconferencing services.
- **TST** - Test Line. TST is used to classify code groups assigned to trunk test lines.
- **UNSP** - Unspecified. This entry is used for a verify input request of codes that contain no SC.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

CHI

Call Handling Instructions. This field is used to specify some call handling actions to override present Outgoing Signaling Characteristics (OSCs), recording, and/or fraud prevention controls. This field is needed because of the new call handling requirements for Interexchange Carrier (IC) and International Carrier (INC) Access. The CHI field only applies if the CALLTYP is CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, RDB, RNR, SSP, TEL, TST, or TTS.

NOTE: This field must be populated for some existing code groups, such as those used for 2-stage International calls and ADD-ON Teleconferencing calls. Failure to populate this field for these calls will result in failure to complete these calls.

Valid entries for CHI field are:

- **"Blank"** - If this field is **"Blank"**, no special call handling instructions are taken.
- **AAT2** - Access Tandem (AT) to IC Traditional Two-stage. This CHI value is used at the AT or Service Switching Point (SSP) to identify that a traditional two-stage international incoming call to the AT/SSP is being passed to the carrier via equal access using Integrated Services Digital Network User Part (ISUP) signaling.
- **ABBB** - Same as ACD, but in addition, disable Black Box and Blue Box fraud prevention.
- **ABLK** - Same as ACD, but in addition, disable Black Box Fraud prevention.
- **ACD** - Inward Wide Band Area Telephone Service (INWATS) ACD. Specifies that a terminating INWATS ACD record is to be made.
- **EAAR** - Expect Automatic Number identification (ANI) Assist Request. EAAR specifies actions at an intermediate toll switch for a call on which an ANI Assist Request is expected. For example, an ANI Assist Request is expected on a call to establish an ADD-ON Teleconference.

Continued on next page

Form Entries, Continued

CHI (cont'd.)

- **EGRH** - Egress Handling. Specifies actions at the egress switch for Direct Connect and Software Defined Network (SDN) calls. Usually, these calls will be directly terminating to a Private Branch Exchange (PBX). However, in some SDN cases, they will terminate to a local switch, either via a dedicated Trunk Subgroup (TSG) or via special NXX codes (unused office codes). EGRH can only be specified if DOM is APN, DED, or DEV. Note that it must be specified for all DED and DEV calls at the Egress switch (and not at intermediate switches) to allow the Direct Connect and/or the SDN (Offnet Egress Privilege) features.
- **ESD2** - Expect Second Start Dial 2. ESD2 specifies actions at an intermediate toll switch for a 3-stage Exchange Access call to an International Carrier (INC), including the Interexchange Carrier (IC) International Switching Center when it is able to receive Exchange Access calls.
- **ESSD** - Expect Second Start Dial. ESSD specifies actions at an intermediate toll switch for a 2-stage International call to an IC International Switching Center.
- **FGB** - Feature Group B. FGB specifies actions for calls to an IC or INC.
- **IBBB** - Same as ICDR, but in addition, disable Black Box and Blue Box fraud prevention.
- **IBLK** - Same as ICDR, but in addition, disable Black Box Fraud prevention.
- **ICDR** - International Call Detail Recording. Specifies that an ICDR record is to be made.
- **IEA** - Interim Exchange Access. IEA specifies actions for calls from an End Office (EO) unequipped to do Exchange Access signaling to an IC or INC able to handle Exchange Access signaling. (Initial plans call for these calls to have ABC digits of 950.)
- **MSC1, MSC2** - Miscellaneous 1 and 2. Two miscellaneous values are included. These can be assigned if an unforeseen set of calls require special call handling instructions.
- **ND** - Number Services Data Block information for outpulsing control.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

CHI (cont'd.)

- **NDB** - Number Services Data Block information for outpulsing control, inhibit Black Box.
- **NDBB** - Number Services Data Block information for outpulsing control, inhibit Black Box and Blue Box.
- **NONE** - This entry is used for a verify input request of codes that contain no Call Handling Instruction.
- **WACK** - Wait For Acknowledgment. WACK specifies actions for calls to an INC for which a trunk is seized and digits outpulsed. The talking path is not cut through until an Acknowledgment signal is received from the INC. This entry only applies to a 4ESS Switch owned or operated by an Operating Company as an Access Tandem (AT).
- **WAC2** - Specifies the signaling actions to be performed by an AT when connecting an Equal Access End Office (EAEO) to an INC (possibly through an Intermediate Carrier).
- **WSNO** - Wink Start No Outpulse. WSNO specifies actions for calls for which a trunk to an IC or INC is to be seized but no digits outpulsed. This is one option allowed in Exchange Access signaling, and is chosen by the IC or INC.

DESEP

Destination Separation is used to identify destinations for traffic flow purposes. Peg and usage counts are made as a function of the Trunk Sub-Group (TSG) incoming class (INSEP) and the outgoing destination class (DESEP). All outgoing or successfully terminated traffic is assigned a given destination class from **"1-255"**.

NOTE: DESEP class 63 is assigned generically for test calls. Any other assignment to class 63 should take this fact into consideration.

For codegroup forms, a DESEP class will be assigned only when the CALLTYP is equal to CRB, DSN, EAR, GNS, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, or TTS. This field is **"Blank"** for any other Call Type value.

Continued on next page

Form Entries, Continued

DNST Not Applicable – Entries: **"Blank"**

AD3 Not Applicable - Entries: **"Blank"**

ADC Acceptable Digit Count/Code Group - This field specifies the total number of incoming digits expected for a call routed to this Call Type. This field must be entered for the following Call Types: CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, TST, and TTS.

The legal values for this field are digit counts from **"3-15"** for domestic routing.

For the Call Types requiring that an ADC be input, at least one number must be specified. More than one number may be listed as valid. For example, if the Call Type points to an Routing Data Block (RDB), 6, 8 or 10 digits may be valid. Note that the number of incoming digits specified is the number of incoming digits actually received before modification by deletion or prefixing in the RDB but after A-digit reconstruction. When the Call Type treatment points to an international transit RDB (International Domain [IDOM] equals **"T"** on the RDB form) or an international originating RDB (IDOM equals **"O"**), the Language Digit (LD) is never counted in the number of digits that make up the ADC regardless of whether the LD is translated or not.

Dial Pulse (DP) and Dual Tone Multifrequency (DTMF) rely on collecting digits one-at-a-time. A range of **"3-15"** entry causes DP or DTMF critical digit timing (5 second recognize end of dialing) after each digit beyond the third digit since each digit is potentially the last. On any DP or DTMF call with less than 15 digits it causes a five second post dialing delay.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

ADC (cont'd.)

MF, CCIS, CCITT5, ISUP, and Q931 are en-block (not-one-at-a-time) digit collectors. When the complete address is received on en-block digit collectors or when a 5-second timeout occurs on the one-at-a-time digit collectors, the number of digits received is compared with the various totals specified by the ADC in the Call Type word to which this call has been directed. If the number of digits received does not match one of the totals specified by ADC and this is an en-block call, the call will be given partial dial Final Handling Treatment (FHT). If the number of digits received does not match one of the totals specified by ADC and this is a one-at-a-time call, an additional 10 seconds (total of 15 seconds) will be allowed. If no additional digit is received during this interval, the call is given partial dial FHT (Partial Dial Timeout). If the number of digits on a one-at-a-time call does match one of the totals specified by ADC and no additional digit is received within a 5-second delay, the call will be routed on the number of digits received even if there are additional digits that have not been received yet. Therefore, the ADC should not be set any lower than the number of digits needed to correctly route the call for one-at-a-time digit collectors.

Continued on next page

Form Entries, Continued

TABLE 11

Table 11
Valid Call Types And Domain Class For SDX Blocks

CALLTYP	APN	DOM	ITRP	INTRL	NSR	ATNS	GSDN
CRB	X	X			X		
DSD	X	X					X
DSN	X	X	X	X			
DUP	X	X			X		
EAR		X					
FHT	X	X	X	X	X	X	X
GNS	X	X	X	X			X
INW	X	X			X		
IRA	X	X	X				
MCT	X	X	X	X			X
MMT	X	X	X				
MRT	X	X	X	X			
PAS	X	X			X		
PRT	X	X	X	X	X		
RDB	X	X	X	X	X		X
RNR	X	X	X				
SDX	X	X	X	X	X	X	X
SSP	X	X	X		X	X	
TEL	X	X			X		
TST	X	X	X				X
TTS	X	X	X				

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ACTION	6
AD1	12
AD2	14
AD3	22
ADC	22
ADC	23
CALLDATA	8
CALLTYP	7
CHI	19
DESEP	21
DNST	22
DOMCLASS	5
INDEX	6
ORNU	5
RC:CODEGRP;CHG;OPT(SDX),---:	4
SC	15
SDINDEX	4
SIZE	5

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 305

General

The Recent Change (RC) Form 305 is used to delete a subsequent digit entry.

An alphabetical keyword list is included in this section on page 4.

Continued on next page

RC 305, Continued

General
(cont'd.)

```
# FORM 305   DELETE SUBSEQUENT DIGIT ROUTING

     RC:CODEGRP;OUT;OPT(SDX),___:                          SDINDEX _____,

     ORNU ______,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                      ASSOCIATED VERIFY MESSAGES

                     INPUT-13c-VER:CODEGRP:SDINDEX

                     OUTPUT-3g-VER:CODEGRP;OPT(SDX)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;OUT;OPT(SDX),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

SDINDEX

Subsequent Digit Routing Index - This number specifies the subsequent digit entry being affected. Legal inputs are: **"1-16383"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ORNU	3
RC:CODEGRP;OUT;OPT(SDX),---:	3
SDINDEX	3

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 307

General

The Recent Change (RC) Form 307 is used to add a served Numbering Plan Area (NPA) to the 4ESS™-2000 Switch translations.

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC 307, Continued

General
(cont'd.)

```
# FORM 307 ADD A  NEW  SERVED  NPA

     RC:CODEGRP;NEW;OPT(SNPA),___:                          DOM POTS, SNPA ___,

     ORNU _______,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 403A

                       ASSOCIATED VERIFY MESSAGES

                       INPUT-13b-VER:CODEGRP:ABC

                     OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;OUT;OPT(SNPA),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

DOM	DOMAIN - This field designates a community of interest that requires separate routing. DDD is indicated by an entry of **"POTS"** in the DOM field.
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
SNPA	Served Numbering Plan Area - This field identifies the area to be served directly by the 4ESS Switch. There may be up to seven Numbering Plan Areas (NPAs) (in addition to the Home NPA [HNPA]) that can be served directly by the switch. The Served NPA (SNPA) designation is the area code assignment for that particular geographic area. Area codes may be in the range of **"200-999"**.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
DOM	4
ORNU	4
RC:CODEGRP;OUT;OPT(SNPA),---:	3
SNPA	4

Form Entries, Continued

This page is intentionally left blank.

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 308

General

The Recent Change (RC) Form 308 is used to add or delete protected terminating office code in the 4ESS™-2000 Switch translations.

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC 308, Continued

General
(cont'd.)

```
# FORM 308 PROTECT OFFICE CODES

RC:CODEGRP;CHG;OPT(PROTCTED),___:                              ONPA ___,

ORNU _______,

TNPA ___, PROTECT _,

TOFC  TOFC  TOFC  TOFC

___,  ___,  ___,  ___,
___,  ___,  ___,  ___,

REMARKS _____________________________________________________!

              EQUIVALENT ODA INPUT FORM - ESS 403B

               ASSOCIATED VERIFY MESSAGES - NONE
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;CHG;OPT(PROTCTED),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ONPA

Originating Numbering Plan Area - ONPA is used to identify the area from which a 7-digit inter-area call may originate. The NPA must be a 3-digit area code (**200-999**) for either the home NPA or one of the served NPAs that are in Office Data Assembler (ODA).

Continued on next page

Form Entries, Continued

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

TNPA Terminating Numbering Plan Area - For codegroup forms, this field identifies the specific Numbering Plan Area (NPA) to which a 7-digit inter-area call may be directed. Any NPA (including home and served) may be entered in this field. The range is **"200-999"**.

NOTE: Even though the call may be originated on a 7-digit basis, the 4ESS Switch will prefix the destination area code (before translation) for all NPAs except the home NPA. In addition to being specified on the RC Form 308 each terminating office code must also be listed on an RC Form 301 or 302 as the DEF digits, with the TNPA specified as the ABC digits. For Centralized Automatic Message Accounting (CAMA) forms, this field identifies the area code associated with the office codes listed on this form. When a local calling area crosses an NPA boundary, more than one terminating NPA may be represented by a given profile index. In this case, separate RC 402 Forms with the same profile index are prepared for each NPA (up to four). Valid entries range from "200-999".

For RC Form 403, this field lists the 3-digit codes that are to be blocked when received as the called (terminating) area code component of a CAMA call. Blocked codes will be directed to the "Unauthorized CAMA" announcement. Valid entries range from **"200-999"**.

PROTECT This field appears on the Recent Change (RC) forms for defining protected office codes in an originating Numbering Plan Area (NPA). These codes are those in another NPA that may be dialed on a seven digit basis. Since those NXX office code combinations cannot be directed to both the local area and the foreign area, they must be "protected" (not assigned) in the originating NPA. This field may be **"Y"** for Yes or **"N"** for No to specify whether or not the codes listed are to be protected in the originating NPA.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

TOFC Terminating Office Code - For codegroup forms, TOFC identifies the NXX (200-999) office code that may be dialed on a 7-digit basis from the Originating Numbering Plan Area (ONPA) to the Terminating NPA (TNPA). This list will contain all of the office codes that can be reached by 7-digit inter-area dialing between the ONPA and TNPA.

NOTE: If the ONPA is the home NPA the TOFC listed on this form may not be entered on RC Form 307. If the ONPA is entered on RC Form 300 as a served NPA the TOFC listed on this form may not be entered on an RC Form 301 or 302 as the DEF digits for that Served NPA (SNPA).

For Centralized Automatic Message Accounting (CAMA) forms, The TOFC fields list the terminating office codes within a given NPA for a local call area definition. This definition is used to prevent local calls from being completed. The valid range for office codes is from **"200-999"**.

For RC Form 404, this field lists the 3-digit codes that are to be blocked when received as the called (terminating) office code component of a CAMA call. The range of valid entries is from **"200-999"**. The Office Data Assembler (ODA) system will automatically block codes in the range of **"000-199"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ONPA	3
ORNU	4
PROTECT	4
RC:CODEGRP;NEW;OPT(SNPA),---:	3
TNPA	4
TOFC	5

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 309

General

The Recent Change (RC) Form 309 is used to add a new domain (non-Direct Distance Dialing [non-DDD]) and specifies the storage requirement for that domain.

Low numbered Non-Plain Old Telephone Service (Non-POTS) domains (20-69) should be assigned first, where possible. High numbered domains (70-83) may, in the future, be reserved for special purposes, just as domains 81 and 82 are today, and may require special inter-working rules. Unless the rules governing the use of these domains are obeyed, these domains should NOT be used. In order to avoid possible mishandling of calls due to incorrect use of a special domain, and unnecessary administrative effort associated with changing domains, these high numbered domains should be used with extreme caution.

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Form 309, Continued

General
(cont'd.)

```
# FORM 309   ADD  A  NEW  NONPOTS  DOMAIN

     RC:CODEGRP;NEW;OPT(DOM),___:                                    DOM ____,

     ORNU ______,

     FSONLY N,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 403C

                   ASSOCIATED VERIFY MESSAGES - NONE
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;NEW;OPT(DOM),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e., CASPER.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DOM (cont'd)

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)
- **ATNS** - Access Tandem Transit Network Selection - This domain is used to translate equal access Integrated Services Digital Network User Part (ISUP) parameters to obtain the routing information.
- **NSR** - Number Services Routing - This domain will be populated with entries to perform Service Switching Point (SSP) Interexchange Carrier (IC) and International Carrier (INC) routing.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

FSONLY

File Store Only
Valid entry: **"N"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
DOM	4
FSONLY	5
ORNU	5
RC:CODEGRP;NEW;OPT(DOM),- - -:	3

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 311

General

The Recent Change (RC) Form 311 is used to change the number of digits to be translated for a given dialed address.

This Recent Change message can be used to make the following changes to the number of translatable digits:

OLD	NEW
3	4, 5, 6
6	7, 8, 9
9	10, 11, 12
4, 5, 6	3
7, 8, 9	6
10, 11, 12	9

When this form is used to decrease the Number of Translatable Digits (NTD), the routing treatment for all codes being decreased must be identical.

When this form is used to decrease the NTD, an area code cannot be reduced below an NTD of 6.

An alphabetical keyword list is included in this section on page 7.

Continued on next page

RC 311, Continued

General
(cont'd)

```
# FORM 311   CHANGE NUMBER OF TRANSLATABLE DIGITS

RC:CODEGRP;CHG;OPT(CHGNTD),___:                          DOM ____,  AC _,

ORNU _______,

OLD NTD __, NEW NTD __,

CODEGRP __________,

REMARKS _____________________________________________________!

                EQUIVALENT ODA INPUT FORM - NONE

                   ASSOCIATED VERIFY MESSAGES

                     INPUT-13b-VER:CODEGRP
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;CHG;OPT(CHGNTD),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be MISC or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e., CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)
- **ATNS** - Access Tandem Transit Network Selection - This domain is used to translate equal access Integrated Services Digital Network User Part (ISUP) parameters to obtain the routing information.
- **NSR** - Number Services Routing - This domain will be populated with entries to perform Service Switching Point (SSP) Interexchange Carrier (IC) and International Carrier (INC) routing.

AC

Area Code - A **"Y"** for Yes indicates that all of the 3-digit codes (ABC digits) on this form are Area Codes. If the ABC digits are office codes, test codes or other non-Area Codes, AC will be **"N"** for No. This field is left **"Blank"** when Domain (DOM) is not equal to Plain Old Telephone Service (POTS).

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

NTD Number of Translated Digits - This field specifies the number of digits to be analyzed for this code grouping. For domestic code grouping, this number may range from 3 to 12 depending on the code group form. The first three digits are listed under the ABC field, the remaining digits, if any, are listed in the DEF, GHI, and JKL fields. Valid entry for the RC Form 300 is only **"3"** because the form only changes the ABC digits. Other digit combination changes are performed on subsequent forms.

CODEGRP For increasing the Number of Translatable Digits (NTD), this field contains the sequence of digits on which the existing (old) translation is being done. The number of digits in this field must equal the value of the OLD NTD field. For decreasing the NTD, this field contains the sequence of digits on which the new translations will be done. The number of digits in this field must equal the value of the NEW NTD field. Valid entries are **"000-999999999"**.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
AC	5
CODEGRP	6
DOM	4
NTD	6
ORNU	5
RC:CODEGRP;CHG;OPT(CHGNTD),- - -:	3

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 317

General

The Recent Change (RC) Form 317 is used to add Country Code groups to translations at an International Switching Center (ISC) and domestic offices. The population of the translations table is necessary so international calls destined for ISCs can be transported across the network in a single stage via Common Channel Interoffice Signaling (CCIS) or Integrated Services Digital Network User Part (ISUP).

The population of the translations table is also necessary at a Service Switching Point (SSP) switch for Multifrequency (MF) equal access.

The translation table is also necessary at the Access Tandem switch for MF and ISUP network interconnect.

An alphabetical keyword list is included in this section on page 8.

Continued on next page

RC 317, Continued

General
(cont'd)

```
# FORM 317   ADD COUNTRY CODE
     4E20R3-4E22R4

     RC:CODEGRP;NEW;OPT(CCDCONV),___:     CCD ___, LD _, CBONLY _, FAXPR _,

     SCLB _,

     ORNU _______,

     ABC   ABC   ABC   ABC

     ___,  ___,  ___,  ___,

     ___,  ___,  ___,  ___,

     ___,  ___,  ___,  ___,

     ___,  ___,  ___,  ___,

     REMARKS _____________________________________________________!

                       ASSOCIATED VERIFY MESSAGES

                       INPUT-13e-VER:CCDCONV:ABC

                    OUTPUT-3m-VER:CODEGRP;OPT(CCDCONV)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 317, Continued

General
(cont'd)

```
# FORM 317   ADD COUNTRY CODE
4E23R1

RC:CODEGRP;NEW;OPT(CCDCONV),___: CCD ___, LD _, CBONLY _, FAXPR _,

SCLB _, RESELL _,

ORNU _______,

ABC   ABC   ABC   ABC

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

REMARKS _____________________________________________________!

                    ASSOCIATED VERIFY MESSAGES

                    INPUT-13e-VER:CCDCONV:ABC

                OUTPUT-3m-VER:CODEGRP;OPT(CCDCONV)
```

Continued on next page

RC 317, Continued

General
(cont'd)

```
# FORM 317   ADD COUNTRY CODE
     4E24R1

     RC:CODEGRP;NEW;OPT(CCDCONV),___:     CCD ___, LD _, CBONLY _, FAXPR _,

     SCLB _, RESELL _, CCRF _,

     ORNU _______,

     ABC   ABC   ABC   ABC

     ___,  ___,  ___,  ___,

     ___,  ___,  ___,  ___,

     ___,  ___,  ___,  ___,

     ___,  ___,  ___,  ___,

     REMARKS _____________________________________________________!

                       ASSOCIATED VERIFY MESSAGES

                       INPUT-13e-VER:CCDCONV:ABC

                   OUTPUT-3m-VER:CODEGRP;OPT(CCDCONV)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;NEW;OPT(CCDCONV),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

CCD

Country Code or Pseudo Country Code - Country Code can be one, two, or three digits with each digit having a value of **"0-9"**. These digits specify the country for which this call is destined. Valid entries are **"0-999"**. Pseudo Country Code will always be three digits.

Continued on next page

Form Entries, Continued

LD	Language Digit - This field is a single digit entry having a value of "**0-9**". A zero (**0**) equals a customer dialed call. A digit of **"1-9**" indicates a non-customer dialed call.
CBONLY	Cable Only indicator - Valid entries are **"Y"** for Yes, cable only routing, or **"N"** for No, unrestricted routing. A **"Y"** would be specified for certain Pseudo Country Codes which imply cable only facilities. A **"Y"** would also be entered for certain Country Codes where the office does not have direct circuits to that foreign country and the "via" country's offices could use satellite routing to complete calls to their destination.
FAXPR	Not Applicable - Entries: **"Blank"**
SCLB	Suppress Clear-back Message Indicator. This field is used to indicate whether clearback suppression applies for a given country code. This field is set to **"Y"** to suppress passing clearback at an International Switching Center (ISC) for calls to a country code known to produce an answer-clearback-reanswer sequence within prescribed time limits. Valid entries are: **"Y"**, **"N"**, **"Blank"**. Blank defaults to **"N"**.
RESELL	Not Applicable - Entries: **"Blank"**
CCRF	Not Applicable - Entries: **"Blank"**
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

ABC

The first three digits of the called party number are used to derive the country code. Valid entries are **"000 - 999"**. Recommendation:

- For a one-digit country code, build all 100 combinations of B & C digits for the first A digit.
- For a two-digit country code, build all 10 combinations of C digits for the given A & B digit.
- For a three-digit country code, build only the one combination of ABC digits.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ABC	7
CBONLY	6
CCD	5
CCRF	6
FAXPR	6
LD	6
ORNU	6
RC:CODEGRP;NEW;OPT(CCDCONV),___:	5
RESELL	6
SCLB	6

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 318

General

The Recent Change (RC) Form 318 is used to Delete Country Code groups from translations at International Switching Center (ISC) and domestic offices.

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC 318, Continued

General
(cont'd)

```
# FORM 318   DELETE COUNTRY CODE

RC:CODEGRP;OUT;OPT(CCDCONV),___:              CCD ___,

ORNU _______,

ABC   ABC   ABC   ABC

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

REMARKS _____________________________________________________!

                EQUIVALENT ODA INPUT FORM - NONE

                   ASSOCIATED VERIFY MESSAGES

                      INPUT-13e-VER:CCDCONV

                OUTPUT-3m-VER:CODEGRP;OPT(CCDCONV)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;OUT;OPT(CCDCONV),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

CCD	Country Code or Pseudo Country Code - Country Code can be one, two, or three digits with each digit having a value of **"0-9"**. These digits specify the country for which this call is destined. Valid entries are **"0-999"**. Pseudo Country Code will always be three digits.
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
ABC	The first three digits of the called party number are used to derive the country code. Valid entries are **"000 - 999"**. Recommendation: When deleting the country code, be sure to remove all three digit combinations (1, 10, or 100) used to build the one-, two-, or three-digit country code.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ABC	4
CCD	4
ORNU	4
RC:CODEGRP;OUT;OPT(CCDCONV),- - -:	3

Continued on next page

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 319

General

The Recent Change (RC) Form 319 is used to specify codes to be added to a Digit Type Category.

If the digit type is Universal Treatment Non-area Code (UTC**),** then this form also changes the routing treatment in any Served Numbering Plan Areas (NPAs).

An alphabetical keyword list is included in this section on page 7.

Continued on next page

RC 319, Continued

General
(cont'd)

```
# FORM 319   ADD 3 DIGIT TYPE

 RC:CODEGRP;NEW;OPT(DIGTYP),___:              DIGTYP ____, RDIG _,

 ORNU _______,

 DIG  DIG  DIG  DIG  DIG  DIG  DIG  DIG

 ___, ___, ___, ___, ___, ___, ___, ___,

 ___, ___, ___, ___, ___, ___, ___, ___,

 ___, ___, ___, ___, ___, ___, ___, ___,

 ___, ___, ___, ___, ___, ___, ___, ___,

 REMARKS _____________________________________________________!

               EQUIVALENT ODA INPUT FORM - ESS 403I

                    ASSOCIATED VERIFY MESSAGES

                   INPUT-13d-VER:CODEGRP:DIGTYP

                  OUTPUT-3h-VER:CODEGRP;OPT(DIGTYP)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;NEW;OPT(DIGTYP),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

DIGTYP Three Digit Type - DIGTYP specifies one of the categories of 3-digit codes or an exclusion code. Valid three DIGIT TYPES are as follows:

- **BNPA** -Billing Number Automatic Number Identification-Numbering Plan Area (ANI NPA). This entry is used to identify that the codes listed are valid billing numbers or ANI NPAs for originating switched Equal Access Signaling (EAS) calls.
- **DEF1-4** - DEF1, DEF2, DEF3, DEF4 - DEF digit codes. These codes correspond to the Fourth [D] Fifth [E] Sixth [F] (DEF) digits of the incoming call. They will enable blocking of customer dialed calls, from specific Far End Networks (FENs), which attempt to access these codes. For example, a specific FEN might be blocked from accessing codes in the DEF1 category, but not in the DEF2 category. DEF1 might include DIGs of the Format N11, DEF2 might include DIG = 555, and DEF3 might include toll center codes. A given DIG code may be in at most one of these four categories.
- **DP3** - Dial Pulse/DTMF 3 Digit codes. This DIGTYP entry specifies that the 3-digit non-area codes listed on this form may be arriving via Dial Pulse(DP)/Dual Tone Multifrequency (DTMF) signaling. Only those 3-digit codes that may be the first three digits (ABC) of 3-, 4-, or 5-digit calls should be entered in this category. Valid entries range from **"200-999"**. All codes of the Form 0XX or 1XX and N11 will be generically set by the Office Data Assembler (ODA) programs.
- **DP6** - Dial Pulse/DTMF 6 Digit Codes - These codes correspond to the DEF digits of 6-digit codes that may arrive by DP/DTMF signaling. Only those non-area codes that total six digits should be entered. No entry is required if the ABC digits are listed under DP3D. Valid entries range from **"200-999"**. All codes of the Form 0XX or 1XX and N11 will be generically set by the ODA program.
- **DT12-DT17** -Spare digit type; reserved for future use.
- **FCID** -Feature Group D (FGD) Carrier Identification Codes (FCID) - Used to indicate if call is a carrier call.
- **I809** - International World Zone 1 codes for the 809 Numbering Plan Area (NPA). The 809 NPA has certain areas that are "domestic" and others that are "international." This DIGTYP entry is used to specify those "international" NXX codes in the 809 NPA to which calls can be placed.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DIGTYP (cont'd)

- **IWZ1** - International World Zone 1 codes - This DIGTYP entry is used to specify all international WZ1 area codes to which calls can be placed, except for the 809 NPA which has a separate DIGTYP entry.
- **NRA** - Non-re-routable Area Codes - The Numbering Plan Area Codes listed under this 3-digit type will not be rerouted by the Network Management program. The codes in this category can be derived from the Network Management and local routing practices. 0/1XX and 800 codes need not be entered. These codes are automatically marked as non-reroutable by the Office Data Assembler (ODA). Valid three digit entries range from **"200-999"**.
- **NRN** - Non-reroutable Non-area Codes. This category includes 3-digit NXX codes in the home Numbering Plan Area (NPA) only. The codes listed in this category will not be rerouted by the Network Management program. 0/1XX and 800 codes will be automatically marked as non-reroutable by the Office Data Assembler (ODA). Three digit codes from **"200-999"** may be listed on the form associated with NRNAC DIGTYP.
- **NRNX** - I800 Network Routing Number Exhaust. This indicator gives the 4ESS Switch the capability to administratively turn off DEF screening for specific ABC digits indicating the use of the I800 NRNX feature.
- **UTC** - Universal Treatment Non-area Codes - Three digit codes associated with this DIGTYP have a common system destination. These codes are not deleted from a call and appear as the ABC digits of a call. Examples of codes in this category are Toll Center Codes and Office Codes available to all Plain Old Telephone Service (POTS) domains. Another type would be associated with Gateway office operation, such as, overseas operator and Access Codes. Codes of this type may arrive from offices in the areas served directly by the 4ESS Switch. The universal type test codes that are assigned for 10X type test lines and code 011 for International Direct Distance Dialing (IDDD) access set by Office Data Assembler (ODA) should not be entered on this form. (A complete list of 10X type codes may be found in Division 2, Section 6.)
- **WZ1A** - World Zone 1 Area is entered to specify that an R digit is being defined for the 01R equal access signaling protocol. This identifier is needed at all Service Switching Point (SSP) offices. This identifier is also needed in all Access Tandem (AT) switches for Integrated Services Digital Network User Part/Multifrequency (ISUP/MF) inter-working.

Continued on next page

Form Entries, Continued

RDIG R-Digit. For international Equal Access Signaling (EAS) to countries covered under the World Zone 1 numbering plan, an **"01R"** sequence for country is used. The "R" digit defines a geographic region within the World Zone 1 area. These "R" values are specified by the Local Exchange Carriers (LECs). Valid entries for the "R" digit are **"Blank"** or **"0-9"**.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

DIG The first, second and third digits of a set of digits. This field contains those 3-digit codes that are assigned under the category listed in the DIGTYP field.

For the input verify message, VER:MISC:FHT AINTRIG, DIG is a mandatory keyword and must be followed with a 3, 6 or 10 digit entry that will be used to match 10-digit Advanced Intelligent Network (AIN) triggers when retrieving information from the AIN trigger table.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
DIG	6
DIGTYP	4
ORNU	6
RC:CODEGRP;NEW;OPT(DIGTYP),- - -:	3
RDIG	6

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 320

General

The Recent Change (RC) Form 320 is used to specify codes to be Deleted from a 3-Digit Type Category.

If the digit type is Universal Treatment Non-area Code (UTC), then this form also removes the routing treatment from any Served Numbering Plan Areas (NPAs).

An alphabetical keyword list is included in this section on page 7.

Continued on next page

RC 320, Continued

General
(cont'd)

```
# FORM 320   DELETE 3 DIGIT TYPE

RC:CODEGRP;OUT;OPT(DIGTYP),___:                          DIGTYP ____,

ORNU _______,

DIG  DIG  DIG  DIG  DIG  DIG  DIG  DIG

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________________________________________________!

                EQUIVALENT ODA INPUT FORM - NONE

                   ASSOCIATED VERIFY MESSAGES

                  INPUT-13d-VER:CODEGRP:DIGTYP

                OUTPUT-3h-VER:CODEGRP;OPT(DIGTYP)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;OUT;OPT(DIGTYP),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
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- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

DIGTYP Three Digit Type - DIGTYP specifies one of the categories of 3-digit codes or an exclusion code. Valid three DIGIT TYPES are as follows:

- **BNPA** -Billing Number Automatic Number Identification-Numbering Plan Area (ANI NPA). This entry is used to identify that the codes listed are valid billing numbers or ANI NPAs for originating switched Equal Access Signaling (EAS) calls.
- **DEF1-4** - DEF1, DEF2, DEF3, DEF4 - DEF digit codes. These codes correspond to the Fourth [D] Fifth [E] Sixth [F] (DEF) digits of the incoming call. They will enable blocking of customer dialed calls, from specific Far End Networks (FENs), which attempt to access these codes. For example, a specific FEN might be blocked from accessing codes in the DEF1 category, but not in the DEF2 category. DEF1 might include DIGs of the Format N11, DEF2 might include DIG = 555, and DEF3 might include toll center codes. A given DIG code may be in at most one of these four categories.
- **DP3** - Dial Pulse/DTMF 3 Digit codes. This DIGTYP entry specifies that the 3-digit non-area codes listed on this form may be arriving via Dial Pulse(DP)/Dual Tone Multifrequency (DTMF) signaling. Only those 3-digit codes that may be the first three digits (ABC) of 3-, 4-, or 5-digit calls should be entered in this category. Valid entries range from **"200-999"**. All codes of the Form 0XX or 1XX and N11 will be generically set by the Office Data Assembler (ODA) programs.
- **DP6** - Dial Pulse/DTMF 6 Digit Codes - These codes correspond to the DEF digits of 6-digit codes that may arrive by DP/DTMF signaling. Only those non-area codes that total six digits should be entered. No entry is required if the ABC digits are listed under DP3D. Valid entries range from **"200-999"**. All codes of the Form 0XX or 1XX and N11 will be generically set by the ODA program.
- **DT12-DT17** -Spare digit type; reserved for future use.
- **FCID** -Feature Group D (FGD) Carrier Identification Codes (FCID) - Used to indicate if call is a carrier call.
- **I809** - International World Zone 1 codes for the 809 Numbering Plan Area (NPA). The 809 NPA has certain areas that are "domestic" and others that are "international." This DIGTYP entry is used to specify those "international" NXX codes in the 809 NPA to which calls can be placed.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DIGTYP (cont'd)

- **IWZ1** - International World Zone 1 codes - This DIGTYP entry is used to specify all international WZ1 area codes to which calls can be placed, except for the 809 NPA which has a separate DIGTYP entry.
- **NRA** - Non-re-routable Area Codes - The Numbering Plan Area Codes listed under this 3-digit type will not be rerouted by the Network Management program. The codes in this category can be derived from the Network Management and local routing practices. 0/1XX and 800 codes need not be entered. These codes are automatically marked as non-reroutable by the Office Data Assembler (ODA). Valid three digit entries range from **"200-999"**.
- **NRN** - Non-reroutable Non-area Codes. This category includes 3-digit NXX codes in the home Numbering Plan Area (NPA) only. The codes listed in this category will not be rerouted by the Network Management program. 0/1XX and 800 codes will be automatically marked as non-reroutable by the Office Data Assembler (ODA). Three digit codes from **"200-999"** may be listed on the form associated with NRNAC DIGTYP.
- **NRNX** - I800 Network Routing Number Exhaust. This indicator gives the 4ESS Switch the capability to administratively turn off DEF screening for specific ABC digits indicating the use of the I800 NRNX feature.
- **UTC** - Universal Treatment Non-area Codes - Three digit codes associated with this DIGTYP have a common system destination. These codes are not deleted from a call and appear as the ABC digits of a call. Examples of codes in this category are Toll Center Codes and Office Codes available to all Plain Old Telephone Service (POTS) domains. Another type would be associated with Gateway office operation, such as, overseas operator and Access Codes. Codes of this type may arrive from offices in the areas served directly by the 4ESS Switch. The universal type test codes that are assigned for 10X type test lines and code 011 for International Direct Distance Dialing (IDDD) access set by Office Data Assembler (ODA) should not be entered on this form. (A complete list of 10X type codes may be found in Division 2, Section 6.)
- **WZ1A** - World Zone 1 Area is entered to specify that an R digit is being defined for the 01R equal access signaling protocol. This identifier is needed at all Service Switching Point (SSP) offices. This identifier is also needed in all Access Tandem (AT) switches for Integrated Services Digital Network User Part/Multifrequency (ISUP/MF) inter-working.

Continued on next page

Form Entries, Continued

ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
DIG	The first, second and third digits of a set of digits. This field contains those 3-digit codes that are assigned under the category listed in the DIGTYP field. For the input verify message, VER:MISC:FHT AINTRIG, DIG is a mandatory keyword and must be followed with a 3, 6 or 10 digit entry that will be used to match 10-digit Advanced Intelligent Network (AIN) triggers when retrieving information from the AIN trigger table.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
DIG	6
DIGTYP	4
ORNU	6
RC:CODEGRP;OUT;OPT(DIGTYP),- - -:	3

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 327

General

The Recent Change (RC) Form 327 allows the changing of the DESEPs in three digit translations by only specifying the code group.

An alphabetical keyword list is included in this section on page 7.

Continued on next page

RC 327, Continued

General
(cont'd)

```
# FORM 327   CHANGE THE DESEP FOR 3 DIGIT TRANSLATION

RC:CODEGRP;CHG;OPT(DIG3,DESEP),___:         DOM ____, NTD 3,   AC _,

ORNU _______,

       OLD    NEW
ABC   DESEP  DESEP

___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,

REMARKS _____________________________________________________!

              EQUIVALENT ODA INPUT FORM - ESS 403D

                   ASSOCIATED VERIFY MESSAGES

                     INPUT-13b-VER:CODEGRP

                 OUTPUT-3a-VER:CODEGRP;OPT(DIG3)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;CHG;OPT(DIG3,DESEP),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be MISC or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e., CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)
- **ATNS** - Access Tandem Transit Network Selection - This domain is used to translate equal access Integrated Services Digital Network User Part (ISUP) parameters to obtain the routing information.
- **NSR** - Number Services Routing - This domain will be populated with entries to perform Service Switching Point (SSP) Interexchange Carrier (IC) and International Carrier (INC) routing.

NTD

Number of Translated Digits - This field specifies the number of digits to be analyzed for this code grouping. This number is **"3"**. The first three digits are listed under the ABC field.

AC

Area Code - A **"Y"** for Yes indicates that all of the 3-digit codes (ABC digits) on this form are Area Codes. If the ABC digits are office codes, test codes or other non-Area Codes, AC will be **"N"** for No. This field is left **"Blank"** when Domain (DOM) is not equal to Plain Old Telephone Service (POTS).

Continued on next page

Form Entries, Continued

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

ABC The first three digits of a given set of digits (A, B, and C) - This field lists all of the 3-digit codes that make up a code group. If the Area Code (AC) field is marked **"Yes"**, this code group may consist of 3-digit combinations in the range of **"200-999"**. If this code group is not an Area Code grouping (AC = **No**), then any number combination from **"000-999"** is valid. When the AC field is **"Blank"**, ABC may be equal to **"000-999"**.

If DOM equals Plain Old Telephone Service (POTS), the 3-digit code corresponding to the Home Numbering Plan Area (HNPA) may be assigned as ABC digits if permissive dialing is allowed on the HNPA and AC = **"N"** (Offices using Traditional Routing only - (4E22>).

DESEP Destination Separation is used to identify destinations for traffic flow purposes. Peg and usage counts are made as a function of the Trunk Sub-Group (TSG) incoming class (INSEP) and the outgoing destination class (DESEP). All outgoing or successfully terminated traffic is assigned a given destination class from **"1-255"**.

NOTE: DESEP class 63 is assigned generically for test calls. Any other assignment to class 63 should take this fact into consideration.

For code group forms, a DESEP class will be assigned only when the CALLTYP is equal to CRB, DSN, EAR, GNS, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, or TTS. This field is **"Blank"** for any other Call Type value.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ABC	6
AC	5
DESEP	6
DOM	4
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RC:CODEGRP;CHG;OPT(DIG3,DESEP),- - -:	3

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 328

General

The Recent Change (RC) Form 328 allows the changing of the DESEPs in 4, 5, or 6 digit translations by only specifying the code group.

An alphabetical keyword list is included in this section on page 9.

Continued on next page

RC 328, Continued

General
(cont'd)

```
# FORM 328   CHANGE THE DESEP FOR 4, 5, OR 6 DIGIT TRANSLATIONS

RC:CODEGRP;CHG;OPT(DIG6,DESEP),___:                DOM _____, NTD _,   AC _,
                                                   ABC ___,

ORNU _______,

       OLD    NEW
DEF   DESEP  DESEP

___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,

REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 403E

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-13b-VER:CODEGRP

                       OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;CHG;OPT(DIG6,DESEP),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be MISC or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e., CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)
- **ATNS** - Access Tandem Transit Network Selection - This domain is used to translate equal access Integrated Services Digital Network User Part (ISUP) parameters to obtain the routing information.
- **NSR** - Number Services Routing - This domain will be populated with entries to perform Service Switching Point (SSP) Interexchange Carrier (IC) and International Carrier (INC) routing.

NTD

Number of Translated Digits - This field specifies the number of digits to be analyzed for this code grouping. For domestic code grouping, this number may range from **"4 - 6"** depending on the code group form. The first three digits are listed under the ABC field, the remaining digits are listed in the DEF field.

AC

Area Code - A **"Y"** for Yes indicates that all of the 3-digit codes (ABC digits) on this form are Area Codes. If the ABC digits are office codes, test codes or other non-Area Codes, AC will be **"N"** for No. This field is left **"Blank"** when Domain (DOM) is not equal to Plain Old Telephone Service (POTS).

Continued on next page

Form Entries, Continued

ABC

The first three digits of a given set of digits (A, B, and C) - This field lists all of the 3-digit codes that make up a code group. If the Area Code (AC) field is marked **"Yes"**, this code group may consist of 3-digit combinations in the range of **"200-999"**. If this code group is not an Area Code grouping (AC = **No**), then any number combination from **"000-999"** is valid. When the AC field is **"Blank"**, ABC may be equal to **"000-999"**.

If DOM equals Plain Old Telephone Service (POTS), the 3-digit code corresponding to the Home Numbering Plan Area (HNPA) may be assigned as ABC digits if permissive dialing is allowed on the HNPA and AC = **"N"** (Offices using Traditional Routing only - (4E22>).

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DEF

The fourth (D) fifth (E) and sixth (F) digits of a series. This field may contain one, two or three digits. It lists all of the four to six digits (including the three in the ABC field) combinations that belong to this Code Group. A single digit (D) specifies 4-digit translation, two digits (D and E) specifies 5-digit, and all three (DEF) requires 6-digit translation. A numeric or an **"X"** may be used to specify translation. The numeric will define a specific code while the **"X"** will represent all non-vacant numeric from **"0**-**9"**. Translation must be specified equal to the Number of Translated Digits (NTD). A numeric may not follow an **"X"**.

An **"X"** may be used for one, two, or three positions of the DEF field determined by NTD. If one **"X"** is used it must be in the F position if there are two numerics. If two "Xs" are used, they must be in the EF positions. All codes not listed will be routed to Final Handling Treatment-Vacant Code Analysis (FHT-VCA) by the Office Data Assembler (ODA) program.

If NPA + XXX is used with Area Code (AC) equal to yes, then codes 000-199 will be routed to Vacant Code. If it is necessary to route certain codes in the 000-199 range, they should be routed in the following manner.

Example:

- NPA + 0XX to a principal city for Numbering Plan Area (NPA)
- NPA + 1XX to a principal city for NPA
- NPA + XXX to city "A" in NPA.

If Domain (DOM) equals Plain Old Telephone Service (POTS), AC equals Yes, and the ABC digits equal the 3-digit code associated with a Served NPA, then the 3-digit codes corresponding to the Home NPA (Traditional Routing Only - (4E22>)) and the Served NPA must not be assigned as DEF digits.

Continued on next page

Form Entries, Continued

DESEP

Destination Separation is used to identify destinations for traffic flow purposes. Peg and usage counts are made as a function of the Trunk Sub-Group (TSG) incoming class (INSEP) and the outgoing destination class (DESEP). All outgoing or successfully terminated traffic is assigned a given destination class from **"1-255"**.

NOTE: DESEP class 63 is assigned generically for test calls. Any other assignment to class 63 should take this fact into consideration.

For code group forms, a DESEP class will be assigned only when the CALLTYP is equal to CRB, DSN, EAR, GNS, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, or TTS. This field is **"Blank"** for any other Call Type value.

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Keyword Index

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RC:CODEGRP;CHG;OPT(DIG6,DESEP),- - -:	3

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 329

General

The Recent Change (RC) Form 329 allows the changing of the DESEPs in 7, 8, or 9 digit translations by only specifying the code group.

An alphabetical keyword list is included in this section on page 8.

Continued on next page

RC 329, Continued

General
(cont'd)

```
# FORM 329   CHANGE THE DESEP FOR 7, 8, OR 9 DIGIT TRANSLATIONS

RC:CODEGRP;CHG;OPT(DIG9,DESEP),___:                DOM _____, NTD _,    AC _,
                                                   ABC ___,  DEF ___,

ORNU _______,

       OLD    NEW
GHI   DESEP  DESEP

___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,

REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - ESS 403F

                         ASSOCIATED VERIFY MESSAGES

                           INPUT-13b-VER:CODEGRP

                        OUTPUT-3e-VER:CODEGRP;OPT(DIG9)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;CHG;OPT(DIG9,DESEP),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be MISC or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e., CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)
- **ATNS** - Access Tandem Transit Network Selection - This domain is used to translate equal access Integrated Services Digital Network User Part (ISUP) parameters to obtain the routing information.

NTD

Number of Translated Digits - This field specifies the number of digits to be analyzed for this code grouping. For domestic code grouping, this number may range from **"7 - 9"** depending on the code group form. The first three digits are listed under the ABC field, the remaining digits are listed in the DEF and GHI fields.

AC

Area Code - A **"Y"** for Yes indicates that all of the 3-digit codes (ABC digits) on this form are Area Codes. If the ABC digits are office codes, test codes or other non-Area Codes, AC will be **"N"** for No. This field is left **"Blank"** when Domain (DOM) is not equal to Plain Old Telephone Service (POTS).

Continued on next page

Form Entries, Continued

ABC The first three digits of a given set of digits (A, B, and C) - This field lists all of the 3-digit codes that make up a code group. If the Area Code (AC) field is marked **"Yes"**, this code group may consist of 3-digit combinations in the range of **"200-999"**. If this code group is not an Area Code grouping (AC = **No**), then any number combination from **"000-999"** is valid. When the AC field is **"Blank"**, ABC may be equal to **"000-999"**.

If DOM equals Plain Old Telephone Service (POTS), the 3-digit code corresponding to the Home Numbering Plan Area (HNPA) may be assigned as ABC digits if permissive dialing is allowed on the HNPA and AC = **"N"** (Offices using Traditional Routing only - (4E22>).

DEF This field lists the fourth (D) fifth (E) and sixth (F) digits of the code group definition. This field contains three digits.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

GHI This field lists the seventh (G), eighth (H) and ninth (I) digits that complete the code group definition. One (7-digit translation), two (8-digit) or three (9-digit translation required) digits may be listed in this field. A numeric or an **"X"** may be used to specify translation. A numeric may not follow an **"X"**. The numeric will define a specific code while the **"X"** will represent all numerics from 0 to 9. Translation must be specified equal to the Number of Translated Digits (NTD). An **"X"** may be used for one, two, or three positions of GHI field, determined by the NTD. If only one **"X"** is used, it must be in the I position if there are two numerics. If two "**X**s" are used they must be in the HI position if there is one numeric. Any code not specified will be routed to vacant code Final Handling Treatment (FHT) by the Office Data Assembler (ODA) program.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DESEP

Destination Separation is used to identify destinations for traffic flow purposes. Peg and usage counts are made as a function of the Trunk Sub-Group (TSG) incoming class (INSEP) and the outgoing destination class (DESEP). All outgoing or successfully terminated traffic is assigned a given destination class from **"1-255"**.

NOTE: DESEP class 63 is assigned generically for test calls. Any other assignment to class 63 should take this fact into consideration.

For code group forms, a DESEP class will be assigned only when the CALLTYP is equal to CRB, DSN, EAR, GNS, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, or TTS. This field is **"Blank"** for any other Call Type value.

Continued on next page

Form Entries, Continued

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DOM	4
GHI	6
NTD	5
ORNU	6
RC:CODEGRP;CHG;OPT(DIG9,DESEP),___:	3

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 330

General

The Recent Change (RC) Form 330 allows the changing of the DESEPs in 10, 11, or 12 digit translations by only specifying the code group.

An alphabetical keyword list is included in this section on page 8.

Continued on next page

RC 330, Continued

General
(cont'd)

```
# FORM 330   CHANGE THE DESEP FOR 10, 11, AND 12 DIGIT TRANSLATIONS

RC:CODEGRP;CHG;OPT(DIG12,DESEP),___:       DOM _____, NTD __,  AC _,
                                           ABC ___,  DEF ___, GHI ___,

ORNU _______,

       OLD    NEW
JKL   DESEP  DESEP

___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,

REMARKS _____________________________________________________!

               EQUIVALENT ODA INPUT FORM - ESS 403V

                    ASSOCIATED VERIFY MESSAGES

                      INPUT-13b-VER:CODEGRP

                  OUTPUT-3v-VER:CODEGRP;OPT(DIG12)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;CHG;OPT(DIG12,DESEP),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be MISC or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e., CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)
- **ATNS** - Access Tandem Transit Network Selection - This domain is used to translate equal access Integrated Services Digital Network User Part (ISUP) parameters to obtain the routing information.

NTD

Number of Translated Digits - This field specifies the number of digits to be analyzed for this code grouping. For domestic code grouping, this number may range from **"10 - 12"** depending on the code group form. The first three digits are listed under the ABC field, the remaining digits are listed in the DEF, GHI, and JKL fields.

AC

Area Code - A **"Y"** for Yes indicates that all of the 3-digit codes (ABC digits) on this form are Area Codes. If the ABC digits are office codes, test codes or other non-Area Codes, AC will be **"N"** for No. This field is left **"Blank"** when Domain (DOM) is not equal to Plain Old Telephone Service (POTS).

Continued on next page

Form Entries, Continued

ABC The first three digits of a given set of digits (A, B, and C) - This field lists all of the 3-digit codes that make up a code group. If the Area Code (AC) field is marked **"Yes"**, this code group may consist of 3-digit combinations in the range of **"200-999"**. If this code group is not an Area Code grouping (AC = **No**), then any number combination from **"000-999"** is valid. When the AC field is **"Blank"**, ABC may be equal to **"000-999"**.

If DOM equals Plain Old Telephone Service (POTS), the 3-digit code corresponding to the Home Numbering Plan Area (HNPA) may be assigned as ABC digits if permissive dialing is allowed on the HNPA and AC = **"N"** (Offices using Traditional Routing only - (4E22>).

DEF This field lists the fourth (D) fifth (E) and sixth (F) digits of the code group definition. This field contains three digits.

GHI This field lists the seventh (G), eighth (H) and ninth (I) digits of the code group definition. Three digits must be listed in this field.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

JKL This field lists the tenth (J), eleventh (K), and twelfth (L) digits that complete the code group definition. One (10-digit translation), two (11-digit), or three (12-digit translation required) digits may be listed in this field. A numeric or an **"X"** may be used to specify translation. A numeric may not follow an **"X"**. The numeric will define a specific code while the **"X"** will represent all numerics from "**0**-**9**". Translation must be specified equal to the Number of Translated Digits (NTD). An **"X"** may be used for one, two, or three positions of GHI field, determined by the NTD. If only one **"X"** is used, it must be in the I position if there are two numerics. If two **"Xs"** are used they must be in the KL position if there is one numeric. Any code not specified will be routed to vacant code Final Handling Treatment (FHT) by the Office Data Assembler (ODA) program.

Continued on next page

Form Entries, Continued

DESEP

Destination Separation is used to identify destinations for traffic flow purposes. Peg and usage counts are made as a function of the Trunk Sub-Group (TSG) incoming class (INSEP) and the outgoing destination class (DESEP). All outgoing or successfully terminated traffic is assigned a given destination class from **"1-255"**.

NOTE: DESEP class 63 is assigned generically for test calls. Any other assignment to class 63 should take this fact into consideration.

For code group forms, a DESEP class will be assigned only when the CALLTYP is equal to CRB, DSN, EAR, GNS, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, or TTS. This field is **"Blank"** for any other Call Type value.

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Form Entries, Continued

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RC:CODEGRP;CHG;OPT(DIG12,DESEP),___:	3

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 331

General

The Recent Change (RC) Form 331 is used to relate "00Y" codes to a far end office Number Plan Area (NPA) and Local Access and Transport Area (LATA).

The 00Y code is used when the 4ESS™-2000 Switch Access Tandem has an end office homing on it that originates an 800, 888, or 877 call from an NPA other than that listed on the Trunk Subgroup (TSG) characteristics and is not able to forward Automatic Number Identification (ANI). In order to identify the originating NPA, the end office will convert the 800, 888, 877 to a predetermined 00Y code for identification. This 00Y code will also have to be opened in the new locally assigned numeric Domain as is the 800 code.

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC 331, Continued

General
(cont'd)

```
# FORM 331  00Y TRANSLATOR

    RC:CODEGRP;CHG;OPT(YCODE),___:

    ORNU _______,

    00Y              OLD                NEW
    CODE       FENPA    FELATA      FENPA   FELATA   COIN

     _,         ___,     ___,        ___,    ___,     _,

    REMARKS ____________________________________________________!

              EQUIVALENT ODA INPUT FORM - ESS 403X

                   ASSOCIATED VERIFY MESSAGES

                  INPUT-13k-VER:CODEGRP:YCODE

                 OUTPUT-3x-VER:CODEGRP;OPT(YCODE)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;CHG;OPT(YCODE),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

00Y	The Y digit value of the 00Y signaling sequence which is used to identify the far end Numbering Plan Area (NPA) and Local Access Transport Area (LATA) for an "800" or other Number Service call. Legal values for **"Y"** are: **"0-9"**.
FENPA	Far End Numbering Plan Area/Trunk Subgroup (TSG) - Enter a 3-digit Numbering Plan Area (NPA) code to identify the far end of the subgroup. Valid entries range from **"200-999"**. With an International Trunk Subgroup, if the far end of the Trunk Subgroup is outside World Zone 1, enter the 1-, 2-, or 3-digit country code. Valid ranges of Country Code entries are **"2-9"**, **"20-99"**, and **"200-999"**. This field is the NPA of the Far-End Office. If this office is not in the Home or Served area, then the Domain will be Plain Old Telephone Service-Intertoll/Intertandem (POTS-IT) and the IT field will be forced to **"Y"** in a Local Exchange Carrier (LEC) switch.
FELATA	Far End Local Access Transport Area/Trunk Subgroup - This field is used to identify the Local Access Transport Area (LATA) of the far end switch. Legal entries are: **"Blank"**," **000-999"**.
COIN	This field specifies if the 00Y code will be used to indicate traffic delivered from coin stations. Valid entries are: **"N"** - no, **"Y"** - yes.

Continued on next page

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Form Entries, Continued

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COIN	4
FELATA	4
FENPA	4
ORNU	3
RC:CODEGRP;CHG;OPT(YCODE),- - -:	3

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 334

General

The Recent Change (RC) Form 334 is used to specify the actions to be taken for the valid Information Digits (II) and/or Originating Line Information (OLI) values that can be received by an Inter-Local Access Transport Area (LATA) Carrier switch via Equal Access Signaling (EAS). The II digits are the two information digits which precede the Automatic Number Identification (ANI) (if the ANI option is chosen). The OLI parameter is part of the Integrated Services Digital Network User Part (ISUP) signaling message.

If the ANI option is chosen, eight possible II+ANI sequences can be received: II+3 to II+10 digits. Normally either II+10 digits or II+3 digits will be received. The 10 digit ANI will correspond to the billing number of the originating party. The 3 digit ANI will be received when the originating party cannot be identified (e.g., multi-party lines) and will consist of the originating Numbering Plan Area (NPA). Only the number of ANI digits are included in the number entered in the ANICOUNT field.

An alphabetical keyword list is included in this section on page 7.

Continued on next page

RC 334, Continued

General
(cont'd)

```
# FORM 334  CHANGE EQUAL ACCESS SIGNALING II DIGITS AND/OR OLI VALUES
       <4E22R4

     RC:EA;CHG;OPT(EAANI),___:

     ORNU _______,

     II    OLI       ANICOUNT      ANIACTN

     __,   ____,         __,        _______,
     __,   ____,         __,        _______,
     __,   ____,         __,        _______,
     __,   ____,         __,        _______,
     __,   ____,         __,        _______,
     __,   ____,         __,        _______,
     __,   ____,         __,        _______,
     __,   ____,         __,        _______,
     __,   ____,         __,        _______,
     __,   ____,         __,        _______,

     REMARKS ----------------------------------------------------!

                  EQUIVALENT ODA INPUT FORM - ESS 403T

                       ASSOCIATED VERIFY MESSAGES

                     INPUT-13n-VER:EA;FUNC:IIDIGITS
                                   VER:EA;FUNC:OLI

                  OUTPUT-3af-VER:EA;OPT(FUNC,IIDIGITS)
                             3ag-VER:EA;OPT(FUNC,OLI)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 334, Continued

General
(cont'd)

```
# FORM 334  CHANGE EQUAL ACCESS SIGNALING II DIGITS AND/OR OLI VALUES
  4E23R1

RC:EA;CHG;OPT(EAANI),___:

ORNU _______,

II    OLI      ANICOUNT      ANIACTN     RESELL

__,   ___,        __,        _______,       _,
__,   ___,        __,        _______,       _,
__,   ___,        __,        _______,       _,
__,   ___,        __,        _______,       _,
__,   ___,        __,        _______,       _,
__,   ___,        __,        _______,       _,
__,   ___,        __,        _______,       _,
__,   ___,        __,        _______,       _,
__,   ___,        __,        _______,       _,
__,   ___,        __,        _______,       _,

REMARKS ----------------------------------------------------!

              EQUIVALENT ODA INPUT FORM - ESS 403T

                   ASSOCIATED VERIFY MESSAGES

                 INPUT-13n-VER:EA;FUNC:IIDIGITS
                              VER:EA;FUNC:OLI

              OUTPUT-3af-VER:EA;OPT(FUNC,IIDIGITS)
                         3ag-VER:EA;OPT(FUNC,OLI)
```

Form Entries

RC:EA;CHG;OPT(EAANI),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

II	Information Digits (II) - This field is used to specify the II digits of Multifrequency (MF) equal access signaling that correspond to the Originating Line Information (OLI) parameter for Integrated Services Digital Network User Part (ISUP). Valid entries are **"Blank"** or **"00-99"**.
OLI	Originating Line Information - This field is used to specify the OLI parameter value of Integrated Services Digital Network User Part (ISUP) that corresponds to the Information Digits (IIs) of Multifrequency (MF) Equal Access Signaling (EAS). Valid entries are **"Blank"** or **"0-255"**.
ANICOUNT	The expected digit count (given that this is a Equal Access Signaling [EAS] Information Digit [II] + Automatic Number Identification [ANI] sequence or Originating Line Information [OLI] value) is specified in this field. The expected digit count is the total number of ANI digits. Valid entries are **"3-10"** for II and **"0"**, **"3"**, **"10"**, or **"X"** for OLI, where **X** means any digit count other than **0**, **3**, or **10**.

Continued on next page

Form Entries, Continued

ANIACTN This field specifies the action to be taken when the first two digits of a call correspond to an Equal Access Signaling (EAS) Information Digit (II) + Automatic Number Identification (ANI) sequence or when an Integrated Services Digital network User Part (ISUP) message is received with a specified Originating Line Information (OLI) value. The following entries are allowed:

- **CANI** - Complete ANI. If the digit count for the call is equal to ANICOUNT, assume this is the ANI sequence and expect the next stage.
- **IAROA** - Incomplete ANI. If the digit count for the call is equal to ANICOUNT, kill the call and play the Reorder Announcement (ROA).
- **IAAFA** - Incomplete ANI. If the digit count for the call is equal to ANICOUNT, assume this is the ANI sequence and expect the next stage. Processing for the call will proceed according to the ANI Failure Action (AFA) field specified for the particular Far End Network (FEN) on the 406L Form.
- **NONEA** - Non Equal Access. This value is used only for II digits and specifies that the call is a traditional call, not equal access.

RESELL Not Applicable - Entries: **"Blank"**

Continued on next page

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Form Entries, Continued

Keyword Index

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ANICOUNT	5
II	5
OLI	5
ORNU	4
RC:EA;CHG;OPT(EAANI),- - -:	4
RESELL	6

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 335

General

The Recent Change (RC) Form 335 is used to convert from the ZZ or NX digits of Multifrequency (MF) Equal Access Signaling (EAS) to the TNS index value for Integrated Services Digital Network User Part (ISUP). The Operator indicator field applies only to NX digits.

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC 335, Continued

General
(cont'd)

```
# FORM 335  CHANGE NX OR ZZ TO TNSI TRANSLATOR

RC:CODEGRP;CHG;OPT(TNSI),___:        TNSD __,

ORNU _______,

   NX / ZZ
   DIGITS  TNSI   OPR

    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,

REMARKS ------------------------------------------------!

             EQUIVALENT ODA INPUT FORM - ESS 403Y

                  ASSOCIATED VERIFY MESSAGES

                    INPUT-13o-VER:EA:NX/ZZ

                 OUTPUT-3ad-VER:EA;OPT(NX/ZZ)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;CHG;OPT(TNSI),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

TNSD

Access Tandem Transit Network Selection Digits This field is used to indicate whether the digits specified under the NX/ZZ Digit field are NX or ZZ digits. NX digits are the signaling digits in the 1NX sequence used for international Equal Access (EA) signaling. ZZ digits are the signaling digits in the 0ZZ-XXX EA signaling sequence required to route calls through a tandem office. Valid entries are **"NX"** or **"ZZ"**.

Continued on next page

Form Entries, Continued

ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
NXZZ	NXZZ TelCo BCD digits to be used for Equal Access Signaling (EAS) to a Interexchange Carrier/International Carrier (IC/INC). The NX defines the signaling digits in the 1NX sequence used for international EAS. The ZZ defines the signaling digits in the 0ZZ-XXX EAS sequence required to route calls through a tandem office. Legal input values are: "**00-99"**.
TNSI	Access Tandem Transit Network Selection Index - Valid entries are **"0-15"**.
OPR	Operator indicator - This field is used to specify whether the given NX code indicates an operator call. Valid entries are **"Blank"**, "**Y"**, or **"N"**.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
NXZZ	4
OPR	4
ORNU	4
RC:CODEGRP;CHG;OPT(TNSI),- - -:	3
TNSD	3
TNSI	4

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 336

General

The Recent Change (RC) Form 336 is used to convert between the Information Digits (II) of Multifrequency (MF) Equal Access Signaling (EAS) and the Originating Line Information (OLI) parameter of Integrated Services Digital Network User Part (ISUP).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC 336, Continued

```
# FORM 336  CHANGE II DIGITS AND OLI CONVERSION TRANSLATOR
 4E18>

 RC:CODEGRP;CHG;OPT(II,OLI),___:

 ORNU _______,

 II  TO  OLI    AININD1 TOS1    OLI  TO  II    AININD2 TOS2

 __,     ____,      _,    __,    ____,     __,      _,    __,
 __,     ____,      _,    __,    ____,     __,      _,    __,
 __,     ____,      _,    __,    ____,     __,      _,    __,
 __,     ____,      _,    __,    ____,     __,      _,    __,
 __,     ____,      _,    __,    ____,     __,      _,    __,
 __,     ____,      _,    __,    ____,     __,      _,    __,
 __,     ____,      _,    __,    ____,     __,      _,    __,
 __,     ____,      _,    __,    ____,     __,      _,    __,
 __,     ____,      _,    __,    ____,     __,      _,    __,
 __,     ____,      _,    __,    ____,     __,      _,    __,

 REMARKS ------------------------------------------------!

               EQUIVALENT ODA INPUT FORM - ESS 403Z

                    ASSOCIATED VERIFY MESSAGES

                  INPUT-13p-VER:EA;CONV:IIDIGITS
                    INPUT-13p-VER:EA;CONV:OLI

                   OUTPUT-3ae-VER:EA;OPT(CONV)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;CHG;OPT(II,OLI),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

II	Information Digits (II) - This field is used to specify the II digits of Multifrequency (MF) equal access signaling that correspond to the Originating Line Information (OLI) parameter for Integrated Services Digital Network User Part (ISUP). Valid entries are **"Blank"** or **"00-99"**.
OLI	Originating Line Information - This field is used to specify the OLI parameter value of Integrated Services Digital Network User Part (ISUP) that corresponds to the Information Digits (IIs) of Multifrequency (MF) Equal Access Signaling (EAS). Valid entries are **"Blank"** or **"0-255"**.
AININD1	AIN Indicator - This field is used to specify that the Information Digit/ Originating Line Information (II/OLI) value is an Advanced Intelligent Network (AIN) trigger. Valid entries are **"Blank"**, **"Y"**, or **"N"**.
TOS1	Type of Service - This field is used on the 403Z Form to specify the Type Of Service associated with an Information Digit (II) and Originating Line Information (OLI) Advanced Intelligent Network (AIN) trigger.
AININD2	AIN Indicator - This field is used to specify that the Information Digit/ Originating Line Information (II/OLI) value is an Advanced Intelligent Network (AIN) trigger.
TOS2	Type of Service - This field is used on the 403Z Form to specify the Type Of Service associated with an Information Digit (II) and Originating Line Information (OLI) Advanced Intelligent Network (AIN) trigger.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
AININD1	4
AININD2	4
II	4
OLI	4
ORNU	3
RC:CODEGRP;CHG;OPT(II,OLI),- - -:	3
TOS1	4
TOS2	4

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 337

General

The Recent Change (RC) Form 337 is used to specify the service type that the Information Digit (II) and/or Originating Line Information (OLI) values are dedicated. The II digits are the two information digits which precede the Automatic Number Identification (ANI) (if the ANI option is chosen). The OLI parameter is part of the Integrated Services Digital Network User Part (ISUP) signaling message.

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC 337, Continued

General
(cont'd)

```
# FORM 337  CHANGE EQUAL ACCESS SIGNALING II DIGITS AND/OR OLI VALUE
            SERVICE TYPE

RC:EA;CHG;OPT(EASVC),___:

ORNU _______,

II      SRVCT         OLI      SRVCT

__,   _______,        ___,   _______,
__,   _______,        ___,   _______,
__,   _______,        ___,   _______,
__,   _______,        ___,   _______,
__,   _______,        ___,   _______,
__,   _______,        ___,   _______,
__,   _______,        ___,   _______,
__,   _______,        ___,   _______,
__,   _______,        ___,   _______,
__,   _______,        ___,   _______,

REMARKS ------------------------------------------------!

               EQUIVALENT ODA INPUT FORM - ESS 403S

                    ASSOCIATED VERIFY MESSAGES

                  INPUT-13n-VER:EA;FUNC:IIDIGITS
                         VER:EA;FUNC:OLI

               OUTPUT-3af-VER:EA;OPT(FUNC,IIDIGITS)
                      3ag-VER:EA;OPT(FUNC,OLI)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:EA;CHG;OPT(EASVC),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

II	Information Digits (II) - This field is used to specify the II digits of Multifrequency (MF) equal access signaling that correspond to the Originating Line Information (OLI) parameter for Integrated Services Digital Network User Part (ISUP). Valid entries are **"Blank"** or **"00-99"**.
SRVCT	Service Type - This field is used to specify the service that the II digit pair or Originating Line Information (OLI) value is being used for. Valid entries are **"EAPOTS"** for Equal Access Plain Old Telephone Service [POTS]), **"SDN"** for Software Defined Network, **"OWATS"** for outwats, **"TRS"** for Telecommunications Relay Service), **"T800"** for translated 800 number, and **"CMC"** for cellular mobile carrier.
OLI	Originating Line Information - This field is used to specify the OLI parameter value of Integrated Services Digital Network User Part (ISUP) that corresponds to the Information Digits (IIs) of Multifrequency (MF) Equal Access Signaling (EAS). Valid entries are **"Blank"** or **"0-255"**.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
II	4
OLI	4
ORNU	3
RC:EA;CHG;OPT(EASVC),- - -:	3
SRVCT	4

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 338

General

The Recent Change (RC) Form 338 is used to specify the Originating Line Information (OLI) value, calling party number handling, billing number handling, and Service Identity/ Automatic Number Identification (SID/ANI) increment message handling at the terminating toll switch for the specified Service Identity Index (SII) value. Fields left blank on this form specify that no change is to be made to the existing setting of the translations data.

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC 338, Continued

General
(cont'd)

```
# FORM 338  CHANGE INFORMATION ASSOCIATED WITH A SERVICE IDENTITY INDEX
  4E22R1>

RC:EA;CHG;OPT(SII),___:                    SII ___,

ORNU _______,

OLI ___,  BNA _,  CPNA _,  ASAI _,  DESV ____,  SST ____,  CSCI __,

REMARKS ------------------------------------------------!

              EQUIVALENT ODA INPUT FORM - ESS 403R

                   ASSOCIATED VERIFY MESSAGES

                      INPUT-13q-VER:EA:SII

                   OUTPUT-3ah-VER:EA;OPT(SII)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:EA;CHG;OPT(SII),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

SII

Service Identity Index. This field is used to specify a particular service for which the customer is paying, e.g., Long Distance Service, International Direct Distance Dialed (DDD) Outbound, Alliance Teleconference, etc. Valid entries are **"0-255"**.

Continued on next page

Form Entries, Continued

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

OLI Originating Line Information - This field is used to specify the OLI parameter value of Integrated Services Digital Network User Part (ISUP) that corresponds to the Information Digits (IIs) of Multifrequency (MF) Equal Access Signaling (EAS). Valid entries are **"Blank"** or **"0-255"**.

For RC Form 338, this field is used to specify the OLI value to be used for the specified Service Identity Index (SII) value at the terminating toll switch. This value will only be used if the indicator in the outgoing Trunk Subgroup (TSG) states that OLI can be sent. Valid entries are **"Blank"** or "**0-255"**.

BNA Billing Number Action - This field is used at the terminating toll switch to specify that the Billing Number (BN) should be Passed (**P)**, dropped (**D)**, or that the Trunk Subgroup (TSG) (**T**) control field, Prohibit Sending Billing Number (PSBN), should specify the appropriate action to be taken. Valid entries are **"Blank"**, **"P"**, **"D",** and **"T"**. If left **"Blank"**, this field will default to the TSG control.

CPNA Calling Party Number Action - This field is used at the terminating toll switch to specify the calling party number (CPN). Valid entries are

- **P** The CPN is passed.
- **D** The CPN is dropped.
- **T** The Trunk Subgroup (TSG) field of Prohibit Sending Calling Party Number (PSCPN) shall specify the CPN action.

ASAI Avoid SID/ANI Increment - Enter **"Y"** if a Service Identity/Automatic Number Identification (SID/ANI) increment message should not be sent back to the recording office when the Calling Party Number/Billing Number (CPN/BN) is successfully passed. Otherwise enter **"N"** or leave **"Blank"**.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DESV	Dedicated Egress Service. This field is used at the terminating toll switch to identify the service when the call is routed to a dedicated egress (ISDN) customer. This allows the service from the Service Identity Index (SII) to be sent to the customer on egress Q.931 trunks. Valid entries are **"Blank"**, **"UNK"** (unknown), **"SDN"** (Software Defined Network), **"GSDN"** (Global SDN), **"M800"** (Megacom* 800), **"I800"** (International 800), **"MQ"** (Multiquest), **"SDS"** (Switched Digital Service), "SDI" (Switched Digital International), **"ILDS"** (International Long Distance Service).

*Megacom is a registered trademark of AT&T.

SST	Not Applicable - Entries: **"Blank"**
CSCI	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ASAI	4
BNA	4
CPNA	4
CSCI	5
DESV	5
OLI	4
ORNU	4
RC:EA;CHG;OPT(SII),- - -:	3
SII	3
SST	5

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 341

General

The Recent Change (RC) Form 341 is used to update the Emergency Alternate Routing Database. In the event of a natural disaster, or a bomb threat or other terrorist activity, the customers' Alternate Number (ALTNUM) and Primary Domain (PRIMDOM) will be used to route a call. This form will only update the database - the service must be activated/deactivated via RC Form 342 or already be active in the 4ESS™-2000 Switch Office Data Assembler (ODA).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC 341, Continued

General
(cont'd)

```
# FORM 341  EMERGENCY ALTERNATE ROUTING DATABASE
  4E18>

RC:CODEGRP;CHG;OPT(EARDAT),___:

ORNU _______,    ACTION _,

  PRIMNUM     PRIMDOM     ALTNUM_,

 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,
 ___________,    ____,    ____________,

 REMARKS ------------------------------------------------!

              EQUIVALENT ODA INPUT FORM - ESS 4031

                   ASSOCIATED VERIFY MESSAGES

                    INPUT-13r-VER:CODEGRP:EAR

                  OUTPUT-3q-VER:CODEGRP;OPT(EAR)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGROUP;CHG;OPT(EARDAT),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

ACTION Action - Add, Change, or Delete. Enter **"A"** if the associated data on this form is being added. Enter **"D"** if the associated data on this form is being deleted.

PRIMNUM Primary Number is used together with the Primary Domain of a Customer as an index into a table that contains an Alternate Number. The Alternate Number and Primary Domain would be used to route a call in the case of a natural disaster, bomb threat, etc. Legal entries: ten digit number from **"2xxxxxxxxx** through **9xxxxxxxxx"** (where x is any digit from 0 to 9) if PRIMDOM equals Plain Old Telephone Service (POTS). Legal entries: a seven digit number from **"2xxxxxx** through **9xxxxxx"** (where x is any digit from 0 to 9) OR a ten digit number from **"2xxxxxxxxx** through **9xxxxxxxxx"** if PRIMDOM is not equal to POTS.

PRIMDOM Primary Domain is used together with the Primary Number of a Customer as an index into a table that contains an Alternate Number. The Alternate Number and Primary Domain would be used to route a call in the case of a natural disaster, bomb threat, etc. PRIMDOM valid entries are: **"POTS"**, **"non POTS"** (**20-80**, **82**, **83**), **"SDNA"**, **"DEV"**, **"DED"**, **"INCD"**, **"N64C"**, **"N64R"**, **"NH0C"**, **"NH1C"**, **"SF00-SF06"** (4E22R4>), and **"SF07-SF39"** (4E23R1>).

ALTNUM The Alternate Number and Primary Domain (PRIMDOM) of a Customer would be used to route a call in the case of a natural disaster, bomb threat, etc. Valid entries: ten digit number from **"2xxxxxxxxx"** through **"9xxxxxxxxx"** (where x is any digit from 0 to 9) if PRIMDOM equals Plain Old Telephone Service (POTS). Valid entries: a seven digit number from **"2xxxxxx"** through **"9xxxxxx"** (where x is any digit from 0 to 9) OR a ten digit number from **"2xxxxxxxxx"** through **"9xxxxxxxxx"** if PRIMDOM is not equal to POTS.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ACTION	4
ALTNUM	4
ORNU	3
PRIMDOM	4
PRIMNUM	4
RC:CODEGROUP;CHG;OPT(EARDAT),- - -:	3

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 342

General

The Recent Change (RC) Form 342 is used to activate/deactivate a customer that is in the Emergency Alternate Routing Database (via the RC FORM 341). When the customer is active the customers' Alternate Number (ALTNUM) and Primary Domain (PRIMDOM) will be used to route a call. When the customer is deactivated the customers' Primary Number (PRIMNUM) and Primary Domain (PRIMDOM) will be used to route a call.

It is possible for RC 342 to fail to Activate or Deactivate all of the alternate routing numbers specified on the form. This may happen when the customer data base is large. In case of such a failure, a warning message is displayed which tells the user the form entries that must be re-entered.

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC 342, Continued

General
(cont'd)

```
# FORM 342  EMERGENCY ALTERNATE ROUTING ACTIVATE/DEACTIVATE
  4E18>

RC:CODEGRP;CHG;OPT(EAR),___:

ORNU _______,    AC/DEAC _____,

  PRIMNUM     PRIMDOM

  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,
  ___________,    _____,

  REMARKS ------------------------------------------------!

              EQUIVALENT ODA INPUT FORM - ESS 4031

                   ASSOCIATED VERIFY MESSAGES

                    INPUT-13r-VER:CODEGRP:EAR

                  OUTPUT-3q-VER:CODEGRP;OPT(EAR)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGROUP;CHG;OPT(EAR),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

AC/DEAC Activate/Deactivate - The Activate/Deactivate switch is used by Emergency Alternate Routing (EAR) Feature. This switch is used to Activate an alternate reroute in the case of a natural disaster, bomb threat, etc. or Deactivate the alternate reroute when the emergency passes. Valid entries are **"AC"** or **"DEAC"**.

PRIMNUM Primary Number is used together with the Primary Domain of a Customer as an index into a table that contains an Alternate Number. The Alternate Number and Primary Domain would be used to route a call in the case of a natural disaster, bomb threat, etc. Legal entries: ten digit number from **"2xxxxxxxxx** through **9xxxxxxxxx"** (where x is any digit from 0 to 9) if PRIMDOM equals Plain Old Telephone Service (POTS). Legal entries: a seven digit number from **"2xxxxxx** through **9xxxxxx"** (where x is any digit from 0 to 9) OR a ten digit number from **"2xxxxxxxxx** through **9xxxxxxxxx"** if PRIMDOM is not equal to POTS.

PRIMDOM Primary Domain is used together with the Primary Number of a Customer as an index into a table that contains an Alternate Number. The Alternate Number and Primary Domain would be used to route a call in the case of a natural disaster, bomb threat, etc. PRIMDOM valid entries are: **"POTS"**, **"non POTS"** (**20**-**80**, **82**, **83**), **"SDNA"**, **"DEV"**, **"DED"**, **"INCD"**, **"N64C"**, **"N64R"**, **"NH0C"**, **"NH1C"**, **"SF00-SF06"** (4E22R4>), and **"SF07-SF39"** (4E23R1>).

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
AC/DEAC	4
ORNU	3
PRIMDOM	4
PRIMNUM	4
RC:CODEGROUP;CHG;OPT(EAR),- - -:	3

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 343

General

Form 343, available with 4E18 and later generic programs, is used to expand code groups as given in Table 18 below. (X means any digit from 0-9 and all other explicit digits given are only those cases allowed.) Routable means that no other existing codes will be destroyed when this new code is defined.

Table 18

OLD CODEGROUP	NEW CODEGROUP	RESTRICTIONS
1XX-X	1XX-0X	1XX-0X must be routable
1XX-XX	1XX-0XX	1XX-0XX must be routable
1XX-XXX	1XX-0XX-X	1XX-0XX-X must be routable
1XX-XXX-X	1XX-0XX-XX	1XX-0XX-XX must be routable
1XX-XXX-XX	1XX-0XX-XXX	1XX-0XX-XXX must be routable
1XX-XXX-XXX	1XX-0XX-XXX-X	1XX-0XX-XXX-X must be routable
0XX-X	0XX-0X	0XX-0X must be routable
0XX-XX	0XX-0XX	0XX-0XX must be routable
0XX-XXX	0XX-0XX-X	0XX-0XX-X must be routable

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC 343, Continued

General
(cont'd)

```
# FORM 343     FG-D CIC EXPANSION
       4E18>

     RC:CODEGRP;CHG;OPT(FCIC),___:          DOM ___,

     ORNU _____,

     ABC  DEF  GHI

     ___, ___, ___,

     REMARKS _____!

                 EQUIVALENT ODA INPUT FORM - ESS 4032

                     ASSOCIATED VERIFY MESSAGES

                       INPUT-13b-VER:CODEGRP

              OUTPUT-3a/3c/3e/3v-VER:CODEGRP;OPT(DIG3/6/9/12):
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;CHG;OPT(FCIC),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e. CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

DOM (cont'd)

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

ABC-DEF-GHI

The first through ninth digits of the "Old Code Group" are to be expanded as shown in Table 18 on Page 1 of this Section. The "A" digit must be **"0"** or **"1"**. The "B" - "D" digits can be **"0 - 9"**. The "E"- "I" digits can be **"Blank",** or **"0 - 9"** depending on the structure of the Old Code Group. This Recent Change (RC) will enter a **"0"** in the "D" digit of the New Code Group, and the Old Code Group "D" digit will become the New Code Group "E" digit. Any subsequent digits or blanks will be sequentially moved to the right by one digit.

NOTE: Valid CALLTYPs of the digits must be one of the following: SDX, RDB, or GNS.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ABC-DEF-GHI	5
DOM	4
ORNU	5
RC:CODEGRP;CHG;OPT(FCIC),___:	3

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 344

General

Form 344, available with 4E18 and later generic programs, is used to add or delete domain specific information.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 8.

Continued on next page

RC 344, Continued

General
(cont'd)

```
# FORM 344     ADD/DELETE A DOMAIN TYPE INFORMATION
       4E18>

     RC:CODEGRP;CHG;OPT(DOMTYP),___:

     ORNU ______,   ACTION _,

      DOM   DOM   DOM   DOM   DOM

     _____, _____, _____, _____, _____,

     _____, _____, _____, _____, _____,

     _____, _____, _____, _____, _____,

     _____, _____, _____, _____, _____,

     REMARKS ________________________________________________!

                 EQUIVALENT ODA INPUT FORM - ESS 4030

                     ASSOCIATED VERIFY MESSAGES

                     INPUT-13s-VER:CODEGRP:TYPE

                   OUTPUT-3ai-VER:CODEGRP;OPT(TYPE):
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CODEGRP;CHG;OPT(DOMTYP),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

DOMTYP Domain Type - YES/NO indicators. Valid entries are:

- **FCID** - Entered for a specific Domain (DOM) indicates that the Feature Group D Carrier ID is four digits for that domain. NOTE: There are no domain entry restrictions for this DOMTYP.

- **SDAC** - Entered for a specific Domain (DOM) indicates that the domain is allowed for an Access Tandem 6-Digit Called Number Trigger (CNT) for either the Advanced Intelligent Network (AIN) or the Local Number Portability (LNP) features. Provisioning restrictions: This DOMTYP can only be provisioned if the AIN 6-Digit CNT Expansion (#516) feature has been purchased. Also, the following domain entries are restricted for this DOMTYP: the data domain entries **"N64C"** and **"82"** are only allowed if the AIN Capabilities for Data Calls (#419) feature has been purchased. The footprint domain entries **"SF00-SF39"** are only allowed if the Access Tandem Routing Enhancement (#488) feature has been purchased.

- **TDAC** - Entered for a specific Domain (DOM) indicates that the domain is allowed for an Access Tandem 10-Digit Called Number Trigger (CNT) for the Advanced Intelligent Network (AIN) feature. Provisioning restrictions: This DOMTYP can only be provisioned if the AIN 6-Digit CNT Expansion (#516) feature and the AIN Called Number Trigger Expansion (#442) feature have been purchased. Also, the following domain entries are restricted for this DOMTYP: the data domain entries **"N64C"** and **"82"** are only allowed if the AIN Capabilities for Data Calls (#419) feature has been purchased, and the footprint domain entries **"SF00-SF39"** are only allowed if the Access Tandem Routing Enhancement (#488) feature has been purchased. Call Processing will only reference this domain type indicator if this 10-Digit Domain option is turned **"ON"** via the "F20" FEATURE ITEM feature indicator.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
ACTION	Action - Add, Change, or Delete. Enter **"A"** if the associated data on this form is being added. Enter **"D"** if the associated data on this form is being deleted.

Continued on next page

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be MISC, or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e. CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

Continued on next page

Form Entries, Continued

DOM (cont'd)

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)
- **ATNS** - Access Tandem Transit Network Selection - This domain is used to translate equal access Integrated Services Digital Network User Part (ISUP) parameters to obtain the routing information.
- **NSR** - Number Services Routing - This domain will be populated with entries to perform Service Switching Point (SSP) Interexchange Carrier (IC) and International Carrier (INC) routing.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ACTION	5
DOM	6
DOMTYP	4
ORNU	5
RC:CODEGRP;CHG;OPT(DOMTYP),___:	3

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 345

General

The Recent Change (RC) Form 345 (RC FORM345) is used to set or reset an Advanced Intelligent Network (AIN) trigger in the subsequent digit translations. Some limited field restrictions are described as follows:

If ACTION = A:

1. If FH is **"Blank"** or FH = **"FT"**, then the remaining new fields on the form (DRCC, SCSANN, and DFRN) must be **"Blank"**.

2. If FH = **"DR"**, then DRCC and SCSANN must be entered and DFRN is optional. The exception is when DRCC = **"DRN"**, then DFRN is required.

If ACTION = C, then DOM, AC, ABC, DEFGHIJ, and TOS must be entered (where appropriate) and must match an entry that is already in translations. Therefore, only the new fields (FH, SCSANN, DRCC, and DFRN) can actually change and the input for these fields must correspond to the population rules defined for the add action.

If ACTION = D, then all the fields must be entered (where appropriate) and must match an entry that is already in translations.

An alphabetical keyword list is included in this section on page 8.

Continued on next page

RC 345, Continued

General
(cont'd)

```
# FORM 345     SET/RESET AIN TRIGGER
       4E20R2-4E22R1

     RC:AIN;OPT(LIST),___:

     ORNU _____,          ACTION _,

     DOM   AC   ABC  DEF  GHI  J      TOS   FH   SCSANN   DRCC       DFRN

     ____, _,   ___, ___, ___, _,     __,   __,   _____,   ___,   __________,

     REMARKS _____________________________________________!

                    ASSOCIATED VERIFY MESSAGES

                      INPUT-13t-VER:AIN:LIST

                    OUTPUT-3aj-VER:AIN;OPT(LIST)
```

Continued on next page

RC 345, Continued

General
(cont'd)

```
# FORM 345     SET/RESET AIN TRIGGER
  4E22R2

RC:AIN;OPT(LIST),___:

ORNU _____,          ACTION _,

DOM   AC   ABC  DEF  GHI  J

____, _,   ___, ___, ___, _,

TTYPE  LTOS  TOS   FH   SCSANN   DRCC      DFRN

  _,    __,  __,   __,   _____,   ___,   _________,

REMARKS _____________________________________________!

                ASSOCIATED VERIFY MESSAGES

                  INPUT-13t-VER:AIN:LIST

                OUTPUT-3aj-VER:AIN;OPT(LIST)
```

RC:AIN;OPT(LIST),___:

Recent Change (RC) action field. Entries appended to the message header

field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

ACTION

Action - Add, Change, or Delete. Enter **"A"** if the associated data on this form is being added. Enter **"C"** if the associated data on this form changes existing data. Enter **"D"** if the associated data on this form is being deleted.

Continued on next page

Use pursuant to Company Instructions

Form Entries, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be MISC, or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)

AC

Area Code - A **"Y"** for Yes indicates that all of the 3-digit codes (ABC digits) on this form are Area Codes. If the ABC digits are office codes, test codes or other non-Area Codes, AC will be **"N"** for No. This field is left **"Blank"** when Domain (DOM) is not equal to Plain Old Telephone Service (POTS).

ABC-DEF-GHI-J

ABC-DEF-GHI-J Digits. Entries are any numerics **"0 - 9"** for each digit with routing of RDB, GNS, or SDX.

Continued on next page

Form Entries, Continued

TTYPE	Call Type Call Number Trigger Type for: the Advanced Intelligent Network (AIN) and/or the access tandem Local Number Portability (LNP) triggers. The following are valid field entries: **"A"** for AIN, **"L"** for LNP, or **"B"** for both AIN & LNP.
LTOS	Call Type Local Number Portability Type of Service parameter. Valid entries are the same as TOS (**"Blank"** or **"0-31"**).
TOS	This field specifies the Type of Service index value that is being assigned a CODE input. Legal input values are: **"Blank"** or **"0-31"**.
FH	AIN Fault Handling - Valid entries are **"Blank"**, **"FT"**, and **"DR"**. This element specifies the type of fault handling that applies to the Called Number Trigger. • DR is for the Default Routing. • FT is for the Final Treatment, which is the default for this field. • **"Blank"**: translates to FT. Note: **"Blank"** will not be printed for verify.
SCSANN	Announcement number for Service Circuit System (SCS) - For Form RC 345, SCSANN is the SCS Announcement for the Default Routing Voice Announcement. Valid entries are **"Blank"** or a number between **"0 and 65535"**. This element specifies the Service Circuit Unit (SCU0 voice announcement, if any, that will be played before the routing number is determined. **"0"** is the default. Note: **"Blank"** is valid if and only if Advanced Intelligent Network (AIN) Fault Handling (FH) is set to Final Treatment (FT).

Continued on next page

Form Entries, Continued

DRCC - Valid entries are , **"TRM"** **"DRN"**, and . This element specifies the treatment that applies to the to Default Routing (DR).

CPN

- is for Route to Specific Default Routing Number. When this is specified, the Specific Default Routing Number (DFRN) must be
- is for terminate, which is the default.
- **Blank** is valid if and only if AIN FH is set to

DFRN Specific Default Routing Number (DRN) - Valid input is either or a 10 digit routing number. This element specifies the number that will be used

"Blank" zeroes out the 10 routing digits. This field is required only when

Number (DRN); otherwise, this field may either be populated or left **"Blank"** with the exception that DFRN must be **"Blank"**
Network (AIN) Fault Handling (FH) is set to Final Treatment (FT).

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ABC-DEF-GHI-J	5
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ACTION	4
DFRN	7
DOM	5
DRCC	7
FH	6
LTOS	6
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RC:AIN;OPT(LIST),___:	4
SCSANN	6
TOS	6
TTYPE	6

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 349

General

Recent Change (RC) Form 349 is used to specify the default Information Digits (II) that are to be forwarded to an Interexchange Carrier (IC) if Flexible Automatic Number Identification/Information Digit (ANI/II) restrictions apply. The II Digits are two information digits which precede the ANI (if the NAI option is chosen).

Note: The II defaults can only be provisioned if the Tandem Flexible ANI/II Digit Restriction feature has been purchased. Also, a specific II default "IIDF" can only be provisioned (ID1-ID6) if the corresponding default (IID) has been provisioned. These specific "IID" default values are provisioned via RC Form 811 and verified by verify input messages: 13ba-VER:EA:OPT DFI.

The **"PSS"** (for PASS as received) entry is used instead of the default **"ID1-ID6"** entries to indicate when the II digits should be passed as received. Also, if an II digits is specified in the "II" field the accompanying "IDEF" field must be a non-blank entry.

An alphabetical keyword list is included in this section, starting on page 5.

Continued on next page

RC 349, Continued

General
(cont'd.)

```
# FORM 349  CHANGE EQUAL ACCESS FORWARDING DEFAULT II DIGITS
       4E24R1

     RC:EA;CHG;OPT(EADFI),___:

     ORNU _______,

     II    IDEF                II    IDEF

     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,
     __,   ____,               __,   ____,

     REMARKS ----------------------------------------------------!

                       ASSOCIATED VERIFY MESSAGES

                       INPUT-13ba-VER:EA:OPT~DFI

                       OUTPUT-3ba-VER:EA;OPT(DFI)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:EA;CHG;OPT(EADFI),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

•

Form Entries, Continued

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
IDEF	4
II	4
ORNU	3
RC:EA;CHG;OPT(EADFI),___:	3

Form Entries, Continued

This page is intentionally left blank.

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC 350

General

Recent Change (RC) Form 350 is used to specify the default Originating Line Information (OLI) values that are to be forwarded to an Interexchange Carrier (IC) if Flexible Automatic Number Identification/Information Digit (ANI/II) restrictions apply. The OLI parameter is part of the Integrated Services Digital Network User Part (ISUP) signaling message.

Note: The OLI defaults can only be provisioned if the Tandem Flexible ANI/II Digit Restriction feature has been purchased. Also, a specific OLI default "ODEF" can only be provisioned (OD1 - OD6) if the corresponding default (OLID) has been provisioned. These specific "OLID" default values are provisioned via RC Form 811 and verified by verify input messages: 13bb-VER:EA:OPT DFO.

The **"PSS"** (for PASS as received) entry is used instead of the default **"OD1 - OD6"** entries to indicate when the OLI parameter should be passed as received. Also, if an OLI value is specified in the "OLI" field the accompanying "ODEF" field must be a non-blank entry.

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC 350, Continued

General
(cont'd.)

```
# FORM 350  CHANGE EQUAL ACCESS FORWARDING DEFAULT OLI VALUES
       4E24R1

     RC:EA;CHG;OPT(EADFO),___:

     ORNU _______,

     OLI    ODEF                OLI    ODEF

     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,
     ___,   ___,                ___,   ___,

     REMARKS ----------------------------------------------------!

                       ASSOCIATED VERIFY MESSAGES

                       INPUT-13bb-VER:EA:OPT~DFO

                       OUTPUT-3bb-VER:EA;OPT(DFO)
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:EA;CHG;OPT(EADFO),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

OLI	Originating Line Information - This field is used to specify the OLI parameter value of Integrated Services Digital Network User Part (ISUP) that corresponds to the Information Digits (IIs) of Multifrequency (MF) Equal Access Signaling (EAS). Valid entries are **"Blank"** or **"0-255"**.
ODEF	OLI Default - **"Blank"** is only allowed if the accompanying "OLI" field is **"Blank"**. Entries are **"Blank"**, **"PSS"**, **OD1 - OD6"**.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ODEF	4
OLI	4
ORNU	3
RC:EA;CHG;OPT(EADFO),___:	3

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Centralized Automatic Message Accounting Screening Table Of Contents

SECTION	RC#
4a	400 - Point Office Codes at a Profile
4b	401 - Change Local Call Intercept Blocking Pattern
4c	402 - Add a Terminating NPA and Its Local Call Intercept Blocking Pattern to a Profile
4d	403 - Block Unauthorized Area Codes
4e	404 - Block Unauthorized Office Codes
4f	405 - Copy a Profile
4g	406 - Delete a Terminating NPA from a Profile

Continued on next page

Centralized Automatic Message Accounting Screening Table Of Contents, Continued

General

This information applies to all sections within this division:

1. The characters > and < are used to indicate which Generic Programs will apply.

   Examples:

   - 4E22> indicates 4E22 and later Generic Programs.
   - <4E22 indicate 4E22 and earlier Generic Programs.
   - 4E22 indicates the 4E22 Generic Program only.
   - >4E22 indicates all Generic Programs up to, but not including, 4E22.

2. Following the general section is a copy of the applicable Recent Change (RC) Form/s. Where there is more than one Generic published, the forms will be filed in ascending order by Generic.

3. The Keyword field names of the form entries in each section are listed in order of appearance on the latest Generic Recent Change Form. (Keywords deleted from the latest form issue will still remain in the form order of the last RC Form that it appeared until finally deleted).

4. The alphabetical "Keyword Index" of the field names is located at the end of each Recent Change Section, following the text, and any tables and/or graphics that may apply.

5. Each Keyword definition will only list the valid entries for the RC Form covered in each applicable section. Some Keywords may have additional valid entries related overall and may be found in the alphabetical Keyword Glossary (Div. 9, Sec. 1).

RC Form 400

General

This form defines the valid originating office codes that may be received via a Centralized Automatic Message Accounting (CAMA) Trunk Group.

A Recent Change (RC) Form 400 must be input for each CAMA Trunk Subgroup (TSG) added on an RC Form 101 from a specific building subdivision code. Reference should be made to "CAMA Translations" in Division 5, Section 3, of this TG4 prior to implementation of this form.

For 4E22>, this RC Form is not valid for offices using Served Numbering Plan Area (SNPA) 10-Digit Routing

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 400, Continued

General
(cont'd)

```
FORM #400    POINT OFFICE CODES AT A PROFILE

     RC:CAMASCRN;CHG;OPT(OOFCG),---:                        TOWN ST BL FBS NBS

     ORNU ------,                                        TG ---- -- -- --- ---,

     OLCIGI ---, POVC -,

     OOFC   OOFC   OOFC   OOFC

     ---,   ---,   ---,   ---,
     ---,   ---,   ---,   ---,

     REMARKS ----------------------------------------------------!
                          EQUIVALENT ODA INPUT FORM - ESS 404A

                               ASSOCIATED VERIFY MESSAGE

                             INPUT-14a-VER:  CAMASCRN. . .

                           OUTPUT-4a-VER:  CAMASCRN;OPT(OOFCG),_ _ _:
```

Form Entries

RC:CAMASCRN;CHG;OPT(OOFCG),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

OLCIGI

Originating Local Call Intercept Group Index - The OLCIGI is a number from **"1-255"**. The OLCIGI (except for 1) points to a group of terminating office codes that are to be intercepted. These terminating codes are defined on another Centralized Automatic Message Accounting (CAMA) RC Form 402 with the same OLCIGI index (2-255). OLCIGI 1 is reserved for those Centralized Automatic Message Accounting (CAMA) Trunk Groups from offices that do their own local call intercept. In these cases, the valid office codes are defined in Office Data Assembler (ODA) with an OLCIGI equal to 1. No equivalent RC Form 402 is required.

POVC

Pass Originating Validity Check - This column will normally be marked **"N"** for No for regular code grouping by Centralized Automatic Message Accounting (CAMA) Trunk Group.

A **"Y"** for Yes indicates that the office code listed on the form is to ignore the check for valid CAMA Trunk Group. Normally, an office code will only be valid on one CAMA Trunk Group. If some originating (calling) code may be received on more than one CAMA group, POVC must equal Yes. This should only be required for pseudo office codes associated with special billing (QZ).

If **"No"**, all codes listed in the Originating Office Code (OOFC) fields will be checked against the incoming CAMA Trunk Group for validity.

OOFC

Originating Office Code - This field may contain any 3-digit code from "**0-999"**. For a given form, the originating codes listed in this field are those that are valid for the Centralized Automatic Message Accounting (CAMA) Trunk Group. If any other code is received via Automatic Number Identification (ANI) or Operator Number Identification (ONI) (except for a code with the Pass Originating Validity Check (POVC) set to "**Yes"**), the call will be intercepted.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
OLCIGI	4
OOFC	4
ORNU	3
POVC	4
RC:CAMASCRN;CHG;OPT(OOFCG),---:	3

Form Entries, Continued

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RC Form 401

General

This form is used to change the terminating office code portion of the Local Call Intercept (LCI) blocking pattern for an established profile. This pattern is used to prevent local calls from being processed over the toll network via Centralized Automatic Message Accounting (CAMA) trunks (Automatic Number Identification [ANI] or Operator Number Identification [ONI]).

Reference should be made to "CAMA Translations" in Division 5, Section 3, of this TG4 prior to implementation of this form.

For 4E22>, this Recent Change (RC) Form is not valid for offices using Served Numbering Plan Area (SNPA) 10-Digit Routing

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 7.

Continued on next page

RC Form 401, Continued

General
(cont'd)

```
# FORM 401   CHANGE LOCAL CALL INTERCEPT BLOCKING PATTERN

     RC:CAMASCRN;CHG;OPT(LCIBPAT),---:                          OLCIGI ---,

     ORNU ------,

     TNPA ---,                    BLOCK -,

     TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC

     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,

     REMARKS ----------------------------------------------------!
                           EQUIVALENT ODA INPUT FORM - NONE

                               ASSOCIATED VERIFY MESSAGE

                              INPUT-14a-VER:  CAMASCRN...

                         OUTPUT-4b-VER:  CAMASCRN;OPT(LCIBPAT),_ _ _:
```

Form Entries

RC:CAMASCRN;CHG;OPT(LCIBPAT),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

OLCIGI	Originating Local Call Intercept Group Index - The OLCIGI is a number from **"1-255"**. The OLCIGI (except for 1) points to a group of terminating office codes that are to be intercepted. These terminating codes are defined on another Centralized Automatic Message Accounting (CAMA) RC Form 402 with the same OLCIGI index (2-255). OLCIGI 1 is reserved for those Centralized Automatic Message Accounting (CAMA) Trunk Groups from offices that do their own local call intercept. In these cases, the valid office codes are defined in Office Data Assembler (ODA) with an OLCIGI equal to 1. No equivalent RC Form 402 is required.
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TNPA

Terminating Numbering Plan Area - For code group forms, this field identifies the specific Numbering Plan Area (NPA) to which a 7-digit inter-area call may be directed. Any NPA (including home and served) may be entered in this field. The range is **"200-999"**.

NOTE: Even though the call may be originated on a 7-digit basis, the 4ESS Switch will prefix the destination area code (before translation) for all NPAs except the home NPA. In addition to being specified on the RC Form 308 each terminating office code must also be listed on an RC Form 301 or 302 as the DEF digits, with the TNPA specified as the ABC digits. For Centralized Automatic Message Accounting (CAMA) forms, this field identifies the area code associated with the office codes listed on this form. When a local calling area crosses an NPA boundary, more than one terminating NPA may be represented by a given profile index. In this case, separate RC 402 Forms with the same profile index are prepared for each NPA (up to four). Valid entries range from "200-999".

For RC Form 403, this field lists the 3-digit codes that are to be blocked when received as the called (terminating) area code component of a CAMA call. Blocked codes will be directed to the "Unauthorized CAMA" announcement. Valid entries range from **"200-999"**.

BLOCK

The block field specifies whether or not the codes, listed on this form, are to be blocked (intercepted) or allowed to continue as a valid call.

A **"Y"** for yes indicates that the code will be intercepted.

An **"N"** for no indicates that the terminating code is valid as a Centralized Automatic Message Accounting (CAMA) call over the trunk group associated with the profile index (Recent Change [RC] Form 400).

Continued on next page

Form Entries, Continued

TOFC

Terminating Office Code - For code group forms, TOFC identifies the NXX (200-999) office code that may be dialed on a 7-digit basis from the Originating Numbering Plan Area (ONPA) to the Terminating NPA (TNPA). This list will contain all of the office codes that can be reached by 7-digit inter-area dialing between the ONPA and TNPA.

NOTE: If the ONPA is the home NPA the TOFC listed on this form may not be entered on RC Form 300. If the ONPA is entered on RC Form 307 as a served NPA the TOFC listed on this form may not be entered on an RC Form 301 or 302 as the DEF digits for that Served NPA (SNPA).

For Centralized Automatic Message Accounting (CAMA) forms, the TOFC fields list the terminating office codes within a given NPA for a local call area definition. This definition is used to prevent local calls from being completed. The valid range for office codes is from **"200-999"**.

For RC Form 404, this field lists the 3-digit codes that are to be blocked when received as the called (terminating) office code component of a CAMA call. The range of valid entries is from **"200-999"**. The Office Data Assembler (ODA) system will automatically block codes in the range of **"000-199"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
BLOCK	5
OLCIGI	4
ORNU	4
RC:CAMASCRN;CHG;OPT(LCIBPAT),---:	3
TNPA	5
TOFC	6

Form Entries, Continued

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RC Form 402

General

This form adds a new group of terminating office codes (within a new Numbering Plant Area [NPA]) that should be blocked on Centralized Automatic Message Accounting (CAMA) Trunk Groups. This Local Call Intercept (LCI) blocking pattern prevents local calls from being placed over the toll network via CAMA Trunk Groups (Automatic Number Identification [ANI] or Operator Number Identification [ONI]).

Reference should be made to "CAMA Translations" in Division 5, Section 3, of this TG4 prior to implementation of this form.

For 4E22>, this Recent Change (RC) Form is not valid for offices using Served Numbering Plan Area (SNPA) 10-Digit Routing

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 7.

Continued on next page

RC Form 402, Continued

General
(cont'd)

```
FORM #402    ADD A TERMINATING NPA AND ITS LOCAL CALL INTERCEPT BLOCKING
                        PATTERN TO A PROFILE

     RC:CAMASCRN;CHG;OPT(LCIBPAT,NEWTNPA),---:                    OLCIGI ---,

     ORNU ------,

     TNPA ---,                      BLOCK Y,

     TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC
     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,

     REMARKS ----------------------------------------------------!

                           EQUIVALENT ODA INPUT FORM - ESS 404B

                                ASSOCIATED VERIFY MESSAGE

                               INPUT-14b-VER:  CAMASCRN...

                              OUTPUT-4b-VER:  CAMASCRN;OPT(LCIBPAT),____:
```

Form Entries

RC:CAMASCRN;CHG;OPT(LCIBPAT,NEWTNPA),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

OLCIGI Originating Local Call Intercept Group Index - The OLCIGI is a number from **"1-255"**. The OLCIGI (except for 1) points to a group of terminating office codes that are to be intercepted. These terminating codes are defined on another Centralized Automatic Message Accounting (CAMA) RC Form 402 with the same OLCIGI index (2-255). OLCIGI 1 is reserved for those Centralized Automatic Message Accounting (CAMA) Trunk Groups from offices that do their own local call intercept. In these cases, the valid office codes are defined in Office Data Assembler (ODA) with an OLCIGI equal to 1. No equivalent RC Form 402 is required.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TNPA

Terminating Numbering Plan Area - For code group forms, this field identifies the specific Numbering Plan Area (NPA) to which a 7-digit inter-area call may be directed. Any NPA (including home and served) may be entered in this field. The range is **"200-999"**.

NOTE: Even though the call may be originated on a 7-digit basis, the 4ESS Switch will prefix the destination area code (before translation) for all NPAs except the home NPA. In addition to being specified on the RC Form 308 each terminating office code must also be listed on an RC Form 301 or 302 as the DEF digits, with the TNPA specified as the ABC digits. For Centralized Automatic Message Accounting (CAMA) forms, this field identifies the area code associated with the office codes listed on this form. When a local calling area crosses an NPA boundary, more than one terminating NPA may be represented by a given profile index. In this case, separate RC 402 Forms with the same profile index are prepared for each NPA (up to four). Valid entries range from "200-999".

For RC Form 403, this field lists the 3-digit codes that are to be blocked when received as the called (terminating) area code component of a CAMA call. Blocked codes will be directed to the "Unauthorized CAMA" announcement. Valid entries range from **"200-999"**.

BLOCK

The block field specifies whether or not the codes, listed on this form, are to be blocked (intercepted) or allowed to continue as a valid call.

A **"Y"** for yes indicates that the code will be intercepted.

An **"N"** for no indicates that the terminating code is valid as a Centralized Automatic Message Accounting (CAMA) call over the trunk group associated with the profile index (Recent Change [RC] Form 400).

Continued on next page

Form Entries, Continued

TOFC

Terminating Office Code - For code group forms, TOFC identifies the NXX (200-999) office code that may be dialed on a 7-digit basis from the Originating Numbering Plan Area (ONPA) to the Terminating NPA (TNPA). This list will contain all of the office codes that can be reached by 7-digit inter-area dialing between the ONPA and TNPA.

NOTE: If the ONPA is the home NPA the TOFC listed on this form may not be entered on RC Form 300. If the ONPA is entered on RC Form 307 as a served NPA the TOFC listed on this form may not be entered on an RC Form 301 or 302 as the DEF digits for that Served NPA (SNPA).

For Centralized Automatic Message Accounting (CAMA) forms, the TOFC fields list the terminating office codes within a given NPA for a local call area definition. This definition is used to prevent local calls from being completed. The valid range for office codes is from **"200-999"**.

For RC Form 404, this field lists the 3-digit codes that are to be blocked when received as the called (terminating) office code component of a CAMA call. The range of valid entries is from **"200-999"**. The Office Data Assembler (ODA) system will automatically block codes in the range of **"000-199"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
BLOCK	5
OLCIGI	4
ORNU	4
RC:CAMASCRN;CHG;OPT(LCIBPAT,NEWTNPA),---:	3
TNPA	5
TOFC	6

Form Entries, Continued

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RC Form 403

General

This form lists the three digit Terminating Numbering Plan Area (TNPA) codes that are to be blocked or allowed to process when they are received as the called area code component of a Centralized Automatic Message Accounting (CAMA) call. Blocked codes will be directed to the "authorized CAMA" announcement while codes that are not blocked will be allowed to continue CAMA processing.

Reference should be made to "CAMA Translations" in Division 5, Section 3, of this TG4 prior to implementation of this form.

For 4E22>, this Recent Change (RC) Form is not valid for offices using Served Numbering Plan Area (SNPA) 10-Digit Routing

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 403, Continued

General
(cont'd)

```
FORM #403    BLOCK UNAUTHORIZED AREA CODES

     RC:CAMASCRN;CHG;OPT(UNAREA),---:                        BLKFCTN UNAREA,

     ORNU ------,                 BLOCK -,

     TNPA   TNPA   TNPA   TNPA   TNPA   TNPA   TNPA   TNPA

     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,

     REMARKS ----------------------------------------------------!

                          EQUIVALENT ODA INPUT FORM - ESS 404C

                               ASSOCIATED VERIFY MESSAGE

                              INPUT-14c-VER:  CAMASCRN...

                         OUTPUT-4c-VER:  CAMASCRN;OPT(UNAREA),_____:
```

Form Entries

RC:CAMASCRN;CHG;OPT(LCIBPAT,NEWTNPA),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

BLKFCTN Block Function - This field is preset to **UNAREA** for this form. It indicates that the blocking function defined on this form is for unauthorized area codes associated with the Centralized Automatic Message Accounting (CAMA) operation.

Continued on next page

Form Entries, Continued

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

BLOCK

The block field indicates if the listed terminating Numbering Plan Areas (NPAs) are to be blocked and sent to unauthorized CAMA announcement or allowed to process.

A **"Y"** for yes indicates that the terminating NPA will be blocked.

An **"N"** for no indicates that the terminating NPA will be allowed.

TNPA

Terminating Numbering Plan Area - For code group forms, this field identifies the specific Numbering Plan Area (NPA) to which a 7-digit inter-area call may be directed. Any NPA (including home and served) may be entered in this field. The range is **"200-999"**.

NOTE: Even though the call may be originated on a 7-digit basis, the 4ESS Switch will prefix the destination area code (before translation) for all NPAs except the home NPA. In addition to being specified on the RC Form 308 each terminating office code must also be listed on an RC Form 301 or 302 as the DEF digits, with the TNPA specified as the ABC digits. For Centralized Automatic Message Accounting (CAMA) forms, this field identifies the area code associated with the office codes listed on this form. When a local calling area crosses an NPA boundary, more than one terminating NPA may be represented by a given profile index. In this case, separate RC 402 Forms with the same profile index are prepared for each NPA (up to four). Valid entries range from "200-999".

For RC Form 403, this field lists the 3-digit codes that are to be blocked when received as the called (terminating) area code component of a CAMA call. Blocked codes will be directed to the "Unauthorized CAMA" announcement. Valid entries range from **"200-999"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
BLKFCTN	3
BLOCK	4
ORNU	4
RC:CAMASCRN;CHG;OPT(LCIBPAT,NEWTNPA),---:	3
TNPA	4

Form Entries, Continued

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RC Form 404

General

This form changes the list of called (terminating) office codes that are unauthorized for Centralized Automatic Message Accounting (CAMA). Reference should be made to "CAMA Translations" in Division 5, Section 3, of this TG4 prior to implementation of this form.

For 4E22>, this Recent Change (RC) Form is not valid for offices using Served Numbering Plan Area (SNPA) 10-Digit Routing

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 404, Continued

General
(cont'd)

```
FORM #404    BLOCK UNAUTHORIZED OFFICE CODES

     RC:CAMASCRN;CHG;OPT(UNAOFC),---:                        BLKFCTN UNAOFC,

     ORNU ------,                  BLOCK -,

     TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC

     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
     ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,

     REMARKS ----------------------------------------------------!

                          EQUIVALENT ODA INPUT FORM - ESS 404D

                               ASSOCIATED VERIFY MESSAGE

                              INPUT-14c-VER:  CAMASCRN...

                        OUTPUT-4d-VER:  CAMASCRN;OPT(UNAOFC),_____:
```

Form Entries

RC:CAMASCRN;CHG;OPT(UNAOFC),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

BLKFCTN Block Function - This field is preset to **UNAOFC** for this form. It indicates that the blocking function defined on this form is for unauthorized terminating office codes associated with the Centralized Automatic Message Accounting (CAMA) Function.

Continued on next page

Form Entries, Continued

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

BLOCK

The block field specifies whether or not the codes, listed on this form, are to be blocked (intercepted) or allowed to continue as a valid call.

A **"Y"** for yes indicates that the code will be intercepted.

An **"N"** for no indicates that the terminating code is valid as a Centralized Automatic Message Accounting (CAMA) call over the trunk group associated with the profile index (Recent Change [RC] Form 400).

TOFC

Terminating Office Code - For code group forms, TOFC identifies the NXX (200-999) office code that may be dialed on a 7-digit basis from the Originating Numbering Plan Area (ONPA) to the Terminating NPA (TNPA). This list will contain all of the office codes that can be reached by 7-digit inter-area dialing between the ONPA and TNPA.

NOTE: If the ONPA is the home NPA the TOFC listed on this form may not be entered on RC Form 300. If the ONPA is entered on RC Form 307 as a served NPA the TOFC listed on this form may not be entered on an RC Form 301 or 302 as the DEF digits for that Served NPA (SNPA).

For Centralized Automatic Message Accounting (CAMA) forms, the TOFC fields list the terminating office codes within a given NPA for a local call area definition. This definition is used to prevent local calls from being completed. The valid range for office codes is from **"200-999"**.

For RC Form 404, this field lists the 3-digit codes that are to be blocked when received as the called (terminating) office code component of a CAMA call. The range of valid entries is from **"200-999"**. The Office Data Assembler (ODA) system will automatically block codes in the range of **"000-199"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
BLKFCTN	3
BLOCK	4
ORNU	4
RC:CAMASCRN;CHG;OPT(UNAOFC),---:	3
TOFC	4

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 405

General

This form is used to copy a local call intercept profile for Centralized Automatic Message Accounting (CAMA). operation. This message points a new Originating Local Call Intercept Group (OLCIG) at the same terminating Local Call Intercept (LCI) blocking profile(s) as stored for an existing OLCIG. A terminating Numbering Plan Area (NPA) can then be added to or deleted from the new OLCIG using Recent Change (RC) Form 402 or 406.

CAUTION: This message should not be used to add a new OLCIGI if it is expected that different LCI blocking profiles will be required for all TNPAs appearing in both OLCIGs. Any changes made to the LCI blocking profiles for those Terminating Numbering Plan Areas (TNPAs) become applicable to both OLCIGs unless the TNPA is first deleted from and then re-added back to the OLCIGI needing the LCI profile change. A paper record must be maintained to administer the OLCIGIs built with this message to identify jointly used LCI profiles.

Reference should be made to "CAMA Translations" in Division 5, Section 3, of this TG4 prior to implementation of this form.

For 4E22>, this Recent Change (RC) Form is not valid for offices using Served Numbering Plan Area (SNPA) 10-Digit Routing

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 405, Continued

General
(cont'd)

```
FORM #405    COPY A PROFILE

     RC:CAMASCRN;CHG;OPT(COPY).---:                              OLCIGI ---,

     ORNU ------,                  OOLCIGI ---,

     REMARKS ------------------------------------------------!

                              EQUIVALENT ODA INPUT FORM - NONE

                                 ASSOCIATED VERIFY MESSAGE

                                INPUT-14d-VER:  CAMASCRN...

                          OUTPUT-4e-VER:  CAMASCRN;OPT(OLCIGI),_____:
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:CAMASCRN;CHG;OPT(COPY).---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

OLCIGI	Originating Local Call Intercept Group Index is a number from **"1-255"**. Index numbers **"2-255"** are links between a group of originating office codes and a group of terminating office codes. This profile is for the purpose of intercepting local calls that should not be placed over the toll network. For this form, the OLCIGI is a new number (not previously assigned) from 2 to 255. OLCIGI 1 is reserved for those Centralized Automatic Message Accounting (CAMA) Trunk Groups from offices that do their own local call intercept. In these cases, the office codes are defined in Office Data Assembler (ODA) with an OLCIGI equal to 1. This new profile will be copied from an existing Local Call Intercept (LCI) profile defined in the OOLCIGI field. Valid entries are **"2-255"**.
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
OOLCIGI	Original Originating Local Call Intercept Group is the OLCIGI that will be copied using this form. Valid entries are **"2-255"**

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
OLCIGI	4
OOLCIGI	4
ORNU	4
RC:CAMASCRN;CHG;OPT(COPY).---:	3

Form Entries, Continued

This page is intentionally left blank.

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 406

General

This form is deletes a terminating Numbering Plan Area (NPA) from a Local Call Intercept (LCI) profile. The LCI profile is used to block local traffic from being processed by Centralized Automatic Message Accounting (CAMA). Reference should be made to "CAMA Translations" in Division 5, Section 3, of this TG4 prior to implementation of this form.

For 4E22>, this Recent Change (RC) Form is not valid for offices using Served Numbering Plan Area (SNPA) 10-Digit Routing

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Form 406, Continued

General
(cont'd)

```
FORM #406   DELETE A TERMINATING NPA FROM A PROFILE

     RC:CAMASCRN;CHG;OPT(OUTTNPA),---:                          OLCIGI ---,

     ORNU ------,

     TNPA ---,

     REMARKS _____________________________________________________!

                              EQUIVALENT ODA INPUT FORM - NONE

                                 ASSOCIATED VERIFY MESSAGE

                                INPUT-14d-VER:  CAMASCRN...

                                        OUTPUT-4e-VER:  CAMASCRN;OPT(OLCIGI),_____:
```

Form Entries

RC:CAMASCRN;CHG;OPT(OUTTNPA),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

OLCIGI	Originating Local Call Intercept Group Index - The OLCIGI is a number from **"1-255"**. The OLCIGI (except for 1) points to a group of terminating office codes that are to be intercepted. These terminating codes are defined on another Centralized Automatic Message Accounting (CAMA) RC Form 402 with the same OLCIGI index (2-255). OLCIGI 1 is reserved for those Centralized Automatic Message Accounting (CAMA) Trunk Groups from offices that do their own local call intercept. In these cases, the valid office codes are defined in Office Data Assembler (ODA) with an OLCIGI equal to 1. No equivalent RC Form 402 is required.
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

TNPA

Terminating Numbering Plan Area - For code group forms, this field identifies the specific Numbering Plan Area (NPA) to which a 7-digit inter-area call may be directed. Any NPA (including home and served) may be entered in this field. The range is **"200-999"**.

NOTE: Even though the call may be originated on a 7-digit basis, the 4ESS Switch will prefix the destination area code (before translation) for all NPAs except the home NPA. In addition to being specified on the RC Form 308 each terminating office code must also be listed on an RC Form 301 or 302 as the DEF digits, with the TNPA specified as the ABC digits. For Centralized Automatic Message Accounting (CAMA) forms, this field identifies the area code associated with the office codes listed on this form. When a local calling area crosses an NPA boundary, more than one terminating NPA may be represented by a given profile index. In this case, separate RC 402 Forms with the same profile index are prepared for each NPA (up to four). Valid entries range from "200-999".

For RC Form 403, this field lists the 3-digit codes that are to be blocked when received as the called (terminating) area code component of a CAMA call. Blocked codes will be directed to the "Unauthorized CAMA" announcement. Valid entries range from **"200-999"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
OLCIGI	4
ORNU	4
RC:CAMASCRN;CHG;OPT(OUTTNPA),---:	3
TNPA	5

Routing Data Blocks Table Of Contents

SECTION	RC#
5a	500 - Add A New Domestic In-Chain/ADG Routing Data Block
5d	503 - Change In-Chain Routing Data Block Characteristics
5f	505 - Add Trunk Subgroups to an Existing Routing Data Block
5i	508 - Delete Trunk Subgroups from an Existing Routing Data Block
5k	510 - Delete Routing Data Block
5n	513 - Add a Trunk Subgroup to Multiple Routing Data Blocks
5o	514 - Delete a Trunk Subgroup from Multiple Routing Data Blocks
5y	524 - Change Number Data Block Translator
5z	525 - Delete Number Data Block Translator

Continued on next page

Routing Data Blocks Table Of Contents, Continued

General

This information applies to all sections within this division:

1. The characters > and < are used to indicate which Generic Programs will apply.

   Examples:

   - 4E22> indicates 4E22 and later Generic Programs.
   - <4E22 indicate 4E22 and earlier Generic Programs.
   - 4E22 indicates the 4E22 Generic Program only.
   - >4E22 indicates all Generic Programs up to, but not including, 4E22.

2. Following the general section is a copy of the applicable Recent Change (RC) Form/s. Where there is more than one Generic published, the forms will be filed in ascending order by Generic.

3. The Keyword field names of the form entries in each section are listed in order of appearance on the latest Generic Recent Change Form. (Keywords deleted from the latest form issue will still remain in the form order of the last RC Form that it appeared until finally deleted).

4. The alphabetical "Keyword Index" of the field names is located at the end of each Recent Change Section, following the text, and any tables and/or graphics that may apply.

5. Each Keyword definition will only list the valid entries for the RC Form covered in each applicable section. Some Keywords may have additional valid entries related overall and may be found in the alphabetical Keyword Glossary (Div. 9, Sec. 1).

RC Form 500

General

This form is used to add a new in-chain or Automatic Distribution Group (ADG) Routing Data Block (RDB).

It should be noted that the 4ESS™ 2000-Switch will allow a maximum of **fourteen** Trunk Subgroups (TSGs) to be associated with an in-chain RDB. Also, Recent Change (RC) Form 505 must be used along with this form when more than **seven** TSGs are to be associated with the specified RDB Index (RDBI).

ADG Routing Data Block routes are not required to be contiguous in an RDB. ADG RDB holes in new RDBs will be handled by using dummy TSGs. The dummy TSG will be removed using a delete TSG message and new TSGs will be added using the add TSG message.

"ACCEPTABLE DIGIT COUNT EXAMPLES - Table 40" shows the allowable range of digits valid for this field.

"VALID TSGs IN AN RDB - Table 41" shows the TSG / RDB correlation.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 15.

Continued on next page

RC Form 500, Continued

General
(cont'd)

```
# FORM 500   ADD A NEW DOMESTIC INCHAIN/ADG ROUTING DATA BLOCK
       4E18>

     RC:RDB;NEW;___:                                              RDBI ____,

     ORNU _______,

     TTSI ___, RDBFHT ___, ADG _, ANFHT ___,

     BTFN TOWN ST BL FBS NBS       DEL      PREFIX    DNHRTYPE

     _____ _____ __ __ ___ ___,    __,      _______,      __,
     _____ _____ __ __ ___ ___,    __,      _______,      __,
     _____ _____ __ __ ___ ___,    __,      _______,      __,
     _____ _____ __ __ ___ ___,    __,      _______,      __,
     _____ _____ __ __ ___ ___,    __,      _______,      __,
     _____ _____ __ __ ___ ___,    __,      _______,      __,
     _____ _____ __ __ ___ ___,    __,      _______,      __,

     REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 405B

                       ASSOCIATED VERIFY MESSAGES

                   INPUT-15a-VER:RDB:RDBI ----!(EOT)

                     OUTPUT-5a-VER:RDB,OPT(INCHAIN)
```

Form Entries

RC:RDB;NEW;___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

RDBI

Routing Data Block Index - RDBI is a link from the digit translation to a series of Trunk Subgroups (TSGs). The TSGs are listed in Routing Data Blocks (RDBs). RDBI points to regular in-chain routing patterns. The range for RDBIs is from **"1-8191"**.

For the RC 524 Form, the RDBI specified in this field identifies the trunks to be used to deliver terminating traffic to the Interexchange Carrier/ International Carrier (IC/INC).

Continued on next page

Form Entries, Continued

ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
TTSI	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

RDBFHT

Routing Data Block Final Handling Treatment - The RDBFHT field identifies the Final Handling Treatment (FHT) to which the call must be connected when an idle trunk cannot be found in the list of Trunk Subgroups (TSGs). This treatment may be a Recorded Announcement or tone. Refer to Lucent Practices 781-031-100 for further information on tones and announcements for Direct Distance Dialing (DDD). Valid entries are:

- **AR** - Audible Ring .
- **BT** - Busy Tone (60 Interruptions Per Minute [IPM]). This entry is used for service terminated directly to a customer's premise such as Inward Wide Band Area Telephone Service (INWATS) to an Automatic Call Distributor or Direct Inward Dialing to a Private Branch Exchange (PBX).
- **DNN** - Disconnected 800 # announcement.
- **DOO** - Destination Out of Order (Signaling System 7 [SS7]).
- **E01** - Emergency Situation.
- **E02** - Severe Weather.
- **E03** - Facility Trouble.
- **E04** - Local Company Trouble.
- **E05** - Airplane Crash.
- **E06** - Hurricane.
- **E07** - Flood.
- **E08** - Tornado.
- **E09** - Forest Fire.
- **E10** - Earthquake.
- **E11** - Mudslide.
- **E12** - Major Network Outage.

Continued on next page

Form Entries, Continued

RDBFHT (cont'd)

- **E13-E20** - Reserved Domestic Network Management.
- **EA1** - Emergency Announcement Channel 1. This code directs a call to a designated Emergency Announcement.
- **EA2** - Emergency Announcement Channel 2. The EA2 code directs the call to the second Emergency Announcement channel.
- **EA3** - Emergency Announcement Channel 3. This code directs a call to a designated Emergency Announcement.
- **EA4** - Emergency Announcement Channel 4. This code directs a call to a designated Emergency Announcement. .
- **EA5** - Emergency Announcement Channel 5. This code directs a call to a designated Emergency Announcement.
- **EA6** - Emergency Announcement Channel 6. This code directs a call to a designated Emergency Announcement.
- **EA7** - Emergency Announcement Channel 7. This code directs a call to a designated Emergency Announcement.
- **HW** - High and Wet .
- **I01** - International Emergency Situation.
- **I02** - International Severe Weather.
- **I03** - International Telephone Company.
- **I04** - International Airplane Crash.
- **I05** - International Earthquake.
- **I06** - International Mudslide.
- **I07** - International Fire.
- **I08** - Reserved International Network Management.
- **I09** - International Direct Dialing Susp.
- **I10** - International Direct Dialing Test.

Continued on next page

Form Entries, Continued

RDBFHT (cont'd)

- **I11-I23** - Dialing Plan Changes (International).
- **I24-I30** - Reserved International Network Management.
- **IFF** - International call failed to complete in a foreign office.
- **INC** - International No Circuit. This recording indicates all circuits busy to a foreign country.
- **INF** - Info 1 ANI Failure.
- **ISB** - International Subscriber Busy.
- **IVC** - International Vacant Code announcement .
- **LDV** - AT&T Dial 1 (700-555-4141).
- **LOB** - Logging on Busy.
- **LSA** - IntraLATA Call Screening.
- **MCA** - Misrouted CAMA announcement.
- **NCA** - No Circuit Announcement. This recording is usually an announcement type N in Lucent Practices 800-100-100.
- **NCB** - Local Exchange Carrier (LEC) Egress Busy.
- **NCC** - No Circuit to Designated Carrier.
- **NCD** - Network Call Denial screening.
- **NWC** - No Wink from Carrier.
- **NWN** - Vacant 800 # announcement.
- **OOA** - Out of Area (LEC Mass Announcement System [MAS] Service).
- **OOB** - Inward Wide Band Area Telephone Service (INWATS) Out-of-Band announcement.
- **OTS** - HICAP Out of Time Slot announcement.
- **R01-R09** - Dialing Plan Change (Domestic).

Continued on next page

Form Entries, Continued

RDBFHT (cont'd)

- **R10** - Intrastate Dialing Plan Change.
- **ROA** - Re-Order Announcement. Type P announcement per Lucent Practices 800-100-100 is used for ROA.
- **SNA** - Service Not Active announcement.
- **S01**-**S19** - Spares.
- **SP1** - Special Announcement Channel 1. This code identifies the first Special Announcement Channel.
- **SP2** - Special Announcement Channel 2. SP2 directs the call to the second Special Announcement Channel.
- **STO** - Sun Transit Outage announcement.
- **T** -Tone If the call is to be directed to a tone, a T will appear in the RDBFHT field and indicates a reorder tone of 120 IPM.
- **TDN** - Temporarily Disconnected 800 #.
- **UNN** - Unallocated # (SS7).
- **VCA** - Vacant Code Announcement.
- **VMA** - Vacant MAS Announcement.
- **WAT** - Waiting for Answer Timeout.

ADG

Automatic Distribution Group - In an International Operating Center, several operator units may provide operator assistance on incoming calls. In non-International Switching Centers (ISCs), this feature can be used with multiple operator units to balance Plain Old Telephone Service (POTS) calls to Directory Assistance, inward operator, etc. Four ADGs can be accommodated with each ADG Routing Data Block (RDB) having up to 32 Trunk Subgroups (TSGs). Valid entries are **"0-3"** or **"Blank"** if not an ADG RDB.

Continued on next page

Form Entries, Continued

ANFHT

ANI Failure Action Final Handling Treatment. This field is used to specify the FHT that should be given to Integrated Services Digital network User Part (ISUP) calls that use this Routing Data Block (RDB) and do not have Automatic Number Identification (ANI). This field may be left **"Blank"** or see RDBFHT for the allowable entries.

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

DEL

Delete - This field specifies the number of digits to be deleted from the dialed address before out-pulsing. Up to fifteen digits may be deleted. Enter a zero (**"0"**) in this field if no deleting is required. Digit deletion always begins with the first address digit in a sequence. For example, delete three would remove the ABC digits from a dialed address. When both deleting and prefixing is being done on a dialed address, digit deletion takes place first. For Routing Data Block (RDB) forms, each Trunk Subgroup (TSG) in the RDB may have its own delete/prefix definition. The requirement for manipulation is determined by the far-end office's ability to accept various digit combinations.

NOTE: Intrastate Inward Wide Band Area Telephone Service (INWATS) to a customer's Automatic Call Distributor (ACD) should delete all digits (7 or 10) when using an in-chain RDB.

Continued on next page

Form Entries, Continued

PREFIX

This field is **"Blank"** if no prefixing is required. If prefixing is required, the digit or digits that appear in this field will be added to the dialed address after any digit deletion. Any number up to six digits may be specified as a digit prefix. Valid range is **"0-999999"** for domestic Routing Data Blocks (RDBs) and up to six digits with each digit having a value of **"0-9"**, **"B"** for Code 11, or **"C"** for Code 12 for international RDBs.

NOTE: Intrastate Inward Wide Band Area Telephone Service (INWATS) to a customer's Automatic Call Distributor (ACD) should prefix the digit 2 when using an in-chain RDB.

DNHRTYPE

This keyword field is used for Number Portability (NP) calls. The entry **"ID"** specifies delete/prefix digits ignored for NP calls routed on a Location Routing Number (LRN) where signaling is done on the ported numbers. Valid entries: **"Blank"** or **"ID"**.

Continued on next page

Form Entries, Continued

Table 40 ACCEPTABLE DIGIT COUNT EXAMPLES

NONAREA CODE	AREA CODE	INWATS	TEST
1X1	NPA-1X1	800-NXX-XXXX	10X
* TTC-1X1	NPA-TTC-1X1	00X-NXX-XXXX	TTC-10X
NXX-XXXX	NPA-NXX-XXXX	08Z-NNX-XXXX 1BZ-XXXX	NXX-XXXX
** 11NX	NPA-11NX		
11NXX	NPA-11NXX		
TTC-11NX TTC-11NXX	NPA-TTC-11NX		

POSSIBLE ADC COMBINATIONS SEE NOTE 1

NONAREA CODE	AREA CODE	INWATS	TEST
ADC 3, 4, 5, 6, 7, 8,	6, 7, 8, 9, 10, 11	7, 10	3, 6, 7

* TTC - TERMINATING TOLL CENTER CODE MAY BE 0XX/1XX COMBINATION

** LEAVE WORD 2 AND 3 DIGIT OPERATOR CODES, USUALLY, ONLY 2-DIGIT CODES ARE USED WITH THE NPA AND THE TTC.

NOTE 1

Not every office will have all of the possible digit combinations.

Example:
If an NPA uses Terminating Toll Center codes for routing operator codes, the area code combinations might be similar to the following.

NPA-TTC-1X1
NPA-NXX-XXXX
NPA-TTC-11NX

In this case the possible digit combinations specified for the RDB would be 9 and 10.

The non-area code combinations in the home NPA might not use the TTC. Then combinations might be:

1X1
NXX-XXXX
11NXX

In this case then the ADC setting for the RDB would be 3, 5 and 7.

Continued on next page

Form Entries, Continued

Table 41 **VALID TSGs IN AN RDB**

TYPE RDB	Determinate	Domestic ADG	INTL ADG (1)	International Transit	Originating
TOT=INTL DOM=INTL ISC/OSC=CCITT5, CCITT6, INUP, or TUP	N	N	N	Y	Y
TOT=INTLO DOM=INTL ISC/OSC=CCITT6	N	N	N	Y	N
TOT=INTLO DOM=INTL ISC/OSC=CCITT5, INUP, or TUP	Y	N	N	Y	N
TOT=ITOLL DOM=INTL ISC/OSC=MF	N	N	N	N	Y
TOT=dc DOM=dc ISC/OSC=CCIS or ISUP	Y	Y	Y	Y	Y
TOT=ITOPA or ITOP DOM=INTL ISC/OSC=dc	N	N	Y	Y	Y
TOT=ITOPA or ITOP DOM=NOT INTL ISC/OSC=dc	Y	Y	N	N	N
NONE OF PREVIOUS CHARACTERISTICS	Y	Y	Y	N	N

(1) If the IOC operator in the INTL ADG is on another switching machine, domestic signaling will be used between machines.

Continued on next page

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Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ADG	8
ANFHT	9
DEL	11
DNHRTYPE	12
ORNU	4
PREFIX	12
RC:RDB;NEW;___:	3
RDBFHT	5
RDBI	3
TSG	9
TTSI	4

Form Entries, Continued

This page is intentionally left blank.

RC Form 503

General

This form is used to change the existing characteristics of an In-Chain Routing Data Block (RDB).

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 10.

Continued on next page

RC Form 503, Continued

General
(cont'd)

```
# FORM 503   CHANGE INCHAIN ROUTING DATA BLOCK CHARACTERISTICS
       4E18>

     RC:RDB;CHG;OPT(RDBCHAR),___:                              RDBI ____,

     ORNU ______,

     TTSI ___, RDBFHT ___, ANFHT ___,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                   INPUT-15a-VER:RDB:RDBI ----!(EOT)

                     OUTPUT-5a-VER:RDB,OPT(INCHAIN)
```

Form Entries

RC:RDB;CHG;OPT(RDBCHAR),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

RDBI

Routing Data Block Index - RDBI is a link from the digit translation to a series of Trunk Subgroups (TSGs). The TSGs are listed in Routing Data Blocks (RDBs). RDBI points to regular in-chain routing patterns. The range for RDBIs is from **"1-8191"**.

For the RC 524 Form, the RDBI specified in this field identifies the trunks to be used to deliver terminating traffic to the Interexchange Carrier/ International Carrier (IC/INC).

Continued on next page

Form Entries, Continued

ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
TTSI	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

RDBFHT

Routing Data Block Final Handling Treatment - The RDBFHT field identifies the Final Handling Treatment (FHT) to which the call must be connected when an idle trunk cannot be found in the list of Trunk Subgroups (TSGs). This treatment may be a Recorded Announcement or tone. Refer to Lucent Practices 781-031-100 for further information on tones and announcements for Direct Distance Dialing (DDD). Valid entries are:

- **AR** - Audible Ring .
- **BT** - Busy Tone (60 Interruptions Per Minute [IPM]). This entry is used for service terminated directly to a customer's premise such as Inward Wide Band Area Telephone Service (INWATS) to an Automatic Call Distributor or Direct Inward Dialing to a Private Branch Exchange (PBX).
- **DNN** - Disconnected 800 # announcement.
- **DOO** - Destination Out of Order (Signaling System 7 [SS7]).
- **E01** - Emergency Situation.
- **E02** - Severe Weather.
- **E03** - Facility Trouble.
- **E04** - Local Company Trouble.
- **E05** - Airplane Crash.
- **E06** - Hurricane.
- **E07** - Flood.
- **E08** - Tornado.
- **E09** - Forest Fire.
- **E10** - Earthquake.
- **E11** - Mudslide.
- **E12** - Major Network Outage.

Continued on next page

Form Entries, Continued

RDBFHT (cont'd)

- **E13-E20** - Reserved Domestic Network Management.
- **EA1** - Emergency Announcement Channel 1. This code directs a call to a designated Emergency Announcement.
- **EA2** - Emergency Announcement Channel 2. The EA2 code directs the call to the second Emergency Announcement channel.
- **EA3** - Emergency Announcement Channel 3. This code directs a call to a designated Emergency Announcement.
- **EA4** - Emergency Announcement Channel 4. This code directs a call to a designated Emergency Announcement. .
- **EA5** - Emergency Announcement Channel 5. This code directs a call to a designated Emergency Announcement.
- **EA6** - Emergency Announcement Channel 6. This code directs a call to a designated Emergency Announcement.
- **EA7** - Emergency Announcement Channel 7. This code directs a call to a designated Emergency Announcement.
- **HW** - High and Wet .
- **I01** - International Emergency Situation.
- **I02** - International Severe Weather.
- **I03** - International Telephone Company.
- **I04** - International Airplane Crash.
- **I05** - International Earthquake.
- **I06** - International Mudslide.
- **I07** - International Fire.
- **I08** - Reserved International Network Management.
- **I09** - International Direct Dialing Susp.
- **I10** - International Direct Dialing Test.

Continued on next page

Form Entries, Continued

RDBFHT (cont'd)

- **I11-I23** - Dialing Plan Changes (International).
- **I24-I30** - Reserved International Network Management.
- **IFF** - International call failed to complete in a foreign office.
- **INC** - International No Circuit. This recording indicates all circuits busy to a foreign country.
- **INF** - Info 1 ANI Failure.
- **ISB** - International Subscriber Busy.
- **IVC** - International Vacant Code announcement .
- **LDV** - AT&T Dial 1 (700-555-4141).
- **LOB** - Logging on Busy.
- **LSA** - IntraLATA Call Screening.
- **MCA** - Misrouted CAMA announcement.
- **NCA** - No Circuit Announcement. This recording is usually an announcement type N in Lucent Practices 800-100-100.
- **NCB** - Local Exchange Carrier (LEC) Egress Busy.
- **NCC** - No Circuit to Designated Carrier.
- **NCD** - Network Call Denial screening.
- **NWC** - No Wink from Carrier.
- **NWN** - Vacant 800 # announcement.
- **OOA** - Out of Area (LEC Mass Announcement System [MAS] Service).
- **OOB** - Inward Wide Band Area Telephone Service (INWATS) Out-of-Band announcement.
- **OTS** - HICAP Out of Time Slot announcement.
- **R01**-**R09** - Dialing Plan Change (Domestic).

Continued on next page

Form Entries, Continued

RDBFHT (cont'd)

- **R10** - Intrastate Dialing Plan Change.
- **ROA** - Re-Order Announcement. Type P announcement per Lucent Practices 800-100-100 is used for ROA.
- **SNA** - Service Not Active announcement.
- **S01**-**S19** - Spares.
- **SP1** - Special Announcement Channel 1. This code identifies the first Special Announcement Channel.
- **SP2** - Special Announcement Channel 2. SP2 directs the call to the second Special Announcement Channel.
- **STO** - Sun Transit Outage announcement.
- **T** -Tone If the call is to be directed to a tone, a T will appear in the RDBFHT field and indicates a reorder tone of 120 IPM.
- **TDN** - Temporarily Disconnected 800 #.
- **UNN** - Unallocated # (SS7).
- **VCA** - Vacant Code Announcement.
- **VMA** - Vacant MAS Announcement.
- **WAT** - Waiting for Answer Timeout.

Continued on next page

Form Entries, Continued

ADG	Automatic Distribution Group - In an International Operating Center, several operator units may provide operator assistance on incoming calls. In non-International Switching Centers (ISCs), this feature can be used with multiple operator units to balance Plain Old Telephone Service (POTS) calls to Directory Assistance, inward operator, etc. Four ADGs can be accommodated with each ADG Routing Data Block (RDB) having up to 32 Trunk Subgroups (TSGs). Valid entries are **"0-3"** or **"Blank"** if not an ADG RDB.
ANFHT	ANI Failure Action Final Handling Treatment. This field is used to specify the FHT that should be given to Integrated Services Digital network User Part (ISUP) calls that use this Routing Data Block (RDB) and do not have Automatic Number Identification (ANI). This field may be left **"Blank"** or see RDBFHT for the allowable entries.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ADG	9
ANFHT	9
ORNU	4
RC:RDB;CHG;OPT(RDBCHAR),___:	3
RDBFHT	5
RDBI	3
TTSI	4

RC Form 505

General

This form is used to add Trunk Subgroups (TSGs) to an existing in-chain Routing Data Block (RDB).

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Form 505, Continued

General
(cont'd)

```
# FORM 505   ADD TRUNK SUBGROUPS TO EXISTING ROUTING DATA BLOCK

     RC:RDB;CHG;OPT(ADDTSGS),___:                              RDBI ____,

     ORNU _______,                  ADG _,

             REFTSG
     BTFN TOWN ST BL FBS NBS _____ _____ __ __ ___ ___, INSERT NEWTSG __,

             NEWTSG
     BTFN TOWN ST BL FBS NBS       DEL      PREFIX       DNHRTYPE
     _____ _____ __ __ ___ ___,    __,      _______,        __,
     _____ _____ __ __ ___ ___,    __,      _______,        __,
     _____ _____ __ __ ___ ___,    __,      _______,        __,
     _____ _____ __ __ ___ ___,    __,      _______,        __,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                   INPUT-15a-VER:RDB:RDBI ----!(EOT)

                     OUTPUT-5a-VER:RDB,OPT(INCHAIN)
```

Form Entries

RC:RDB;CHG;OPT(ADDTSGS),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

RDBI

Routing Data Block Index - RDBI is a link from the digit translation to a series of Trunk Subgroups (TSGs). The TSGs are listed in Routing Data Blocks (RDBs). RDBI points to regular in-chain routing patterns. The range for RDBIs is from **"1-8191"**.

For the RC 524 Form, the RDBI specified in this field identifies the trunks to be used to deliver terminating traffic to the Interexchange Carrier/ International Carrier (IC/INC).

Continued on next page

Form Entries, Continued

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

ADG

Automatic Distribution Group - In an International Operating Center, several operator units may provide operator assistance on incoming calls. In non-International Switching Centers (ISCs), this feature can be used with multiple operator units to balance Plain Old Telephone Service (POTS) calls to Directory Assistance, inward operator, etc. Four ADGs can be accommodated with each ADG Routing Data Block (RDB) having up to 32 Trunk Subgroups (TSGs). Valid entries are **"0-3"** or **"Blank"** if not an ADG RDB.

REFTSG

Reference Trunk Subgroup - The TSG entered here will be the reference point of which to specify the place in order for the New added TSG (NEWTSG) on the RDB. The location of the New TSG will be placed either before or after this REFTSG as directed by the INSERT NEWTSG entry. Entries here apply to regular parameters for **TSG**.

INSERT NEWTSG

This field identifies the position to insert the NEWTSG in relation to the Reference Trunk Subgroup (REFTSG) in the list associated with a routing data block. Use **"A"** to insert above or **"B"** to insert below the REFTSG.

For an Automatic Distribution Group Routing Data Block (RDB), this field supplies the position information within the RDB. Entries are **"1-32"** and REFTSG must be **"Blank"**.

NEWTSG

New Trunk Subgroup - The TSG entered in these fields list the new TSGs and the routing order of each as listed if more than one. This TSG, or group of TSGs will be placed on the RDB either immediately before or immediately after the REFTSG depending on the entry for INSERT NEWTSG. Entries here apply to regular parameters for **TSG**.

Continued on next page

Form Entries, Continued

DEL

Delete - This field specifies the number of digits to be deleted from the dialed address before out-pulsing. Up to fifteen digits may be deleted. Enter a zero (**"0"**) in this field if no deleting is required. Digit deletion always begins with the first address digit in a sequence. For example, delete three would remove the ABC digits from a dialed address. When both deleting and prefixing is being done on a dialed address, digit deletion takes place first. For Routing Data Block (RDB) forms, each Trunk Subgroup (TSG) in the RDB may have its own delete/prefix definition. The requirement for manipulation is determined by the far-end office's ability to accept various digit combinations.

NOTE: Intrastate Inward Wide Band Area Telephone Service (INWATS) to a customer's Automatic Call Distributor (ACD) should delete all digits (7 or 10) when using an in-chain RDB.

PREFIX

This field is **"Blank"** if no prefixing is required. If prefixing is required, the digit or digits that appear in this field will be added to the dialed address after any digit deletion. Any number up to six digits may be specified as a digit prefix. Valid range is **"0-999999"** for domestic Routing Data Blocks (RDBs) and up to six digits with each digit having a value of **"0-9"**, **"B"** for Code 11, or **"C"** for Code 12 for international RDBs.

NOTE: Intrastate Inward Wide Band Area Telephone Service (INWATS) to a customer's Automatic Call Distributor (ACD) should prefix the digit 2 when using an in-chain RDB.

DNHRTYPE

This keyword field is used for Number Portability (NP) calls. The entry **"ID"** specifies delete/prefix digits ignored for NP calls routed on a Location Routing Number (LRN) where signaling is done on the ported numbers. Valid entries: **"Blank"** or **"ID"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ADG	4
DEL	5
DNHRTYPE	5
INSERT NEWTSG	4
NEWTSG	4
ORNU	4
PREFIX	5
RC:RDB;CHG;OPT(ADDTSGS),___:	3
RDBI	3
REFTSG	4

RC Form 508

General

This form is used to delete Trunk Subgroups (TSGs) from an existing in-chain Routing Data Block (RDB). This Recent Change (RC) message can be used to delete any TSG except for the last remaining TSG. RC Form 510 must be used to delete the last remaining TSG and the RDB. If all of the TSGs are to be removed at one time, then RC Form 510 may be used to remove the RDB and all of the TSGs with one message.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 508, Continued

General
(cont'd)

```
# FORM 508   DELETE TRUNK SUBGROUPS FROM AN EXISTING ROUTING DATA BLOCK

     RC:RDB;CHG;OPT(OUTTSGS),___:                                  RDBI ____,

     ORNU ______,

     ROUTES TO BE DELETED
     BTFN TOWN ST BL FBS NBS
     ____ ____ __ __ ___ ___,
     ____ ____ __ __ ___ ___,
     ____ ____ __ __ ___ ___,
     ____ ____ __ __ ___ ___,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - NONE

                     ASSOCIATED VERIFY MESSAGES

                  INPUT-15a-VER:RDB:RDBI ----!(EOT)

                OUTPUT-5a/5d-VER:RDB,OPT(INCHAIN/INTL)
```

Form Entries

RC:RDB;CHG;OPT(OUTTSGS),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

RDBI

Routing Data Block Index - RDBI is a link from the digit translation to a series of Trunk Subgroups (TSGs). The TSGs are listed in Routing Data Blocks (RDBs). RDBI points to regular in-chain routing patterns. The range for RDBIs is from **"1-8191"**.

For the RC 524 Form, the RDBI specified in this field identifies the trunks to be used to deliver terminating traffic to the Interexchange Carrier/ International Carrier (IC/INC).

Continued on next page

Form Entries, Continued

ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
ROUTES TO BE DELETED	List each TSG to be deleted with the activation of this Recent Change (RC) Form. Entries here apply to regular parameters for **TSG**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ORNU	4
RC:RDB;CHG;OPT(OUTTSGS),___:	3
RDBI	3
ROUTES TO BE DELETED	4

Form Entries, Continued

This page is intentionally left blank.

RC Form 510

General

This form is used to delete an entire In-Chain Routing Data Block (RDB). The RDB can be deleted even though it may have Trunk Subgroups (TSGs) assigned to it.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 510, Continued

General
(cont'd)

```
# FORM 510   DELETE ROUTING DATA BLOCK

     RC:RDB;OUT;___:                                          RDBI ____,

     ORNU ______,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                   INPUT-15a-VER:RDB:RDBI ----!(EOT)

                    OUTPUT-5a/d-VER:RDB(ALL ZEROES)
```


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Form Entries

RC:RDB;OUT;___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

RDBI

Routing Data Block Index - RDBI is a link from the digit translation to a series of Trunk Subgroups (TSGs). The TSGs are listed in Routing Data Blocks (RDBs). RDBI points to regular in-chain routing patterns. The range for RDBIs is from **"1-8191"**.

For the RC 524 Form, the RDBI specified in this field identifies the trunks to be used to deliver terminating traffic to the Interexchange Carrier/ International Carrier (IC/INC).

Continued on next page

Form Entries, Continued

ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ORNU	4
RC:RDB;OUT;___:	3
RDBI	3

Form Entries, Continued

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Use pursuant to Company Instructions

RC Form 513

General

This form is used to add a Trunk Subgroup (TSG) to the set of outgoing routes associated with up to 24 In-Chain Routing Data Blocks (RDBs). This message is used to establish a new TSG with the delete and prefix information assumed from the reference TSG. The reference TSG can then have its characteristics changed, as when converting from Multifrequency (MF) to Common Channel Signaling (CCS).

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 513, Continued

General
(cont'd)

```
# FORM 513  ADD A TRUNK SUBGROUP TO 24 ROUTING DATA BLOCKS

     RC:RDB;CHG;OPT(ADD1TSG),___:

     ORNU _______,

             REFTSG
     BTFN TOWN ST BL FBS NBS
     ____ ____ __ __ ___ ___,    INSERT NEWTSG _,

             NEWTSG
     BTFN TOWN ST BL FBS NBS
     ____ ____ __ __ ___ ___,    DNHRTYPE __,

     RDBI     RDBI     RDBI     RDBI
     ____,    ____,    ____,    ____,
     ____,    ____,    ____,    ____,
     ____,    ____,    ____,    ____,
     ____,    ____,    ____,    ____,
     ____,    ____,    ____,    ____,
     ____,    ____,    ____,    ____,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 405B

                       ASSOCIATED VERIFY MESSAGES

                INPUT-15b-VER:RDBLIST;ALL:TSG ---!(EOT)

                       OUTPUT-5f-VER:RDB;OPT(LIST)
```

Form Entries

RC:RDB;CHG;OPT(ADD1TSG),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

REFTSG

Reference Trunk Subgroup - The TSG entered here will be the reference point of which to specify the place in order for the New added TSG (NEWTSG) on the RDB. The location of the New TSG will be placed either before or after this REFTSG as directed by the INSERT NEWTSG entry. Entries here apply to regular parameters for **TSG**.

INSERT NEWTSG

This field identifies the position to insert the NEWTSG in relation to the Reference Trunk Subgroup (REFTSG) in the list associated with a routing data block. Use **"A"** to insert above or **"B"** to insert below the REFTSG.

For an Automatic Distribution Group Routing Data Block (RDB), this field supplies the position information within the RDB. Entries are **"1-32"** and REFTSG must be **"Blank"**.

NEWTSG

New Trunk Subgroup - The TSG entered in these fields list the new TSGs and the routing order of each as listed if more than one. This TSG, or group of TSGs will be placed on the RDB either immediately before or immediately after the REFTSG depending on the entry for INSERT NEWTSG. Entries here apply to regular parameters for **TSG**.

DNHRTYPE

This keyword field is used for Number Portability (NP) calls. The entry **"ID"** specifies delete/prefix digits ignored for NP calls routed on a Location Routing Number (LRN) where signaling is done on the ported numbers. Valid entries: **"Blank"** or **"ID"**.

RDBI

Routing Data Block Index - RDBI is a link from the digit translation to a series of Trunk Subgroups (TSGs). The TSGs are listed in Routing Data Blocks (RDBs). RDBI points to regular in-chain routing patterns. The range for RDBIs is from **"1-8191"**.

For the RC 524 Form, the RDBI specified in this field identifies the trunks to be used to deliver terminating traffic to the Interexchange Carrier/ International Carrier (IC/INC).

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
DNHRTYPE	4
INSERT NEWTSG	4
NEWTSG	4
ORNU	3
RC:RDB;CHG;OPT(ADD1TSG),___:	3
RDBI	4
REFTSG	4

Form Entries, Continued

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RC Form 514

General

This form is used to delete a Trunk Subgroup (TSG) from the set of outgoing routes associated with up to 24 In-Chain Routing Data Blocks (RDBs). This message is used to establish a new TSG with the delete and prefix information assumed from the reference TSG. The reference TSG can then have its characteristics changed, as when converting from Multifrequency (MF) to Common Channel Signaling (CCS). This Recent Change (RC) message is used primarily in conjunction with RC Forms 107-109 to change TSG characteristics.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 514, Continued

General
(cont'd)

```
# FORM 514  DELETE A TRUNK SUBGROUP FROM EXISTING ROUTING DATA BLOCKS

     RC:RDB;CHG;OPT(DEL1TSG),___:

     ORNU _______,

     ROUTE TO BE DELETED
     BTFN TOWN ST BL FBS NBS
     ____ ____ __ __ ___ ___,

     RDBI     RDBI     RDBI     RDBI
     ____,    ____,    ____,    ____,
     ____,    ____,    ____,    ____,
     ____,    ____,    ____,    ____,
     ____,    ____,    ____,    ____,
     ____,    ____,    ____,    ____,
     ____,    ____,    ____,    ____,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                  INPUT-15b-VER:RDBLIST;ALL:TSG ---!(EOT)

                        OUTPUT-5f-VER:RDB;OPT(LIST)
```

Form Entries

RC:RDB;CHG;OPT(DEL1TSG),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

ROUTE TO BE DELETED

Enter the Trunk Subgroup (TSG) to be deleted from the TSG(s) in this field. Entries here apply to regular parameters for **TSG**.

RDBI

Routing Data Block Index - RDBI is a link from the digit translation to a series of Trunk Subgroups (TSGs). The TSGs are listed in Routing Data Blocks (RDBs). RDBI points to regular in-chain routing patterns. The range for RDBIs is from **"1-8191"**.

For the RC 524 Form, the RDBI specified in this field identifies the trunks to be used to deliver terminating traffic to the Interexchange Carrier/ International Carrier (IC/INC).

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ORNU	3
RC:RDB;CHG;OPT(DEL1TSG),___:	3
RDBI	4
ROUTE TO BE DELETED	4

Form Entries, Continued

This page is intentionally left blank.

RC Form 524

General

This form is used to define Service Switching Point (SSP) Number Services Routing Data Blocks (NDB).

An ACTION of **"A"** is used to add a new routing data block. An ACTION of **"C"** is used to change the characteristics of an existing routing block.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 9.

Continued on next page

RC Form 524, Continued

General
(cont'd)

```
# FORM 524  NUMBER DATA BLOCK ROUTING DEFINITION

     RC:NDB;CHG;___:                    NDB ____,    ACTION _,

     ORNU ______,

     FENCLASS ______,         FENID ______,

     RDBI ____,   NXZZ __,   NNDB ____,

     FG _,        ANI _,     CPN _,     PATH ___,    INTL _,

     REMARKS _____________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 405H

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-15g-VER:NDB:NDBI

                       OUTPUT-5l-VER:RDB,OPT(NDB):
```

Form Entries

RC:NDB;CHG;___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

NDB

Number Services Routing Data Block index -This field specifies which Number Services Interexchange Carrier (IC) and International Carrier (INC) Routing Data Block (RDB) is to be populated. Legal input values are:
"1-1023".

Continued on next page

Form Entries, Continued

ACTION

Action - Add, Change, or Delete. Enter **"A"** if the associated data on this form is being added. Enter **"C"** if the associated data on this form changes existing data. Enter **"D"** if the associated data on this form is being deleted.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

FENCLASS

This field specifies the classification of the Far End Network (FEN). If the Trunk Subgroup (TSG) is not associated with any FEN, this field is left **"Blank"**. The FEN with which the TSG is to be associated must be described via 4ESS Switch RC 617.

For RC 524, this field identifies the class for accumulating counts.

The following classifications are available:

- **ACCESA** - This identifier specifies that the TSG is a link to an Inter-exchange Carrier (IC) or International Carrier (INC), and the 4ESS Switch is being used by a Local Exchange Carrier (LEC) as an Access Tandem (AT) and/or Service Switching Point (SSP) to switch calls from this TSG.
- **ACCESI** -This identifier specifies that the TSG is a link to an International Carrier (INC), and the 4ESS Switch is being used by an Interexchange Carrier (IC) (e.g., AT&T-C) to switch calls from this TSG.
- **ACCESO** - This identifier specifies that the TSG is a link to an Operating Company and the 4ESS Switch is used as an IC.
- **CAMA** - This identifier specifies that the TSG is terminated on an office which delivers traffic on Centralized Automatic Message Accounting (CAMA) trunks.
- **CMC** - Cellular Mobile Carrier - This identifier specifies that the FEN is a CMC. The TSG connects an Access Tandem (AT) and a CMC.

Continued on next page

Form Entries, Continued

FENCLASS (cont'd)

- **INTL** - This identifier specifies that the TSG is an international link with the far end outside World Zone 1 and that the 4ESS Switch is being used as an International Switching Center (ISC)
- **OWATS** - This identifier specifies that the TSG is a link to a Private Branch Exchange (PBX) over which only Outward Wide Band Area Telephone Service (WATS) calls are allowed.
- **OEO** - Other End Office connecting, meaning an Equal Access End Office (EAEO) owned by a different company. This identifier specifies that the FEN is an OEO. The TSG connects an Access Tandem (AT) and an OEO.
- **PBX** - This identifier specifies that the TSG is a link to a PBX.
- **POTS** - This identifier specifies that the TSG is a link to a switching machine serving either a Local Access Transport Area (LATA) of the Local Exchange Carrier (LEC) owning/sharing the 4ESS Switch, the Continental United States/Plain Old Telephone Service (POTS) (CUSP) network of the IEC owning/sharing the 4ESS Switch, or some other FEN to be treated similarly.

Continued on next page

Form Entries, Continued

FENID

Far End Network (FEN) Identification - This field distinguishes the specific FEN with which this Trunk Subgroup (TSG) is associated. One to six alphanumeric characters may be entered to distinguish among several FENs with the same classification, or the field may be left **"Blank"**. If FENCLASS is **"Blank"**, FENID must also be **"Blank"**.

When the FENCLASS is ACCESA or ACCESI, FENID should consist of type of feature group access and the 4 numeric digits of the Carrier Identification Code (CIC).

The type of feature group definitions are:

- **G** - All access types (B, C, & D).
- **B** - Feature Group B Access.
- **C** - Feature Group C Access.
- **D** - Feature Group D Access.

Examples include:

- **G0288** - Carrier ID 288 has Feature Group B, C, & D access.
- **BC0288** - Carrier ID 288 has Feature Group B & C access.
- **BD0288** - Carrier ID 288 has Feature Group B & D access.
- **B2882** - Carrier ID 2882 has Feature Group B access only.
- **D2882** - Carrier ID 2882 has Feature Group D access only.

For an access type, both B2882 and D2882 can exist but be for different carriers.

Continued on next page

Form Entries, Continued

RDBI	Routing Data Block Index - RDBI is a link from the digit translation to a series of Trunk Subgroups (TSGs). The TSGs are listed in Routing Data Blocks (RDBs). RDBI points to regular in-chain routing patterns. The range for RDBIs is from **"1-8191"**. For the RC 524 Form, the RDBI specified in this field identifies the trunks to be used to deliver terminating traffic to the Interexchange Carrier/ International Carrier (IC/INC).
NXZZ	NXZZ TelCo BCD digits to be used for Equal Access Signaling (EAS) to a Interexchange Carrier/International Carrier (IC/INC). The NX defines the signaling digits in the 1NX sequence used for international EAS. The ZZ defines the signaling digits in the 0ZZ-XXX EAS sequence required to route calls through a tandem office. Legal input values are: "**00-99**".
NNDB	Next Number Services Routing Data Block index - This field specifies which Number Data Block (NDB) should be searched next if an idle trunk cannot be obtained from the trunk subgroups identified by the NDB. Call processing will search at most two NDBs per call. Legal inputs are "**Blank**" or "**1-1023**". For RC 524, an **"*"** entry is used to make a positive request to have the associated data structures set to unassigned.
FG	Signaling Feature Group - This field identifies what type of signaling the Interexchange Carrier (IC)/International Carrier (INC) will be expecting. Legal inputs are: **"C"** for Feature Group C (traditional) and **"D"** for Feature Group D (Equal Access).
ANI	ANI send indicator. This field identifies if the Interexchange Carrier (IC)/ International Exchange Carrier (INC) is expecting the callers Automatic Number Identification (ANI) to be delivered. This information is only used at an Service Switching Point (SSP) office. Valid inputs are: **"N"** - No, **"Y"** - Yes.

Continued on next page

Form Entries, Continued

CPN

Calling Party Number - This field identifies if the Interexchange Carrier/ International Carrier (IC/INC) is expecting the calling party number to be delivered. This information is only used at an Service Switching Point (SSP) office. Valid entries are: **"N"** - No, **"Y"** - Yes.

PATH

Signaling path type - This field specifies the number of winks that the Service Switching Point (SSP) switch expects to process. The number of winks is related to what type of office the SSP switch is connected to, e.g., Inter-exchange Carrier (IC), International Carrier (INC), or Access Tandem (AT).

- **DIR** - direct to IC/INC, no winks.
- **ATD** - signaling to AT then to IC/INC, 1 wink.
- **ATI** - signaling to INC, 2 winks.

INTL

International Signaling indicator in the Number Services Routing Data Block Index (NDB) - The legal inputs for this field are **"N"** or **"Y"**. An **"N"** indicates that the signaling to the Interexchange Carrier/International Carrier (IC/INC) is in the domestic Equal Access (EA) format. A **"Y"** indicates that the signaling to the IC/INC is in the international EA format. This field should be a **"Y"** for routing International World Zone 1 calls to an INC. This field should be an **"N"** for routing International World Zone 1 calls to an IC Consolidated Carrier (CC). This field should be an **"N"** for routing domestic calls to a CC and should be a **"Y"** for routing International Non-World Zone 1 calls to a CC or to an INC.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ACTION	4
ANI	7
CPN	8
FENCLASS	4
FENID	6
FG	7
INTL	8
NDB	3
NNDB	7
NXZZ	7
ORNU	4
PATH	8
RC:NDB;CHG;___:	3
RDBI	7

Form Entries, Continued

This page is intentionally left blank.

RC Form 525

General

This form is used to delete Service Switching Point (SSP) Number Services Routing Data Blocks (NDB).

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 525, Continued

General
(cont'd)

```
# FORM 525  DELETE A NUMBER DATA BLOCK ROUTING DEFINITION

     RC:NDB;OUT;---:                          NDB ----,

     ORNU ------,

     REMARKS _____________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-15g-VER:NDB:NDBI

                       OUTPUT-5l-VER:RDB,OPT(NDB):
```

Form Entries

RC:NDB;OUT;---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

NDB

Number Services Routing Data Block index -This field specifies which Number Services Interexchange Carrier (IC) and International Carrier (INC) Routing Data Block (RDB) is to be populated. Legal input values are:
"1-1023".

Continued on next page

Form Entries, Continued

ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
NDB	3
ORNU	4
RC:NDB;OUT;---:	3

Form Entries, Continued

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Miscellaneous Table Of Contents

SECTION	RC#
6a	600 - Activate More Than One Recent Change Message at a Time
6b	601 - Add a Dial Up Port Client
6c	602 - Change a Dial Up Port Client's Characteristics
6d	603 - Delete a Dial Up Port Client
6e	604 - Add a PAS Announcement
6f	605 - Change a PAS Announcement
6g	606 - Delete a PAS Announcement
6h	607 - Add PAS with TELEVOTE
6i	608 - Change PAS TELEVOTE
6j	609 - Delete PAS TELEVOTE
6k	610 - Add PAS with Cut-Through
6l	611 - Change PAS with Cut-Through
6m	612 - Delete PAS with Cut-Through
6n	613 - Add TSGs to a TASI-E Frame
6o	614 - Delete TSGs from a TASI-E Frame
6q	616 - Change the INSEP-DESEP Matrix
6r	617 - Establish a New Far End Network
6s	618 - Change the Characteristics of an Existing Far End Network
6t	619 - Delete a Far End Network
6y	624 - Announcement Index to Treatment Mapping
6z	625 - AMA Call Code to Structure Code Mapping

Continued on next page

Miscellaneous Table Of Contents, Continued

SECTION	RC#
6aa	626 - Type of Service to Dialed Code Mapping
6af	631 - Change Service Parameters
6ah	633 - Change Carrier ID Code and TNS Type Designation
6ai	634 - Service Circuit System - Expanded Announcements
6bi	660 - SCP Announcement Index to SCS Announcement Mapping
6bm	664 - XTSI DS3 Unit DS1 Performance Monitoring Thresholds
6bp	667 - 6-DIGIT NPA-NXX AIN/LNP CNT Assignment
6dg	Add or Delete 10-Digit AIN Triggers

Continued on next page

Miscellaneous Table Of Contents, Continued

General

This information applies to all sections within this division:

1. The characters > and < are used to indicate which Generic Programs will apply.

   Examples:

   - 4E22> indicates 4E22 and later Generic Programs.
   - <4E22 indicate 4E22 and earlier Generic Programs.
   - 4E22 indicates the 4E22 Generic Program only.
   - >4E22 indicates all Generic Programs up to, but not including, 4E22.

2. Following the general section is a copy of the applicable Recent Change (RC) Form/s. Where there is more than one Generic published, the forms will be filed in ascending order by Generic.

3. The Keyword field names of the form entries in each section are listed in order of appearance on the latest Generic Recent Change Form. (Keywords deleted from the latest form issue will still remain in the form order of the last RC Form that it appeared until finally deleted).

4. The alphabetical "Keyword Index" of the field names is located at the end of each Recent Change Section, following the text, and any tables and/or graphics that may apply.

5. Each Keyword definition will only list the valid entries for the RC Form covered in each applicable section. Some Keywords may have additional valid entries related overall and may be found in the alphabetical Keyword Glossary (Div. 9, Sec. 1).

Miscellaneous Table Of Contents, Continued

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RC Form 600

General

This form is used simultaneously to advance a number of Recent Changes (RCs) that reside in buffer. The messages entered on this form will be processed in the sequence in which they are listed.

Even though this message is called a Multi-activate message, it still must be called up and entered in the appropriate state (usually buffered).

The Order Number (ORNU) messages listed must have been previously placed in the buffer. When the RC Form 600 on which they are listed is put into the test state by an RCTST message, all of the ORNU messages on the form will be activated. This message does not have an activate state.

An alphabetical keyword list is included in this section on page 4.

Continued on next page

RC Form 600, Continued

General
(cont'd)

```
# FORM 600   ACTIVATE MORE THAN ONE RECENT CHANGE MESSAGE AT A TIME

     RC:MISC;NEW;OPT(MULTACT),---:                              ORNU ------,

      ORNU     ORNU     ORNU     ORNU
     ------,  ------,  ------,  ------,
     ------,  ------,  ------,  ------,
     ------,  ------,  ------,  ------,
     ------,  ------,  ------,  ------,

     REMARKS ------------------------------------------------!

                    EQUIVALENT ODA INPUT FORM - NONE

                   ASSOCIATED VERIFY MESSAGES - NONE
```

Form Entries

RC:MISC;NEW;OPT(MULTACT),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

The columns of ORNUs list the Order Numbers of the RC Messages that are to be activated. These Order Numbers must already be in the buffer. These messages will be tested and activated as this (MULTACT) RC is put in the "TST" state. Internally, each message is still processed serially and individually.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ORNU	3
RC:MISC;NEW;OPT(MULTACT),---:	3

RC Form 601

General

This form is used to add a new Dial Up Port Client descriptor. Adding a client to the Dial Up Port feature allows the client to access data via a Data Link established over a Direct Distance Dialing (DDD) connection. 255 dial-up clients may interface with the 4ESS™-2000 Switch.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 601, Continued

General
(cont'd)

```
# FORM 601   ADD A DIAL UP PORT CLIENT

     RC:DIALUP;NEW;___:

     ORNU _______,

     CTYPE _____,  DUPID ______,  PTCL _,  DUPCBN ____________,

     REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 406E

                       ASSOCIATED VERIFY MESSAGES

                          INPUT-16a-VER:DIALUP

                       OUTPUT-6a-VER:DIALUP;---:
```

Form Entries

RC:DIALUP;NEW;___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

CTYPE Client Type - To indicate the use of the Dial Up Port, a client type must be assigned. Valid entries for this field are: **"TDAS"** - client has access to Traffic Data Acquisition System (TDAS) data, **"VSS"** - Voice Storage System client, and **"TVSP"** - Televote Sponsor.

DUPID Dial Up Port Identification - This field assigns an identifier to a client. All client identifiers for the office must be unique. Identifier assignments are based on the client type as follows:

CTYPE	ID
VSS	00001-99999
TDAS or **TVSP**	Two characters which may be either a letter (**"A-Z"**) or digit (**"0-9"**).

For RC Form 607, this field identifies the TELEVOTE sponsor to whom master TELEVOTE counts will be sent. Valid entry is a two character alphanumeric. The first must be a letter **"A-Z"**, the second may be a letter **"A-Z"** or digit **"0-9"**. This entry corresponds to the DUPID entered on the RC Form 603.

NOTE: This field must be **"Blank"** if MSI is **"S"**. This field may optionally be **"Blank"** for MSI of **"M"** or **"B"**, if real time output to the sponsor is not required

PTCL Protocol - This field identifies the clients Data Link protocol. Valid entry is **"A"** for Asynchronous. This entry must have a related Input/Output channel specified in Office Data Assembler (ODA) by Lucent engineering.

DUPCBN Dial Up Port Call Back Number - This field specifies the clients unique Call Back Number and may be any number of digits from a minimum of one to a maximum of eleven. Call back numbers for Traffic Data Acquisition System (TDAS) clients must be unique. For Televote Sponsor (TVSP) and Voice Storage System (VSS) clients, they do not have to be unique. Valid entries are **"0-99999999999"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
CTYPE	4
DUPCBN	4
DUPID	4
ORNU	3
PTCL	4
RC:DIALUP;NEW;___:	3

Form Entries, Continued

This page is intentionally left blank.

RC Form 602

General

This form is used to change the characteristics of a Dial Up Port Client. These changes can only be made when the client is not communicating with the 4ESS™-2000 Switch.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 602, Continued

General
(cont'd)

```
# FORM 602   CHANGE A DIAL UP PORT CLIENT'S CHARACTERISTICS

     RC:DIALUP;CHG;___:

     ORNU _______,

     CTYPE _____, OLD DUPID ______,  OLD DUPCBN _____________,

     NEW DUPID ______,  PTCL _,  DUPCBN _____________,

     REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 406E

                       ASSOCIATED VERIFY MESSAGES

                          INPUT-16a-VER:DIALUP

                       OUTPUT-6a-VER:DIALUP;---:
```

Form Entries

RC:DIALUP;CHG;___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

CTYPE

Client Type - To indicate the use of the Dial Up Port, a client type must be assigned. Valid entries for this field are: **"TDAS"** - client has access to Traffic Data Acquisition System (TDAS) data, **"VSS"** - Voice Storage System client, and **"TVSP"** - Televote Sponsor.

DUPID

Dial Up Port Identification - This field assigns an identifier to a client. All client identifiers for the office must be unique. Identifier assignments are based on the client type as follows:

CTYPE	ID
VSS	00001-99999
TDAS or **TVSP**	Two characters which may be either a letter (**"A-Z"**) or digit (**"0-9"**).

For RC Form 607, this field identifies the TELEVOTE sponsor to whom master TELEVOTE counts will be sent. Valid entry is a two character alphanumeric. The first must be a letter **"A-Z"**, the second may be a letter **"A-Z"** or digit **"0-9"**. This entry corresponds to the DUPID entered on the RC Form 603.

NOTE: This field must be **"Blank"** if MSI is **"S"**. This field may optionally be **"Blank"** for MSI of **"M"** or **"B"**, if real time output to the sponsor is not required

DUPCBN

Dial Up Port Call Back Number - This field specifies the clients unique Call Back Number and may be any number of digits from a minimum of one to a maximum of eleven. Call back numbers for Traffic Data Acquisition System (TDAS) clients must be unique. For Televote Sponsor (TVSP) and Voice Storage System (VSS) clients, they do not have to be unique. Valid entries are **"0-99999999999"**.

PTCL

Protocol - This field identifies the clients Data Link protocol. Valid entry is **"A"** for Asynchronous. This entry must have a related Input/Output channel specified in Office Data Assembler (ODA) by Lucent engineering.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
CTYPE	4
DUPCBN	4
DUPID	4
ORNU	3
PTCL	4
RC:DIALUP;CHG;___:	3

Form Entries, Continued

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RC Form 603

General

This form is used to DELETE a Dial Up Port Client. The client descriptor may not be deleted while the client is communicating with the 4ESS™-2000 Switch.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 603, Continued

General
(cont'd)

```
# FORM 603   DELETE A DIAL UP PORT CLIENT

     RC:DIALUP;OUT;___:

     ORNU ______,

     CTYPE ____,  DUPID _____,  DUPCBN ___________,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 406E

                       ASSOCIATED VERIFY MESSAGES

                          INPUT-16a-VER:DIALUP

                       OUTPUT-6a-VER:DIALUP;---:
```

Form Entries

RC:DIALUP;OUT;___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

CTYPE

Client Type - To indicate the use of the Dial Up Port, a client type must be assigned. Valid entries for this field are: **"TDAS"** - client has access to Traffic Data Acquisition System (TDAS) data, **"VSS"** - Voice Storage System client, and **"TVSP"** - Televote Sponsor.

DUPID

Dial Up Port Identification - This field assigns an identifier to a client. All client identifiers for the office must be unique. Identifier assignments are based on the client type as follows:

CTYPE	ID
VSS	00001-99999
TDAS or **TVSP**	Two characters which may be either a letter (**"A-Z"**) or digit (**"0-9"**).

For RC Form 607, this field identifies the TELEVOTE sponsor to whom master TELEVOTE counts will be sent. Valid entry is a two character alphanumeric. The first must be a letter **"A-Z"**, the second may be a letter **"A-Z"** or digit **"0-9"**. This entry corresponds to the DUPID entered on the RC Form 603.

NOTE: This field must be **"Blank"** if MSI is **"S"**. This field may optionally be **"Blank"** for MSI of **"M"** or **"B"**, if real time output to the sponsor is not required

DUPCBN

Dial Up Port Call Back Number - This field specifies the clients unique Call Back Number and may be any number of digits from a minimum of one to a maximum of eleven. Call back numbers for Traffic Data Acquisition System (TDAS) clients must be unique. For Televote Sponsor (TVSP) and Voice Storage System (VSS) clients, they do not have to be unique. Valid entries are **"0-99999999999"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
CTYPE	4
DUPCBN	4
DUPID	4
ORNU	3
RC:DIALUP;OUT;___:	3

Form Entries, Continued

This page is intentionally left blank.

RC Form 604

General

This form is used to add a Public Announcement Service (PAS) announcement. PAS will provide pre-recorded announcements to a large volume of callers who dial an advertised number to hear a specified announcement.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 11.

Continued on next page

RC Form 604, Continued

General
(cont'd)

```
# FORM 604   ADD A PAS ANNOUNCEMENT

     RC:PAS;NEW;OPT(ANN);___: TYPE _, UFH _, VSSID _____, SID _______,

     ORNU ______,

     START TIME
       STRTT __:__,
     STOP TIME
       STOPT __:__,

     LENGTH ___, PLAYS __,

     ANSWR _, ANNUM ___,

     CAREA _, CPOS _, ANSEP ___,

     SSI ____, SAN ____,

           SPECIAL HANDLING

     ADSI __,  ADFHT ___,  ANNUM ___,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 408C

                       ASSOCIATED VERIFY MESSAGES

                          INPUT-16d-VER:PASANN

                     OUTPUT-6e-VER:PASANN,OPT(LIST):
                      OUTPUT-6f-VER:PASANN,OPT(ANN):
```

Form Entries

RC:PAS;NEW;OPT(ANN);___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

TYPE

The announcement Type is entered in this field. Valid entries are as follows:

- **BI** - Barge-in announcement.
- **SCS** - Service Circuit System.

Continued on next page

Form Entries, Continued

UFH

Use Final Handling. This field is only valid when defining the Public Announcement System (PAS) Vacant Code announcement (SID = 9999901) or the PAS Inactive announcement (Service Identity [SID]= 9999902). Valid entries are **"Blank"**, **"Y"**, or **"N"**. If this field is **"Blank"** or **"N"**, then the announcement played will be the announcement for the entered Announcement Number (ANNUM). An entry of **"Y"** signifies that the call is to be final handled. The Final Handling Treatment (FHT) will be Vacant Mass Announcement System (MAS) Announcement if SID is 9999901 or Service Not Active if SID is 9999902.

VSSID

Voice Storage System (VSS) Identity. This five digit field is the first part of the External Announcement Identity (EAID) code identifying the announcement. For announcements updated from a VSS, the VSS Identity is entered. Valid entries are **"1-99999"**. For barge-in announcements, direct producer updated announcements, or service circuit system announcements, the VSSID must be **"0"**. With VSS updated announcements, the VSSID must be a valid VSS client in the Dial Up Port translator.

SID

Service Identity - This field is a seven digit entry which identifies the type of announcement.

A. VSS Updated -	**"0000000-9990000"** **"9999901"** and **"9999902"**
B. Direct Producer -	**"9990001-9999000"** **"9999901"** and **"9999902"**
C. Barge-In -	**"9999001-9999511"** **"9999901"** and **"9999902"**
D. SCS -	**"0000000-9990000"** **"9999901"** and **"9999902"**

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

STRTT

The Start Time field specifies what time within a 24-hour period following the Start Date that the Cut-Through or Televote function will start. The Start Time field is composed of four digits, two for hours, and two for minutes. A **"Blank"** field is not permitted. The first two digits of the field representing the Start Time hour must be **"0-23"**. The last two digits representing the minutes of the Start Time must be **"0-59"**. For Start Date equal to Stop Date, the Start Time must be less than the Stop Time.

STOPT

The daily Stop Time field specifies what time within 24 hours following the Start Date that the Cut-Through or Televote function will stop. For successive days thereafter the Cut-Through or Televote service is stopped within each 24-hour period at the Stop Time until the Stop Date is reached. The Stop Time must be specified if the Stop Date has been specified. If the Stop Date has been left **"Blank"**, then the Stop Time can be specified or left **"Blank"**. If the Stop Date is left **"Blank"** but not the Stop Time, the Cut-Through service will cycle on and off each day (after the Start Date). The first two digits of the field representing Start Time hour is **"0-23"**. The last two digits representing minutes is **"0-59"**. If the Stop Time is specified, the value must be later than the Start Time when the Start and Stop Dates are equal.

LENGTH

The length of the announcement in seconds ranges from **"5-300"**. For Voice Storage System (VSS) updated and direct producer updated announcement, the length must be in multiples of 30 seconds, i.e., 30, 60, 90, etc. For a barge-in announcement the length may be specified in one second increments. For an Service Circuit System (SCS) announcement, length must be in the range of **"5-260"**.

Continued on next page

Form Entries, Continued

PLAYS

The number of playbacks of an announcement that a caller may listen to before being automatically disconnected. Valid entries are **"1-15"**, corresponding to the desired number of plays, or a **"U"** for an unlimited number of plays. It should be noted that the product of LENGTH times PLAYS (and the value of PLAYS can be changed via a Recent Change (RC) Message) equals the total time before the system will automatically disconnect the Public Announcement System (PAS) announcement.

For a barge-in announcement only, to insure that the caller hears at least one complete play of an announcement, either the number of plays should be 2 or the LENGTH should be specified as twice the actual length.

ANSWR

Answer Supervision - This field is used to specify whether or not Answer Supervision is to be returned on the incoming trunk. A **"Y"** specifies return Answer supervision. An **"N"** specifies do not return Answer supervision. Valid entries are **"Y"** and **"N"**.

NOTE: The Public Announcement System (PAS) vacant code announcement and the PAS announcement inactive announcement should have an "N" entered.

ANNUM

Announcement Number - This field is used to specify a unique internal 4ESS Switch/Mass Announcement System (MAS) ANNUM for each Public Announcement System (PAS) announcement.

Valid entries are **"1-511"** that is not used by any other announcement assigned to the same MAS frame.

Valid entries for Barge-In announcements are **"1-511"** that is not used by any other announcement.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

CAREA

Control Area - Valid input for this field is a single digit in the range of **"0-9"**. This number identifies the Control Area that is to be associated with this Trunk Subgroup (TSG) for trouble reporting. The number assignable in a given office is limited, however, to the highest control area assigned at Office Data Assembler (ODA) time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location.

Any test position can access every trunk assigned to the 4ESS Switch with the exception of international trunks. International trunks having Incoming Signaling Characteristic (ISC) or Outgoing Signaling Characteristic (OSC) equal to Consultative Committee for International Telephone & Telegraph 5 (CCITT5) must be assigned to a CAREA that is equipped with 51AL6 test positions. The 51AL6 test position can access any trunk assigned to the 4ESS Switch. However, the alarms, Teletype (TTY) printouts, and 101 calls associated with a particular TSG will only be transmitted to the CAREA and CPOS that is specified on the input form for a TSG. A single trouble receiving location could be specified for all TSGs in the office. Trouble tickets might be originated here and distributed to occupied test positions as necessary. Some other typical applications could be to assign the TSGs to testboard positions alphabetically, by direction, by ownership, or by Type of Trunk (TOT).

The only other restraint on assigning a TSG to a particular CAREA and CPOS is that all positions might not have the optional equipment required to satisfactorily test some Trunk Subgroups. The arrangement in a given office depends on the administrative decisions made for that office.

Continued on next page

Form Entries, Continued

CAREA
(cont'd.)

Position 00 (CAREA 0, CPOS 0) has been assigned to the Master Test and Control Channel (MTC) teletype in the Maintenance Operating Center (MOC). This position was established to receive trouble reports for certain non-message type TSGs. Lucent Technologies recommend that positions
01-09 not be assigned in an office at this time. The circuits that should be assigned to test position 00 are:

- ACI*DCHN - D-Channel circuits to the Common Network Interface (CNI) Ring
- CLN*DLPC - Loopback/complement Data Test
- MAS*BIPB - Mass Announcement System (MAS) Barge-in Playback Trunk
- MIS*AART - Auxiliary Audible Ring Trunk
- MIS*TERM - Common Channel Interoffice Signaling (CCIS) Terminals
- SVC*AIN* - Advanced Intelligent Network (AIN)
- SVC*DMRV - Dual-Tone Multifrequency (MF) Receivers (DTMFR)
- VC*DMXM - Dual-Tone Multifrequency Transmitters (DTMFT)
- SVC*MFR* - Multifrequency Receivers
- SVC*MFX* - Multifrequency Transmitters
- SVC*XCVR - CCIS Continuity Check Transceivers
- SVC*XCVT - CCIS Continuity Check Transceiver Test Circuit
- SVC*MFRT - Multifrequency Receiver Test Circuits
- SVC*MFXT - Multifrequency Transmitter Test Circuits
- SVC*SCAN - Service Circuit System Expanded Announcements
- SVC*SCBN - Service Circuit System Expanded Announcements
- SVC*SCNS - Network Services Complex Set S
- TAS*ANN* - Recorded announcements
- TAS*TONE - Tone Circuits
- TAS*MWAT - 1004 hz at 0 dBm
- TAS*MW10 - 1004 hz at 10 dBm

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

CAREA (cont'd.)

The balance of the non-message type TSG may be assigned to working testboard positions.

For RC Forms 604 and 605, this number identifies the Control Area that is to be associated with this announcement trouble report. The number assignable in a given office is limited, however, to the highest control area assigned at ODA time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location. If CAREA 0,
CPOS 0 is specified, all MAS messages will be sent to the MTC channel in the MOC.

CPOS

Control Position - Enter a number from **"0-9"** to specify the testboard position that is to be associated with the Trunk Subgroup (TSGs) and Control Area (CAREA) for test reporting purposes. This assignment together with the CAREA designation can be used to distribute the maintenance responsibility for Trunk Subgroups. This assignment does not prevent any test position from accessing a particular group of trunks. It is only for reporting purposes.

For RC Forms 604 and 605, enter a number from **"0-9"** to specify the testboard position that is to receive the announcement trouble reports. If CAREA is 0, only CPOS 0 is allowed. When the Message Announcement System (MAS) is administered by the Operations National Administration Center (ONAC), assign the CPOS that has been dedicated for its use.

ANSEP

The Announcement Separation Class (ANSEP) ranges from **"0-31"** to indicate a traffic class for measurement purposes. For ANSEP classes greater than **0**, only one announcement may be assigned to any one class. ANSEP is used with the Geographical Traffic Separation Class (GEOSEP on the Trunk Subgroup [TSG] Forms) to peg geographical survey counts in Mass Announcement System (MAS) offices.

Continued on next page

Form Entries, Continued

SSI	This field is used to specify the Service Circuit System (SCS) Service Circuit Trunk Subgroup (TSG) from which an available trunk will be selected. Valid entries are **"Blank"**, **"FHA"**, and **"FHB"**.
SAN	This field is used to specify the Service Circuit System (SCS) Announcement Number. The announcement number will be used in the peripheral unit order sent to the SCS. Valid entries are **"Blank"** or **"1-4095"**. (Legal values for SAN on RC form 634 are **"Blank"** or **"1-511"**.)
ADSI	Not Applicable - Entries: **"Blank"**
ADFHT	Not Applicable - Entries: **"Blank"**

Continued on next page

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SAN	10
SID	4
SSI	10
STOPT	5
STRTT	5
TYPE	3
UFH	4
VSSID	4

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 605

General

This form is used to modify the parameters of an existing Public Announcement System (PAS) announcement. Only parameters which may be changed are present on the form, with exception of the fields TYPE, VSSID, and SID. These three fields are used solely for identification of the announcement being updated. The other parameters of the announcement (e.g., MEMN and ANNUM) may not be changed. (The MEMN and ANNUM fields on the ADSI line may be changed.) Only by deleting the announcement and subsequently redefining it may these parameters be altered.

A blank input field will leave the field unchanged. Setting the field back to the system default (i.e., deleting the field) is accomplished by entering an asterisk in the field. Only the time fields and the ADFHT, MEMN and ANNUM fields on the ADSI line may be deleted.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 11.

Continued on next page

RC Form 605, Continued

General
(cont'd)

```
# FORM 605   CHANGE PAS ANNOUNCEMENT

     RC:PAS;CHG;OPT(ANN);___: TYPE _, UFH _, VSSID _____, SID _______,

     ORNU ______,

     START TIME
       STRTT __:__,
     STOP TIME
       STOPT __:__,

     PLAYS __,

     ANSWR _,

     CAREA _, CPOS _, ANSEP ___,

     SSI ____, SAN ____,

           SPECIAL HANDLING

     ADSI __,  ADFHT ___, ANNUM ___,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 408C

                       ASSOCIATED VERIFY MESSAGES

                          INPUT-16d-VER:PASANN

                     OUTPUT-6e-VER:PASANN,OPT(LIST):
                      OUTPUT-6f-VER:PASANN,OPT(ANN):
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:PAS;CHG;OPT(ANN);___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

TYPE

The announcement Type is entered in this field. Valid entries are as follows:

- **BI** - Barge-in announcement.
- **SCS** - Service Circuit System.

Continued on next page

Form Entries, Continued

UFH

Use Final Handling. This field is only valid when defining the Public Announcement System (PAS) Vacant Code announcement (SID = 9999901) or the PAS Inactive announcement (Service Identity [SID]= 9999902). Valid entries are **"Blank"**, **"Y"**, or **"N"**. If this field is **"Blank"** or **"N"**, then the announcement played will be the announcement for the entered Announcement Number (ANNUM). An entry of **"Y"** signifies that the call is to be final handled. The Final Handling Treatment (FHT) will be Vacant Mass Announcement System (MAS) Announcement if SID is 9999901 or Service Not Active if SID is 9999902.

VSSID

Voice Storage System (VSS) Identity. This five digit field is the first part of the External Announcement Identity (EAID) code identifying the announcement. For announcements updated from a VSS, the VSS Identity is entered. Valid entries are **"1-99999"**. For barge-in announcements, direct producer updated announcements, or service circuit system announcements, the VSSID must be **"0"**. With VSS updated announcements, the VSSID must be a valid VSS client in the Dial Up Port translator.

SID

Service Identity - This field is a seven digit entry which identifies the type of announcement.

A. VSS Updated -	**"0000000-9990000"** **"9999901"** and **"9999902"**
B. Direct Producer -	**"9990001-9999000"** **"9999901"** and **"9999902"**
C. Barge-In -	**"9999001-9999511"** **"9999901"** and **"9999902"**
D. SCS -	**"0000000-9990000"** **"9999901"** and **"9999902"**

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

STRTT

The Start Time field specifies what time within a 24-hour period following the Start Date that the Cut-Through or Televote function will start. The Start Time field is composed of four digits, two for hours, and two for minutes. A **"Blank"** field is not permitted. The first two digits of the field representing the Start Time hour must be **"0-23"**. The last two digits representing the minutes of the Start Time must be **"0-59"**. For Start Date equal to Stop Date, the Start Time must be less than the Stop Time.

STOPT

The daily Stop Time field specifies what time within 24 hours following the Start Date that the Cut-Through or Televote function will stop. For successive days thereafter the Cut-Through or Televote service is stopped within each 24-hour period at the Stop Time until the Stop Date is reached. The Stop Time must be specified if the Stop Date has been specified. If the Stop Date has been left **"Blank"**, then the Stop Time can be specified or left **"Blank"**. If the Stop Date is left **"Blank"** but not the Stop Time, the Cut-Through service will cycle on and off each day (after the Start Date). The first two digits of the field representing Start Time hour is **"0-23"**. The last two digits representing minutes is **"0-59"**. If the Stop Time is specified, the value must be later than the Start Time when the Start and Stop Dates are equal.

PLAYS

The number of playbacks of an announcement that a caller may listen to before being automatically disconnected. Valid entries are **"1-15"**, corresponding to the desired number of plays, or a **"U"** for an unlimited number of plays. It should be noted that the product of LENGTH times PLAYS (and the value of PLAYS can be changed via a Recent Change (RC) Message) equals the total time before the system will automatically disconnect the Public Announcement System (PAS) announcement.

For a barge-in announcement only, to insure that the caller hears at least one complete play of an announcement, either the number of plays should be 2 or the LENGTH should be specified as twice the actual length.

Continued on next page

Form Entries, Continued

ANSWR Answer Supervision - This field is used to specify whether or not Answer Supervision is to be returned on the incoming trunk. A **"Y"** specifies return Answer supervision. An **"N"** specifies do not return Answer supervision. Valid entries are **"Y"** and **"N"**.

NOTE: The Public Announcement System (PAS) vacant code announcement and the PAS announcement inactive announcement should have an "N" entered.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

CAREA

Control Area - Valid input for this field is a single digit in the range of **"0-9"**. This number identifies the Control Area that is to be associated with this Trunk Subgroup (TSG) for trouble reporting. The number assignable in a given office is limited, however, to the highest control area assigned at Office Data Assembler (ODA) time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location.

Any test position can access every trunk assigned to the 4ESS Switch with the exception of international trunks. International trunks having Incoming Signaling Characteristic (ISC) or Outgoing Signaling Characteristic (OSC) equal to Consultative Committee for International Telephone & Telegraph 5 (CCITT5) must be assigned to a CAREA that is equipped with 51AL6 test positions. The 51AL6 test position can access any trunk assigned to the 4ESS Switch. However, the alarms, Teletype (TTY) printouts, and 101 calls associated with a particular TSG will only be transmitted to the CAREA and CPOS that is specified on the input form for a TSG. A single trouble receiving location could be specified for all TSGs in the office. Trouble tickets might be originated here and distributed to occupied test positions as necessary. Some other typical applications could be to assign the TSGs to testboard positions alphabetically, by direction, by ownership, or by Type of Trunk (TOT).

The only other restraint on assigning a TSG to a particular CAREA and CPOS is that all positions might not have the optional equipment required to satisfactorily test some Trunk Subgroups. The arrangement in a given office depends on the administrative decisions made for that office.

Continued on next page

Form Entries, Continued

CAREA
(cont'd.)

Position 00 (CAREA 0, CPOS 0) has been assigned to the Master Test and Control Channel (MTC) teletype in the Maintenance Operating Center (MOC). This position was established to receive trouble reports for certain non-message type TSGs. Lucent Technologies recommend that positions
01-09 not be assigned in an office at this time. The circuits that should be assigned to test position 00 are:

- ACI*DCHN - D-Channel circuits to the Common Network Interface (CNI) Ring
- CLN*DLPC - Loopback/complement Data Test
- MAS*BIPB - Mass Announcement System (MAS) Barge-in Playback Trunk
- MIS*AART - Auxiliary Audible Ring Trunk
- MIS*TERM - Common Channel Interoffice Signaling (CCIS) Terminals
- SVC*AIN* - Advanced Intelligent Network (AIN)
- SVC*DMRV - Dual-Tone Multifrequency (MF) Receivers (DTMFR)
- VC*DMXM - Dual-Tone Multifrequency Transmitters (DTMFT)
- SVC*MFR* - Multifrequency Receivers
- SVC*MFX* - Multifrequency Transmitters
- SVC*XCVR - CCIS Continuity Check Transceivers
- SVC*XCVT - CCIS Continuity Check Transceiver Test Circuit
- SVC*MFRT - Multifrequency Receiver Test Circuits
- SVC*MFXT - Multifrequency Transmitter Test Circuits
- SVC*SCAN - Service Circuit System Expanded Announcements
- SVC*SCBN - Service Circuit System Expanded Announcements
- SVC*SCNS - Network Services Complex Set S
- TAS*ANN* - Recorded announcements
- TAS*TONE - Tone Circuits
- TAS*MWAT - 1004 hz at 0 dBm
- TAS*MW10 - 1004 hz at 10 dBm

Continued on next page

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Use pursuant to Company Instructions

Form Entries, Continued

CAREA (cont'd.)

The balance of the non-message type TSG may be assigned to working testboard positions.

For RC Forms 604 and 605, this number identifies the Control Area that is to be associated with this announcement trouble report. The number assignable in a given office is limited, however, to the highest control area assigned at ODA time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location. If CAREA 0,
CPOS 0 is specified, all MAS messages will be sent to the MTC channel in the MOC.

CPOS

Control Position - Enter a number from **"0-9"** to specify the testboard position that is to be associated with the Trunk Subgroup (TSGs) and Control Area (CAREA) for test reporting purposes. This assignment together with the CAREA designation can be used to distribute the maintenance responsibility for Trunk Subgroups. This assignment does not prevent any test position from accessing a particular group of trunks. It is only for reporting purposes.

For RC Forms 604 and 605, enter a number from **"0-9"** to specify the testboard position that is to receive the announcement trouble reports. If CAREA is 0, only CPOS 0 is allowed. When the Message Announcement System (MAS) is administered by the Operations National Administration Center (ONAC), assign the CPOS that has been dedicated for its use.

ANSEP

The Announcement Separation Class (ANSEP) ranges from **"0-31"** to indicate a traffic class for measurement purposes. For ANSEP classes greater than **0**, only one announcement may be assigned to any one class. ANSEP is used with the Geographical Traffic Separation Class (GEOSEP on the Trunk Subgroup [TSG] Forms) to peg geographical survey counts in Mass Announcement System (MAS) offices.

Continued on next page

Form Entries, Continued

SSI

This field is used to specify the Service Circuit System (SCS) Service Circuit Trunk Subgroup (TSG) from which an available trunk will be selected. Valid entries are **"Blank"**, **"FHA"**, and **"FHB"**.

SAN

This field is used to specify the Service Circuit System (SCS) Announcement Number. The announcement number will be used in the peripheral unit order sent to the SCS. Valid entries are **"Blank"** or **"1-4095"**. (Legal values for SAN on RC form 634 are **"Blank"** or **"1-511"**.)

ADSI

Not Applicable - Entries: **"Blank"**

ADFHT

Not Applicable - Entries: **"Blank"**

ANNUM

Announcement Number - This field is used to specify a unique internal 4ESS Switch/Mass Announcement System (MAS) ANNUM for each Public Announcement System (PAS) announcement.

Valid entries are **"1-511"** that is not used by any other announcement assigned to the same MAS frame.

Valid entries for Barge-In announcements are **"1-511"** that is not used by any other announcement.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Form Entries, Continued

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KEYWORD	PAGE
ADFHT	10
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ANSEP	9
ANSWR	6
CAREA	7
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PLAYS	5
RC:PAS;CHG;OPT(ANN);___:	3
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STOPT	5
STRTT	5
TYPE	3
UFH	4
VSSID	4

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 606

General

This form is used to DELETE a Public Announcement System (PAS) announcement. This Recent Change (RC) will not delete the audio from the Mass Announcement System (MAS) unit. Audio can be deleted manually. To delete an active audio set, use RC Form 605 to stop the announcement. To delete standby audio, use the Trunk Maintenance TTY message (RMV:STBY…).

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 606, Continued

General
(cont'd)

```
# FORM 606   DELETE A MAS ANNOUNCEMENT

     RC:PAS;OUT;OPT(ANN);___: TYPE _, VSSID _____, SID _______,

     ORNU ______,

     ANNUM ___,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                   ASSOCIATED VERIFY MESSAGES - NONE
```

Form Entries

RC:PAS;OUT;OPT(ANN);___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

TYPE

The announcement Type is entered in this field. Valid entries are as follows:

- **BI** - Barge-in announcement.
- **SCS** - Service Circuit System.

Continued on next page

Form Entries, Continued

VSSID

Voice Storage System (VSS) Identity. This five digit field is the first part of the External Announcement Identity (EAID) code identifying the announcement. For announcements updated from a VSS, the VSS Identity is entered. Valid entries are **"1-99999"**. For barge-in announcements, direct producer updated announcements, or service circuit system announcements, the VSSID must be **"0"**. With VSS updated announcements, the VSSID must be a valid VSS client in the Dial Up Port translator.

SID

Service Identity - This field is a seven digit entry which identifies the type of announcement.

A. VSS Updated -	**"0000000-9990000"** **"9999901"** and **"9999902"**
B. Direct Producer -	**"9990001-9999000"** **"9999901"** and **"9999902"**
C. Barge-In -	**"9999001-9999511"** **"9999901"** and **"9999902"**
D. SCS -	**"0000000-9990000"** **"9999901"** and **"9999902"**

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

ANNUM

Announcement Number - This field is used to specify a unique internal 4ESS Switch/Mass Announcement System (MAS) ANNUM for each Public Announcement System (PAS) announcement.

Valid entries are **"1-511"** that is not used by any other announcement assigned to the same MAS frame.

Valid entries for Barge-In announcements are **"1-511"** that is not used by any other announcement.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ANNUM	4
ORNU	4
RC:PAS;OUT;OPT(ANN);___:	3
SID	4
TYPE	3
VSSID	4

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 607

General

This form is used to ADD Public Announcement System (PAS) with TELEVOTE. This service provides a telephone voting mechanism so that callers can dial an advertised set of numbers to register their opinion concerning an advertised issue. Counts are kept on the number of calls and delivered via a Dial Up Port to the sponsor.

See "TELEVOTE - Table 45" for the required entries corresponding to the Televote application.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 11.

Continued on next page

RC Form 607, Continued

General
(cont'd)

```
# FORM 607   ADD A TELEVOTE ANNOUNCEMENT

     RC:PAS;NEW;OPT(TELEVOTE);___: MSI _, SAPN __, MAPN __,

     ORNU _______,

     START DATE

       STRTM __, STRTD __, STRTY __,

     STOP DATE

       STOPM __, STOPD __, STOPY __,

     STRTT __:__, STOPT __:__,

     DUPID __, DSFUN ______, SKEW ___,

        MAN      VSSID    SID   TCNTR ACNTR

     ___________, ______, ________, ___,  ___,
     ___________, ______, ________, ___,  ___,
     ___________, ______, ________, ___,  ___,
     ___________, ______, ________, ___,  ___,

     REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 408E

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-16f-VER:PASTVOTE

                    OUTPUT-6h-VER:PASTVOTE,OPT(SLAVE):
                    OUTPUT-6i-VER:PASTVOTE,OPT(MASTER):
```

Form Entries

RC:PAS;NEW;OPT(TELEVOTE);___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

MSI

Master/Slave Indicator/Mass Announcement System - This one character field is used to specify whether this 4ESS Switch/MAS Switch office is a Master office (M), Slave office (S), or Both (B) for this Televote application. Valid entries are **"M"**, **"S"**, or **"B"**.

Continued on next page

Form Entries, Continued

SAPN	Slave Application number - This field identifies a particular slave TELEVOTE application. If the Master Slave Indicator (MSI) field is **"B"** or **"S"**, an entry must be made in the SAPN field. Valid entries are **"Blank"** or **"0-63"**.
MAPN	Master Application Number. This field identifies a particular master TELEVOTE application. Valid entries are **"0-63"**.
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
START DATE	The Start Date is the date on which the Cut-Through or Televote application is to be activated. The Start Date is composed of the Start Month, Start Day, and Start Year. The Start Month has a valid entry of **"1-12"**. The Start Day has a valid entry of **"1-31"**. The Start Year has a valid entry of **"00-99"**.
STRTM	Start Month - see START DATE.
STRTD	Start Day - see START DATE.
STRTY	Start Year - see START DATE.

Continued on next page

Form Entries, Continued

STOP DATE	The Stop Date is the date on which the Cut-Through or Televote application is to stop. The Stop Date is composed of the Stop Month, Stop Day, and Stop Year. All three fields must be specified, or all three may be **"Blank"**. Blank fields imply that the service is to be available on a permanent basis until removed by a Recent Change (RC). If the Stop Date fields are not all **"Blank"**, the stop time field must have an entry. Stop Month has a valid entry of "**1**-**12**". Stop Day has a valid entry of "**1**-**31**". Stop Year has a valid entry of "**00**-**99**".
STOPM	Stop Month - see STOP DATE.
STOPD	Stop Day - see STOP DATE.
STOPY	Stop Year - see STOP DATE.

Continued on next page

Form Entries, Continued

STRTT

The Start Time field specifies what time within a 24-hour period following the Start Date that the Cut-Through or Televote function will start. The Start Time field is composed of four digits, two for hours, and two for minutes. A **"Blank"** field is not permitted. The first two digits of the field representing the Start Time hour must be **"0-23"**. The last two digits representing the minutes of the Start Time must be **"0-59"**. For Start Date equal to Stop Date, the Start Time must be less than the Stop Time.

STOPT

The daily Stop Time field specifies what time within 24 hours following the Start Date that the Cut-Through or Televote function will stop. For successive days thereafter the Cut-Through or Televote service is stopped within each 24-hour period at the Stop Time until the Stop Date is reached. The Stop Time must be specified if the Stop Date has been specified. If the Stop Date has been left **"Blank"**, then the Stop Time can be specified or left **"Blank"**. If the Stop Date is left **"Blank"** but not the Stop Time, the Cut-Through service will cycle on and off each day (after the Start Date). The first two digits of the field representing Start Time hour is **"0-23"**. The last two digits representing minutes is **"0-59"**. If the Stop Time is specified, the value must be later than the Start Time when the Start and Stop Dates are equal.

Continued on next page

Form Entries, Continued

DUPID

Dial Up Port Identification - This field assigns an identifier to a client. All client identifiers for the office must be unique. Identifier assignments are based on the client type as follows:

CTYPE	ID
VSS	00001-99999
TDAS or **TVSP**	Two characters which may be either a letter (**"A-Z"**) or digit (**"0-9"**).

For RC Form 607, this field identifies the TELEVOTE sponsor to whom master TELEVOTE counts will be sent. Valid entry is a two character alphanumeric. The first must be a letter **"A-Z"**, the second may be a letter **"A-Z"** or digit **"0-9"**. This entry corresponds to the DUPID entered on the RC Form 603.

NOTE: This field must be **"Blank"** if MSI is **"S"**. This field may optionally be **"Blank"** for MSI of **"M"** or **"B"**, if real time output to the sponsor is not required

DSFUN

Common Channel Interoffice Signaling (CCIS) Direct Signaling Function Number. This field identifies the master office designated to accumulate Televote counts for this Televote application. If the MSI field is **"M"** or **"B"**, this field is **"Blank"**. Valid entries in this field are **"1-32767"**.

SKEW

The SKEW is a number from 0-300 that specifies the offset in seconds from Start Time when the count will be transmitted the first time from slave to master. Valid entries are **" 0-300"** or **"Blank"** if the Master Slave Indicator (MSI) is M or B.

Continued on next page

Form Entries, Continued

MAN

Mass Announcement Number - For the Televote forms, this field is used to specify the Direct Distance Dialing (DDD) number to be called to register a particular Televote vote or opinion (and to hear the associated Public Announcement System (PAS) announcement). A separate MAN is entered for each unique vote or opinion choice. The entry format is **NPA-NXX-XXXX**.

NOTE:

- The PAS announcement to be heard with a particular vote or opinion must be defined on RC 604 Form.
- When Master Slave Indicator (MSI) is **"S"** or **"B"**, a unique 10 digit DDD Number (MAN) must be specified on a code group form.
- When MSI is an **"M"**, a four digit line number is entered.

For the PAS with Cut-Through forms, this field is used to specify the DDD number which callers dial for the PAS announcements, and to which this Cut- Through application applies. The format of the entry is **NPA-NXX-XXXX**. A MAN can be a 6- to 10-digit number. When there are MANs that have overlapping code groups, the system only cuts through for the MAN with the most number of digits. For example, the Cut-Through MAN digits of the 9-digit code group of 212979123 include the Cut-Through digits of all 10-digit code groups that start with the first nine digits of 212979123, and if there is a 10-digit MAN defined, the system will cut through for the 10-digit MAN and not the 9-digit MAN. The MAN must be routed to a PAS or Televote (TEL) call type on a code group form.

VSSID

Voice Storage System (VSS) Identity. This five digit field is the first part of the External Announcement Identity (EAID) code identifying the announcement. For announcements updated from a VSS, the VSS Identity is entered. Valid entries are **"1-99999"**. For barge-in announcements, direct producer updated announcements, or service circuit system announcements, the VSSID must be **"0"**. With VSS updated announcements, the VSSID must be a valid VSS client in the Dial Up Port translator.

Continued on next page

Form Entries, Continued

SID Service Identity - This field is a seven digit entry which identifies the type of announcement.

A. VSS Updated -	**"0000000-9990000"** **"9999901"** and **"9999902"**
B. Direct Producer -	**"9990001-9999000"** **"9999901"** and **"9999902"**
C. Barge-In -	**"9999001-9999511"** **"9999901"** and **"9999902"**
D. SCS -	**"0000000-9990000"** **"9999901"** and **"9999902"**

TCNTR Televote Counter Index is a number between **"0-127"** assigned to the slave Televote application for the Direct Distance Dialing (DDD) number if Master Slave Indicator (MSI) is **"S"** or **"B"**. This field is **"Blank"** if MSI is **"M"**. Up to 64 entries may be specified by using RC Form 608.

ACNTR Accumulating Counter - Accumulating Counter Index is a number between **"0-127"** that is assigned to the master Televote application for a line number. Up to 64 entries can be specified using RC Form 608. This field is **"Blank"** if Market Segment Indicator (MSI) equals **S**.

Continued on next page

Form Entries, Continued

Table 45

TABLE 45
ENTRIES FOR TELEVOTE APPLICATION

MSI	SLAVE	BOTH	MASTER
SAPN	0-63	0-63	
MAPN	0-63	0-63	0-63
DUPID		A-Z 0-9	A-Z 0-9
DSFUN	1-32, 767		
SKEW	0-300		
MAN	10 Digits	10 Digits or 4 Digits	4 Digits
TCNTR	0-127	0-127	
ACNTR		0-127	0-127

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ACNTR	9
DSFUN	7
DUPID	7
MAN	8
MAPN	4
MSI	3
ORNU	4
RC:PAS;NEW;OPT(TELEVOTE);___:	3
SAPN	4
SID	9
SKEW	7
START DATE	4
STOP DATE	5
STOPD	5
STOPM	5
STOPT	6
STOPY	5
STRTD	4
STRTM	4
STRTT	6
STRTY	4
TCNTR	9
VSSID	8

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 608

General

This form is used to ADD an additional 60 TELEVOTE options to the initial four assigned on Recent Change (RC) Form 607. Additional Mass Announcement Numbers (MANs) can be assigned in increments of up to 10 using this form. This form may be used to delete specific TELEVOTE entries without having to delete the entire application. The entry and the corresponding counters may then be reassigned to the same or to some other application.

Before deleting a TELEVOTE entry, applicable code group change RC Forms 300-304 should be entered to remove TELEVOTE Call Type work linkages.

See "TELEVOTE - Table 45" for the required entries corresponding to the Televote application.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 8.

Continued on next page

RC Form 608, Continued

General
(cont'd)

```
# FORM 608   CHANGE PAS TELEVOTE

     RC:PAS;CHG;OPT(TELEVOTE);___: MSI _, SAPN __, MAPN __,

     ORNU _______,

     ACTION _,

         MAN      VSSID    SID   TCNTR ACNTR

     ___________, ______, ________, ___,  ___,
     ___________, ______, ________, ___,  ___,
     ___________, ______, ________, ___,  ___,
     ___________, ______, ________, ___,  ___,
     ___________, ______, ________, ___,  ___,
     ___________, ______, ________, ___,  ___,
     ___________, ______, ________, ___,  ___,
     ___________, ______, ________, ___,  ___,
     ___________, ______, ________, ___,  ___,
     ___________, ______, ________, ___,  ___,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 408E-1

                        ASSOCIATED VERIFY MESSAGES

                          INPUT-16f-VER:PASTVOTE

                    OUTPUT-6h-VER:PASTVOTE,OPT(SLAVE):
                    OUTPUT-6i-VER:PASTVOTE,OPT(MASTER):
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:PAS;CHG;OPT(TELEVOTE);___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

MSI

Master/Slave Indicator/Mass Announcement System - This one character field is used to specify whether this 4ESS Switch/MAS Switch office is a Master office (M), Slave office (S), or Both (B) for this Televote application. Valid entries are **"M"**, **"S"**, or **"B"**.

Continued on next page

Form Entries, Continued

SAPN	Slave Application number - This field identifies a particular slave TELEVOTE application. If the Master Slave Indicator (MSI) field is **"B"** or **"S"**, an entry must be made in the SAPN field. Valid entries are **"Blank"** or **"0-63"**.
MAPN	Master Application Number. This field identifies a particular master TELEVOTE application. Valid entries are **"0-63"**.
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
ACTION	Action - Add, Change, or Delete. Enter **"A"** if the associated data on this form is being added. Enter **"C"** if the associated data on this form changes existing data. Enter **"D"** if the associated data on this form is being deleted.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

MAN

Mass Announcement Number - For the Televote forms, this field is used to specify the Direct Distance Dialing (DDD) number to be called to register a particular Televote vote or opinion (and to hear the associated Public Announcement System (PAS) announcement). A separate MAN is entered for each unique vote or opinion choice. The entry format is **NPA-NXX-XXXX**.

NOTE:

- The PAS announcement to be heard with a particular vote or opinion must be defined on RC 604 Form.
- When Master Slave Indicator (MSI) is **"S"** or **"B"**, a unique 10 digit DDD Number (MAN) must be specified on a code group form.
- When MSI is an **"M"**, a four digit line number is entered.

For the PAS with Cut-Through forms, this field is used to specify the DDD number which callers dial for the PAS announcements, and to which this Cut- Through application applies. The format of the entry is **NPA-NXX-XXXX**. A MAN can be a 6- to 10-digit number. When there are MANs that have overlapping code groups, the system only cuts through for the MAN with the most number of digits. For example, the Cut-Through MAN digits of the 9-digit code group of 212979123 include the Cut-Through digits of all 10-digit code groups that start with the first nine digits of 212979123, and if there is a 10-digit MAN defined, the system will cut through for the 10-digit MAN and not the 9-digit MAN. The MAN must be routed to a PAS or Televote (TEL) call type on a code group form.

VSSID

Voice Storage System (VSS) Identity. This five digit field is the first part of the External Announcement Identity (EAID) code identifying the announcement. For announcements updated from a VSS, the VSS Identity is entered. Valid entries are **"1-99999"**. For barge-in announcements, direct producer updated announcements, or service circuit system announcements, the VSSID must be **"0"**. With VSS updated announcements, the VSSID must be a valid VSS client in the Dial Up Port translator.

Continued on next page

Form Entries, Continued

SID

Service Identity - This field is a seven digit entry which identifies the type of announcement.

A. VSS Updated -	**"0000000-9990000"** **"9999901"** and **"9999902"**
B. Direct Producer -	**"9990001-9999000"** **"9999901"** and **"9999902"**
C. Barge-In -	**"9999001-9999511"** **"9999901"** and **"9999902"**
D. SCS -	**"0000000-9990000"** **"9999901"** and **"9999902"**

TCNTR

Televote Counter Index is a number between **"0-127"** assigned to the slave Televote application for the Direct Distance Dialing (DDD) number if Master Slave Indicator (MSI) is **"S"** or **"B"**. This field is **"Blank"** if MSI is **"M"**. Up to 64 entries may be specified by using RC Form 608.

ACNTR

Accumulating Counter - Accumulating Counter Index is a number between **"0-127"** that is assigned to the master Televote application for a line number. Up to 64 entries can be specified using RC Form 608. This field is **"Blank"** if Market Segment Indicator (MSI) equals **S**.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Table 45

TABLE 45
ENTRIES FOR TELEVOTE APPLICATION

MSI	SLAVE	BOTH	MASTER
SAPN	0-63	0-63	
MAPN	0-63	0-63	0-63
DUPID		A-Z 0-9	A-Z 0-9
DSFUN	1-32, 767		
SKEW	0-300		
MAN	10 Digits	10 Digits or 4 Digits	4 Digits
TCNTR	0-127	0-127	
ACNTR		0-127	0-127

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ACNTR	6
ACTION	4
MAN	5
MAPN	4
MSI.mas	3
ORNU	4
RC:PAS;CHG;OPT(TELEVOTE);___:	3
SAPN	4
SID	6
TCNTR	6
VSSID	5

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 609

General

This form is used to DELETE a TELEVOTE application.

Before deleting a TELEVOTE entry, applicable code group change RC Forms 300-304 should be entered to remove TELEVOTE Call Type work linkages.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 609, Continued

General
(cont'd)

```
# FORM 609   DELETE TELEVOTE ANNOUNCEMENT

     RC:PAS;OUT;OPT(TELEVOTE);---: MSI -, SAPN --, MAPN --,

     ORNU ------,

     REMARKS ------------------------------------------------!

                    EQUIVALENT ODA INPUT FORM - NONE

                   ASSOCIATED VERIFY MESSAGES - NONE
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:PAS;OUT;OPT(TELEVOTE);---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

MSI

Master/Slave Indicator/Mass Announcement System - This one character field is used to specify whether this 4ESS Switch/MAS Switch office is a Master office (M), Slave office (S), or Both (B) for this Televote application. Valid entries are **"M"**, **"S"**, or **"B"**.

Continued on next page

Form Entries, Continued

SAPN	Slave Application number - This field identifies a particular slave TELEVOTE application. If the Master Slave Indicator (MSI) field is **"B"** or **"S"**, an entry must be made in the SAPN field. Valid entries are **"Blank"** or **"0-63"**.
MAPN	Master Application Number. This field identifies a particular master TELEVOTE application. Valid entries are **"0-63"**.
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
MAPN	4
MSI.mas	3
ORNU	4
RC:PAS;OUT;OPT(TELEVOTE);---:	3
SAPN	4

Continued on next page

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 610

General

This form is used to ADD the Cut-Through function to a Public Announcement Service (PAS) announcement.

PAS with Cut-Through provides a dynamic choking service for callers who dial an advertised number. Only a limited number of callers will be cut through from this advertised number to another Direct Distance Dialing (DDD) number. Callers who are not cut through will hear a PAS announcement.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 10.

Continued on next page

RC Form 610, Continued

General
(cont'd)

```
# FORM 610   ADD A CUTTHRU ANNOUNCEMENT

     RC:PAS;NEW;OPT(CUTTHRU);___: CAPPN __, CTTYPE _, VSSID _____, SID _______,

     ORNU ______,

     START DATE

       STRTM __, STRTD __, STRTY __,

     STOP DATE

       STOPM __, STOPD __, STOPY __,

     STRTT __:__, STOPT __:__,

     MAN __________, CTN __________, GAPI __,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 408D

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-16e-VER:PASCTHRU

                      OUTPUT-6g-VER:PASCTHRU,OPT(CUTHRU)
```

Form Entries

RC:PAS;NEW;OPT(CUTTHRU);___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

CAPPN

The Cut-Through Application Number is a unique number from **"0-63"** which identifies a particular Cut-Through Application within the 4ESS Switch/Mass Announcement System (MAS) office.

Continued on next page

Form Entries, Continued

CTTYPE

Cut-Through Type - This field is used to indicate which type of Cut-Through is desired. With Type 1 Cut-Through, the system cuts calling parties through to another number (the Cut-Through Number) which has been specified on a Recent Change (RC) 610 Form, without receiving a Public Announcement System (PAS) announcement. The frequency of calls being Cut-Through is based on a call gapping interval index. Also for Type 1 Cut-Through, calls which are Cut-Through will register for Televote counts if Televote has been defined.

With Type 2 Cut-Through, the system cuts calling parties through to the Cut-Through Number, also based on the call gapping interval index, after the PAS announcement has played a specified number of times. Televote is registered for calls which have been Cut-Through if it has been defined. With Type 2 Cut-Through, the total announcement time (length-play) must not exceed 270 seconds due to Call Register (CR) maximum holding time limitation of 5 minutes.

Valid entries for CTTYPE are **"1"** or **"2"** corresponding to Type 1 and Type 2 Cut-Through.

VSSID

Voice Storage System (VSS) Identity. This five digit field is the first part of the External Announcement Identity (EAID) code identifying the announcement. For announcements updated from a VSS, the VSS Identity is entered. Valid entries are **"1-99999"**. For barge-in announcements, direct producer updated announcements, or service circuit system announcements, the VSSID must be **"0"**. With VSS updated announcements, the VSSID must be a valid VSS client in the Dial Up Port translator.

Continued on next page

Form Entries, Continued

SID Service Identity - This field is a seven digit entry which identifies the type of announcement.

A. VSS Updated -	**"0000000-9990000"** **"9999901"** and **"9999902"**
B. Direct Producer -	**"9990001-9999000"** **"9999901"** and **"9999902"**
C. Barge-In -	**"9999001-9999511"** **"9999901"** and **"9999902"**
D. SCS -	**"0000000-9990000"** **"9999901"** and **"9999902"**

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

START DATE The Start Date is the date on which the Cut-Through or Televote application is to be activated. The Start Date is composed of the Start Month, Start Day, and Start Year. The Start Month has a valid entry of **"1-12"**. The Start Day has a valid entry of **"1-31"**. The Start Year has a valid entry of **"00-99"**.

STRTM Start Month - see START DATE.

STRTD Start Day - see START DATE.

STRTY Start Year - see START DATE.

Continued on next page

Form Entries, Continued

STOP DATE	The Stop Date is the date on which the Cut-Through or Televote application is to stop. The Stop Date is composed of the Stop Month, Stop Day, and Stop Year. All three fields must be specified, or all three may be **"Blank"**. Blank fields imply that the service is to be available on a permanent basis until removed by a Recent Change (RC). If the Stop Date fields are not all **"Blank"**, the stop time field must have an entry. Stop Month has a valid entry of "**1-12**". Stop Day has a valid entry of "**1-31**". Stop Year has a valid entry of "**00-99**".
STOPM	Stop Month - see STOP DATE.
STOPD	Stop Day - see STOP DATE.
STOPY	Stop Year - see STOP DATE.

Continued on next page

Form Entries, Continued

STRTT

The Start Time field specifies what time within a 24-hour period following the Start Date that the Cut-Through or Televote function will start. The Start Time field is composed of four digits, two for hours, and two for minutes. A **"Blank"** field is not permitted. The first two digits of the field representing the Start Time hour must be **"0-23"**. The last two digits representing the minutes of the Start Time must be **"0-59"**. For Start Date equal to Stop Date, the Start Time must be less than the Stop Time.

STOPT

The daily Stop Time field specifies what time within 24 hours following the Start Date that the Cut-Through or Televote function will stop. For successive days thereafter the Cut-Through or Televote service is stopped within each 24-hour period at the Stop Time until the Stop Date is reached. The Stop Time must be specified if the Stop Date has been specified. If the Stop Date has been left **"Blank"**, then the Stop Time can be specified or left **"Blank"**. If the Stop Date is left **"Blank"** but not the Stop Time, the Cut-Through service will cycle on and off each day (after the Start Date). The first two digits of the field representing Start Time hour is **"0-23"**. The last two digits representing minutes is **"0-59"**. If the Stop Time is specified, the value must be later than the Start Time when the Start and Stop Dates are equal.

Continued on next page

Form Entries, Continued

MAN

Mass Announcement Number - For the Televote forms, this field is used to specify the Direct Distance Dialing (DDD) number to be called to register a particular Televote vote or opinion (and to hear the associated Public Announcement System (PAS) announcement). A separate MAN is entered for each unique vote or opinion choice. The entry format is **NPA-NXX-XXXX**.

NOTE:

- The PAS announcement to be heard with a particular vote or opinion must be defined on RC 604 Form.
- When Master Slave Indicator (MSI) is **"S"** or **"B"**, a unique 10 digit DDD Number (MAN) must be specified on a code group form.
- When MSI is an **"M"**, a four digit line number is entered.

For the PAS with Cut-Through forms, this field is used to specify the DDD number which callers dial for the PAS announcements, and to which this Cut- Through application applies. The format of the entry is **NPA-NXX-XXXX**. A MAN can be a 6- to 10-digit number. When there are MANs that have overlapping code groups, the system only cuts through for the MAN with the most number of digits. For example, the Cut-Through MAN digits of the 9-digit code group of 212979123 include the Cut-Through digits of all 10-digit code groups that start with the first nine digits of 212979123, and if there is a 10-digit MAN defined, the system will cut through for the 10-digit MAN and not the 9-digit MAN. The MAN must be routed to a PAS or Televote (TEL) call type on a code group form.

CTN

Cut-Through Number - The Cut-Through Number (CTN) specifies the Direct Distant Dialing (DDD) number for routing calls selected for Cut-Through. The CTN field must be a **ten-digit number** if specified. A **"Blank"** field will be accepted since the Cut-Through number may be specified later via a Voice Storage System (VSS) update when audio is sent of via Recent Change (RC) form. However, if Voice Storage System Identity (VSSID) is 0, the CTN must be specified. The CTN field must route to an RDB, INW, TTS, PAS, or TEL Call Type in the Plain Old Telephone Service (POTS) domain.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

GAPI

Gapping Interval Index. This two digit field is used to specify a GAPI representing the interval in seconds between the selection of calls which are to be Cut-Through (forwarded) for live answer. One call per the number of seconds indicated is selected for Cut-Through. The available GAPIs and the associated interval in seconds are as follows:

Gap Interval Index	Gap Interval in Seconds
0	Gap control is off
1	0 (all calls advance).
2	0.1
3	0.25
4	0.5
5	1.0
6	2.0
7	5.0
8	10
9	15
10	30
11	60
12	120
13	300
14	600
15	INFINITE (100% code block).

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
CAPPN	3
CTN	8
CTTYPE	4
GAPI	9
MAN	8
ORNU	5
RC:PAS;NEW;OPT(CUTTHRU);___:	3
SID	5
START DATE	5
STOP DATE	6
STOPD	6
STOPM	6
STOPT	7
STOPY	6
STRTD	5
STRTM	5
STRTT	7
STRTY	5
VSSID	4

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 611

General

This form is used to CHANGE the Cut-Through function to a Public Announcement Service (PAS) announcement.

PAS with Cut-Through provides a dynamic choking service for callers who dial an advertised number. Only a limited number of callers will be cut through from this advertised number to another Direct Distance Dialing (DDD) number. Callers who are not cut through will hear a PAS announcement.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 9.

Continued on next page

RC Form 611, Continued

General
(cont'd)

```
# FORM 611   CHANGE A CUTTHRU ANNOUNCEMENT

     RC:PAS;CHG;OPT(CUTTHRU);___: CAPPN __, CTTYPE _, VSSID _____, SID _______,

     ORNU ______,

     START DATE

       STRTM __, STRTD __, STRTY __,

     STOP DATE

       STOPM __, STOPD __, STOPY __,

     STRTT __:__, STOPT __:__,

                    CTN __________, GAPI __,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 408D

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-16e-VER:PASCTHRU

                      OUTPUT-6g-VER:PASCTHRU,OPT(CUTHRU)
```

Form Entries

RC:PAS;CHG;OPT(CUTTHRU);___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

CAPPN

The Cut-Through Application Number is a unique number from **"0-63"** which identifies a particular Cut-Through Application within the 4ESS Switch/Mass Announcement System (MAS) office.

Continued on next page

Form Entries, Continued

CTTYPE

Cut-Through Type - This field is used to indicate which type of Cut-Through is desired. With Type 1 Cut-Through, the system cuts calling parties through to another number (the Cut-Through Number) which has been specified on a Recent Change (RC) 610 Form, without receiving a Public Announcement System (PAS) announcement. The frequency of calls being Cut-Through is based on a call gapping interval index. Also for Type 1 Cut-Through, calls which are Cut-Through will register for Televote counts if Televote has been defined.

With Type 2 Cut-Through, the system cuts calling parties through to the Cut-Through Number, also based on the call gapping interval index, after the PAS announcement has played a specified number of times. Televote is registered for calls which have been Cut-Through if it has been defined. With Type 2 Cut-Through, the total announcement time (length-play) must not exceed 270 seconds due to Call Register (CR) maximum holding time limitation of 5 minutes.

Valid entries for CTTYPE are **"1"** or **"2"** corresponding to Type 1 and Type 2 Cut-Through.

VSSID

Voice Storage System (VSS) Identity. This five digit field is the first part of the External Announcement Identity (EAID) code identifying the announcement. For announcements updated from a VSS, the VSS Identity is entered. Valid entries are **"1-99999"**. For barge-in announcements, direct producer updated announcements, or service circuit system announcements, the VSSID must be **"0"**. With VSS updated announcements, the VSSID must be a valid VSS client in the Dial Up Port translator.

Continued on next page

Form Entries, Continued

SID Service Identity - This field is a seven digit entry which identifies the type of announcement.

A. VSS Updated -	**"0000000-9990000"** **"9999901"** and **"9999902"**
B. Direct Producer -	**"9990001-9999000"** **"9999901"** and **"9999902"**
C. Barge-In -	**"9999001-9999511"** **"9999901"** and **"9999902"**
D. SCS -	**"0000000-9990000"** **"9999901"** and **"9999902"**

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

START DATE The Start Date is the date on which the Cut-Through or Televote application is to be activated. The Start Date is composed of the Start Month, Start Day, and Start Year. The Start Month has a valid entry of **"1-12"**. The Start Day has a valid entry of **"1-31"**. The Start Year has a valid entry of **"00-99"**.

STRTM Start Month - see START DATE.

STRTD Start Day - see START DATE.

STRTY Start Year - see START DATE.

Continued on next page

Form Entries, Continued

STOP DATE	The Stop Date is the date on which the Cut-Through or Televote application is to stop. The Stop Date is composed of the Stop Month, Stop Day, and Stop Year. All three fields must be specified, or all three may be **"Blank"**. Blank fields imply that the service is to be available on a permanent basis until removed by a Recent Change (RC). If the Stop Date fields are not all **"Blank"**, the stop time field must have an entry. Stop Month has a valid entry of "**1-12**". Stop Day has a valid entry of "**1-31**". Stop Year has a valid entry of "**00-99**".
STOPM	Stop Month - see STOP DATE.
STOPD	Stop Day - see STOP DATE.
STOPY	Stop Year - see STOP DATE.

Continued on next page

Form Entries, Continued

STRTT

The Start Time field specifies what time within a 24-hour period following the Start Date that the Cut-Through or Televote function will start. The Start Time field is composed of four digits, two for hours, and two for minutes. A **"Blank"** field is not permitted. The first two digits of the field representing the Start Time hour must be **"0-23"**. The last two digits representing the minutes of the Start Time must be **"0-59"**. For Start Date equal to Stop Date, the Start Time must be less than the Stop Time.

STOPT

The daily Stop Time field specifies what time within 24 hours following the Start Date that the Cut-Through or Televote function will stop. For successive days thereafter the Cut-Through or Televote service is stopped within each 24-hour period at the Stop Time until the Stop Date is reached. The Stop Time must be specified if the Stop Date has been specified. If the Stop Date has been left **"Blank"**, then the Stop Time can be specified or left **"Blank"**. If the Stop Date is left **"Blank"** but not the Stop Time, the Cut-Through service will cycle on and off each day (after the Start Date). The first two digits of the field representing Start Time hour is **"0-23"**. The last two digits representing minutes is **"0-59"**. If the Stop Time is specified, the value must be later than the Start Time when the Start and Stop Dates are equal.

CTN

Cut-Through Number - The Cut-Through Number (CTN) specifies the Direct Distant Dialing (DDD) number for routing calls selected for Cut-Through. The CTN field must be a **ten-digit number** if specified. A **"Blank"** field will be accepted since the Cut-Through number may be specified later via a Voice Storage System (VSS) update when audio is sent of via Recent Change (RC) form. However, if Voice Storage System Identity (VSSID) is 0, the CTN must be specified. The CTN field must route to an RDB, INW, TTS, PAS, or TEL Call Type in the Plain Old Telephone Service (POTS) domain.

Continued on next page

Form Entries, Continued

GAPI

Gapping Interval Index. This two digit field is used to specify a GAPI representing the interval in seconds between the selection of calls which are to be Cut-Through (forwarded) for live answer. One call per the number of seconds indicated is selected for Cut-Through. The available GAPIs and the associated interval in seconds are as follows:

Gap Interval Index	Gap Interval in Seconds
0	Gap control is off
1	0 (all calls advance).
2	0.1
3	0.25
4	0.5
5	1.0
6	2.0
7	5.0
8	10
9	15
10	30
11	60
12	120
13	300
14	600
15	INFINITE (100% code block).

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
CAPPN	3
CTN	7
CTTYPE	4
GAPI	8
ORNU	5
RC:PAS;CHG;OPT(CUTTHRU);___:	3
SID	5
START DATE	5
STOP DATE	6
STOPD	6
STOPM	6
STOPT	7
STOPY	6
STRTD	5
STRTM	5
STRTT	7
STRTY	5
VSSID	4

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 612

General

This form is used to DELETE the Cut-Through function to a Public Announcement Service (PAS) announcement.

All fields must be specified when using this message.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 612, Continued

General
(cont'd)

```
# FORM 612   DELETE A CUTTHRU ANNOUNCEMENT

     RC:PAS;OUT;OPT(CUTTHRU);___: CAPPN __, VSSID _____, SID _______,

     ORNU ______,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                          INPUT-16e-VER:PASCTHRU

                     OUTPUT-6g-VER:PASCTHRU,OPT(CUTHRU)
```

Form Entries

RC:PAS;OUT;OPT(CUTTHRU);___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

CAPPN

The Cut-Through Application Number is a unique number from **"0-63"** which identifies a particular Cut-Through Application within the 4ESS Switch/Mass Announcement System (MAS) office.

Continued on next page

Form Entries, Continued

VSSID

Voice Storage System (VSS) Identity. This five digit field is the first part of the External Announcement Identity (EAID) code identifying the announcement. For announcements updated from a VSS, the VSS Identity is entered. Valid entries are **"1-99999"**. For barge-in announcements, direct producer updated announcements, or service circuit system announcements, the VSSID must be **"0"**. With VSS updated announcements, the VSSID must be a valid VSS client in the Dial Up Port translator.

SID

Service Identity - This field is a seven digit entry which identifies the type of announcement.

A. VSS Updated -	**"0000000-9990000"** **"9999901"** and **"9999902"**
B. Direct Producer -	**"9990001-9999000"** **"9999901"** and **"9999902"**
C. Barge-In -	**"9999001-9999511"** **"9999901"** and **"9999902"**
D. SCS -	**"0000000-9990000"** **"9999901"** and **"9999902"**

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
CAPPN	3
ORNU	4
RC:PAS;OUT;OPT(CUTTHRU);___:	3
SID	4
VSSID	4

Form Entries, Continued

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RC Form 613

General

This form is used to ASSIGN Trunk Subgroups (TSGs) to cliques of a Time Assignment Speech Interpolation (TASI-E) Frame.

The Recent Change (RC) System will not deny the addition of any message TSG per TASI-E Frame. Since the TASI-E frames are outside the administration boundary of the 4ESS™-2000 Switch, it is assumed that further restrictions upon these assignments lies beyond the responsibility of the RC System.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 7.

Continued on next page

RC Form 613, Continued

General
(cont'd)

```
# FORM 613   ADD TRUNK SUBGROUPS TO A TASI-E/DCMS/DCMS-ASSET FRAME

     RC:TASI;NEW;___:                          FRAME ___,

     ORNU _______,

         TSGS TO BE ADDED

     BTFN  TOWN  ST  BL  FBS   NBS           CLIQUE
     ____  ____  __  __  ___   ___,            _,
     ____  ____  __  __  ___   ___,            _,
     ____  ____  __  __  ___   ___,            _,
     ____  ____  __  __  ___   ___,            _,
     ____  ____  __  __  ___   ___,            _,

     REMARKS ____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - ESS 406I

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-16g-VER:TASI:

                         OUTPUT-6j-VER:TASI:
```

Form Entries

RC:TASI;NEW;___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

FRAME

Time Assignment Speech Interpolation (TASI) Frame number/ Miscellaneous - Valid entries for this field are numbers in the range **"0-255"**.

Continued on next page

Form Entries, Continued

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

CLIQUE

A CLIQUE is the part of a Time Assignment Speech Interpolation frame (TASI-E) that is uniquely associated with a Miscellaneous Scan Point to provide Dynamic Load Control (DLC). Valid entries are **"0-4"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
CLIQUE	6
FRAME.misc	3
ORNU	4
RC:TASI;NEW;___:	3
TSG	4

Form Entries, Continued

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RC Form 614

General

This form is used to DELETE Trunk Subgroups (TSGs) from cliques of a Time Assignment Speech Interpolation (TASI-E) Frame.

The Recent Change (RC) System will not deny the addition of any message TSG per TASI-E Frame. Since the TASI-E frames are outside the administration boundary of the 4ESS™-2000 Switch, it is assumed that further restrictions upon these assignments lies beyond the responsibility of the RC System.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 7.

Continued on next page

RC Form 614, Continued

General
(cont'd)

```
# FORM 614   DELETE TRUNK SUBGROUPS
     FROM A TASI-E/DCMS/DCMS-ASSET FRAME

     RC:TASI;OUT;___:                          FRAME ___,

     ORNU ______,

         TSGS TO BE DELETED

     BTFN  TOWN  ST  BL  FBS   NBS           CLIQUE
     ____  ____  __  __  ___   ___,            _,
     ____  ____  __  __  ___   ___,            _,
     ____  ____  __  __  ___   ___,            _,
     ____  ____  __  __  ___   ___,            _,
     ____  ____  __  __  ___   ___,            _,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-16g-VER:TASI:

                         OUTPUT-6j-VER:TASI:
```

Form Entries

RC:TASI;OUT;___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

FRAME

Time Assignment Speech Interpolation (TASI) Frame number/ Miscellaneous - Valid entries for this field are numbers in the range **"0-255"**.

Continued on next page

Form Entries, Continued

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

Continued on next page

Form Entries, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

CLIQUE

A CLIQUE is the part of a Time Assignment Speech Interpolation frame (TASI-E) that is uniquely associated with a Miscellaneous Scan Point to provide Dynamic Load Control (DLC). Valid entries are **"0-4"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
CLIQUE	6
FRAME.misc	3
ORNU	4
RC:TASI;OUT;___:	3
TSG	4

Form Entries, Continued

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RC Form 616

General

This form is used to CHANGE cell grouping indexes for traffic separations by specifying the Incoming Separation Class - Destination Separation (INSEP-DESEP) pair and its related cell group index. Cell Group Index 1 should be used only for test calls, i.e., for INSEP-DESEP pairs which includes INSEP 31. INSEP 31 and DESEP 63 are related to Cell Group Index 1 generically by Office Data Assembler (ODA).

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 616, Continued

General
(cont'd)

```
# FORM 616   CHANGE CELL GROUP NUMBERS IN THE INSEP-DESEP MATRIX

     RC:IDAM;CHG;---:

     ORNU ------,

                                        OLD      NEW
     FINSEP  QINSEP  FDESEP  QDESEP  CELLGRP  CELLGRP

      ---,    ---,    ---,    ---,    ----,    ----,
      ---,    ---,    ---,    ---,    ----,    ----,
      ---,    ---,    ---,    ---,    ----,    ----,
      ---,    ---,    ---,    ---,    ----,    ----,
      ---,    ---,    ---,    ---,    ----,    ----,
      ---,    ---,    ---,    ---,    ----,    ----,
      ---,    ---,    ---,    ---,    ----,    ----,
      ---,    ---,    ---,    ---,    ----,    ----,
      ---,    ---,    ---,    ---,    ----,    ----,
      ---,    ---,    ---,    ---,    ----,    ----,

     REMARKS ------------------------------------------------!

                  EQUIVALENT ODA INPUT FORM - ESS 406J

                       ASSOCIATED VERIFY MESSAGES

                INPUT-16i-VER:IDAM:INSEP a,DESEPR b!(EOT)
                INPUT-16i-VER:IDAM:DESEP a,INSEPR b!(EOT)

                           OUTPUT-6l-VER:IDAM
```

Form Entries

RC:IDAM;CHG;---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

FINSEP	First Incoming Separation Class (INSEP) in a range of INSEPs associated with a Destination Separation (DESEP) or range of DESEPs and a Cell Grouping Index. If a single INSEP is desired, Quantity of INSEP (QINSEP) should equal one. Valid range is **"0-255"**.
QINSEP	Quantity of Incoming Separations (INSEPs) desired in a range starting with INSEP value assigned in First INSEP (FINSEP) field. If a single INSEP is desired QINSEP should equal one. Valid range is **1-256**. For the combined FINSEP-QINSEP pair, the value of FINSEP + (QINSEP - 1) must be less than 256.
FDESEP	First Destination Separation in a range of Destination Separations (DESEPs) associated with an Incoming Separation (Incoming Separation Class) or range of INSEPs and a Cell Grouping Index. If only one DESEP is desired, then the value of QDESEP must be **"1"**. Valid range is **"1-255".**
QDESEP	Quantity of Destination Separations (DESEPs) desired in a range starting with DESEP value in First DESEP (FDESEP) field. If a single DESEP is desired, then QDESEP should equal one. Valid range is **"1-255"**. For the combined FDESEP - QDESEP pair, the value of FDESEP + (QDESEP - 1) must be less than 256.
CELL GROUP	Cell Grouping Index associated with Incoming Separation Class (INSEP) and Destination Separation (DESEP) specified on input form. Valid range is **"1-1023"**. **"0"** is reserved for generic auditing purposes. All INSEP and DESEP values not assigned to a Cell Grouping will be set to index 1023 by the Office Data Assembler (ODA) system. Cell Grouping Index 1, which is used for test calls, is generically associated with INSEP-DESEP Pair 31-63 in all offices. This form may be used to associate all other INSEP-DESEP Pairs which include INSEP 31 to Cell Grouping Index 1.

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Form Entries, Continued

Keyword Index

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FDESEP	4
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RC:IDAM;CHG;---:	3

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 617

General

Recent Change (RC) Form 617 is used to specify the identity and characteristics of a new Far End Network (FEN). These characteristics then apply to all Trunk Subgroups (TSGs) defined to be within this FEN.

An alphabetical keyword list is included in this section, starting on page 18.

Continued on next page

RC Form 617, Continued

General
(cont'd)

```
# FORM 617   ESTABLISH A NEW FAR END NETWORK
  4E17>

RC:FEN;NEW;---:                          CLASS ------,       FID ------,

ORNU ------,

AFA --,

RECORD CATEGORY TREATMNT

UNSP -,   ATAP -,   CUSP -,   CARP -,   CANP -,   HAWP -,   NWZ1 -,   INW -,
DSD -,    DLT -,    TC -,     DA -,     IOP -,    TST -,    RSYS -,   MSC1 -,
MSC2 -,   MSC3 -,   MSC4 -,   INCN -,   ALAP -,   CUTP -,   INCO -,   EASC -,
ICIN -,   SC1 -,    SC2 -,    SC3 -,    SC4 -,    SC5 -,    SC6 -,    SC7 -,
SC8 -,    SC9 -,    SC10 -,   SC11 -,   SC12 -,   SC13 -,   SC14 -,   SC15 -,
SC16 -,   SC17 -,   SC18 -,   SC19 -,   SC20 -,   SC21 -,   SC22 -,   SC23 -,
SC24 -,   SC25 -,   SC26 -,   SC27 -,   SC28 -,   SC29 -,   SC30 -,   SC31 -,
SC32 -,   SC33 -,   SC34 -,   SC35 -,   SC36 -,   SDN -,    LDA -,    SSP -,
SPDI -,   MULT -,   MCPP -,   INET -,   SDND -,   QTM -,

SCREEN TREATMNT

DEF1 -,   DEF2 -,   DEF3 -,   DEF4 -,                       DFHT ---,

REMARKS ------------------------------------------------!

                  EQUIVALENT ODA INPUT FORM - ESS 406L

                       ASSOCIATED VERIFY MESSAGES

                           INPUT-16m-VER:FEN:

                           OUTPUT-6s-VER:FEN:
```

Form Entries

RC:FEN;NEW;---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

CLASS

This field specifies the classification of the Far End Network (FEN). Valid entries are:

- **ACCESA** - This identifier specifies that the FEN is an Interexchange Carrier (IC) or International Carrier (INC), and the 4ESS Switch is being used by a Local Exchange Carrier (LEC) as an Access Tandem (AT) to switch calls from this FEN.
- **ACCESI** - This identifier specifies that the FEN is an INC, and the 4ESS Switch is being used by an IEC (e.g., ATTIX) to switch calls from this FEN.
- **ACCESO** - This identifier specifies that the FEN is an Operating Company.
- **CAMA** - This identifier specifies that the Trunk Subgroup (TSG) is terminated on an office which delivers traffic on CAMA trunks.
- **CMC** - Cellular Mobile Carrier - This identifier specifies that the FEN is a CMC. The TSG connects an Access Tandem (AT) and a CMC.
- **INTL** - This identifier specifies that the FEN is outside World Zone 1, and the 4ESS Switch is being used as an International Switching Center (ISC).
- **ITS** - This identifier specifies that the TSG is a link to an Other Common Carrier or Direct Connect Customer who is delivering international traffic to the network.
- **OEO** - Other End Office connecting, meaning an Equal Access End Office (EAEO) owned by a different company. This identifier specifies that the FEN is an OEO. The TSG connects an AT and an OEO.
- **OWATS** - This identifier specifies that the FEN is a Private Branch Exchange (PBX) which only places Outward Wide Band Area Telephone Service (OWATS) calls.
- **PBX** - This identifier specifies that the FEN is a Private Branch Exchange (PBX).
- **POTS** - This identifier specifies that the FEN is either the Local Access Transport Area (LATA) of the LEC owning/sharing the 4ESS Switch, the Continental United States POTS (CUSP) network of the IC owning/ sharing the 4ESS Switch, or some other FEN to be treated similarly.

Continued on next page

Form Entries, Continued

FID

Far End Network (FEN) Identification - This field identifies the particular FEN within the specific class of FENs. It may be left **"Blank"** or entered as 1 to 6 alphanumeric characters. When CLASS is ACCESA or ACCESI, FID should consist of type of feature group access and the 4 numeric digits of the Carrier Identification Code.

The type of feature group definitions are:

- **G** - All access types (B, C, & D).
- **B** - Feature Group B Access.
- **C** - Feature Group C Access.
- **D** - Feature Group D Access.

Examples include:

- **G0288** - Carrier ID **288** has Feature Group B, C, & D access.
- **BC0288** - Carrier ID **288** has Feature Group B & C access.
- **BD0288** - Carrier ID **288** has Feature Group B & D access.
- **B2882** - Carrier ID **2882** has Feature Group B access only.
- **D2882** - Carrier ID **2882** has Feature Group D access only.

For an access type, both **B2882** and **D2882** can exist but be for different carriers.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

AFA

ANI Failure Action - This field is used to specify the actions that must be taken for Equal Access Signaling (EAS) calls for which Automatic Number Identification (ANI) is expected but not received. This field is only applicable for Inter-LATA Carrier switches which receive EAS calls. If EAS calls cannot be received from this particular Far End Network (FEN), then this field must be left **"Blank"**. If EAS calls can be received from this FEN, then enter one of the following:

- **RR** - Route the call normally and make a special Record of the call using existing data.
- **KA** - Kill the call and play the Reorder Announcement (ROA) to the caller.
- **KW** - Kill the call by sending an unexpected wink (long off-hook) while the ROA announcement is played. This is a particularly effective way to find out which End Office (EO) is not passing ANI for calls which are received from an Access Tandem (AT) (the ANI and called sequences of EAS calls are transparent to the AT). However, this should not be used indiscriminately, since it causes trouble reports to be generated.

UNSP

Unspecified - This field specifies the disposition of calls in the UNSP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is UNSP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

ATAP

Access Tandem Area Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the ATAP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is ATAP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

CUSP

Continental United States Plain Old Telephone Service (POTS) This field specifies the disposition of calls in the CUSP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is CUSP.

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

CARP

Caribbean, Non-US Territories, Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the CARP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is CARP .

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

CANP

Canadian Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the CANP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is CANP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

HAWP

Hawaiian Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the HAWP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is HAWP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

NWZ1

Non-World Zone 1- This field specifies the disposition of calls in the NWZ1 Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is NWZ1.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

INW

Inward Wide Area Telephone Service (WATS) - This field specifies the disposition of calls in the INW Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is INW.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

DSD

This field specifies the disposition of calls in the Direct Services Dialing (DSD) Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is DSD.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

DLT

This field specifies the disposition of calls in the DLT Service Category, i.e., codes pointing to a Call Type (CT) for which the Service Category (SC) Item is DLT (Dial-It).

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

TC

Teleconferencing - This field specifies the disposition of calls in the TC Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is TC.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

DA

Directory Assistance - This field specifies the disposition of calls in the DA Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is DA.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

IOP

Inward Operator - This field specifies the disposition of calls in the IOP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is IOP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

TST

Test Line - This field specifies the disposition of calls in the TST Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is TST.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

RSYS

Restricted System Codes - This field specifies the disposition of calls in the RSYS Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is RSYS.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

MSC1-4

Miscellaneous 1 to 4 - This field specifies the disposition of calls in the MSC1-4 Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is MSC1-4.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

INCN

International Carrier, not IC switch owner's INC - This field specifies the disposition of calls in the INCN Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is INCN.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

ALAP

Alaskan Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the ALAP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is ALAP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

CUTP

Caribbean, United States Territories, Plain Old Telephone Service (POTS) This field specifies the disposition of calls in the CUTP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is CUTP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

INCO

International Carrier - This field specifies the disposition of calls in the INCO Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is INCO.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

EASC

Exchange Access Signaling Code - This field specifies the disposition of calls in the EASC Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is EASC.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

ICIN

This field specifies the disposition of calls in the Inter-Local Access Transport Area (LATA) Carrier Switch's International Carrier (ICIN) Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is ICIN.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

SC1-SC36

Spare Categories 1 to 36 - These fields specify the disposition of calls in the SC1-36 Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SC1-36.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

SDN

Software Defined Network - This field specifies the disposition of calls in the SDN Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SDN.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

LDA

Inward Operator - This field specifies the disposition of calls in the LDA Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is LDA.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries, Continued

SSP

Service Switching Point - This field specifies the disposition of calls in the SSP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SSP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

SPDI

Sponsor-Paid Dial-It (Dial-It calls paid for by the sponsor) - This field specifies the disposition of calls in the SPDI Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SPDI.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

MULT

Multiquest - This field specifies the disposition of calls in the MULT Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is MULT.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

MCPP

Multiquest Calling Party-Paid - This field specifies the disposition of calls in the MCPP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is MCPP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

INET

Interim Nationwide Emergency Telecommunications System - This field specifies the disposition of calls in the INET Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is INET.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

SDND

Software Defined Network Data calls - This field specifies the disposition of calls in the SDN Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SDN.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

QTM Not Applicable - Entries: **"Blank"**

DEF1 This field is used to deny calls in the DEF1 category, i.e., codes entered on the RC Form 319 with DIGTYP equal to DEF1. A **"Y"** is entered if calls in the DEF1 category must be denied. An **"N"** is entered if calls in the DEF1 category are allowed. If this field is left **"Blank"**, calls in the DEF1 category will not be denied.

DEF2 This field is used to deny calls in the DEF2 category, i.e., codes entered on the RC Form 319 with DIGTYP equal to DEF2. A **"Y"** is entered if calls in the DEF2 category must be denied. An **"N"** is entered if calls in the DEF2 category are allowed. If this field is left **"Blank"**, calls in the DEF2 category will not be denied.

DEF3 This field is used to deny calls in the DEF3 category, i.e., codes entered on the RC Form 319 with DIGTYP equal to DEF3. A **"Y"** is entered if calls in the DEF3 category must be denied. An **"N"** is entered if calls in the DEF3 category are allowed. If this field is left **"Blank"**, calls in the DEF3 category will not be denied.

DEF4 This field is used to deny calls in the DEF4 category, i.e., codes entered on the RC Form 319 with DIGTYP equal to DEF4. A **"Y"** is entered if calls in the DEF4 category must be denied. An **"N"** is entered if calls in the DEF4 category are allowed. If this field is left **"Blank"**, calls in the DEF4 category will not be denied.

DFHT This field is used to specify Final Handling Treatment (FHT) for calls which are denied. Refer to Lucent Technologies Practice 781-031-100 for further information on tones and announcements. If this field is left **"Blank"**, the Final Handling Treatment given will be Revenue Accounting Office (ROA). See the RDBFHT description for the allowable entries.

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 618

General

This form is used to CHANGE the characteristics of an existing Far End Network (FEN). These characteristics then apply to all Trunk Subgroups (TSGs) defined to be within this FEN. It should be noted that all relevant data fields must contain an entry, even though some of these characteristics are not being changed.

The Classification (CLASS) and FEN Identification (FID) entered on this form must match an existing FEN.

An alphabetical keyword list is included in this section, starting on page 18.

Continued on next page

RC Form 618, Continued

General
(cont'd)

```
# FORM 618   CHANGE THE CHARACTERISTICS OF AN EXISTING FAR END NETWORK
  4E17>

RC:FEN;CHG;---:                          CLASS ------,       FID ------,

ORNU ------,

AFA --,

RECORD CATEGORY TREATMNT

UNSP -,   ATAP -,   CUSP -,   CARP -,   CANP -,   HAWP -,   NWZ1 -,   INW -,
DSD -,    DLT -,    TC -,     DA -,     IOP -,    TST -,    RSYS -,   MSC1 -,
MSC2 -,   MSC3 -,   MSC4 -,   INCN -,   ALAP -,   CUTP -,   INCO -,   EASC -,
ICIN -,   SC1 -,    SC2 -,    SC3 -,    SC4 -,    SC5 -,    SC6 -,    SC7 -,
SC8 -,    SC9 -,    SC10 -,   SC11 -,   SC12 -,   SC13 -,   SC14 -,   SC15 -,
SC16 -,   SC17 -,   SC18 -,   SC19 -,   SC20 -,   SC21 -,   SC22 -,   SC23 -,
SC24 -,   SC25 -,   SC26 -,   SC27 -,   SC28 -,   SC29 -,   SC30 -,   SC31 -,
SC32 -,   SC33 -,   SC34 -,   SC35 -,   SC36 -,   SDN -,    LDA -,    SSP -,
SPDI -,   MULT -,   MCPP -,   INET -,   SDND -,   QTM -,

SCREEN TREATMNT

DEF1 -,   DEF2 -,   DEF3 -,   DEF4 -,                       DFHT ---,

REMARKS ------------------------------------------------!

                  EQUIVALENT ODA INPUT FORM - ESS 406L

                       ASSOCIATED VERIFY MESSAGES

                           INPUT-16m-VER:FEN:

                           OUTPUT-6s-VER:FEN:
```

Form Entries

RC:FEN;CHG;---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

CLASS

This field specifies the classification of the Far End Network (FEN). Valid entries are:

- **ACCESA** - This identifier specifies that the FEN is an Interexchange Carrier (IC) or International Carrier (INC), and the 4ESS Switch is being used by a Local Exchange Carrier (LEC) as an Access Tandem (AT) to switch calls from this FEN.
- **ACCESI** - This identifier specifies that the FEN is an INC, and the 4ESS Switch is being used by an IEC (e.g., ATTIX) to switch calls from this FEN.
- **ACCESO** - This identifier specifies that the FEN is an Operating Company.
- **CAMA** - This identifier specifies that the Trunk Subgroup (TSG) is terminated on an office which delivers traffic on CAMA trunks.
- **CMC** - Cellular Mobile Carrier - This identifier specifies that the FEN is a CMC. The TSG connects an Access Tandem (AT) and a CMC.
- **INTL** - This identifier specifies that the FEN is outside World Zone 1, and the 4ESS Switch is being used as an International Switching Center (ISC).
- **ITS** - This identifier specifies that the TSG is a link to an Other Common Carrier or Direct Connect Customer who is delivering international traffic to the network.
- **OEO** - Other End Office connecting, meaning an Equal Access End Office (EAEO) owned by a different company. This identifier specifies that the FEN is an OEO. The TSG connects an AT and an OEO.
- **OWATS** - This identifier specifies that the FEN is a Private Branch Exchange (PBX) which only places Outward Wide Band Area Telephone Service (OWATS) calls.
- **PBX** - This identifier specifies that the FEN is a Private Branch Exchange (PBX).
- **POTS** - This identifier specifies that the FEN is either the Local Access Transport Area (LATA) of the LEC owning/sharing the 4ESS Switch, the Continental United States POTS (CUSP) network of the IC owning/ sharing the 4ESS Switch, or some other FEN to be treated similarly.

Continued on next page

Form Entries, Continued

FID

Far End Network (FEN) Identification - This field identifies the particular FEN within the specific class of FENs. It may be left **"Blank"** or entered as 1 to 6 alphanumeric characters. When CLASS is ACCESA or ACCESI, FID should consist of type of feature group access and the 4 numeric digits of the Carrier Identification Code.

The type of feature group definitions are:

- **G** - All access types (B, C, & D).
- **B** - Feature Group B Access.
- **C** - Feature Group C Access.
- **D** - Feature Group D Access.

Examples include:

- **G0288** - Carrier ID **288** has Feature Group B, C, & D access.
- **BC0288** - Carrier ID **288** has Feature Group B & C access.
- **BD0288** - Carrier ID **288** has Feature Group B & D access.
- **B2882** - Carrier ID **2882** has Feature Group B access only.
- **D2882** - Carrier ID **2882** has Feature Group D access only.

For an access type, both **B2882** and **D2882** can exist but be for different carriers.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

AFA

ANI Failure Action - This field is used to specify the actions that must be taken for Equal Access Signaling (EAS) calls for which Automatic Number Identification (ANI) is expected but not received. This field is only applicable for Inter-LATA Carrier switches which receive EAS calls. If EAS calls cannot be received from this particular Far End Network (FEN), then this field must be left **"Blank"**. If EAS calls can be received from this FEN, then enter one of the following:

- **RR** - Route the call normally and make a special Record of the call using existing data.
- **KA** - Kill the call and play the Reorder Announcement (ROA) to the caller.
- **KW** - Kill the call by sending an unexpected wink (long off-hook) while the ROA announcement is played. This is a particularly effective way to find out which End Office (EO) is not passing ANI for calls which are received from an Access Tandem (AT) (the ANI and called sequences of EAS calls are transparent to the AT). However, this should not be used indiscriminately, since it causes trouble reports to be generated.

UNSP

Unspecified - This field specifies the disposition of calls in the UNSP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is UNSP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

ATAP

Access Tandem Area Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the ATAP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is ATAP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

CUSP

Continental United States Plain Old Telephone Service (POTS) This field specifies the disposition of calls in the CUSP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is CUSP.

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

CARP

Caribbean, Non-US Territories, Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the CARP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is CARP .

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

CANP

Canadian Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the CANP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is CANP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

HAWP

Hawaiian Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the HAWP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is HAWP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

NWZ1

Non-World Zone 1- This field specifies the disposition of calls in the NWZ1 Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is NWZ1.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

INW

Inward Wide Area Telephone Service (WATS) - This field specifies the disposition of calls in the INW Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is INW.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

DSD

This field specifies the disposition of calls in the Direct Services Dialing (DSD) Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is DSD.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

DLT

This field specifies the disposition of calls in the DLT Service Category, i.e., codes pointing to a Call Type (CT) for which the Service Category (SC) Item is DLT (Dial-It).

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

TC

Teleconferencing - This field specifies the disposition of calls in the TC Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is TC.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

DA

Directory Assistance - This field specifies the disposition of calls in the DA Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is DA.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

IOP

Inward Operator - This field specifies the disposition of calls in the IOP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is IOP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

TST

Test Line - This field specifies the disposition of calls in the TST Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is TST.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

RSYS

Restricted System Codes - This field specifies the disposition of calls in the RSYS Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is RSYS.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

MSC1-4

Miscellaneous 1 to 4 - This field specifies the disposition of calls in the MSC1-4 Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is MSC1-4.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

INCN

International Carrier, not IC switch owner's INC - This field specifies the disposition of calls in the INCN Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is INCN.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

ALAP

Alaskan Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the ALAP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is ALAP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

CUTP

Caribbean, United States Territories, Plain Old Telephone Service (POTS) This field specifies the disposition of calls in the CUTP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is CUTP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

INCO

International Carrier - This field specifies the disposition of calls in the INCO Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is INCO.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

EASC

Exchange Access Signaling Code - This field specifies the disposition of calls in the EASC Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is EASC.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

ICIN

This field specifies the disposition of calls in the Inter-Local Access Transport Area (LATA) Carrier Switch's International Carrier (ICIN) Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is ICIN.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

SC1-SC36

Spare Categories 1 to 36 - These fields specify the disposition of calls in the SC1-36 Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SC1-36.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

SDN

Software Defined Network - This field specifies the disposition of calls in the SDN Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SDN.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

LDA

Inward Operator - This field specifies the disposition of calls in the LDA Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is LDA.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

SSP

Service Switching Point - This field specifies the disposition of calls in the SSP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SSP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

SPDI

Sponsor-Paid Dial-It (Dial-It calls paid for by the sponsor) - This field specifies the disposition of calls in the SPDI Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SPDI.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

MULT

Multiquest - This field specifies the disposition of calls in the MULT Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is MULT.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

MCPP

Multiquest Calling Party-Paid - This field specifies the disposition of calls in the MCPP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is MCPP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

INET

Interim Nationwide Emergency Telecommunications System - This field specifies the disposition of calls in the INET Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is INET.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

SDND

Software Defined Network Data calls - This field specifies the disposition of calls in the SDN Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SDN.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Form Entries, Continued

QTM	Not Applicable - Entries: **"Blank"**
DEF1	This field is used to deny calls in the DEF1 category, i.e., codes entered on the RC Form 319 with DIGTYP equal to DEF1. A **"Y"** is entered if calls in the DEF1 category must be denied. An **"N"** is entered if calls in the DEF1 category are allowed. If this field is left **"Blank"**, calls in the DEF1 category will not be denied.
DEF2	This field is used to deny calls in the DEF2 category, i.e., codes entered on the RC Form 319 with DIGTYP equal to DEF2. A **"Y"** is entered if calls in the DEF2 category must be denied. An **"N"** is entered if calls in the DEF2 category are allowed. If this field is left **"Blank"**, calls in the DEF2 category will not be denied.
DEF3	This field is used to deny calls in the DEF3 category, i.e., codes entered on the RC Form 319 with DIGTYP equal to DEF3. A **"Y"** is entered if calls in the DEF3 category must be denied. An **"N"** is entered if calls in the DEF3 category are allowed. If this field is left **"Blank"**, calls in the DEF3 category will not be denied.
DEF4	This field is used to deny calls in the DEF4 category, i.e., codes entered on the RC Form 319 with DIGTYP equal to DEF4. A **"Y"** is entered if calls in the DEF4 category must be denied. An **"N"** is entered if calls in the DEF4 category are allowed. If this field is left **"Blank"**, calls in the DEF4 category will not be denied.
DFHT	This field is used to specify Final Handling Treatment (FHT) for calls which are denied. Refer to Lucent Technologies Practice 781-031-100 for further information on tones and announcements. If this field is left **"Blank"**, the Final Handling Treatment given will be Revenue Accounting Office (ROA). See the RDBFHT description for the allowable entries.

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Form Entries, Continued

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RC Form 619

General

This form is used to CHANGE the characteristics of an existing Far End Network (FEN). These characteristics then apply to all Trunk Subgroups (TSGs) defined to be within this FEN. It should be noted that all relevant data fields must contain an entry, even though some of these characteristics are not being changed.

The Classification (CLASS) and FEN Identification (FID) entered on this form must match an existing FEN.

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Form 619, Continued

General
(cont'd)

```
# FORM 619   DELETE A FAR END NETWORK

     RC:FEN;OUT;---:                        CLASS ------,       FID ------,

     ORNU ------,

     REMARKS ------------------------------------------------!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                           INPUT-16m-VER:FEN

                           OUTPUT-6r-VER:FEN
```

Form Entries

RC:FEN;OUT;---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

CLASS

This field specifies the classification of the Far End Network (FEN). Valid entries are:

- **ACCESA** - This identifier specifies that the FEN is an Interexchange Carrier (IC) or International Carrier (INC), and the 4ESS Switch is being used by a Local Exchange Carrier (LEC) as an Access Tandem (AT) to switch calls from this FEN.
- **ACCESI** - This identifier specifies that the FEN is an INC, and the 4ESS Switch is being used by an IEC (e.g., ATTIX) to switch calls from this FEN.
- **ACCESO** - This identifier specifies that the FEN is an Operating Company.
- **CAMA** - This identifier specifies that the Trunk Subgroup (TSG) is terminated on an office which delivers traffic on CAMA trunks.
- **CMC** - Cellular Mobile Carrier - This identifier specifies that the FEN is a CMC. The TSG connects an Access Tandem (AT) and a CMC.
- **INTL** - This identifier specifies that the FEN is outside World Zone 1, and the 4ESS Switch is being used as an International Switching Center (ISC).
- **ITS** - This identifier specifies that the TSG is a link to an Other Common Carrier or Direct Connect Customer who is delivering international traffic to the network.
- **OEO** - Other End Office connecting, meaning an Equal Access End Office (EAEO) owned by a different company. This identifier specifies that the FEN is an OEO. The TSG connects an AT and an OEO.
- **OWATS** - This identifier specifies that the FEN is a Private Branch Exchange (PBX) which only places Outward Wide Band Area Telephone Service (OWATS) calls.
- **PBX** - This identifier specifies that the FEN is a Private Branch Exchange (PBX).
- **POTS** - This identifier specifies that the FEN is either the Local Access Transport Area (LATA) of the LEC owning/sharing the 4ESS Switch, the Continental United States POTS (CUSP) network of the IC owning/ sharing the 4ESS Switch, or some other FEN to be treated similarly.

Continued on next page

Form Entries, Continued

FID

Far End Network (FEN) Identification - This field identifies the particular FEN within the specific class of FENs. It may be left **"Blank"** or entered as 1 to 6 alphanumeric characters. When CLASS is ACCESA or ACCESI, FID should consist of type of feature group access and the 4 numeric digits of the Carrier Identification Code.

The type of feature group definitions are:

- **G** - All access types (B, C, & D).
- **B** - Feature Group B Access.
- **C** - Feature Group C Access.
- **D** - Feature Group D Access.

Examples include:

- **G0288** - Carrier ID **288** has Feature Group B, C, & D access.
- **BC0288** - Carrier ID **288** has Feature Group B & C access.
- **BD0288** - Carrier ID **288** has Feature Group B & D access.
- **B2882** - Carrier ID **2882** has Feature Group B access only.
- **D2882** - Carrier ID **2882** has Feature Group D access only.

For an access type, both **B2882** and **D2882** can exist but be for different carriers.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
CLASS	4
FID	5
ORNU	5
RC:FEN;OUT;---:	3

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 624

General

This form is used to DEFINE the mapping of Service Switching Point (SSP) database return message announcement index values to local announcement treatments.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 624, Continued

General
(cont'd)

```
# FORM 624  ANNOUNCEMENT INDEX TO ANNOUNCEMENT MAPPING

         RC:ANN;CHG;___:

         ORNU _______,

                     OLD          NEW
                ANINDEX      ANN          ANN

         ___,         ___,         ___,
         ___,         ___,         ___,
         ___,         ___,         ___,
         ___,         ___,         ___,
         ___,         ___,         ___,

         REMARKS ____________________________________________________!

                   EQUIVALENT ODA INPUT FORM - ESS 406P

                        ASSOCIATED VERIFY MESSAGES

                          INPUT-16t-VER:ANINDEX

                        OUTPUT-6aa-VER:MISC,OPT(ANN)
```

Form Entries

RC:ANN;CHG;___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

ANINDEX

Announcement Index - This value represents the Service Control Point (SCP) returned treatment index values. These values will then be mapped to the desired local treatment processing. Valid input values: **"0-255"**.

Continued on next page

Form Entries, Continued

ANN	Announcement - This value specifies the local 4ESS Switch announcement that is to be used for the identified index. Enter **"UNA"** for Unassigned or see RDBFHT description for the remaining allowable entries.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ANINDEX	3
ANN	4
ORNU	3
RC:ANN;CHG;___:	3

Form Entries, Continued

This page is intentionally left blank.

RC Form 625

General

This form is used to DEFINE which Automatic Message Accounting (AMA) structure code set is to be used for each AMA Call Code.

See the "AMA Structure Code - Table 46" for the list of structure codes for each set.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Form 625, Continued

General
(cont'd)

```
# FORM 625  AMA CALL CODE TO STRUCTURE CODE MAPPING

     RC:AMA;CHG;---:

     ORNU ------,

         CALL       OLD           NEW
         CODE     CODE SET      CODE SET

         ---,       ----,         ----,
         ---,       ----,         ----,
         ---,       ----,         ----,
         ---,       ----,         ----,
         ---,       ----,         ----,
         ---,       ----,         ----,

     REMARKS ------------------------------------------------!

                  EQUIVALENT ODA INPUT FORM - ESS 406Q

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-16u-VER:AMACODE

                        OUTPUT-6ab-VER:MISC,OPT(AMA)
```

Form Entries

RC:AMA;CHG;---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

CALL CODE

This field specifies the call code for which a structure code set is being defined. Valid input values are: **"0-999"**.

Continued on next page

Form Entries, Continued

CODE SET	This field specifies which structure code set is to be assigned to the identified call code. Valid input values are: **"NONE"**, **"SET1"**, and **"SET2"**.

Continued on next page

Form Entries, Continued

Table 46

TABLE 46
AMA STRUCTURE CODES

SET 1

Structure Code	Conditions
00360	Number Services, IC
00361	Number Services, IC, Alternate Billing Number
00362	Number Services, IC, Long Duration
00363	Number Services, IC, Long Duration, Alternate Billing Number

SET 2

Structure Code	Conditions
00364	Number Services, TELCo
00365	Number Services, TELCo, Alternate Billing Number
00366	Number Services, TELCo, Long Duration
00367	Number Services, TELCo, Long Duration, Alternate Billing Number
00368	Number Services, TELCo, Unanswered
00369	Number Services, TELCo, Unanswered Alternate Billing Number

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
CALL_CODE	3
CODE_SET	4
ORNU	3
RC:AMA;CHG;---:	3

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 626

General

This form is used to DEFINE the mapping between the Type Of Service (TOS) index values to the customer dialed number sequence of Number Services calls.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Form 626, Continued

General
(cont'd)

```
# FORM 626  TYPE OF SERVICE TO DIALED CODE MAPPING
       4E21R3>

     RC:TOS;CHG;___:

     ORNU _______,

     TOS ____,   TT ____,   SSN ___,   OLD CODE ___,   NEW CODE ___,   AIN TFREE _,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 406R

                       ASSOCIATED VERIFY MESSAGES

                            INPUT-16v-VER:TOS

                        OUTPUT-6ac-VER:MISC,OPT(TOS)
```

Form Entries

RC:TOS;CHG;---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

TOS

This field specifies the Type of Service index value that is being assigned a CODE input. Legal input values are: **"Blank"** or **"0-31"**.

Continued on next page

Form Entries, Continued

TT

Translation Type - This field specifies the Signaling System 7 (SS7) Translation Type to be used with the global title address so that the Signal Transfer Point (STP) can route the signaling message to the correct database. Legal input values are: **"0-255"**.

SSN

Subsystem Number - This field specifies the Signaling System 7 (SS7) Signaling Connection Control Point (SCCP) Subsystem Number to be used for the identified Local Exchange Carrier (LEC) Service Switching Point (SSP) Type Of Service (TOS) on RC Form 626 or for the Network Call Denial (NCD) Network Control Point (NCP) destination on RC Form 632. Legal input values are: **"232-255".**

Note: For Advanced Intelligent Network (AIN), one SSN is assigned for a given office by using RC Form 810/Office Data Assembler (ODA) Form 406Z. The legal value for AIN SSN values are **"0-255"** excluding **2**, **3**, and **5**. TOS to Translation Type (TT) mapping is still contained in the TOS to TT mapping table created through RC Form 626/ODA Form 406Z, but the SSN value contained in this mapping table will not be used by call processing (in other words, the SSN field on RC Form 626/ODA Form 406Z will not be used by AIN call processing).

CODE

This field specifies the three digit code which will be associated with the Type Of Service (TOS) index value. Valid inputs values are: **"000-999"**.

AIN TFREE

AIN 800/Tollfree Indicator. Valid entries are **"Blank"**, **"Y"**, and **"B"**. This element indicates whether the Type of Service (TOS) has Tollfree (TFREE) designation. This field can only be entered on the form if the Advanced Intelligent Network (AIN) 800/Tollfree feature has been purchased.

- **Y** is for when the TOS has TFREE designation.
- **N** is for when the TOS does not have TFREE designation.

"Blank" translates to **"N"**.

Continued on next page

Form Entries, Continued

Table 46

TABLE 46
AMA STRUCTURE CODES

SET 1

Structure Code	Conditions
00360	Number Services, IC
00361	Number Services, IC, Alternate Billing Number
00362	Number Services, IC, Long Duration
00363	Number Services, IC, Long Duration, Alternate Billing Number

SET 2

Structure Code	Conditions
00364	Number Services, TELCo
00365	Number Services, TELCo, Alternate Billing Number
00366	Number Services, TELCo, Long Duration
00367	Number Services, TELCo, Long Duration, Alternate Billing Number
00368	Number Services, TELCo, Unanswered
00369	Number Services, TELCo, Unanswered Alternate Billing Number

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
AIN TFREE	4
CODE	4
ORNU	3
RC:TOS;CHG;---:	3
SSN	4
TOS	3
TT	4

RC Form 631

General

This form is used to CHANGE service related parameters. Fields that are not being changed may be left **"Blank"**.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 631, Continued

General
(cont'd)

```
# FORM 631  CHANGE SERVICE PARAMETERS
  4E22>

RC:SERVICE;CHG;OPT(PARAMS),___:                          SRVC ____,

ORNU ______,

RTDOM ____,    RSI ___,    RSIDF _,    RSFHT ___,

REMARKS _____________________________________________________!

              EQUIVALENT ODA INPUT FORM - ESS 406V

                   ASSOCIATED VERIFY MESSAGES

               INPUT-16z-VER:SERVICE:SRVC a!(EOT)

               OUTPUT-6ag-VER:SERVICE,OPT(PARAMS)
```

Form Entries

RC:SERVICE;CHG;OPT(PARAMS),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

SRVC Service - This field identifies the service whose parameters are being defined. Some services are identified by domain names. Legal inputs are: **"MEGC"**, **"NCAT"** for Non Call Associated Temporary Signaling Connection (TSC), **"INTV"** forWZ1 international voice, **"INTD"** for WZ1 international data, **"20-74"**, **"75"**, **"76"**, **"81"**, **"82"**, **"APN"**, **"INTO"**, **"INTT"**, **"SDNA"**, **"DEV"**, **"DED"**, **"INCD"**, **"IO56"**, **"IO64"**, **"ITD"**, **"IVT"**, **"NH0C"**, **"NH1C"**.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

RTDOM Routing Domain - This field specifies the domain where the routing for this service is actually populated. Legal inputs are: **"Blank"**, **"APN"**, **"HNPA"**, **"IT"**, **"20-83"**, **"INTO"**, **"INTT"**, **"SDNA"**, **"SF00-SF06"** (4E22R4>), **"SF07-SF39"** (4E23R1>), **"DEV"**, **"DED"**, **"INCD"**, **"NH0C"**, **"NH1C"**. (4E22>) - The **"HNPA"** entry is allowed only in offices using Traditional Routing.

RSI Route Selection Index - This field specifies the index that is to be used to select a routing treatment when an RSI type of subsequent digit entry is encountered. Legal inputs are: **"Blank"** or **"0-126"**.

RSIDF Route Selection Index Default - This field specifies the default action that should be performed when no Route Selection Index (RSI) type of subsequent digit entry is encountered during routing. Enter **"A"** to allow the call to proceed using the treatment encountered. Enter **"D"** to deny the call. Legal inputs are: **"A"** or **"D"**.

RSFHT Route Selection Final Handling Treatment (FHT) - This field specifies the FHT that should be given to a call that is denied because of the absence of an Route Selection Index (RSI) type of subsequent digit entry. This field may be left **"Blank"** or see the RDBFHT description for the allowable entries.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ORNU	4
RC:SERVICE;CHG;OPT(PARAMS),___:	3
RSFHT	4
RSI	4
RSIDF	4
RTDOM	4
SRVC	4

Form Entries, Continued

This page is intentionally left blank.

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RC Form 633

General

This form is used to add or delete a Carrier ID (CID) code and to designate the type of call associated with each of the valid Transit Network Selection (TNS) values.

An ACTION of **"A"** is used to initially define TNS values for a CID. If ACTION=A, the entry must currently be unassigned for the CID (i.e., all Access Tandem Transit Network Selection Index (TNSI) values for the CID must have an Access Tandem Transit Network Selection Type (TNSTYP) currently set to **"INV"** for Invalid).

An ACTION of **"C"** is used to change TNS values for a CID. If ACTION=C, at least one TNSI value must not have a TNSTYP set to **"INV"** and the entry must currently be assigned.

An Action of **"D"** is used to remove a Carrier ID. If ACTION=D, all TNSI values must have a TNSTYP set to **"INV"** and the entry must currently be assigned

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 633, Continued

General
(cont'd)

```
# FORM 633  CARRIER ID CODE AND TNS TYPE DESIGNATION

     RC:EA;CHG;OPT(CID),___:              CID ___,

     ORNU _______,  ACTION _,

     TNSI      TNSTYP

      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,
      __,       _____,

     REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 406X

                       ASSOCIATED VERIFY MESSAGES

                     INPUT-16ab-VER:EA:CID a!(EOT)

                       OUTPUT-6ai-VER:EA;OPT(CID)
```

Form Entries

RC:TOS;CHG;---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

CID

Carrier ID. This field is populated with the pre-subscription carrier selected by the customer to handle inter-Local Access Transport Area (LATA) calls; and intra-LATA calls when intra-LATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. This field is only populated for ISC/OSC=Q.931.

Continued on next page

Form Entries, Continued

ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
ACTION	Action - Add, Change, or Delete. Enter **"A"** if the associated data on this form is being added. Enter **"C"** if the associated data on this form changes existing data. Enter **"D"** if the associated data on this form is being deleted.
TNSI	Access Tandem Transit Network Selection Index - Valid entries are **"0-15"**.
TNSTYP	Access Tandem Transit Network Selection Type. This field is used to specify the type of call associated with the given Transit Network Selection (TNS) value. Legal values are **"IOT"** for International Outbound Transport, **"GSDN"** for Global Software Defined Network (SDN), or **"INV"** for Invalid.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ACTION	4
CID	3
ORNU	4
RC:TOS;CHG;---:	3
TNSI	4
TNSTYP	4

Form Entries, Continued

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RC Form 634

General

Recent Change (RC) Form 634, for 4E17 and later Generic Programs, is used to specify per-announcement data. Fields AIR, AN4R, and ANIR are only used by Integrated Services Digital Network User Part (ISUP) for AT&T offices. Fields CAUSE, CIVO, and LOC are not used by ISUP when determining clearing treatments when Type of Trunk (TOT) is End Office and Tandem Connecting (ETC) and Other Carrier Connecting (OCC). Field TUBM may be left blank and is used by CCITT7 Telephone User Part (TUP), Small Scale Integration (SSI), Service Announcement Number (SAN).

For 4E18 and later Generic Programs, fields AIR, ANIR, CIVO, CAUSE, LOC, NPLY, and OFHT may be left blank which will result in the translations data corresponding to the blank fields to not change.

For 4E25R1 and Later Generic Programs, the FEALN field was added.

If a release message is to be sent, then this form can specify the cause value to be used in the release message.

Table 47 lists the cause values and their meanings.

Table 48 lists the locations and their meanings.

Table 49 lists the meanings of TUP Unsuccessful Backwards Messages (TUBM).

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 10.

Continued on next page

RC Form 634, Continued

General
(cont'd)

```
# FORM 634  SERVICE CIRCUIT SYSTEM - EXPANDED ANNOUNCEMENTS

     RC:SCS;CHG;OPT(FHT),___:             SCSFHT ___,    MT ___,

     ORNU _______,

     AIR _,   ANIR ___, AN4R ___,  CIVO ___, CAUSE ___,

     LOC ___, NPLY ___, OFHT ___,  SAN _____, SSI ___,  TUBM ___,

     REMARKS ____________________________________________________!

                EQUIVALENT ODA INPUT FORM - ESS 406W

                     ASSOCIATED VERIFY MESSAGES

                       INPUT-16ac-VER:SCS:FHT

                     OUTPUT-6aj-VER:SCS;OPT(FHT)
```

Form Entries

For this form, if a blank is entered and allowed for a field no changes will be made to the current corresponding translation value.

RC:SCS;CHG;OPT(FHT),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

SCSFHT	Service Circuit System Final Handling Treatment - Legal values: **"AR"**, **"T", "BT"**, **"NCA"**, **"VCA"**, **"ROA"**, **"EA1-EA7"**, **"SP1"**, **"SP2"**, **"HW", "MCA"**, **"NCC"**, **"NWC"**, **"OOB"**, **"NCD"**, **"INC"**, **"IVC"**, **"IFF"**, **"SNA"**, **"VMA"**, **"OTS"**, **"STO"**, **"NWN"**, **"DNN"**, **"TDN"**, **"INF"**, **"NCB"**, **"WAT"**, **"LSA"**, **"OOA"**, **"LDV"**, **"LOB"**, **"UNN"**, **"S01-S19"**, **"DOO"**, **"ISB"**, **"E01-E20"**, **"R01-R10"**, **"I01-I30"**. See RDBFHT for announcement descriptions.
MT	Main Transition indicator used to determine whether to use old or new hardware for final handling announcements. Legal values: **"OLD"** or **"NEW"**. **(Note: If SCSFHT is AR, BT, T or HW, then MT must be OLD).**
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
AIR	Not Applicable - Entries: **"Blank"**
ANIR	Not Applicable - Entries: **"Blank"**
AN4R	Not Applicable - Entries: **"Blank"**

Continued on next page

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Form Entries, Continued

CIVO

Common Channel Signal (ISUP, INUP, and TUP) Voice Calls and Old Announcements is an indicator used to determine whether to send a backwards release or play announcement. Valid values are **"Blank"** for no translation change, **"PA"** for Play announcement or **"REL"** for Release.

NOTE: Intra IC ISUP trunks use both the CIVO and AIR fields to determine whether a voice call is to be released or an announcement is to be played. When CIVO=REL, a Release with cause (no announcement ID) will be sent to release the call. When CIVO=PA and AIR=Y, a Release with cause and announcement ID will be sent to release the call. Otherwise, the announcement will be played.

CAUSE

Cause value - A cause value is used to specify the information to be sent in a release message indicating the cause for a connection release. This field is used to override the existing cause value contained in the release message with the cause value that is specified. Valid entries are **"Blank"** for no translation change or **"0-127"**.

FEALN

(4E25R1>) Far End AT&T Local Network Recent Change (RC) Form 634 to determine the Final Handling Treatment (FHT) announcement which is to either send a release (with CAUSE) message or to play an announcement. Legal values are **"Blank"** for no change, or **"REL"** for Release, or **"PA"** for Play Announcement.

Continued on next page

Form Entries, Continued

LOC

Location used by Integrated Services Digital Network (ISDN) protocols and will be sent with the CAUSE value. Legal values are **"Blank"** for no translation change or **"0-15"** (the meanings of the values are as follows).

Input	Description
0	- User
1	- Local Private Network
2	- Local Local Network
3	- Transit Network
4	- Remote Local Network
5	- Remote Private Network
6	- Local Interface Controlled By This Signal Link
7	- International Network
8	- Spare
9	- Spare
10	- Unknown
11-15	- Spare

NPLY

Number of Plays - the number of times to play an announcement. Legal values are **"Blank"** for no translation change or **"1-4"**.

OFHT

Old Final Handling Treatments used when Main Transitions are OLD or Service Circuit System (SCS) ports cannot be hunted. Legal values are **"Blank"** for no translation change, **"AR"**, **"BT"**, **"EA1"**, **"EA2"**, **"EA3"**, **"EA4"**, **"EA5"**, **"EA6"**, **"EA7"**, **"HW"**, **"IFF"**, **"INC"**, **"IVC"**, **"MCA"**, **"NCA"**, **"NCC"**, **"NCD"**, **"NWC"**, **"OOB"**, **"ROA"**, **"SP1"**, **"SP2"**, **"T"**, and **"VCA"**.

SAN

This field is used to specify the Service Circuit System (SCS) Announcement Number. The announcement number will be used in the peripheral unit order sent to the SCS. Valid entries are **"Blank"** or **"1-4095"**. (Legal values for SAN on RC form 634 are **"Blank"** or **"1-511"**.)

Continued on next page

Form Entries, Continued

SSI

This field is used to specify the Service Circuit System (SCS) Service Circuit Trunk Subgroup (TSG) from which an available trunk will be selected. Valid entries are **"Blank"**, **"FHA"**, and **"FHB"**.

TUBM

This field is an indicator used for International Consultative Committee for International Telephone & Telegraph Signaling System 7 (CCITT7) Telephone User Part (TUP) unsuccessful backwards messages. Legal values are:

Entry	Description
• **Blank**	
• **ADI**	- Address incomplete signal
• **CFL**	- Call failure signal
• **CGC**	- Circuit group congestion signal
• **SEL**	- Switching equipment congestion signal
• **SP1**	- Spare 1
• **SP2**	- Spare 2
• **SSB**	- Subscriber busy signal
• **UNN**	- Unallocated number

Continued on next page

Form Entries, Continued

Table 47

Cause	Description
1	unallocated number
2	no route to specified transit network
3	no route to destination
4	send special information tone
5	misdialed trunk prefix
16	normal clearing
17	user busy
18	no user responding
21	call rejected
22	number changed
27	destination out of service
28	address incomplete
31	normal - unspecified
34	no circuit available
38	network out of order
41	temporary failure
42	switching equipment congestion
43	user information discarded
44	requested channel not available
45	preemption
47	resource unavailable - unspecified
57	bearer capability not authorized
58	bearer capability not presently available
63	service/option not available - unspecified
65	bearer capability not implemented
66	channel type not implemented
70	only restricted digital information bearer capability is available
79	service or option not implemented - unspecified
81	invalid call reference value
88	incompatible destination
95	invalid message, unspecified
97	message type nonexistent or not implemented
99	parameter nonexistent or not implemented
100	invalid parameter contents
111	protocol error, unspecified
127	interworking, unspecified

This table lists the current cause values as specified in Q.763 ISUP Protocol Spec - Issue 2 of T1S1.3-88/02501 Edited T1.113.2 + T1.113.3 Documents.

Continued on next page

Form Entries, Continued

Table 48

Location	Description
0	User
1	local private network
2	local local network
3	transit network
4	remote local network
5	remote private network
6	local interface controlled by this signaling link
7	international network
8	spare
9	spare
10	unknown
11-15	spare

Table 49

TUBM	Description
SEL	Switching-equipment-congestion signal
CGC	Circuit-group-congestion signal
ADI	Address-incomplete signal
CFL	Call-failure signal
SSB	Subscriber-busy signal
UNN	Unallocated-number
SP1	Spare 1
SP2	Spare 2

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
RC:SCS;CHG;OPT(FHT),___:	3
ORNU	4
AIR	4
ANIR	4
AN4R	4
CIVO	5
CAUSE	5
FEALN	5
LOC	6
NPLY	6
OFHT	6
SAN	6
SSI	7
TUBM	7

RC Form 660

General

This form is used to DEFINE the mapping of Service Control Point (SCP) announcement return to the Service Circuit System (SCS) announcements.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 660, Continued

General
(cont'd)

```
# FORM 660  SCP ANNOUNCEMENT INDEX TO SCS ANNOUNCEMENT MAPPING
  <4E18R2

RC:AIN;OPT(ANNUM):___:

ORNU _______,

SCPANN      SCSANN

 ____,       _______,
 ____,       _______,
 ____,       _______,
 ____,       _______,
 ____,       _______,
 ____,       _______,
 ____,       _______,
 ____,       _______,
 ____,       _______,
 ____,       _______,

REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 406Y

                        ASSOCIATED VERIFY MESSAGES

                         INPUT-16ay-VER:AIN:ANNUM

                       OUTPUT-6bd-VER:AIN;OPT(ANNUM)
```

Form Entries

RC:AIN;OPT(ANNUM):___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

SCPANN

Announcement Index number received from Service Control Point (SCP).
Valid entries: **"0-255"**.

Continued on next page

Form Entries, Continued

SCSANN Announcement number for Service Circuit System (SCS) - For Form RC 345, SCSANN is the SCS Announcement for the Default Routing Voice Announcement. Valid entries are **"Blank"** or a number between **"0 and 65535"**. This element specifies the Service Circuit Unit (SCU0 voice announcement, if any, that will be played before the routing number is determined. **"0"** is the default. Note: **"Blank"** is valid if and only if Advanced Intelligent Network (AIN) Fault Handling (FH) is set to Final Treatment (FT).

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ORNU	3
RC:AIN;OPT(ANNUM):___:	3
SCPANN	3
SCSANN	4

Form Entries, Continued

This page is intentionally left blank.

RC Form 664

General

This form is used with 4E22 and later Generic Programs to define the Expanded Time Slot Interchange (XTSI) DS3 UNIT DS1 15 minute and 24 Performance Monitoring Thresholds.

Fields that are left blank will leave the corresponding translations data unchanged.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 664, Continued

General
(cont'd)

```
# FORM 664  XTSI DS3 UNIT DS1 PERFORMANCE MONITORING THRESHOLDS
       4E22>

         RC:MISC;OPT(XTSIPM);___:

         ORNU _______,

             BIN      CV P    ES P   SES P   SAS P   AISS P   CSS P   UAS P

         B15 MINUTE  ______,   ____,    __,     __,     __,      __,     __,
         B24 HOUR    ______,   ____,    __,     __,     __,      __,     __,

         REMARKS ____________________________________________________!

                     EQUIVALENT ODA INPUT FORM - None

                        ASSOCIATED VERIFY MESSAGES

                           INPUT-16ab-VER:VFUNC

                     OUTPUT-6bm-VER:MISC;OPT(XTSIPM)
```

Form Entries

RC:MISC;OPT(XTSIPM);___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

BIN

Bin - Preprinted field denotes either the 15-minute or 24-hour bin used when defining the Performance Monitoring Thresholds for Expanded Time Slot Interchange (XTSI) applications.

Continued on next page

Form Entries, Continued

CV P	Coding Violations Path - Valid Entries: **"Blank"** or **"0-65535"**.
ES P	Errored Seconds Path - Valid Entries: **"Blank"** or **"0-900"**.
SES P	Severely Errored Seconds Path - Valid Entries**: "Blank"** or **"0-63"**.
SAS P	SES/AIS Seconds Path - Valid Entries: **"Blank"** or **"0-63"**.
AISS P	Alarm Indication Signal Seconds Path - This field is used when defining the Expanded Time Slot Interchange (XTSI) Digital Signal 3 (DS3) Unit DS1 (15 minute) and (24-hour) Performance Monitoring Thresholds with the RC Form 664. Valid entries: **"Blank"** or **"0-63"**.
CSS P	Controlled Slip Seconds Path - Valid Entries: **"Blank"** or **"0-63"**.
UAS P	Unavailable Seconds Path - Valid Entries: **"Blank"** or **"0-63"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
AISSP	4
BIN	3
CSS P	4
CV P	4
ES P	4
ORNU	3
RC:MISC;OPT(XTSIPM);___:	3
SAS P	4
SES P	4
UAS P	4

Form Entries, Continued

This page is intentionally left blank.

RC Form 667

General

(4E23R3>) Form #667 is used to assign 6-digit, Numbering Plan Area-NXX (NPA-NXX), to Advanced Intelligent Network/Local Number Portability (AIN/LNP) Called Number Triggers. One of the following four different Called Number Trigger (CNT) assignments are possible for a 6-digit code:

- **"NONE"** or **"Blank"** - No 6-digit AIN/LNP trigger assigned (default)
- **"AIN"** - A 6-digit AIN trigger assigned
- **"LNP"** - A 6-digit LNP trigger assigned
- **"BOTH"** - A 6-digit AIN & LNP trigger are both assigned.

This message is classed as a Recent Change Data Message (RCDM).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 667, Continued

General
(cont'd)

```
# FORM 667  6-DIGIT NPA-NXX AIN/LNP CNT ASSIGNMENT
       4E23R3>

         RC:TRGASIGN;CHG;___:

         ORNU _______,

              NPA     NXX     CNT          NPA     NXX     CNT

              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,
              ___,    ___,    _____,       ___,    ___,    _____,

         REMARKS _____________________________________________________!

                       ASSOCIATED VERIFY MESSAGES

              INPUT-16bu-VER:MISC,OPT(TRGASN):NPANXX~a!(EOT)

                     OUTPUT-6bu-VER:MISC,OPT(TRGASN)
```

Form Entries

RC:TRGASIGN;CHG;___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

NPA	Numbering Plan Area - 3-Digit (NPA) Codes. Valid entries are **"200-999"**.
NXX	Office Exchange 3-Digit (NXX) Codes. Valid entries are **"200-999"**.
CNT	Called Number Trigger - A blank represents a non-trigger or NONE. Valid entries are **"Blank"**, **"NONE"**, **"AIN"**, **"LNP"**, or **"BOTH"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
CNT	4
NPA	4
NXX	4
ORNU	3
RC:TRGASIGN;CHG;___:	3

Form Entries, Continued

This page is intentionally left blank.

RC Message #6dg

General

This message is used to add or delete up to 16 10-digit Advanced Intelligent Network (AIN) triggers at one time.

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Message #6dg, Continued

General
(cont'd)

```
                        SAMPLE MESSAGES

  1. To add three 10-digit AIN triggers
     (3125551234,3125559999,3125551995) with a TOS (0).

        RC:MISC;FHT,FTA:AINTRIG00,00001,A,P,3125551234,3125559999,3125551995!

  2. To add two 10-digit AIN triggers (7085551111,7085555555)
     with a TOS (31).

        RC:MISC;FHT,FTA:AINTRIG31,99999,A,P,7085551111,7085555555!

  3. To delete two 10-digit AIN triggers (3125551234,3125559999)
     with the corresponding TOS (0).
     Note, the TOS must match what was entered when the trigger
     was added for all triggers being deleted.

        RC:MISC;FHT,FTA:AINTRIG00,00002,D,P,3125551234,3125559999!

  4. To delete one 10-digit AIN trigger (7085555555) with a TOS
     (31).

        RC:MISC;FHT,FTA:AINTRIG31,99998,D,P,7085555555!

                EQUIVALENT ODA INPUT FORM - NONE

                   ASSOCIATED VERIFY MESSAGES

           INPUT - 16dg - VER:MISC:FHT AINTRIG, DIG a

              OUTPUT - 6dg - VER:MISC:FHT AINTRIG:
```

Form Entries

RC:MISC;FHT,FTA:AINTRIGnn,a,b,c,d!

The above format represents the input message that must be entered. The upper case letters represent data that must be entered exactly as shown. The lower case letters are acronyms for variable fields that require user input data. The exclamation point (!) following the message denotes the end of the input message. The following paragraphs define the entries for each of the variable items.

nn This field is the Type Of Service (TOS), which is encoded in the nine character ASCII coding scheme. The TOS must be within the ASCII coding scheme and must be two numeric characters. When concatenated, the characters must be between **"00"** and **"31"**, inclusive.

a This is the order number. It must be a unique number in the range **"000001"** to **"999999"**.

b This field specifies the action required. Entries are:

- **"A "** - add
- **"D"** - delete

When adding, the trigger entered must not already be present. When deleting, the trigger must be present and the Type Of Service (TOS) must match what was entered when the trigger was added. If there is an error for any one trigger for a message, the entire message fails and there is no action taken for any trigger. (For example, the fifth trigger being deleted has a different TOS between what was entered on the form and what is currently in translations,
then the message will fail and no triggers will be deleted.)

c This field specifies the domain. The only valid entry is **"P"**, which indicates that all Advanced Intelligent Network (AIN) 10-digit triggers for this message are in the Plain Old Telephone Service (POTS) domain.

Continued on next page

Form Entries, Continued

d	This field is for the 10-digit triggers. All triggers must be 10 digits. There must be at least one trigger entered, but no more than 16 triggers (separated by a comma) on a single message.

Error Codes

Number Error Codes

If the input message cannot be successfully processed, an error code or error code with message is output. For almost all syntax errors, the following numeric error code will be printed (shown below). The remaining errors, which relate to form usage, will print an error code with a message or description of the error (these are not listed below).

CODE	EXPLANATION
0010, 448	Invalid Recent Change Message

Continued on next page

Error Codes, Continued

Keyword Index

KEYWORD	PAGE
a	3
b	3
c	3
d	4
nn	3
Number Error Codes	5
RC:MISC;FHT,FTA:AINTRIGnn,a,b,c,d!	3

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Unit Type Table Of Contents

SECTION	RC#
7a	700 - Grow Unit Type Equipage Bits
7b	701 - Degrow Unit Equipage Bits
7c	702 - DIU Function Assignment
7d	703 - SCS Unit Type - SCU Subunit Data
7e	704 - DS3 Unit (D3U) Type Equipage
7f	705 - Sub-Unit XTSI Type Data
7h	707 - XTSI DS1 Static A/B Configuration
7i	708 - XTSI IBU Sub-Unit Type Data

Continued on next page

Unit Type Table Of Contents, Continued

General

This information applies to all sections within this division:

1. The characters > and < are used to indicate which Generic Programs will apply.

   Examples:

   - 4E22> indicates 4E22 and later Generic Programs.
   - <4E22 indicate 4E22 and earlier Generic Programs.
   - 4E22 indicates the 4E22 Generic Program only.
   - >4E22 indicates all Generic Programs up to, but not including, 4E22.

2. Following the general section is a copy of the applicable Recent Change (RC) Form/s. Where there is more than one Generic published, the forms will be filed in ascending order by Generic.

3. The Keyword field names of the form entries in each section are listed in order of appearance on the latest Generic Recent Change Form. (Keywords deleted from the latest form issue will still remain in the form order of the last RC Form that it appeared until finally deleted).

4. The alphabetical "Keyword Index" of the field names is located at the end of each Recent Change Section, following the text, and any tables and/or graphics that may apply.

5. Each Keyword definition will only list the valid entries for the RC Form covered in each applicable section. Some Keywords may have additional valid entries related overall and may be found in the alphabetical Keyword Glossary (Div. 9, Sec. 1).

RC Form 700

General

Form 700 is a Recent Change (RC) message used to change the equipage state of 4 ESS™-2000 Switch equipment for growth purposes. This message is normally associated with special growth procedures for adding new equipment.

An alphabetical keyword list is included in this section on page 9.

Continued on next page

RC Form 700, Continued

General
(cont'd)

```
#FORM 700    GROW UNIT TYPE EQUIPAGE BITS

     RC:UTYPE;CHG;OPT(EQP,GROW),TST:                              UTYN -----,

     ORNU ------,

                          OLD   NEW
     MEMN ---,        ME (----, ----),

                           OLD  NEW
     SUBMEM --------, SME (----,----),

     REMARKS ------------------------------------------------!

                       EQUIVALENT ODA INPUT FORM - NONE

                           ASSOCIATED VERIFY MESSAGE

          INPUT-17a-VER:UTYPE;INA:-------- ---,ME/SME ---/ENTRY!(EOT)

               OUTPUT-7a/7b/7c-VER:UTMN;OPT(ME/SME/ENTRY),_ _ _:

                 OUTPUT (EXPANSION)-7d-VER:UTMN;OPT(MISC),CUR:
```


LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Form Entries

RC:UTYPE;CHG;OPT(EQP,GROW),TST:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

UTYN

This field specifies the type of equipment whose growth is to be defined. The following acronyms may be entered.

DIF	-	Digital Interface Frame
DT	-	Digroup Terminal
DUS	-	Data Unit Selector
EST	-	Digital Echo Suppressor Terminal
FS	-	File Store
GRID	-	Alarm Grid
MFS	-	Multifrequency Signaling Frame
PUBB	-	Peripheral Unit Bus Branching Frame
SCS	-	Service Circuit System
SP	-	Signal Processor
TAC	-	Terminal Access Circuit
TGR	-	CCIS Terminal Group
TMS	-	Time Multiplex Switching Frame
TMSP	-	Time Multiplex Switch Pair
TPOS	-	Test Position
TSI	-	Time Slot Interchange
TUC	-	Tape Unit Controller
VIF	-	Voiceband Interface Frame
XTSI	-	eXpanded TSI

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

MEMN Member Number - The MEMN field specifies the member number of a particular unit. The range of entries for each unit is as follows:

UTYN	MEMN	
DIF	2 - 31	
DT	0 - 127	
DUS	0 - 3	
EST	0 - 31	
FS	0 - 3	
GRID	1 - 15	
MAS	0 - 7	
MFS	0 - 31	
PUBB	0	
PUC	0 - 7	
SCS	0 - 7	
SP	0 - 31	
TAC	0 - 15	
TGR	0 - 15	
TMS	0 - 3	
TMSP	0 - 3	
TPOS	0 - 99	
TSI	0 - 63	SEE NOTE
TUC	0 - 31	
VIF	0 - 127	
XTSI	0 - 63	SEE NOTE

NOTE: Only the even member will be allowed in the MEMN field for a cost reduced or eXpanded Time Slot Interchange (TSI) if no sub-memn is specified. Both are allowed if sub-memn is specified although only even member number should be used for eXpanded TSI.

Continued on next page

Form Entries, Continued

ME

Member Equipage - This field indicates the equipage state for the unit. Valid entries are:

- **UNEQ** - Unequipped
- **GROW** - First stage of growth
- **SGRO** - Special growth
- **OPER** - Operational

The states must be activated in succession. For example, if a frame is unequipped (UNEQ), the next state must be GROW; then SGRO and finally OPER. When removing the unit from service, the order must be reversed. An exception to sequential growth exists for Toll Terminal Frames. Equipage for all Toll Terminal Frames (TTF) changes will be done in one step. Entries will be (OLD) UNEQ, (NEW) OPER. This field is completed only when changing Member Equipage. It must be left blank when changing Sub-Member Equipage.

Continued on next page

Form Entries, Continued

SUBMEM

Sub-member - The SUBMEM field defines the Sub-Member Equipage. Each of the unit types has specific entries to identify individual subcategories. The numbers in parentheses indicate the valid range for that character(s). There may be no blanks or spaces embedded in the entry. For example, the Sub-Member entries for TSIF are:

TOPRTEQ0,	TOPRTEQ1,	TOPRTEQ2,
TOPRTEQ3,	TOPRTEQ4,	TOPRTEQ5,
TOPRTEQ6,	T1PRTEQ0,	T1PRTEQ1,
T1PRTEQ2,	T1PRTEQ3,	T1PRTEQ4,
T1PRTEQ5,	T1PRTEQ6.	

This field is completed only when changing Sub-Member Equipage. It must be left blank when changing Member Equipage.

UTYN	VALID SUBMEN ENTRIES
DIF	DIUEQ (0-31), DIUSPQ (A&B)
DT	DTUEQ (0 - 7)
DUS	None
EST	ESEQ (0 - 14)
FS	FSEQSME (0 - 3)
GRID	None
MAS	MAUEQ (0 - 1)
MFS	None
PUBB	CKHEQ (0 - 7)
PUC	PUCUEQ (0 - 29)
SCS	SCUEQ (0 - 15)
SP	BFE, CFE, MDNBLK (0 or 1), MSNBLK (0 or 1) SP2EQ (0 - 3), TDNBLK (0 - 3), TSNBLK (0 - 3)
TAC	TMGRP (0 - 15)
TGR	TMGRP (0 - 15)
TMS	C (0 or 1) MBLK (0 - 3), C (0 or 1) GRWTH
TMSP	C (0 or 1) MBLK (0 - 3), C (0 or 1) GRWTH
TPOS	None
TSI	T (0 or 1) PRTEQ (0 - 6)
TUC	None
VIF	VIUEQ (0 - 6)
XTSI	XTSID3U (0-7, 6 & 7 are Spare)

Continued on next page

Form Entries, Continued

SME

Sub-Member Equipage - The SME field indicates the equipage state of the individual subcategories defined in the SUBMEM field. Valid entries are:

- **UNEQ** - Unequipped
- **GROW** - First stage of growth
- **SGRO** - Special growth
- **OPER** - Operational

The states must be activated in succession. For example, if the unit was previously unequipped (UNEQ), the next stage must be GROW. The GROW stage must be followed by SGRO and SGRO must be followed by OPER. When removing the unit from service, the order must be followed in reverse. This field is completed only when changing sub-member equipage.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ME	6
MEMN	5
ORNU	4
RC:UTYPE;CHG;OPT(EQP,DEGROW),TST:	3
SME	8
SUBMEM	7
UTYN	4

Form Entries, Continued

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RC Form 701

General

Form 701 is a Recent Change (RC) message used to change the equipage state of 4 ESS™-2000 Switch equipment. This message is used to reverse the growth process (DEGROW).

An alphabetical keyword list is included in this section on page 9.

Continued on next page

RC Form 701, Continued

General
(cont'd)

```
# FORM 701    DEGROW UNIT TYPE EQUIPAGE BITS

     RC:UTYPE;CHG;OPT(EQP,DEGROW),TST:                              UTYN -----,

     ORNU ------,

                          OLD   NEW
     MEMN ---,        ME (----,  ----),

                           OLD   NEW
     SUBMEM --------, SME (----,  ----),

     REMARKS _____________________________________________________!

                        EQUIVALENT ODA INPUT FORM - NONE

                           ASSOCIATED VERIFY MESSAGE

         INPUT-17a-VER:UTYPE:--------  ---,ME/SME ---/ENTRY!(EOT)

             OUTPUT-7a/7b/7c-VER:UTMN;OPT(ME/SME/ENTRY),---:

              OUTPUT (EXPANSION)-7d-VER:UTMN;OPT(MISC),CUR:
```

Form Entries

RC:UTYPE;CHG;OPT(EQP,DEGROW),TST:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

UTYN This field specifies the type of equipment whose growth is to be defined. The following acronyms may be entered.

DIF	-	Digital Interface Frame
DT	-	Digroup Terminal
DUS	-	Data Unit Selector
EST	-	Digital Echo Suppressor Terminal
FS	-	File Store
GRID	-	Alarm Grid
MFS	-	Multifrequency Signaling Frame
PUBB	-	Peripheral Unit Bus Branching Frame
SCS	-	Service Circuit System
SP	-	Signal Processor
TAC	-	Terminal Access Circuit
TGR	-	CCIS Terminal Group
TMS	-	Time Multiplex Switching Frame
TMSP	-	Time Multiplex Switch Pair
TPOS	-	Test Position
TSI	-	Time Slot Interchange
TUC	-	Tape Unit Controller
VIF	-	Voiceband Interface Frame
XTSI	-	eXpanded TSI

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

MEMN Member Number - The MEMN field specifies the member number of a particular unit. The range of entries for each unit is as follows:

UTYN	MEMN	
DIF	2 - 31	
DT	0 - 127	
DUS	0 - 3	
EST	0 - 31	
FS	0 - 3	
GRID	1 - 15	
MAS	0 - 7	
MFS	0 - 31	
PUBB	0	
PUC	0 - 7	
SCS	0 - 7	
SP	0 - 31	
TAC	0 - 15	
TGR	0 - 15	
TMS	0 - 3	
TMSP	0 - 3	
TPOS	0 - 99	
TSI	0 - 63	SEE NOTE
TUC	0 - 31	
VIF	0 - 127	
XTSI	0 - 63	SEE NOTE

NOTE: Only the even member will be allowed in the MEMN field for a cost reduced or eXpanded Time Slot Interchange (TSI) if no sub-memn is specified. Both are allowed if sub-memn is specified although only even member number should be used for eXpanded TSI.

Continued on next page

Form Entries, Continued

ME Member Equipage - This field indicates the equipage state for the unit. Valid entries are:

- **UNEQ** - Unequipped
- **GROW** - First stage of growth
- **SGRO** - Special growth
- **OPER** - Operational

The states must be activated in succession. For example, if a frame is unequipped (UNEQ), the next state must be GROW; then SGRO and finally OPER. When removing the unit from service, the order must be reversed. An exception to sequential growth exists for Toll Terminal Frames. Equipage for all Toll Terminal Frames (TTF) changes will be done in one step. Entries will be (OLD) UNEQ, (NEW) OPER. This field is completed only when changing Member Equipage. It must be left blank when changing Sub-Member Equipage

Continued on next page

Form Entries, Continued

SUBMEM

Sub member - The SUBMEM field defines the Sub-Member Equipage. Each of the unit types has specific entries to identify individual subcategories. The numbers in parentheses indicate the valid range for that character(s). There may be no blanks or spaces embedded in the entry. For example, the Sub-Member entries for TSIF are:

TOPRTEQ0,	TOPRTEQ1,	TOPRTEQ2,
TOPRTEQ3,	TOPRTEQ4,	TOPRTEQ5,
TOPRTEQ6,	T1PRTEQ0,	T1PRTEQ1,
T1PRTEQ2,	T1PRTEQ3,	T1PRTEQ4,
T1PRTEQ5,	T1PRTEQ6.	

This field is completed only when changing Sub-Member Equipage. It must be left blank when changing Member Equipage.

UTYN	VALID SUBMEN ENTRIES
DIF	DIUEQ (0-31), DIUSPQ (A&B)
DT	DTUEQ (0 - 7)
DUS	None
EST	ESEQ (0 - 14)
FS	FSEQSME (0 - 3)
GRID	None
MAS	MAUEQ (0 - 1)
MFS	None
PUBB	CKHEQ (0 - 7)
PUC	PUCUEQ (0 - 29)
SCS	SCUEQ (0 - 15)
SP	BFE, CFE, MDNBLK (0 or 1), MSNBLK (0 or 1) SP2EQ (0 - 3), TDNBLK (0 - 3), TSNBLK (0 - 3)
TAC	TMGRP (0 - 15)
TGR	TMGRP (0 - 15)
TMS	C (0 or 1) MBLK (0 - 3), C (0 or 1) GRWTH
TMSP	C (0 or 1) MBLK (0 - 3), C (0 or 1) GRWTH
TPOS	None
TSI	T (0 or 1) PRTEQ (0 - 6)
TUC	None
VIF	VIUEQ (0 - 6)
XTSI	XTSID3U (0-7, 6 & 7 are Spare)

Continued on next page

Form Entries, Continued

SME

Sub-Member Equipage - The SME field indicates the equipage state of the individual subcategories defined in the SUBMEM field. Valid entries are:

- **UNEQ** - Unequipped
- **GROW** - First stage of growth
- **SGRO** - Special growth
- **OPER** - Operational

The states must be activated in succession. For example, if the unit was previously unequipped (UNEQ), the next stage must be GROW. The GROW stage must be followed by SGRO and SGRO must be followed by OPER. When removing the unit from service, the order must be followed in reverse. This field is completed only when changing Sub-Member Equipage.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ME	6
MEMN	5
ORNU	4
RC:UTYPE;CHG;OPT(EQP,DEGROW),TST:	3
SME	8
SUBMEM	7
UTYN	4

Continued on next page

Form Entries, Continued

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Use pursuant to Company Instructions

RC Form 702

General

Form 702 provides the capability to change the functional capability of the SM9 and SM10 based Digital Interface Unit (DIU). These DIUs can take on multiple functions based on the Type of Digital Interface Unit (TDIU) value of the DIU in the Digital Interface Frame (DIF) unit type.

"Type Hardware - Table 50" lists possible combinations for Type of Hardware (THW), THW5, and Type of Digroup (TDG) DIGROUP1 through DIGROUP5 for generics 4E21 and later.

Note that SM9 values cannot be changed to SM10 and SM10 values cannot be changed to SM9 by this form.

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Form 702, Continued

General
(cont'd)

```
# FORM 702  CHANGE DIU FUNCTION CAPABILITY
       4E21>

     RC:UTYPE;CHG;OPT(DIU),TST:

     ORNU ______,

     DIF MEMN __,        DIU MEMN __,

                         DIGROUP1 DIGROUP2 DIGROUP3 DIGROUP4 DIGROUP5
     THW __, THW5 __,  TDG     __,      __,      __,      __,      __,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                        INPUT-17a-VER:UTYPE:DIF

                        OUTPUT-7b-VER:UTMN;OPT()
```

Form Entries

RC:UTYPE;CHG;OPT(DIU),TST:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

DIF MEMN

This field specifies the Digital Interface Frame (DIF) Member Number where the Digital Interface Unit (DIU) to be changed is located. Legal values are **"2-31"**.

DIU MEMN

This field specifies the Digital Interface Unit (DIU) Member Number within the Digital Interface Frame (DIF). Legal values are **"0-31"**.

THW

Type of Hardware. Valid entries are: **"Blank"**, **"1"** (SM1B), **"6"** (SM6), **"7"** (SM7), **"9"** (SM9), or **"10"** (SM10).

THW5

Type of Hardware for Digroup5. Valid entries are: **"Blank"**, **"1"** (SM1B), , **"9"** (SM9), or **"10"** (SM10).

TDG DIGROUP1 - DIGROUP5

Type of Digroup. Valid Entries are :

- "Blank"
- "1" for SF+ZCS (SM1B equivalent)
- "2" for SF+B8ZS (RB or 64CC as determined by TSG signaling char.)
- "3" for SF+ZCS (International CCITT5)
- "4" for ESF+B8ZS (International CCITT5)
- "5" for ESF+ZCS (64kb restricted)
- "6" for ESF+B8ZS (RB or 64CC as determined by TSG signaling char.)
- "7" for ESF+B8ZS (64CC only - not RB)
- "8" for ESF+B8ZS (64CC only, with PCC)

Continued on next page

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Form Entries, Continued

Table 50 **(4E21>)**

		TDG				
THW	**THW5**	**DIGROUP1**	**DIGROUP2**	**DIGROUP3**	**DIGROUP4**	**DIGROUP5**
1	blank	1	1	1	1	1
6	1	blank	blank	blank	blank	1
6	9	blank	blank	blank	blank	1,2,5,6,7
6	10	blank	blank	blank	blank	1,2,5,6,7,8
7	1	blank	blank	blank	blank	1
7	9	blank	blank	blank	blank	1,2,5,6,7
7	10	blank	blank	blank	blank	1,2,5,6,7,8
9	blank	3,4	3,4	3,4	3,4	3,4
9	blank	1,2,5,6,7	1,2,5,6,7	1,2,5,6,7	1,2,5,6,7	1,2,5,6,7
10	blank	3,4	3,4	3,4	3,4	3,4
10	blank	1,2,5,6,7,8	1,2,5,6,7,8	1,2,5,6,7,8	1,2,5,6,7,8	1,2,5,6,7,8

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
DIF MEMN	4
DIU MEMN	4
ORNU	3
RC:UTYPE;CHG;OPT(DIU),TST:	3
TDG DIGROUP1 - DIGROUP5	4
THW	4
THW5	4

RC Form 703

General

Form 703, available with 4E17 and later Generic Programs, is used as the subunit type source for the 4 ESS™-2000 Service Circuit System Unit Type Equipment.

Field that are left blank will leave the corresponding translations data unchanged.

An alphabetical keyword list is included in this section, starting on page 12.

Continued on next page

RC Form 703, Continued

General
(cont'd)

```
# FORM 703      CHANGE SCU ME AND SME DATA
       4E21 through 4E22 Release 3

     RC:UTYPE;CHG;OPT(SCU),TST:                SCS _, SCU __, DLAN _,

     ORNU ______,

     SVCT _,  SCUFV _,  LANADDR ___,  MON _,  ASRAPP _,  NCDSU _,

     MAS FH AIN _,  CDSU HV _,  CDSU UL _,  CDSU NUM __,

     CDSC GRID __,  CDSC FLOOR __,  CDSC LINE NUM ___,  CDSC FRAME NUM __,
     CDSC GLF _________,

      MSBEQ     MIPEQ     MSBFV     MIPFV      DSKEQ      DSKC
     0 1 2 3    0 1     0 1 2 3     0 1      0 1 2 3    0 1 2 3
     _,_,_,_,    _,_,    _,_,_,_,    _,_,     _,_,_,_,   _,_,_,_,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 407P

                       ASSOCIATED VERIFY MESSAGES

                        INPUT-17a-VER:UTYPE:SCS

                       OUTPUT-7a-VER:UTMN;OPT(ME)
                       OUTPUT-7b-VER:UTMN;OPT(SME)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 703, Continued

General
(cont'd)

```
# FORM 703      CHANGE SCU ME AND SME DATA
       4E22 Release 4>

     RC:UTYPE;CHG;OPT(SCU),TST:                SCS _, SCU __, DLAN _,

     ORNU ______,

     SVCT _,  SCUFV _,  LANADDR ___,  MON _,  ASRAPP _,  NCDSU _,
              SCUHV _,

     MAS FH AIN _,  CDSU HV _,  CDSU UL _,  CDSU NUM __,

     CDSC GRID __,  CDSC FLOOR __,  CDSC LINE NUM ___,  CDSC FRAME NUM __,
     CDSC GLF _________,

      MSBEQ     MIPEQ     MSBFV     MIPFV      DSKEQ      DSKC
     0 1 2 3    0 1     0 1 2 3     0 1      0 1 2 3    0 1 2 3
     _/_/_/_/    _/_/    _/_/_/_/    _/_/     _/_/_/_/   _/_/_/_/

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - ESS 407P

                         ASSOCIATED VERIFY MESSAGES

                          INPUT-17a-VER:UTYPE:SCS

                         OUTPUT-7a-VER:UTMN;OPT(ME)
                         OUTPUT-7b-VER:UTMN;OPT(SME)
```

Form Entries

RC:UTYPE;CHG;OPT(SCU),TST:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

SCS Service Circuit System - This field is used to specify the SCS member number. A maximum of eight SCS frames may be provisioned. Valid entries are **"0-7"**.

SCU Service Circuit Unit - This field is used to specify the SCU member number. Valid entries are **"0-15"**.

Continued on next page

Form Entries, Continued

DLAN	Duplexed Local Area Network Valid entries are **"Blank"**, **"Y"**, or **"No"**.
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
SVCT	Service Type - This field is used to specify the function for which the Service Circuit System (SCS) sub-unit is being used. Valid entries are **"0-7"**. An entry of **"0"** designates an Service Circuit Unit (SCU) with the Mass Announcement System (MAS)/final handling announcement set. An entry of **"1"** designates an SCU with Network Services Complex (NSCX) announcement set S. An entry of **"3"** designates an SCU with Advanced Intelligent Network (AIN) announcement set. An entry of **"4"** designates an SCU with announcement set B (music on hold). An entry of **"5"** designates an SCU with announcement set D. Entries **"2"**, **"6"**, and **"7"** are currently unused.
SCUFV	Service Circuit Unit Firmware Version - This field is used to specify which version of the firmware the SCU is equipped. Valid entries are **"Blank"** or **"0-3"**. The initial firmware version for the SCU, used for final handling and NSCX, has a value of zero.
LANADDR	Local Area Network (LAN) Address - A LAN exists between the Service Circuit Unit (SCU) and the Announcement Administration Processor (AAP) in order to update the announcements on the disks in the SCU. This field identifies the LAN address. Valid entries are **"Blank"** or an address which should be equivalent to: [(Service Circuit System {SCS} number) x 16] + (SCU number). This address must be populated in 4E17 and later generics to ensure SCU Utility capabilities are functional.

Continued on next page

Form Entries, Continued

MON Not Applicable - Entries: **"Blank"**

ASRAPP Automatic Speech Recognition Application - Entries: **"Blank"** or **"0-7"**. The current ASRAPP definitions are:

- **0** - No Automatic Speech Recognition Application
- **1** - ASR Application Type 1 which has the ability to capture isolated or connected digits, keywords and TDD.

See also NCDSU for interactions between ASRAPP and Number of Customer Data Service Units Installed (NCDSU).

Continued on next page

Form Entries, Continued

NCDSU

Number of Customer Data Service Units (CDSUs) Installed - Entries: **"Blank"**, **"0"** to remove (no CDSUs), or **"1-5"** (**"1-2"** when CDSU Hardware Version [HV]is 2).

When Automatic Speech Recognition Application (ASRAPP) is 1-7 the NCDSU field is used to input the number of CDSU connected to the Service Circuit Unit (SCU). When ASRAPP is 1-7 and CDSU HV is 0 or 1, this field will correspond to the number of Digroups (a Digroup is 24 consecutive trunks) on the SCU with Automatic Speech Recognition (ASR) hardware present. There are 5 Digroups on an SCU and NCDSU input is used to determine how many consecutive Digroups (starting with the first Digroup) are to have the ASR capability. The remainder of the Digroups can be assigned to Trunk Subgroups (TSGs) corresponding to ASR application of 0 (no ASR capabilities).

When ASRAPP is 1-7, CDSU HV is 2, and NCDSU is 1, this will provision the first 2 consecutive Digroups (a Digroup is 24 consecutive trunks) on the SCU to have Automatic Speech Recognition (ASR) hardware present. The remainder of the Digroups can be assigned to TSGs corresponding to ASR application of 0 (no ASR capabilities).
When ASRAPP is 1-7, CDSU HV is 2, and NCDSU is 2, this will provision the all 5 Digroups (a Digroup is 24 consecutive trunks) on the SCU to have Automatic Speech Recognition (ASR) hardware present.

When ASRAPP is 0 and Mass Announcement System (MAS) Final Handling (FH) Advanced Intelligent Network (AIN) is **"Blank"** or **"N"**, the NCDSU filed must be 0. This combination indicates no ASR capabilities are available for this SCU and MAS FH AIN announcements are not combined on this SCU. Entering ASRAPP of 0 and NCDSU of 0 will delete ASR capabilities from this SCU.

When ASRAPP is **"Blank"**, the NCDSU and MAS FH AIN fields must be **"Blank"**.

When ASRAPP is 0 and MAS FH AIN is **"Y"**, the NCDSU field is used to tell how many consecutive Digroups (starting with the first Digroup) are to be used for Mass Announcement Systems/Final Handling announcements. The remainder of the Digroups can be assigned to AIN TSGs corresponding to an ASR application of 0.

Continued on next page

Form Entries, Continued

SCUHV

Service Circuit Unit Hardware Version (4E22R4>). This field is used to specify which version of the hardware the SCU is equipped. Valid entries are **"Blank"** or **"0-7"**. The initial hardware version for the SCU is 0.

- A value of 1 specifies an SCU with the TN9001 pack.
- A value of 2 specifies an SCU with the TN9002 pack.
- A value of 3 specifies an SCU with the TN9001 and TN9002 packs.

MAS FH AIN

Mass Announcement Systems (MAS), Final Handling (FH), and Advanced Intelligent Network (AIN) announcements all combines on one Service Circuit Unit (SCU). Valid entries are: **"Blank"**, **"Y"**, or **"N"**.

CDSU HV

Custom Data Service Unit Hardware Version (4E21>) - Valid entries are: **"Blank"**, **"0"** to remove (Hardware Version Undefined), **"1"** for CDSU Vintage version, **"2"** for CDSU Version 2.

CDSC UL

Customer Data Service Cabinet Upper/Lower Indicator for CDSC of HV of 2 (4E21>) - Valid entries are: **"Blank"**, **"U"** for upper half of CDSC, or **"L"** for lower half of the CDSC.

CDSC NUM

Customer Data Service Cabinet Number (4E21>) - Valid entries are: **"Blank"**, **"0-63"**.

CDSC GRID

Unit Type Member Number of the office GRID Alarm the Customer Data Service Cabinet is wired to (4E21>). Valid entries are: **"Blank"**, **"0"** to remove or **"1-15"**.

Continued on next page

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Form Entries, Continued

CDSC FLOOR	Custom Data Service Cabinet Floor Location (must correspond to an Office Alarm GRID) (4E21>) - Valid entries are: **"Blank"**, **"0-99"**.
CDSC LINE NUM	Custom Data Service Cabinet Line Number (4E21>) - Valid entries are: **"Blank"**, **"0-999"**.
CDSC FRAME NUM	Custom Data Service Cabinet Frame (or Bay) Number (4E21>) - Valid entries are: **"Blank"**, **"0-99"**.
CDSC GLF	Octal representation of the Custom Data Service Cabinet's GRID Unit Type Member Number, Line Number, and Frame/Bay Number. Valid entries are: **"Blank"** or eight octal digits.
MSBEQ0-3	Multiple Signal Processor Board (MSPB) Equipage - There is a maximum of six MSPBs per Service Circuit Unit (SCU) which may be used to detect Dual Tone Multifrequency (DTMF) tones and report the collected digits to the SCU processor. This field specifies the equipage status of the MSPBs. Valid entries are **"Blank"**, **"P"** for present/operational, **"S"** for special growth, **"G"** for growth, or **"F"** for future/unequipped.
MIPEQ0-1	Multifunctional Interface Processor Board Equipage is used to indicate installation of the Processor Board for the Service Circuit System Unit Type using RC Form 703. Valid entries are **"Blank"**, **"P"**, **"S"**, **"G"**, or **"F"**.
MSBFV0-3	Multiple Signal Processor Board (MSPB) Firmware Version - This field is used to specify the firmware version being used in each of the six possible MSPBs. Valid entries are **"Blank"** or **"0-3"**. The initial MSBFV firmware version has a value of zero.

Continued on next page

Form Entries, Continued

DSKEQ0-1 (4E22 Release)

For 4E22 Release 4 and later, there is a maximum of two disk pairs per Service Circuit Unit (SCU) which are used to store the announcements. Each disk is mirrored for reliability. This field specifies the equipage status for each of the disk pairs. Valid entries are **"Blank"**, **"P"** (present/operational), **"S"** (special growth), **"G"** (growth), or **"F"** (future/unequipped). Disk Pairs should be populated in order: 0, 1 (i.e., Disk Pair 1 cannot be populated if 0 = **"Blank"**).

DSKC0-3 (<4E22 Release 3) DSKC0-1 (4E22 Release 4>)

Disk Capacity - This field is used to specify the capacity for each of the disk pairs. Valid entries are **"Blank"** or **"0"** to **"3"**. A **"0"** specifies a .5 Gigabyte capacity, **"1"** specifies a 2 Gigabyte capacity, **"2"** specifies a 4 Gigabyte capacity, and **"3"** specifies a 9 Gigabyte capacity.

For 4E22 Release 3 and earlier, up to 4 Disk Pairs could be specified.
For 4E22 Release 4 and later, up to 2 Disk Pairs could be specified.

All four Disk Pairs should not be specified with a capacity of **"1"**. At least one pair should be specified with a **"0"** or left **"Blank"** (unequipped).

A disk capacity of **"2"** is only allowed in the 0 and 2 slot. If a **"2"** is specified in the 0 or 2 slot, then the DSKC(i+1) slot in translations will automatically be populated with a **"2"**. Therefore, the following checks are applied when DSKC(0)=**"2"** or DSKC(2)=**"2"**.

1. If DSKC(0) is set to **"2"**, then DSKC(1) and DSKEQ(1) must be **"Blank"**.

2. If DSKC(0) is set to **"2"**, then DSKEQ(0) must be non-**"Blank"**. If the DSKC(0) is being changed from a **"2"** to another value, then both the DSKC(0) and DSKC(1) must be non-**"Blank"**.

Continued on next page

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Form Entries, Continued

DSKC0-3 (<4E22 Release 3)
DSKC0-1 (4E22 Release 4>)
(cont'd)

The following table shows the current valid disk configurations for 4E22 Release 4 and later:

ALLOWABLE DISK ARRANGEMENT for SCU 0 Only	
0/0	0/1
2	X
0	0
0	1
1	0
3	X
X = Must be unequipped	

PACK TYPE	CAPACITY
0	422 MB
1	2 GB
2	4 GB
3	9 GB

SCU PHYSICAL DISK ARRANGEMENT		
OCCP		
SCU 1		
SCCU 0		
SCU 0		
FANS		
X	X	HDU0B (not used)
0/0	0/1	HDU0A

Continued on next page

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Form Entries, Continued

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SVCT	5

Form Entries, Continued

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RC Form 704

General

Form 704, available with 4E21 and later Generic Programs, is used to equip a DS3 on an Expanded Time Slot Interchange (XTSI) frame/member number including all required DS1 data.

Field that are left blank will leave the corresponding translations data unchanged.

When **"E"** or **"S"** is entered for FRMFnn, the corresponding EQPnn must be entered as **"F"** by a previous Recent Change (RC) 704 form.

An alphabetical keyword list is included in this section on page 7.

Continued on next page

RC Form 704, Continued

General
(cont'd)

```
# FORM 704         DS3 UNIT TYPE EQUIPMENT DATA
       4E22-4E23

     RC:UTYPE;CHG;OPT(D3U),___:     XTSI MEMN __, D3UN _,

     ORNU ______,

     REM ALARM ___, MAX LBO ___, DS3 APPL ___,

                       DS1 INFO

     EQP01 _, FRMF01 _,            EQP02 _, FRMF02 _,
     EQP03 _, FRMF03 _,            EQP04 _, FRMF04 _,
     EQP05 _, FRMF05 _,            EQP06 _, FRMF06 _,
     EQP07 _, FRMF07 _,            EQP08 _, FRMF08 _,
     EQP09 _, FRMF09 _,            EQP10 _, FRMF10 _,
     EQP11 _, FRMF11 _,            EQP12 _, FRMF12 _,
     EQP13 _, FRMF13 _,            EQP14 _, FRMF14 _,
     EQP15 _, FRMF15 _,            EQP16 _, FRMF16 _,
     EQP17 _, FRMF17 _,            EQP18 _, FRMF18 _,
     EQP19 _, FRMF19 _,            EQP20 _, FRMF20 _,
     EQP21 _, FRMF21 _,            EQP22 _, FRMF22 _,
     EQP23 _, FRMF23 _,            EQP24 _, FRMF24 _,
     EQP25 _, FRMF25 _,            EQP26 _, FRMF26 _,
     EQP27 _, FRMF27 _,            EQP28 _, FRMF28 _,

     REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 407Z

                 ASSOCIATED VERIFY MESSAGES - 16ba and 7g
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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RC Form 704, Continued

General
(cont'd)

```
# FORM 704         DS3 UNIT TYPE EQUIPMENT DATA
       4E24>

     RC:UTYPE;CHG;OPT(D3U),___:     XTSI MEMN __, D3UN _,

     ORNU ______,

     REM ALARM ___, MAX LBO ___, DS3 APPL ___, INBAND D3U _,

                       DS1 INFO

     DS1 NUMBER   1, 2, 3, 4, 5, 6, 7, 8, 9,10,11,12,13,14,
     EQUIPAGE     _, _, _, _, _, _, _, _, _, _, _, _, _, _,
     FRAME FORMAT _, _, _, _, _, _, _, _, _, _, _, _, _, _,
     STATIC A/B   _, _, _, _, _, _, _, _, _, _, _, _, _, _,
     INBAND DS1   _, _, _, _, _, _, _, _, _, _, _, _, _, _,

     DS1 NUMBER  15,16,17,18,19,20,21,22,23,24,25,26,27,28,
     EQUIPAGE     _, _, _, _, _, _, _, _, _, _, _, _, _, _,
     FRAME FORMAT _, _, _, _, _, _, _, _, _, _, _, _, _, _,
     STATIC A/B   _, _, _, _, _, _, _, _, _, _, _, _, _, _,
     INBAND DS1   _, _, _, _, _, _, _, _, _, _, _, _, _, _,

     REMARKS ____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 407Z

                 ASSOCIATED VERIFY MESSAGES - 16ba and 7g
```

Form Entries

RC:UTYPE;CHG;OPT(D3U),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

XTSI MEMN

Time Slot Interchange (TSI) Member Number of an Expanded Time Slot Interchange (XTSI) (4E22>).
Valid entries are **"2-62"** - even numbers only.

Continued on next page

Form Entries, Continued

D3UN	D3U Number - This entry is used to identify the D3 Unit Number in Unit Type Recent Changes (RCs). Valid entries for the even numbered Time Slot Interchange Member Number (TSI MEMN) are **"0-2"**. Valid entries for the odd numbered TSI MEMN are **"3-5"**. For RC Form 705, the spare D3Us are also identified by entry **"6"** for the even numbered TSI MEMN and **"7"** for the odd numbered TSI MEMN.
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.
REM ALARM	Remote Alarm Indication. Entries are **"Blank"**, **"STD"** for Standard, **"INV"** for Inverted, or **"IGN"** for Ignore.
MAX LBO	Maximum Line Build Out for cable length. Valid entries are **"Blank"**, **"225"** (for 0-255), or **"450"** (for 255-450).
DS3 APPL	DS3 Application is used to specify the appropriate application when equipping a DS3 to an Expanded Time Slot Interchange (XTSI) frame/member. Valid entries are **"Blank"**, **"CBP"**, **or "M23"**.
INBAND D3U	In-band signaling state enabled for the D3U. This is used on the RC Form 704 to equip a DS3 on an Expanded Time Slot Interchange (XTSI) frame/member number. Valid entries are **"Blank"**, **"N"** for In-band disabled, and **"Y"** for In-band enabled.
EQP01 through EQP28	Equipage for the 1st through the 28th DS1 for this D3U (<4E23). Entries are **"Blank"**, **"F"** for Future or **"P"** for present/provisioned.

Continued on next page

Form Entries, Continued

FRMF01 through FRMF28	Equipage for the 1st through the 28th DS1 for this D3U (<4E23). Entries are **"Blank"**, **"E"** for Extended Superframe or **"S"** for Superframe.
DS1	DS1 Number is used to change any or all of the related configuration information assignments to one or a multiple amount of DS1 digroups in a D3U of an Expanded Time Slot Interchange (XTSI) frame. The RC 707 Form can change one (1) DS1 per update. The RC 704 Form can change multiple DS1s per update. The numbers **"1-28"**, either pre-printed or free field entry, specify the DS1 to be changed.
EQUIPAGE	Equipage for the 1st through the 28th DS1 for this D3U (4E24>). Entries are **"Blank"**, "**F**" for Future or **"P"** for present/provisioned.
FRAME FORMAT	Frame Format for the 1st through the 28th DS1 for this D3U (4E24>). Entries are **"Blank"**, **"E"** for Extended Superframe or **"S"** for Superframe.
STATIC A/B	Static A/B enabled for this DS1 (4E24>). Entries are **"Blank"**, **"Y"** for Static A/B -56R or **"N"** for 64 clear channel.
INBAND DS1	In-band signaling state enabled for the DS1. This is used on the RC Form 704 to equip a DS1 on an Expanded Time Slot Interchange (XTSI) frame/member number. It is also used on the RC Form 707 to change the static A/B signaling bit configuration for an XTSI DS1. Valid entries are **"N"** for In-band disabled and **"Y"** for In-band enabled.

Continued on next page

Form Entries, Continued

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EQUIPAGE	6
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Continued on next page

Form Entries, Continued

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RC Form 705

General

Form 705, available with 4E21 and later Generic Programs, is used to set the software versions for a D3U on an Expanded Time Slot Interchange (XTSI) frame/member number.

For 4E22 and later Generic Programs, this form is also used to set the Signal Processing Unit (SPU) Software Version, SPU Hardware Version, SPU Equipage, XTSI Controller Software Version, XTSI Controller Hardware Version, and D3U Hardware Version.

Fields that are left blank will leave the corresponding translations data unchanged.

An alphabetical keyword list is included in this section on page 8.

Continued on next page

RC Form 705, Continued

General
(cont'd)

```
# FORM 705         SUB-UNIT XTSI TYPE DATA
       4E22-4E23

     RC:UTYPE;CHG;OPT(SUXTSI),___:     XTSI MEMN __,

     ORNU ______,

     XTCN   0,1
     XTCHV  _,_
     XTCSV  _,_

     D3UN   0 1 2 3 4 5   6 7
     D3UEQ  _,_,_,_,_,_,  _,_,
     D3UHV  _,_,_,_,_,_,  _,_,
     D3USV  _,_,_,_,_,_,  _,_,

     SPUN   0 1 2 3 4 5 6 7 8 9   10 11
     SPUEQ  _,_,_,_,_,_,_,_,_,_,  _, _,
     SPUHV  _,_,_,_,_,_,_,_,_,_,  _, _,
     SPUSV  _,_,_,_,_,_,_,_,_,_,  _, _,

     REMARKS ____________________________________________________!

                 ASSOCIATED VERIFY MESSAGES - 16ba and 7h
```

Continued on next page

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RC Form 705, Continued

General
(cont'd)

```
# FORM 705         SUB-UNIT XTSI TYPE DATA
  4E24>

RC:UTYPE;CHG;OPT(SUXTSI),___:     XTSI MEMN __,

ORNU ______,

XTCN   0,1
XTCHV  _,_
XTCSV  _,_

           CSP,PUBI,GRAM,CIA,ALF,EXEC,
XTC0 PACKS   _,   _,   _,  _,  _,   _,
XTC1 PACKS   _,   _,   _,  _,  _,   _,

XTSI FRAME INBAND ENABLED _,

IBUEQ _,
IBUHV _,
IBUSV _,

D3UN   0 1 2 3 4 5   6 7
D3UEQ  _,_,_,_,_,_,  _,_,
D3UHV  _,_,_,_,_,_,  _,_,
D3USV  _,_,_,_,_,_,  _,_,

SPUN   0 1 2 3 4 5 6 7 8 9   10 11
SPUEQ  _,_,_,_,_,_,_,_,_,_,  _, _,
SPUHV  _,_,_,_,_,_,_,_,_,_,  _, _,
SPUSV  _,_,_,_,_,_,_,_,_,_,  _, _,

REMARKS _____________________________________________________!

            ASSOCIATED VERIFY MESSAGES - 16ba and 7h
```

Form Entries

RC:UTYPE;CHG;OPT(SUXTSI),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

XTSI MEMN Time Slot Interchange (TSI) Member Number of an Expanded Time Slot Interchange (XTSI) (4E22>). Valid entries are **"2-62"** - even numbers only.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

XTCN Expanded Time Slot Interchange (XTSI) Controller Number (4E22>) - Entries are pre-printed with **"0-1"**.

XTCHV Expanded Time Slot Interchange (XTSI) Controller Hardware Version (4E22>) - Entries are **"Blank"**, or **"0-7"**.

XTCSV Expanded Time Slot Interchange (XTSI) Controller Software Version (4E22>) - Entries are **"Blank"**, or **"0-7"**.

CSP Controller Signal Processor - Hardware version of the CSP pack for Expanded Time Slot Interchange (XTSI) Controller 0 or 1 (4E24>) - Entries are **"Blank"**, **"0"** (for no CSP pack present), or **"1"** (for initial 4WB9 CSP pack - needed for in-band).

PUBI Peripherial Unit Bus Interface - Hardware version of the PUBI pack for Expanded Time Slot Interchange (XTSI) Controller 0 or 1 (4E24>) - Entries are **"Blank"**, **"0"** (for initial KBN16 PUBI pack), or **"1"** (for KBN23 PUBI pack - needed for in-band).

- If PUBI is **"Blank"**, EXEC must be **"Blank"**.
- If PUBI is **"0"**, EXEC must be **"0"**.
- If PUBI is **"1"**, EXEC must be **"1"**.

GRAM Global Random Access Memory - Hardware version of the GRAM pack for Expanded Time Slot Interchange (XTSI) Controller 0 or 1 (4E24>) - Entries are **"Blank"** or**"0"** (for initial UN557 GRAM pack).

CIA Control Bus and Image Administrator - Hardware version of the CIA pack for Expanded Time Slot Interchange (XTSI) Controller 0 or 1 (4E24>) - Entries are **"Blank"** or **"0"** (for initial UN547 CIA pack) and (4E24R2>) enter **"1"** (for UN650 CIA pack).

Continued on next page

Form Entries, Continued

ALF	A-Link Formatter - Hardware version of the ALF pack for Expanded Time Slot Interchange (XTSI) Controller 0 or 1 - This keyword is used on the Recent Change (RC) Form 705 to set the XTSI Controller Hardware versions. Valid entries are "**Blank**" or "**0**" (for the initial 4WB6 ALF pack).
EXEC	Executive Processor - Hardware version of the EXEC pack for Expanded Time Slot Interchange (XTSI) Controller 0 or 1 (4E24>) - Entries are "**Blank**" or "**0**"(for initial UN548 EXEC pack) or "**1**" (for UN549 EXEC pack - needed for in-band). • If PUBI is "**Blank**", EXEC must be "**Blank**". • If PUBI is "**0**", EXEC must be "**0**". • If PUBI is "**1**", EXEC must be "**1**".
XTSI FRAME INBAND ENABLED	Hardware generation for the Expanded Time Slot Interchange (XTSI) (4E24>) - Entries are "**Blank**", "**N**" (for XTSI without in-band signaling), or "**Y**" (for XTSI with in-band signaling enabled).
IBUEQ	In-Band Unit (IBU) Equipage (4E24>) - Entries are "**Blank**", "**U**" (Unequipped), "**G**" (Grow), "**S**" (Special Grow), or "**O**" (Operational).
IBUHV	In-Band Unit (IBU) Hardware Version. (4E24>) - Entries are "**Blank**" or "**0**" (initial hardware version).
IBUSV	In-Band Unit (IBU) Software Version. (4E24>) - Entries are "**Blank**" or "**0-7**".

Continued on next page

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Form Entries, Continued

D3UN	D3U Number - This entry is used to identify the D3 Unit Number in Unit Type Recent Changes (RCs). Valid entries for the even numbered Time Slot Interchange Member Number (TSI MEMN) are **"0-2"**. Valid entries for the odd numbered TSI MEMN are **"3-5"**. For RC Form 705, the spare D3Us are also identified by entry **"6"** for the even numbered TSI MEMN and **"7"** for the odd numbered TSI MEMN.
D3UEQ	D3 Unit Equipage is used for setting equipage status of a D3U on an Extended Time Slot Interchange (XTSI) frame/member number. Valid entries are: **"Blank"**, **"U"** for Unequipped, **"G"** for Grow, **"S"** for Special Grow, or **"O"** for Operational.
D3UHV	D3U Hardware Version identifies the hardware version of the D3U assigned to an Extended Time Slot Interchange (XTSI) frame. Valid entries are: **"Blank"**, **"0"** for Initial 4WB3 Version, and **"1"** for 4WB11 In-Band Capable Version.
D3USV	D3U Software Version is used to set the software version of each D3U assigned to an Extended Time Slot Interchange (XTSI) frame/member number. Valid entries are **"Blank"** or **"0-7"**.
SPUN	Not Applicable - Entries: **"Blank"**
SPUEQ	Not Applicable - Entries: **"Blank"**
SPUHV	Not Applicable - Entries: **"Blank"**
SPUSV	Not Applicable - Entries: **"Blank"**

Continued on next page

Form Entries, Continued

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RC Form 707

General

Form 707, available with 4E21 Release 4, 4E22 Release 2 and later Generic Programs, is used to change the Static A/B signaling bit configuration for an Expanded Time Slot Interchange (XTSI) DS1.

Beginning with 4E24 Release 1, this form is used to change all of the DS1-related configuration information, not just the Static A/B data.

Note: While this form is used to update DS1 configuration information for a single DS1 in a D3U, Recent Change (RC) Form 704 can be used to update information for multiple DS1s in a D3U.

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Form 707, Continued

General
(cont'd)

```
# FORM 707         XTSI DS1 STATIC A/B CONFIGURATION
       4E21-4E23

     RC:UTYPE;CHG;OPT(XTSIAB),___:      XTSI MEMN __, D3UN _, DS1 __,

     ORNU ______,    STATIC A/B _,

     REMARKS _____________________________________________________!

                 ASSOCIATED VERIFY MESSAGES - 16ba and 7g
```

Continued on next page

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RC Form 707, Continued

General
(cont'd)

```
# FORM 707         XTSI DS1 CONFIGURATION INFORMATION
  4E24>

RC:UTYPE;CHG;OPT(XTSIAB),___:      XTSI MEMN __, D3UN _, DS1 __,

ORNU ______,

EQUIPAGE     _,
FRAME FORMAT _,
STATIC A/B   _,
INBAND DS1   _,

REMARKS _____________________________________________________!

            ASSOCIATED VERIFY MESSAGES - 16ba and 7g
```

Form Entries

RC:UTYPE;CHG;OPT(XTSIAB),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

XTSI MEMN Time Slot Interchange (TSI) Member Number of an Expanded Time Slot Interchange (XTSI) (4E22>). Valid entries are **"2-62"** - even numbers only.

Continued on next page

Form Entries, Continued

D3UN

D3U Number - This entry is used to identify the D3 Unit Number in Unit Type Recent Changes (RCs). Valid entries for the even numbered Time Slot Interchange Member Number (TSI MEMN) are **"0-2"**. Valid entries for the odd numbered TSI MEMN are **"3-5"**. For RC Form 705, the spare D3Us are also identified by entry **"6"** for the even numbered TSI MEMN and **"7"** for the odd numbered TSI MEMN.

DS1

DS1 Number is used to change any or all of the related configuration information assignments to one or a multiple amount of DS1
digroups in a D3U of an Expanded Time Slot Interchange (XTSI) frame. The RC 707 Form can change one (1) DS1 per update. The RC 704 Form can change multiple DS1s per update. The numbers **"1-28"**, either pre-printed or free field entry, specify the DS1 to be changed.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

EQUIPAGE

Equipage for the 1st through the 28th DS1 for this D3U (4E24>). Entries are **"Blank"**, "**F**" for Future, or **"P"** for present/provisioned.

.

FRAME FORMAT

Frame Format for the 1st through the 28th DS1 for this D3U (4E24>). Entries are **"Blank"**, **"E"** for Extended Superframe, or **"S"** for Superframe.

STATIC A/B

Static A/B enabled for this DS1 (4E24>). Entries are **"Blank"**, **"Y"** for Static A/B -56R or **"N"** for 64 clear channel.

INBAND DS1

In-band signaling state enabled for the DS1. This is used on the Recent Change (RC) Form 704 to equip a DS1 on an Expanded Time Slot Interchange (XTSI) frame/member number. It is also used on the RC Form 707 to change the static A/B signaling bit configuration for an XTSI DS1. Valid entries are **"N"** for In-band disabled and **"Y"** for In-band enabled.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
D3UN	5
DS1	5
EQUIPAGE	5
FRAME FORMAT	5
INBAND DS1	5
ORNU	5
RC:UTYPE;CHG;OPT(XTSIAB),___:	4
STATIC A/B	5
XTSI MEMN	4

RC Form 708

General

Form #708, available with 4E24 and later Generic Programs, is used to set Expanded Time Slot Interchange (XTSI) In-Band Unit (IBU) configuration data.

Fields that are left blank will leave the corresponding translations data unchanged.

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 708, Continued

General
(cont'd)

```
# FORM 708          IBU SUB-UNIT XTSI TYPE DATA
       4E24>

     RC:UTYPE;CHG;OPT(XTSIIBU),___:     XTSI MEMN __,

     ORNU _______,

     TANS RESERVED _,

     MF OR DTMF _____,

     XCVR CONFIG  ______,

     REMARKS ____________________________________________________!

                ASSOCIATED VERIFY MESSAGES - 16ba and 7m
```

Form Entries

RC:UTYPE;CHG;OPT(XTSIAB),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

XTSI MEMN Time Slot Interchange (TSI) Member Number of an Expanded Time Slot Interchange (XTSI) (4E22>). Valid entries are **"2-62"** - even numbers only.

Continued on next page

Form Entries, Continued

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

TANS RESERVED

Indicates whether the Trunk Appearance Numbers (TANs) associated with the In-Band Unit (IBU) should be reserved. Entries are **"Blank**, **"N"**, or **"Y"**.

MF OR DTMF

Multifrequency or Dual Tone Multifrequency - Type of signaling (receivers/ transmitters) supported by the In-Band Unit (IBU). Entries are **"Blank"**, **"MF"**, or **"DTMF"**.

XCVR CONFIG

Transceiver Configuration - Type of miscellaneous service circuits the In-Band Unit (IBU) supports. There are two possible types:

- 16 Continuity Check Transceivers (CCT), or
- 12 CCTs plus 4 miscellaneous service circuits (i.e., digital Milliwatt, digital Milliwatt-10, Common Systems Tone Detector, and CCT test).

Entries are **"Blank"**, **"CCT"** (for 16 CCTs), or **"MISC"** (for 12 CCTs and miscellaneous circuits).

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
MF OR DTMF	4
ORNU	4
RC:UTYPE;CHG;OPT(XTSIAB),___:	3
TANS RESERVED	4
XCVR CONFIG	4
XTSI MEMN	3

Form Entries, Continued

This page is intentionally left blank.

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Special Table Of Contents

SECTION	RC#
8a	800 - Absolute Word Change
8b	801 - Functional Translator Change
8c	802 - Change Building Subdivisions in Existing CIN
8i	808 - Set Up Synonymous DPCS for Rehoming a 4ESS Switch to a Different STP
8j	809 - Change Feature Bits
8k	810 - Change Miscellaneous Feature Information
8l	811 - Change Feature Field
8m	812 - Enhanced Absolute Word Change

Continued on next page

Special Table Of Contents, Continued

General

This information applies to all sections within this division:

1. The characters > and < are used to indicate which Generic Programs will apply.

   Examples:

   - 4E22> indicates 4E22 and later Generic Programs.
   - <4E22 indicate 4E22 and earlier Generic Programs.
   - 4E22 indicates the 4E22 Generic Program only.
   - >4E22 indicates all Generic Programs up to, but not including, 4E22.

2. Following the general section is a copy of the applicable Recent Change (RC) Form/s. Where there is more than one Generic published, the forms will be filed in ascending order by Generic.

3. The Keyword field names of the form entries in each section are listed in order of appearance on the latest Generic Recent Change Form. (Keywords deleted from the latest form issue will still remain in the form order of the last RC Form that it appeared until finally deleted).

4. The alphabetical "Keyword Index" of the field names is located at the end of each Recent Change Section, following the text, and any tables and/or graphics that may apply.

5. Each Keyword definition will only list the valid entries for the RC Form covered in each applicable section. Some Keywords may have additional valid entries related overall and may be found in the alphabetical Keyword Glossary (Div. 9, Sec. 1).

RC Form 800

General

Recent Change (RC) Form 800 is used to change one or more bits (maximum 24) in a word at some absolute address. This form is classed as a Recent Change Data Message (RCDM).

Up to 24 bits in a word can be altered by this message. For example, a word may be made up of several groups of bits. Let A thru F represent the groups. A 24-bit word might look like CFFFFEEDDDDDDDDAAAAAAABB. The letters represent the bits where a given item appears. To change the entire word, a size of 24 with a displacement of zero would be used. This means, "change 24 bits beginning zero places from the right."

A single item may be changed with the remaining bits left untouched. As an example, to change item A in the preceding word, a size of seven with a displacement of two would be used. Items E and F could be changed by specifying a size of 6 with a displacement of 17.

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Form 800, Continued

General
(cont'd)

```
# FORM 800    ABSOLUTE WORD CHANGE

     RC:FUNC;CHG;OPT(ABSOLUTE),---:              FSONLY -, ADDRESS --------,

     ORNU ------,

     WORDNO ----,

     SIZE --,  DISP --,

     BINOCT -,

     NEWDATA ------------------------,

     OLDDATA ------------------------,

     REMARKS ------------------------------------------------!

                EQUIVALENT ODA INPUT FORM - NONE

                   ASSOCIATED VERIFY MESSAGE

                INPUT - 18a - VER:ABSOLUTE:ADR --------,CORE/DISK!(EOT)

                OUTPUT - 8a - VER:ABSOLUTE,OPT(CORE/DISK,---):
```

Form Entries

RC:FUNC;CHG;OPT(ABSOLUTE),- - -:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

FSONLY

Enter a **"Y"** for Yes in this field if the data to be changed resides only in file store. Enter an **"N"** for No in this field if the data to be changed resides in core, backed up by file store. It is not possible to change the file store copy of a word that resides in core with file store back up by specifying the file store address and setting FSONLY to **"Y"**. If this is attempted, an error message will be received.

Continued on next page

Form Entries, Continued

ADDRESS If the WORDNO field is left blank, then this field will contain the absolute address of the word to be changed. If the WORDNO field contains input data, then this field will specify the starting address of a translations entry. The address must be an octal number (to the base eight). Valid addresses range from **"0-33577777"** if FSONLY equals **"N"**. If FSONLY is equal to **"Y"** the addresses range from **"0-11607777"** for file store community 0 or **"20000000-31607777"** for file store community 1.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

WORDNO The decimal value specified will be internally added to the starting address of a translations entry specified in the ADDRESS field to yield the absolute address of the word to be changed. Valid entries may range from **"0-1023"** or this field may be left **"Blank"**.

SIZE The size field specifies the number of bits to be changed in the translation word. This number can range from **"1-24"** (decimal).

Continued on next page

Form Entries, Continued

DISP	Displacement - This field identifies the right most bit position of the data to be changed within the specified translation word. The displacement of the data refers to the number of places (bits) from the right. In this case, the data specified in the NEWDATA field will be inserted in the translation word at a point displaced from the right most bit as specified by this field (DISP). The size of the data (SIZE) plus the displacement of the data (DISP) cannot exceed 24 (Decimal). Valid entries range from **"0-23"** (Decimal).
BINOCT	Binary/Octal - This field indicates if the data fields (NEWDATA and OLDDATA) contain octal or binary information. Valid entries are **"B"** for binary or **"O"** for octal.
NEWDATA	This field contains the NEWDATA to be inserted into the translation word. The right most bit position in this field will replace the right most bit of the data to be changed as specified by the DISP field. This field may contain up to 24 binary bits or an octal number from **"0-77777777"**. The entry in this field may not exceed the number of bits to be changed as specified in the SIZE field.
OLDDATA	This field contains the current contents of the data in the translation word as specified by SIZE and DISP. The right most bit position of the data to be changed in this word will be replaced by the right most bit in the NEWDATA field. This field may contain up to 24 binary bits or an octal number from **"0-77777777"**. The entry in this field may not exceed the number of bits to be changed as specified in the SIZE field.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ADDRESS	4
BINOCT	5
DISP	5
FSONLY	3
NEWDATA	5
OLDDATA	5
ORNU	4
RC:FUNC;CHG;OPT(ABSOLUTE),- - -:	3
SIZE	4
WORDNO	4

RC Form 801

General

Recent Change (RC) Form 801 will be used to modify one word of data in the Miscellaneous Scanner Number (MSN), Miscellaneous Distributor Number (MDN) or Unit Type translator. This change is different from the absolute word change (Form 800) in that it identifies the word to be altered by its relative position in the translator rather than by the absolute address. This form is classed as a Recent Change Data Message (RCDM).

Up to 24 bits in a word can be altered by this message. For example, a word may be made up of several groups of bits. Let A thru F represent the groups. A 24-bit word might look like CFFFFEEDDDDDDDDAAAAAAA BB. The letters represent the bits where a given item appears. To change the entire word, a size of 24 with a displacement of zero would be used. This means, "change 24 bits beginning zero places from the right."

A single item may be changed with the remaining bits left untouched. As an example, to change item A in the preceding word, a size of seven with a displacement of two would be used. Items E and F could be changed by specifying a size of 6 with a displacement of 17.

An alphabetical keyword list is included in this section on page 7.

Continued on next page

RC Form 801, Continued

General
(cont'd)

```
# FORM 801    FUNCTIONAL TRANSLATOR CHANGE

     RC:FUNC;CHG;OPT(TRANS),---:                        TRANSID -------,

     ORNU ------,

     ENTRY -------, WORDNO ----,

     SIZE --,         DISP --,

     BINOCT -,

     NEWDATA ------------------------,

     OLDDATA ------------------------,

     REMARKS ----------------------------------------------------!

                           EQUIVALENT ODA INPUT FORM - NONE

                                        ASSOCIATED VERIFY MESSAGES

                           INPUT - 17a - VER:UTYPE;...ENTRY
                           OUTPUT - 7c - VER:UTYPE,OPT(ENTRY,---):

                                             MSN
                           INPUT - 16f - VER:MDN;...
                                             MSN
                           OUTPUT - 6i - VER:MDN;...
```


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Form Entries

RC:FUNC;CHG;OPT(TRANS),_ _ _:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

Continued on next page

Form Entries, Continued

TRANSID This variable length field identifies the translator in which the change is to occur. Valid entries are:

ADG	- Automatic Distribution Group
MSN	- Miscellaneous Scanner Number
MDN	- Miscellaneous Distributor Number
UT	- Unit Type

The Unit Type (UT) must be one of the following entries:

CCDS	- CCIS Data set Frame
CCT	- CCIS Transceiver
CS	- Call Store
DIF	- Digital Interface Frame
DT	- Digroup Terminal
DUS	- Data Unit Selector
EST	- Digital Echo Suppressor
FS	- File Store
IOUS	- Input/Output Unit Selector
MB	- Miscellaneous Frame B
MCF	- Miscellaneous Frame C
MFS	- Multifrequency Signaling
OA	- Office Dependent Alarm
PS	- Program Store
PUBB	- Peripheral Unit Bus Branching Frame
SCS	- Service Circuit System (4E17>)
SP	- Signal Processor
TGR	- CCIS Terminal Group
TMSP	- Time Multiplex Switching Port
TPOS	- Test Position
TSI	- Time Slot Interchange frame
TTFN	- Toll Terminal Frame (when N ranges from 0 to 7)
TUC	- Tape Unit Controller
VIF	- Voiceband Interface Frame
XTSI	- eXpanded Time Slot Interchange frame

Continued on next page

Form Entries, Continued

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

ENTRY

If the Miscellaneous Scanner Number (MSN) or Miscellaneous Distributor Number (MDN) translator is specified, the field will contain the Signal Processor (SP) **"0-31"**, Matrix **"0-1"**, Row **"0-63"** and Column **"0-15"**. All seven spaces must be completed in the following arrangement:

SP MML ROW COLUMN

If the Unit Type translator is specified, this field will contain a Member Number. The valid Member Number range for the different Unit Types are as follows:

ADG	- 0-3	PUC	- 0-7
CCDS	- 0-15	OA	- 0-127
CCT	- 0-19	PS	- 0-32
CS	- 0-63	SCS	- 0-7
DIF	- 2-31	SP	- 0-31
DT	- 0-127	TGR	- 0-15
DUS	- 0-3	TMS	- 0-3
FS	- 0-3	TP51A	- 0-99
IOUS	- 0-15	TPOS	- 0-99
MAS	- 0-7	TSI	- 0-63
MB	- 0-6	TTFO	- TTF7 - 0-127
MCF	- 0	TUC	- 0-31
MFS	- 0-31	VIF	- 0-127
PUBB	- 0	XTSI	- 2 - 63

Continued on next page

Form Entries, Continued

WORDNO	This decimal number identifies a word within a Unit Type entry. Enter a zero in this field when the Miscellaneous Scanner Number (MSN) or Miscellaneous Distributor Number (MDN) translator is specified. If no entry is made in this field it will default to zero.
SIZE	The size field specifies the number of bits to be changed in the translation word. This number can range from **"1-24"** (decimal).
DISP	Displacement - This field identifies the right most bit position of the data to be changed within the specified translation word. The displacement of the data refers to the number of places (bits) from the right. In this case, the data specified in the NEWDATA field will be inserted in the translation word at a point displaced from the right most bit as specified by this field (DISP). The size of the data (SIZE) plus the displacement of the data (DISP) cannot exceed 24 (Decimal). Valid entries range from **"0-23"** (Decimal).
BINOCT	Binary/Octal - This field indicates if the data fields (NEWDATA and OLDDATA) contain octal or binary information. Valid entries are **"B"** for binary or **"O"** for octal.
NEWDATA	This field contains the NEWDATA to be inserted into the translation word. The right most bit position in this field will replace the right most bit of the data to be changed as specified by the DISP field. This field may contain up to 24 binary bits or an octal number from **"0-77777777"**. The entry in this field may not exceed the number of bits to be changed as specified in the SIZE field.
OLDDATA	This field contains the current contents of the data in the translation word as specified by SIZE and DISP. The right most bit position of the data to be changed in this word will be replaced by the right most bit in the NEWDATA field. This field may contain up to 24 binary bits or an octal number from **"0-77777777"**. The entry in this field may not exceed the number of bits to be changed as specified in the SIZE field.

Continued on next page

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Form Entries, Continued

Keyword Index

KEYWORD	PAGE
BINOCT	6
DISP	6
ENTRY	5
NEWDATA	6
OLDDATA	6
ORNU	5
RC:FUNC;CHG;OPT(TRANS),_ _ _:	3
SIZE	6
TRANSID	4
WORDNO	6

Form Entries, Continued

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RC Form 802

General

Recent Change (RC) Form 802 is a dual purpose form. Its function depends on whether the TSGBTFN field is blank or not.

If the TSGBTFN field is blank, this form will be used to change the Far Building Subdivision (FBS) code and/or the building subdivision for the near end of the Trunk Group (NBS). No other Fields may be changed.

If the TSGBTFN field is not blank, this form can also be used to change the TOWN, ST, BL, FBS, and NBS, for a Trunk Subgroup (TSG) resulting in the renaming of or the moving of the TSG from one Trunk Group to another, different Trunk Group.

Restrictions for renaming/moving a TSG:

A. The TSG being renamed/moved cannot have an assigned Destination Point Code (DPC) (see DIV. 3, SEC. 1a-1c & 1h-1j.

B. The renaming/moving of TSGs is not allowed for non-message TSGs.

C. All trunks in the affected TSG must be in the Manually Disabled state.

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Form 802, Continued

General
(cont'd)

```
# FORM 802  CHANGE BUILDING SUBDIVISIONS IN EXISTING TRUNK GROUP CIN
                                    OR
                          RENAME/MOVE A TRUNK SUBGROUP
       4E18>

     RC:FUNC;CHG;OPT(TGNAME),___:

     ORNU ______,

                TOWN ST BL FBS NBS

     OLD TG     ____ __ __ ___ ___,              TSGBTFN ____,

     NEW TG     ____ __ __ ___ ___,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                           INPUT-11a-VER:TSG

           OUTPUT-1a/1b/1c-VER:TSG,OPT(TWOWAY/IN1WAY/OUT1WAY):
```


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Form Entries

RC:FUNC;CHG;OPT(TRANS),_ _ _:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

NEWTG

New Trunk Group - This series identifies the Trunk Group. The Town, State, Building and building subdivision for the distant end of the trunk, plus the Near end Building Subdivision, make up the Trunk Group designation. This Common Language Location identification (CLLI) code is used in the Long Lines Routing Guide. Rules for establishing these codes are covered in Lucent Practice 795-100-100.

- **TOWN** - Town is a four character alphabetic combination representing the town, city, or location of the terminating toll switch.
- **ST** - State is a two character alphabetic code for the state, province or foreign country of the terminating toll switch.
- **BL** - Building is either a two character alphabetic or numeric code to identify the terminating toll switch.
- **FBS** - Far Building Subdivision code is a three character alphanumeric combination for internal building identification.
- **NBS** - Near Building Subdivision code is a three character alphanumeric combination for internal building identification.

TOWN, ST, and BL must be equal to entry for the OLDTG (unless TSGBTFN is not blank).

Continued on next page

Form Entries, Continued

OLDTG

Old Trunk Group - This series identifies the Trunk Group. The Town, State, Building and Building Subdivision for the distant end of the trunk, plus the Near end Building Subdivision, make up the Trunk Group designation. This Common Language Location identification (CLLI) code is used in the Long Lines Routing Guide. Rules for establishing these codes are covered in Lucent Practice 795-100-100.

- **TOWN** - Town is a four character alphabetic combination representing the town, city, or location of the terminating toll switch.
- **ST** - State is a two character alphabetic code for the state, province or foreign country of the terminating toll switch.
- **BL** - Building is either a two character alphabetic or numeric code to identify the terminating toll switch.
- **FBS** - Far Building Subdivision code is a three character alphanumeric combination for internal building identification.
- **NBS** - Near Building Subdivision code is a three character alphanumeric combination for internal building identification.

TSGBTFN

Trunk Subgroup Base Traffic Number (4E15>)
Valid entries are **"Blank"** or **"0-9976"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
NEWTG	4
OLDTG	5
ORNU	3
RC:FUNC;CHG;OPT(TRANS),_ _ _:	3
TSGBTFN	5

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

RC Form 808

General

Recent Change (RC) Form 808, available with the 4E15 and later Generic Program, defines the two (Old & New) Destination Point Codes (DPCs) used when a 4ESS™ Switch is being rehomed to a different Signaling Transfer Point (STP).

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 808, Continued

General
(cont'd)

```
# FORM 808  SET UP SYNONYMOUS DPCS FOR REHOMING A 4ESS(TM) SWITCH
                          TO A DIFFERENT STP
       4E18>

     RC:FUNC;CHG;OPT(REHOME),___:

     ORNU _______,

                    NET CR CT MEM

     REHOME OLD DPC ___,__,_, ___,

     REHOME NEW DPC ___,__,_, ___,

     REMARKS _____________________________________________________!

                     EQUIVALENT ODA INPUT FORM - NONE

                    ASSOCIATED VERIFY MESSAGES - NONE
```

Form Entries

RC:FUNC;CHG;OPT(REHOME),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

REHOME NEW DPC

This is the (New) Destination Point Code to which a 4ESS Switch is being rehomed. See also DPC. Valid entries are:

- NET = **"Blank"** or **"000-255"**
- CLU = **"Blank"** or **"000-255"**
- MEM = **"Blank"** or **"000-255"**.

REHOME OLD DPC

This is the old Destination Point Code of a 4ESS Switch which is being rehomed. See also DPC. Valid entries are:

- NET = **"Blank"** or **"000-255"**
- CLU = **"Blank"** or **"000-255"**
- MEM = **"Blank"** or **"000-255"**.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ORNU	3
RC:FUNC;CHG;OPT(REHOME),___:	3
REHOME NEW DPC	4
REHOME OLD DPC	4

Form Entries, Continued

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RC Form 809

General

Recent Change (RC) Form 809, available with the 4E18 and later Generic Programs, is used to enable and disable feature bits which require special processing.

An alphabetical keyword list is included in this section on page 13.

Continued on next page

RC Form 809, Continued

General
(cont'd)

```
# FORM 809  CHANGE FEATURE BITS
       4E18>

     RC:FTR;CHG;OPT(BIT),___:

     ORNU _______,

     FEATURE ITEM ___________,           ON OR OFF ___,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                    OUTPUT - 8j VER:MISC;OPT(ONOFF)

                      INPUT - 16az VER:MISC ONOFF
```

Form Entries

RC:FTR;CHG;OPT(BIT),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

FEATURE ITEM

Feature Item (RC Form 809) - This names feature items to be turned on or off. Valid entries are:

- **AASE** - Announcement Administration System Equipment Office Parameter - This office parameter specifies if the AASE (either Administration Processor [AAP] or the Announcement Systems Manager [ASM]) is equipped or not equipped. If FEATURE ITEM is set to **"AASE"** and ON-OR-OFF is set to **"OFF"**, the AASE is set to NOT equipped. If ON-OR-OFF is set to **"ON"** the AASE is set to equipped.

- **AINON** - Advanced Intelligent Network ON-OR-OFF Switch

- **AINRDFLT** - AIN Route Using Default

- **ASM** - Service Circuit System (SCS) Update Type-Announcement Systems Manager (ASM)/Administration Processor (AAP) - FEATURE ITEM input **"ASM"** specifies the protocol to be used on the LAN for the SCS Update System Type. If FEATURE ITEM is set to **"ASM"** and ON or OFF is set to **"ON"**, then the ASM protocol will be used in Local Area Network (LAN) communications. If FEATURE ITEM is set to **"ASM"** and ON or OFF is set to **"OFF"**, then the AAP protocol will be used in LAN communications.

- **CPESR** - Call Prompter with Enhanced Speech Recognition

- **F1** - F1 is used to indicate the Network Access Interrupt (NAI) ON-OR-OFF indicator. To activate the Network Access Interrupt Feature, set FEATURE ITEM to **"F1"** and ON-OR-OFF to **"ON"**. To de-activate the Network Access Interrupt Feature, set FEATURE ITEM to **"F1"** and ON-OR-OFF to **"OFF"**. The default is **"OFF"**. Note: The Network Call Denial (NCD) Query feature bit must be turned off prior to activating the NAI feature bit; otherwise, Form 809 will not activate the NAI feature bit.

- **F2** - Spare Non-Proprietary Activation Bits reserved for future use

Continued on next page

Form Entries, Continued

FEATURE ITEM (cont'd)

- **F3** - ON-OR-OFF bit for Multiple 4ESS Switch Network Announcements. This bit is set to **"ON"** to provide cross service Final Handling Treatment (FHT) Announcements and service terminating announcements in different languages based on the location of the caller. If this bit is set to **"OFF"**, then the default office announcement group will be used in final handling in Service Circuit System (SCS) offices.

- **F4** - I800 Overseas 10D Global Title Translation (GTT) Feature bit. The I800 Overseas 10D GTT Feature is activated/deactivated by populating the FEATURE ITEM field with **"F4"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF field to **"ON"**. To deactivate the feature, set the ON-OR-OFF field to **"OFF"**. The feature is defaulted to **"OFF"**.

- **F5** - Spare Non-Proprietary Activation Bits reserved for future use

- **F6** - F6 is used to indicate the Information Transfer Capability (ITC) in the outgoing Initial Address Message (IAM): To encode the outgoing IAM, User Service Information (USI) parameter ITC field, 3.1kHz audio, set FEATURE ITEM to **"F6"** and ON-OR-OFF to **"ON"**. To encode the outgoing IAM, USI parameter ITC field, "speech", set FEATURE ITEM to **"F6"** and ON-OR-OFF to **"OFF"**. The default is **"OFF (speech)"**.

- **F7** - Provide Phase I Advanced Intelligent Network (AIN) default routing for Called Number Trigger (CNT) calls by populating the FEATURE ITEM field with **"F7"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To indicate that the office provides Phase I AIN default routing, set the ON-OR-OFF field to **"ON"**. To indicate that Phase I AIN default routing is not provided, set the ON-OR-OFF field to **"OFF"**. The default is **"OFF"**.

- **F8** - Spare Non-Proprietary Activation Bits reserved for future use

Continued on next page

Form Entries, Continued

FEATURE ITEM (cont'd)

- **F9** - The basic rather than improved processing of non-idle Q.931 trunks is activated/deactivated by populating the FEATURE ITEM field with **"F9"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF" field to **"ON"**. To deactivate the feature, set the ON-OR-OFF field to **"OFF"**. The feature is defaulted to **"OFF"**. When this feature is not active (OFF), the switch will perform the improved processing. This allows the Q.931 trunk hunt to rehunt when the initial hunt is to a non-idle trunk, and to final handle calls for which the switch receives a SETUP message that it believes to be an already stable call. When this feature is active (ON), the switch will perform basic processing rather than the above improved processing.

- **F10** - This item is used to transition performance monitoring from Digital Interface Frame (DIF) type of performance monitoring to Expanded Time Slot Interchange (XTSI) Release 2 type of performance monitoring for XTSI Trunks. Recent Change (RC) Form 664 is used to set the thresholds for XTSI Release 2 type of performance monitoring. The default setting is OFF and means performance monitoring transition to the XTSI version has not occurred. When F10 is set to **"ON"**, transitioning to XTSI Release 2 version of performance monitoring occurs. Once F10 is set to **"ON"**, it cannot be changed back to **"OFF"**.

- **F11** - The Terminating Bandwidth Screening is activated/deactivated by populating the FEATURE ITEM field with **"F11"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate Terminating Bandwidth Screening, set the ON-OR-OFF field to **"ON"** which causes the terminating 4ESS Switch to invoke bandwidth screening. To deactivate terminating bandwidth screening, set the ON-OR-OFF field to "OFF" in which case the terminating 4ESS Switch will not attempt to compare the bearer capability with the Outgoing Signaling Characteristic (OSC) of the terminating egress facility to make decisions about routing of the call. The default is **"OFF"**.

Continued on next page

Form Entries, Continued

FEATURE ITEM (cont'd)

- **F12** - Provisioning of this committed internal development (800 Toll Free Treatment for 888 & 877) is accomplished by populating the FEATURE ITEM with **"F12"** and setting the ON or OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON OR OFF field to **"ON"**. To deactivate the feature, set the ON OR OFF field to **"OFF"**. NOTE, setting this item to **"OFF"** will also cause the following *automatic-provisioning* to occur: F28 (LEC Service Switching Point-800 (SSP-800) Support for Service Access Codes (SACs) 866 through 822 feature (#571) (4E24R3>)), will be set to **"OFF"**.

- **F13** - The 15 Digit International Numbering Plan feature is activated/ deactivated by populating the FEATURE ITEM field with **"F13"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF field to **"ON"** which causes the Extended Bellcore Automatic Message Accounting [AMA] Format (EBAF) Module 164 to appear in Local Exchange Carrier (LEC) billing records when the terminating number is > 12 digits or when the originating number is > 10 digits. To deactivate the feature, set the ON-OR-OFF field to **"OFF"** in which case the EBAF Module 164 will not appear. The feature is defaulted to **"OFF"**.

Continued on next page

Form Entries, Continued

FEATURE ITEM (cont'd)

- **F14** - (4E23>) The Message Header Reduction for Attached Processor Interface (API) Capacity feature is activated/deactivated by populating the FEATURE ITEM field with **"F14"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF field to **"ON"**. This will remove the 6 words of unused header in all International Consultative Committee for international Telephone & Telegraph [CCITT7] Integrated Services Digital Network User Part (INUP) messages, CCITT7 Telephone User Part (TUP) messages and Transaction Capabilities Application Part (TCAP) Queries, the 8 words of unused header in all TCAP Responses, the 2 words of unused header in all Q.931 messages, and the 3 words of unused header in all Access Transport Parameter (ATP) messages sent through the API. This in turn will increase the effective throughput of the API. To deactivate the feature, set the ON-OR-OFF field to **"OFF"** in which case the removal of the unused words of the header for the above mentioned messages sent through the API will not occur. The feature is defaulted to **"OFF"**.

  (4E22>) The API Capacity Improvement feature is activated/deactivated by populating the FEATURE ITEM field with **"F14"** and setting the ON-OR-OFF field to either ON-OR-OFF. To activate the feature, set the ON-OR-OFF field to **"ON"**. This will remove the 8 words of unused header in all ISUP messages sent through the API. This in turn will Increase the effective throughput of the API. To deactivate the feature, set the ON-OR-OFF field to **"OFF"** in which case the removal of the 8 words of unused header in all ISUP messages sent through the API will not occur. The feature is defaulted to **"OFF"**.

Continued on next page

Form Entries, Continued

FEATURE ITEM (cont'd)

- **F15** - The CVU Echo-back Interface feature is activated/deactivated by populating the FEATURE ITEM field with **"F15"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF field to **"ON"**. To deactivate the feature, set the ON-OR-OFF field to **"OFF"**. The feature is defaulted to **"OFF"**.

- **F16** - To activate the Extend Address Complete Message (ACM) Timer for Common Channel Signaling 7 (CCS7) Feature, populate the FEATURE ITEM field with **"F16"** and set the ON-OR-OFF field to **"ON"**. To deactivate the Extend ACM Timer for CCS7 Feature, set the ON-OR-OFF field to **"OFF"**.

- **F17** - To activate the Network Access Interruption (NAI) for Direct Connect Calls Feature, populate the FEATURE ITEM field with **"F17"** and set the ON-OR-OFF field to **"ON"**. To deactivate the NAI for Direct Connect Calls Feature, set the ON-OR-OFF field to **"OFF"**.

- **F18** - (4E22R4>) To ignore Advanced Intelligent Network (AIN) Called Number Triggers on Location Routing Numbers (LRN) populate the FEATURE ITEM field F18 to **"ON"**. To process or act on AIN Called Number Triggers (CNTs) populate the FEATURE ITEM field F18 to **"OFF**". The default is **"OFF"**.

- **F19** - (4E23R3>) The Analyze Ported Number Generic Address Parameter (GAP) for Advanced Intelligent Network (AIN) Called Number Triggers (CNTs) feature (#515) is activated/deactivated by populating the FEATURE ITEM field with **"F19"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF field to **"ON"** (NOTE: this feature cannot be activated unless it has been purchased). To deactivate the feature, set the ON-OR-OFF field to **"OFF"**. The default is **"OFF"**.

Continued on next page

Form Entries, Continued

FEATURE ITEM (cont'd)

- **F20** - (4E23R3>) The Expanded Advanced Intelligent Network (AIN) Called Number Triggers(CNT) for the 10-Digit Domain option capability is activated/deactivated by populating the FEATURE ITEM field with F20 and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate this capability, set the ON-OR-OFF field to "ON" (NOTE: this capability can not be activated unless both the AIN 6-Digit CNT Expansion (#516) and the AIN Called Number Trigger Expansion (#442) features have been purchased). To deactivate this capability, set the ON-OR-OFF field to **"OFF"**. The default is **"OFF"**.

- **F21** - (4E22>) The Local Exchange Carrier (LEC) Local Number Portability (LNP)/Advanced Intelligent Network (AIN) Domain Option (#534) feature is activated/deactivated by populating the FEATURE ITEM field with **"F21"** and setting the ON-OR-OFF field to either **"ON"** or "OFF". To activate or enable the feature set the ON-OR-OFF field to **"ON".** To deactivate or disable this feature set the ON-OR-OFF field to **"OFF"**. The feature default is **"OFF"**. Note: this indicator is only applicable if AIN Feature 375 and LNP Feature 450 have been purchased.

- **F22** - (4E23R3>) The Local Exchange Carrier (LEC) Originating Local Number Portability (LNP) Module Automatic Message Accounting (AMA) Enhancements feature (#537) is activated/deactivated by populating the FEATURE ITEM field with **"F22"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF field to **"ON"** (NOTE: This feature cannot be activated unless it has been purchased.) To deactivate the feature, set the ON-OR-OFF field to **"OFF"**. The default is **"OFF"**.

Continued on next page

Form Entries, Continued

FEATURE ITEM (cont'd)

- **F23 -** (4E24R1>) The Tandem Flexible Automatic Number Identification (ANI)/II Digit Restriction Feature (#539) is activated/deactivated by populating the FEATURE ITEM field with **"F23"** and setting the ON OR OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON OR OFF field to **"ON"**.

  NOTE: This feature cannot be activated unless:

  - the feature has been purchased
  - all possible II digits have a valid II default type provisioned via Recent Change (RC) Form 349
  - all possible Originating Line Information (OLI) values have a valid OLI default type provisioned via RC 350.

To deactivate the feature, set the ON OR OFF field to **"OFF"**. The default is **"OFF"**.

- **F24** - (4E24R1>) The Connecting Network Access Record (CNAR) Trunk Subgroup (TSG) Billing Number Option (#547) Feature is activated/ deactivated by populating the FEATURE ITEM field with **"F24"** and setting the ON OR OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON OR OFF field to **"ON"**. To deactivate the feature, set the ON OR OFF field to **"OFF"**. The default is **"OFF"**.

- **F25 -** (4E24R3>) LEC Non-GETS Initial Address Message/Circuit Reservation Message (IAM/CRM) priority setting indicator feature (#555)

- **F26** - (4E24R3>) The LEC Flexible Automatic Number Identification/ Information Identifying Digits (ANI/II) 800 to Plain Old Telephone Service (POTS) feature (#567) is activated/deactived by populating the FEATURE ITEM field with F26 and setting the ON OR OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON OR OFF field to **"ON"**. To deactivate the feature, set the ON OR OFF field to **"OFF"**. The default is **"OFF"**.

  NOTE: This feature cannot be activated unless this feature has been purchased.

Continued on next page

Form Entries, Continued

FEATURE ITEM (cont'd)

- **F27** - (4E24R3>) The AIN 3-Digit Number Trigger Criteria Type feature (#569) is activated/deactived by populating the FEATURE ITEM field with **"F27"** and setting the ON OR OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON OR OFF field to **"ON"**. To deactivate the feature, set the ON OR OFF field to **"OFF"**. The default is **"OFF"**.

  NOTE: This feature cannot be activated unless this feature has been purchased.

- **F28** - (4E24R3>) LEC Service Switching Point-800 (SSP-800) Support for Service Access Codes (SACs) 866 through 822.

- **F29 -72** - Spare Non-Proprietary Activation Bits reserved for future use.

- **SUA** - Software Update Automation. When this feature bit is set to "ON", Software Update Automation is enabled.

ON OR OFF ON or OFF
Valid entries are **"ON"** or **"OFF"**.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Form Entries, Continued

Keyword Index

KEYWORD	PAGE
FEATURE ITEM	4
ORNU	3
ON OR OFF	12
RC:FTR;CHG;OPT(BIT),---:	3

Form Entries, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
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RC Form 810

General

Recent Change (RC) Form 810, available with the 4E18 and later Generic Programs, is used to change miscellaneous feature information such as timers, counters, and other numeric data.

An alphabetical keyword list is included in this section on page 5.

Continued on next page

RC Form 810, Continued

General
(cont'd)

```
# FORM 810  CHANGE MISCELLANEOUS FEATURE INFORMATION

     RC:FTR;CHG;OPT(MSC),___:

     ORNU _______,

     FEATURE INFO ___________,           DATA _________,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                       ASSOCIATED VERIFY MESSAGES

                     SEE SECTION FOLLOWING FORM ENTRIES
```

Form Entries

RC:FTR;CHG;OPT(MSC),---:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

FEATURE INFO

Feature Information (RC Form 810) - RC Form 810 is used to change miscellaneous feature information such as timers, counters and other numeric data. Entries are **"A6TOS"**, **"AINCFRTH"**, **"AINCGFHT"**, **"AINFHT"**, **"AINRESP"**, **"AINSSN"**, **"AINTRIG"**, **"ATOS"** (4E22>), **"L6TOS"**, **or "OFFLATA"**.

DATA

Feature Data - Entries are:

A6TOS (4E23R3>) - **"Blank"** or **"0-31"**

AINCFRTH - **"1-32"**

AINCGFHT - **"0-127"**

AINFHT - **"0-127"**

AINRESP - **"100-500"**

AINSSN - **"0"**, **"1"**, **"4"**, **"6-255"**

AINTRIG - **"1-6"**

ATOS - **"Blank"** or **"0-31"**

L6TOS (4E23R3>) - **"Blank"** or **"0-31"**

OFFLATA - **"0-999"**

ASSOCIATED VERIFY MESSAGES

For the provisionable items within the CPN Anomaly Reporting feature control data structure; CARCHAN, CARMFCS, CARMODE, & CARTHRES refer to verify input message 16do "VER:MISC:FHT CAROFCDAT" and verify output form 6do.

For the Carrier ID Code (CIC) Blocking, Announcement ID provisionable item; BLKAID refer to verif input message 16dq "VER:MISC BLKAID" and verify output from 6dq.

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LUCENT TECHNOLOGIES PROPRIETARY
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Form Entries, Continued

Keyword Index

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Form Entries, Continued

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RC Form 811

General

Recent Change (RC) Form 811, available with the 4E16 and later Generic Programs, is used to change feature related data for information residing in tables having index range.

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Form 811, Continued

General
(cont'd)

```
# FORM 811  CHANGE FEATURE FIELD

RC:FTR;CHG;OPT(FLD),___:

ORNU _______,

      FEATURE INFO          INDX           DATA
      __________,           ___,           _______,
      __________,           ___,           _______,
      __________,           ___,           _______,
      __________,           ___,           _______,
      __________,           ___,           _______,
      __________,           ___,           _______,
      __________,           ___,           _______,
      __________,           ___,           _______,
      __________,           ___,           _______,
      __________,           ___,           _______,

REMARKS ____________________________________________________!

                ASSOCIATED VERIFY MESSAGES - NONE
```

SEE SECTION FOLLOWING FORM ENTRIES

Form Entries

RC:FTR;CHG;OPT(FLD),___:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

ORNU

Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

Continued on next page

Form Entries, Continued

FEATURE INFO

Feature Information (RC Form 811) - This field is used to identify the feature for which data is to be changed. Valid entries are:

- **IID -** There are six different office wide II Digit Defaults (ID1 through ID6) that can be provisioned via RC 811. These Defaults, when provisioned, can be assigned via RC 349 to replace specific II digits in forwarding calls to an Interexchange Carrier (IC) if Flexible Automatic Number Identification (ANI)/II restrictions apply. Valid **INDX** entries are **"1-6"**. Valid default II **DATA** entries are **"00-99"**. The associated Verify is input message 13ba and output form 3ba.

  NOTE: These defaults can only be provisioned if the Tandem Flexible ANI/II Digit Restriction Feature (#539) has been purchased.

- **IPPD** (4E24R3>) - (#567)

- **OLID -** There are six different office wide Originating Line Identifier (OLI) Defaults (OD1-OD6) that can be provisioned via RC 811. These Defaults, when provisioned, can be assigned via RC 350 to replace specific OLIs in forwarding calls to an Interexchange Carrier (IC) if Flexible Automatic Number Identification (ANI)/II restrictions apply. Valid **INDX** entries are **"1-6"**. Valid default OLI **DATA** entries are **"0-255"**. The associated Verify is input message 13bb and output form 3bb.

  NOTE: These defaults can only be provisioned if the Tandem Flexible ANI/II Digit Restriction Feature (#539) has been purchased.

- **OPPD** (4E24R3>) - (#567)

- **RVASRNSX** - Reserved Automatic Speech Recognition (ASR) Service Circuit System (SCS) Service Circuit Unit (SCU) Channels.

Continued on next page

Form Entries, Continued

INDX

Translator Index - Entries:

- IID (4E24>) - **"1-6"**
- IPPD (4E24R3>) - **"0-99"** (#567)
- OLID (4E24>) - **"1-6"**
- OPPD (4E24R3>) - **"0-255"** (#567)
- RVASRNSX - **"0-7"**

DATA

New Data - Entries:

- IID (4E24>) - **"00-99"**
- IPPD (4E24R3>) - **"0"** or **"1"** (0=No & 1=Yes) (#567)
- OLID (4E24>) - **"0-255"**
- OPPD (4E24R3>) - **"0"** or **"1"** (0=No & 1=Yes) (#567)
- RVASRNSX - **"1-30"**

ASSOCIATED VERIFY MESSAGES

Associated Verify Messages for new data keyword population:

- IID (4E24>) - verify input message 13ba "VER:EA;OPT DFI" and verify output form 3ba "ID1 through ID6".
- IPPD (4E24R3>) - verify input message 13bf "VER:EA;OPT IPPD" and verify output form 3bf (#567).
- OLID (4E24>) - verify input message 13bb "VER:EA:OPT DFO" and verify output form 3bb "OD1 through OD6".
- OPPD (4E24R3>) - verify input message 13bg "VER:EA;OPT OPPD" and verify output form 3bg (#567).

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ASSOCIATED VERIFY MESSAGES	5
DATA	5
FEATURE INFO	4
INDX	5
ORNU	3
RC:FTR;CHG;OPT(FLD),___:	3

LUCENT TECHNOLOGIES PROPRIETARY
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RC Form 812

General

Recent Change (RC) Form 812, available with 4E21 and later Generic Programs, is used to change one or more bits of a maximum of 24 words of Office Data Assembler (ODA) translation data which is in core, backed up on disk, or is disk only data. This form is classed as a Recent Change Data Message (RCDM).

Up to 24 bits in a word can be altered by this message. For example, a word may be made up of several groups of bits. Let A thru F represent the groups. A 24-bit word might look like CFFFFEEDDDDDDDDAAAAAAABB. The letters represent the bits where a given item appears. To change the entire word, a size of 24 with a displacement of zero would be used. This means, "change 24 bits beginning zero places from the right."

A single item may be changed with the remaining bits left untouched. As an example, to change item A in the preceding word, a size of seven with a displacement of two would be used. Items E and F could be changed by specifying a size of 6 with a displacement of 17.

An alphabetical keyword list is included in this section on page 6.

Continued on next page

RC Form 812, Continued

General
(cont'd)

```
# FORM 812  ENHANCED ABSOLUTE WORD CHANGE

     RC:FUNC;CHG;OPT(ENHABS),---:    FSONLY -,  FSEG --,

     ORNU ------,

      ADDRESS    SIZE    DISP     OLDDATA      NEWDATA

     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,
     --------,    --,     --,    --------,    --------,

     REMARKS ------------------------------------------------!

               EQUIVALENT ODA INPUT FORM - NONE

                  ASSOCIATED VERIFY MESSAGE

               INPUT - 18a - VER:ABSOLUTE:ADR --------,CORE/DISK/XS!(EOT)

               OUTPUT - 8a - VER:ABSOLUTE,OPT(CORE/DISK/XS):
```

Form Entries

RC:FUNC;CHG;OPT(ENHABS),_ _ _:

Recent Change (RC) action field. Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** – Buffer state sends the Recent Change Data Message (RCDM) to the 1B Processor to perform range, syntax, and format checks. If the RCDM passes all checks, the data is placed in the Buffer state on disk in the Attached Processor System (APS). A maximum of 511 Buffered RCDMs can occupy the disk at one given time.
- **TST** – Test state entry sends the RCDM directly through the Buffer checks and also the Test state defensive checks for compatibility to the existing translations in the 1B Processor. If all BUF and TST checks are successful, the RCDM will be stored in the Buffer state on disk. If the message is entered directly to TST and fails any checks, the data will be rejected and purged from the screen requiring re-entry to the terminal.
- **ACT** – Activate entry indicates the message is to be immediately activated following the Buffer and Test checks. This RCDM will never be buffered on disk.
- **FTA** – Fast activate is a special form of the ACT action which limits output text during the processing of the RCDM activation to that of a success or a failure message.
- **FTB** – Fast Buffer is a special form of the BUF action which limits output text during the processing of the action to a success or a failure message.
- **FTT** – Fast test is a special form of the TST action which limits output text during the processing of the action to a success or a failure message.

FSONLY

Enter a **"Y"** for Yes in this field if the data to be changed resides only in file store. Enter an **"N"** for No in this field if the data to be changed resides in core, backed up by file store. It is not possible to change the file store copy of a word that resides in core with file store back up by specifying the file store address and setting FSONLY to **"Y"**. If this is attempted, an error message will be received.

Continued on next page

Form Entries, Continued

FSEG The FSEG field specifies the File Segment that the translation words store. Valid entries are **"0"**, **"1"**, **"2"**, or **"3"**.

ORNU Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

ADDRESS If the ADDRESS contains input data, then this field will specify the starting address of a translation entry. The address must be an octal number (to the base eight). The program will check for valid address. For consecutive addresses, the field can be **"Blank"**, but SIZE, DISP, OLDDATA, and NEWDATA must have input data.

SIZE The size field specifies the number of bits to be changed in the translation word. This number can range from **"1-24"** (decimal).

DISP This field identifies the right most bit position of the data to be changed within the specified translation word. The displacement of the data refers to the number of places (bits) from the right. In this case, the data specified in the NEWDATA field will be inserted in the translation word at a point displaced from the right most bit as specified by this field (DISP). The size of the data (SIZE) plus the displacement of the data (DISP) cannot exceed 24 (Decimal). Valid entries range from **"0-23"** (Decimal).

Continued on next page

Form Entries, Continued

OLDDATA This field contains the current contents of the data in the translation word as specified by SIZE and DISP. The right most bit position of the data to be changed in this word will be replaced by the right most bit in the NEWDATA field. This field will contain an octal number from **"0-77777777"**. The entry in this field may not exceed the number of bits to be changed as specified in the SIZE field.

NEWDATA This field contains the NEWDATA to be inserted into the translation word. The right most bit position in this field will replace the right most bit of the data to be changed as specified by the DISP field. This field will contain an octal number from **"0-77777777"**. The entry in this field may not exceed the number of bits to be changed as specified in the SIZE field.

Continued on next page

Form Entries, Continued

Keyword Index

KEYWORD	PAGE
ADDRESS	4
DISP	4
FSEG	4
FSONLY	3
NEWDATA	5
OLDDATA	5
ORNU	4
RC:FUNC;CHG;OPT(ENHABS),_ _ _:	3
SIZE	4

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Recent Change & Verify

This division is currently under development.

Recent Change & Verify, Continued

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Administrative Table Of Contents

SECTION

10a Administrative Recent Changes

Continued on next page

Administrative Table Of Contents, Continued

General

This information applies to all sections within this division:

1. The characters > and < are used to indicate which Generic Programs will apply.

   Examples:

   - 4E22> indicates 4E22 and later Generic Programs.
   - <4E22 indicate 4E22 and earlier Generic Programs.
   - 4E22 indicates the 4E22 Generic Program only.
   - >4E22 indicates all Generic Programs up to, but not including, 4E22.

2. Following the general section is a copy of the applicable Recent Change (RC) Form/s. Where there is more than one Generic published, the forms will be filed in ascending order by Generic.

3. The Keyword field names of the form entries in each section are listed in order of appearance on the latest Generic Recent Change Form. (Keywords deleted from the latest form issue will still remain in the form order of the last RC Form that it appeared until finally deleted).

4. The alphabetical "Keyword Index" of the field names is located at the end of each Recent Change Section, following the text, and any tables and/or graphics that may apply.

5. Each Keyword definition will only list the valid entries for the RC Form covered in each applicable section. Some Keywords may have additional valid entries related overall and may be found in the alphabetical Keyword Glossary (Div. 9, Sec. 1).

Administrative Recent Changes

Messages

RCAM (Recent Change Action Message)	RCAD (Recent Change Administrative Message)
• CLR:CHAN!	• OP:RCBMSG,ORNU_!
• CLR:RCB!	• OP:RCBORNU!
• RCACT:ORNU_!	• OP:RCBSPACE!
• RCCNL:RCBORNU_!	• OP:RCFORM_!
• RCCNL:RCTORNU!	• OP:RCRORNU,_ _ _ _ _!
• RCCNL:ROLLBACK!	• OP:RCTORNU!
• RCTST:ORNU_!	

General

These messages are for Recent Change (RC) Administration. They are one-line messages that cause some action to a Recent Change Data Message (RCDM) or provide information (RCAD).

Message Description

CLR:CHAN! (CLeaR:CHANnel) This message clears any and all displays from the channel on which it is input.

CLR:RCB! (CLeaR:Recent Change Buffer) The CLR message causes all messages on the RC disk buffer to be cleared.

RCACT:ORNU_! (Recent Change ACTivate:Order NUmber) This message activates a previously entered RC that is in the test state. Identity is by order number in the range of **1 to 999999.** This message activates a previously entered Recent Change that is in the buffer.

RCCNL:RCBORNU_! (Recent Change CaNceL:Recent Change Buffer Order NUmber) The RCCNL input cancels a previously buffered message. ORNU range is **"1 - 999999"**.

RCCNL:RCTORNU_! (Recent Change CaNceL:Recent Change Test ORder NUmber) This message cancels an RC that is presently in the test state. Identity is by order number in the range of **"1 - 999999"**.

Continued on next page

Administrative Recent Changes, Continued

Message Description (cont'd.)

RCCNL:ROLLBACK! (Recent Change CaNceL:ROLLBACK) This message causes the last Recent Change Message that was activated to be rolled back. Messages that potentially can cause machine disruption if rolled back must be rolled back with the Unconditional (UCL) keyword.

RCTST:ORNU_! (Recent Change TeST:ORder NUmber) The RCTST message advances a buffered RCDM to the test state. The RCDM is identified by an order number from **"1 - 999999"**. This message causes all defensive checks to be performed on the RCDM.

OP:RCBMSG,ORNU_! (OutPut:Recent Change Buffer MeSsaGe, Order NUmber) This message request prints a copy of a buffered message. The buffered message is identified by an order number in the range of **"1 - 999999"**.

OP:RCBORNU! (OutPut:Recent Change Buffer ORder NUmber) A list of all order numbers in the RC buffer is displayed or printed out, in ascending numerical order, via this message.

OP:RCBSPACE! (OutPut:Recent Change Buffer SPACE) This message displays or prints the available buffer storage space as unused 32-word blocks.

OP:RCFORM_! (OutPut:Recent Change FORM) This message is used to call up one of the Recent Change Data Message forms. These forms are referenced by a three-digit Recent Change number.

Continued on next page

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Administrative Recent Changes, Continued

Message Description (cont'd.)

OP:RCRORNU,aaaa/aN! (OutPut:Recent Change Rollback ORder NUmber) This message is used to list the order numbers in the rollback area in reverse chronological order.

A slash through a letter a indicates that this is an optional space. Aaaa/ indicates two possible entries: **"ALL"** or **"LAST"**. N may be either a decimal number or TAPE. When **"ALL"** is specified, all of the entries in the rollback area are listed. If a decimal is used with **"LAST"**, then the last **"N"** entries are listed. If TAPE is used with **"LAST"**, then all entries since the last translation tape dump are listed. If no entry is specified, this field will default to LAST TAPE.

OP:RCTORNU! (OutPut:Recent Change Test ORder NUmber) This message requests a printout of all order numbers that are presently in the test state.

Continued on next page

Administrative Recent Changes, Continued

Message **OP:RCFORM N!**

This message displays the blank RCDM form for populating with appropriate data. N = A 3-digit RC Form Number.

VALID RECENT CHANGE NUMBERS FOR "**N**".

TSG	TRK	CODE	CAMA	RDB	MISC		UNITTYPE	SPECIAL
100	200	300	400	500	600		700	800
101	203	301	401	503	601	624	701	801
102	205	302	402	505	602	625	702	802
104	206	303	403	508	603	626	703	808
105	208	304	404	510	604	631	704	809
106		306	405	513	605	633	705	810
107		307	406	514	606	634	707	811
108		308		524	607	660	708	812
109		309		525	608	664		
110		311			609	667		
112		312			610			
113		313			611			
		314			612			
		315			613			
		316			614			
		317			616			
		318			617			
		319			618			
		320			619			
		327						
		328						
		329						
		330						
		331						
		334						
		335						
		336						
		337						
		338						
		341						
		342						
		343						
		344						
		345						
		349						
		350						

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Carrier Interconnect

Introduction

Certain fields on Recent Change (RC) Forms are uniquely used at an Access Tandem (AT). This section is intended to identify these unique fields and entries.

This section describes the impact as a result of Carrier Interconnect.

In This Section

This section contains the following topics:

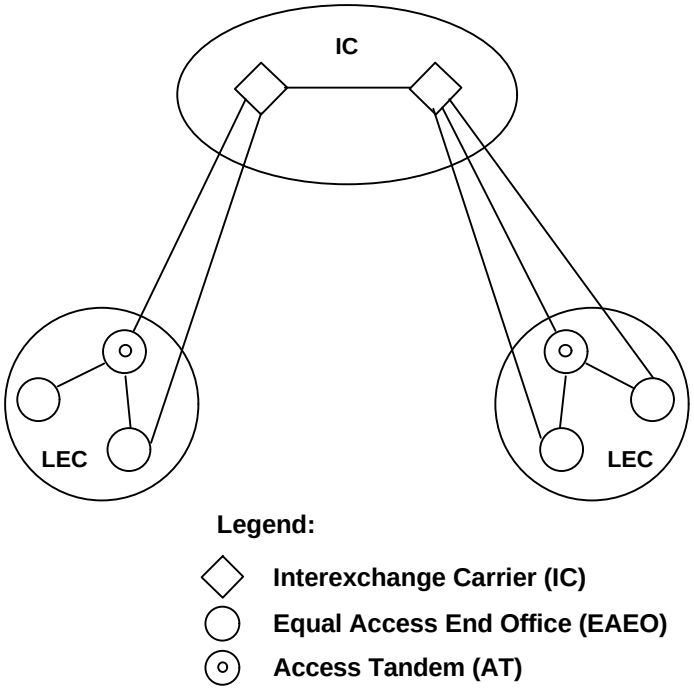
Topic	See Page
Introduction	***1***
In This Section	***1***
Carrier Interconnect Architecture	***2***
Description	**3**
Carrier Interconnect Call Flow	***4***
EAEO Access Via AT to IC - MF Signaling	**5**
Carrier Interconnect	***6***
Far End Network - RC 617	**6**
Trunk Subgroup - RC 100	**8**
Routing Data Block - RC 500	**10**
Translatable Digits - RC 311	**12**
Translatable Digits - RC 319	**14**
Digits Translation - RC 302	**16**
Acronyms and Abbreviations	***19***

Continued on next page

Carrier Interconnect, Continued

Carrier Interconnect Architecture

CARRIER INTERCONNECT ARCHITECTURE



Continued on next page

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Carrier Interconnect, Continued

Carrier Interconnect Architecture (cont'd.)

Description

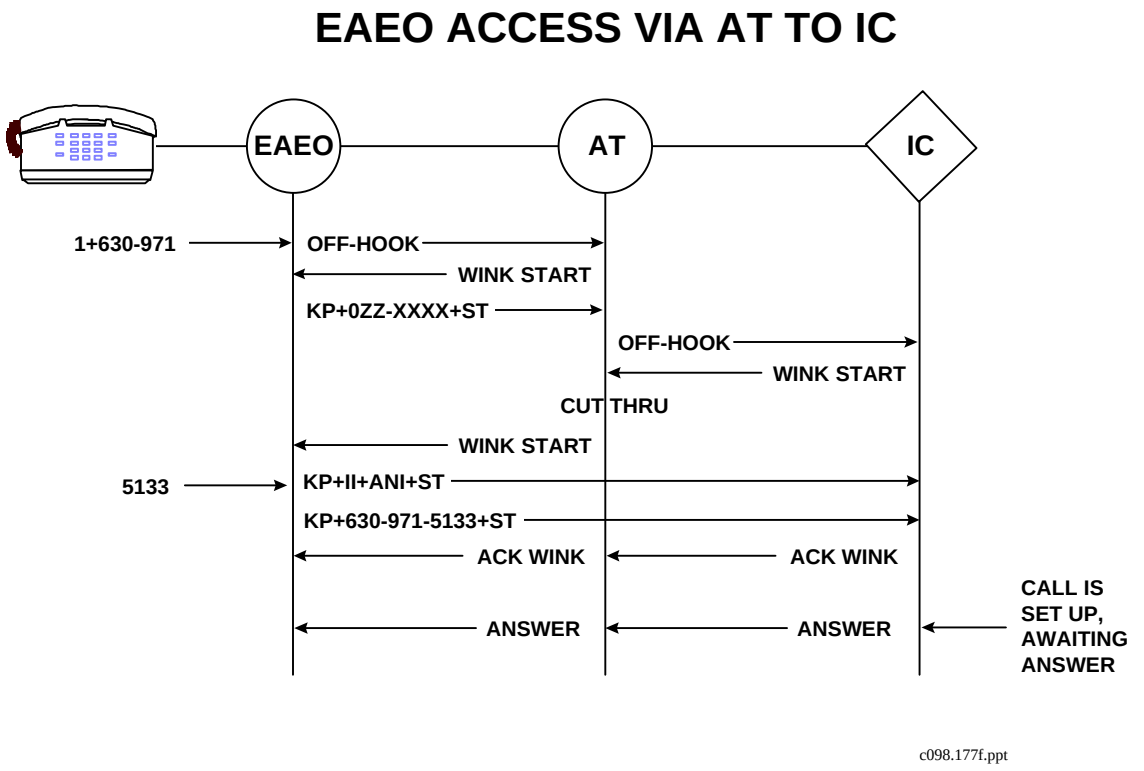
Carrier Interconnect consists of multifrequency signaling between the Local Exchange Carrier (LEC) and the Interexchange Carrier (IC) Networks.

This signaling provides Feature Group D (FG-D) Equal Access Signaling. Equal Access Signaling provides for first and second stage of digit processing as shown on the following page.

Continued on next page

Carrier Interconnect, Continued

Carrier Interconnect
Call Flow



Continued on next page

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Carrier Interconnect, Continued

Carrier Interconnect Call Flow (cont'd.)

EAEO Access Via AT to IC - MF Signaling

This example is built with Multifrequency (MF) signaling to the AT and MF signaling to the IC. Shown on the opposite page is the means by which the Called Number and the Automatic Number Identification (ANI) are delivered to the IC when the EAEO is located behind an AT. This arrangement enables the AT to receive the Carrier Identification Code from the EAEO, seize a trunk to an IC, and cut through on receipt of a wink start from the IC.

All subsequent call setup functions are now performed between the EAEO and the IC with no further action required by the AT except to repeat winks and return answer supervision.

Call Flow Legend:

KP	-	Key Pulse
0ZZ	-	Equal Access Identifier, Local Access Transport Area (LATA) specific, locally assigned
XXXX	-	4-Digit Carrier Identification Code
II	-	Information Identifying Digits
ANI	-	Automatic Number Identification (equal to billing number)
Wink Start	-	Access Charges begin upon receipt of wink start from the IC

The remainder of this section shows how to provision to make the above scenario work.

Continued on next page

Carrier Interconnect, Continued

Carrier Interconnect **Far End Network - RC 617**

```
# FORM 617   ESTABLISH A NEW FAR END NETWORK

RC:FEN;NEW;___:                          CLASS ACCESA,    FID  0288,

ORNU _______,
AFA __,

RECORD SCREEN AND QUERY TREATMNT

UNSP D,   ATAP R,   CUSP N,   CARP N,   CANP N,   HAWP N,   NWZ1 N,   INW N,
DSD N,    DLT N,    TC N,     DA N,     IOP N,    TST N,    RSYS N,   MSC1 N,
MSC2 N,   MSC3 N,   MSC4 N,   INCN N,   ALAP N,   CUTP N,   INCO N,   EASC N,
ICIN N,   SC1 N,    SC2 N,    SC3 N,    SC4 N,    SC5 N,    SC6 N,    SC7 N,
SC8 N,    SC9 N,    SC10 N,   SC11 N,   SC12 N,   SC13 N,   SC14 N,   SC15 N,
SC16 N,   SC17 N,   SC18 N,   SC19 N,   SC20 N,   SC21 N,   SC22 N,   SC23 N,
SC24 N,   SC25 N,   SC26 N,   SC27 N,   SC28 N,   SC29 N,   SC30 N,   SC31 N,
SC32 N,   SC33 N,   SC34 N,   SC35 N,   SC36 N,   SDN N,    LDA N,    SSP N,
SPDI N,   MULT N,   MCPP N,   INET N,   SDND N,   QTM N,

SCREEN TREATMNT

DEF1 N,   DEF2 N,   DEF3 N,   DEF4 N,                    DFHT ROA,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406L

ASSOCIATED VERIFY MESSAGES

INPUT - 16m-VER:FEN:

OUTPUT-6s-VER:FEN:

Continued on next page

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Carrier Interconnect, Continued

Carrier Interconnect (cont'd.)

Far End Network - RC 617

This example is being built in recent change order sequence. This allows defensive checks to pass on later forms.

The Far End Network (FEN) block must be established for every IC that terminates into that LATA. This ensures recording for terminating access charges. Also, some screening may be needed since calls are originating and terminating in another network. This can also be accomplished on the FEN Block.

Key Fields:

- **CLASS** - FEN Class
  ACCESA is used for trunks connecting to the IC network.

- **FID** - FEN Identification
  4-digit Carrier ID (CID). (If 3-digit CID, add 0 in front on CID.)

- **SC** - Service Categories
  Valid Entries:
  D - Deny all calls
  N - Calls allowed, no recording
  R - Route call and record.

  Call processing will access the SC on the code groups and will link to the appropriate FEN.

NOTE: If Unspecified (UNSP) service category is not on codegroup, ensure this field contains an "N" or "D" appropriately.

Continued on next page

Carrier Interconnect, Continued

Carrier Interconnect (cont'd.)

Trunk Subgroup - RC 100

```
# FORM 100          ADD A NEW TWO WAY TRUNK SUBGROUP
  4E24

RC:TSG;NEW;OPT(TWOWAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG 1001 CHGO IL CS 11T 50T,
PCF____,    AOPC __________,                     DPC __________,

FENCLASS ACCESA, FENID _0288,          TFG D, TSGBBC _, VDCAP _____, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,   TOT _OCC, SAT _,           DOM POTS, ACD _,  IT _, FAI _,
FENPA ___,  FEOFC ___, FELATA ___,     FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,      MTSC __,  GNSC _, GEOSEP __,

ISC MFWINK, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR ___,
OSC MFWINK, RFMP _,   DPSTOP _,        DELAY 20,     MFSPEED 10, DNHR _,
XCPA _,     DNP _,                     REV Y,        GLARE N,    PSOLI _,

BN _0288_, BRL L,  ITC _,  GSDN _,   GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN __________, PSBN _, PSCPN _,      ANISID ____, WANISID ____, PSUUI _,
BNPT  ____,  WBNPT ____,   CMERGE _,     SCFN _,  OVLP _,  PRIT ______,
APS _, CHNEG _, PSATP _, PBXESGD _,      PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,   DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN ____, BFTIS ___, BFTNI ___,      SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _, S5DIG _, SDS _, FVSR _,  IFITR _,   PCPEACEL _, UT15DA _,
LRN _________, CBN DIGS _________, CBN _,
ONCID 4, D3DBN _, MULAW _,     CSCSET _____,  CID ____, ITCENC _, OFITR _,
SPN _, LNPIC _, NCAR _, TTA _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FOLI _, FELN _, HUNT __, CSN __, CARSON _, SOIP _, TCC _, STBI _,
CAREA _,    CPOS _,   SINDEX __,         CODSC _,    NEOTR _,    TRIDX __,
OTSTT ____, OTSTN _________,             OTMTT ____, OTMTN _________,
XTSTT ____, XTSTN _________,             XTMTT ____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS _____Build MF GROUP_____!

                    ASSOCIATED VERIFY MESSAGES

                    INPUT-11a-VER:TSG:CIN....
                    INPUT-11c-VER:TSG:TSGN....

              OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

               OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Carrier Interconnect, Continued

Carrier Interconnect (cont'd.)

Trunk Subgroup - RC 100

The next sequence is to build the TSG as previously discussed.

Key Fields:

- **TFG** - Type of Feature Group
  B - Feature Group B
  C - Feature Group C
  D - Feature Group D

- **TOT** - Type of Trunk
  Must be OCC for Other Carrier Connecting

- **ISC/OSC** - Incoming/Outgoing Signaling Characteristics
  MFWINK

- **BN** - Billing Number
  3- or 4-digit CID

- **INCID*** - Number of Carrier ID digits to be received
  Blank

- **ONCID** - Number of Carrier ID digits to send
  3- or 4-digits based on IC agreement

***NOTE: The Access Tandem (AT) should not be accepting carrier long distance service from carrier, i.e., 0ZZ-XXXX.**

Continued on next page

Carrier Interconnect, Continued

Carrier Interconnect (cont'd.)

Routing Data Block - RC 500

```
# FORM 500   ADD A NEW DOMESTIC INCHAIN/ADG ROUTING DATA BLOCK
  4E18>

RC:RDB;NEW;___:                                          RDBI 512,

ORNU _______,

TTSI ___, RDBFHT NCC, ADG _, ANFHT ___,

BTFN TOWN ST BL FBS NBS       DEL      PREFIX    DNHRTYPE

1001 CHGO IL CS 11T 50T,       0,      _______,      __,
____ ______ __ __ ___ ___,      __,     _______,      __,
____ ______ __ __ ___ ___,      __,     _______,      __,
____ ______ __ __ ___ ___,      __,     _______,      __,
____ ______ __ __ ___ ___,      __,     _______,      __,
____ ______ __ __ ___ ___,      __,     _______,      __,
____ ______ __ __ ___ ___,      __,     _______,      __,


REMARKS _____________________________________________________!

              EQUIVALENT ODA INPUT FORM - ESS 405B

                   ASSOCIATED VERIFY MESSAGES

               INPUT-15a-VER:RDB:RDBI ----!(EOT)

                 OUTPUT-5a-VER:RDB,OPT(INCHAIN)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Carrier Interconnect, Continued

Carrier Interconnect (cont'd.)

Routing Data Block - RC 500

The next step is to build the Routing Data Block.

Key Field:

- **RDBFHT** - Routing Data Block Final Handling Treatment
  NCC — No Carrier Connecting

Continued on next page

Carrier Interconnect, Continued

Carrier Interconnect (cont'd.)

Translatable Digits - RC 311

```
# FORM 311   CHANGE NUMBER OF TRANSLATABLE DIGITS

RC:CODEGRP;CHG;OPT(CHGNTD),___:                    DOM POTS,  AC N,

ORNU ______,

OLD NTD 3, NEW NTD 6,

CODEGRP  050  ,

REMARKS _________Expand 0ZZ/INX to First Three_____!



# FORM 311   CHANGE NUMBER OF TRANSLATABLE DIGITS

RC:CODEGRP;CHG;OPT(CHGNTD),___:                    DOM POTS,  AC N,

ORNU ______,

OLD NTD 6, NEW NTD 7,

CODEGRP  050 028 ,

REMARKS _________Expand to Fourth Carrier ID Digit_____!

               EQUIVALENT ODA INPUT FORM - NONE

                  ASSOCIATED VERIFY MESSAGES

                    INPUT-13b-VER:CODEGRP

       OUTPUT-3a/3c/3e/3v-VER:CODEGRP;OPT(DIG3/6/9/12)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Carrier Interconnect, Continued

Carrier Interconnect (cont'd.)

Translatable Digits - RC 311

0ZZ Code

As previously discussed, 0ZZ Codes are assigned, usually on a LATA basis, to identify equal access offices. All ABC digits, i.e., 0ZZ, are always defined in the switch as vacant codes. The switch translates on the three digits.

In Example 1, the 0ZZ Code of 050 is expanded to a three digit carrier identification code.

In Example 2, the 0ZZ Code of 050 is expanded to a four digit carrier identification code. This allows 7 digits for analysis.

NOTE: Digits are expanded by building up of groups of 3 until the remainder is less than 3. Seven (7) digits are two groups of 3 and remainder of 1.

Continued on next page

Carrier Interconnect, Continued

Carrier Interconnect (cont'd.)

Translatable Digits - RC 319

```
# FORM 319   ADD 3 DIGIT TYPE

RC:CODEGRP;NEW;OPT(DIGTYP),___:              DIGTYP UTC, RDIG _,

ORNU ______,

DIG  DIG  DIG  DIG  DIG  DIG  DIG  DIG
050, 138, 158, 950, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________________Common UTCs____________________!

              EQUIVALENT ODA INPUT FORM - ESS 403I

                   ASSOCIATED VERIFY MESSAGES

                  INPUT-13d-VER:CODEGRP:DIGTYP

                 OUTPUT-3h-VER:CODEGRP;OPT(DIGTYP)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Carrier Interconnect, Continued

Carrier Interconnect (cont'd.)

Translatable Digits - RC 319

Universal Treatment Codes (UTCs) are three digit codes that are treated the same in all situations. For example, Home Numbering Plan Area (HNPA) which can be deleted or Served Numbering Plan Area (SNPA) which can be added to the beginning of a digit string.

The example on the opposite page list the common UTCs currently used. These codes are built once per switch.

Key Fields:

- **DIGTYPE** - Three Digit Type
  UTC — Universal Treatment Codes

- **DIG** - Set of Digits
  3-digit number

Continued on next page

Carrier Interconnect, Continued

Carrier Interconnect (cont'd.)

Digit Translation - RC 302

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
     4E23R1>

   RC:CODEGRP;CHG;OPT(DIG9),___:                    DOM POTS, NTD 7,   AC N,
                                                    ABC 050,  DEF 028,

ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI  DESEP   DNST

OLD   FHT, ________VCA________,  ____,  ______,  ____,  ____,  ___,  ______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   RDB, ________512___,  ____,  ______,  ATAP,  WSNO,  10,  ______,

                AD3 _________,  ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,

   GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

   __8, ___, ___, ___, ___, ___, ___, ___,
   ___, ___, ___, ___, ___, ___, ___, ___,
   ___, ___, ___, ___, ___, ___, ___, ___,
   ___, ___, ___, ___, ___, ___, ___, ___,

   REMARKS ____________________________________________________!

                EQUIVALENT ODA INPUT FORM - ESS 403F

                     ASSOCIATED VERIFY MESSAGES

                       INPUT-13b-VER:CODEGRP

                    OUTPUT-3e-VER:CODEGRP;OPT(DIG9)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Carrier Interconnect, Continued

Carrier Interconnect (cont'd.)

Digit Translation - RC 302

At this point, we have built the FEN block, Trunk Subgroups and the Routing Data Blocks (RDBs) for the IC.

The new Carrier Identification Code (CIC) on the code group form must now be pointed to the RDB. This instructs the system to cut through the End Office (EO) to the IC. This is accomplished by populating the Call Handling Instructions (CHIs).

Key Field:

- **CHI** - Call Handling Instructions
  These CHIs must be negotiated with the ICs

Domestic Use:

- **WSNO —** Wink Start No Outpulse

International Use:

- **WACK —** Wait for Acknowledgment
- **WAC2 —** Wait for Acknowledgment (Intermediate Carriers)

Continued on next page

Carrier Interconnect, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Carrier Interconnect, Continued

Acronyms and Abbreviations

The following are acronyms and abbreviation of terms used throughout this document:

Terms	Definitions
ACK	Acknowledgment Wink
ANI	Automatic Number Identification
AT	Access Tandem
BN	Billing Number
CHI	Call Handling Instruction
CIC	Carrier Identification Code
CID	Carrier ID
EAEO	Equal Access End Office
EO	End Office
FEN	Far End Network
FG-D	Feature Group D
FID	FEN Identification
HNPA	Home Numbering Plan Area
IC	Interexchange Carrier
II	Information Digits
INCID	Number of Carrier ID digits to receive
ISC/OSC	Incoming/Outgoing Signaling Characteristics
KP	Key Pulse
LATA	Local Access Transport Area
LEC	Local Exchange Carrier
MF	Multifrequency
NCC	No Carrier Connecting
ONCID	Number of Carrier ID digits to send
RC	Recent Change
RDB	Routing Data Block
RDBFHT	Routing Data Block Final Handling Treatment
SC	Service Category
SNPA	Served Numbering Plan Area
TFG	Type of Feature Group
TOT	Type of Trunk
UNSP	Unspecified

Continued on next page

Carrier Interconnect, Continued

Acronyms and Abbreviations (cont'd.)

Terms	Definitions
UTC	Universal Treatment Code
WAC2	Wait for Acknowledgment (Intermediate Carriers)
WACK	Wait for Acknowledgment
WSNO	Wink Start No Outpulse

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect

Introduction

Certain fields on Recent Change (RC) Forms are uniquely used at an Access Tandem (AT). This section is intended to identify these unique fields and to describe the impact as a result of Network Interconnect (NI).

In This Section

This section contains the following topics:

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Description	**3**
Network Interconnect Call Flow	*4*
Network Interconnect Using ISUP — ISUP at Access Tandem	**5**
Network Interconnect	*6*
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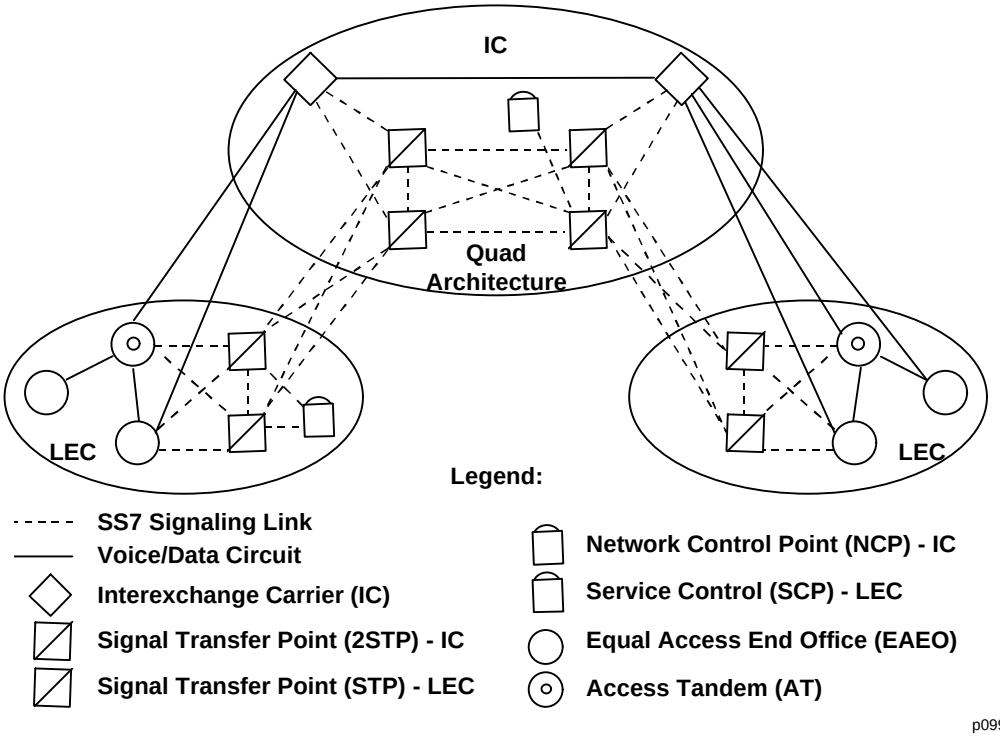
Network Interconnect, Continued

Network Interconnect Architecture

NETWORK INTERCONNECT ARCHITECTURE



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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect Architecture (cont'd.)

Description

Network Interconnect consists of out-of-band signaling between the Local Exchange Carrier (LEC) and Interexchange Carrier (IC) networks. Signaling System 7 (SS7), out-of-band signaling, is defined as Integrated Service Digital Network User Part (ISUP) signaling in the 4ESS Switch software translations.

Network Interconnect resulted in the addition of new Signaling Links between each LEC's Signal Transfer Points (STP) to each IC. Each Equal Access End Office (EAEO) or Access Tandem (AT) now uses the ISUP links for communication. The use of Multifrequency Receivers and Transmitters has dropped as the cutover progresses.

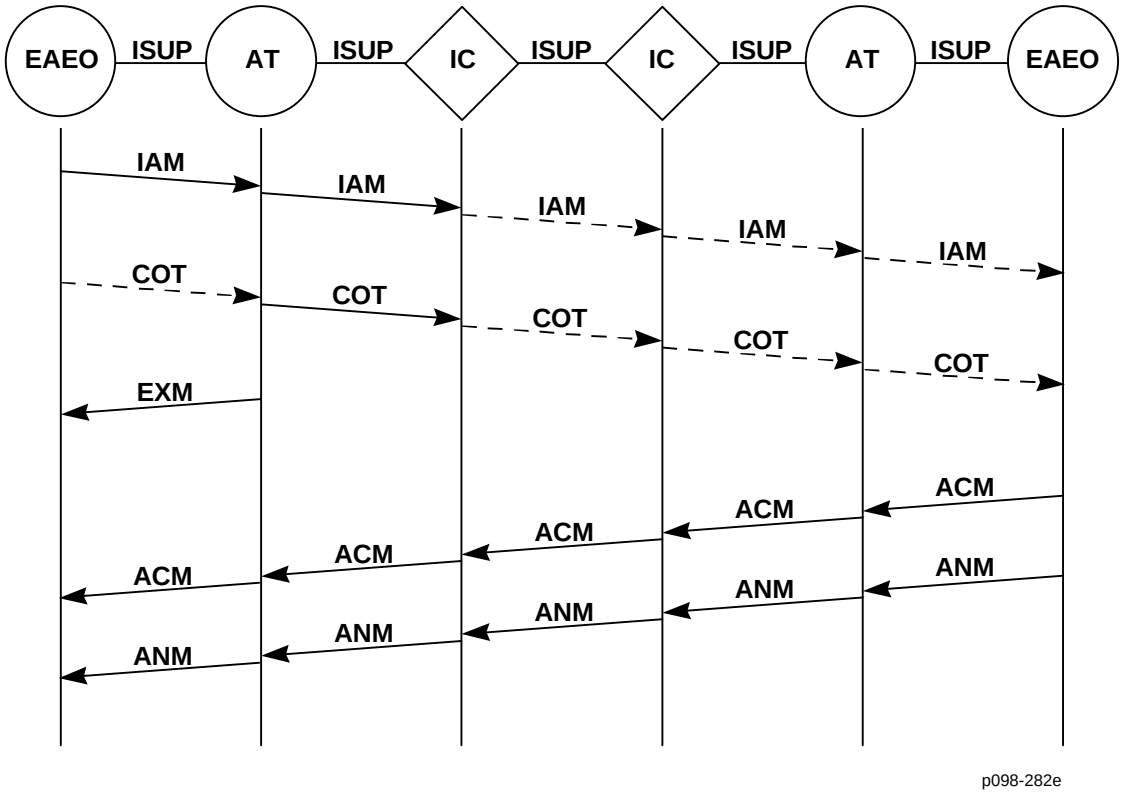
Shown on the opposite page is the Network Architecture.

Continued on next page

Network Interconnect, Continued

Network Interconnect Call Flow

ISUP CALL FLOW THROUGH ACCESS TANDEM



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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect Call Flow (cont'd.)

Network Interconnect Using ISUP — ISUP at Access Tandem

Network Interconnect provides end to end use of ISUP signaling for call setup. The call flow consists of the following:

Initial Address Message (IAM) from EAEO to AT identifies the Transit Number Selection parameter which includes the Carrier ID and circuit code digits, Charge Number (Cgn) and Called Party Number (CPN).

The AT seizes a trunk to the appropriate carrier and sends an IAM. An Exit Message (EXM) is returned to the EAEO in order to start Access Charging.

The Continuity Check of the facilities may be omitted if the switches and facilities are all digital. The COntinuity Test (COT) would not be sent in that case. The COT will occur before the EXM.

The IC routes the call to the terminating location.

If the call is successful, the last ISUP office returns an Address Complete Message (ACM) and connects the Incoming Trunk (ICT) to the Outgoing Trunk (OGT).

Each preceding office, upon receipt of the ACM, connects the ICT to the OGT and repeats the ACM to the previous office.

The originating EAEO completes the connection to the originating customer and that customer hears ringing from the terminating EAEO.

An Answer Message (ANM) is returned when the called party answers.

Continued on next page

Network Interconnect, Continued

Network Interconnect

Terminology Changes

Terminology Changes

EA/MF	ISDN-UP Parameter
0ZZ + XXXX 1NX + XXXX	Transit Network Selection (TNS) (Carrier ID Circuit Code)
II	Originating Line Information (OLI)
ANI	Charge Number
Called Number	Called Party Number

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Terminology Changes

The currently assigned 0ZZ/1NX-XXXX codes in an equal access environment are changed in an ISUP environment. The Transit Network Selection (TNS) parameter in an ISUP environment will be in the form of XXXX-YY. The XXXX will be the Carrier Identification. The circuit code (YY) will be a replacement for the ZZ digits. There is no correlation of ZZ to circuit code.

The existing II digits in the ANI stream are replaced by Originating Line Information (OLI). The present range of 00-99 for II is expanded to 000-255 for OLI. Currently the same values are used for II and OLI.

Called/ANI Description
The ANI digits are called the charge number. It is indeed the billing number for this call and may not be the calling number of the line.

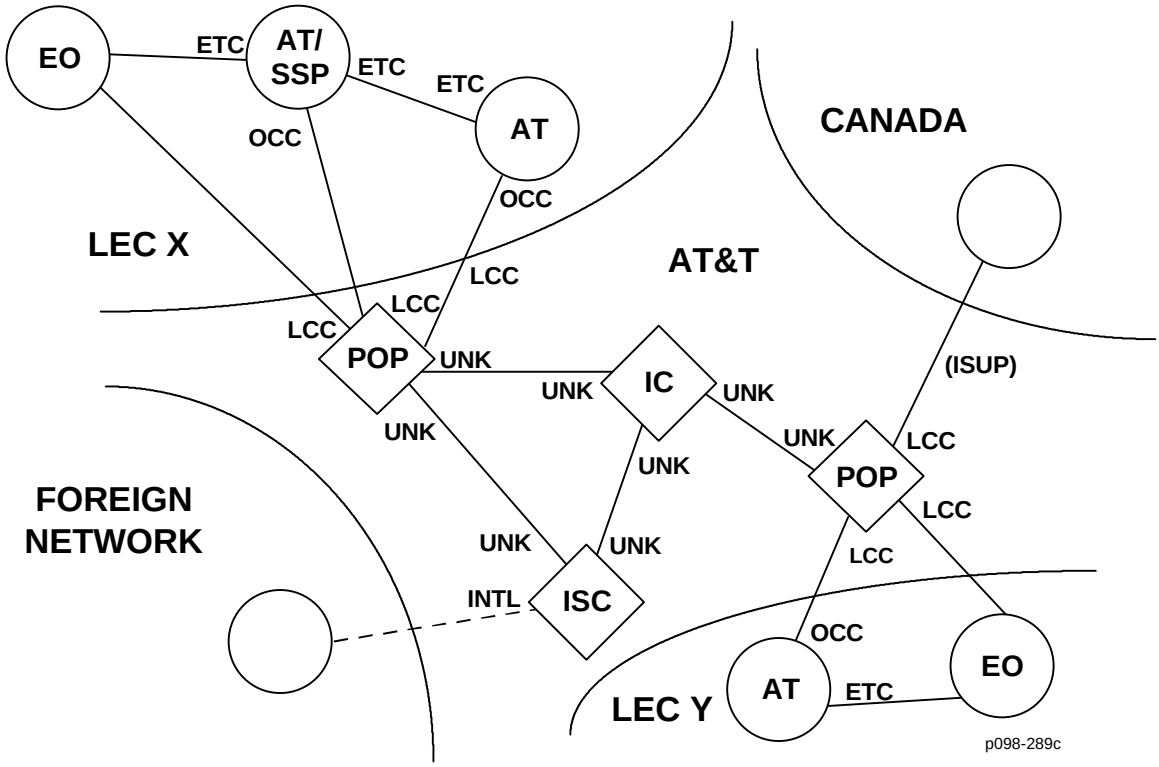
Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Type of Trunks

NEW TYPE OF TRUNK (TOT) CODES



Legend:

AT	Access Tandem	ISUP	Integrated User Service Part
EO	End Office	LCC	Local Exchange Carrier Connecting
ETC	End Office/Access Tandem Connecting	OCC	Other Carrier Connecting
IC	Interexchange Carrier	POP	Point of Presence
INTL	International	SSP	Service Switching Point
ISC	Incoming Signal Characteristic	UNK	Unknown

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Type of Trunks

There are three TOT codes that enable the 1B Processor to identify if a call is a Network Interconnect call.

These codes are:

- **LCC** - Local Exchange Carrier Connecting. Used at an IC switch to identify trunks to the Local Exchange Company.
- **OCC** - Other Carrier Connecting. Used at an AT to identify trunks to an IC.
- **ETC** - End Office/Access Tandem Connecting. Used at an AT to identify trunks to another AT and subtending End Offices.

Continued on next page

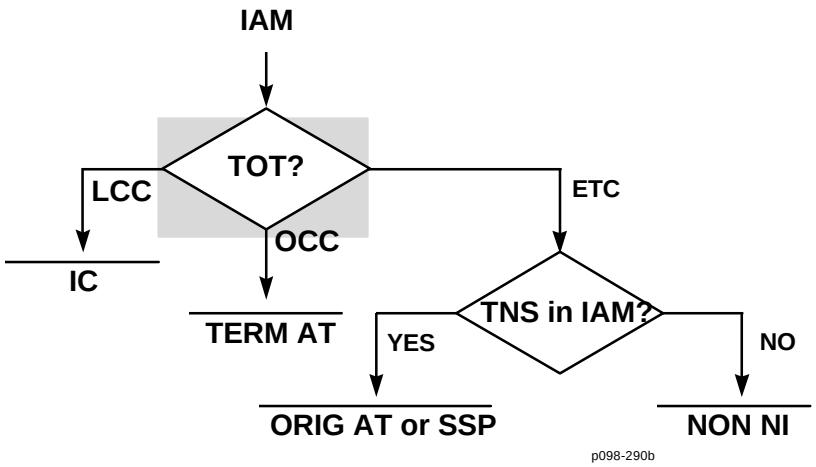
Network Interconnect, Continued

Network Interconnect (cont'd.)

Office Functionality

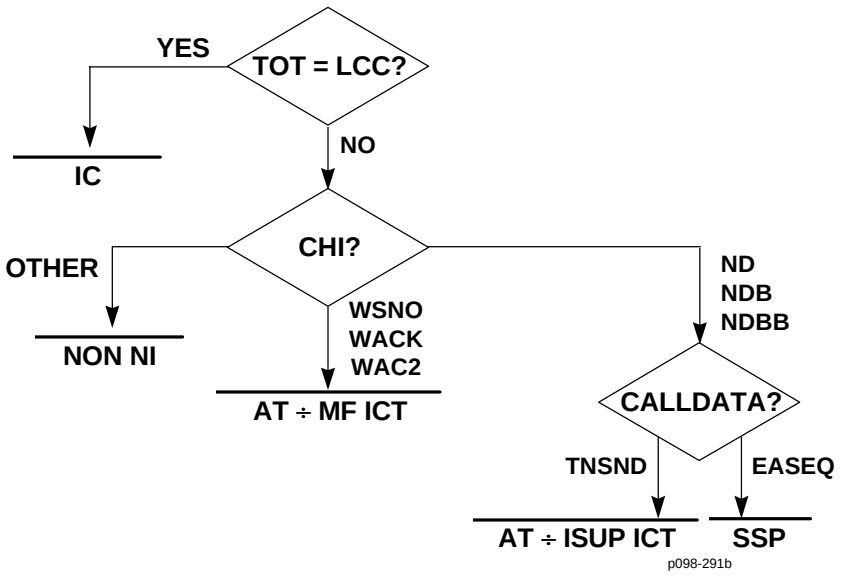
TYPE OF OFFICE FUNCTION DETERMINATION

ISUP INCOMING TRUNK (ICT)



TYPE OF OFFICE FUNCTION DETERMINATION

ISUP OUTGOING TRUNK (OCT)



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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Office Function Determination

A new Type of Trunk (TOT) was necessary for the proper call processing to be performed. Anytime the signaling type for Incoming Signaling Characteristic (ISC) or Outgoing Signaling Characteristic (OSC) is ISUP, a determination must be made of the call type.

ISUP Incoming Trunk

- If the TOT is LCC, then the call is being received at a Toll Office.
- If the TOT is OCC, the call is being received at an AT from an IC.
- If the TOT is neither LCC or OCC, then is there a TNS identified in the IAM? If yes, the call is at an originating AT. If no, the call is not Network Interconnect.

ISUP Outgoing Trunk

- If TOT is LCC, then the call is going to an AT or End Office from an IC.
- If TOT is not LCC, a determination of the origin of the call is made to determine how call processing is to be performed. This is done using the Call Handling Instructions (CHI) field which appears on the Code Group, RC 300-303 Forms.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Trunk Subgroup - RC 100

```
# FORM 100          ADD A NEW TWO WAY TRUNK SUBGROUP
  4E24

RC:TSG;NEW;OPT(TWOWAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU ______,                                      TSG 4001 CHGO IL CS 11T 50T,
PCF ANSI,    AOPC _________,                        DPC 254208001,

FENCLASS ACCESA, FENID  0288,          TFG D, TSGBBC _, VDCAP _____, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,   TOT  OCC, SAT _,           DOM POTS, ACD _,  IT _, FAI _,
FENPA ___,  FEOFC ___, FELATA ___,     FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,      MTSC __,  GNSC _, GEOSEP __,

ISC  ISUP , RFA _,    ADIG _,                      CCIS2WRE N, CBNPR ___,
OSC  ISUP , RFMP _,   DPSTOP _,        DELAY ___,   MFSPEED __, DNHR _,
XCPA _,     DNP _,                     REV _,       GLARE _,    PSOLI _,

BN  0288 , BRL L,  ITC _,  GSDN _,   GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN _____________, PSBN _, PSCPN _,      ANISID ____, WANISID ____, PSUUI _,
BNPT  ____,  WBNPT ____,   CMERGE _,        SCFN _,  OVLP _,  PRIT _____,
APS _, CHNEG _, PSATP _, PBXESGD _,         PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,      DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN ____, BFTIS REL, BFTNI REL,          SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _, S5DIG _, SDS _, FVSR _,  IFITR _,   PCPEACEL _, UT15DA _,
LRN _____________, CBN DIGS _________, CBN _,
ONCID 4, D3DBN _, MULAW _,     CSCSET _____,  CID ____, ITCENC _, OFITR _,
SPN _, LNPIC _, NCAR _, TTA _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FOLI _, FELN _, HUNT __, CSN __, CARSON _, SOIP -, TCC _, STBI _,
CAREA _,    CPOS _,   SINDEX __,        CODSC _,    NEOTR _,    TRIDX __,
OTSTT ____, OTSTN _________,            OTMTT ____, OTMTN _________,
XTSTT ____, XTSTN _________,            XTMTT ____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS ____________________________________________________!

                    ASSOCIATED VERIFY MESSAGES

                    INPUT-11a-VER:TSG:CIN....
                    INPUT-11c-VER:TSG:TSGN....

          OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

           OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Access Tandem Call Failures

Inter-Local Access Transport Area Calls (InterLATA)
The RC 100 Forms contain critical fields used in the event of call failures.

Call Failure Key Fields:

- **BFTIS**- Backward Failure Treatment ISUP all the way

  Valid Entries:
  ANN - Play Announcement
  REL or Blank - Send REL message with Cause Value

- **BFTNI**- Backward Failure Treatment not ISUP all the way

  Valid Entries:
  ANN or Blank - Play Announcement
  REL - Send REL message with Cause Value.

These two fields must also be populated on the 406Z Form. The type of failure determines where the software accesses this data. This will be covered in more detail on the following page.

Other Key Fields:

- **ISC/OSC**- Incoming/Outgoing Signaling characteristics
  ISUP is used for SS7 signaling

- **TFG** - Type of Feature Group
  D is used for Feature Group D

- **TOT** - Type of Trunk
  OCC is used for Other Carrier Connecting

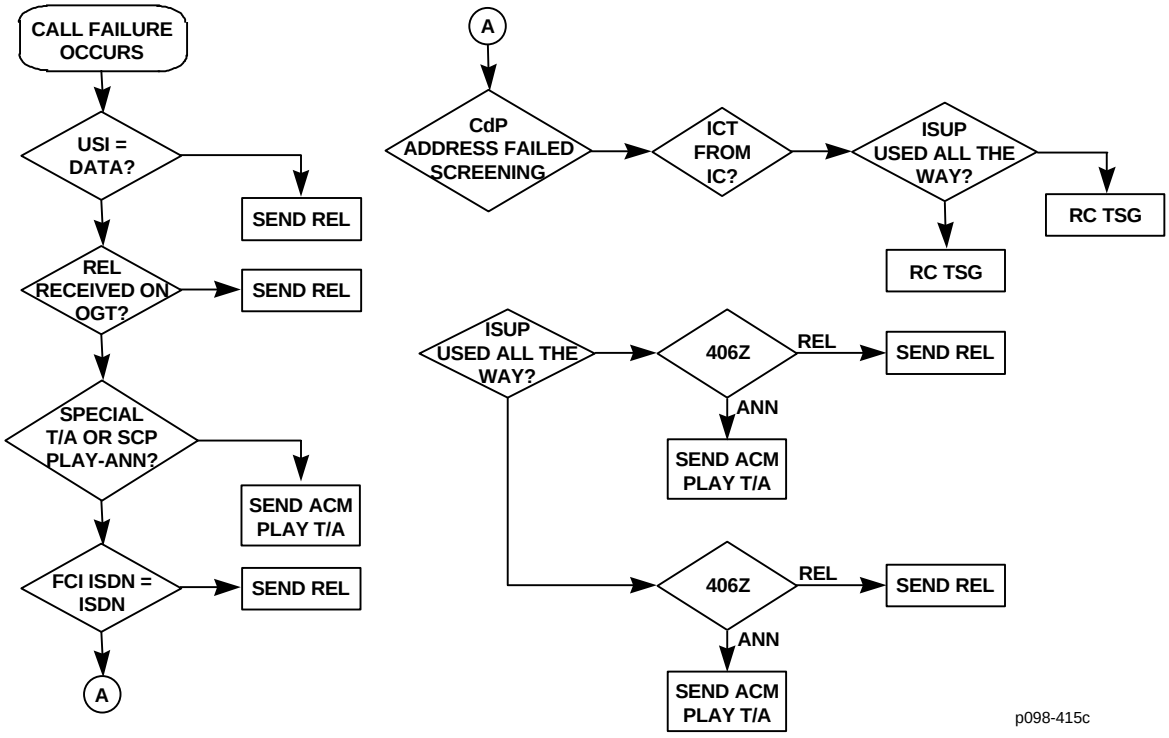
Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Call Failure Treatment

CALL FAILURE TREATMENT AT ACCESS TANDEM



Legend:

ACM	Address Complete Message
CdP	Called Party
FCI	Forward Call Indicators
OGT	Outgoing Trunk
REL	Release
T/A	Tone or Announcement
USI	User Service Information

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Call Failure Treatment

This flow chart shows the decisions associated with call failure to determine whether a cause value or a tone/announcement is returned.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

ODA 406Z Form

```
ESS 406Z SHEET 1 OF 5 TG-4     MISCELLANEOUS OFFICE DATA
4E24R1>                                  4ESS
                          4E24R1 AND LATER GENERIC PROGRAMS
                            ESS UNIT _____________________________

FORM CODE _6Z_
          1  2

3BRECCAP  __,          CAD __          BFTNI     _____,         CAD __
3     10  14               80          3   7     14 16              80

AASE      _____,       CAD __          BLKBXPS   __,           CAD __
3  6      14 17             80          3     9   14                 80

ADDA      _____,       CAD __          CDSRT     _____,       CAD __
3  6      14 17             80          3   7     14 17              80

ADEAMF    _____,       CAD __          CIC_DA    _____,       CAD __
3    8    14 17             80          3    8    14 23              80

ADNISUP   _____,       CAD __          C7NIDLY   _____,       CAD __
3     9   14 17             80          3     9   14 17              80

AINCFRTH  _____,       CAD __          DSDNSCATL _____,       CAD __
3     10  14 15             80          3      11 14 16              80

AINCGFHT  _____,       CAD __          DSDNSCBTL _____,       CAD __
3     10  14 16             80          3      11 14 16              80

AINFHT    _____,       CAD __          DSDNSCTHR _____,       CAD __
3    8    14 16             80          3      11 14 16              80

AINRDFLT  __,          CAD __          EADOM     _____,       CAD __
3     10  14               80          3   7     14 15              80

AINRESP   _____,       CAD __          EAR       __,          CAD __
3     9   14 16             80          3 5       14                 80

AINSSN    _____,       CAD __          EASATMFO  _____,       CAD __
3    8    14 16             80          3     10  14 18              80

AINTRIG   __,          CAD __          EASATNOL  _____,       CAD __
3     9   14               80          3     10  14 18              80

ANNIDNCP  _____,       CAD __          EASCRNOL  _____,       CAD __
3     10  14 18             80          3     10  14 18              80

ANNIDSDN  _____,       CAD __          EASCRO    _____,       CAD __
3     10  14 18             80          3    8    14 18              80

ATPSCU    _____,       CAD __          EPAV_TIME _____,       CAD __
3    8    14 15             80          3      11 14 18              80

BBFPFHT   _____,       CAD __          FSFRT     _____,       CAD __
3     9   14 16             80          3   7     14 16              80

BFTIS     _____,       CAD __
3   7     14 16             80
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

ODA 406Z Form

Call Failures for Intra-LATA Calls
The Office Data Assembler (ODA) 406Z Form contains the fields BFTIS (Backward Failure Treatment ISUP all the way) and BFTNI (Backward Failure Treatment not ISUP all the way).

These fields identify the disposition of Intra-LATA ISUP call failures.

- **BFTIS**- Backward Failure Treatment ISUP all the way

  Valid Entries:
  ANN - Play Announcement
  REL or Blank - Send REL message with Cause Value

- **BFTNI**- Backward Failure Treatment not ISUP all the way

  Valid Entries:
  ANN or Blank - Play Announcement
  REL - Send REL message with Cause Value.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Tone and Announcement Treatment for Call Failure

Cause Value	Domestic Treatment (Note 3)
1 unallocated number	VCA
2 no route to specified transit network	VCA
3 no route to destination	VCA
4 send special information tone	T
5 misdialed trunk prefix	N/A for U.S.
16 normal clearing	T (Note 1)!
17 user busy	BT
18 no user responding	ROA
21 call rejected	ROA
22 number changed	VCA
27 destination out of service	ROA
28 address incomplete	VCA
31 normal, unspecified (classes 000 and 001)	T (Note 1)
34 no circuit available	NCA/NCC
38 network out of order	ROA
41 temporary failure	ROA
42 switching equipment congestion	ROA
43 user information discarded	(Note 2)
44 requested channel not available	ROA
45 preemption	T
47 resource unavailable	unspecified
57 bearer capability not authorized	VCA
58 bearer capability not currently available	VCA
63 service/option not available	unspecified
65 bearer/capability not implemented	VCA
66 channel type not implemented	VCA
70 only restricted digital information bearer capability is available	VCA
79 service/option not implemented	unspecified
81 invalid call reference value	VCA
88 incompatible destination	VCA
95 invalid message, unspecified	VCA
97 message type non-existent or not implemented	ROA
99 parameter nonexistent or not implemented	ROA
100 invalid parameter contents	ROA
111 protocol error	unspecified
127 interworking	unspecified

BT = Busy Tone (60 IPM)
NCC = No Circuit to Designated Carrier
T = Reorder Tone (120 IPM)
ROA = Reorder Announcement
VCA = Vacant Code Announcement

Notes:
1. If release is before ACM.
2. Reorder tone may be provided in place of any announcement

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Tone and Announcement Treatment for Call Failure

Cause Value Table

With network interconnect, a decision has to be made as to where failure announcements are to be played. The tone and announcement may be played at the terminating switch, or a cause value may be inserted in the ISUP REL (Release Message) returned in the backward direction. On the opposite page is a list of currently assigned cause values along with the recommended Final Handling Treatment (FHT). This value is inserted in the REL message by the particular switch that experienced the failure.

Refer to Call Irregularity Handbook 234-010-315 for additional information.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

LEC Domain Selection

SELECTOR	DOMAIN	APPLICATION
ICT DOM	POTS Non-POTS	POTS call
406Z:		
EADOM	Non-POTS	NI/SSP800/AIN Voice
EADOM 56k	Non-POTS	AIN/SSP 800 Data
EADOM 64k	Non-POTS	AIN/SSP 800 Data
Database Response	NSR	SSP/800, AIN
ISUP USI Parameter:		
3.1 kz	ICT DOM	Speech Modem
56 kb	DOM82	Data
64 kb Restricted	N64R	Data
64 kb Clear	N64C	Data
384 kb Clear	NH0C	Data
1536 kb Clear	NH1C	Data
ISUP TNS Parameter	ATNS	NI/SSP800/AIN

Legend:

AIN	Advanced Intelligent Network
ATNS	Access Tandem Transit Network Selection
DOM	Domain
EADOM	Equal Access Domain
ICT	Incoming Trunk
ISUP	ISDN User Part
NI	Network Interconnect
NSR	Number Services Routing
POTS	Plain Old Telephone Service
SSP	Service Switching Point
TNS	Transit Network Selection
TSG	Trunk Subgroup
USI	User Service Information

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

LEC Domain Selection

Domain Modifications

Domains are modified in call processing based on the call characteristics, i.e., type of call, parameters, database response. The chart on the opposite page depicts these types of modifications.

The Selector column denotes where a domain is specified. The domain lists the possible values for that category. The application indicates the type of calling that is to be executed.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Routing Translations

ROUTING DATA

- **DOMAIN— ATNS**
- **CALLDATA — TNSND**
- **AD1 — DRTC (Optional)**

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Routing Translations

Access Tandem Transit Network Selection (ATNS) is a Routing Domain used at an AT to route Network Interconnect calls. This Domain is accessed with the 4-digit Carrier ID and possibly two additional digits called the Transit Network Selection Index (TNSI). The TNSI is derived from the circuit code.

Valid CALLTYP - The following are the only CALLTYP words which are valid in the ATNS Domain:

- **FHT** - Final Handling Treatment
- **SSP** - Service Switching Point
- **SDX** - Manual Subsequent Index
  The translations personnel must assign further translations in the AD1 field to indicate the type of indexing, i.e., MTS - Multiple Treatment Screening.

CALLDATA - TNSND (Transit Network Selection Digits)
This CALLDATA word is encountered when a valid Carrier ID is received from an EAEO on an Incoming ISUP trunk. This CALLDATA is used only in the ATNS Domain with CALLTYP = SSP.

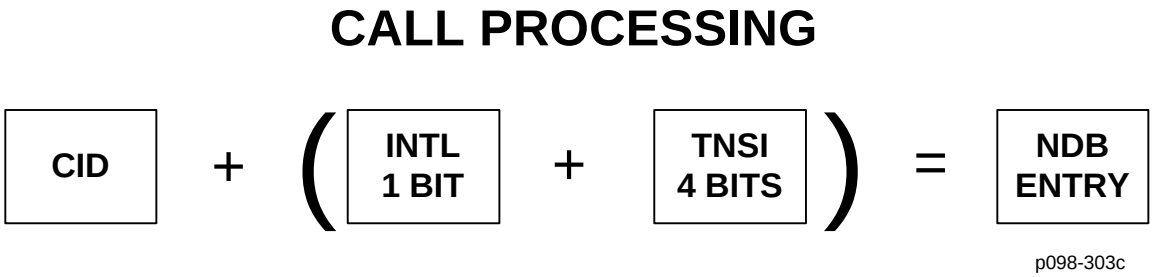
AD1 - DRTC (Data Rate Transfer Capability)
The received IAM contains the User Service Information (USI) parameter. The USI will identify whether the call attempt is voice or data and is used with CALLTYP = SDX, CALLDATA = SDX Index, and AD1 = DRTC. An RC 304 Form (Subsequent Digit Routing) is required when using the DRTC parameter. DRTC is another form of screening.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Call Processing



Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

ISUP ICT to ISUP OGT Call Processing

The diagram on the opposite page identifies the call processing steps performed at an AT.

1. The Trunk Subgroup (TSG) characteristics indicate the TOT of ETC and the ISC of ISUP. When the IAM contains the TNS parameter with a Carrier ID, the call is identified as a Network Interconnect call. This results in Digit Translation being performed in a new Routing Only Domain called Access Tandem Transit Network Selection (ATNS).

2. Digit translation may be done on either a 4-digit or 6-digit basis.

   - The 4-digit basis uses only the 4-digit carrier ID.

   - The 6-digit basis uses the 4-digit carrier ID and the 2-digit code called Transit Network Selection Index (TNSI), which equates to the existing 0ZZ or 1NX code.

   - TNSI is a number in the range of 00 - 15, indicating a specific 0ZZ or 1NX code. The international bit is set based on coding in the Called Party Address Parameter.

3. If the Carrier Code is valid, a Number Services Data Block Index (NDBI) will be reached.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Transit Network Selection

TRANSIT NETWORK SELECTION

DOMESTIC ITL = 0		INTERNATIONAL ITL = 1		CIRCUIT CODE
TNSI	**EF**	**TNSI**	**EF**	**TNSI**
0	00	0	16	0
1	01	1	17	1
2	02	2	18	2
3	03	3	19	3
4	04	4	20	4
5	05	5	21	5
6	06	6	22	6
7	07	7	23	7
8	08	8	24	8
9	09	9	25	9
10	10	10	26	10
11	11	11	27	11
12	12	12	28	12
13	13	13	29	13
14	14	14	30	14
15	15	15	31	15

Legend:
TNSI = Access Tandem Transit Network Selection Index
ITL = International Bit
EF = EF Digits of Incoming Digit Stream

NOTE: Circuit Code is equal to 0-15

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Transit Network Selection

TNSI to EF Conversion (Access Tandem Only)
A capability exists where 6-digit translation may be performed using more than one circuit code within a Local Access Transport Area (LATA).

The table on the opposite page indicates the relationship of the assigned TNSI (circuit code) to the associated EF digits that would be used in digit translation. The first 4 digits (ABCD Digits) identify the carrier (AT&T, in this case) and the 00 identifies the circuit code. The correct EF digits = 00.

Example 1: Domestic Call (ITL=0)
Received digits 0288+00

Example 2: International Call (ITL=1) non-operator
Received 0288 01 EF Digits = 17
Received 0288 02 EF Digits = 18

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Number Data Block - RC 524

```
# FORM 524  NUMBER DATA BLOCK ROUTING DEFINITION

RC:NDB;CHG;___:                    NDB 201,    ACTION A,

ORNU ______,

FENCLASS ACCESA,        FENID  0288 ,

RDBI 333,   NXZZ 08,   NNDB ____,

FG D,        ANI Y,     CPN Y,     PATH DIR,    INTL N,

REMARKS ____________________Domestic to IXC_____________________!

             EQUIVALENT ODA INPUT FORM - ESS 405H

                  ASSOCIATED VERIFY MESSAGES

                    INPUT-15g-VER:NDB:NDBI

                  OUTPUT-5l-VER:RDB,OPT(NDB):
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Number Data Block - RC 524

A Number Data Block (NDB) is used to route number service calls to an IC. Before the codegroup can be built, an NDB must be built since the NDB will be input on the codegroup form. The NDB contains additional information that is not on an RDB for IC calls.

Key Fields:

- **NDBI** - NDB Index - One of the 1024 in the office
- **FENCLASS** - ACCESA - Indicates an IC network.
- **FENID** - Far End network ID - The Carrier Identification Code (CIC)
- **RDBI** - The RDB with the TSG list for this carrier
- **NXZZ** - The NX or ZZ part of the 1NX or 0ZZ sequence. This is needed if call is tandeming through to the access tandem or is an international call. Recommend using the standard ZZ used for IXC traffic.
- **NNDB** - Next NDB index if needed
- **FG** - Feature Group (B, C, D)
- **ANI** - Send ANI
- **CPN** - Send Calling Party Number
- **PATH** - DIR: The next switch is the IC switch
  INDIR: The next switch is the AT
- **INTL** - International call - Use international signaling.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Code Group - RC 301

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM ATNS, NTD 6,   AC _,
                                                 ABC 028,

ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI   DESEP   DNST

OLD FHT, _______VCA____, ______, ____, ____, ___, ______,

                AD3 _______,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW SSP, _____TNSD_____,  201, ______, ____,  ND,  50, ______,

                AD3 _______,   ADC 6,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

800, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________Send call to AT&T via NDB201_____________!

                  EQUIVALENT ODA INPUT FORM - ESS 403E

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-13b-VER:CODEGRP

                      OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Code Group - RC 301

At this point, it is assumed that the TSG and the RDB have been built and that the circuit code is equal to 00.

When a call arrives on an ISUP trunk, the ATNS domain must contain an entry for each carrier ID that is valid. The form on the opposite page identifies the entries required for routing these equal access calls, which do not need to go to the SSP 800 database.

DOMAIN	- Entry: ATNS
CALLTYP	- Entry: SSP
CALLDATA	- Entry: TNSND
AD1	- Entry: Populate with the NDB Index in range of 1023
ADC	- Entry: 4 or 6 Digits
CHI	- Entry: Must be populated with Number Services Data Block (ND), Number Services/Inhibit Black box (NDB), or Number Services/Inhibit Black box (NDBB)
DESEP	- Entry: Populate with assigned DESEP
ABCD	- Carrier ID - Note: 3 digit codes need to be prefixed with 0
EF	- Circuit code possibly modified by INTL Bit
AC	- Entry: Blank
NTD	- Entry: 6

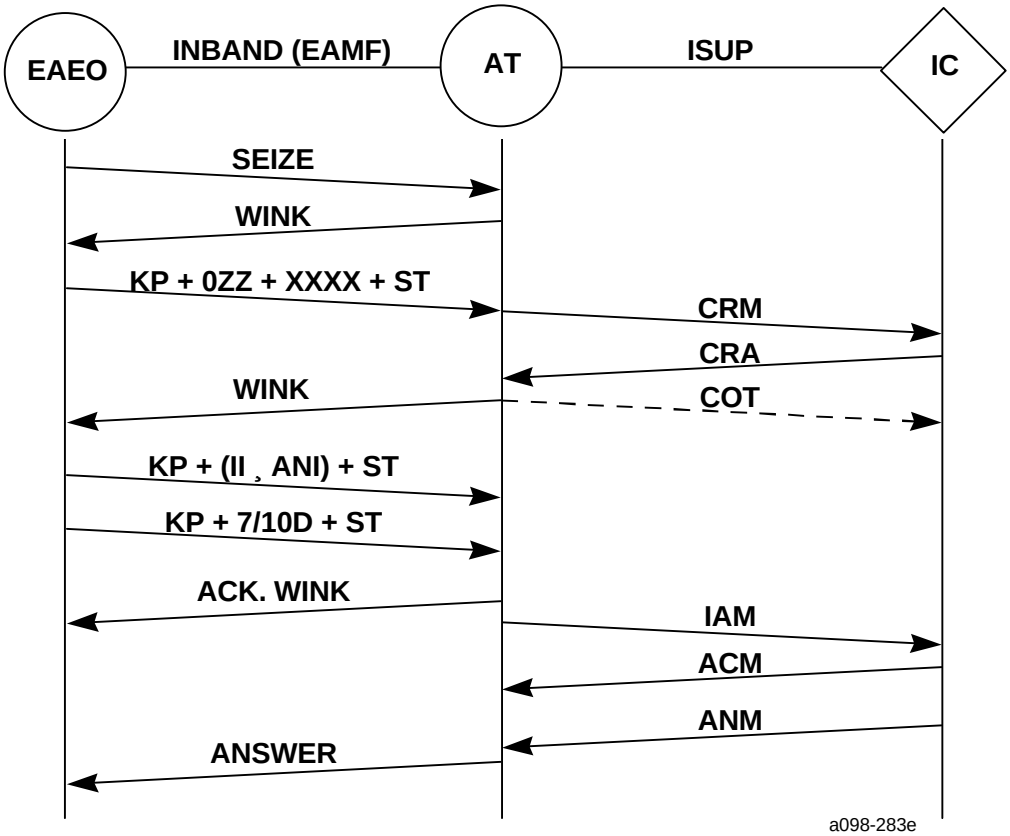
Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

MF to ISUP Interworking

MF TO ISUP INTERWORKING



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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

MF to ISUP Interworking

During the transition of signaling from MF to ISUP, the capability must be present at an AT for the interworking of MF and ISUP signaling. The call flow consists of the following:

1. The AT receives a seizure from an EAEO and returns a wink start when ready to receive the MF digits. The EAEO then out pulses the Carrier Identification to the AT (0ZZ-XXXX).

2. The AT analyzes the 0ZZ-XXXX to find an RDB to the carrier with the CHI of Wink Start No Outpulse (WSNO) and finds an idle trunk to the IC and sends a Circuit Reservation Message (CRM) to the IC.

3. The IC responds with a Circuit Reservation Acknowledge (CRA) message. The AT returns a wink start so the EAEO begins Access Charges.

4. If a Continuity Check is performed, the COT message may occur before or after the CRA message.

5. The EAEO now out pulses the ANI and the Called Party Number (CdP) to the AT. The AT returns an Acknowledgment wink.

6. The AT now generates an IAM to the IC using the information from MF digit stream.

7. When the last ISUP office returns an ACM, each preceding office connects the ICT to the OGT and returns an ACM to the preceding office.

8. The CPN now hears the ringing tone from the terminating end office.

9. An ANM is returned when the Called Party answers.

NOTE = The initial code grouping was covered in the Carrier Interworking section.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Change NX or ZZ to TNSI Translator - Form 335

```
# FORM 335  CHANGE NX OR ZZ TO TNSI TRANSLATOR

RC:CODEGRP;CHG;OPT(TNSI),___:        TNSD ZZ,

ORNU _______,

NX / ZZ
DIGITS  TNSI   OPR

   82,     00,    _,        (ZZ CASE)
   61,     03,    _,        (ZZ CASE)
   __,     __,    _,
   __,     __,    _,
   __,     __,    _,
   __,     __,    _,
   __,     __,    _,
   __,     __,    _,

REMARKS ____________Domestic____________!

              EQUIVALENT ODA INPUT FORM - ESS 403Y

                   ASSOCIATED VERIFY MESSAGES
                     INPUT-13o-VER:EA:NX/ZZ

                  OUTPUT-3ad-VER:EA;OPT(NX/ZZ)
```

```
# FORM 335  CHANGE NX OR ZZ TO TNSI TRANSLATOR

RC:CODEGRP;CHG;OPT(TNSI),___:        TNSD NX,

ORNU _______,

NX / ZZ
DIGITS  TNSI   OPR

   38,     01,    N,        (NX CASE)
   58,     02,    Y,        (NX CASE)
   __,     __,    _,
   __,     __,    _,
   __,     __,    _,
   __,     __,    _,
   __,     __,    _,
   __,     __,    _,

REMARKS ____________Intl____________!

              EQUIVALENT ODA INPUT FORM - ESS 403Y

                   ASSOCIATED VERIFY MESSAGES
                     INPUT-13o-VER:EA:NX/ZZ

                  OUTPUT-3ad-VER:EA;OPT(NX/ZZ)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Change NX or ZZ to TNSI Translator - Form 335

In this interworking case, the call is received on an MF trunk and sent out on an ISUP trunk. The 4ESS must be able to convert the MF input into the appropriate ISUP output. For the most part, this is possible without any additional information.

However, if a TNS parameter is required in the outgoing IAM, a means to determine the correct circuit code is required and that is the purpose of the RC 335 Form.

The translator is used to convert the existing NX and ZZ codes used for Equal Access MF signaling to the ISUP format when TNS is required for an outgoing IAM.

Entries are as follows:

- **TNSD** - Use NX or ZZ to indicate entry type.

NOTE: Normal usage is for NX conversion; however, the ZZ case is needed if tandeming to another AT.

- **NX/ZZ Digits** - Enter all the valid NX or ZZ codes depending on TNSD entry above.
- **TNSI** - Enter value from 00 to 15. These may be used once for each NX and ZZ. These values are used to identify to the Interexchange Carrier what type of service is required for this call.
- **OPR** - Operator Indicator. If TNSD = ZZ, then leave this field blank. If TNSD = NX, then enter a Y or N to indicate whether an International Operator is required.

The current format for International calling is as follows:

138-028-800-7 - The 138 identifies the call as International Direct Dialed Digits (IDDD) with country code 7, IC 288.

158-028-800-7 - The 158 identifies the call as requiring an International Operator for same case.

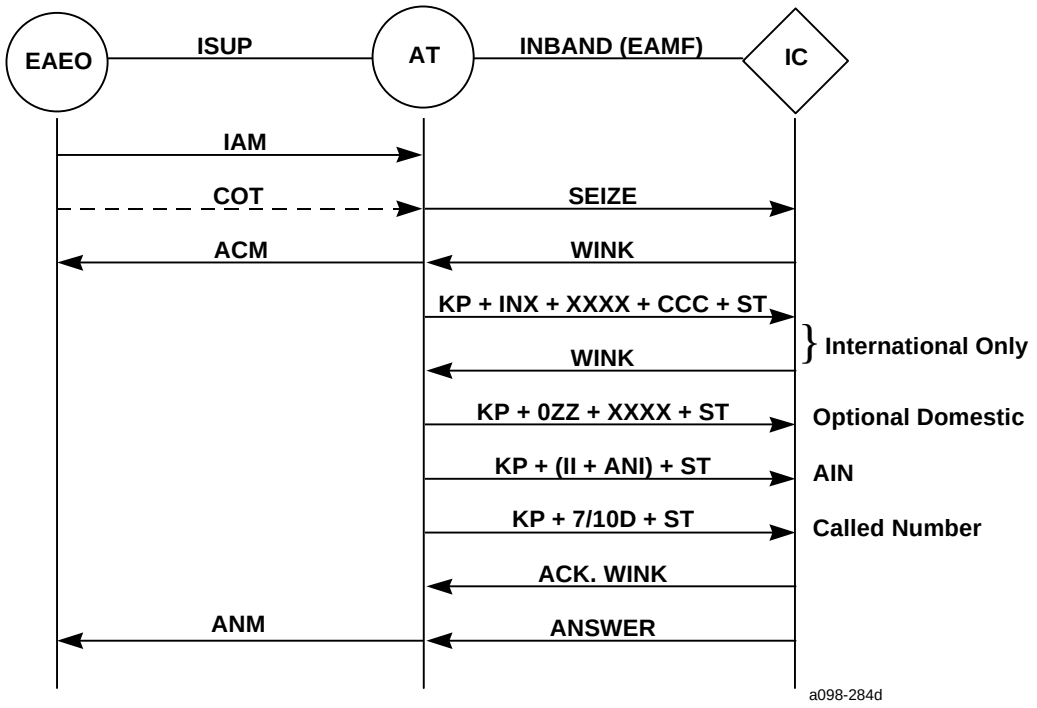
Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

ISUP to MF Interworking

ISUP TO MF INTERWORKING



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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

ISUP to MF Interworking

The AT has the capability of receiving ISUP messages from an EAEO and signaling to the IC using MF. The call flow consists of the following:

1. The EAEO generates an IAM to the AT containing the Transit Network selection parameter Carrier ID and the Circuit Code Digits, Charge Number (CgN) and the CdP.
2. The Continuity Check may or may not be performed.
3. The CID and Country Code (CC) are translated in the ATNS Domain to get the NDBI for this carrier and the outgoing trunk is selected and an Off Hook is sent after the receipt of the COT message.
4. When the Wink Start is received from the IC, an ACM is returned to the EAEO and Access Charges begin.
5. The Called Number and the ANI are now MF out pulsed from the AT to the IC. If the call is international or tandeming to an AT, then the NX/0ZZ sequence is outpulsed.
6. An Acknowledgment Wink is then returned from the IC and the ICT is connected to the OGT at the AT.
7. An Answer is received at the AT and an ANM is returned to the EAEO.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Number Data Blocks

```
RC:NDB;CHG;___:                    NDB 201,    ACTION A,
ORNU ______,
FENCLASS ACCESA,        FENID 0288 ,
RDBI 333,   NXZZ 08,   NNDB ____,
FG D,        ANI Y,     CPN Y,     PATH DIR,    INTL N,
REMARKS ________________Domestic to IXC________________!

RC:NDB;CHG;___:                    NDB 202,    ACTION A,
ORNU ______,
FENCLASS ACCESA,        FENID 0288 ,
RDBI 333,   NXZZ 38,   NNDB ____,
FG D,        ANI Y,     CPN Y,     PATH DIR,    INTL Y,
REMARKS ________________International non operator to IC________________!

RC:NDB;CHG;___:                    NDB 203,    ACTION A,
ORNU ______,
FENCLASS ACCESA,        FENID 0288 ,
RDBI 333,   NXZZ 58,   NNDB ____,
FG D,        ANI Y,     CPN Y,     PATH DIR,    INTL Y,
REMARKS ________________International non operator to IC________________!
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

SS7 to MF Interworking

In this interworking case, the call is received on an ISUP trunk and sent out on an MF trunk. The 4ESS Switch must be able to convert the ISUP inputs to the MF outputs. For the most part, this is possible without any further additional information.

When the SS7 call is received, a TNS parameter is received which contains the CID and CC which will be used for translation in the ATNS domain. The result will be an SSP calltype, TNSND call data, on an NDBI. The previous page shows three possibilities for domestic and international calls.

The following summarizes how to get the information from the call flows and the NDBs.

Information Needed	Source of Information
Domestic vs International	INTL Field N=Domestic, Y=International
ZZ or NX	NXZZ Field
XXXX	From TNS Parameter in IAM
CCC	From Country Code Conversion Table (see Next Pages)
II	From OLI in IAM + OLI/II translater (see RC 3xx)
ANI	From Charge Number (CgN) Parameter in IAM
7/10D*	From CdP parameter in IAM

NOTE: * For international calls, 7/10 can be up to 15 digits long.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Adding a Country Code - RC 317

```
# FORM 317   ADD COUNTRY CODE
4E24R1

RC:CODEGRP;NEW;OPT(CCDCONV),FTA: CCD 52, LD 0, CBONLY N, FAXPR _,

SCLB _, RESELL _, CCRF _,

ORNU 999999,

ABC   ABC   ABC   ABC

520,  521,  522,  523,

524,  525,  526,  527,

528,  529,  ___,  ___,

___,  ___,  ___,  ___,

REMARKS Add Country Code 52 !

                    ASSOCIATED VERIFY MESSAGES

                    INPUT-13e-VER:CCDCONV:ABC

                OUTPUT-3m-VER:CODEGRP;OPT(CCDCONV)

                              VER:CCDCONV:BC  520!

                    20 VER:CODEFRP;OPT(CCDCONV);CUR:

  ABC        CCD        LD       CBONLY     FAX PR      CCID       CCCNT

520,       52 ,        0,         N,         N,        CCD,         2,
521,       52 ,        0,         N,         N,        CCD,         2,
522,       52 ,        0,         N,         N,        CCD,         2,
523,       52 ,        0,         N,         N,        CCD,         2,
524,       52 ,        0,         N,         N,        CCD,         2,
525,       52 ,        0,         N,         N,        CCD,         2,
526,       52 ,        0,         N,         N,        CCD,         2,
527,       52 ,        0,         N,         N,        CCD,         2,
528,       52 ,        0,         N,         N,        CCD,         2,
529,       52 ,        0,         N,         N,        CCD,         2,
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Adding a Country Code - RC 317

To put in the correct country code, another translator is needed. The RC 317 performs this function. However, it is not obvious how to handle this form since country codes are one, two, or three digits long. Also, the software uses the ABC digits of the called party number to derive the country code. The system has to be told the country code digits and the remaining digits that make up the ABC digits.

For a one digit country code, there are 100 combinations to be entered.

For two digit country codes, there are 10 combinations to be entered.

For three digit country codes, there is only one combination to be entered.

It is recommended that all be built to avoid a complex administration process when phone numbers are added in a country code. In other words, do it once and it is done. It avoids a late night call because of customer complaints about not being able to reach a particular number.

In this example, country code 52 is added with the ten possible other digits possible in the first three digits.

A sample of how to verify is included. Putting in an ABC combination gets all the entries in the system to match that country code if it exists.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Subsequent Digit Routing DRTC (Access Tandem Only) - Form 304

```
# FORM 304   CHANGE SUBSEQUENT DIGIT ROUTING
  4E23R1>

RC:CODEGRP;CHG;OPT(SDX),___:          SDINDEX  500 , SIZE 1, DOMCLASS ATNS,

ORNU ______,  ACTION A,

INDEX  CALLTYP     CALLDATA        AD1    AD2     SC     CHI   DESEP   DNST

 0 ,   SSP,      TNSND      , 10, ______,  ____,  ND,   20, ______,
                  AD3 ________, ADC 6,__,__,__,__,__,__,__,__,__,__,__,__,__,

 1 ,   SSP,      TNSND      , 15, ______,  ____,  ND,   50, ______,
                  AD3 ________, ADC 6,__,__,__,__,__,__,__,__,__,__,__,__,__,

 2 ,   SSP,      TNSND      , 15, ______,  ____,  ND,   50, ______,
                  AD3 ________, ADC 6,__,__,__,__,__,__,__,__,__,__,__,__,__,

 3 ,   SSP,      TNSND      , 15, ______,  ____,  ND,   50, ______,
                  AD3 ________, ADC 6,__,__,__,__,__,__,__,__,__,__,__,__,__,

 4 ,   SSP,      TNSND      , 15, ______,  ____,  ND,   50, ______,
                  AD3 ________, ADC 6,__,__,__,__,__,__,__,__,__,__,__,__,__,

 5 ,   SSP,      TNSND      , 20, ______,  ____,  ND,   50, ______,
                  AD3 ________, ADC 6,__,__,__,__,__,__,__,__,__,__,__,__,__,

 6 ,   SSP,      TNSND      , 25, ______,  ____,  ND,   50, ______,
                  AD3 ________, ADC 6,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,  ____________________, ____, ______,  ____,  ____,   ___,  ______,
                  AD3 ________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

REMARKS ____________________________________________________!

                EQUIVALENT ODA INPUT FORM - ESS 403G

                     ASSOCIATED VERIFY MESSAGES

                   INPUT-13c-VER:CODEGRP:SDINDEX

                   OUTPUT-3g-VER:CODEGRP;OPT(SDX)
```

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Network Interconnect, Continued

Network Interconnect (cont'd.)

Subsequent Digit Routing DRTC (Access Tandem Only)

Unique items required on the RC 304 Form to support DRTC are as follows:

- **SDINDEX** - Index used on the 301 Code Group Form.
- **SIZE** - *Enter* a "1". This assigns 16 words in software for this function.
- **DOMCLASS** - Domain Class - ATNS.
- **INDEX** - *Enter* 0 - 6 on seven lines. Their meanings are as follows:

  0 = Speech
  1 = 3.1 kHz Audio
  2 = 56 kb/s
  3 = 64 kb/s Restricted
  4 = 64 kb/s Clear
  5 = 384 kb/s Clear
  6 = 1.536 Mb/s Clear

Speech allows a call to receive Time Assignment Speech Interpolation (TASI) and Low Bit Rate Voice (LBRV) encoding. (This is not a North American issue.)

The 3.1 kHz audio carries voiceband data (facsimile, modems, etc.) and TASI and LBRV will not be used.

The balance of the form contains the same fields as the Code Group Tables.

It is expected that voice and 3.1 kHz audio will share the same domestic facilities. It is likely that 56 kb/s, 64 kb/s restricted and possibly 64 kb/s clear will share the same facilities.

Continued on next page

Network Interconnect, Continued

Network Interconnect (cont'd.)

Change 4, 5, or 6 Digit Translation - Form 301

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM ATNS, NTD 6,   AC _,
                                                 ABC 028,

ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI   DESEP   DNST

OLD FHT, _______VCA_______,   ____,  ______,  ____,  ____,  ___,  ______,

                AD3 _______,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW SDX, _______500_______,   DRTC,  ______,  ____,  ____,  ___,  ______,

                AD3 _______,   ADC 6,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

800, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________!

                EQUIVALENT ODA INPUT FORM - ESS 403E

                    ASSOCIATED VERIFY MESSAGES

                      INPUT-13b-VER:CODEGRP

                   OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

Continued on next page

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Network Interconnect, Continued

Network Interconnect (cont'd.)

Change 4, 5, or 6 Digit Translation - Form 301

Data Rate Transfer Capability (DRTC)

DRTC is a feature that provides the capability of identifying the type of call as *voice* or *data*. This information then is used to determine the type of *facility* to be used in completing the call.

DRTC uses the USI parameter.

When this feature is used, an RC 301 Form must be populated:

CALLTYP	*Entry:* SDX (Subsequent Digit Index)
CALLDATA	*Entry:* Manual SDX in range of 1-16383
AD1	*Entry:* DRTC (Data Rate Transfer Capability).

Continued on next page

Network Interconnect, Continued

Acronyms and Abbreviations

The following are acronyms and abbreviation of terms used throughout this document:

Terms	Definitions
ACK	Acknowledgment Wink
ACM	Address Complete Message
AIN	Advanced Intelligent Network
ANI	Automatic Number Identification
ANM	Answer Message
ANN	Announcement
AT	Access Tandem
ATNS	Access Tandem Transit Network Selection
BFTIS	Backward Failure Treatment ISUP
BFTNI	Backward Failure Treatment not ISUP
BT	Busy Tone
CC	Country Code
CCC	Country Code Conversion
CdP	Called Party Number
CgN	Calling Number
CHI	Call Handling Instruction
CIC	Carrier Identification Code
COT	Continuity Test
CRA	Circuit Reservation Acknowledge
CRM	Circuit Reservation Message
CPN	Called Party Number
DRTC	Data Rate Transfer Capability
EAEO	Equal Access End Office
DESEP	Destination Separation
DOM	Domain
DOMCLASS	Domain Class
DRTC	Data Rate Transfer Capability
EADOM	Equal Access Domain
EAMF	Equal Access Multifrequency
EASEQ	Equal Access Sequence
EF	EF Digits of Incoming Digit Stream
EO	End Office

Continued on next page

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Network Interconnect, Continued

Acronyms and Abbreviations (cont'd.)

Terms	Definitions
ETC	End Office/Access Tandem Connecting
EXM	Exit Message
FCI	Forward Call Indicators
FEN	Far End Network
FENID	Far End Network ID
FG-D	Feature Group D
FHT	Final Handling Treatment
IAM	Initial Address Message
IC	Interexchange Carrier
ICT	Incoming Trunk
IDDD	International Direct Dialed Digits
II	Information Digits
INTL	International
ISC	Incoming Signaling Characteristic
ISDN	Integrated Services Digital Network
ISUP	ISDN User Part
ITL	International Bit
KP	Key Pulse
LATA	Local Access Transport Area
LBRV	Low Bit Rate Voice
LEC	Local Exchange Carrier
LCC	Local Exchange Carrier Connecting
MF	Multifrequency
NCC	No Circuit to Designated Carrier
NCP	Network Control Point
ND	Number Services Data Block
NDB	Number Services/Inhibit Black Box
NDBB	Number Services/Inhibit Black Box
NDBI	Number Service Data Block Index
NI	Network Interface
NNDB	Next NDB Index
NSR	Number Services Routing
NTD	Number of Translated Digits

Continued on next page

Network Interconnect, Continued

Acronyms and Abbreviations (cont'd.)

Terms	Definitions
OCC	Other Carrier Connecting
ODA	Office Data Assembler
OGT	Outgoing Trunk
OLI	Originating Line Information
OPR	Operator Indicator
OSC	Outgoing Signaling Characteristic
POP	Point of Presence
POTS	Plain Old Telephone Service
RC	Recent Change
REL	Release Message
ROA	Reorder Announcement
SCP	Service Control Point
SDX	Subsequent Digit Index
SS7	Signaling System 7
SSP	Service Switching Point
ST	Start (Pulse)
STP	Signal Transfer Point
T/A	Tone or Announcement
TASI	Time Assignment Speech Interpolation
TFG	Type of Feature Group
TSG	Trunk Subgroup
TNS	Transit Network Selection
TNSD	Transit Network Selection Digit Indicator
TNSI	Transit Network Selection Index
TNSND	Transit Network Selection Digits
TOT	Type of Trunk
TSG	Trunk Subgroup
UNK	Unknown
USI	User Service Information
VCA	Vacant Code Announcement
WAC2	Wait for Acknowledgment (Intermediate Carriers)
WACK	Wait for Acknowledgment
WSNO	Wink Start No Outpulse

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SSP-800

Introduction

Certain fields on Recent Change (RC) Forms are uniquely used at an Access Tandem (AT). This section is intended to identify these unique fields and entries.

This section describes the impact as a result of SSP-800.

In This Section

This section contains the following topics:

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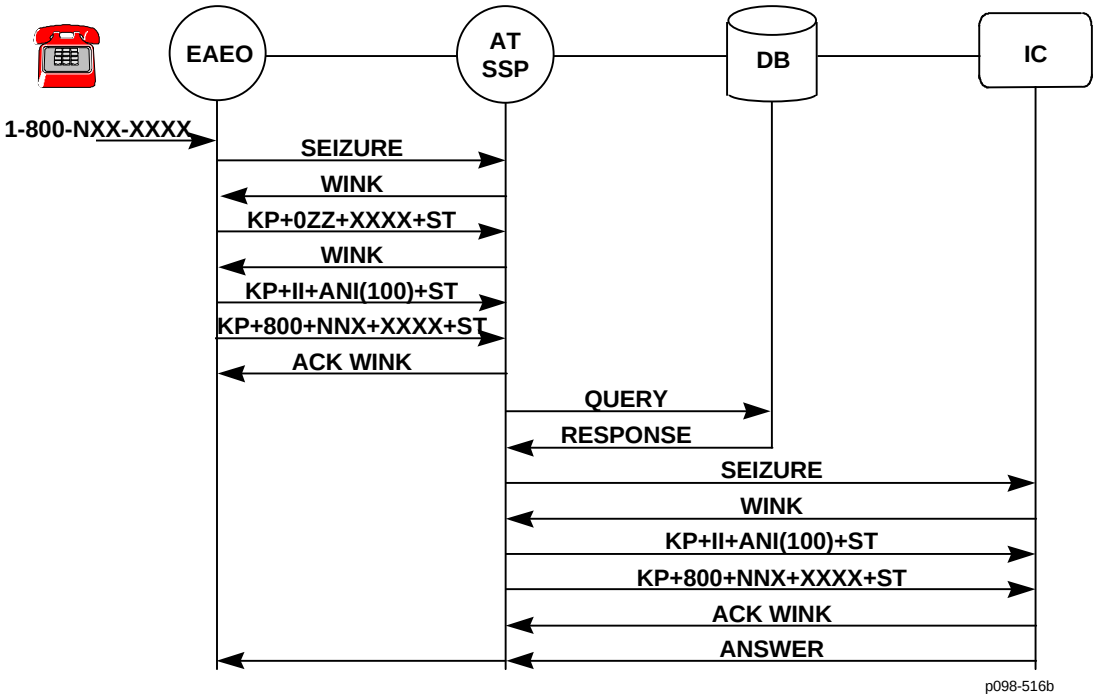
SSP-800, Continued

SSP-800
Call Flow MF

EAEO MF ACCESS VIA AT/SSP TO IC



Continued on next page

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SSP-800, Continued

SSP-800
Call Flow MF
(cont'd.)

EAEO Access VIA AT/SSP to IC

The SSP feature is used to provide Equal Access 800 service. Equal Access 800 means that any 10-digit 800 number can be routed to the carrier chosen by the customer.

The 800 number is sent to a Service Control Point (SCP) to determine whether the 800 number is Inter- or Intra-LATA. The SCP can respond with the Carrier Identification Code or a routable Plain Old Telephone Service (POTS) number.

This is an example of the call processing steps for SSP-800 calls using Multifrequency (MF) signaling.

1. The Equal Access End Office (EAEO) collects the 800 number dialed by the customer.
2. The EAEO sends the 800 number, the charge number, the Originating Line Information (OLI), the pseudo carrier (110), and the circuit code in the Initial Address Message (IAM) to the AT/SSP.
3. The AT/SSP translates the carrier information and the 800 number to determine that a Data Base (DB) query is required.
4. The DB query is sent using appropriate information from the originating IAM.
5. The DB translates the received messages and returns a routing response to the AT/SSP (Interexchange Carrier (IC) with either 800 number or routing number).
6. The AT/SSP selects a route based on the carrier (IC or LEC) and sends an IAM with the called number and the Automatic Number Identification (ANI) received.
7. The AT/SSP receives an Address Complete Message (ACM) when the call is set up to complete to an idle line.
8. The answer is received when the call is answered and sent to the end office.

Continued on next page

SSP-800, Continued

SSP-800 **Code Group - RC 302**
Call Flow MF
(cont'd.)

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
     4E23R1>

   RC:CODEGRP;CHG;OPT(DIG9),___:                    DOM POTS, NTD 7,   AC N,
                                                    ABC 050,  DEF 011,
ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI   DESEP   DNST

OLD   FHT, ________VCA________,  ____,  _______,  ____,  ____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   SSP, ________EASEQ_____,  ____,  _______,  ____,  ____,  ___,  _______,

                AD3 _________,  ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,


   GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

    0, ___, ___, ___, ___, ___, ___, ___,
   ___, ___, ___, ___, ___, ___, ___, ___,
   ___, ___, ___, ___, ___, ___, ___, ___,
   ___, ___, ___, ___, ___, ___, ___, ___,

   REMARKS ____________MF Incoming SSP/800 call____________!

                EQUIVALENT ODA INPUT FORM - ESS 403F

                     ASSOCIATED VERIFY MESSAGES

                       INPUT-13b-VER:CODEGRP

                   OUTPUT-3e-VER:CODEGRP;OPT(DIG9)
```

Continued on next page

SSP-800, Continued

SSP-800 Call Flow MF (cont'd.)

Code Group - RC 302

For MF SSP/800 calls, the normal carrier interconnect equal access signaling is used using a unique Carrier Identification Code 110/0110. This is the industry accepted pseudo carrier that is used to indicate a Data Block (DB) dip is required to route the call.

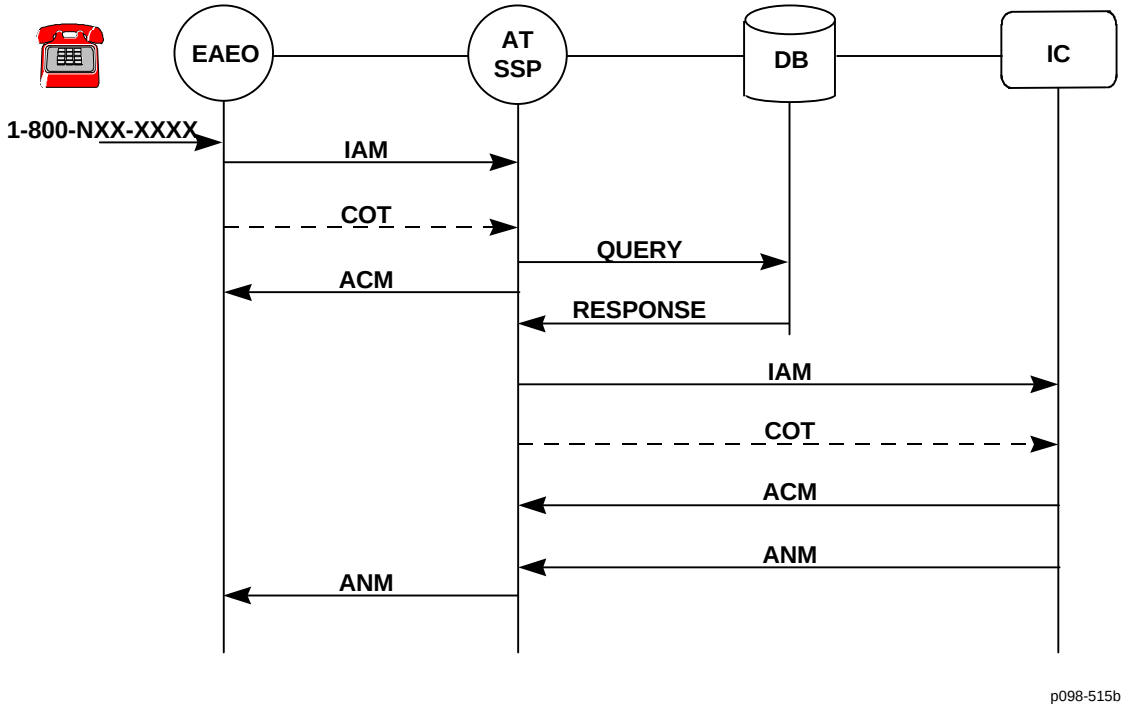
This time, the translation will yield an SSP call type with a call data of Equal Access Sequence (EASEQ) which is the SSP/800 equivalent for the Wink Start No Outpulse (WSNO) in the CHI which is used for POTS calls. The 4ESS will wink back to the previous switch and receive the second stage of digits for the next stage of analysis.

Continued on next page

SSP-800, Continued

SSP-800
Call Flow SS7

SS7 EAEO ACCESS VIA AT/SSP TO IC



Continued on next page

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SSP-800, Continued

SSP-800 Call Flow SS7 (cont'd.)

EAEO Access Via AT/SSP to IC

This is an example of the call processing steps for SSP-800 calls using ISUP signaling.

1. EAEO collects 800 number dialed by customer.
2. It sends 800 number, Charge Number (CHGN), OLI and pseudo carrier (110) and circuit code in IAM to AT/SSP.
3. AT/SSP translates carrier information and 800 number to determine that a Data Block (DB) query is required.
4. DB query is sent using appropriate information from the originating IAM.
5. DB translates received message and returns routing response to AT/SSP (IC and either 800 number or routing number).
6. AT/SSP selects route based on carrier (IC or LEC) and sends IAM with called number and ANI received.
7. AT/SSP receives an Address Complete Message (ACM) when call set up is complete to an idle line.
8. Answer Message (ANM) is received when call is answered and send to the end office.

Continued on next page

SSP-800, Continued

SSP-800 **Code Group - RC 301**
Call Flow SS7
(cont'd.)

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM ATNS, NTD 6,   AC _,
                                                 ABC 011,

ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI   DESEP   DNST

OLD FHT, _________VCA________,   ____,  ______,  ____,  ____,  ___,  ______,

                 AD3 _______,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW SSP, ________EASEQ_____,   ____,  ______,  ____,  ____,  ___,  ______,

                 AD3 _______,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

008, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____ISUP 800 Request via CIC 0110 and Circuit Code 08_____!

                  EQUIVALENT ODA INPUT FORM - ESS 403E

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-13b-VER:CODEGRP

                       OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

Continued on next page

SSP-800, Continued

SSP-800
Call Flow SS7
(cont'd.)

Code Group - RC 301

For Signaling System (SS7), the carrier identification code and circuit codes are contained in the Transit Network Selection (TNS) parameter in the IAM. The presence of this parameter forces the information to be translated in the Access Tandem Transit Network Selection (ATNS) domain.

The unique condition for this call is the carrier identification code which is 110/0110. This is called the pseudo carrier and is used industry wide to indicate that the call is to be processed by a DB for routing treatment.

The call type of SSP and call data of EASEQ indicate that this is the first part of an SSP/800 call. In this case, the software will figure out that the Incoming Trunk (ICT) is Integrated Services User Part (ISUP) and will not send back a wink but get the 2nd stage digits from the IAM for continuing processing.

The following is an example of operating a Carrier Identification Code and Circuit Code.

Key Fields:

- **DOM** - Domain
  ATNS - Access Tandem Transit Network Selection
- **CALLTYP** - Call Type Word
  SSP - Service Switch Point
- **CALLDATA** - Call Data Word
  EASEQ - Collect the 2nd and 3rd stage digits in EA format
- **ABC** - First, Second, Third Digit
  011
- **DEF** - Fourth, Fifth, Sixth Digit
  008

Continued on next page

SSP-800, Continued

SSP-800 Domains

Add a New NonPOTS Domain - Form RC 309

```
# FORM 309   ADD  A  NEW  NONPOTS  DOMAIN

RC:CODEGRP;NEW;OPT(DOM),___:                                  DOM  22 ,

ORNU ______,

FSONLY N,

REMARKS ___________Add Domain 22 for translating the 800 number_____!

              EQUIVALENT ODA INPUT FORM - ESS 403C

               ASSOCIATED VERIFY MESSAGES - NONE


# FORM 309   ADD  A  NEW  NONPOTS  DOMAIN

RC:CODEGRP;NEW;OPT(DOM),___:                                  DOM  NSR ,

ORNU ______,

FSONLY N,

REMARKS ___________Add NSR Domain for translating the DB response_____!

              EQUIVALENT ODA INPUT FORM - ESS 403C

               ASSOCIATED VERIFY MESSAGES - NONE
```

Continued on next page

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SSP-800, Continued

SSP-800 Domains (cont'd.)

Building the EADOM/NSR NonPOTS Domain

Since these calls allow some additional screening beyond the initial translations, additional domains are used. The first is used in the first part of the call; the second is used in the second part or response processing part of the call.

In the first part, the second stage of digits, typically the 800 number, will be translated in the Equal Access Domain (EADOM), a nonPOTS domain arbitrarily chosen by you.

In this example, Domain 22 is chosen. Since it is a nonPOTS domain, it is not opened automatically. The RC 309 Form does this function and populates the ABC digits with VCA.

NOTE: If an EADOM is not assigned via the 406C/Z Form, then the domain of the ICT will be used.

For the response processing, another nonPOTS domain, Number Services Routing (NSR), is used. Again this must be opened before populating codes in it.

We will see usage of NSR later in this section.

Continued on next page

SSP-800, Continued

SSP-800 Domains (cont'd.)

Type of Service (TOS) Mapping - Form RC 626

```
# FORM 626  TYPE OF SERVICE TO DIALED CODE MAPPING
  4E21R3>

RC:TOS;CHG;___:

ORNU ______,

TOS  0 ,   TT 254,   SSN 254,   OLD CODE 000,   NEW CODE 800,  AIN TFREE _,

REMARKS _____________________________________________________!

              EQUIVALENT ODA INPUT FORM - ESS 406R

                   ASSOCIATED VERIFY MESSAGES

                       INPUT-16v-VER:TOS

                   OUTPUT-6ac-VER:MISC,OPT(TOS)

*** CNI DATA MANAGEMENT SYSTEM **** DATE:  06/01/97   TIME:  13:42*****

FUNCTION:  gttran  ACTION:  chg  ORDER:  06Y000555000  OFFICE:  NPVLILIH2MD

                                   GLOBAL TITLE TRANSLATIONS

                                   ITEM:               001

                                   TRANSLATION TYPE:   254

                                   EVEN STP PC:        255250000

                                   ODD STP PC:         255250000
```

Continued on next page

SSP-800, Continued

SSP-800 Domains (cont'd.)

Type of Service (TOS) Mapping - Form RC 626

In order for the query to get to the appropriate data base, the 4ESS must have some data populated in the 1B processor and the Common Network Interface (CNI) so that the correct STP gets the message in order to find the data base. The RC 626 assigns a TOS which will be used on the code group that is used to route this number. The fields are used as follows:

- **TOS** - Type of Service
  An arbitrary choice between 0 - 31
- **TT** - Translation Type
  An arbitrary choice 1- 255 that is used to specify a particular service such as SSP/800. The STP uses this number plus the called number which is called the Global Title to find the Data Base Point code and Subsytem Number (SSN).
- **SSN** - Subsystem Number (Range 232 -254)
  Each application using this type of processing assigns an SSN to identify the particular software to process the response. This number is sent to the DB so that the DB can send the response to the correct software in the switch.

  NOTE: The STP needs to have the SSN of the DB populated but it does not have to be the same as the 4ESS. However, it usually is identical. If the information is not populated in the STP, the query will fail.

- **OLD CODE** - Notice that this is a change form.
  The SSP functionality has a way of changing the ABC digits under certain conditions. An unassigned Type of Service (TOS) has a default value of 000.
- **NEW CODE** - For this feature, the substituted code is 800 and is typically used for 00Y substitution.

  NOTE: The 00Y capability is not available for the new toll-free codes, such as 888, 877, etc.

- **AIN TFREE** - Advanced Intelligent Network (AIN) 800/Tollfree Indicator
  For use if using the AIN version of SSP/800 service.

Continued on next page

SSP-800, Continued

SSP-800 Domains (cont'd.)

Type of Service (TOS) Mapping - Form RC 626

```
# FORM 626  TYPE OF SERVICE TO DIALED CODE MAPPING
  4E21R3>

RC:TOS;CHG;___:

ORNU ______,

TOS  0 ,   TT 254,   SSN 254,   OLD CODE 000,   NEW CODE 800,  AIN TFREE _,

REMARKS _____________________________________________________!

              EQUIVALENT ODA INPUT FORM - ESS 406R

                   ASSOCIATED VERIFY MESSAGES

                       INPUT-16v-VER:TOS

                   OUTPUT-6ac-VER:MISC,OPT(TOS)

*** CNI DATA MANAGEMENT SYSTEM **** DATE:  06/01/97   TIME:  13:42*****

FUNCTION:  gttran  ACTION:  chg  ORDER:  06Y000555000  OFFICE:  NPVLILIH2MD

                                  GLOBAL TITLE TRANSLATIONS

                                  ITEM:               001

                                  TRANSLATION TYPE:   254

                                  EVEN STP PC:        255250000

                                  ODD STP PC:         255250000
```

Continued on next page

SSP-800, Continued

SSP-800 Domains (cont'd.)

Type of Service (TOS) Mapping - Form RC 626

The CNI part of the story is shown on the bottom part. In the Data Management System (DMS) of CNI, a form gttran is used to tell the CNI how to deliver the message to the correct STP. There is more than one STP pair in a network and only one of them has the global title translation capability for a particular service. The CNI needs to be told the appropriate information.

The Translation Type is the same as the TT on the Form RC 626. The Point Codes (PC) can take on a couple of forms. The previous page uses the capability code or alias point code method where the same number represents either of the pair.

The other method uses the correct even and odd actual point code format for each member of the pair. There is an operational advantage in failure mode for the alias point code method.

Failure to have this form filled in on the CNI will cause a query failure in the 4ESS Switch and never get to the STP.

Continued on next page

SSP-800, Continued

Service Switching Point **RC 300**

```
# FORM 300   CHANGE 3 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG3),___:                    DOM __22, NTD 3,   AC _,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC    CHI  DESEP   DNST
OLD   FHT,        VCA        ,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   SSP,        SSP        ,   0,  _______,  _____,  _____,  100 ,  _______,

                AD3 _________,  ADC 10,__,__,__,__,__,__,__,__,__,__,__,__,

ABC  ABC  ABC  ABC  ABC  ABC  ABC  ABC

800, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________!

              EQUIVALENT ODA INPUT FORM - ESS 403D

                   ASSOCIATED VERIFY MESSAGES

                     INPUT-13b-VER:CODEGRP

                   OUTPUT-3a-VER:CODEGRP;OPT(DIG3)
```

Continued on next page

SSP-800, Continued

Service Switching Point (cont'd.)

Second Stage Digits - Equal Access Calls

After the AT has received the specially assigned 0ZZ-XXXX and the Carrier Identification Code/Circuit Code digits that represent an SSP call, the 4ESS Switch has to examine the second stage of digits. These digits are comprised of the calling line information, (II) billing number, ANI and the called number.

The RC 300 Form shown on the opposite page is an example of the called number code group portion of the second stage digits. This form cannot be activated until the new numbered domain is opened for the SSP service.

NOTE: If the EADOM is not specified, the domain on the incoming trunk is used for translating the 800 numbers.

DOM	=	A numeric domain is opened for second-stage digit translation. In this case, 22 was used.
AC	=	The area code should be left blank since a non-Plain Old Telephone Service (POTS) domain is being used.
CALLTYP	=	**SSP** is the only entry for this 800 code usage.
CALLDATA	=	**DB** further defines the SSP call type as a database dip to be encountered.
AD1	=	**0** This entry represents the Type-Of-Service (TOS) to be assigned for the transaction. Valid entries are 0 to 31 but only 0 is being used at this time.
ADC	=	**10** The acceptable digit count for 800 calls is ten.
CHI	=	This entry should be blank.
DESEP	=	The destination separation information is administrated locally for assignment.
SC	=	The service category is left **blank**
ABC	=	800

Now, the translation has been completed to launch a query to the database. This query includes the "calling" number 10-digit ANI and II digits received in the second stage of the equal access call. Also the "called" 800 number is sent. Finally, your Subsystem Number (SSN) and the Translation Type (TT) for the Service Control Point (SCP) are sent.

Continued on next page

SSP-800, Continued

Service Switching Point (cont'd.)

RC 301

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM NSR, NTD 4,   AC _,
                                                 ABC 011,

ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI   DESEP   DNST

OLD FHT, _________VCA_________,   ____,  ______,  ____,  ____,  ___,  ______,

                AD3 _______,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW SSP, _________RTP_________,   ____,  ______,  ____,  ____,  ___,  ______,

                AD3 _______,   ADC_4_,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

 _0_, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________Intra-LATA return to POTS_____________!

                  EQUIVALENT ODA INPUT FORM - ESS 403E

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-13b-VER:CODEGRP

                       OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

Continued on next page

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SSP-800, Continued

Service Switching Point (cont'd.)

Database Response - Intra-LATA Calls

After the 800 number is translated in the new numbered domain and sent to the database for a dip, the 4ESS Switch has to be able to translate on the returned number. This code group cannot be opened until after the NSR domain has also been opened.

The RC 300 Form shown opposite is an example of the database response code group.

DOM	= NSR for the Number Services Routing application.
AC	= The *entry* will be blank as the area code does not apply.
CALLTYP	= **SSP** for the Service Switching Point feature.
CALLDATA	= **RTP** (Return To POTS) to identify the retranslation of the routing digits in the POTS domain. This is for calls that are intra-LATA and will not be delivered to an IC.
AD1	= **Blank**
AD2	= **Blank**
ADC	= Allows any digit count in the range of 4 - 15.
SC	= **Blank**
CHI	= **Blank**
ABC	= 011 digits returned from the SCP denotes the call will complete within the LATA.
DEF	= 0

VERIFY

```
VER:CODEGRP:DOM NSR,ABC 011,DEF 0!!
```

NOTE: Returned number will not be an 800 number but a real POTS number.

Continued on next page

SSP-800, Continued

Service Switching Point (cont'd.)

RC 302

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
  4E23R1>

   RC:CODEGRP;CHG;OPT(DIG9),___:                    DOM NSR, NTD 7,   AC N,
                                                    ABC 028,  DEF 800,

 ORNU ______,

      CALLTYP     CALLDATA         AD1     AD2     SC     CHI  DESEP   DNST

 OLD   FHT, ________VCA________, ____, ______, ____, ____,  ___, ______,

                AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

 NEW   SSP, ________NDB________, 201, ______, ____,  ND,  ___, ______,

                AD3 _________, ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,

    GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

     0, ___, ___, ___, ___, ___, ___, ___, ___,
    ___, ___, ___, ___, ___, ___, ___, ___, ___,
    ___, ___, ___, ___, ___, ___, ___, ___, ___,
    ___, ___, ___, ___, ___, ___, ___, ___, ___,

    REMARKS ____________Send call to AT&T via NDB201____________!

                EQUIVALENT ODA INPUT FORM - ESS 403F

                     ASSOCIATED VERIFY MESSAGES

                       INPUT-13b-VER:CODEGRP

                    OUTPUT-3e-VER:CODEGRP;OPT(DIG9)
```

Continued on next page

SSP-800, Continued

Service Switching Point (cont'd.)

Database Response - Inter-LATA Calls

After the 800 number is translated in the new numbered domain and sent to the database for a dip, the 4ESS Switch has to be able to translate on the returned Carrier Identification Code. This code group cannot be opened until after the NSR domain has also been opened.

The RC 302 Form shown on the opposite page is an example of the database response code group identifying that the call is to be passed to an IC.

DOM	=	NSR for the Number Services Routing application.
AC	=	The entry will be blank as the area code does not apply.
ABC	=	**028** digits returned from the SCP denotes the call will complete to AT&T/IC.
DEF	=	**800**
GHI	=	**0**
CALLTYP	=	**SSP** for the Service Switching Point feature.
CALLDATA	=	**NDB** Number Data Block to deliver the call to the IC.
AD1	=	**NDBI** The Number Data Block Index number assigned to deliver the call to the specific IC.
AD2	=	**Blank**
ADC	=	**7**
SC	=	**Blank**
CHI	=	**ND, NDB, NDBB**

Continued on next page

SSP-800, Continued

SSP-800
Screening

TABLE CS -- Codegroup DEF/EFG Digits

ITC = 0 ITL = 0 OPER = 0			ITC = 1 ITL = 0 OPER = 0			ITC = 2 ITL = 0 OPER = 0			ITC = 3 ITL = 0 OPER = 0		
	<4E17 4E18>			<4E17 4E18>			<4E17 4E18>			<4E17 4E18>	
TOS	DEF	EFG	TOS	DEF	EFG	TOS	DEF	EFG	TOS	DEF	EFG
0	000	000	0	064	001	0	128	002	0	192	003
1	002	010	1	066	011	1	130	012	1	194	013
2	004	020	2	068	021	2	132	022	2	196	023
3	006	030	3	070	031	3	134	032	3	198	033
4	008	040	4	072	041	4	136	042	4	200	043
5	010	050	5	074	051	5	138	052	5	202	053
6	012	060	6	076	061	6	140	062	6	204	063
7	014	070	7	078	071	7	142	072	7	206	073
8	016	080	8	080	081	8	144	082	8	208	083
9	018	090	9	082	091	9	146	092	9	210	093
10	020	100	10	084	101	10	148	102	10	212	103
11	022	110	11	086	111	11	150	112	11	214	113
12	024	120	12	088	121	12	152	122	12	216	123
13	026	130	13	090	131	13	154	132	13	218	133
14	028	140	14	092	141	14	156	142	14	220	143
15	030	150	15	094	151	15	158	152	15	222	153
16	032	160	16	096	161	16	160	162	16	224	163
17	034	170	17	098	171	17	162	172	17	226	173
18	036	180	18	100	181	18	164	182	18	228	183
19	038	190	19	102	191	19	166	192	19	230	193
20	040	200	20	104	201	20	168	202	20	232	203
21	042	210	21	106	211	21	170	212	21	234	213
22	044	220	22	108	221	22	172	222	22	236	223
23	046	230	23	110	231	23	174	232	23	238	233
24	048	240	24	112	241	24	176	242	24	240	243
25	050	250	25	114	251	25	178	252	25	242	253
26	052	260	26	116	261	26	180	262	26	244	263
27	054	270	27	118	271	27	182	272	27	246	273
28	056	280	28	120	281	28	184	282	28	248	283
29	058	290	29	122	291	29	186	292	29	250	293
30	060	300	30	124	301	30	188	302	30	252	303
31	062	310	31	126	311	31	190	312	31	254	313

ITC = Incoming Trunk Class
TOS = Type Of Service
ITL = International Bit
DEF = DEF Digits
EFG = EFG Digits
OPER = Route to Operator Position (AIN calls only)

Continued on next page

SSP-800, Continued

SSP-800 Screening (cont'd.)

Description

It is possible to do some additional screening for delivery of the 800 call to a particular carrier. This is accomplished by adding translations based on three additional digits that are chosen by the switch data administrators.

The table on the previous page shows the method the switch will use to get these digits if the Number of Translated Digits (NTDs) is greater than 4. The following procedure is how the table works.

NOTE: This table is just one page of the whole table in the Translations Guide (TG). Always use that document when doing your translations. This page is for training use only.

The information used is:

1. The Incoming Trunk Class (ITC) entry on the TSG - range 0 to 3.
2. The TOS from the incoming digits code group.
3. The International Bit (ITL) is usually 0 when 800 returned from DB. If a real number returned, it is possible to get the international bit set.
4. The Operator bit is used for AIN only. Use 0 for SSP-800.

The software concatenates the ITC, ITL, OPER bits with the TOS to calculate these digits. Find the column with the correct ITC, ITL, OPER values and then find the TOS used from the 800 number translations.

The intersection of the TOS and the correct column will yield the EFG digits.

Example: For ITC = 0, ITL = 0, and OPER = 0 with TOS = 7 yields
EFG = 070.

The use of this capability is usually to route the call to a different Point Of Presence (POP) depending on where the call came from, i.e., based on the incoming TSG.

Continued on next page

SSP-800, Continued

SSP-800 Screening (cont'd.)

Number Data Block

```
# FORM 524  NUMBER DATA BLOCK ROUTING DEFINITION

RC:NDB;CHG;___:                    NDB 201,    ACTION _,

ORNU _______,

FENCLASS ACCESA,         FENID  0288 ,

RDBI 2114,   NXZZ 77,   NNDB  -  ,

FG D,        ANI Y,     CPN Y,     PATH DIR,    INTL N,

REMARKS ____________________________________________!

             EQUIVALENT ODA INPUT FORM - ESS 405H

                  ASSOCIATED VERIFY MESSAGES

                    INPUT-15g-VER:NDB:NDBI

                  OUTPUT-5l-VER:RDB,OPT(NDB):
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

SSP-800, Continued

SSP-800 Screening (cont'd.)

Number Data Block

Key Fields:

ANI = Automatic Number Identification - Enter "Y" if IC expects to receive ANI and "N" if not.

CPN = Called Party Number - This field identifies if the IC is expecting the CPN to be delivered. This information is used only at an SSP office.
Entries: Y or N

PATH = Defines the number of winks the AT expects to see returned.
(1) If the group is direct to an IC,, then enter "DIR".
(2) If connected to another AT then to IC, enter "ATD" and expect 1 wink.
(3) If connected to IC, enter "ATT" and expect 2 winks.

INTL = International Signaling Indicator - Specifies if International calls are to be signaled to the IC in the International Equal Access format.
If FG=C, then INTL must equal N.
Entries: Y or N

Continued on next page

SSP-800, Continued

SSP-800 Screening (cont'd.)

Announcements

```
# FORM 624  ANNOUNCEMENT INDEX TO ANNOUNCEMENT MAPPING

     RC:ANN;CHG;___:

     ORNU ______,

                 OLD         NEW
    ANINDEX      ANN         ANN

     001,        ___,        OOB,

     002,        ___,        VCA,

     003,        ___,        INC,

     004,        ___,        T__,

     005,        ___,        BT_,

     006,        ___,        NCA,

     REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - ESS 406P

                         ASSOCIATED VERIFY MESSAGES

                           INPUT-16t-VER:ANINDEX

                         OUTPUT-6aa-VER:MISC,OPT(ANN)
```

NOTE: An extra line is shown on this form. Use another form to enter all of the above it needed.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

SSP-800, Continued

SSP-800 Screening (cont'd.)

Announcements

The SSP feature has a capability to tell the querying switch to play an announcement about some condition that it detects when it processes a query.

The form shown on the previous page shows the mapping of the response numbers to the correct final handling announcement names used in the switch. These are the same as those used for RDB final handling treatment.

The following is the mapping of a number to the type of announcement desired:

1 - Out of band
2 - Vacant code
3 - Disconnected Number
4 - Reorder Tone (120 IPM)
5 - Busy (60 IPM)
6 - No Circuit Available.

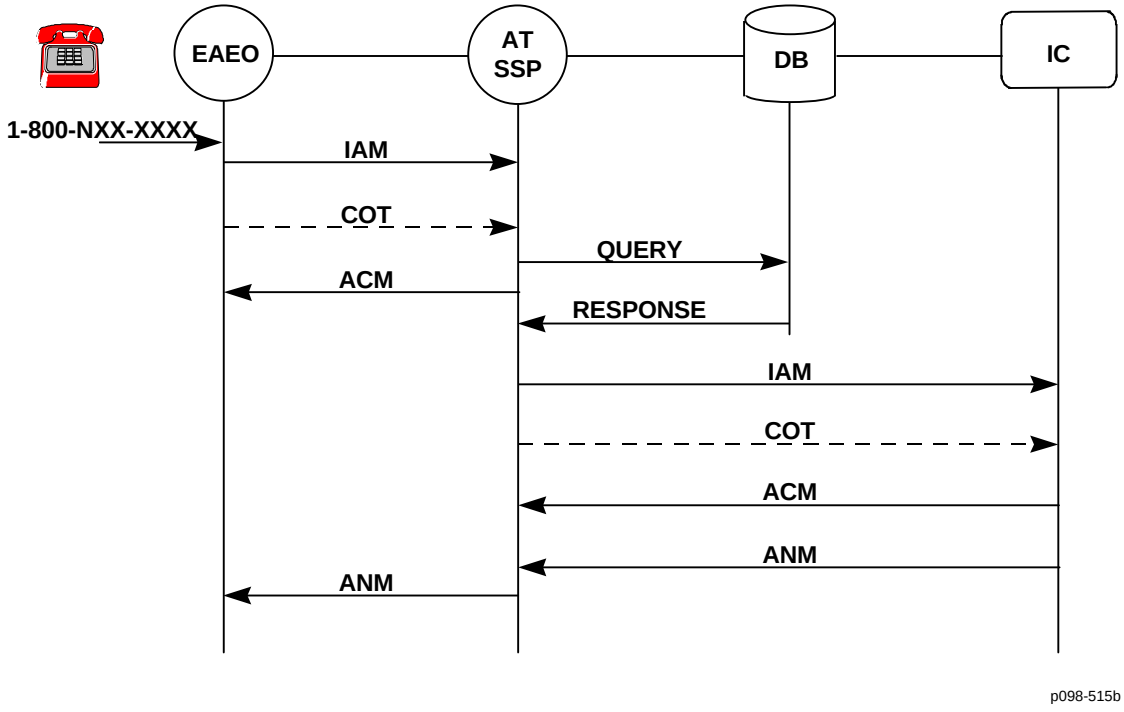
NOTE: The use of International No Circuit (INC) is used for the disconnected number announcement. In a LEC office, that is not used.

Continued on next page

SSP-800, Continued

SSP-800
Data Calls

SS7 EAEO ACCESS VIA AT/SSP TO IC



Continued on next page

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SSP-800, Continued

SSP-800 Data Calls (cont'd.)

Description

Up to this point, SSP-800 call processing has translated on only voice calls.

This capability has been enhanced to include data calls. Data calls will be handled the same way using a subset of data routing.

Continued on next page

SSP-800, Continued

SSP-800
Data Calls
(cont'd.)

```
# FORM 300   CHANGE 3 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG3),___:                    DOM _______, NTD 3,   AC _,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP   DNST
OLD   FHT,        VCA        ,   ____,   _______,  ____,  ____,  ___,  _______,

               AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   SSP,        DB         ,    0,   _______,  ____,  ____,  ___,  _______,

               AD3 _________,  ADC 10,__,__,__,__,__,__,__,__,__,__,__,__,__,

ABC  ABC  ABC  ABC  ABC  ABC  ABC  ABC

800, 888, 877, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

REMARKS          Add toll free numbers to Data Domains          !

              EQUIVALENT ODA INPUT FORM - ESS 403D

                   ASSOCIATED VERIFY MESSAGES

                     INPUT-13b-VER:CODEGRP

                   OUTPUT-3a-VER:CODEGRP;OPT(DIG3)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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SSP-800, Continued

SSP-800 Data Calls (cont'd.)

Code Group - RC 300 Form

For this capability, software will switch domains to translate the second stage of 800 digits. The domain will be based on User Service Information (USI) parameters.

Key Fields:

DOM	Domain 82 = 56 kbps N64C = 64 kbps
ABC	ABC Digits List area codes for data calls

Continued on next page

SSP-800, Continued

SSP-800
Data Calls
(cont'd.)

```
# FORM 304   CHANGE SUBSEQUENT DIGIT ROUTING
  4E23R1>

RC:CODEGRP;CHG;OPT(SDX),___:          SDINDEX 1234, SIZE 1, DOMCLASS NSR,

ORNU ______,  ACTION A,

INDEX  CALLTYP     CALLDATA        AD1    AD2     SC     CHI    DESEP   DNST

 0 ,   SSP,    NDB          , 123, ______, ____,  ND,   10, ______,
                AD3 ________, ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

 1 ,   SSP,    NDB          , 123, ______, ____,  ND,   10, ______,
                AD3 ________, ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

 2 ,   SSP,    NDB          , 124, ______, ____,  ND,   11, ______,
                AD3 ________, ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

 4 ,   SSP,    NDB          , 125, ______, ____,  ND,   12, ______,
                AD3 ________, ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,  ____________________, ____, ______,  ____,  ____,   ___,  ______,
                AD3 ________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,  ____________________, ____, ______,  ____,  ____,   ___,  ______,
                AD3 ________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,  ____________________, ____, ______,  ____,  ____,   ___,  ______,
                AD3 ________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,  ____________________, ____, ______,  ____,  ____,   ___,  ______,
                AD3 ________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

REMARKS ____________Use data rate to chose different routes_____________!

                EQUIVALENT ODA INPUT FORM - ESS 403G

                     ASSOCIATED VERIFY MESSAGES

                   INPUT-13c-VER:CODEGRP:SDINDEX

                   OUTPUT-3g-VER:CODEGRP;OPT(SDX)
```

Continued on next page

SSP-800, Continued

SSP-800 Data Calls (cont'd.)

Subsequent Digit Index - RC 304 Form

An RC 304 Form is required to distinguish different routes for handling of calls.

Key Fields:

SIZE	Size of digit entry 1
DOMCLASS	Domain Classification NSR - Number Services Routing
INDEX	Index Number 0-6
CALLTYP	Call Type Word SSP - Service Switching Point
CALLDATA	Call Data Word NDB - Number Data Block
CHI	Call Handling Instruction ND - Number Data

Continued on next page

SSP-800, Continued

SSP-800
Data Calls
(cont'd.)

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
      4E23R1>

    RC:CODEGRP;CHG;OPT(DIG9),___:                    DOM NSR, NTD 7,   AC_,
                                                     ABC 028,  DEF 800,

 ORNU ______,

      CALLTYP     CALLDATA         AD1     AD2     SC     CHI  DESEP   DNST

 OLD   FHT, ________VCA________, ____, ______, ____, ____, ___, ______,

                AD3 ________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

 NEW   SDX, _______1234_______, DRTC, ______, ____, ____, ___, ______,

                AD3 ________,  ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,

    GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

     0, ___, ___, ___, ___, ___, ___, ___,
    ___, ___, ___, ___, ___, ___, ___, ___,
    ___, ___, ___, ___, ___, ___, ___, ___,
    ___, ___, ___, ___, ___, ___, ___, ___,

    REMARKS _____CID 0288, TOS 0, INTL 0 Route via DRTC_____!

                EQUIVALENT ODA INPUT FORM - ESS 403F

                    ASSOCIATED VERIFY MESSAGES

                      INPUT-13b-VER:CODEGRP

                   OUTPUT-3e-VER:CODEGRP;OPT(DIG9)
```

NOTE: It is also possible to combine this scenario with Multiple Treatment Screening (MTS) to gain additional route screening possibilities. The MTS must come before the Data Rate Transfer Capability (DRTC).

Continued on next page

SSP-800, Continued

SSP-800 Data Calls (cont'd.)

Code Group - DRTC Routing - RC 302 Form

In the previous examples, the calls for voice and 3.1 kHz are routing to a TSG in NDB 123, the 56 kb data calls are routing to a TSG in NDB 124, and the 64k clear calls are routing using NDB 125.

NOTE: The 64k restricted and H1/H11 are routed to Vacant Code. (Unassigned indexes are automatically set to Vacant Code.)

Continued on next page

SSP-800, Continued

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SSP-800, Continued

Acronyms and Abbreviations

The following are acronyms and abbreviations of terms used throughout this document:

Terms	Definitions
ACM	Address Complete Message
AIN	Advanced Intelligent Network
AIN TFREE	Advanced Intelligent Network 800/Tollfree Indicator
ANI	Automatic Number Identification
ANM	Answer Message
AT	Access Tandem
ATNS	Access Tandem Transit Network Selection
CALLDATA	Call Data Word
CALLTYP	Call Type Word
CHGN	Charge Number
CHI	Call Handling Instruction
CPN	Called Party Number
DB	Data Base
DB	Data Block
DESEP	Destination Separation
DMS	Data Management System
DOM	Domain
DOMCLASS	Domain Classification
DRTC	Data Rate Transfer Capability
EADOM	Equal Access Domain
EAEO	Equal Access End Office
EASEQ	Equal Access Sequence
IAM	Initial Address Message
IC	Interexchange Carrier
ICT	Incoming Trunk
INC	International No Circuit
Inter-LATA	Inside Local Access Transport Area
INTL	International Signaling Indicator
Intra-LATA	Outside Local Access Transport Area
ISUP	Integrated Services User Part
ITC	Incoming Trunk Class
ITL	International Bit

Continued on next page

SSP-800, Continued

Acronyms and Abbreviations (cont'd.)

Terms	Definitions
LEC	Local Exchange Carrier
LI	Line Information
MF	Multifrequency
MTS	Multiple Treatment Screening
ND	Number Data
NDB	Number Data Block
NDBI	Number Data Block Index
NSR	Number Services Routing
NTDs	Number of Translated Digits
OLI	Originating Line Information
PC	Point Code
POP	Point Of Presence
POTS	Plain Old Telephone Service
RC	Recent Change
RDB	Routing Data Block
RTP	Return To POTS
SCP	Service Control Point
SS7	Signaling System 7
SSN	Subsystem Number
SSP	Service Switching Point
TG	Translations Guide
TNS	Transit Network Selection
TOS	Type of Service
TT	Translation Type
USI	User Service Information
WSNO	Wink Start No Outpulse

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375

Introduction

Advanced Intelligent Network (AIN) is the term used to define a set of switch and network database capabilities to be used in the Local Exchange Carrier (LEC) environment to provide advanced services via switch and database interaction.

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Advanced Intelligent Network - Feature 375, Continued

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Advanced Intelligent Network - Feature 375, Continued

Description

- Advanced Intelligent Network (AIN)
- AIN Trigger
- Dialed Number
- Dialed Number Trigger
- Caller Interaction
- Inter-office Trigger
- Incoming Access
- Pre-Query
- Post-Query
- Routing Response
- Serial Triggering
- Service Switching Point (SSP)
- Terminating Egress
- Termination Notification
- Querying

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Description
(cont'd.)

Term	Description
AIN	AIN provides a general platform of service capabilities, service logic programs, and data that can be combined in many ways to provide many services. The service logic and data can be located at a remote node or nodes in the network, rather than in each individual switching system node along with the service capabilities.
AIN Trigger	Action which causes a Service Switching Point (SSP) to identify a call that needs treatment according to AIN service logic. All trigger types described in this document are AIN Triggers.
Dialed Number	A dialed number may consist of a prefix plus address digits or an access code.
Dialed Number Trigger (DNT)	A trigger used to initiate AIN action for services based on the analysis of DIALED NUMBER or Service Control Point (SCP) returned routing numbers. (See Serial Triggering) [5ESS® Documentation refers to this trigger as Dialed Number Trigger (DNT). LEC refers to this trigger as 3/6/10 Digit Trigger.]
Caller Interaction	The SCP requests the SSP to obtain Additional information from the caller, using a Transaction Capabilities Application Part (TCAP) conversation with Permission message. The SSP prompts through an announcement and collects the information from the caller and returns that information to the SCP in a TCAP Conversation message.

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Advanced Intelligent Network - Feature 375, Continued

Description
(cont'd.)

- Advanced Intelligent Network (AIN)
- AIN Trigger
- Dialed Number
- Dialed Number Trigger
- Caller Interaction
- Inter-office Trigger
- Incoming Access
- Pre-Query
- Post-Query
- Routing Response
- Serial Triggering
- Service Switching Point (SSP)
- Terminating Egress
- Termination Notification
- Querying

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Description
(cont'd.)

Term	Description
Inter-Office Trunk Trigger	A trigger used to initiate AIN action for services based on carrier code, service code, and Information Digits/Originating Line Information Digits (II/OLI). [LEC and 5ESS refer to this trigger as Shared Inter-office Trigger.]
Incoming Access	The path at an SSP toward the calling party may be an incoming Signaling System 7 (SS7) or Equal Access Multifrequency (EAMF) trunk within the local network.
Pre-Query	The time from when a trigger is detected until a query is launched.
Post-Query	The time from when a query is launched until a new query is launched or the call is completed.

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Advanced Intelligent Network - Feature 375, Continued

Description
(cont'd.)

- Advanced Intelligent Network (AIN)
- AIN Trigger
- Dialed Number
- Dialed Number Trigger
- Caller Interaction
- Inter-office Trigger
- Incoming Access
- Pre-Query
- Post-Query
- Routing Response
- Serial Triggering
- Service Switching Point (SSP)
- Terminating Egress
- Termination Notification
- Querying

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Description
(cont'd.)

Term	Description
Routing Response	The term Routing Response or Routing Message is used to indicate an SCP Response message which causes the SSP to attempt to Route the call.
Serial Triggering	Serial Triggering allows a single SSP to query the SCP data base multiple times for a single AIN call. Each response from the SCP can cause another query to be made by the SSP.
SSP	A Service Switching Point is a switch with AIN SSP functionality. AIN SSP functionality allows a switching system to identify calls associated with AIN services.
Terminating Egress	The path at an SSP toward the dialed party. This may be any outgoing signaling type.
Termination Notification	The SCP Response includes a request to be notified when the call ends. The SSP notifies the SCP when the call is disconnected or cleared using a TCAP Unidirectional message.
Querying	The process of assembling an SS7 TCAP query message and launching the query across the SS7 network.

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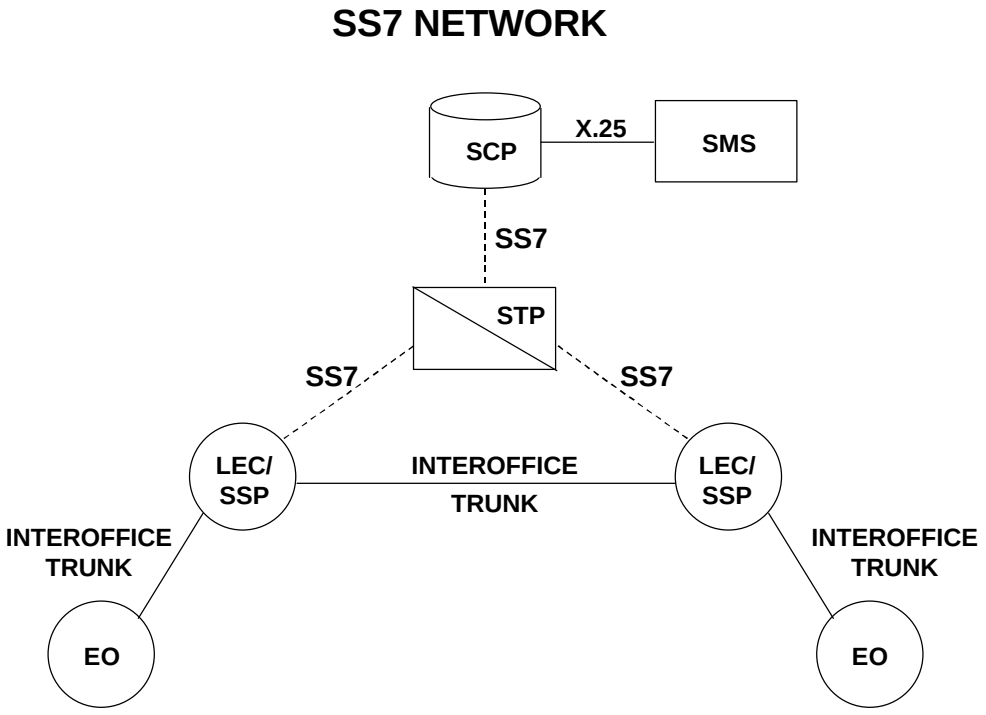
Advanced Intelligent Network - Feature 375, Continued

Components



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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Components (cont'd.)

Service Switching Point (SSP)

The service capabilities in the LEC 4ESS™ Switch or SSP enable the switch to detect AIN service calls, assemble and launch a query to an SCP, and respond to commands received. The interface with the SCP data base uses SS7 Transaction Application Part protocol.

Service Control Point (SCP)

The SCP provides real-time call processing service logic for AIN calls. It receives queries from the SSPs in the network and determines which service to provide for a particular call. Messages are sent back to the SSP, instructing it on how to process the call.

Signal Transfer Point (STP)

The STP provides routing of the TCAP messages sent between the SSP and SCP.

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Components
(cont'd.)

EO-SSP Signaling Parameters			
EAMF PARAMETER	**SS7-ISUP PARAMETER**	**INTER-LATA POTS USAGE**	**AIN USAGE**
XXX/XXXX	Transit Network Selector (TNS), Carrier ID digits	IC Selection	Indicate Database Services Call
0ZZ	Transit Network Selector (TNS), Circuit Code field	IC Trunk Group Selector	Indicates AIN call
II	Originating Line Information (OLI)	Calling Station Information	Indicates AIN call

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Components (cont'd.)

Interoffice Trunk Trigger

Interoffice trunk subgroups can carry SSP/800, AIN and Plain Old Telephone Service (POTS) traffic. Because of this, the SSP must be able to detect which calls are AIN calls so that it can send a query. This detection mechanism is known as the Shared Interoffice Trunk Trigger.

The signaling used between the End Office (EO) and SSP for AIN is very similar to the EAMF/Integrated Service Digital Network (ISDN) User Part End Office (ISUP) signaling used between an Equal Access End Office (EAEO) and an Access Tandem (AT) for inter-LATA traffic. Only this type of signaling is supported between the EAEO and SSP for AIN.

The SSP is able to distinguish the various types of traffic by using the signaling parameters shown on the opposite page. This table lists:

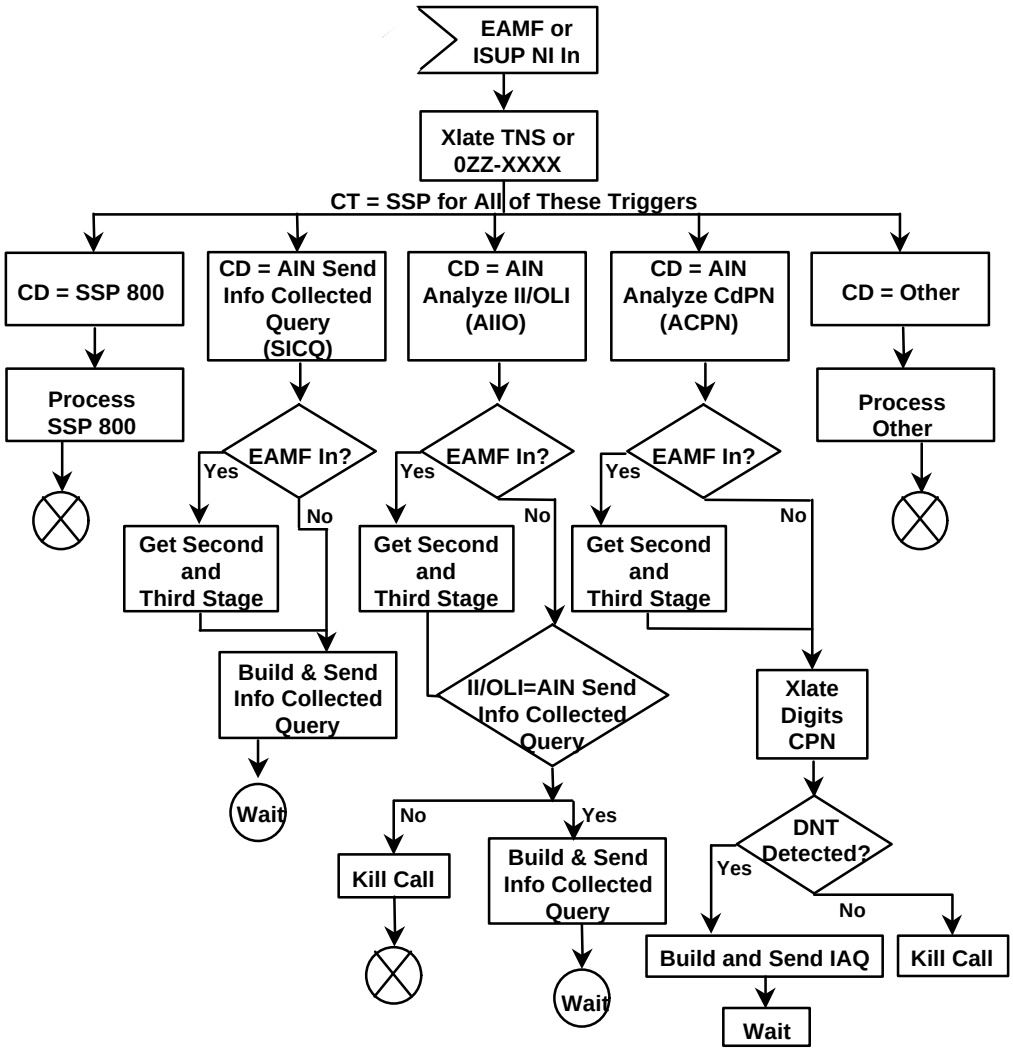
- EAMF Parameters
- ISUP Parameter
- Inter-Local Area Tandem Access (LATA) POTS Usage
- AIN Usage

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Process Shared Interoffice Triggers

EAMF/ISUP NI TRIGGERS



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LUCENT TECHNOLOGIES PROPRIETARY
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Advanced Intelligent Network - Feature 375, Continued

Process Shared Interoffice Triggers (cont'd.)

EAMF/ISUP NI Triggers

This capability utilizes the 0ZZ-XXXX portion of the EAMF signaling sequence or the TNS parameter in the ISUP Initial Address Message (IAM) to identify AIN calls. The Code Group Call Type is SSP for all of these triggers.

CODE GROUP Call DATA WORDS (Triggers)

- **Send AIN Information Collected Query (SICQ)**
- **Analyze the II/OLI digits (AIIO)**
- **Analyze the Called Party Number (ACPN)**

Some examples are:

Send AIN Information Collected Query (SICQ) — The 0ZZ-XXXX or TNS translation indicates "Send AIN Information collected query (SICQ)." This results in the Automatic Number Identification (ANI) and Dialed Number to be sent to the SCP.

Analyze the II/OLI digits (AIIO) — The 0ZZ-XXXX or TNS translation indicates "Analyze the II/OLI (AIIO) digits." This causes the switch to check the II or OLI digits for "Send AIN information collected query." If II/OLI = AIN, then the Information Collected query is sent to the SCP.

Analyze the Called Party Number (ACPN) — The 0ZZ-XXXX or TNS translation indicates "Analyze the Called Party Number (ACPN)." The switch proceeds with Digit Translation looking for DNT.

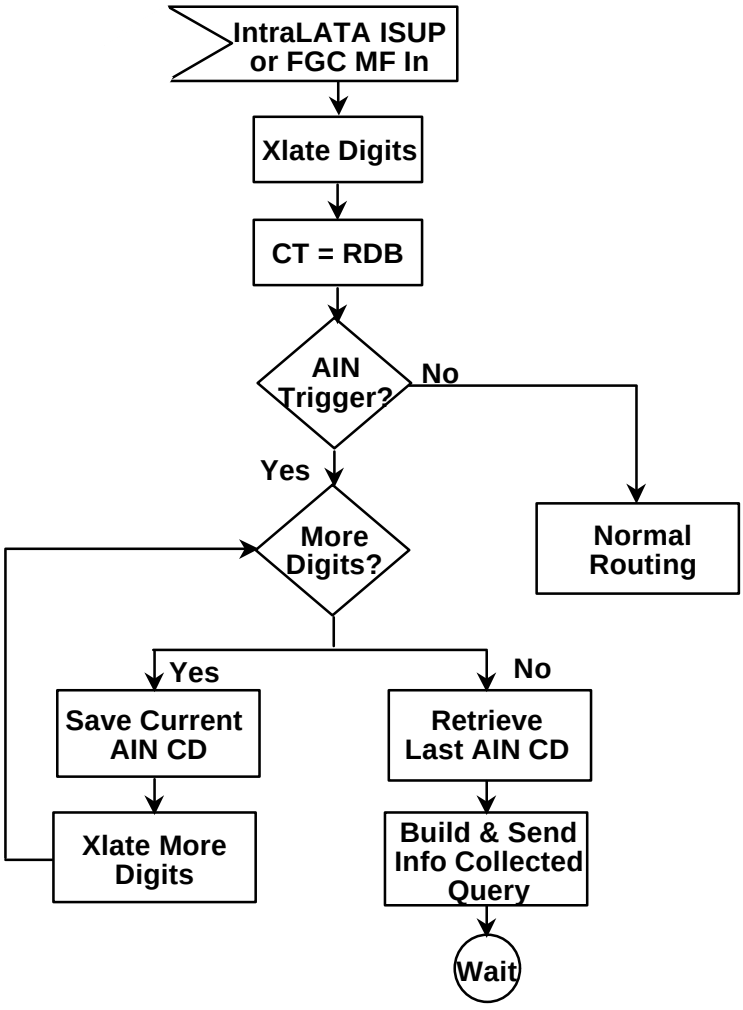
NOTE: In an Equal Access MF/ISUP environment, the Dialed Number Trigger is initiated upon the receipt of the digit string of 0ZZ-0110. The 0ZZ/CC digits must be unique. The 0ZZ/CC used for Equal Access 800 cannot be used. A CALLDATA word of Analyze Called Party Number (ACPN) is encountered which results in the ANI and Dialed Number being Collected.

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Process Shared Interoffice Triggers
(cont'd.)

DIALED NUMBER TRIGGERS



Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Process Shared Interoffice Triggers (cont'd.)

Dialed Number Triggers (DNTs)

For EAMF and ISUP Network Interconnect calls, the only way to detect DNTs is via 0ZZ-XXXX or TNS translation. For traditional (i.e., Feature Group C) or non-Network Interconnect ISUP call, normal digit translation can also result in DNTs. A DNT is indicated by the "Send Information Analyzed Query."

AIN DNTs can be defined for any number of digits in the dialed number from 3 to 10 digits. The DNT defined for the longer string of digits is always used if multiple DNTs are encountered during digit translations (e.g., a trigger defined for 630-971-5133 would be used even if another trigger existed for 630). This means a DNT encountered during translation must be saved, translation continues, and the last DNT detected is the one used to build and send the query to the SCP.

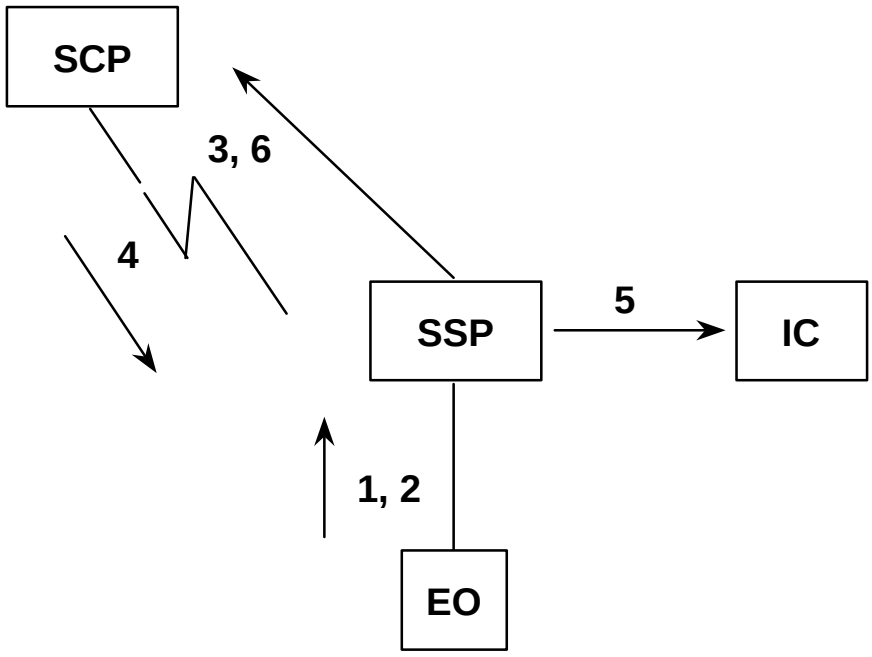
NOTE: The DNT indication is defined in addition to the normal routing information for the digit string. We must be able to provide actual routing for the same number if it is received in the response from the SCP with the LEC carrier ID.

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Example Call Flows

AIN CALL ROUTED TO IC



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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Example Call Flows (cont'd.)

On the opposite page are two examples of how call flow occurs in the AIN.

AIN Routed to an Interexchange Carrier (IC)

1. EAMF call arrives from EAEO. 0ZZ-XXXX translation indicates "Send Information Collected Query."

2. SSP gets second stage digits (II + ANI) and third stage digits (called number) from EAEO.

3. SSP builds and sends Information Collected Query to SCP.

4. SCP returns Analyze Route Response with a Carrier ID of IC, billing information, and termination notification request.

5. SSP creates AIN billing record, translates Carrier ID and sends call to IC.

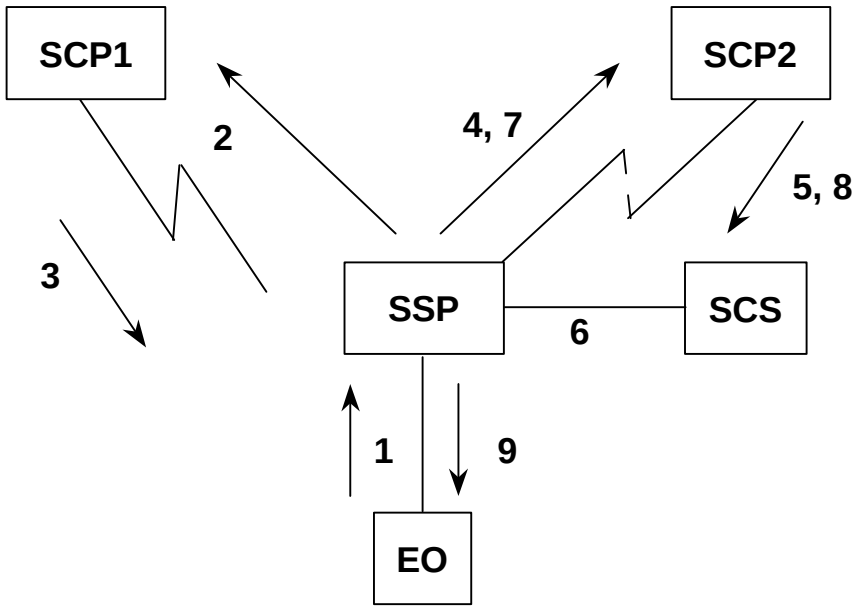
6. When the call disconnects, SSP sends termination notification to SCP.

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Example Call Flows
(cont'd.)

AIN CALL ROUTED VIA LEC



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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Example Call Flows (cont'd.)

AIN Call Routed via LEC (Call Type = SSP, Call Data = ACPN)

1. Call arrives from EAEO via ISUP Network Interconnect. SSP translates TNS resulting in indication "Analyze Called Party Number" and also translates called party number and determines if DNT detected.

2. SSP builds and sends Information Analyzed Query to SCP1.

3. SCP sends Analyze Route response indicating the LEC Carrier ID and billing information. SSP creates AIN billing record and translates dialed party number received from SCP1 which results in detecting a DNT.

4. SSP builds and sends Information Analyzed Query to SCP2.

5. SCP2 sends Send to Resource requesting play announcement and collect digits.

6. SSP plays announcement and collect digits via SCS.

7. Collected digits are returned to SCP2 in Resource Clear Message.

8. SCP2 sends Analyze Route response indicating LEC Carrier ID with the same dialed number previously received from SCP1 and used in detecting this DNT along with billing information.

9. Since the number returned is the same as the number used to detect this DNT, the SSP routes the call normally to the EAEO and creates another AIN billing record.

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Input Forms Required

FORMS REQUIRED

- RC Forms (One Time)
- RC Forms (Establish Triggers)

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Input Forms Required (cont'd.)

Office Data Assembler (ODA) Forms

Certain ODA only forms are required to activate AIN.

Recent Change (RC) Forms (One Time)

There are some RC forms which must be entered once to establish service.

RC Forms (Establish Triggers)

Establishment of the Triggers is done using primarily RC forms in the RC 300 series.

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Input Forms Required **ODA 406C Form**

(cont'd.)

```
ESS 406C SHEET 1 OF 3 TG-4      MISCELLANEOUS OFFICE DATA
4E24>                                    4ESS

                          4E24 AND LATER GENERIC PROGRAMS
                         ESS UNIT _____________________________

FORM CODE _6C_         OFFICETYPE  __   CAD __
          1  2         3       12  14       80

A800TT     _____      CAD __           CNIOPR     _____      CAD __
3    8     14 16          80           3    8     14 18          80

ACITRANS   _____      CAD __           CNIOUTBF   _____      CAD __
3     10   14 16          80           3     10   14 16          80

ACVLIMIT   _____      CAD __           COPTBLN0   _____      CAD __
3     10   14 18          80           3     10   14 16          80

AHRNA      _____      CAD __           COPTBLN1   _____      CAD __
3   7      14 15          80           3     10   14 16          80

AINON      __         CAD __           COPTBLN2   _____      CAD __
3   7      14             80           3     10   14 16          80

AINTRG_IN_WCS __      CAD __           COPTBLN3   _____      CAD __
3          15 17          80           3     10   14 16          80

AMABUFER   _____      CAD __           CPACR      _____      CAD __
3     10   14 15          80           3   7      14 17          80

ANI_IN_WCS __         CAD __           CR         _____      CAD __
3       12 14             80           3 4        14 17          80

ASGHC      _____      CAD __           CTWBACK_IN_WCS __     CAD __
3   7      14 17          80           3           16 20          80

AT         __         CAD __           DOMGATE    __         CAD __
3 4        14             80           3     9    14             80

BFPMFR     _____      CAD __           DOMTERM    _____      CAD __
3    9     14 16          80           3     9    14 16          80

BLCNT      _____      CAD __           DSDCACP    _____      CAD __
3   7      14 16          80           3     9    14 17          80

BOUNDUPA   _____      CAD __           DSDNCAT    _____      CAD __
3     10   14 17          80           3     9    14 17          80

CCISOSO    _____      CAD __           DSIGFNUM   _____      CAD __
3     9    14 17          80           3     10   14 18          80

CCPAS      __         CAD __           DSTSTP     _____      CAD __
3   7      14             80           3    8     14 17          80

CNIINBF    _____      CAD __           DXL        _____      CAD __
3     9    14 18          80           3 5        14 17          80
```

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Input Forms Required **ODA 406C Form**
(cont'd.)

```
ESS 406C SHEET 2 OF 3 TG-4      MISCELLANEOUS OFFICE DATA
4E24>                                    4ESS
                              4E24 AND LATER GENERIC PROGRAMS

                                ESS UNIT _____________________

FORM CODE _6C_

EIARB      _____          CAD __          NCD        _____          CAD __
3   7      14 17              80          3 5        14 16              80

FAINCT     _____          CAD __          NCSDNTT    _____          CAD __
3     8    14 15              80          3     9    14 16              80

FEATGRP    _____          CAD __          NDCSM      _____          CAD __
3     9    14 19              80          3   7      14 15              80

GETSRCVL   _____          CAD __          NDCSMECS   _____          CAD __
3     10   14 16              80          3     10   14 15              80

HTRCB      __             CAD __          NETWORK    _____          CAD __
3   7      14                 80          3     9    14 16              80

LICSTP     _____          CAD __          NNR        _____          CAD __
3    8     14 17              80          3 5        14 15              80

MAXAREA    _____          CAD __          NSCANSET   __             CAD __
3     9    14 16              80          3     10   14                 80

MAXERPI    _____          CAD __          NSCSM      _____          CAD __
3     9    14 15              80          3   7      14 15              80

MAXAROUT   _____          CAD __          NSCSMECS   _____          CAD __
3     10   14 17              80          3     10   14 15              80

MAXOROUT   _____          CAD __          NWCSMU     _____          CAD __
3     10   14 18              80          3    8     14 15              80

MAXNMOROUT _____          CAD __          OFFGNSC    __             CAD __
3       12 14 17              80          3     9    14                 80

MC5HRB     _____          CAD __          OFFLATA    _____          CAD __
3    5     14 19              80          3     9    14 16              80

MRT        _____          CAD __          OFFMTSC    _____          CAD __
3 5        14 17              80          3     9    14 15              80

MRVT       _____          CAD __          OFFNSN     _____          CAD __
3  6       14 15              80          3    8     14 16              80

NCA800TT   _____          CAD __          OMR        _____          CAD __
3     10   14 16              80          3 5        14 16              80

NCAT       _____          CAD __          PCF _____  OPC __________  CAD __
 3  6       14 16              80          3 5 14 17      19     27      80
```

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Input Forms Required **ODA 406C Form**

(cont'd.)

```
ESS 406C SHEET 3 OF 3 TG-4      MISCELLANEOUS OFFICE DATA
4E24>                                    4ESS
                              4E24 AND LATER GENERIC PROGRAMS

                                ESS UNIT _____________________________

FORM CODE _6C_
          1  2

PLU_IN_WCS __            CAD __          SSP  __            CAD __
3       12 14                80          3 5  14                80

QOB        _____         CAD __          SVAST      _____   CAD __
3 5        14 17             80          3   7      14 17       80

RCVHL      _____         CAD __          TBSHC      _____   CAD __
3   7      14 15             80          3   7      14 18       80

RPI        _____         CAD __          TCRB       _____   CAD __
3 5        14 15             80          3  6       14 15       80

SATB       _____         CAD __          TDAS1A     __      CAD __
3  6       14 16             80          3    8     14          80

SDN        _____         CAD __          TSC        __      CAD __
3 5        14 17             80          3 5        14          80

SDNTT      _____         CAD __          TVTSTP     _____   CAD __
3   7      14 16             80          3    8     14 17       80

SDS        _____         CAD __
3 5        14 17             80

SISET5ME   __            CAD __
3     10   14                80

SISET5MR   __            CAD __
3     10   14                80

SISETHER   _____         CAD __
3     10   14 16             80

SISETHRR   _____         CAD __
3     10   14 16             80


REMARKS _____ PAGE ____ OF ____
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Input Forms Required (cont'd.)

ODA 406C Form

Various fields have to be populated in order to turn on the AIN Feature. These are:

Valid Entries:

- AINON (AIN On/Off Switch) — This field activates AIN if populated with "Y". Otherwise it is populated with "N".
- OFFLATA (Office LATA) — This identifies the LATA for AIN calls. Valid entries are 000-999.
- SSP (Service Switching Point) — This field is populated with "Y" or "N".

Population Rule
If AINON is "Y", then SSP on 406C must be "Y".

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Input Forms Required **ODA 406Z Form**
(cont'd.)

```
ESS 406Z SHEET 1 OF 5 TG-4     MISCELLANEOUS OFFICE DATA
4E24R1>                                 4ESS
                          4E24R1 AND LATER GENERIC PROGRAMS

                            ESS UNIT _____________________________

FORM CODE _6Z_
          1  2

3BRECCAP  __,          CAD __          BFTNI     _____,        CAD __
3     10  14               80          3   7     14 16             80

AASE      _____,       CAD __          BLKBXPS   __,          CAD __
3  6      14 17            80          3     9   14                80

ADDA      _____,       CAD __          CDSRT     _____,        CAD __
3  6      14 17            80          3   7     14 17             80

ADEAMF    _____,       CAD __          CIC_DA    _____,        CAD __
3    8    14 17            80          3    8    14 23             80

ADNISUP   _____,       CAD __          C7NIDLY   _____,        CAD __
3     9   14 17            80          3     9   14 17             80

AINCFRTH  _____,       CAD __          DSDNSCATL _____,        CAD __
3     10  14 15            80          3      11 14 16             80

AINCGFHT  _____,       CAD __          DSDNSCBTL _____,        CAD __
3     10  14 16            80          3      11 14 16             80

AINFHT    _____,       CAD __          DSDNSCTHR _____,        CAD __
3    8    14 16            80          3      11 14 16             80

AINRDFLT  __,          CAD __          EADOM     _____,        CAD __
3     10  14               80          3   7     14 15             80

AINRESP   _____,       CAD __          EAR       __,           CAD __
3     9   14 16            80          3 5       14                80

AINSSN    _____,       CAD __          EASATMFO  _____,        CAD __
3    8    14 16            80          3     10  14 18             80

AINTRIG   __,          CAD __          EASATNOL  _____,        CAD __
3     9   14               80          3     10  14 18             80

ANNIDNCP  _____,       CAD __          EASCRNOL  _____,        CAD __
3     10  14 18            80          3     10  14 18             80

ANNIDSDN  _____,       CAD __          EASCRO    _____,        CAD __
3     10  14 18            80          3    8    14 18             80

ATPSCU    _____,       CAD __          EPAV_TIME _____,        CAD __
3    8    14 15            80          3      11 14 18             80

BBFPFHT   _____,       CAD __          FSFRT     _____,        CAD __
3     9   14 16            80          3   7     14 16             80

BFTIS     _____,       CAD __
3   7     14 16            80
```

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Input Forms Required (cont'd.)

ODA 406Z Form

Six new fields were added to the ODA 406Z Form to activate the AIN feature. These are:

AINCFRTH — **AIN Call Forwarding Redirection Threshold** — This field is used to specify the number of times an AIN call can be redirected. If this threshold is exceeded, this call receives Final Handling Treatment (FHT). Valid entries are blank or 1-32. The default value is 5.

AINCGFHT — **AIN Automatic Call Gap Final Handling Treatment** — This defines the final handling treatment to be used in the event of call failure to Automatic Call Gapping. All entries for field RDBFHT on RC 500 are valid. This field requires the numeric value for the announcement. The default value is 2.

AINFHT — **AIN Final Handling Treatment** — AINFHT is used to define a final handling treatment if the AIN call fails. All entries for field RDBFHT on RC 500 form are valid. This field requires the numeric value for the announcement. The default value is 2.

AINRESP — **AIN Response Timer** —This field is used to indicate the length of time the SSP must wait for a response from the SCP. The entries are in Centiseconds in the range of 100-500 or blank. The default is 300 Centiseconds (3 seconds).

AINSSN — **AIN Subsystem Number** — This field is used to assign the AIN Subsystem number. Valid entries are blank and 0-255, except 2, 3 and 5.

AINTRIG — **AIN Trigger** — AINTRIG defines the maximum number of queries which can be sent to an SCP database per call. Entries are blank or 1-6. The default is 6.

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Input Forms Required (cont'd.)

Recent Change 809 Form (ODA — None)

```
# FORM 809    CHANGE FEATURE BIT
   4E18>

RC:FTR;CHG;OPT(BIT),___:

ORNU ______,

FEATURE ITEM ________,           ON OR OFF ___,

REMARKS _____________________________________________________!

               EQUIVALENT ODA INPUT FORM - NONE

                  ASSOCIATED VERIFY MESSAGES

                           NONE
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Advanced Intelligent Network - Feature 375, Continued

Input Forms Required (cont'd.)

Recent Change 809 Form (ODA — None)

The RC 809 Form is used to activate AIN in your office and to identify whether a call should be routed on a default route if no message is sent to the SCP.

Feature Item
Valid Entry:

- AINON — AIN On

Valid Entry — On or Off

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Input Forms Required (cont'd.)

Recent Change 810 Form (ODA — None)

```
# FORM 810    CHANGE MISCELLANEOUS FEATURE INFORMATION

RC:FTR;CHG;OPT(MSC),___:

ORNU ______,

FEATURE INFO ________,         DATA ___,

REMARKS _____________________________________________________!

               EQUIVALENT ODA INPUT FORM - NONE

                 ASSOCIATED VERIFY MESSAGES

                           NONE
```

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Input Forms Required (cont'd.)

Recent Change 810 Form (ODA — None)

This form is used to add various parameters for your particular office. There are eight (8) entries to be made in the FEATURE INFO field with a corresponding entry in the DATA field.

Below are listed the entries by FEATURE INFO field name with their corresponding entries in the DATA field.

- **AINCFRTH** — AIN Call Redirection Threshold
- **AINCGFHT** — AIN Call Gap Final Handling Treatment
- **AINFHT** — AIN Final Handling Treatment
- **AINRESP** — AIN Response Timer
- **AINSSN** — AIN Subsystem Number
- **AINTRIG** — AIN Trigger

These features may also be set by using the ODA 406Z Form.

- **OFFLATA** — Office LATA
  This is used to identify to the SCP in what LATA the switch resides. Valid entries are 000-999.

This feature may also be set by using the ODA 406C Form.

- **ATOSI** — AIN Type of Service Index
  New field for 4E22 generic. This is an office wide parameter which is used instead of the Call Type TOS when querying an AIN database based on an AIN TSG trigger. Valid Entries: Blank, 0-31.

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Provisioning **Global Title Translation (gttran)**

Global Title Translation (gttran) Data Items

GTTRAN DATA ITEMS	DATA TYPE	RANGE
ITEM NUMBER	numeric	001 to 999
TRANSLATION TYPE	numeric	0 to 256
EVEN STP PC	numeric	9 characters
ODD STP PC	numeric	9 characters

Global Title Translator (gttran) - (chg) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86 TIME: 13:42 *****
FUNCTION: gttran ACTION: chg ORDER: 06Y00055500 OFFICE: NPVLILIH2MD

                    GLOBAL TITLE TRANSLATIONS

                    ITEM:                     001

                    TRANSLATION TYPE:         241
                    EVEN STP PC:              250007000
                    ODD STP PC:               250007000
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Advanced Intelligent Network - Feature 375, Continued

Provisioning (cont'd.)

Global Title Translation (gttran)

The purpose of the gttran function is to allow the ability to select a global title translator based on service type. Global title translations are typically performed at an STP to translate called or calling number for a Destination/Direct Common Channel Interoffice Signaling (DCIS) or Transaction Application Part (TCAP) service and decide which database (Service Control Point [SCP], Network Control Point [NCP], etc.) will perform the final translations. The value of the translation type corresponds to the values input on the 4E Recent Change Form 626, and Office Data Assembler (ODA) Form 406C. This function allows the user to assign the pointcodes of the STP on a per translation type basis.

Refer to the TG4, Division 12 for additional information.

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Assigned Announcements

Announcement ID Field Value (Decimal Equiv.) (Compool Value)	Announcement Designator	Default Cause Value (Decimal Equiv.) (Compool Value)	Announcement Description
1	AR	31	Audible Ringing
2	T	31	Reorder - 120 IPM
3	BT	17	Busy - 60 IPM
4	TPT	–	Test Progress Tone
5	MW	–	Milliwatt Tone
6	NCA	34	No Circuit Available
7	VCA	1	Vacant Code Announcement
8	ROA	47	Reorder Announcement
9	EA1	41	Emergency Announcement 1
10	EA2	41	Emergency Announcement 2
11	SP1	31	Special Announcement 1
12	SP2	31	Special Announcement 2
13	IDLE	–	Silence - Idle Guarding Time
14	HW	3	High and Wet
15	IDNG	–	Silence - Idle No Guarding Time
16	MW10	–	-10dB 1004 Hz Tone
18	MCA	31	Mis-Routed CAMA
19	NCC	42	SDN Egress Busy
20	NWC	41	PCP Call Failure
21	OOB	50	Out of Band
22	EA6	41	Emergency Announcement 6
23	EA3	41	Emergency Announcement 3
24	EA4	41	Emergency Announcement 4
25	NCD	31	Network Call Denial
26	EA7	41	Emergency Announcement 7
27	INC	34	Intl. No Circuit
28	IVC	1	Intl. Vacant Code
29	EA5	41	Emergency Announcement 5
30	IFF	27	Intl. Foreign Failure

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Advanced Intelligent Network - Feature 375, Continued

Assigned Announcements (cont'd.)

For AIN services, the announcement for final handling treatment must be assigned on the 406Z Form. The numeric announcement identification must be input on the following fields:

- AINCGFHT - AIN Call Gap Final Handling Treatment
- AINFHT - AIN and Final Handling Treatment

On the opposite page and the next four pages is a list of the available announcements. An Access Tandem (AT) could use them as they wish. One example would be to have a particular announcement in more than one language.

The existing tones and announcements up to International Vacant Code (IVC) are currently available with the existing ringing and tone plant and the Phased Announcement System (PAS).

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Assigned Announcements (cont'd.)

Announcement ID Field Value (Decimal Equiv.) (Compool Value)	Announcement Designator	Default Cause Value (Decimal Equiv.) (Compool Value)	Announcement Description
32	SNA	31	Service Not Active
33	WMA	31	Vacant MAS Announcement
34	OTS	31	HiCap Out of Time Slot
35	STO	31	Sun Transit Outage
36	NWN	1	Vacant 800 Number
37	DNN	1	Disc. 800 Number
38	TDN	1	Temp Disc. 800 Number
39	INF	41	Info 1 ANI Failure
40	NCB	34	LEC Egress Busy
41	WAT	31	Waiting for Answer Timeout
42	LSA	1	Intra-LATA Call Screening
43	OOA	1	Out of Area (LEC MAS Serv)
44	LDV	31	AT&T Dial 1(700-555-4141)
45	LOB	17	Logging on Busy
46	UNN	1	Unallocated Number (SS7)
47	S19	31	Spare
48	DOO	27	Destination Out of Order (SS7)
49	ISB	17	International Subscriber Busy
50	E01	41	Emergency Situation
51	E02	41	Severe Weather
52	E03	41	Facility Trouble
53	E04	41	Local Company Trouble
54	E05	41	Airplane Crash
55	E06	41	Hurricane
56	E07	41	Flood
57	E08	41	Tornado
58	E09	41	Forest Fire
59	E10	41	Earthquake
60	E11	41	Mudslide
61	E12	41	Major Network Outage

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Advanced Intelligent Network - Feature 375, Continued

Assigned Announcements (cont'd.)

Announcement ID Field Value (Decimal Equiv.) (Compool Value)	Announcement Designator	Default Cause Value (Decimal Equiv.) (Compool Value)	Announcement Description
62	E13	41	Reserved Dom. NM
63	E14	41	Reserved Dom. NM
64	E15	41	Reserved Dom. NM
65	E16	41	Reserved Dom. NM
66	E17	41	Reserved Dom. NM
67	E18	41	Reserved Dom. NM
68	E19	41	Reserved Dom. NM
69	E20	41	Reserved Dom. NM
70	R01	22	Dialing Plan Change (Dom.)
71	R02	22	Dialing Plan Change (Dom.)
72	R03	22	Dialing Plan Change (Dom.)
73	R05	22	Dialing Plan Change (Dom.)
74	R05	22	Dialing Plan Change (Dom.)
75	R06	22	Dialing Plan Change (Dom.)
76	R07	22	Dialing Plan Change (Dom.)
77	R08	22	Dialing Plan Change (Dom.)
78	R09	22	Dialing Plan Change (Dom.)
79	R10	22	Intrastate Dialing Plan Change
80	I01	41	Intl. Emergency Situation
81	I02	41	Intl. Severe Weather
82	I03	41	Intl. Telephone Company
83	I04	41	Intl. Airplane Crash
84	I05	41	Intl. Earthquake
85	I06	41	Intl. Mudslide
86	I07	41	Intl. Fire
87	I08	41	Reserved Intl. NM
88	I09	31	Intl. Direct Dialing Susp.
89	I10	31	Intl. Direct Dialing Test
90	I11	22	Dialing Plan Changes (Intl.)

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Assigned Announcements (cont'd.)

Announcement ID Field Value (Decimal Equiv.) (Compool Value)	Announcement Designator	Default Cause Value (Decimal Equiv.) (Compool Value)	Announcement Description
91	I12	22	Dialing Plan Changes (Intl.)
92	I13	22	Dialing Plan Changes (Intl.)
93	I14	22	Dialing Plan Changes (Intl.)
94	I15	22	Dialing Plan Changes (Intl.)
95	I16	22	Dialing Plan Changes (Intl.)
96	I17	22	Dialing Plan Changes (Intl.)
97	I18	22	Dialing Plan Changes (Intl.)
98	I19	22	Dialing Plan Changes (Intl.)
99	I20	22	Dialing Plan Changes (Intl.)
100	I21	22	Dialing Plan Changes (Intl.)
101	I22	22	Dialing Plan Changes (Intl.)
102	I23	22	Dialing Plan Changes (Intl.)
103	I24	41	Reserved Intl. NM
104	I25	41	Reserved Intl. NM
105	I26	41	Reserved Intl. NM
106	I27	41	Reserved Intl. NM
107	I28	41	Reserved Intl. NM
108	I29	41	Reserved Intl. NM
109	I30	41	Reserved Intl. NM
110	S01	31	Spare
111	S02	31	Spare
112	S03	31	Spare
113	S04	31	Spare
114	S05	31	Spare
115	S06	31	Spare
116	S07	31	Spare
117	S08	31	Spare
118	S09	31	Spare
119	S10	31	Spare

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Advanced Intelligent Network - Feature 375, Continued

Assigned Announcements (cont'd.)

Announcement ID Field Value (Decimal Equiv.) (Compool Value)	Announcement Designator	Default Cause Value (Decimal Equiv.) (Compool Value)	Announcement Description
120	S11	31	Spare
121	S12	31	Spare
122	S13	31	Spare
123	S14	31	Spare
124	S15	31	Spare
125	S16	31	Spare
126	S17	31	Spare
127	S18	31	Spare

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger

4E Routing	Trigger Placement	Possible Number of Encountered Triggers for 4E Routing
3 Digit Routing	NPA	1
3 Digit Routing	NXX	1
4 Digit Routing	NPA-N	2
4 Digit Routing	NXX-X	2
5 Digit Routing	NPA-NX	2
5 Digit Routing	NXX-XX	2
6 Digit Routing	NPA-NXX	2
6 Digit Routing	NXX-XXX	2
7 Digit Routing	NPA-NXX-X	3
7 Digit Routing	NXX-XXX-X	3
8 Digit Routing	NPA-NXX-XX	3
8 Digit Routing	NXX-NXX-XX	3
9 Digit Routing	NPA-NXX-XXX	3
9 Digit Routing	NXX-NXX-XXX	3
10 Digit Routing	NPA-NXX-XXX-X	4
10 Digit Routing	NXX-NXX-XXX-X	4

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger
(cont'd.)

Code Grouping AIN Information

Dialed Number Triggers (DNTs) apply to the North American Numbering Plan (NANP). An AIN trigger can be added anywhere in a code string where there is currently a calltype treatment of Routing Data Block (RDB), Subsequent Digits (SD1, SD2, SD3), Subsequent Digit Index (SDX) or Go/No Go Screening (GNS) in the code grouping translations. Triggers are added or deleted one at a time using the RC 345 Form. Triggers cannot be added for calltypes in Subsequent Digit Indexes using RC 304 Forms.

The opposite page shows all the combinations where an AIN trigger may be encountered and the maximum number of AIN triggers that can be added for a code string. For example: 10 Digit routed number can have anywhere from 1 to 4 AIN triggers. When four AIN triggers are added for 630-971-513-3, an AIN trigger could be added at: 630, 971, 513 & 3. Four RC 345 Forms would have to be added. Each form adds one trigger.

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

VERIFY MESSAGES

- CODE GROUP
- AIN TRIGGER LIST

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

Verify Code Group

When VERIFY System encounters an AIN trigger, Verify outputs the last AIN trigger present. Verify also gives the last AIN trigger number. Verify outputs the last AIN trigger which exists in the digit string when code group is verified.

For example – for digits 630-971-513-3, a 10-digit routed number

with 2 AIN triggers: AINDEX 1 at 630 and AINDEX 2 at 513. When the user requests a verification:

Verify ABC 630 – Then the user will be given AIN TRIGGER PRESENT – NUMBER 1.

Verify ABC 630, DEF 971 –AIN TRIGGER PRESENT – NUMBER 1

Verify ABC 630, DEF 971, EFG 513 – AIN TRIGGER PRESENT – NUMBER 2

Verify ABC 630, DEF 971, EFG 513, H 3 – AIN TRIGGER PRESENT – NUMBER 2

Verify AIN Trigger List

```
INPUT:                    VERIFY #13t

VER:AIN:LIST a ! (EOT)

OUTPUT:                    VERIFY 3aj

VER:AIN;OPT(LIST):

TRIGGER
NUMBER  TTYPE  LTOS   TOS  FH   SCSANN  DRCC     DFRN

       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
   RECENT CHANGE INPUT SOURCE - #345 RC:AIN;OPT(LIST),---:
```

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

Input Message Formats

Format [1] is used to request an Info_Analyzed test query.

Format [2] is used to request an Info_Collected test query.

Format

[1] TEST:TCAPAIN;QRYTYPE a:TSGN b,DATA c,TRNUM d,DIG e,TOS f

[,ANI g] [,SID h] [,OLI i|,IIDIGITS j] [,RID k] [,RDC l]
[,AUTHCODE m] [,TIME n] [,CD] [,LIST]!

[2] TEST:TCAPAIN;QRYTYPE a:TSGN b,DATA c,ANI g,DIG o,TOS f

[,SID h] [,OLI i|,IIDIGITS j] [,RID k] [,RDC l] [,AUTHCODE m]
[,TIME n] [,CD] [,LIST] [,CAR pppp [q]] [,TRNUM d]!

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger
(cont'd.)

Test Query — Input Message

This test query is sent to the Service Control Point (SCP) from the 4ESS Switch serving as an SSP. This test query enables office personnel, via input messages, to initiate queries to verify the contents of specific fields in the SCP response message. This test query tests the integrity of the SS7 network between the two end points utilizing the ANSI* based TCAP protocol. It also serves as a tool to test the data for a particular AIN customer. The queries sent to the SCP can be either for Info_Collected or Info_Analyzed.

Consult the I/O Manuals for the meaning of the input variables. The Continue Data (CD) keyword is used to put in long messages within the limitations of input message handling for remote systems.

To continue the input, the text from TEST through QRYTYPE n: must be repeated and then the new parameters added.

The LIST keyword outputs the raw message data for the query and the response.

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

Output Message Formats

[1] TEST:TCAPAIN;QRYTYPE a [:TSGN b,DATA c,TRNUM d,TOS e,DIG f]

[,ANI g] [,SID h] [,OLI i | ,IIDIGITS j] [,RID k] [,RDC l] [,TIME m]...

[OPERATION: o
PARAMETERS: p]
[v]

[2] TEST:TCAPAIN;QRYTYPE a [:TSGN b,DATA c,TOS e,ANI g,DIG u]

[,SID h] [,OLI i | ,IIDIGITS j] [,RID k] [,RDC l] [,TIME m]...

[LIST] [,CD] [,AUTHCODE n]

[OPERATION: o
PARAMETERS: p]
[v]

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger
(cont'd.)

Test Query — Output Message

The output message reflects the input message plus analyzes the contents of the response.

See the I/O manuals for details. The next couple of pages are examples of the use of the message.

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.) **Example Messages**

TEST:TCAPAIN;QRYTYE 2:TSGN 356,DATA 0,TRNUM 8,DIG 0128475422280,CD!
PF, CODE 001

53 TEST:TCAPAIN;QRYTYPE 2 COMPLETE
AIN TCAP TIMEOUT WAITING FOR TTY INPUT

07/10/97 14:53:59
#581

TEST:TCAPAIN;QRYTYPE 2:TSGN 356,DATA 0,TRNUM 8,DIG 0128475422280,TOS 1,CD!
PF, CODE 001

TEST:TCAPAIN;QRYTYPE 2:LIST!
PF, CODE 000

55 AIN OUTGOING TCAP MESSAGE

005E00 000000 000000 000C80 070000 B79300 B7FA1E 00FA1E
098000 088900 F80000 847542 228A00 05C3F8 FA1EB7 00005D
E2005A C704B9 004C60 000000 000000 E8004B E90048 CF0100
000000 D10264 030000 300039 BF3506 850200 000164 8D0001
000000 8F0008 035000 847542 228A00 9F2305 800000 358000
9F3401 080000 930005 831000 000000 940001 170000
07/10/97 14:55:13
#623

55 TEST:TCAPAIN;QRYTYPE 2 COMPLETE

ANALYZE ROUTE

CHARGE NUMBER 000 NAT: 0X03 PLAN: 0X1
CALLED PARTY ID 847 542 2280 NAT: 0X03 PLAN: 0X5
PRIMARY TRUNK GROUP 5003 IND: 1 CTI: 01
AMASLPID 008590023

ELAPSED TIME: 0.23 SECONDS

07/10/97 14:55:14
#625

55 AIN INCOMING TCAP MESSAGE

FF53FF 000000 000000 000C00 070100 B79300 08FA1E 1AFA1C
090000 05C3F8 FA1EB7 08C9F8 F80000 847542 228A00 00004B
E40048 C70400 000000 0000B9 004C60 E80039 E90036 CF0210
000000 D10265 010000 300027 930005 831000 AAA000 8F0008
035000 847542 228A00 9F2A05 5AA3AA AA8100 8A0005 AA859A
A23A00
07/10/97 14:55:14
#626

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.) **Test Query Messages**

TEST:TCAPAIN;QRYTYPE 2:TSGN 356,DATA 0,TRNUM 8,DIG 0128475422280,TOS 1,CD!
PF, CODE 001

TEST:TCAPAIN;QRYTYPE 2:ANI 3129878763,LIST!
PF, CODE 000

56 AIN OUTGOING TCAP MESSAGE

006000 000000 000000 000C80 070000 B79300 B7FA1E 00FA1E
098000 088900 F80000 847542 228A00 05C3F8 FA1EB7 000060
E2005D C70490 004C60 000000 000000 E8004E E9004B CF0100
000000 D10264 030000 30003C BF3506 850200 000164 8D0001
000000 8F0008 035000 847542 228A00 9F2305 800000 358000
9F3401 080000 930008 031000 312987 876300 940001 170000

07/10/97 14:56:50
#707

57 TEST:TCAPAIN;QRYTYPE 2 COMPLETE

SEND TO RESOURCE

RESOURCE TYPE 1
STR PARAMETER BLOCK:
ANNOUNCEMENT: 21
MAXDIGITS: 1
ANSWER INDICATOR
ELAPSED TIME: 0.36 SECONDS

07/10/97 14:56:50
#708

57 AIN INCOMING TCAP MESSAGE

FF49FF 000000 000000 000C00 070100 B79300 07FA1E 09FA1C
098000 05C3F8 FA1EB7 08C9F8 F80000 847542 228A00 00003C
E50039 C70850 4FCC04 000090 004C60 E8002A E90027 CF0201
000000 D10266 010000 300018 9F2D01 010000 BF320C A10A80
0101A2 050403 001500 8C0000

07/10/97 14:56:50
#709

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

EAMF Translations

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM POTS, NTD 6,   AC Y,
                                                 ABC 630,

ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI   DESEP   DNST

OLD   FHT, _______VCA_______, ____, ______, ____, ____, ___, ______,

                AD3 _______,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   RDB, _______100_______, ____, ______, ____, ____, 100, ______,

                AD3 _______,   ADC10,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

971, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - ESS 403E

                        ASSOCIATED VERIFY MESSAGES

                          INPUT-13b-VER:CODEGRP

                       OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

EAMF Translations

The Dialed Number that is to be triggered must exist in an existing Code Group. This can be accomplished by adding the Dialed Number using an RC 300-303 Form.

On the opposite page is an example of a completed RC 301 Form identifying the number which has a trigger assigned to it.

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

EAMF Translations

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
     4E23R1>

   RC:CODEGRP;CHG;OPT(DIG9),___:                DOM POTS, NTD 7,   AC N,
                                                ABC 060,  DEF 011,

ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI  DESEP   DNST

OLD   FHT, _______VCA_______,  ____,  ______,  ____,  ____,  ___,  ______,

                AD3 ________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   SSP, ______ACPN______,  ____,  ______,  ____,  ____,  ___,  ______,

                AD3 ________,  ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,

GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

 0 , ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________!

             EQUIVALENT ODA INPUT FORM - ESS 403F

                  ASSOCIATED VERIFY MESSAGES

                    INPUT-13b-VER:CODEGRP

                 OUTPUT-3e-VER:CODEGRP;OPT(DIG9)
```

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

EAMF Translations

An RC 302 must be submitted in order to activate the Dialed Number Trigger.

Valid entries:

DOM (Domain) – POTS

NTD (Number of Translated Digits) – 7

AC (Area Code) – N if DOM = POTS
Blank if DOM = non-POTS domain

ABC – 0ZZ

DEF – 011

G – 0

CALLTYP (Call Type) – SSP

CALLDATA – ACPN

AD2, AD3, DESEP & DNST – Leave blank

SC & CHI – Optional

ADC (Acceptable Digit Count) – 7

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger
(cont'd.)

EAMF Translations

```
# FORM 345   SET/RESET AIN TRIGGER
  4E22R2>

RC:AIN;OPT(LIST),____:

ORNU ______,        ACTION A,

DOM    AC     ABC  DEF  GHI  J
POTS,  Y,     630, 971, ___, _,

TTYPE  LTOS  TOS   FH   SCSANN   DRCC      DFRN
  A,    __,   2,   __,  _____,   ___,   _________,

REMARKS _____________________________________________!

                    ASSOCIATED VERIFY MESSAGES

                      INPUT-13t-VER:AIN:LIST

                    OUTPUT-3aj-VER:AIN;OPT(LIST)
```

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

EAMF Translations

The RC 345 Set/Reset AIN Trigger form is used to identify the digits which will be used as the trigger.

Valid entries:

ABC DEF GHI J	These fields are used to identify the digits to be used as the trigger. 2-9 are valid as the A digit and 0-9 are valid for B-J digits.
AC (Area Code)	Enter Y if ABC digits are an Area Code in the POTS Domain. Otherwise, enter an N.
DOM (Domain)	Enter POTS or numeric non-POTS domain.
TOS (Type of Service)	A value of 0-31 is assigned for the TOS. Do not use the TOS that is assigned to EA800.
TTYPE (Trigger Type)	A-AIN Services

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

ISUP NI Translations

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM ATNS, NTD 6,   AC _,
                                                 ABC 011,

ORNU _______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI   DESEP   DNST

OLD   FHT, ________VCA________, _____, _______, _____, _____, ____, _______,

                AD3 ________,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   SSP, ________ACPN_______, _____, _______, _____, _____, ____, _______,

                AD3 ________,   ADC 6,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

002, ____, ____, ____, ____, ____, ____, ____,
____, ____, ____, ____, ____, ____, ____, ____,
____, ____, ____, ____, ____, ____, ____, ____,
____, ____, ____, ____, ____, ____, ____, ____,

REMARKS _____________________________________________________!

                    EQUIVALENT ODA INPUT FORM - ESS 403E

                         ASSOCIATED VERIFY MESSAGES

                           INPUT-13b-VER:CODEGRP

                       OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

ISUP NI Translations

An RC 301 Form must be entered in order to activate the Dialed Number when using ISUP NI signaling

Valid entries:

NTD (Number of Translated Digits) – 6

AC (Area Code) – Leave blank

ABCD – 0110

EF – Enter TNSI in the range of 00-15

CALLTYP (Call Type) – SSP

CALLDATA – ACPN

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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

0ZZ Trigger

EAMF Translation

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
     4E23R1>

   RC:CODEGRP;CHG;OPT(DIG9),___:                DOM POTS, NTD 7,   AC N,
                                                ABC 060,  DEF 011,

ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI  DESEP   DNST

OLD   FHT, _______VCA_______,  ____,  ______,  ____,  ____,  ___,  ______,

                AD3 ________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   SSP, ______SICQ_______,  _2_ ,  ______,  ____,  ____,  ___,  ______,

                AD3 ________,  ADC_7,__,__,__,__,__,__,__,__,__,__,__,__,__,

GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

 0 , ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________!

             EQUIVALENT ODA INPUT FORM - ESS 403F

                  ASSOCIATED VERIFY MESSAGES

                    INPUT-13b-VER:CODEGRP

                 OUTPUT-3e-VER:CODEGRP;OPT(DIG9)
```

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

0ZZ Trigger

EAMF Translation
An AIN Trigger can be established by using a unique 0ZZ code received from the End Office.

Valid entries:

DOM (Domain) – POTS or non-POTS domain

NTD (Number of Translated Digits) – 7

AC (Area Code) – N if DOM = POTS
Blank if DOM = non-POTS domain

ABC – 0ZZ

DEFG – 0110

CALLTYP (Call Type) – SSP

CALLDATA – SICQ

AD1 – Enter Type of Service (TOS) in range of 00-31.

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LUCENT TECHNOLOGIES PROPRIETARY
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Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

TNSI Trigger

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM ATNS, NTD 6,   AC _,
                                                 ABC 011,

ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI   DESEP   DNST

OLD   ___, ____________________,  ____,  ______,  ____,  ____,  ___,  ______,

                AD3 _______,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   SSP, ______SICQ_______,   _2_,  ______,  ____,  ____,  ___,  ______,

                AD3 _______,   ADC_6,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

002, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 403E

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-13b-VER:CODEGRP

                      OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger
(cont'd.)

TNSI Trigger

ISUP NI Translation
An RC 301 Form is used to enter the translation for using the Transit Network Selection Index (TNSI) in an ISUP NI environment.

The Call Data of "Send AIN Information Collected Query" (SICQ) is used for this purpose.

Valid entries:

DOM – ATNS

NTD (Number of Translated Digits) – 6

AC (Area Code) – Leave Blank

ABCD – 0110

EF (Transit Network Selection) – 00-15

AD1 (Type of Service) – 00-31

CALLTYP (Call Type) – SSP

CALLDATA – SICQ

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

II/OLI Trigger

EAMF ISUP NI Translation

```
# FORM 336  CHANGE II DIGITS AND OLI CONVERSION TRANSLATOR
4E18>

RC:CODEGRP;CHG;OPT(II,OLI),___:

ORNU _______,

II  TO  OLI    AININD1 TOS1    OLI  TO  II    AININD2 TOS2

64,     64,      Y,    2,     64,     64,      Y,    2,

__,     ___,     _,    __,    ___,    __,      _,    __,

__,     ___,     _,    __,    ___,    __,      _,    __,

__,     ___,     _,    __,    ___,    __,      _,    __,

__,     ___,     _,    __,    ___,    __,      _,    __,

__,     ___,     _,    __,    ___,    __,      _,    __,

__,     ___,     _,    __,    ___,    __,      _,    __,

__,     ___,     _,    __,    ___,    __,      _,    __,

__,     ___,     _,    __,    ___,    __,      _,    __,

__,     ___,     _,    __,    ___,    __,      _,    __,

REMARKS ----------------------------------------------------!

              EQUIVALENT ODA INPUT FORM - ESS 403Z

                   ASSOCIATED VERIFY MESSAGES

                INPUT-13p-VER:EA;CONV:IIDIGITS
                  INPUT-13p-VER:EA;CONV:OLI

                  OUTPUT-3ae-VER:EA;OPT(CONV)
```

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger
(cont'd.)

II/OLI Trigger

EAMF ISUP NI Translation
An AIN Trigger can be established by examining the II digits in EAMF or the Originating Line Information (OLI) in ISUP NI. The RC 336 Form is used to identify what value is being used to identify that an AIN Trigger is present.

In order that this Trigger be turned on, one (1) line must be completely filled in with required information.

Valid entries:

II – 00-99

OLI – 000-255

AININD1 & AININD2 – Enter Y to activate

TOS1 & TOS2 – Enter 00-31

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

II Trigger

EAMF Translation

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
     4E23R1>

   RC:CODEGRP;CHG;OPT(DIG9),___:                    DOM POTS, NTD 7,   AC N,
                                                    ABC 060,  DEF 011,

ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI  DESEP   DNST

OLD   FHT, _______VCA_______,  ____,  ______,  ____,  ____,  ___,  ______,

                AD3 ________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   SSP, ______AIIO_______,  ____,  ______,  ____,  ____,  ___,  ______,

                AD3 ________,  ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,

GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

 0 , ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________!

             EQUIVALENT ODA INPUT FORM - ESS 403F

                  ASSOCIATED VERIFY MESSAGES

                    INPUT-13b-VER:CODEGRP

                 OUTPUT-3e-VER:CODEGRP;OPT(DIG9)
```

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

II Trigger

EAMF Translation
The II Trigger for EAMF is activated by using an RC 302 Form.

Valid entries:

DOM – POTS or non-POTS domain

NTD – 7

AC – N if DOM = POTS
Blank if DOM = non-POTS domain

ABC – 0ZZ

DEFG – 0110

CALLTYP – SSP

CALLDATA – AIIO

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

OLI Trigger

ISUP NI Trigger

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM ATNS, NTD 6,   AC _,
                                                 ABC 011,

ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI   DESEP   DNST

OLD   FHT, ________VCA________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 _______,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   SSP, _______AIIO________,  ____,  _______,  _____,  _____,  ___,  _______,

                AD3 _______,   ADC 6,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

002, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 403E

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-13b-VER:CODEGRP

                      OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger
(cont'd.)

OLI Trigger

ISUP NI Trigger
The OLI Trigger is activated by entering an RC 301 Form and by using the Call Data word of AIIO (Analyze the II/OLI).

Valid entries:

DOM – ATNS

NTD – 6

AC – Leave Blank

ABCD – 0110

EF – TNSI

CALLTYP – SSP

CALLDATA – AIIO

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.) **RC301**

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM NSR, NTD 4,   AC _,
                                                 ABC 011,

ORNU _______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI   DESEP   DNST

OLD   FHT, ________VCA________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 ________,   ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   SSP, ________RTP________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 ________,   ADC 4,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

 0, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________Intra-LATA return to  POTS____________!

                  EQUIVALENT ODA INPUT FORM - ESS 403E

                       ASSOCIATED VERIFY MESSAGES

                         INPUT-13b-VER:CODEGRP

                      OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger
(cont'd.)

Database Response – Intra-LATA Calls

When an AIN query is returned, the 4ESS Switch has to be able to translate on the returned carrier identification code instead of the returned number. Translate on return carrier identification code in the NSR domain.

The RC 301 Form shown opposite is an example of the database response code group.

DOM	=	**NSR** for the Number Services Routing application.
AC	=	The *entry* will be **blank** as the area code does not apply.
CALLTYP	=	**SSP** for the Service Switching Point feature.
CALLDATA	=	**RTP** (Return To POTS) to identify the retranslation of the routing digits in the POTS domain. This is for calls that are intra-LATA and will not be delivered to an IC.
AD1	=	**Blank**
AD2	=	**Blank**
ADC	=	Allows any digit count in the range of 4 - 15
SC	=	**Blank**
CHI	=	**Blank**
ABC	=	011 digits returned from the SCP denotes the call will complete within the LATA
DEF	=	0

VERIFY

```
VER:CODEGRP:DOM NSR,ABC 011,DEF 0!!
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.) **RC 302**

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
     4E23R1>

   RC:CODEGRP;CHG;OPT(DIG9),___:                    DOM NSR, NTD 7,   AC _,
                                                    ABC 028,  DEF 800,

ORNU ______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI  DESEP   DNST

OLD   FHT, ________VCA________,  ____,  ______,  ____,  ____,  ___,  ______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   SSP, ________NDB________,  201,  ______,  ____,   ND,  ___,  ______,

                AD3 _________,  ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,

GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

 0 , ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________Send Call to AT&T via  NDB201_____________!

             EQUIVALENT ODA INPUT FORM - ESS 403F

                 ASSOCIATED VERIFY MESSAGES

                   INPUT-13b-VER:CODEGRP

               OUTPUT-3e-VER:CODEGRP;OPT(DIG9)
```

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Dialed Number Trigger (cont'd.)

Database Response – Inter-LATA Calls

When an AIN query is returned, the 4ESS Switch has to be able to translate on the returned carrier identification code instead of the returned number. Translate on return carrier identification code in the NSR domain.

The RC 302 Form shown on the opposite page is an example of the database response code group identifying that the call is to be passed to an IC.

DOM	=	NSR for the Number Services Routing application.
AC	=	The *entry* will be blank as the area code does not apply.
ABC	=	**028** digits returned from the SCP denotes the call will complete to AT&T/IC..
DEF		**800**
GHI		**0**
CALLTYP		**SSP** for the Service Switching Point feature.
CALLDATA	=	**NDB** Number Data Block to deliver the call to the IC
AD1	=	**NDB** Index #
AD2	=	**Blank**
ADC	=	**7**
SC	=	**Blank**
CHI	=	**ND, NDB, NDBB**

*

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Advanced Intelligent Network - Feature 375, Continued

Acronyms and Abbreviations

The following are acronyms and abbreviation of terms used throughout this document:

Term	Definitions
AC	Area Code
ACPN	Analyze Called Party Number
ADC	Acceptable Digit Count
AIIO	Analyze II/OLI
AIN	Advanced Intelligent Network
AINCFRTH	AIN Call Forwarding Redirection Threshold
AINCGFHT	AIN Automatic All Gap Final Handling Treatment
AINFHT	AIN Final Handling Treatment
AINRESP	AIN Response Timer
AINSSN	AIN Subsystem Number
AINTRIG	AIN Trigger
ANI	Automatic Number Identification
APS	Attached Processor System
AT	Access Tandem
APS	Attached Processor System
ATOSI	AIN Type of Service Index
CALLTYP	Call Type
CCD	Current Call Data
CCIS	Common Channel Interoffice Signaling
CCS	Common Channel Signaling
DCIS	Destination/Direct CCIS
DNT	Dialed Number Trigger
DOM	Domain
EAEO	Equal Access End Office
EAMF	Equal Access Multifrequency
EO	End Office
FHT	Final Handling Treatment
FTFN	First Traffic Number
GNS	Go/No Go Screening
IAM	Initial Address Message
IC	Interexchange Carrier
II	Information Digit
INTL	International

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Acronyms and Abbreviations (cont'd.)

Term	Definitions
ISDN	Integrated Service Digital Network
ISUP	ISDN User Part
IVC	International Vacant Code
LATA	Local Area Transport Access
LEC	Local Exchange Carrier
MAS	Mass Announcement System
NANP	North American Number Plan
NCP	Network Control Point
NDBI	Number Data Block Index
NM	Network Management
NSR	Number Services Routing
NTD	Number of Translated Digits
ODA	Office Data Assembler
OFFLATA	Office LATA
OLI	Originating Line Information
PAS	Phased Announcement System
POTS	Plain Old Telephone Service
RDB	Routing Data Block
RC	Recent Change
ROA	Reorder Announcement
SCP	Service Control Point
SD	Subsequent Digits
SCS	Service Circuit System
SICQ	Send Information Collected Query
SMS	Service Management System
SPC	Stored Program Controlled
SS7	Signaling System 7
SSP	Service Switching Point
STP	Signal Transfer Point
TAGS	Trunk Assignment Generation System
TAN	Trunk Appearance Number
TCAP	Transaction Capabilities Application Part
TDNET	Time Division Network

Continued on next page

Advanced Intelligent Network - Feature 375, Continued

Acronyms and Abbreviations (cont'd.)

Term	Definitions
TELCO	Telephone Company
TNS	Transit Network Selection
TOS	Type of Service

Local Number Portability - Feature 450

Introduction

The Local Number Portability (LNP) feature – Feature 450 – allows the end user the capability of moving their original directory number from one central office to another central office.

In This Section

This section contains the following topics:

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In This Section	***1***
Advantages/Benefits	***2***
Definitions	***2***
Background	***4***
AIN Existing Capabilities	**4**
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ISUP and TCAP Messages	**5**
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Call Flow (Intermediate 4ESS Switch Performs LNP Query	***6***
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Local Number Portability - Feature 450, Continued

Advantages/ Benefits

This feature is a necessary capability in order for local loop competition to take place. Local loop competition is a requirement for the Local Exchange Carriers (LECs) to enter new markets like long distance and video.

Definitions

The following are definitions of terms used throughout this document:

Terms	Definitions
Advanced Intelligent Network (AIN) Dialed Number Trigger (DNT)	This is an existing capability which utilizes switch logic and network data bases to provide enhanced features for specific called numbers.
Dialed Number (DN)	A dialed number may consist of a prefix plus address digits or an access code.
Geographic Portability	Allows the end-user to retain his/her dialed number after changing physical locations.
Incumbent Exchange	The switch the dialed number was initially ported from, also referred to as the "donor switch."
IntraLATA Portability	Providing Local Number Portability within a Local Area Transport Access (LATA).
LATA	Defined geographic area.
Location Routing Number (LRN)	A 10-digit number used to route calls to a switch that serves ported numbers. The Numbering Plan Area-Central Office Code (NPA-NXX) portion of the LRN is used to uniquely identify the switch (end office within the switch) and the last four digits of the LRN corresponds to an unassigned line number within that NPA-NXX. LRN is also known as Network Routing Address (NRA).

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Local Number Portability - Feature 450, Continued

Definitions
(cont'd.)

Terms	Definitions
Non-involved Switch	A switch that does not have any numbers ported to/from it.
Non-LNP Capable Switch	A switch that does not have LNP capability but may still have numbers ported to/from it.
Portable NPA-NXX	NPA-NXX which has at least one number ported from it.
Ported Number	A dialed number that has been moved from one exchange to another exchange or from one rate center to another on the same switch.
Rate Center	The division of an exchange into zones for billing purposes.
Service Portability	Allows an end-user to retain his/her dialed number after changing services, e.g., Plain Old Telephone Service (POTS) to Integrated Services Digital Network (ISDN).
Service Provider Portability	Allows an end-user to retain his/her dialed number after changing service providers.
Serving Exchange	The switch the dialed number is ported to (also referred to as the “recipient” switch) or the switch providing LNP capability for an old-technology switch the dialed number is ported to.
Signal Ported Number	Outgoing Trunk Subgroup (TSG) indicator which tells if the destination switch supports Local Number Portability. The population of this indicator is: Y if destination switch is not LNP capable so only ported number is signaled, blank or N if destination switch is LNP capable so LRN is signaled.

Continued on next page

Local Number Portability - Feature 450, Continued

Background

Local Number Portability utilizes two existing facets of the network: Advanced Intelligent Network (AIN) capabilities and the Signaling System 7 (SS7) capabilities. So the triggering (determining that an NPA-NXX requires a database query), querying of a database and receiving a response from a database operate with AIN functionality. The signaling network facilities,
i.e., the signaling links, Signal Transfer Points (STPs), Service Control Points (SCPs), and System Management System (SMS) provide the mechanism to accomplish the querying and response processes.

SS7 signaling links must be engineered to handle the additional load of Local Number Portability queries and SS7 call legs needed to route calls to ported customers from a switch.

AIN Existing Capabilities

Advanced Intelligent Network (AIN) capabilities are utilized by this feature. These capabilities allow the LEC 4ESS Switch, referred to as the Service Switching Point (SSP), to recognize calls that require advance call treatment and to obtain instructions for processing the call from a centralized database, known as a Service Control Point (SCP), instead of from logic contained in the switch. The SCP database is connected via data links to a Signal Transfer Point (STP) as well as the SSP office. The interface with the SCP database uses SS7 Transaction Application Part (TCAP) protocol. The STP provides routing of the TCAP messages sent between the SSP and the SCP. The process of identifying calls that require AIN processing is known as “triggering” since a particular characteristic of the call “triggers” the switch into providing AIN treatment. Once a trigger occurs, the SSP temporarily suspends the call processing and sends a query message to the SCP requesting instructions. Based on information contained in the query message, the SCP determines which service is being requested and provides appropriate information, such as routing and billing instructions, that the SSP then executes to complete the call.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Local Number Portability - Feature 450, Continued

Feature Description

This feature allows the 4ESS™ Switch Access Tandem (AT) to act as an LNP capable tandem exchange in local networks which supports Local Number Portability. The methodology uses a 10-digit Local Routing Number (LRN) (also referred to as a Network Routing Address) to route to the switch serving the ported number. Only intra-Local Area Transport Access (intraLATA) geographic portability is supported at this time.

LNP Dialed Number Trigger (DNT)

This feature introduces a new AIN DNT, termed an LNP DNT. When an NPA-NXX is defined as portable, an LNP DNT is assigned to that number in the switch so that a query to the SCP is made. SCP service logic is defined to return a Local Routing Number (LRN) of the serving switch for the dialed numbers within the NPA-NXX that have been ported. When the SSP receives the LRN from the SCP, the LRN is used to route the call to its correct destination.

ISUP and TCAP Messages

The LRN is forwarded in the ISDN User Part (ISUP) Initial Address Message (IAM) in the Called Party Number parameter. The actual called party number will be carried in the Generic Address Parameter (GAP). The Forward Call Indicator (FCI) parameter in the IAM is used to indicate whether an LNP query has been performed. This is used to prevent more than one LNP query from being launched on a call.

Non-ported dialed numbers in portable NPA-NXXs result in the SCP sending an Analyze Route with the actual called number and no LRN.

AIN Default routing may be applied if the SCP cannot be accessed due to abnormal circumstances. If AIN Default routing has not been purchased or has not been provisioned, the call receives final handling.

LNP Queries

LNP Queries are made by the network “owning” the call. For calls routed to an Interexchange Carrier (IEC) network, the Local Exchange Carrier (LEC) forwards the call without making an LNP query, and the carrier performs the LNP query. Calls routed entirely within the LEC network have the LNP query performed by the first LNP-capable switch handling the call, typically the originating end office. If the switch serving the calling subscriber does not have LNP capability, the call is routed to a tandem switch which is LNP-capable, and the tandem launches the query to determine routing.

Continued on next page

Local Number Portability - Feature 450, Continued

Call Flow (Intermediate 4ESS Switch Performs LNP Query)

The steps below describe the performance of the LNP query for calls from non-LNP capable originating end offices:

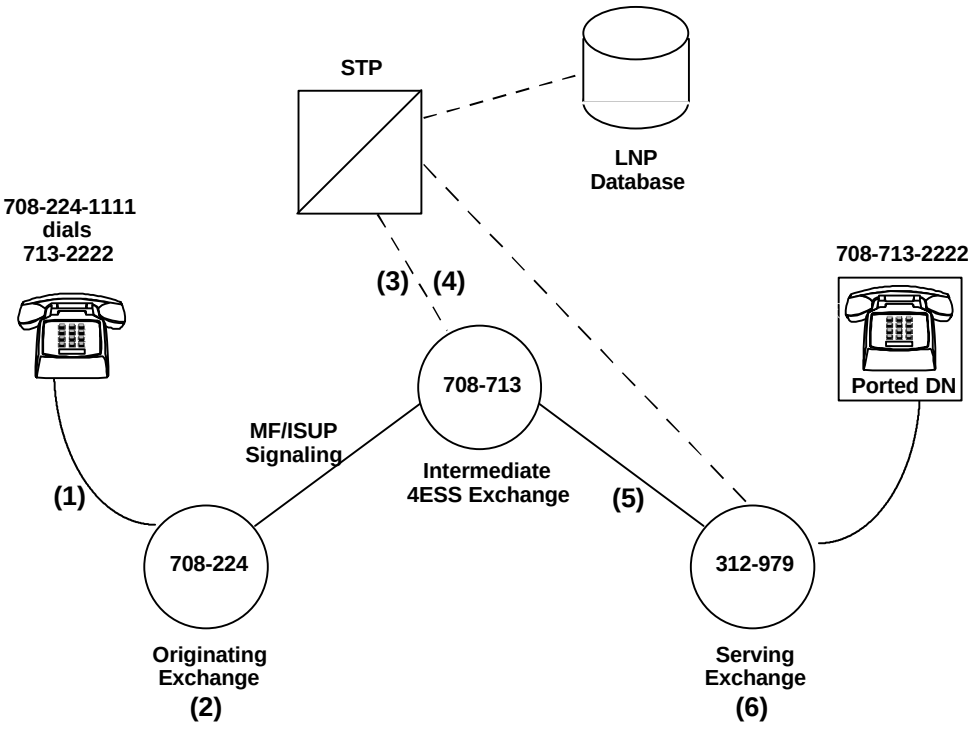

Figure 1. Intermediate 4ESS Switch Performs LNP Query

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Local Number Portability - Feature 450, Continued

Call Flow (Intermediate 4ESS Switch Performs LNP Query) (cont'd.)

Task	Description
1	Line A (708-224-1111) dials Line B (708-713-2222).
2	The Originating Exchange (non-LNP-capable) performs digit analysis on the called number and routes the call to the 4ESS Intermediate Exchange.
3	The 4ESS Intermediate Exchange translates the called number and encounters an LNP DNT. The switch sends a query to the LNP-SCP.
4	The SCP response contains the LRN of the Serving Exchange.
5	The 4ESS translates the LRN and determines an ISUP route out of the office. The "signal ported number" option is NO for the outgoing TSG, so the LRN is forwarded in the Called Party Number (CdPN) parameter and the called party number received from the Originating Exchange is forwarded in the Generic Address Parameter (GAP). The 4ESS sets the Forward Call Indicator (FCI) Translated Called Number Indicator to indicate that an LNP query has been performed (i.e., set to 1).
6	The Serving Exchange receives and processes the Initial Address Message (IAM). It recognizes the LRN as its own, so it uses the called party digits stored in the GAP parameter to complete the call to the subscriber.

The following are the implications of the above call flow as pertains to the different network entries involved:

1. The LNP data base must be provisioned with ported numbers.

2. STP pairs must be specified, i.e., subsystem numbers assigned for Global Title Translation (GTT).

3. RC 345 form must be defined for each NPA-NXX used for porting and used as triggering mechanism between 4E/STP/database.

4. Each LEC must determine how many digits to be used for populating RC 345 form, i.e., which switch makes the query.

5. Data base responds with LRN (**remember**, routing must be defined for LRN).

Continued on next page

Local Number Portability - Feature 450, Continued

Call Flow (Originating and Terminating Exchanges Both LNP-Capable)

The steps below describe the origination and termination exchanges both LNP-capable:

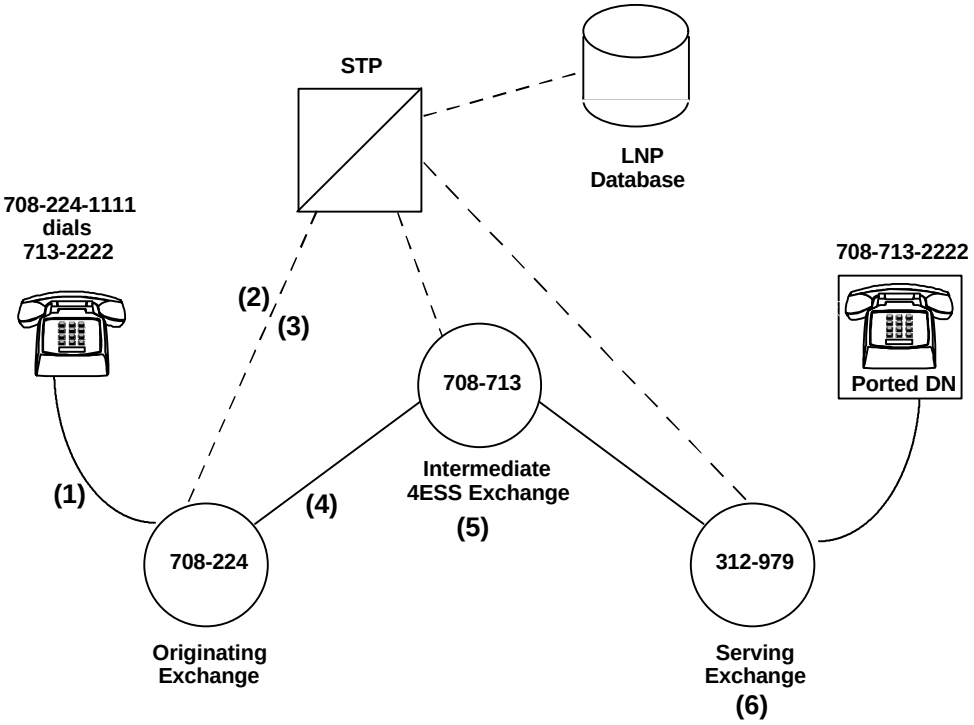

Figure 2. Originating and Terminating Exchanges Both LNP-Capable

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Local Number Portability - Feature 450, Continued

Call Flow (Originating and Terminating Exchanges Both LNP-Capable) (cont'd.)

Task	Description
1	Line A (708-224-1111) dials Line B (708-713-2222).
2	The originating exchange encounters an LNP trigger on 708-713 and queries the LNP-SCP.
3	The SCP response contains the LRN of the Serving Exchange.
4	The originating exchange translates the LRN and routes the call to the 4ESS intermediate exchange. The LRN is forwarded in the CdPN parameter, the called party number is forwarded in the GAP, and the FCI Translated Called Number Indicator is set to indicate an LNP query has already been performed (i.e., set to 1).
5	The 4ESS Intermediate Exchange receives and processes the IAM. The outgoing route is chosen based on translation of the LRN. The outgoing TSG is marked to outpulse the LRN ("signal ported number," option set to NO), so the LRN (contained in the CdPN), the GAP, and FCI are forwarded to the Serving Exchange.
6	The Serving Exchange receives and processes the contents of the IAM. It recognizes the LRN as its own, so it uses the called party digits contained in the GAP parameter to complete the call to the subscriber.

Continued on next page

Local Number Portability - Feature 450, Continued

Call Flow (Intermediate LNP Hub for Non-LNP Capable Terminating EO)

The steps below describe the intermediate LNP hub for non-LNP capable terminating End Office (EO):

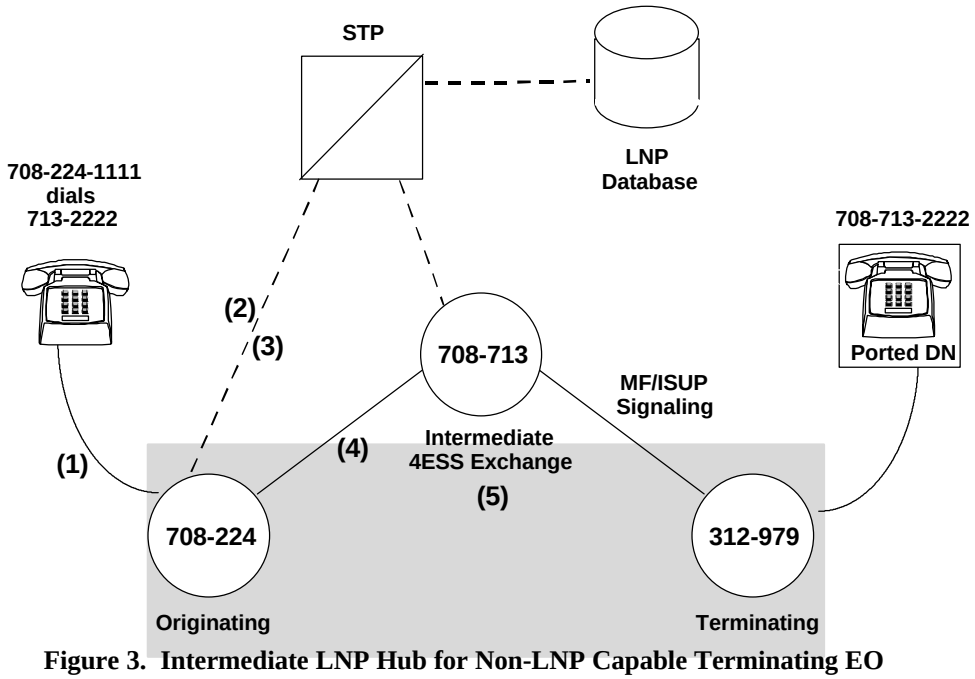

Figure 3. Intermediate LNP Hub for Non-LNP Capable Terminating EO

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Local Number Portability - Feature 450, Continued

Call Flow (Intermediate LNP Hub for Non-LNP Capable Terminating EO) (cont'd.)

Task	Description
1	Line A (708-224-1111) dials Line B (708-713-2222).
2	The originating exchange encounters an LNP trigger on 708-713 and queries the LNP-SCP.
3	The SCP response contains the LRN of the Serving Exchange. The originating exchange translates the LRN and routes the call to the 4ESS intermediate exchange. The LRN is forwarded to the CdPN parameter, the called party number is forwarded in the GAP, and the FCI Translated Called Number Indicator is set to indicate an LNP query has already been performed (i.e., set to 1).
4	The 4ESS Intermediate Exchange receives and processes the IAM. The outgoing route is chosen based on translation of the LRN. The outgoing ISUP TSG's "signal ported number" option is marked YES (outpulse the called party number rather than the LRN) so the 4ESS is acting as an LNP Hub for a non-LNP capable end office.
5	Because of the TSG marking (ISUP) or in-band signaling (MF), the 4ESS replaces the LRN with the called party number digits contained in the ported number GAP parameter to signal to the non-LNP capable exchange.

Continued on next page

Local Number Portability - Feature 450, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Local Number Portability - Feature 450, Continued

Provisioning

Recent Change (RC) Forms Impacted

The following is a summary of the data administration requirements:

- Two new code group Called Number Trigger indicators for AIN & LNP (RC 345)
- Code group Type of Service item for LNP (RC 345)
- Routing Data Block indicator, revised population rules (RC 500)
- TSG (outgoing) Signal Ported Number, new field (RC 100)
- TSG (incoming) 10 digit Location Routing Number, new field (RC 100)
- TSG (incoming) 10 digit Connecting Network Access Billing Number Option, new field (RC 100)
- TSG (incoming) Connecting Network Billing Number, new field (RC 100)
- TSG FENCLASS revised population rules (RC 617)

Continued on next page

Local Number Portability - Feature 450, Continued

Provisioning (cont'd.)

RC 100 – Series Trunk Subgroup Group

```
# FORM 100           ADD A NEW TWO WAY TRUNK SUBGROUP
  4E24

RC:TSG;NEW;OPT(TWOWAY),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,
PCF____,    AOPC __________,                     DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP _____, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,   TOT _____, SAT _,              DOM _____, ACD _,  IT _, FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                       CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _, PSCPN _,       ANISID ____, WANISID ____, PSUUI _,
BNPT  ____,  WBNPT ____,   CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN ____, BFTIS ___, BFTNI ___,        SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _, S5DIG _, SDS _, FVSR _,  IFITR _,   PCPEACEL _, UT15DA _,
LRN 713 222 1234, CBN DIGS _________, CBN _,
ONCID _, D3DBN _, MULAW _,      CSCSET _____,  CID ____, ITCENC _, OFITR _,
SPN _, LNPIC _, NCAR _, TTA _,
ANCR _,  ACCID __,  PSTNG _, FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FOLI _, FELN _, HUNT __, CSN __, CARSON _, SOIP _, TCC _, STBI _,
CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT ____, OTSTN _________,               OTMTT ____, OTMTN _________,
XTSTT ____, XTSTN _________,               XTMTT ____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,

REMARKS _____________________________________________________!

                      ASSOCIATED VERIFY MESSAGES

                      INPUT-11a-VER:TSG:CIN....
                      INPUT-11c-VER:TSG:TSGN....

            OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

             OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Local Number Portability - Feature 450, Continued

Provisioning (cont'd.)

RC 100 – Series Trunk Subgroup Group

New Trunk Subgroup (TSG) characteristics are added on the RC 100 Series forms. Four new fields are added for this feature:

CBN -	Incoming trunk connecting network access billing number option. Valid entries: "blank" - no special Automatic Message Accounting(AMA) recording options (the default), "N" - Non-Feature group-D signaled calls, and "L" - Local Number Portability Non-Feature group-D signaled calls.
CBN DIGS -	Incoming Trunk TSG connecting network access billing number digits. Valid entry: 10-digit number.
LRN -	Local Routing Number. Valid entry: 10-digit number identifying a Local Service Provider (LSP) End Office. LRN is used to provide Jurisdiction Information Parameter (JIP) if not present in initial ISUP IAM or Incoming Trunk (ICT) is Multifrequency (MF). Will use first six digits of LRN. NOTE: The translation domain for LRN must be in the POTS domain. The exception would be for data calling which must be translated in the data domain.
SPN -	Signal Ported Number (SPN) outgoing TSG indicator. Valid entries: Y, N, blank (if "Y," the destination switch is not considered LNP-capable and only the Ported Number will be signaled, not the LRN. SPN is used if destination switch is not LNP capable.

Whether to bill call, used for Competitive Local Exchange Carrier (CLEC). Always get bill for interLATA calls.

CBN	CBN Digits	
N	10D	IntraLATA calls billed LNP & others
L	10D	LNP (queried)

Continued on next page

Local Number Portability - Feature 450, Continued

Provisioning (cont'd.)

RC 500 – Series Routing Data Blocks

```
# FORM 500   ADD A NEW DOMESTIC INCHAIN/ADG ROUTING DATA BLOCK
   4E18>

 RC:RDB;NEW;___:                                          RDBI ____,

 ORNU ______,

 TTSI ___, RDBFHT ___, ADG _, ANFHT ___,

 BTFN TOWN ST BL FBS NBS       DEL      PREFIX    DNHRTYPE

 1000 ISUP HA  IR PIN 04T,      _3,      ______,      ID,
 ____ ____ __ __ ___ ___,      __,      ______,      __,
 ____ ____ __ __ ___ ___,      __,      ______,      __,
 ____ ____ __ __ ___ ___,      __,      ______,      __,
 ____ ____ __ __ ___ ___,      __,      ______,      __,
 ____ ____ __ __ ___ ___,      __,      ______,      __,
 ____ ____ __ __ ___ ___,      __,      ______,      __,
 ____ ____ __ __ ___ ___,      __,      ______,      __,

 REMARKS _____________________________________________!

              EQUIVALENT ODA INPUT FORM - ESS 405B

                   ASSOCIATED VERIFY MESSAGES

                INPUT-15a-VER:RDB:RDBI ----!(EOT)

                  OUTPUT-5a-VER:RDB,OPT(INCHAIN)
```

- This says ignore prefix/delete if LNP call.
- If not LNP, use prefix delete.
- Particularly for use with SPN =Y when sending ported number.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Local Number Portability - Feature 450, Continued

Provisioning (cont'd.)

RC 500 – Series Routing Data Blocks

Population rules for this form are impacted as a result of this feature.

DNHRTYPE -	Dynamic Non-Hierarchical Routing Type. Valid entry: "ID". This entry specifies that delete and prefix are ignored for LNP calls routed on a LRN where signaling is done on the ported number.

Continued on next page

Local Number Portability - Feature 450, Continued

Provisioning (cont'd.)

RC 617 – Far End Network

```
INPUT:                        VERIFY #16m

VER:FEN:CLASS a[,FID b]!(EOT)

OUTPUT:                        VERIFY 6s

VER:FEN:                             CLASS ------,          FID ------,

AFA --,

RECORDING SCREENING AND QUERY TREATMENT

UNSP -,   ATAP -,   CUSP -,   CARP -,   CANP -,   HAWP -,   NWZ1 -,   INW -,

DSD -,    DLT -,    TC -,     DA -,     IOP -,    TST -,    RSYS -,   MSC1 -,

MSC2 -,   MSC3 -,   MSC4 -,   INCN -,   ALAP -,   CUTP -,   INCO -,   EASC -,

ICIN -,   SC1 -,    SC2 -,    SC3 -,    SC4 -,    SC5 -,    SC6 -,    SC7 -,


SC8 -,    SC9 -,    SC10 -,   SC11 -,   SC12 -,   SC13 -,   SC14 -,   SC15 -,

SC16 -,   SC17 -,   SC18 -,   SC19 -,   SC20 -,   SC21 -,   SC22 -,   SC23 -,

SC24 -,   SC25 -,   SC26 -,   SC27 -,   SC28 -,   SC29 -,   SC30 -,   SC31 -,

SC32 -,   SC33 -,   SC34 -,   SC35 -,   SC36 -,   SDN -,    LDA -,    SSP -,

SPDI -,   MULT -,   MCPP -,   INET -,   SDND -,   QTM -,

SCREENING TREATMENT

DEF1 -,   DEF2 -,   DEF3 -,   DEF4 -,                        DFHT ---,

                    ODA INPUT SOURCE - FORM ESS 406L

               RECENT CHANGE INPUT SOURCE - FORM # 617/618
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Local Number Portability - Feature 450, Continued

Provisioning (cont'd.)

RC 617 – Far End Network

CLASS -	Far End Network Classification. The population rules that allow a **FENCLASS** to be **OEO** are modified to allow (LEC) LNP feature Connecting Network Access (CNA) recording.

Continued on next page

Local Number Portability - Feature 450, Continued

Provisioning (cont'd.)

RC 345 – AIN Trigger

```
# FORM 345   SET/RESET AIN TRIGGER
  4E22R2>

RC:AIN;OPT(LIST),____:

ORNU _______,         ACTION _,

DOM    AC      ABC  DEF  GHI  J
____,  _,      ___, ___, ___, _,

TTYPE  LTOS  TOS   FH   SCSANN   DRCC      DFRN
  _,    __,  __,  __,   _____,   ___,   _________,

REMARKS _____________________________________________!

                        ASSOCIATED VERIFY MESSAGES

                          INPUT-13t-VER:AIN:LIST

                             OUTPUT-3aj-VER:AIN;OPT(LIST)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Local Number Portability - Feature 450, Continued

Provisioning (cont'd.)

RC 345 – AIN Trigger

Triggers are added or deleted one at a time using the RC345 Form. Two new fields (TTYPE and LTOS) are being added to accommodate this feature. These new fields are required to differentiate an AIN trigger from an LNP trigger, allowing a trigger to be assigned as either LNP, AIN, or both. Also, the population rules for the existing TOS requires updating to have it relate to the new Trigger Type indicators for both AIN and LNP.

TTYPE -	Trigger Type. Valid entries can be either AIN (A), LNP (L), or Both (B).
LTOS -	Local Number Portability Type of Service. Valid entries: 0 to 31 or blank.
TOS -	Call Type - Type of Service. Valid entries: 0 to 31, blank.

Valid form entries - TTYPE versus LTOS & TOS if the LTOS/TOS "must be" conditions are not met reject RC Form 345		
Valid Entries	**LTOS must be**	**TOS must be**
TTYPE is "A"	blank	0 - 31
TTYPE is "L"	0 - 31	blank
TTYPE is "B"	0 - 31	0 - 31

Continued on next page

Local Number Portability - Feature 450, Continued

Provisioning (cont'd.)

RC 345 – AIN Trigger

```
# FORM 345   SET/RESET AIN TRIGGER
  4E22R2>

RC:AIN;OPT(LIST),____:

ORNU ______,        ACTION _,

DOM    AC     ABC  DEF  GHI  J
POTS,  Y,     708, 713, ___, _,

TTYPE  LTOS  TOS   FH   SCSANN   DRCC      DFRN
  L,    2,   __,   __,   _____,   ___,   _________,

REMARKS _____________________________________________!

                      ASSOCIATED VERIFY MESSAGES

                        INPUT-13t-VER:AIN:LIST

                           OUTPUT-3aj-VER:AIN;OPT(LIST)
```

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
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Local Number Portability - Feature 450, Continued

Provisioning (cont'd.)

RC 345 – AIN Trigger

```
# FORM 345   SET/RESET AIN TRIGGER
  4E22R2>

RC:AIN;OPT(LIST),____:

ORNU ______,        ACTION _,

DOM    AC     ABC  DEF  GHI  J
POTS,  N,     713, ___, ___, _,

TTYPE  LTOS  TOS   FH   SCSANN   DRCC      DFRN
  L,    2,   __,   __,  _____,   ___,   _________,

REMARKS _____________________________________________!

                      ASSOCIATED VERIFY MESSAGES

                        INPUT-13t-VER:AIN:LIST

                          OUTPUT-3aj-VER:AIN;OPT(LIST)
```

- Assumes 708 Home Numbering Plan Area (HNPA).
- Also TOS 2 is AIN TOS or may be a unique LNP TOS.
- Note that LNP uses AIN Sub System Number (SSN).
- If unique TT for LNP, need RC 626 and GTTRAN.
- Need RC 626 and GTTRAN if using AIN for first time.
- For FH → DFRN, same rules for AIN default routing.

Continued on next page

Local Number Portability - Feature 450, Continued

Provisioning
(cont'd.)

Verify Forms/Messages Affected

The following 4E Verify Forms/Messages are affected**:**

- Verify AIN output form - 3aj
- Verify CODEGRP output forms - 3a, 3c, 3e, 3v
- Verify Routing Data Block (RDB) output forms - 5a & 5f
- Verify TSG forms - Incoming TSG 1a & 1b
- Verify VER:TSGLIST input message - 11d.

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Local Number Portability - Feature 450, Continued

Provisioning (cont'd.)

Global Title Translation

Global Title Translation (gttran) Data Items

GTTRAN DATA ITEMS	DATA TYPE	RANGE
ITEM NUMBER	numeric	001 to 999
TRANSLATION TYPE	numeric	0 to 256
EVEN STP PC	numeric	9 characters
ODD STP PC	numeric	9 characters

Global Title Translator (gttran) - (chg) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE:  04/23/86  TIME:  13:42 *****
FUNCTION:  gttran  ACTION:  chg  ORDER:  06Y00055500   OFFICE:  NPVLILIH2MD

                          GLOBAL TITLE TRANSLATIONS

                          ITEM:                    001

                          TRANSLATION TYPE:        241
                          EVEN STP PC:             250007000
                          ODD STP PC:              250007000
```

The purpose of the gttran function is to allow the ability to select a global title translator based on service type. Global title translations are typically performed at an STP to translate called or calling number for a Destination/Direct Common Channel Interoffice Signaling (DCIS) or Transaction Application Part (TCAP) service and decide which database (Service Control Point [SCP], Network Control Point [NCP], etc.) will perform the final translations. The value of the translation type corresponds to the values input on the 4E Recent Change Form 626, and Office Data Assembler (ODA) Form 406C. This function allows the user to assign the pointcodes of the STP on a per translation type basis.

Refer to the TG4, Division 12 for additional information.

Continued on next page

Local Number Portability - Feature 450, Continued

Provisioning (cont'd.)

Form RC 626 – Type of Service to Dialed Code Mapping

```
# FORM 626  TYPE OF SERVICE TO DIALED CODE MAPPING
   4E21R3>

 RC:TOS;CHG;___:

 ORNU ______,

 TOS  2,   TT 241,   SSN 248*,   OLD CODE 000,   NEW CODE 199,  AIN TFREE _,

 REMARKS _________________If Adding a New TOS for NP_____________________!

              EQUIVALENT ODA INPUT FORM - ESS 406R

                   ASSOCIATED VERIFY MESSAGES

                       INPUT-16v-VER:TOS

                   OUTPUT-6ac-VER:MISC,OPT(TOS)
```

*This entry is a required field but is not currently being used in software. Recommend putting the previously provisioned AIN SSN here for consistency.

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Local Number Portability - Feature 450, Continued

Feature Implementation

An On/Off purchased bit must be assigned to activate this feature. Refer to the LNP-LRN Feature User Guide (234-090-020) for implementation of this feature. This feature is available with the 4E22 Generic.

AMA

A flexible new LNP AMA module (720) is appended to existing AMA records for calls encountering the LNP trigger which result in querying the LNP SCP.

The Module 720 appears as follows:

Information	Table Number	# of Characters
Module Code	88	4
Party Identifier	730	4
LRN	731	12
Service Provider Identity	732	10
Location	733	16
Supporting Info	734	8

In addition, a new AMA call code is defined to support "Connecting Network Access" charge recording for calls which cross local network boundaries but for which existing access charge recording does not apply. This new "Connecting Network Access" call code is used in conjunction with existing AMA structure code.

Measurements

Three new counts are added to the existing set of AIN measurements for this feature.

These counts are:

- LNP queries sent
- LNP queries successful
- LNP Ported Number calls

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Local Number Portability - Feature 450, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
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Local Number Portability - Feature 450, Continued

Acronyms and Abbreviations

The following are acronyms and abbreviations of terms used throughout this document:

Terms	Definitions
AIN	Advanced Intelligent Network
AMA	Automatic Message Accounting
AT	Access Tandem
CBN	Connecting Billing Number
CdPN	Called Party Number
CLEC	Competitive Local Exchange Carrier
CNA	Connecting Network Access
DN	Dialed Number
DNT	Dialed Number Trigger
DNHRTYPE	Dynamic Non-Hierarchical Routing Type
EO	End Office
FCI	Forward Call Indicator
GAP	Generic Address Parameter
GTTRAN	Global Title Translation
HNPA	Home Number Plan Area
IAM	Initial Address Message
ICT	Incoming Trunk
ISDN	Integrated Services Digital Network
ISUP	ISDN User Part
JIP	Jurisdiction Information Parameter
LATA	Local Area Transport Access
LEC	Local Exchange Carrier
LNP	Local Number Portability
LRN	Location Routing Number
LSP	Local Service Provider
MF	Multifrequency
NRA	Network Routing Address
POTS	Plain Old Telephone Service
RDB	Routing Data Block
RC	Recent Change
SCP	Service Control Point
SMS	System Management System

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Local Number Portability - Feature 450, Continued

Acronyms and AbbreviationsAcronyms and Abbreviations (cont'd.)

Terms	Definitions
SSN	Sub System Number
SPN	Signal Ported Number
SS7	Signal System 7
SSP	Service Switching Point
STP	Signal Transfer Point
TCAP	Transaction Application Part
TOS	Type of Service
TSG	Trunk Subgroup

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

TDIU Redefinition – Feature 4099

Introduction

This feature restructures the Type of Digital Interface Unit (TDIU) assignment scheme and describes the impact as a result of this feature.

In This Section

This section contains the following topics:

Topic	See Page
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TDIU REDEFINITION

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TDIU Redefinition – Feature 4099, Continued

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TDIU Redefinition – Feature 4099, Continued

Feature Description

The TDIU redefinition feature allows the type of hardware to be separated from the type of service or function and provides for the individual programming of each Digital Signal 1 (DS1) interface.

The TDIU refers to the hardware configuration and the service/function that is provided by the facilities in the Digital Interface Unit (DIU). With this feature, the existing TDIU values are re-assigned to the following three new data parameters:

Type of Hardware (THW)
Type of Digroup (TDG)
THW for the fifth digroup of service circuit DIUs only (THW5).

With this re-assignment, the total number of TDIU states are drastically reduced since most of the previous 48 states were seldom, if ever, used. The THW, TDG, and THW5 parameters are discussed in detail in the Provisioning section of this document.

Availability

Feature 4099 became available in 4E21R1.

Environment

This feature was provisioned as an enhancement to the 4ESS™ Switch to better utilize the assignments of the individual DS1s in the DIUs. As a result, this feature eliminates “stranded capacity.”

Continued on next page

TDIU Redefinition – Feature 4099, Continued

Background

The 4ESS Switch uses the Digital Interface Frame (DIF) to terminate 160 Digital Signal 1 (DS1) facility lines. The DIF is further defined as having 32 Digital Interface Units (DIUs), with each DIU made up of 5 DS1s, thus equaling the 160 DS1s in a DIF (5 DS1s per DIU times 32 DIUs = 160 DS1s).

Previous configurations dealing with original DIUs only allowed one Type of Digital Interface Unit (TDIU) to be assigned per DIU. If a DS1 had to be provisioned for a particular TDIU, it could only have been assigned to a DIU that had an idle DS1 slot that matched the requested TDIU state. This resulted in having many underutilized DS1 slots on DIUs where demand for that type of TDIU value was not high.

Now, multiple Type of Digroups (TDGs) are allowed to be provisioned on a DIU by assigning the appropriate values to the DS1s in the DIU rather than the whole DIU. This new structuring provides greater flexibility in the overall provisioning process on the 4ESS Switch.

Continued on next page

TDIU Redefinition – Feature 4099, Continued

Feature Operation

Call Flow

Call flow is not affected by the implementation of this feature.

Operation

Feature operation is not affected by the implementation of this feature.

4ESS Switch Personnel

To ensure that the DIFE1 frames that are equipped with Service Circuit (SM6 circuit packs) are running the new Maintenance Software (MP) software, the 4ESS Switch personnel should verify the DIFE1s unit type image and inspect Word 60 for both controllers.

The input message to do this is: **VER:UTYPE:DIF x!**

The DIFE1 (DTMF/SM7 circuit pack) Word 60 that should be the result of the above input message is 01460146, and the DIFE1 (MF4ST/SM6 circuit pack) Word 60 is 01270127.

User

No telephone customer action is required for this feature.

Dependencies

In Generic 4E20R4, the new MP software was made available in MP Versions 6 and 7 and is also maintained in the 4E21R1 generic.

Interactions

No interactions or limitations are associated with this feature

Incompatibilities

No incompatibilities are associated with this feature.

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TDIU Redefinition – Feature 4099, Continued

Administration/ Engineering

Hardware Resources

Although no new hardware is associated with this feature, Feature 4099 adds the additional capability to allow any of the 2 DS1 interface packs (SM1B and SM9) to be located in the fifth digroup when service circuits occupy the first four slots. Prior to this feature, only SM1 circuit packs were supported in the fifth slot of a service circuit DIU.

Transition Considerations

Before the 4ESS Switch office is retrofitted to Generic 4E21R1, the DIF1 frames must have their Maintenance Processors (MPs) pumped to the new software.

By having one MP software version cover both generics, transition from the TDIU values to THW/TDG values relieves the retrofit process of the extra time it would need to stop and pump all of the DIFE1 frames. And, if a problem occurred, the frames would not have to be pumped back to the original software.

The THW and the TDG values are provided to replace the existing TDIU values. At the time of retrofit, the TDIU values used prior to 4E21R1 are automatically converted to the TDG values.

This feature is turned on automatically by software deployment and it is not necessary for all 4ESS Switches in the network to be running the 4E21R1 Generic for this feature to be fully operational. That is, this feature operates on a generic, per-switch basis.

Assignment Rules

No new assignment rules are required for this feature.

Measurements

No new measurements are required for this feature.

Automatic Message Accounting

No billing considerations are required for this feature.

Continued on next page

TDIU Redefinition – Feature 4099, Continued

Provisioning

Recent Change

The following must be done in order to provision this feature:

Understand Type of Hardware (THW), Type of Digroup (TDG) and Type of Hardware in Fifth Digroup (THW5) values.
Populate RC Form 702.
Know the population rule changes for RC Forms 700 and 701.
Verify the DIF Unit Submember with Form 7b.

THW
The THW parameter specifies the type of facility interface card or service circuit card that is equipped in a DIU. As in the current assignment scheme, only one hardware type of DS1 interface is supported per DIU (*except in service circuit DIUs where the first four slots have SM6 interface cards and the fifth slot can be either SM1 or SM9 packs).*

TDG
The TDG parameter specifies the function/service for a given DS1 facility terminating on the DIU and allows for a maximum of 16 service/function types to be assigned. Each DS1 interface circuit pack can handle a certain set of DS1 format/signaling types.

THW5
The THW5 parameter is only used to identify the hardware type in the fifth Digroup in a service circuit DIU. The THW5 parameter follows the THW parameters.

Recent Change Form 702

RC Form 702, DIU Function Assignment, is used to change Digroup circuitry and the functional capabilities of DIUs.

Continued on next page

TDIU Redefinition – Feature 4099, Continued

Provisioning (cont'd.)

RC Form 702 Population Rules

Below is the new layout of RC Form 702. The OLD TDIU and NEW TDIU fields have been removed from this form and replaced with seven new fields. Those seven new fields are highlighted on the example to show their new positions on the form.

NOTE: When only changing TDG fields, it is no longer necessary to remove or restore a DIU because the RC software will automatically restore the Digroup.

```
# FORM 702  CHANGE DIU FUNCTION CAPABILITY
   4E21>

RC:UTYPE;CHG;OPT(DIU),TST:

ORNU ______,

DIF MEMN __,         DIU MEMN __,

                          DIGROUP1 DIGROUP2 DIGROUP3 DIGROUP4 DIGROUP5
THW   , THW5   ,  TDG       ,        ,        ,        ,        ,

      REMARKS_____________________________________________!

                    EQUIVALENT ODA INPUT FORM - NONE

                      ASSOCIATED VERIFY MESSAGES
```

Continued on next page

TDIU Redefinition – Feature 4099, Continued

Provisioning (cont'd.)

The following are the valid form entries to be used on Form 702

FIELD	VALID ENTRY	DESCRIPTION
RC ACTION or RC:UTYPE;CHG;OPT (DIU),TST:	Blank	
	BUF	Buffer places the message in the buffer after performing only form checks.
	TST	Test indicates that all defensive checks are to be performed before buffering the message.
	ACT	Activate indicates that the message is to be immediately activated following all defensive checks. It is not buffered.
	FTA	Fast activate is a special form of the "ACT" action which limits output text during the processing of the action to a success or a failure message.
	ACT	Activate indicates that the message is to be immediately activated following all defensive checks. It is not buffered.
	FTA	Fast activate is a special form of the "ACT" action which limits output text during the processing of the action to a success or a failure message.
	FTB	Fast buffer is a special form of the "BUF" action which limits output text during the processing of the action to a success or a failure message.
	FTT	Fast test is a special form of the "TST" action which limits output text during the processing of the action to a success or a failure message.
ORNU	Order Number	1 to 999999
THW	Type of Hardware	Blank, 1 (SM1B), 6 (SM6), 7 (SM7), 9 (SM9), or 10 (SM10)
THW5	Type of Hardware for Digroup5	Blank, 1 (SM1), 9 (SM9), 10 (SM10)
DIF MEMN	DIF Member Number	2 to 31
DIU MEMN	DIU Member Number	0 to 30
TDG Digroup1-Digroup5	Type of Digroup	Entries are: 1--- SF +RB+POTS+ZCS (SM1B) 2--- SF +RB+POTS+B8ZS 3--- SF +RB+4ST+ZCS (International) 4--- ESF+RB+4ST+B8ZS (International) 5--- ESF+RB+POTS+ZCS (64Kb Restricted) 6--- ESF+RB+POTS+B8ZS 7--- ESF+64CC (B8ZS) 8--- ESF+PCC (B8ZS)

Continued on next page

TDIU Redefinition – Feature 4099, Continued

Provisioning (cont'd.)

Additional Population Rules for Form 702

The following population rules also apply to the seven new fields that have been added to RC Form 702. For complete information on the population rules, refer to the *4ESS Switch Translation Guide (TG-4,DIV.7, SEC.7c).* Table 16-C (also included below) of the TG4 contains the various combinations for the THW and TDG values.

A. When the THW entry is 6 or 7, the DIU Member number must be 1, 9, 18, or 26.
B. The THW5 field must be blank when the THW is 1 or 9.
C. The valid entries for the TDG Digroup fields depends on the THW and the THW5 entries. The Digroups are populated as follows:

When THW is 1, DIGROPU1-DIGROUP5 entry is 1.
When THW is 9, DIGROUP1-DIGROUP5 entries are 1-7.
When THW is 6, DIGROUP1-DIGROUP4 entries are blank. The TDG for DIGROUP5 depends on the THW5 entry. The valid entries for DIGROUP5 are 1, 2, 5, 6, 7, and 8. This field is populated as follows:

When THW5 is 1, DIGROUP5 entry is 1.
When THW5 is 9, DIGROUP5 entry is 1, 2, 5, 6, and 7.

When assigning a TDG 3 or 4, DIGROUP1-DIGROUP5 must be 3 or 4.

NOTE: The reason that each Digroup must be in a 4-state (4ST) mode is because the controller only works 4-state signaling on a DIU basis.

When any Digroup's TDG is 3 or 4, the DIU Member Number must be an even number. For example, DIU 0, 2, 4, 6, . . .30.

Continued on next page

TDIU Redefinition – Feature 4099, Continued

Provisioning
(cont'd.)

THW, THW5 and TDG Combinations

		TDG					
THW	**THW5**	**Digroup1**	**Digroup2**	**Digroup3**	**Digroup4**	**Digroup5**	**DIF MEM #**
1	Blank	1	1	1	1	1	
6	1	Blank	Blank	Blank	Blank	1	1,9,18, 26
6	9	Blank	Blank	Blank	Blank	1,2,5,6,7	1,9,18, 26
9	Blank	3,4	3,4	3,4	3,4	3,4	0,2,4. . .30
9	Blank	1,2,5,6,7	1,2,5,6,7	1,2,5,6,7	1,2,5,6,7	1,2,5,6,7	

Continued on next page

TDIU Redefinition – Feature 4099, Continued

Provisioning (cont'd.)

Recent Change Form 700

RC Form 700, Grow Unit Type Equipage Bits, is used to change the equipage state of the 4ESS Switch equipment to allow for growth. There are no changes to the actual layout of this form. However, there is a population rule change.

The population rule change is:

When the DIF Sub-Member Equipage *(SME)* field is changed from *UNEQ* (unequipped) to *GROW*, the corresponding **THW** field from the RC form 702 must **not** be zero.

Recent Change Form 701

RC Form 701, Degrow Unit Equipage Bits, is used to change the equipage state of 4ESS Switch equipment to allow for degrowth. There are also no changes to the layout of this form. However, there is a population rule change.

The population rule change is:

When the UTYN field is DIF and the SME field is UNEQ, the corresponding XL4UTHWii (where ii is the Sub-Member), XL4U5THW and XL4UDIUTDGD items must be set to “0”.

Continued on next page

TDIU Redefinition – Feature 4099, Continued

Provisioning (cont'd.)

Verify Form Affected

Verify Form 7b was changed for 4E21R1 and later generics. It is used to verify the output of the DIF unit type submembers. The new layout of this form is shown below.

Seven new fields are output on this form as highlighted below.

```
OUTPUT:                          VERIFY 7b
4E21>

VER:UTMN;OPT(SME),---:     FLN -----.--,                    UTYN ------
-,

MEMN ---,      ME ----,

SUBMEM ---,   SME ----,    SMTYPE --,

                          DIGROUP1 DIGROUP2 DIGROUP3 DIGROUP4 DIGROUP5
THW __, THW5 __,   TDG    __,       __,       __,       __,       __,

                        ODA INPUT SOURCE - NONE

          RECENT CHANGE INPUT SOURCE - FORM # 700/701/702
```

Input/Output Manual Pages

One 4ESS Switch output verify message has been changed as a result of this feature. The output message is **VER:UTMN**. This message verifies the information about THWs and TDGs. The *4ESS Switch Translation Guide (TG-4) DIV. 8 SEC.7b* has been updated to reflect the new changes.

One 3B computer output verify message has been changed in the 3B Generic 4AP<14>E.R1. The output message is **VER:DGA;DIF** and is used to verify trunk usage per DIU.

ODA

No impact on the 406C or 406Z forms.

Continued on next page

TDIU Redefinition – Feature 4099, Continued

Maintenance Considerations	No new maintenance procedures or changes are associated with this feature.
Network Management	Network Management Support systems are not affected by the implementation of this feature.
Operational Support System	The ConnectVu-Trunk Release 4.0 is required to support the TDIU Redefinition feature.

Continued on next page

TDIU Redefinition – Feature 4099, Continued

Acronyms and Abbreviations

The following are acronyms and abbreviations of terms used throughout this document:

Terms	Definitions
4ST	4-State
ACT	Activate
BUF	Buffer
DIF	Digital Interface Frame
DIF MEMN	DIF Member Number
DIU	Digital Interface Unit
DIU MEMN	DIU Member Number
DS1	Digital Signal
FTA	Fast Activate
FTB	Fast Buffer
FTT	Fast Test
MP	Maintenance Processor
ORNU	Order Number
RC	Recent Change
SM	Service Circuit
SME	Sub-Member Equipage
TDG	Type of Digroup
TG	Translation Guide
TDIU	Type of Digital Interface Unit
THW	Type of Hardware
THW5	Type of Hardware in Fifth Digroup
TST	Test
UNEQ	Unequipped

TDIU Redefinition – Feature 4099, Continued

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Lucent Technologies
Bell Labs Innovations

Translation Guide
4ESS™ -2000 Switch
TG-4
Division 5 — Translation Implementation Guidelines

234-010-100

TG-4 Table of Contents

DIVISION 5 **Translation Implementation Guidelines**

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Section 2	Screening Applications
Section 3	Centralized Automatic Message Accounting (CAMA)

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Home NPA (HNPA) Split Guidelines

General

These Home Numbering Plan Area (NPA) Split Guidelines are recommended by 4ESS™ Field System Evaluation and the 4ESS Field Support Groups. These recommendations should serve as a guide in the implementation of a Home NPA (HNPA) Split.

If the NPA Split requires only adding a new Served NPA (SNPA), these guideline are not applicable. To accommodate this type of NPA Split, follow the steps involved in opening a new domain.

Open communication and adhesion to these guidelines should help in the smooth transition to the new HNPA.

Dialing Plan Conversion

When it has been determined that a change is required for a new NPA, a dialing plan conversion schedule will be established. The dialing plan conversion schedule allows for three stages of implementation to provide adequate time to prepare translation changes. These dialing plan conversion schedules are applicable for both HNPA and SNPA Split conversions. HNPA Splits require more translations changes, therefore, may require a longer length in the three dialing periods.

Pre - Permissive Dialing Period

A user may dial the old dialing plan. The pre-permissive period starts when the office has been retrofitted to include the new dialing plan.

Permissive Dialing Period

A user may dial the new dialing plan during the permissive dialing period. The permissive dialing period will be introduced by setting an office parameter.

Post-Permissive Dialing Period

A user may dial only the new dialing plan during the post-permissive dialing period. The post-permissive dialing period will be introduced by setting a Recent Change (RC) office parameter.

Continued on next page

Home NPA (HNPA) Split Guidelines, Continued

Overview of HNPA Cutover Strategy

Develop an implementation plan to coordinate the trunking and RC activity between the 4ESS Switch and its Local End Offices.

Create an SNPA with the NPA that has been selected as the new HNPA.

Replicate all HNPA routing in the new SNPA. Restrict all RC activity unless the HNPA needs changes, then duplicate those changes in the new SNPA. (The goal is to have the two domains remain identical.)

Request from Lucent Technologies the overwrites needed to reassign the SNPA as the new HNPA. (Note: These overwrites cannot include HNPA deletion.)

Do office validation verifies prior to applying the NPA Split overwrites. This will verify that no trunking or codegroup RC activity has occurred in the new SNPA which would make it different from the current HNPA.

Apply the overwrites to exchange the SNPA and the existing HNPA.

Apply RCs needed for the NPA Split. This includes updating the Far End Numbering Plan Area (FENPA) for all TSGs in the HNPA domain.

Delete the old HNPA. This cannot be done until all trunking with FENPA = to old HNPA is changed to the new HNPA.

Continued on next page

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Home NPA (HNPA) Split Guidelines, Continued

Timeframe 8 - 12 weeks Prior to NPA Split

VER:CODEGRP:DOM POTS, AC N, ABC 000-999! to verify all code groups in current environment that will be impacted by this NPA split. Analyze your existing 7/10 digit dialing pattern. Determine if adjustments are necessary, i.e., prefixing and deleting of digits.

Build an RC 307 to create a new HNPA as an SNPA. Open new area code for 6-digit translation via the RC 311 Form. Check dialing plan to determine appropriate digit translation.

Replicate all HNPA, AC=N routing in the new SNPA so that the two domains have identical routing. The output of the following two messages should yield the same routing treatment:

VER:CODEGRP:DOM POTS, AC N, ABC 000-999!

VER:CODEGRP:DOM POTS, AC Y, ABC(new HNPA), DEF 000-999!

VER:TSGLIST:FD1 DOM,DT 1 HNPA! to get a list of all Trunks Subgroups which will be involved in the change. The FENPA field on the Trunk Subgroups (TSGs) will need to be adjusted but will be changed later.

At this time, verify the population of the Intertoll (IT) field on all affected TSGs with a type of trunk of End Office or Tandem Connecting (ETC) or Other Carrier Connecting (OCC). The IT field is used in call processing. If the far end is an end office, the IT field should be “N”. if the far end is a tandem, the IT field should be “Y”.

Contact your Service Control Point (SCP) database personnel about the pending NPA split. They need to ensure that the new NPA has been added to the screening tables.

Contact the Automatic Message Accounting (AMA) organization so they may make appropriate billing record adjustments for all non-conforming Feature Group C offices.

Coordinate with all respective end offices which will be impacted by the split. Each office impacted will have to coordinate the routing changes required for dialing the new NPA.

Continued on next page

Home NPA (HNPA) Split Guidelines, Continued

Timeframe 4 - 6 Weeks Prior to NPA Split

Ensure that all routing RC orders have been activated.

Coordinate scheduling for the split with all of the support organizations. Coordinate call through testing with end offices. Ensure that all support folks (i.e., Billing, SCP databases) have completed their preliminary work.

Notify Operator Services of the upcoming date and time of cutover in the event that they receive trouble reports.

Timeframe NPA Split Cutover Date

VER:TSGLIST:FD1 DOM, DT1 HNPA! to pull a current list of TSGs which will be involved in this change. These are all of the TSGs that may need to change after the NPA split.

VER:TSGLIST:FD1 DOM, DT1 (SNPA location of new NPA)! to pull a current list of any TSGs that may have been built in the new SNPA. This should result in no TSGs being output. Any that are found need to be corrected before the split.

Have 4ESS Switch Field Support Group apply the overwrites to swap the Home NPA.

An overwrite will have to be done to swap the HNPA and the SNPA entries in the PREFIX digits translator.

Several overwrites will have to be done in the 3- digit translators that are active, i.e., HNPA, Area Code (AC), IT, SNPA to swap the entries for codes in the old area code and the new area code. This will include at least 8 overwrites.

Once this is done, all TSGs having a FENPA of the old area code will have to be changed using RC 107, 108 or 109 Forms. Those that are moving to the new area code will have their FENPA changed. Those that are staying in the old area code will have to have an RC performed on them even though none of the data is changed. This will change the TSG translation domain to the served NPA domain

Some Cellular Mobile Carrier (CMC) trunks may need to have the TSG Billing Number (BN) field changes as a result of the split. If possible, (AMA ready to handle) change them now.

Continued on next page

Home NPA (HNPA) Split Guidelines, Continued

Timeframe: Post-NPA Split Cutover

Follow up to ensure that accurate billing records are received, i.e., CMC, AMA.

If SCP database group indicated they needed to do coordinated changes, notify them so that the changes can be done as quickly as possible.

After the NPA split is complete in the switch and all end offices, the duplicated routing may be deleted.

Home NPA (HNPA) Split Guidelines, Continued

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Screening Applications

General

The objective of the telephone network is to allow digits to be dialed that will make someone else's telephone ring. Only one ten digit number can be assigned to each telephone in this country. The digits dialed are **translated** by telephone company offices to determine **routing** required to find that called telephone. These offices make connections between lines and trunks until a talk path can be established between the calling telephone and the called telephone.

Sometimes one of the companies in the telephone network is required to **block** a certain call from completing on a specific Trunk Subgroup (TSG). This blocking may be necessary due to marketing strategies, government regulations, telephone company selection, etc. The blocking may require the call to be totally killed or just sent to a different TSG. When this option of blocking a call and/or routing it to a different TSG is required, the process is called **screening.** The screening process is based on the:

- Digits dialed
- Call origination

For example, if certain digits 847+977-XXXX are dialed originating at End Office "A", the 4ESS™-2000 Switch tandem office can complete the call to the designated telephone. However, if the 4ESS-2000 Switch is instructed to not complete these specific dialed digits if they originate in Office "A" by blocking the call or routing to a different TSG, a **screening** plan must be implemented. This plan may even get more complex, i.e., for the dialed digits 847+977-XXXX sent via the 4ESS-2000 Switch:

- If the call originates from Office "A" - kill the call with Final Handling Treatment (FHT).
- If the call originates from Office "B" - route to TSG #1.
- If the call originates from Office "C" - route to TSG #2.

This section explains two **code group** screening options available in the 4ESS-2000 Switch.

Continued on next page

Screening Applications, Continued

Go/NoGo Screening

This first "Screening" option very simply presents a method of specifying a Code/s that **will be able** or **will not be able** to complete based on the calling origination. This method of "Screening" available in the 4ESS-2000 Switch is called **"Go/NoGo Screening" (GNS)**.

Multiple Treatment Screening

This second "Screening" option is a method of specifying a Code/s that will be allowed to complete to **various** destinations based on the calling origination. This method of "Screening" available in the 4ESS-2000 Switch is called **"Multiple Treatment Screening" (MTS)**.

As the two options refer to screening controls based on offices of origination, this control could also be intended to control the routing strategy of TSGs, i.e., the call originating from Office "A" may be allowed to complete via the 4ESS-2000 Switch only if it receives the digits via a specified TSG and NOT from another TSG. One reason for implementing this type of screening could be for administration of different Interexchange Carriers.

Continued on next page

Screening Applications, Continued

Screening Administration

Both **Go/NoGo** and **Multiple Treatment Screening** have potential to be very dynamic by application. Each screening type may only be used for one or two applications of code controlling in the 4ESS-2000 Switch office, or the screening application may have a major routing impact for the entire 4ESS-2000 Switch office.

One must be aware that an active **Go/NoGo** application will option a code to complete or be sent to Vacant Code - Final Handling Treatment (FHT). A **Multiple Treatment Screening** application can send the call to any of the FHT treatments available in the 4ESS-2000 Switch. FHT for **MTS** does not have to be only VCA as for **GNS**. FHT assigned via MTS could be an information message for a marketing strategy, customer calling information, etc.

Screening arrangement paper records should be very diligently planned and accurately maintained. The great power of screening can be totally overwhelming when troubleshooting routing service problems. Each application should be charted with a global scope of the effect and the total list of **"Indices"**, i.e., RDBI, SDINDEX, etc. being used. If allowed, the 4ESS-2000 Switch will automatically assign a random number to each of the indices as one is created. It is recommended that personal intervention be initiated to assign the index numbers with a structured plan, i.e., RC 304 field ORIGIN enter MAN for manual number assignment instead of AUTO. A specific block of index numbers could possibly be assigned to have a relationship to a particular service type, routing application, etc. This strategy could greatly assist with the immediate awareness of a screening arrangement while troubleshooting routing problems. The awareness of the screening profile is also very often necessary when augmenting trunking or routing Recent Changes. This record keeping precludes that the overall screening application of each office be under the guidance of a managing entity for specific control.

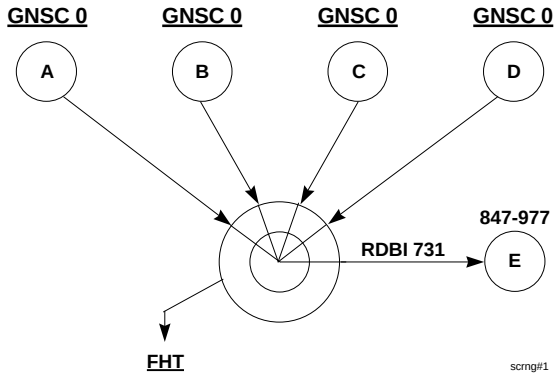
Continued on next page

Screening Applications, Continued

Go/NoGo Screening

Figure #1

EXISTING OFFICE LAYOUT



Form 1

```
INPUT:                              VERIFY #13b

     VER:CODEGRP[;ALL]:[DOM a,][AC b,]ABC c,DEF d
     [,RDB][,ST1 e,IDX1 f][,ST2 e,IDX2 f]!(EOT)

OUTPUT:                              VERIFY 3c

     VER:CODEGRP;OPT(DIG6),---:                DOM POTS, NTD 6, AC Y,

     ST1 ----, IDX1 ----, ST2 ----, IDX2 ----,

     ABC 847,

     DEF    CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP    DNST

     977,    RDB,          731        , ----, ------, ATAP, ----,  27,  ------,
                  AD3 --------, ADC 10,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

     ---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
                  AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

     ---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
                  AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

     ---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
                  AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

     ---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
                  AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

                      ODA INPUT SOURCE - ESS 403E
     RECENT CHANGE INPUT SOURCE - #301 RC:CODEGRP;CHG;OPT(DIG6),---:

                  VERIFY 4, 5, OR 6 DIGIT TRANSLATION
                   4E23R1 AND LATER GENERIC PROGRAMS
```

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Screening Applications, Continued

Go/NoGo Screening (cont'd)

Go/NoGo Screening performs exactly what its name implies. The called code is either going to **Go** and complete or it is **Not going to Go** as attempted (i.e., blocked) and sent to FHT-VCA.. As mentioned earlier, the code originated in a specific area may not be authorized for whatever reason or an office may have routed the called code via a TSG that is not allowed to handle said traffic of the CALLTYPE. These Trunk Subgroups may continue routing regular call traffic (i.e., RDB CALLTYPE) normally, even if the GNSC (Go/NoGo Screening Class) has been set to a specific number assignment on the TSG Characteristics. It is only when the code/s intended to be screened (go or not) are reassigned from regular Routing Data Block (RDB) routing and given the GNS Call Type that the screening activity begins for those codes only.

To implement a Go/NoGo Screening arrangement the effect to the overall network in the specific 4ESS-2000 Switch must first be evaluated. If a proposed screening scheme is prepared by each of five different people, several different solutions could be produced. Each scheme could be correct and effective. The "most" correct will be determined in time when a future application change for code screening or trunking arrangement is necessary. This "best" scheme will require the least translation changes to implement the new arrangement.

Example #1:

The hypothetical example in this case will be the code "847+977". We want to change the incoming TSG from office "A & B" so that an "847+977" call will be sent to **FHT-VCA**. See Figure #1 and Verify Form #1 for the existing routing arrangement.

Continued on next page

Screening Applications, Continued

Go/NoGo Screening (cont'd)

Figure #2

"GO"

CODE IN	G0	G1	G2	G3
0	A	D	D	D
1	D	A	D	D
2	D	D	A	D
3	D	D	D	A

ALLOW 1 CLASS
DENY 3 CLASSES

"NO GO"

CODE IN	N0	N1	N2	N3
0	D	A	A	A
1	A	D	A	A
2	A	A	D	A
3	A	A	A	D

ALLOW 3 CLASSES
DENY 1 CLASS

scrng#2

Continued on next page

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Screening Applications, Continued

GNS Options

At this stage, we see that all of the TSGs shown on Figure #1 have the Go/NoGo Screening Class (GNSC set to "0"). The verify Form #1 reflects the six-digit code 847-977 with a CALLTYP of "RDB" and the CALLDATA of RDBI "731" The Figure #1 also shows the RDBI "731" pointing toward "Office E".

The new GNS application arrangement considerations should be:

1. Is just one or maybe several Incoming TSGs to the 4ESS-2000 Switch planned for 847-977 screening? - **Yes**
2. Are many or almost all of the Incoming TSGs to the 4ESS-2000 Switch planned for 847-977 screening? - **No**
3. Are any incoming TSGs to the 4ESS-2000 already blocking "847-977" at this time? - **No**

Then, determine if any other codes incoming to the 4ESS-2000 Switch office presently have GNS applied.

1. Are any incoming TSGs to the 4ESS-2000 Switch presently blocking any "Other Code"? - **No**
2. Are all of the TSGs scheduled to block "847+977" (Office A & B in this example) also blocking other codes at this time? - **No**
3. Are some TSGs that are to block "847+977" (Office A or B in this example) also blocking other codes at this time? (mixed) - **No**

These questions are necessary to determine the possible effect of other GNS translations presently working or planned for the future. If these questions are not addressed when preparing the screening plan, it is likely other codes may be "Vacant Coded" and service denied wrongfully. This leads to anxious troubleshooting and can be quite confusing to a person that did not have a part in the GNS planning. This precludes the need for comprehensive documentation mentioned earlier in "Screening Administration".

After the answers to the previous questions have been analyzed, it is necessary to study the following "Go" and "NoGo" tables. (See Fig. 2)

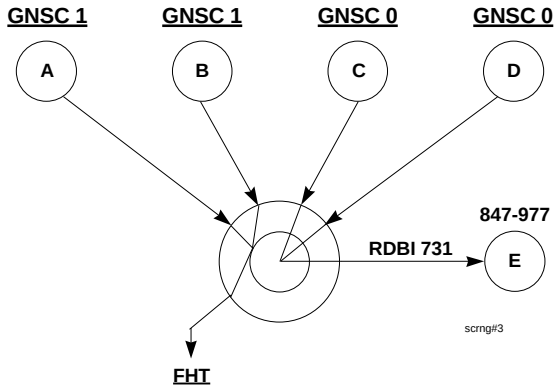
From the "Go" and the "NoGo" tables we can see the basic four options available to apply the screening. Use the following options to accomplish the 847-977 code screening to FHT for Office "A & B".

Continued on next page

Screening Applications, Continued

GNS Options
(cont'd)

Figure #3



Form 2

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM POTS, NTD 6,   AC Y,
                                                 ABC 847,

ORNU _______,

     CALLTYP   CALLDATA        AD1     AD2     SC      CHI    DESEP   DNST
OLD  RDB,     ____731_____,    ____,   _____,  ATAP,   ____,  27,     _____,

              AD3 _______,   ADC10,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW  GNS,     ____731_____,    G  ,    0  ,   ATAP,   ____,  27,     _____,

              AD3 _______,   ADC10,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

977 , ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________847-977 "Go on 0"____________!

                EQUIVALENT ODA INPUT FORM - ESS 403E

                     ASSOCIATED VERIFY MESSAGES

                       INPUT-13b-VER:CODEGRP

                    OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

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Screening Applications, Continued

GNS Options (cont'd)

GNS Option #1

If only one or several of the TSGs in the 4ESS-2000 Switch were to be screened, we could effectively refer to the "Go" table to:

- Change the incoming TSG for Office "A & B" GNSC to "1" (Fig. #3).
- Use the code group form to change the 847-977 CALLTYP from RDB to GNS.
- Change the AD1 to "G" and the AD2 to "0" (Form #2).

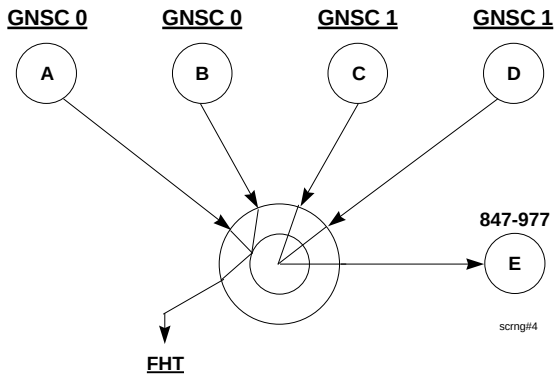
Upon activation, 847-977 will only **"Go on 0"**. Therefore, we can see from the "Go" table, a "Go on 0" will **ALLOW** the 847-977 from TSGs with a GNSC of "0". It will **DENY** the code from TSGs (Office A & B in this example) with GNSC of "1" or even "2 or 3" and send the code to FHT.

Continued on next page

Screening Applications, Continued

GNS Options
(cont'd)

Figure #4



Form 3

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM POTS, NTD 6,   AC Y,
                                                 ABC 847,

ORNU ______,

     CALLTYP   CALLDATA        AD1     AD2     SC     CHI   DESEP   DNST
OLD  RDB,     ____731____,    ____,   _____,   ____,  ____,  27,   _____,

              AD3 _____,   ADC10,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW  GNS,     ____731____,    G  ,    1  ,    ATAP,  ____,  27,   _____,

              AD3 _____,   ADC10,__,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

977 , ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________847-977 "Go on 1"____________!

                EQUIVALENT ODA INPUT FORM - ESS 403E

                     ASSOCIATED VERIFY MESSAGES

                       INPUT-13b-VER:CODEGRP

                    OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

Continued on next page

Screening Applications, Continued

GNS Options (cont'd)

GNS Option #2

If a large number or most of the TSGs in the switch were to be screened, it would require less effort to leave the GNSC at "0" on these (Fig. #4). Again referring to the "Go" table:

- Change the incoming TSGs allowing the code (Office "C & D") GNSC to "1" (or even "2, or 3").
- Use the code group form to change the 847-977 CALLTYP from RDB to GNS.
- Change the AD1 to "G" as before but this time change AD2 to "1" (or whatever the TSGs were changed to). (Form #3)

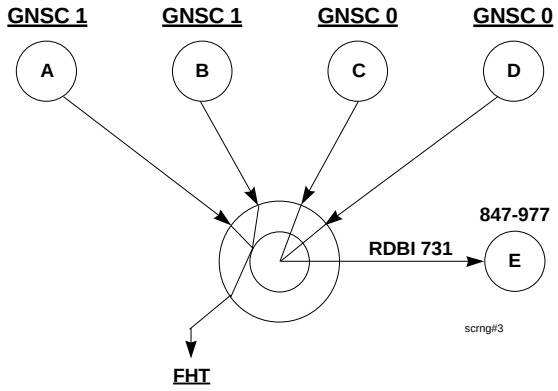
Upon activation, 847-977 will only **"Go on 1"** and the code from Office "A & B" is still going to FHT because there is no GNSC "1" to GO on. The "Go" table shows a "Go on 1" will **ALLOW** the code from the other TSGs set to GNSC "1". Also, it will **DENY** the code from TSGs with GNSC of "0 and also those TSGs with a GNSC of 2 or 3"

Continued on next page

Screening Applications, Continued

GNS Options
(cont'd)

Figure #3



Form 4

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM POTS, NTD 6,   AC Y,
                                                 ABC 847,

ORNU _______,

     CALLTYP    CALLDATA          AD1     AD2     SC      CHI    DESEP   DNST
OLD  RDB,     ____731_____,      ____,  _______,  ____,  ____,   ___,  _______,

              AD3 ________,   ADC10,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW  GNS,     ____731_____,      _N__,  __1__,   ____,  ____,   ___,  _______,

              AD3 ________,   ADC10,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

977 , ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________847-977 "No Go on 1"____________!

                EQUIVALENT ODA INPUT FORM - ESS 403E

                    ASSOCIATED VERIFY MESSAGES

                      INPUT-13b-VER:CODEGRP

                  OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```


LUCENT TECHNOLOGIES PROPRIETARY
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Screening Applications, Continued

GNS Options (cont'd)

GNS Option #3

Once again, if only a few amount of TSGs were to be screened and we needed to use the "NoGo" Table, we could:

- Change the screened TSGs to a GNSC of "1" (or even "2" or 3") (Same as Fig #3 again).
- Use the code group form to change the 847-977 **CALLTYP** from RDB to GNS.
- Change the AD1 to "N" and the AD2 to 1 (Form #4).

The code group form would change the CALLTYP to GNS and now the AD1 to "N".

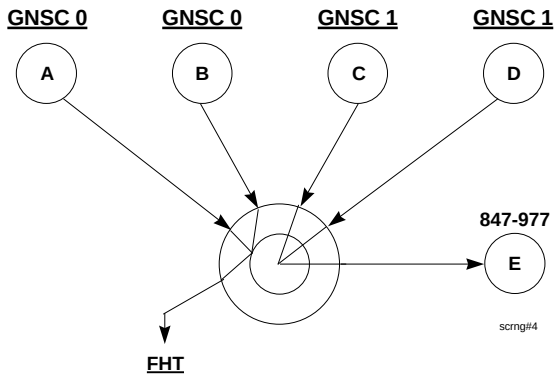
Upon activation, 847-977 will only **"NoGo on 1"**. The "NoGo" table shows the TSGs with a GNSC of "1" will **DENY** the code. The TSGs with a GNSC of "0, 2, & 3" will **ALLOW** the 847-977 code successfully.

Continued on next page

Screening Applications, Continued

GNS Options
(cont'd)

Figure #4



Form 5

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                    DOM POTS, NTD 6,   AC Y,
                                                 ABC 847,

ORNU ______,

     CALLTYP    CALLDATA        AD1     AD2     SC     CHI   DESEP   DNST
OLD  RDB,     ____731____,    ____,   _____,  ____,  ____,   ___,  ______,

              AD3 _______,   ADC10,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW  GNS,     ____731____,    N   ,    0  ,  ____,  ____,   ___,  ______,

              AD3 _______,   ADC10,__,__,__,__,__,__,__,__,__,__,__,__,__,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

977 , ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________847-977 "No Go on 0"____________!

                EQUIVALENT ODA INPUT FORM - ESS 403E

                     ASSOCIATED VERIFY MESSAGES

                       INPUT-13b-VER:CODEGRP

                    OUTPUT-3c-VER:CODEGRP;OPT(DIG6)
```

Continued on next page

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Screening Applications, Continued

GNS Options (cont'd)

GNS Option #4

The final option available is the NoGo on "0". This could be initiated if the least Recent Change effort was to:

- Change the TSGs planned to pass 847-977 to GNSC of "1" (or even 2 or 3) (Same as Fig. #4 again).
- Use the code group form to change the 847-977 CALLTYP from RDB to GNS.
- Change the AD1 to "N" and the AD2 to "0" (Form #5).

Upon activation, 847-977 will **"NoGo on 0"**. The "No Go" table shows the TSGs with GNSC of "0" will **DENY** the code. The TSGs with a GNSC of "1, 2, or 3" will **ALLOW** the code.

NOTE: All codes not assigned to a GNS CALLTYP (i.e., RDB) will not be affected by the GNSC of the TSG. Therefore, only codes that are assigned to a GNS CALLTYP will be controlled by the GNSC of the TSG.

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Screening Applications, Continued

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Screening Applications, Continued

Future GNS Screening

The proof of the most correct decision made from Options 1 through 4 of the preceding paragraphs will prevail at some time in the future when another code has to be screened from the same TSGs already using GNS. If the network plan now states that code 847-455 also must be sent to FHT when originated from certain offices, the overall screening plan must be addressed again. If the office pattern for screening the new code was to be the same as those in Options 1 through 4 earlier, the solution is easy. For example, if the new code was to be blocked from Office "A & B" only, the new code would be reassigned the same GNS data as the 847-977. If the new code was to pass from Offices "A & B" and be blocked from the other offices, the new code would simply be assigned to a GNS CALLTYP with the opposite blocking information of 847-977. Example: If Office "A & B" have a GNSC of "0" and 847-977 is assigned **"NoGo on 0"**, then 847-455 could be assigned a **"Go on 0"** or a **"NoGo on 1"**.

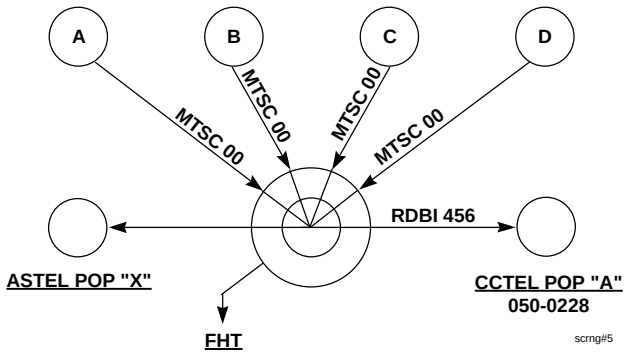
Problems arise if the screening for the new code 847-455 is planned on only some of the offices already in the screening pattern for 847-977. This overlap makes it virtually impossible to implement GNS on an overall 4ESS-2000 Switch basis. GNS may best be left to use on single or several TSGs only with certain codes being blocked. For more dynamic screening, the use of **Multiple Treatment Screening** should be used. It is also possible to implement GNS on a Subsequent Digit Index (SDI) with Multiple Treatment Screening.

Continued on next page

Screening Applications, Continued

Multiple Treatment Screening

Figure #5



Form 6

```
INPUT:                          VERIFY #13b

     VER:CODEGRP[;ALL]:[DOM a,][AC b,]ABC c,DEF d,GHI e
     [,RDB][,ST1 f,IDX1 g][,ST2 f,IDX2 g]!(EOT)

     OUTPUT:                          VERIFY 3e

     VER:CODEGRP;OPT(DIG9),---:                DOM POTS, NTD 7, AC N,

     ST1 ----, IDX1 ----, ST2 ----, IDX2 ----,

     ABC 050, DEF 022,

     GHI    CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP    DNST

      8,    RDB,          456         , ----, ------, ATAP, WSNO, 10,  ------,
                  AD3 --------, ADC  7,--,--,--,--,--,--,--,--,--,--,--,--,--,

     ---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
                  AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

     ---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
                  AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

     ---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
                  AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

     ---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
                  AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

                      ODA INPUT SOURCE - ESS 403F
     RECENT CHANGE INPUT SOURCE - #302 RC:CODEGRP;CHG;OPT(DIG9),---:

                  VERIFY 7, 8, OR 9 DIGIT TRANSLATION
                   4E23R1 AND LATER GENERICPROGRAMS
```

Continued on next page

Screening Applications, Continued

Multiple Treatment Screening (cont'd)

Multiple Treatment Screening (MTS) is an extremely powerful and dynamic feature. It allows the routing translations personnel of the 4ESS-2000 Switch the ability to control a considerable number of destinations of a called code based on the origination. Up to 64 unique classes are allowed for screening. Whereas, Go/NoGo Screening controlled the codes of pre- designated originations to FHT, **MTS** can virtually send one called code to 64 different destinations based on the origination of the call. Any of these destinations can also be FHT (not just FHT-VCA). Embellishing on the power and dynamics of **MTS** is the relationship to Subsequent Digit Index **(SDX)** assignments that allow virtually 16,383 different code group to 64 MTSC configurations. **MTS** is not limited to just 999 different code group combinations as codes assigned as 847+977-1XXX, 847+977-2XXX, etc. could add many thousands of variations to assign screening assignments. Remember, the Intra-LATA translatable digits can range from 3 to 10.

MTS Example #1

For an example of MTS, let us assume the 4ESS-2000 Switch Access Tandem for Local Exchange Carrier (LEC) is presently performing plain Routing Data Block (RDB) routing based on seven digit OZZ+CIC codes. The Inter-exchange Carrier (IC) named Coast to Coast Telephone Co. (CCTEL) orders all traffic identified with their Carrier Identification Code (CIC) delivered to their network at office Point of Presence (POP) "A". Another IC named All-States Telephone Company (ASTEL) orders all of their traffic delivered to office ASTEL POP "X". In this scenario, all originating offices are Offices "A through D" (See Figure #5) and the incoming TSGs are assigned MTSC 00. This presents no intricate routing screening as all IC traffic to CCTEL is delivered to its POP "A" For this example, the 0ZZ-XXXX (CIC) for CCTEL is 050-0228. This code will be pointed to an RDBI #456 that routes to the TSG for CCTEL POP "A". (See Verify Form #6)

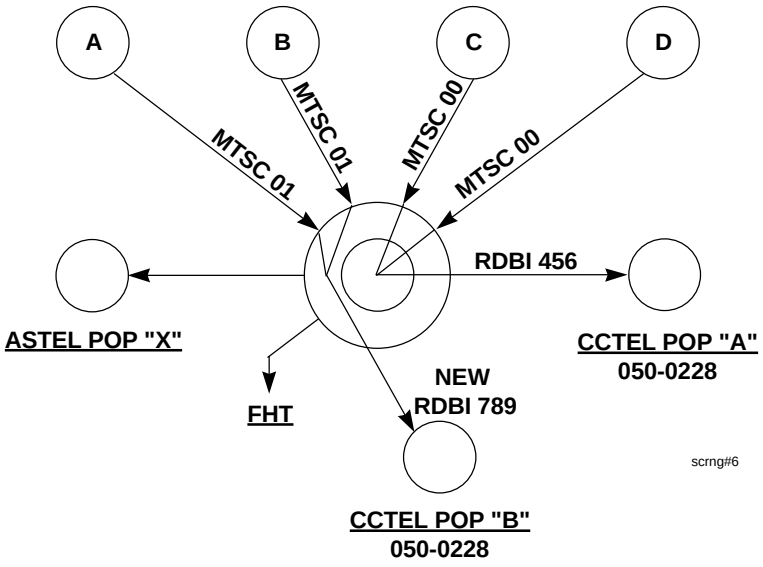
Continued on next page

Screening Applications, Continued

Multiple Treatment Screening (cont'd)

Figure #6

(CCTEL Traffic Only Shown)



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Screening Applications, Continued

Multiple Treatment Screening (cont'd)

Due to unique facility arrangements for the IC CCTEL, they are ordering that all CCTEL traffic originating from Office "A & B" be delivered to new CCTEL POP "B". Traffic originating from Office "C & D" remain delivered to CCTEL POP "A". This requires the application of **Multiple Treatment Screening (MTS)**.

MTS Step #1

The first step is to decide the number to assign for the Multiple Treatment Screening Class (MTSC) to each incoming TSG involved in the screening scenario (See Figure #6). (At this point, the MTSC number selection is arbitrary as there are no other MTS screening applications assigned in the office.)

Continued on next page

Screening Applications, Continued

Multiple Treatment Screening (cont'd)

Form 7

```
# FORM 304   CHANGE SUBSEQUENT DIGIT ROUTING
    4E23R1>

  RC:CODEGRP;CHG;OPT(SDX),___:          SDINDEX  444, SIZE 2, DOMCLASS DOM,

  ORNU ______,  ACTION M,

  INDEX  CALLTYP     CALLDATA        AD1    AD2     SC     CHI   DESEP   DNST

  _00,   RDB,  _______456_____, ____, ______, MSC1, ____,   16, ______,
                    AD3 _________, ADC_7,__,__,__,__,__,__,__,__,__,__,__,__,__,

  _01,   RDB,  _______789_____, ______, ____, MSC1, ____,   17, ______,
                    AD3 _________, ADC_7,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,  ___,  ___________________, ____, ______,  ____,  ____,   ___,  ______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,  ___,  ___________________, ____, ______,  ____,  ____,   ___,  ______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,  ___,  ___________________, ____, ______,  ____,  ____,   ___,  ______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,  ___,  ___________________, ____, ______,  ____,  ____,   ___,  ______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,  ___,  ___________________, ____, ______,  ____,  ____,   ___,  ______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

  ____,  ___,  ___________________, ____, ______,  ____,  ____,   ___,  ______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

     REMARKS _____________________________________________________!

                  EQUIVALENT ODA INPUT FORM - ESS 403G

                       ASSOCIATED VERIFY MESSAGES

                     INPUT-13c-VER:CODEGRP:SDINDEX

                     OUTPUT-3g-VER:CODEGRP;OPT(SDX)
```

Continued on next page

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Screening Applications, Continued

Multiple Treatment Screening (cont'd)

MTS Step #2

The next step is to build a subsequent digit index (SDX) with an RC Form 304 to implement the MTS (See Form #7).

- Enter assigned SDX index number in **SDINDEX**.
- **SIZE** = 2 (always for MTS).
- **DOMCLASS** = DOM (for regular voice traffic).
- **INDEX** = Enter the MTSC numbers that were assigned to the incoming TSGs from the offices to be screened. Valid entries are from 0 to 63.
- **CALLTYP** = RDB.
- **CALLDATA** = RDBI for each of the POP destinations.
- **ADC** = 7 (See Form #7).

When this is activated, no traffic routing has been changed as of yet.

Continued on next page

Screening Applications, Continued

Multiple Treatment Screening (cont'd)

Form 8

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
      4E23R1>

     RC:CODEGRP;CHG;OPT(DIG9),___:                  DOM POTS, NTD 7,   AC N,
                                                    ABC 050,  DEF 022,

  ORNU ______,

       CALLTYP     CALLDATA         AD1     AD2     SC     CHI  DESEP   DNST
  OLD   RDB,  _______456_____,  ____,  ______,  ATAP,  ____,  ___,  ______,

                  AD3 ________,  ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,

  NEW   SDX,  _______444_____,  MTS,  ______,  ____,  ____,  ___,  ______,

                  AD3 ________,  ADC 7,__,__,__,__,__,__,__,__,__,__,__,__,__,

     GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

      8, ___, ___, ___, ___, ___, ___, ___,
     ___, ___, ___, ___, ___, ___, ___, ___,
     ___, ___, ___, ___, ___, ___, ___, ___,
     ___, ___, ___, ___, ___, ___, ___, ___,

     REMARKS _____________________________________________________!

                 EQUIVALENT ODA INPUT FORM - ESS 403F

                      ASSOCIATED VERIFY MESSAGES

                        INPUT-13b-VER:CODEGRP

                    OUTPUT-3e-VER:CODEGRP;OPT(DIG9)
```

Continued on next page

Screening Applications, Continued

Multiple Treatment Screening (cont'd)

MTS Step #3

The 7-Digit Code group change RC Form 302 is used to change the:

- **CALLTYP** form RDB to SDX .
- **CALLDATA** must be changed from the RDBI number to the SDINDEX number (See Form #8).

When this form is activated, the traffic will now complete for CCTEL as shown in Figure #6 to both POPs as directed by origination of service.

NOTE: If CCTEL were to assign a third POP "C" for delivery of traffic from various originating offices:

1. **A new MTSC ## (i.e., 02) would have to be assigned to the appropriate offices incoming TSGs.**
2. **The new RDB assigned to the POP "C" would have to be added to the existing SDINDEX #444 following the new MTSC INDEX ##.**

Screening Applications, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Centralized Automatic Message Accounting (CAMA)

CAMA Function

The Centralized Automatic Message Accounting (CAMA) function is to record toll billing data in the 4ESS™-2000 Switch for the connecting offices that do not have their own Localized Automatic Message Accounting (LAMA) capability. The Automatic Message Accounting (AMA), Local or Centralized, is billing data consisting of, but is not limited to, the calling and called numbers themselves, answer and disconnect times, plus a charge index to be used by the operating company. The 4ESS can also provide CAMA service for special billing (QZ) and multiparty calls in LAMA and non-LAMA offices. This billing data is stored on a recording medium (usually tape) for later delivery to the Regional Accounting Office (RAO). Electronic transmittal or physical shipping of the tapes may accomplish the delivery process.

The 4ESS™-2000 Switch can obtain the calling number AMA information:

1. Automatically from the office Automatic Number Identification (ANI) information provisioning, the dialed digits, and the translation process.

2. Via a CAMA Operator Number Identification (ONI) that intercepts the call from a remote operator location. The intercept response can vary from a "Operator - May I help you?" to a "What number are you calling from?" depending on the vintage of the connecting office equipment.

The rest of the information is derived from the digits and translation. The 4ESS Switch is conditioned for ANI or ONI by the Type of Trunk (TOT) category on the Trunk Subgroup (TSG) characteristics Recent Change (RC) Form 101. The CAMA TSG will always be a "One-way Incoming" type. Note that as the CAMA TSG characteristics determine the need for the CAMA RC Form 400, it is built on a Trunk Group (TG) basis. This concludes that a series of CAMA translations for a specific RC Form 400 TG will affect all (up to four) CAMA TSGs from the same office building subdivision code. The RC Forms 403 & 404 will affect ALL CAMA TSGs to the 4ESS™-2000 Switch office.

Continued on next page

Centralized Automatic Message Accounting (CAMA),
Continued

CAMA Screening

A series of checks (screening) must be made on calls directed to the CAMA processing via a CAMA Trunk Group. These checks identify unauthorized, invalid, and misdirected CAMA calls. These categories are defined as follows:

- Unauthorized - These codes are three digit area and office codes that are not allowed on any CAMA Trunk. Operator codes and some test codes are included in this category.

- Invalid - Invalid codes are those NPA-NXX combinations that are handled by some AMA function other than this 4ESS Switch.

- Misdirected - Misdirected calls are local calls that should not have been placed through the toll hierarchy. This check is made after the invalid and unauthorized checks. Both the originating and terminating NPA-NXX combinations must be analyzed to determine if a call is misdirected. These combinations are called local call intercept groups. This check is only made if the local office is unable to perform local call intercept screening. Generally, if the local office has common control equipment, it can perform its own call intercept. However, some step-by-step offices do not have common control equipment and the 4ESS Switch must provide local call intercept for the CAMA operation.

RC Forms 400, 402, 403, & 404 DEFINE the parameters to be used for CAMA screening as follows:

- RC Form 400 lists the originating office codes that are valid for a specific CAMA Trunk Group and points them to a profile.

- RC Form 402 lists the terminating office codes that should be blocked on CAMA Trunk Groups of a profile.

- RC Form 403 lists the terminating area codes (Numbering Plan Areas [NPAs]) that are unauthorized for any CAMA Trunk Groups.

- RC Form 404 lists the terminating office codes that are unauthorized for any CAMA Trunk Groups.

Continued on next page

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Centralized Automatic Message Accounting (CAMA),
Continued

CAMA Screening (cont'd)

RC Forms 401, 405, & 406 CHANGE the parameters to be used for CAMA screening as follows:

- RC Form 401 changes the terminating office codes portion of a Local Call Intercept (LCI) profile established blocking pattern.
- RC Form 405 is used to point a new Originating Local Call Intercept Group Index (OLCIGI) to the same LCI profile as stored for an existing OLCIGI. This is used prior to adding or deleting a terminating NPA from the new OLCIGI.
- RC Form 406 deletes a terminating NPA from an LCI profile.

RC 400

The first step of CAMA Screening is defined by listing the valid originating (calling) office codes that may be received via ANI or ONI on a CAMA Trunk Group. It is established using the RC Form 400 to list only the valid Originating Office Codes (OOFC) for a specific Trunk Group. The OOFCs listed must all reside in the same NPA that is determined by the Far End NPA (FENPA) entered on the TSG characteristics for the Trunk Group. Each CAMA Trunk Group can only serve one NPA. If another NPA is to be served by the same codes, another CAMA TG must be established. With one exception, only those OOFC codes listed on the RC Form 400 will pass the originating validity check for that CAMA TG. The one exception is made for special pseudo office codes associated with special billing (QZ). These codes are entered on a separate RC Form 400 with the Pass Originating Validity Check (POVC) field marked "**Yes**". This allows those codes to pass the validity check regardless of the Trunk Group on which they arrive. All codes not on the list are invalid originating office codes for the specific Trunk Group and will be intercepted (blocked). An RC Form 400 must be completed for each ANI or ONI CAMA Trunk Group identified by the first TSG RC Form 101 for a TG. The Routing Group is responsible for the RC Forms 400. However, in some companies the Machine Administrator may have the information required to prepare this form so a coordinated effort is required to implement the recent change.

Continued on next page

Centralized Automatic Message Accounting (CAMA),
Continued

RC 402

When a Local Call Intercept (LCI) group is required to screen misdirected calls (local codes called that should not have originated on the CAMA Trunk Group to the toll network), the RC Form 402 is prepared. Each RC Form 402 will be coordinated with a specific RC Form 400, creating an LCI profile. Each RC Form 402 can represent codes in only one terminating NPA. A maximum of four RC Form 402s can be coordinated with each RC Form 400. The Terminating Office Codes (TOFC) listed on the RC Form 402 will not be allowed to complete from the CAMA Trunk Group of the associated RC Form 400. The profile index number for each RC Form 400 LCI pattern is the Originating Local Call Intercept Group Index (OLCIGI). The OLCIGI that is unique to each RC Form 400 will link each associated RC Form 402 (maximum four). Allowable entries for OLCIGI are "**2-255"**. If the CAMA office on the RC Form 400 can perform its own screening of local codes, the OLCIGI of "**1**" is entered on the RC Form 400 and no RC Form 402s will be implemented.

RC 401

To change a TOFC in an LCI profile, the RC Form 401 is implemented. To change existing allowance for TOFCs to continue as a valid call, enter those TOFCs on the RC Form 401 and enter "**N**" for BLOCK entry. To add new TOFCs to the profile in an NPA, add the new TOFCs and enter "**Y**" for BLOCK entry for normal intercept.

RC 403

To change the list of called Area Codes authorized from originating on any CAMA Trunk Groups in the 4ESS™-2000 Switch, the RC Form 403 must be implemented. The Terminating Numbering Plan Area (TNPA) to be changed are listed on the RC Form 403 and Office Data Assembler (ODA) will direct blocked code entries from "**200 to 999"** to the "Unauthorized CAMA" announcement. Typical application of this form is to list a test or special code that may not be dialed by the customer. The ODA system will automatically block codes in the range of **"001-199"**. **"000"** represents the home NPA since the Home Numbering Plan Area (HNPA) does not appear as part of the called digits.

Continued on next page

Centralized Automatic Message Accounting (CAMA),
Continued

RC 404 To change the list of called (terminating) office codes that are authorized for any CAMA Trunk Groups in the 4ESS™-2000 Switch, the RC Form 404 must be implemented. The TOFCs to be changed are listed on the RC Form 404 and the BLOCK entry of "**Y**" for yes or "**N**" for no will determine if the codes should be blocked. An entry of "**Y**" indicates the terminating office codes are to be blocked and sent to "Unauthorized CAMA" announcement. Vacant (unassigned) office codes need not be entered.

RC 405 To copy an existing LCI profile for CAMA operation, an RC Form 405 must be implemented. This message points a new OLCIGI at the same terminating LCI blocking profiles as stored for an existing OLCIGI. A terminating NPA can then be added to or deleted from the new OLCIGI using RC Form 402 or RC Form 406.

CAUTION: This message should not be used to add a new OLCIGI if it is expected that different LCI blocking profiles will be required for all TNPAs appearing in both OLCIGIs. Any changes made to the LCI blocking profiles for those TNPAs become applicable to both OLCIGIs unless the TNPA is first deleted from and the re-added back to the OLCIGI needing the LCI profile change. A paper record must be maintained to administer the OLCIGIs built with this message to identify LCIO profiles used jointly.

RC 406 To delete a terminating NPA from an existing LCI profile, the RC Form 406 must be implemented. The TNPA entered on this form will be removed from the associated LCI profile identified by the OLCIGI entry. If the TNPA being removed is the only one currently assigned to an LCI profile, the entire profile will be deleted. Valid entries for TNPA are "**200-999**".

For 4E22> Generics, CAMA translations are not valid for offices using Served Numbering Plan Area (SNPA) 10-Digit Routing.

Centralized Automatic Message Accounting (CAMA),
Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Lucent Technologies
Bell Labs Innovations

Translation Guide
4ESS™ -2000 Switch
TG-4
Division 6 — Office Data Assembler Form Preparation

234-010-100

TG-4 Table of Contents

DIVISION 6 **Office Data Assembler Form Preparation**

Section 0 Table of Contents
Section 1a-1b 406 Series - Miscellaneous

ODA 406C Miscellaneous

General

Form ESS 406C defines a number of miscellaneous office data structures. The information on this form can be generally classified as parameter type information. Several of the items are closely related to Network Management and Automatic Message Accounting procedures. Responsible parties in each of these areas should be consulted when preparing this form.

In addition, this form is used to allocate memory space for various data collection purposes. The major reference for those items that allocate memory space is the Traffic Order. The 4ESS Switch Engineering/ Administration Tool (4ESEAT) Program is designed to assist in the preparation of this form. The 406C field definitions, as well as the valid entries, are included in this program. All users should refer to this program when preparing the 406C Forms. The 4ESEAT Program has been updated for Generic 4E23 and is available as of April, 1998.

4ESEAT is a stand-alone executable program that can be run on an MS-DOS operating system compatible Personal Computer.

4ESEAT allows users to order 4ESS growth hardware and 4E17 - 4E23 Software Right To Use (RTU) fees through a mechanized program that:

- Monitors users inputs for valid system configurations
- Stores and retrieves user retrofit and growth orders
- Allows user to generate their own configuration through edits
- Generates a Telephone Equipment Order (TEO) for input to the regional engineering center.

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ODA 406C Miscellaneous, Continued

General (cont'd.)

The 4ESEAT Main Menu consists of the following features:

- Hardware Engineering
  - Traffic/Trunk Forecast
  - DIF Conversion
  - Growth
  - Vintage DIU Additions
  - Equipment TEO Report
  - Capacity Report
  - DIF Conversion/Vintage Add Report
- Software/Memory Engineering
  - Memory Input
  - Memory Reports
  - 406C
  - 406Z
  - Software Inputs
  - Memory/Software TEO

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ODA 406C Miscellaneous, Continued

406C Form

```
ESS 406C SHEET 1 OF 3 TG-4      MISCELLANEOUS OFFICE DATA
4E23>                                  4ESS
                          4E23 AND LATER GENERIC PROGRAMS

                                ESS UNIT _____________________

FORM CODE _6C_          OFFICETYPE  __    CAD __
          1  2          3       12  14        80

A800TT       _____      CAD __          CNIOPR       _____      CAD __
3    8       14 16           80          3    8       14 18           80

ACITRANS     _____      CAD __          CNIOUTBF     _____      CAD __
3     10     14 16           80          3     10     14 16           80

ACVLIMIT     _____      CAD __          COPTBLN0     _____      CAD __
3     10     14 18           80          3     10     14 16           80

AHRNA        _____      CAD __          COPTBLN1     _____      CAD __
3   7        14 15           80          3     10     14 16           80

AINON        __         CAD __          COPTBLN2     _____      CAD __
3   7        14              80          3     10     14 16           80

AINTRG_IN_WCS __        CAD __          COPTBLN3     _____      CAD __
3            15 17           80          3     10     14 16           80

AMABUFER     _____      CAD __          CPACR        _____      CAD __
3     10     14 15           80          3   7        14 17           80

ANI_IN_WCS __           CAD __          CR           _____      CAD __
3       12 14                80          3 4          14 17           80

ASGHC        _____      CAD __          CTWBACK_IN_WCS __       CAD __
3   7        14 17           80          3             16 20           80

AT           __         CAD __          DOMGATE      __         CAD __
3 4          14              80          3     9      14              80

BFPMFR       _____      CAD __          DOMTERM      _____      CAD __
3    9       14 16           80          3     9      14 16           80

BLCNT        _____      CAD __          DSDCACP      _____      CAD __
3   7        14 16           80          3     9      14 17           80

BOUNDUPA     _____      CAD __          DSDNCAT      _____      CAD __
3     10     14 17           80          3     9      14 17           80

CCISOSO      _____      CAD __          DSIGFNUM     _____      CAD __
3     9      14 17           80          3     10     14 18           80

CCPAS        __         CAD __          DSTSTP       _____      CAD __
3   7        14              80          3    8       14 17           80

CNIINBF      _____      CAD __          DXL          _____      CAD __
3     9      14 18           80          3 5          14 17           80
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ODA 406C Miscellaneous, Continued

406C Form (cont'd.)

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ESS 406C SHEET 2 OF 3 TG-4      MISCELLANEOUS OFFICE DATA
4E23>                                    4ESS
                              4E23 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

FORM CODE _6C_

EIARB       _____       CAD __      NCSDNTT     _____       CAD __
3   7       14 17           80      3     9     14 16           80

FEATGRP     _____       CAD __      NDCSM       _____       CAD __
3     9     14 19           80      3   7       14 15           80

GETSRCVL    _____       CAD __      NDCSMECS    _____       CAD __
3     10    14 16           80      3     10    14 15           80

HTRCB       __          CAD __      NETWORK     _____       CAD __
3   7       14              80      3     9     14 16           80

LICSTP      _____       CAD __      NNR         _____       CAD __
3    8      14 17           80      3 5         14 15           80

MAXAREA     _____       CAD __      NSCANSET    __          CAD __
3     9     14 16           80      3     10    14              80

MAXERPI     _____       CAD __      NSCSM       _____       CAD __
3     9     14 15           80      3   7       14 15           80

MAXAROUT    _____       CAD __      NSCSMECS    _____       CAD __
3     10    14 17           80      3     10    14 15           80

MAXOROUT    _____       CAD __      NWCSMU      _____       CAD __
3     10    14 18           80      3    8      14 15           80

MAXNMOROUT  _____       CAD __      OFFGNSC     __          CAD __
3       12  14 17           80      3     9     14              80

MC5HRB      _____       CAD __      OFFLATA     _____       CAD __
3    5      14 19           80      3     9     14 16           80

MRT         _____       CAD __      OFFMTSC     _____       CAD __
3 5         14 17           80      3     9     14 15           80

MRVT        _____       CAD __      OFFNSN      _____       CAD __
3  6        14 15           80      3    8      14 16           80

NCA800TT    _____       CAD __      OMR         _____       CAD __
3     10    14 16           80      3 5         14 16           80

NCAT        _____       CAD __      PCF _____   OPC _________   CAD __
 3  6        14 16            80      3 5 14 17       19      27       80

NCD         _____       CAD __      PLU_IN_WCS  __          CAD __
3 5         14 17           80      3       12  14              80
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ODA 406C Miscellaneous, Continued

406C Form (cont'd.)

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ESS 406C SHEET 3 OF 3 TG-4      MISCELLANEOUS OFFICE DATA
4E23>                                    4ESS
                              4E23 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

FORM CODE _6C_
          1  2

QOB          _____          CAD __          TBSHC        _____          CAD __
3 5          14 17              80          3   7        14 18              80

RCVHL        _____          CAD __          TCRB         _____          CAD __
3   7        14 15              80          3  6         14 15              80

RPI          _____          CAD __          TDAS1A       __             CAD __
3 5          14 15              80          3    8       14                 80

SATB         _____          CAD __          TSC          __             CAD __
3  6         14 16              80          3 5          14                 80

SDN          _____          CAD __          TVTSTP       _____          CAD __
3 5          14 17              80          3    8       14 17              80

SDNTT        _____          CAD __
3   7        14 16              80

SDS          _____          CAD __
3 5          14 17              80

SISET5ME     __             CAD __
3     10     14                 80

SISET5MR     __             CAD __
3     10     14                 80

SISETHER     _____          CAD __
3     10     14 16              80

SISETHRR     _____          CAD __
3     10     14 16              80

SSP          __             CAD __
3 5          14                 80

SVAST        _____          CAD __
3   7        14 17              80

REMARKS _____________________________________________ PAGE ____ OF ____
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ODA 406C Miscellaneous, Continued

406C Form (cont'd.)

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ESS 406C SHEET 1 OF 3 TG-4      MISCELLANEOUS OFFICE DATA
4E24>                                    4 ESS
                              4E24 AND LATER GENERIC PROGRAMS

                                 ESS UNIT _____________________________

FORM CODE _6C_        OFFICETYPE  __    CAD __
          1  2        3       12  14        80

A800TT     _____      CAD __           CNIOPR     _____      CAD __
3    8     14 16          80           3    8     14 18          80

ACITRANS   _____      CAD __           CNIOUTBF   _____      CAD __
3     10   14 16          80           3     10   14 16          80

ACVLIMIT   _____      CAD __           COPTBLN0   _____      CAD __
3     10   14 18          80           3     10   14 16          80

AHRNA      _____      CAD __           COPTBLN1   _____      CAD __
3   7      14 15          80           3     10   14 16          80

AINON      __         CAD __           COPTBLN2   _____      CAD __
3   7      14             80           3     10   14 16          80

AINTRG_IN_WCS  __     CAD __           COPTBLN3   _____      CAD __
3          15  17         80           3     10   14 16          80

AMABUFER   _____      CAD __           CPACR      _____      CAD __
3     10   14 15          80           3   7      14 17          80

ANI_IN_WCS __         CAD __           CR         _____      CAD __
3       12 14             80           3 4        14 17          80

ASGHC      _____      CAD __           CTWBACK_IN_WCS  __    CAD __
3   7      14 17          80           3           16  20         80

AT         __         CAD __           DOMGATE    __         CAD __
3 4        14             80           3     9    14             80

BFPMFR     _____      CAD __           DOMTERM    _____      CAD __
3    9     14 16           80          3     9    14 16          80

BLCNT      _____      CAD __           DSDCACP    _____      CAD __
3   7      14 16          80           3     9    14 17          80

BOUNDUPA   _____      CAD __           DSDNCAT    _____      CAD __
3     10   14 17          80           3     9    14 17          80

CCISOSO    _____      CAD __           DSIGFNUM   _____      CAD __
3     9    14 17          80           3     10   14 18          80

CCPAS      __         CAD __           DSTSTP     _____      CAD __
3   7      14             80           3    8     14 17          80

CNIINBF    _____      CAD __           DXL        _____      CAD __
3     9    14 18          80           3 5        14 17          80
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ODA 406C Miscellaneous, Continued

406C Form (cont'd.)

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ESS 406C SHEET 2 OF 3 TG-4      MISCELLANEOUS OFFICE DATA
4E24>                                    4 ESS
                              4E24 AND LATER GENERIC PROGRAMS

                                ESS UNIT _____________________________

FORM CODE _6C_

EIARB        _____          CAD __        NCD          _____          CAD __
3   7        14 17              80        3 5          14 16              80

FAICNT       _____          CAD __        NCSDNTT      _____          CAD __
3     8      14 15              80        3     9      14 16              80

FEATGRP      _____          CAD __        NDCSM        _____          CAD __
3     9      14 19              80        3   7        14 15              80

GETSRCVL     _____          CAD __        NDCSMECS     _____          CAD __
3     10     14 16              80        3     10     14 15              80

HTRCB        __             CAD __        NETWORK      _____          CAD __
3   7        14                 80        3     9      14 16              80

LICSTP       _____          CAD __        NNR          _____          CAD __
3    8       14 17              80        3 5          14 15              80

MAXAREA      _____          CAD __        NSCANSET     __             CAD __
3     9      14 16              80        3     10     14                 80

MAXERPI      _____          CAD __        NSCSM        _____          CAD __
3     9      14 15              80        3   7        14 15              80

MAXAROUT     _____          CAD __        NSCSMECS     _____          CAD __
3     10     14 17              80        3     10     14 15              80

MAXOROUT     _____          CAD __        NWCSMU       _____          CAD __
3     10     14 18              80        3    8       14 15              80

MAXNMOROUT   _____          CAD __        OFFGNSC      __             CAD __
3       12   14 17              80        3     9      14                 80

MC5HRB       _____          CAD __        OFFLATA      _____          CAD __
3    8       14 19              80        3     9      14 16              80

MRT          ______         CAD __        OFFMTSC      _____          CAD __
3 5          14  17             80        3     9      14 15              80

MRVT         _____          CAD __        OFFNSN       _____          CAD __
3  6         14 15              80        3    8       14 16              80

NCA800TT     _____          CAD __        OMR          _____          CAD __
3     10     14 16              80        3 5          14 16              80

NCAT         _____          CAD __        PCF _____  OPC _________     CAD __
3  6         14 16              80        3 5 14 17      19     27          80
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ODA 406C Miscellaneous, Continued

406C Form (cont'd.)

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ESS 406C SHEET 3 OF 3 TG-4      MISCELLANEOUS OFFICE DATA
4E24>                                  4 ESS
                            4E24 AND LATER GENERIC PROGRAMS
.
FORM CODE _6C_
          1  2

PLU_IN_WCS ____          CAD __          SSP        __            CAD __
3          12 14             80          3 5        14                80

QOB        _____         CAD __          SVAST      _____         CAD __
3 5        14 17             80          3   7      14 17             80

RCVHL      _____         CAD __          TBSHC      _____         CAD __
3   7      14 15             80          3   7      14 18             80

RPI        _____         CAD __          TCRB       _____         CAD __
3 5        14 15             80          3  6       14 15             80

SATB       _____         CAD __          TDAS1A     __            CAD __
3  6       14 16             80          3    8     14                80

SDN        _____         CAD __          TSC        __            CAD __
3 5        14 17             80          3 5        14                80

SDNTT      _____         CAD __          TVTSTP     _____         CAD __
3   7      14 16             80          3    8     14 17             80

SDS        _____         CAD _
3 5        14 17             80

SISET5ME   __            CAD __          SDS        _____         CAD _
3     10   14                80

SISET5MR   __            CAD __
3     10   14                80

SISETHER   _____         CAD __
3     10   14 16             80

SISETHRR   _____         CAD __
3     10   14 16             80


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ESS 406C SHEET 1 OF 4 TG-4      MISCELLANEOUS OFFICE DATA
4E25>                                    4 ESS
                            4E25 AND LATER GENERIC PROGRAMS

                                ESS UNIT _____________________________

FORM CODE _6C_        OFFICETYPE  __    CAD __
          1  2        3       12  14        80

A800TT      _____     CAD __              CNIINBF     _____     CAD __
3    8      14 16         80              3     9     14 18         80

ACITRANS    _____     CAD __              CNIOPR      _____     CAD __
3     10    14 16         80              3    8      14 18         80

ACVLIMIT    _____     CAD __              CNIOUTBF    _____     CAD __
3     10    14 18         80              3     10    14 16         80

AHRNA       _____     CAD __              COPTBLN0    _____     CAD __
3   7       14 15         80              3     10    14 16         80

AINON       __        CAD __              COPTBLN1    _____     CAD __
3   7       14            80              3     10    14 16         80

AINTRG_IN_WCS  __     CAD __              COPTBLN2    _____     CAD __
3           15  17        80              3     10    14 16         80

AMABUFER    _____     CAD __              COPTBLN3    _____     CAD __
3     10    14 15         80              3     10    14 16         80

ANI_IN_WCS __         CAD __              CPACR       _____     CAD __
3       12 14             80              3   7       14 17         80

ASGHC       _____     CAD __              CR          _____     CAD __
3   7       14 17         80              3 4         14 17         80

AT          __        CAD __              CTWBACK_IN_WCS  __    CAD __
3 4         14            80              3           16  20        80

BFPMFR      _____     CAD __              DOMGATE     __        CAD __
3    9      14 16         80              3     9     14            80

BLCNT       _____     CAD __              DOMTERM     _____     CAD __
3   7       14 16         80              3     9     14 16         80

BOUNDUPA    _____     CAD __              DSDCACP     _____     CAD __
3     10    14 17         80              3     9     14 17         80

CCISOSO     _____     CAD __              DSDNCAT     _____     CAD __
3     9     14 17         80              3     9     14 17         80

CCPAS       __        CAD __              DSIGFNUM    _____     CAD __
3   7       14            80              3     10    14 18         80
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ODA 406C Miscellaneous, Continued

406C Form (cont'd.)

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ESS 406C SHEET 2 OF 4 TG-4      MISCELLANEOUS OFFICE DATA
4E25>                                    4 ESS
                              4E25 AND LATER GENERIC PROGRAMS

                                ESS UNIT _____________________

FORM CODE _6C_

DSTSTP      _____     CAD __        MAXIAREA    _____     CAD __
3    8      14 17         80        3     10    14 17         80

DXL         _____     CAD __        MAXICERPI   _____     CAD __
3 5         14 17         80        3      11   14 15         80

EIARB       _____     CAD __        MAXIDERPI   _____     CAD __
3   7       14 17         80        3      11   14 15         80

FAICNT      ______    CAD __        MAXIIERPI   _____     CAD __
3     8     14 15         80        3      11   14 15         80

FEATGRP     _____     CAD __        MAXNMOROUT  _____     CAD __
3     9     14 19         80        3       12  14 17         80

GETSRCVL    _____     CAD __        MAXOCERPI   _____     CAD __
3     10    14 16         80        3      11   14 15         80

HTRCB       __        CAD __        MAXODERPI   _____     CAD __
3   7       14            80        3      11   14 15         80

LICSTP      _____     CAD __        MAXOIERPI   _____     CAD __

3    8      14 17         80        3      11   14 15         80

MAX5ECOS    __        CAD __        MAXOROUT    _____     CAD __

3     10    14            80        3     10    14 18         80

MAX5RTNR    __        CAD __        MC5HRB      _____     CAD __
3     10    14            80        3    8      14 19         80

MAXAREA     _____     CAD __        MRT         ______    CAD __
3     9     14 16         80        3 5         14  17        80

MAXAROUT    _____     CAD __        MRVT        _____     CAD __
3     10    14 17         80        3  6        14 15         80

MAXCAREA    _____     CAD __        NCA800TT    _____     CAD __
3     10    14 17         80        3     10    14 16         80

MAXDAREA    _____     CAD __        NCAT        _____     CAD __
3     10    14 17         80        3  6        14 16         80

MAXERPI     _____     CAD __        NCD         _____     CAD __
3     9     14 15         80        3 5         14 16         80
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ODA 406C Miscellaneous, Continued

406C Form (cont'd.)

```
ESS 406C SHEET 3 OF 4 TG-4      MISCELLANEOUS OFFICE DATA
4E25>                                    4 ESS
                              4E25 AND LATER GENERIC PROGRAMS

FORM CODE _6C_
          1  2

NCSDNTT     _____     CAD __          PCF _____  OPC _________  CAD __
3     9     14 16         80          3 5 14 17      19     27      80

NDCSM       _____     CAD __          PLU_IN_WCS ____           CAD __
3   7       14 15         80          3          12 14             80

NDCSMECS    _____     CAD __          QOB        _____          CAD __
3     10    14 15         80          3 5        14 17             80

NETWORK     _____     CAD __          RCVHL      _____          CAD __
3     9     14 16         80          3   7      14 15             80

NNR         _____     CAD __          RPI        _____          CAD __
3 5         14 15         80          3 5        14 15             80

NSCANSET    __        CAD __          SATB       _____          CAD __
3     10    14            80          3  6       14 16             80

NSCSM       _____     CAD __          SDN        _____          CAD __
3   7       14 15         80          3 5        14 17             80

NSCSMECS    _____     CAD __          SDNTT      _____          CAD __
3     10    14 15         80          3   7      14 16             80

NWCSMU      _____     CAD __          SDS        _____          CAD __
3    8      14 15         80          3 5        14 17             80

OCTCP_IN_WCS   __     CAD __          SISETHER   _____          CAD __
3          14   18        80          3     10   14 16             80

OFFGNSC     __        CAD __          SISETHRR   _____          CAD __
3     9     14            80          3     10   14 16             80

OFFLATA     _____     CAD __          SSP        __             CAD __
3     9     14 16         80          3 5        14                80

OFFMTSC     _____     CAD __          SVAST      _____          CAD __
3     9     14 15         80          3   7      14 17             80

OFFNSN      _____     CAD __          TBSHC      _____          CAD __
3    8      14 16         80          3   7      14 18             80

OMR         _____     CAD __          TCRB       _____          CAD __
3 5         14 16         80          3  6       14 15             80
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ODA 406C Miscellaneous, Continued

406C Form (cont'd.)

```
ESS 406C SHEET 4 OF 4 TG-4      MISCELLANEOUS OFFICE DATA
4E25>                                    4 ESS
                              4E25 AND LATER GENERIC PROGRAMS

FORM CODE _6C_
          1  2

TDAS1A      __              CAD __
3    8      14                  80

TSC         __              CAD __
3 5         14                  80

TVTSTP      _____           CAD __
3    8      14 17               80

REMARKS _____ PAGE ____ OF ____
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LUCENT TECHNOLOGIES PROPRIETARY
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ODA 406C Miscellaneous, Continued

Form Entries

- **FORM CODE**

This field is always preprinted with 6C.

- **A800TT**
  - Advanced 800 Translation Type
    Entries: “Blank” or 0 to 255.

- **ACITRANS**
  - AT&T Customer Interface (ACI)Translation Space
    Entries: “Blank” or 100 to 511.

- **ACVLIMIT**
  - Access Charge Verification (ACV) Trunk Limit
    Entries: “Blank” or 0 to 99999.

- **AHRNA**
  - Not Applicable
    Entries: “Blank”.

- **AINON**
  - Advanced Intelligent Network On/Off Switch (4E18>)
    Entries: Y or N.

- **AINTRG_IN_WCS**
  - AIN Triggers in Windowed Call Store (4E21>)
    Entries: Y or N.

- **AMABUFER**
  - AMA Buffer
    Entries: 8 to 24.

- **ANI_IN_WSC**
  - Not Applicable
    Entries: "Blank".

Continued on next page

ODA 406C Miscellaneous, Continued

Form Entries (cont'd.)

- **ASGHC**
  - Adjunct Trunk Subgroup Headcell
    Entries: 64 to 1024 (2048 for 4E18>) by 4.

- **AT**
  - Access Tandem
    Entries: Y or N.

- **BBFPMFR**
  - Blue Box Fraud Prevention MF Receiver Allocation
    Entries: “Blank” or 0 to 127.

- **BLCNT**
  - Billing Count Blocks
    Entries: “Blank” or 1 to 512.

- **BOUNDUPA**
  - Boundary Upper Protect Address
    Entries: 1 to 1336 (4E20R1>).

- **CCISOSO**
  - CCIS Inwats Originating Screening Office
    Entries: N, 1STP, 2STP, DCIS, or TCAP.

- **CCPAS**
  - Customer Calls to Public Announcement System
    Entries: “Blank” or 1 to 8.

- **CNIINBF**
  - CNI Ring Input Buffer
    Entries: “Blank”, 0, or 1000 to 32000.

- **CNIOPR**
  - CNI Operational Status
    Entries: “Blank”, Y, or N.

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LUCENT TECHNOLOGIES PROPRIETARY
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ODA 406C Miscellaneous, Continued

Form Entries (cont'd.)

- **CNIOUTBF**
  - CNI Ring Output Buffer
    Entries: “Blank”, 0, or 1000 to 32000.

- **COPTBLN 0-3**
  - CAMA Operator Trouble Number
    Entries: “Blank” or 000 to 999.

- **CPACR**
  - Not Applicable
    Entries: "Blank".

- **CR**
  - Call Register
    Entries: 1 to 2048.

- **CTWBACK_IN_WCS**
  - Backwards Code Group pointer tables in Windowed Call Store
    Entries: “Blank”, Y, or N.

- **DOMGATE**
  - Domestic Gateway
    Entries: Y or N.

- **DOMTERM**
  - Domestic CCIS Terminals
    Entries: 0 to 256 by 2.

- **DSDCACP**
  - DSDC Action Control Point
    Entries: N, 1STP, 2STP, DCIS, or TCAP.

- **DSDNCAT**
  - DSD Signaling Type for Non-Call Associated TSC
    Entries: N or TCAP.

Continued on next page

ODA 406C Miscellaneous, Continued

Form Entries (cont'd.)

- **DSIGFNUM**
  - Direct Signaling Function Number
    Entries: 0 to 32767.

- **DSTSTP**
  - Direct Signaling Network Function Number Test
    Entries: N, 1STP, 2STP, or DCIS.

- **DXL**
  - Disk Only Translation Area
    Entries: 3 to 280.

- **EIARB**
  - Extended Interval Accumulating Register Blocks
    Entries: 0 to 511.

- **FAINCT**
  - Not Applicable
    Entries: "Blank".

- **FEATGRP**
  - Feature Group
    Entries: WZ1.

- **GETSRCVL**
  - Not Applicable
    Entries: "Blank".

- **HTRCB**
  - Hard To Reach Counter Block
    Entries: 2 to 8.

- **LICSTP**
  - Link Integrity Check
    Entries: N, 1STP, 2STP, or DCIS.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

ODA 406C Miscellaneous, Continued

Form Entries (cont'd.)

- **MAX5ECOS**
  - Not Applicable
    Entries: "Blank".

- **MAX5RTNR**
  - Not Applicable
    Entries: "Blank".

- **MAXAREA**
  - Not Applicable
    Entries: "Blank".

- **MAXAROUT**
  - Not Applicable
    Entries: "Blank".

- **MAXCAREA**
  - Not Applicable
    Entries: "Blank".

- **MAXDAREA**
  - Not Applicable
    Entries: "Blank".

- **MAXERPI**
  - Not Applicable
    Entries: "Blank".

- **MAXIAREA**
  - Not Applicable
    Entries: "Blank".

- **MAXICERPI**
  - Not Applicable
    Entries: "Blank".

Continued on next page

ODA 406C Miscellaneous, Continued

Form Entries (cont'd.)

- **MAXIDERPI**
  - Not Applicable
    Entries: "Blank".

- **MAXIIERPI**
  - Not Applicable
    Entries: "Blank".

- **MAXNMOROUT**
  - Not Applicable
    Entries: "Blank".

- **MAXOCERPI**
  - Not Applicable
    Entries: "Blank".

- **MAXODERPI**
  - Not Applicable
    Entries: "Blank".

- **MAXOIERPI**
  - Not Applicable
    Entries: "Blank".

- **MAXOROUT**
  - Not Applicable
    Entries: "Blank".

- **MC5HRB**
  - Measurement Class 5 Holding Register Block
    Entries: 1024 to 261120 by 1024 (<4E17).
    4096 to 524288 by 4096 (4E18>).

- **MRT**
  - Not Applicable
    Entries: "Blank".

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

ODA 406C Miscellaneous, Continued

Form Entries (cont'd.)

- **MRVT**
  - Message Routing Verification Test
    Entries: “Blank” or 8 to 15.

- **NCA800TT**
  - NCA-TSC Advanced 800 Translation Type
    Entries: “Blank” or 0 to 255.

- **NCAT**
  - Non-Call Associated Temporary Signaling Connection
    Entries: “Blank” or 1 to 128.

- **NCD**
  - Network Call Denial
    Entries: N or DCIS.

- **NCSDNTT**
  - NCA-TSC SDN Translation Type
    Entries: “Blank” or 0 to 255.

- **NDCSM**
  - Number of Duplex Call Store Modules (<4E18)
    Entries: 5 to 27.
    For 4E18, if NDCSM + NSCSM is less than 32,then NDCSM must be renumbered up to multiples of 4 (8,12,16,20, or 24).

- **NDCSMECS**
  - Number of Duplex Call Store Modules for ECS Memory (4E17-4E18)
    Entries: “Blank”, 0, 4, 8, 12.

- **NETWORK**
  - Network Identification
    Entries: “Blank” or 1 to 3 alphanumeric characters.

- **NNR**
  - Not Applicable
    Entries: "Blank".

Continued on next page

ODA 406C Miscellaneous, Continued

Form Entries (cont'd.)

- **NSCANSET**
  - NSC Announcement Set
    Entries: “Blank” or 0 to 7.

- **NSCSM**
  - Number of Simplex Call Store Modules (<4E18)
    Entries: 5 to 27.

- **NSCSMECS**
  - Number of Simplex Call Store Modules for ECS Memory (4E17-4E18)
    Entries: “Blank”, 0, 4, 8, 12.

- **NWCSMU**
  - Number of Memory Units for Extended Store (WCS) memory.
    Entries: “Blank”, 0-2 (4E21), “Blank”, 0-6 (4E22>).

- **OCTCP_IN_WCS**
  - Not Applicable
    Entries: "Blank".

- **OFFGNSC**
  - Office Go/No Go Screening Class
    Entries: 0 to 3.

- **OFFLATA**
  - Office LATA for Advanced Intelligent Network (4E18>)
    Entries: “Blank” or 0 to 999.

- **OFFMTSC**
  - Office Multiple Treatment Screening Class
    Entries: 0 to 63.

- **OFFNSN**
  - Not Applicable
    Entries: "Blank".

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

ODA 406C Miscellaneous, Continued

Form Entries (cont'd.)

- **OMR**
  - Output Message Register
    Entries: 350 to 500.

- **OPC**
  - Origination Point Code
    If PCF equals ANSI, then OPC is composed of:
    NET = 000 to 255.
    CLU = 000 to 255.
    MEM = 000 to 255.

- **PCF**
  - Point Code Format
    Entries: ANSI.

- **PLU_IN_WCS**
  - Not Applicable
    Entries: "Blank".

- **QOB**
  - Queuing on Busy
    Entries: “Blank” or 0 to 1023.

- **RCVHL**
  - Not Applicable
    Entries: "Blank".

- **RPI**
  - Not Applicable
    Entries: "Blank".

- **SATB**
  - Schedule Activity Table Blocks
    Entries: 0 to 255.

- **SDN**
  Software Defined Network
    Entries: N, 1STP, 2STP, DCIS, or TCAP.

Continued on next page

ODA 406C Miscellaneous, Continued

Form Entries (cont'd.)

- **SDNTT**
  - Software Defined Network Translation Type
    Entries: “Blank” or 0 to 255.

- **SDS**
  - Switched Digital Services
    Entries: N, 1STP, 2STP, DCIS, or TCAP.

- **SISETHER**
  - Not Applicable
    Entries: "Blank".

- **SISETHRR**
  - Not Applicable
    Entries: "Blank".

- **SSP**
  - Service Switching Point
    Entries: Y or N.

- **SVAST**
  - Service Assist
    Entries: “Blank” or 0 to 1023.

- **TBSHC**
  - Trunk Block Status and Headcell Area
    Entries: 1472 to 73728 (4E18/4E19).
    1504 to 77824 (4E20>).

- **TCRB**
  - Teleconferencing Call Record Blocks
    Entries: “Blank” or 0 to 64.

- **TDAS1A**
  - Traffic Data Acquisition System 1A
    Entries: Y or N.

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

ODA 406C Miscellaneous, Continued

Form Entries (cont'd.)

- **TSC**
  - Temporary Signaling Connection
    Entries: Y or N.

- **TVTSTP**
  - Televote Direct Signaling Message
    Entries: N, 1STP, 2STP, or DCIS.

ODA 406C Miscellaneous, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

ODA 406Z Miscellaneous

General

Form ESS 406Z defines a number of miscellaneous office data structures. The information on this form can be generally classified as parameter type information. Several of the items are closely related to Network Management and Automatic Message Accounting procedures. Responsible parties in each of these areas should be consulted when preparing this form.

In addition, this form is used to allocate memory space for various data collection purposes. The major reference for those items that allocate memory space is the Traffic Order. The 4ESS Switch Engineering/ Administration Tool (4ESEAT) Program is designed to assist in the preparation of this form. The 406Z field definitions, as well as the valid entries, are included in this program. All users should refer to this program when preparing the 406Z Forms. The 4ESEAT Program has been updated for Generic 4E23 and is available as of April, 1998.

4ESS Switch Engineering/Administration Tool (4ESEAT) is a stand-alone executable program that can be run on an MS-DOS operating system compatible Personal Computer.

4ESEAT allows users to order 4ESS growth hardware and 4E17 - 4E23 Software Right To Use (RTU) fees through a mechanized program that:

- Monitors users inputs for valid system configurations
- Stores and retrieves user retrofit and growth orders
- Allows user to generate their own configuration through edits
- Generates a Telephone Equipment Order (TEO) for input to the regional engineering center.

Continued on next page

ODA 406Z Miscellaneous, Continued

General (cont'd.)

The 4ESEAT Main Menu consists of the following features:

- Hardware Engineering
  - Traffic/Trunk Forecast
  - DIF Conversion
  - Growth, Vintage DIU Additions)
  - Equipment TEO Report
  - Capacity Report
  - DIF Conversion/Vintage Add Report
- Software/Memory Engineering
  - Memory Input
  - Memory Reports
  - 406C
  - 406Z
  - Software Inputs
  - Memory/Software TEO

Continued on next page

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

ODA 406Z Miscellaneous, Continued

406Z Form

```
ESS 406Z SHEET 1 OF 5 TG-4     MISCELLANEOUS OFFICE DATA
4E21R4>                                4ESS
                          4E21R4 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

FORM CODE _6Z_
          1  2

3BRECCAP  __,          CAD __          BFTIS     _____,       CAD __
3     10  14               80          3   7     14 16            80

AASE      _____,       CAD __          BFTNI     _____,       CAD __
3  6      14 17            80          3   7     14 16            80

ADDA      _____,       CAD __          BLKBXPS   __,          CAD __
3  6      14 17            80          3     9   14               80

ADEAMF    _____,       CAD __          CDSRT     _____,       CAD __
3    8    14 17            80          3   7     14 17            80

ADNISUP   _____,       CAD __          CIC_DA    _____,       CAD __
3     9   14 17            80          3    8    14 23            80

AINCFRTH  _____,       CAD __          C7NIDLY   _____,       CAD __
3     10  14 15            80          3     9   14 17            80

AINCGFHT  _____,       CAD __          DSDNSCATL _____,       CAD __
3     10  14 16            80          3      11 14 16            80

AINFHT    _____,       CAD __          DSDNSCBTL _____,       CAD __
3    8    14 16            80          3      11 14 16            80

AINRDFLT  __,          CAD __          DSDNSCTHR _____,       CAD __
3     10  14               80          3      11 14 16            80

AINRESP   _____,       CAD __          EADOM     _____,       CAD __
3     9   14 16            80          3   7     14 15            80

AINSSN    _____,       CAD __          EADOM56K  _____,       CAD __
3    8    14 16            80          3     10  14 15            80

AINTRIG   __,          CAD __          EADOM64K  __,          CAD __
3     9   14               80          3     10  14               80

ANNIDNCP  _____,       CAD __          EAR       __,          CAD __
3     10  14 18            80          3 5       14               80

ANNIDSDN  _____,       CAD __          EASATMFO  _____,       CAD __
3     10  14 18            80          3     10  14 18            80

ATPSCU    _____,       CAD __          EASATNOL  _____,       CAD __
3    8    14 15            80          3     10  14 18            80

ATPSCUH   _____,       CAD __          EASCRNOL  _____,       CAD __
3     9   14 15            80          3     10  14 18            80

BBFPFHT   _____,       CAD __          EASCRO    _____,       CAD __
3     9   14 16            80          3    8    14 18            80
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Continued on next page

ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 2 OF 5 TG-4     MISCELLANEOUS OFFICE DATA
4E21R4>                                 4ESS
                          4E21R4 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

EPAV_TIME _____,        CAD __          INTLSRLC  _____,        CAD __
3      11 14 18             80          3     10  14 16            80

FSFRT     _____,        CAD __          MFEADLY   _____,        CAD __
3   7     14 16                80       3     9   14 17            80

GETSAOF1  _____,        CAD __          MMTC      __,           CAD __
3     10  14 16                80       3  6      14               80

GETSAOF2  _____,        CAD __          NCDDPC    __,           CAD __
3     10  14 16                80       3    8    14               80

GETSAOF3  _____,        CAD __          NPARFHT   _____,        CAD __
3     10  14 16                80       3     9   14 16            80

GETSAOF4  _____,        CAD __          NSCSTCAA  _____,        CAD __
3     10  14 16                80       3     10  14 17            80

GETSAOF5  _____,        CAD __          NSCSTCAB  _____,        CAD __
3     10  14 16                80       3     10  14 17            80

GETSAON1  _____,        CAD __          OFCAG     __,           CAD __
3     10  14 16                80       3   7     14               80

GETSAON2  _____,        CAD __          PCP       __,           CAD __
3     10  14 16                80       3 5       14               80

GETSAON3  _____,        CAD __          PCP_NCP   _____,        CAD __
3     10  14 16                80       3     9   14 16            80

GETSAON4  _____,        CAD __          PCPPRMPT ON1 _____, OF1 _____,
3     10  14 16                80       3     10     14 16      18 20

GETSAON5  _____,        CAD __                    ON2 _____, OF2 _____,
3     10  14 16                80                    22 24      26 28

GETSDOF1  _____,        CAD __                    ON3 _____, OF3 _____,
3     10  14 16                80                    30 32      34 36

GETSDON1  _____,        CAD __                    ON4 _____, OF4 _____,
3     10  14 16                80                    38 40      42 44

GETSRQLT  _____,        CAD __                    ON5 _____,      CAD __
3     10  14 16                80                    46 48           80

GTT       __,           CAD __          PTSDURATN _____,        CAD __
3 5       14                   80       3      11 14 17            80

ICTFLUSH  __,           CAD __          PUSECLAN  __,           CAD __
3     10  14                   80       3     10  14               80
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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 3 OF 5 TG-4     MISCELLANEOUS OFFICE DATA
4E21R4>                                 4ESS
                          4E21R4 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

PUSECSAD  __,           CAD __          SCS_P800_ADT _____,     CAD __
3     10  14                80          3         14 16 19          80

PVM       __,           CAD __          SCSRSCUC  _____,        CAD __
3 5       14                80          3     10  14 15            80

RFFHT     _____,        CAD __          SCSSETS1  __,           CAD __
3   7     14 16             80          3     10  14              80

RHFHT     _____,        CAD __          SCSUST    _____,        CAD __
3   7     14 16             80          3    8    14 16           80

RMAPSTC   __,           CAD __          SCS_ERAN  _____,        CAD __
3     9   14                80          3     10  14 18           80

RQOLT     _____,        CAD __          SCS_RPRM  _____,        CAD __
3   7     14 17             80          3     10  14 18           80

RTORT     _____,        CAD __          SCSVBL    _____,        CAD __
3   7     14 16             80          3    9    14 18           80

SB_NCD    _____,        CAD __          SCSVBT    _____,        CAD __
3    8    14 16             80          3    9    14 18           80

SCFHT     _____,        CAD __          SDNNPARP  __,           CAD __
3   7     14 16             80          3     10  14              80

SCSDIGS DIG1  _____, DIG2  _____,       SES       _____,        CAD __
3     9       14 18        19 23        3 5       14 16           80

        DIG3  _____, DIG4  _____,       SESDEGR   __,           CAD __
              24 28        29 33        3     9   14              80

        DIG5  _____, DIG6  _____,       SESDSD    __,           CAD __
              34 38        39 43        3    8    14              80

        DIG7  _____, DIG8  _____,       SESINTL   __,           CAD __
              44 48        49 53        3     9   14              80

        DIG9  _____, DIG10 _____,       SESINTL25 __,           CAD __
              54 58        59 63        3      11 14              80

        DIG11 _____, DIG12 _____,       SESINTLEA __,           CAD __
              64 68        69 73        3      11 14              80

        DIGS  _____,    CAD __          SESINTLIT __,           CAD __
              74 78         80          3      11 14              80

SCS_PAY800 _____,       CAD __          SESINWATS __,           CAD __
3       12 14 18            80          3      11 14              80

SCS_PAY800_ADT _____,   CAD __          SESNPOTS  __,           CAD __
3           14 16 19        80          3     10  14              80
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ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 4 OF 5 TG-4     MISCELLANEOUS OFFICE DATA
4E21R4>                                 4ESS
                              4E21R4 AND LATER GENERIC PROGRAMS

                              ESS UNIT _____________________________

SESNPOTS  __,          CAD __          SSNVPATM  _____,       CAD __
3     10  14               80          3     10  14 18            80

SESPOTS   __,          CAD __          SSP4DCID  __,          CAD __
3     9   14               80          3     10  14               80

SESSDND   __,          CAD __          T_ADJ     _____,       CAD __
3     9   14               80          3   7     14 17            80

SESSDNI   __,          CAD __          TBCDS     _____,       CAD __
3     9   14               80          3   7     14 17            80

SSNACMTM  _____,       CAD __          TBMUF     __,          CAD __
3     10  14 18             80          3   7     14               80

SSNAGEUT  _____,       CAD __          TBSAB     __,          CAD __
3     10  14 18             80          3   7     14               80

SSNCOTTM  _____,       CAD __          TCANIFP   __,          CAD __
3     10  14 18             80          3     9   14               80

SSNHBCTM  _____,       CAD __          TEXAD     _____,       CAD __
3     10  14 18             80          3   7     14 16            80

SSNMHRVT  _____,       CAD __          UUDACT    __,          CAD __
3     10  14 19             80          3    8    14               80

SSNMININ  _____,       CAD __          VDESEP    __,          CAD __
3     10  14 16             80          3    8    14               80

SSNMXAGE  _____,       CAD __          WFATAMA   __,          CAD __
3     10  14 16             80          3     9   14               80

SSNMXHOP  _____,       CAD __          WFATCTP   _____,       CAD __
3     10  14 16             80          3     9   14 17            80

SSNMXINV  _____,       CAD __          WFATDIFHT _____,       CAD __
3     10  14 20             80          3      11 14 16            80

SSNRLCTM  _____,       CAD __          WFATDOM   _____,       CAD __
3     10  14 18             80          3     9   14 16            80

SSNTABT   _____,       CAD __          WFATINOR  _____,       CAD __
3     9   14 19             80          3     10  14 16            80

SSNTHROT  _____,       CAD __          WFATRNA   _____,       CAD __
3     10  14 16             80          3     9   14 16            80

SSNUPDIN  _____,       CAD __
3     10  14 18             80
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ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 5 OF 5 TG-4     MISCELLANEOUS OFFICE DATA
4E21R4>                                 4ESS
                          4E21R4 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

WFATSDI   _____,         CAD __
3     9   14 16              80

WFATSSFHT _____,         CAD __
3      11 14 16              80

WFATSSP   _____,         CAD __
3     9   14 16              80

WFATTERM  _____,         CAD __
3     10  14 16              80

WFATTRAN  _____,         CAD __
3     10  14 16              80

REMARKS ____________________________________________________ PAGE ____ OF ____
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ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 1 OF 5 TG-4     MISCELLANEOUS OFFICE DATA
4E24R1>                                4 ESS
                          4E24R1 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________
FORM CODE _6Z_
          1  2

3BRECCAP  __,          CAD __          BFTNI     _____,       CAD __
3     10  14               80          3   7     14 16            80

AASE      __,          CAD __          BLKBXPS   __,          CAD __
3  6      14             80            3     9   14               80

ADDA      _____,       CAD __          CDSRT     _____,       CAD __
3  6      14 17          80            3   7     14 17            80

ADEAMF    _____,       CAD __          CIC_DA    _____,       CAD __
3    8    14 17          80            3    8    14 23            80

ADNISUP   _____,       CAD __          C7NIDLY   _____,       CAD __
3     9   14 17          80            3     9   14 17            80

AINCFRTH  _____,       CAD __          DSDNSCATL _____,       CAD __
3     10  14 15          80            3      11 14 16            80

AINCGFHT  _____,       CAD __          DSDNSCBTL _____,       CAD __
3     10  14 16          80            3      11 14 16            80

AINFHT    _____,       CAD __          DSDNSCTHR _____,       CAD __
3    8    14 16          80            3      11 14 16            80

AINRDFLT  __,          CAD __          EADOM     _____,       CAD __
3     10  14             80            3   7     14 15            80

AINRESP   _____,       CAD __          EAR       __,          CAD __
3     9   14 16          80            3 5       14               80

AINSSN    _____,       CAD __          EASATMFO  _____,       CAD __
3    8    14 16          80            3     10  14 18            80

AINTRIG   __,          CAD __          EASATNOL  _____,       CAD __
3     9   14             80            3     10  14 18            80

ANNIDNCP  ______,      CAD __          EASCRNOL  _____,       CAD __
3     10  14  18         80            3     10  14 18            80

ANNIDSDN  ______,      CAD __          EASCRO    _____,       CAD __
3     10  14  18         80            3    8    14 18            80

ATPSCU    _____,       CAD __          EPAV_TIME _____,       CAD __
3    8    14 15          80            3      11 14 18            80

BBFPFHT   _____,       CAD __          FSFRT     _____,       CAD __
3     9   14 16          80            3   7     14 18            80

BFTIS     _____,       CAD __
3   7     14 16          80
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LUCENT TECHNOLOGIES PROPRIETARY
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ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 2 OF 5 TG-4     MISCELLANEOUS OFFICE DATA
4E24R1>                                4 ESS
                          4E24R1 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

GETSAOF1  _____,        CAD __          MMTC      __,           CAD __
3     10  14 16            80          3  6      14               80

GETSAOF2  _____,        CAD __          NCDDPC    __,           CAD __
3     10  14 16            80          3    8    14               80

GETSAOF3  _____,        CAD __          NPARFHT   _____,        CAD __

3     10  14 16            80          3     9   14 16            80

GETSAOF4  _____,        CAD __          NSCSTCAA  _____,        CAD __
3     10  14 16            80          3     10  14 17            80

GETSAOF5  _____,        CAD __          NSCSTCAB  _____,        CAD __
3     10  14 16            80          3     10  14 17            80

GETSAON1  _____,        CAD __          OFCAG     __,           CAD __
3     10  14 16            80          3   7     14               80

GETSAON2  _____,        CAD __          PCP       __,           CAD __
3     10  14 16            80          3 5       14               80

GETSAON3  _____,        CAD __          PCP_NCP   _____,        CAD __

3     10  14 16            80          3     9   14 16            80

GETSAON4  _____,        CAD __          PCPPRMPT ON1 _____, OF1 _____,
3     10  14 16            80          3     10     14 16      18 20

GETSAON5  _____,        CAD __                   ON2 _____, OF2 _____,
3     10  14 16            80                       22 24      26 28

GETSDOF1  _____,        CAD __                   ON3 _____, OF3 _____,
3     10  14 16            80                       30 32      34 36

GETSDON1  _____,        CAD __                   ON4 _____, OF4 _____,
3     10  14 16            80                       38 40      42 44

GETSRQLT  _____,        CAD __                   ON5 _____,      CAD __
3     10  14 16            80                       46 48           80

GTT       __,           CAD __          PTSDURATN _____,        CAD __
3 5       14               80          3      11 14 17            80

ICTFLUSH  __,           CAD __          PUSECLAN  __,           CAD __
3     10  14               80          3     10  14               80

INTLSRLC  _____,        CAD __          PUSECSAD  __,           CAD __
3     10  14 16            80          3     10  14               80

MFEADLY   _____,        CAD __
3     9   14 17            80
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Continued on next page

ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 3 OF 5 TG-4     MISCELLANEOUS OFFICE DATA
4E24R1>                                  4 ESS
                          4E24R1 AND LATER GENERIC PROGRAMS

                              ESS UNIT _____________________________

PVM       __,           CAD __          SCSSETS1  __,          CAD __
3 5       14                80          3     10  14               80

RFFHT     _____,        CAD __          SCSUST    _____,       CAD __
3   7     14 16             80          3    8    14 16            80

RHFHT     _____,        CAD __          SCS_ERAN  _____,       CAD __
3   7     14 16             80          3     10  14 18            80

RMAPSTC   __,           CAD __          SCS_RPRM  _____,       CAD __
3     9   14                80          3     10  14 18            80

RQOLT     _____,        CAD __          SCSVBL    _____,       CAD __
3   7     14 17             80          3    9    14 18            80

RTORT     _____,        CAD __          SCSVBT    _____,       CAD __
3   7     14 17             80          3    9    14 18            80

SB_NCD    _____,        CAD __          SDNNPARP  __,          CAD __
3    8    14 16             80          3     10  14               80

SCFHT     _____,        CAD __          SES       _____,       CAD __
3   7     14 16             80          3 5       14 16            80

SCSDIGS DIG1  _____, DIG2  _____,       SESDEGR   __,          CAD __
3     9       14  18       19 23        3     9   14               80

        DIG3  _____  DIG4  _____        SESDSD    __,          CAD __
              24 28       29 33        3    8    14               80

        DIG5  _____, DIG6  _____,       SESINTL   __,          CAD __
              34 38       39 43        3     9   14               80

        DIG7  _____, DIG8  _____,       SESINTL2S __,          CAD __
              44 48       49 53        3      11 14               80

        DIG9  _____, DIG10 _____,       SESINTLEA __,          CAD __
              54 58       59 63        3      11 14               80

        DIG11 _____, DIG12 _____,       SESINTLIT __,          CAD __
              64 68       69 73        3      11 14               80

        DIGS  _____,    CAD __          SESINWATS __,          CAD __
              74 78         80          3      11 14               80

SCSRSCUC  _____,        CAD __          SESNPOTS  __,          CAD __
3     10  14 15             80          3     10  14               80
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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 4 OF 5 TG-4     MISCELLANEOUS OFFICE DATA
4E24R1>                                  4 ESS
                          4E24R1 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

SESPOTS   __,          CAD __          SSNVPATM  _____,       CAD __
3     9   14               80          3     10  14 18            80

SESSDND   __,          CAD __          SSP4DCID  __,          CAD __
3     9   14               80          3     10  14               80

SESSDNI   __,          CAD __          T_ADJ     _____,       CAD __
3     9   14               80          3   7     14 17            80

TBCDS     __,          CAD __          TBMUF     __,          CAD __
3   7     14               80          3   7     14               80

TBSAB     __,          CAD __          TCANIFP   __,          CAD __
3   7     14               80          3   9     14               80

TEXAD     _____,       CAD __          UUDACT    __,          CAD __
3   7     14 16            80          3    8    14               80

VDESEP    _____,       CAD __          WFATAMA    __,         CAD __
3    8    14 16            80          3     9    14              80

WFATCTP   _____,       CAD __          WFATDIFHT _____,       CAD __
3     9   14 17            80          3      11 14 16          80

WFATDOM   _____,       CAD __          WFATINOR  _____,       CAD __
3     9   14 16            80          3     10  14 16          80

WFATRNA   _____,       CAD __          WFATSDI   _____,       CAD __
3     9   14 16            80          3     9   14 16          80
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ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

```
ESS 406Z SHEET 5 OF 5 TG-4     MISCELLANEOUS OFFICE DATA
4E24R1>                                4 ESS
                         4E24R1 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

WFATSSFHT _____,        CAD __             WFATSSP   _____,        CAD __
3      11 14 16             80             3     9   14 16             80

WFATTERM  _____,        CAD __             WFATTRAN  _____,        CAD __
3     10  14 16             80             3     10  14 16             80


REMARKS ____________________________________________________ PAGE ____ OF ____
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LUCENT TECHNOLOGIES PROPRIETARY
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ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 1 OF 6 TG-4     MISCELLANEOUS OFFICE DATA
4E25R1>                                4 ESS
                          4E25R1 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________
FORM CODE _6Z_
          1  2

3BRECCAP  __,          CAD __      BFTIS     _____,        CAD __
3     10  14               80      3   7     14 16             80

AASE      __,          CAD __      BFTNI     _____,        CAD __
3  6      14               80      3   7     14 16             80

ADDA      _____,       CAD __      BLKBXPS   __,           CAD __
3  6      14 17            80      3     9   14                80

ADEAMF    _____,       CAD __      CDSRT     _____,        CAD __
3    8    14 17            80      3   7     14 17             80

ADNISUP   _____,       CAD __      CIC_DA    _____,        CAD __
3     9   14 17            80      3    8    14 23             80

AINCFRTH  _____,       CAD __      C7NIDLY   _____,        CAD __
3     10  14 15            80      3     9   14 17             80

AINCGFHT  _____,       CAD __      DEF_ERPI_DOM_IN  _____, CAD __
3     10  14 16            80      3            17  20 21     80

AINFHT    _____,       CAD __      DEF_ERPI_DOM_OUT _____, CAD __
3    8    14 16            80      3             18 20 21     80

AINRDFLT  __,          CAD __      DEF_ERPI_INT_IN  _____, CAD __
3     10  14               80      3            17  20 21     80

AINRESP   _____,       CAD __      DEF_ERPI_INT_OUT _____, CAD __
3     9   14 16            80      3             18 20 21     80

AINSSN    _____,       CAD __      DSDNSCATL _____,          CAD __
3    8    14 16            80      3      11 14 16           80

AINTRIG   __,          CAD __      DSDNSCBTL _____,          CAD __
3     9   14               80      3      11 14 16           80

ANNIDNCP  ______,      CAD __      DSDNSCTHR _____,          CAD __
3     10  14  18           80      3      11 14 16           80

ANNIDSDN  ______,      CAD __      EADOM     _____,          CAD __
3     10  14  18           80      3   7     14 15             80

ATPSCU    _____,       CAD __      EAR       __,             CAD __
3    8    14 15            80      3 5       14                80

BBFPFHT   _____,       CAD __      EASATMFO  _____,          CAD __
3     9   14 16            80      3     10  14 18             80
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ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 2 OF 6 TG-4     MISCELLANEOUS OFFICE DATA
4E25R1>                                 4 ESS
                          4E25R1 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

EASATNOL  _____,        CAD __              EPAV_TIME _____,        CAD __
3     10  14 18             80              3      11 14 18             80

EASCRNOL  _____,        CAD __              FSFRT     _____,        CAD __
3     10  14 18             80              3   7     14 18             80

EASCRO    _____,        CAD __
3    8    14 18             80
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LUCENT TECHNOLOGIES PROPRIETARY
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ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 3 OF 6 TG-4     MISCELLANEOUS OFFICE DATA
4E25R1>                                4 ESS
                          4E25R1 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

GETSAOF1  _____,        CAD __          MFEADLY   _____,        CAD __
3     10  14 16            80          3     9   14 17            80

GETSAOF2  _____,        CAD __          MMTC      __,            CAD __
3     10  14 16            80          3  6      14               80

GETSAOF3  _____,        CAD __          NCDDPC    __,            CAD __
3     10  14 16            80          3    8    14               80

GETSAOF4  _____,        CAD __          NPARFHT   _____,        CAD __
3     10  14 16            80          3     9   14 16            80

GETSAOF5  _____,        CAD __          NSCSTCAA  _____,        CAD __
3     10  14 16            80          3     10  14 17            80

GETSAON1  _____,        CAD __          NSCSTCAB  _____,        CAD __
3     10  14 16            80          3     10  14 17            80

GETSAON2  _____,        CAD __          OFCAG     __,            CAD __
3     10  14 16            80          3   7     14               80

GETSAON3  _____,        CAD __          PCP       __,            CAD __
3     10  14 16            80          3 5       14               80

GETSAON4  _____,        CAD __          PCP_NCP   _____,        CAD __
3     10  14 16            80          3     9   14 16            80

GETSAON5  _____,        CAD __          PCPPRMPT ON1 _____, OF1 _____,
3     10  14 16            80          3     10     14 16      18 20

GETSDOF1  _____,        CAD __                   ON2 _____, OF2 _____,
3     10  14 16            80                       22 24      26 28

GETSDON1  _____,        CAD __                   ON3 _____, OF3 _____,
3     10  14 16            80                       30 32      34 36

GETSRQLT  _____,        CAD __                   ON4 _____, OF4 _____,
3     10  14 16            80                       38 40      42 44

GTT       __,           CAD __                   ON5 _____,     CAD __
3 5       14               80                       46 48          80

ICTFLUSH  __,           CAD __          PTSDURATN _____,        CAD __
3     10  14               80          3      11 14 17            80

INTLSRLC  _____,        CAD __          PUSECLAN  __,           CAD __
3     10  14 16            80          3     10  14               80
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ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 4 OF 6 TG-4     MISCELLANEOUS OFFICE DATA
4E25R1>                                  4 ESS
                          4E25R1 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

PUSECSAD  __,          CAD __          SCSRSCUC  _____,       CAD __
3     10  14               80          3     10  14 15            80

PVM       __,          CAD __          SCSSETS1  __,          CAD __
3 5       14               80          3     10  14               80

RFFHT     _____,       CAD __          SCSUST    _____,       CAD __
3   7     14 16            80          3    8    14 16            80

RHFHT     _____,       CAD __          SCS_ERAN  _____,       CAD __
3   7     14 16            80          3     10  14 18            80

RMAPSTC   __,          CAD __          SCS_RPRM  _____,       CAD __
3     9   14               80          3     10  14 18            80

RQOLT     _____,       CAD __          SCSVBL    _____,       CAD __
3   7     14 17            80          3    9    14 18            80

RTORT     _____,       CAD __          SCSVBT    _____,       CAD __
3   7     14 17            80          3    9    14 18            80

SB_NCD    _____,       CAD __          SDNNPARP  __,          CAD __
3    8    14 16            80          3     10  14               80

SCFHT     _____,       CAD __          SES       _____,       CAD __
3   7     14 16            80          3 5       14 16            80

SCSDIGS DIG1  _____, DIG2  _____,      SESDEGR   __,          CAD __
3     9       14  18       19 23       3     9   14               80

        DIG3  _____, DIG4  _____,      SESDSD    __,          CAD __
              24 28        29 33       3    8    14               80

        DIG5  _____, DIG6  _____,      SESINTL   __,          CAD __
              34 38        39 43       3     9   14               80

        DIG7  _____, DIG8  _____,      SESINTL2S __,          CAD __
              44 48        49 53       3      11 14               80

        DIG9  _____, DIG10 _____,      SESINTLEA __,          CAD __
              54 58        59 63       3      11 14               80

        DIG11 _____, DIG12 _____,      SESINTLIT __,          CAD __
              64 68        69 73       3      11 14               80

        DIGS  _____,    CAD __         SESINWATS __,          CAD __
              74 78          80        3      11 14               80
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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 5 OF 6 TG-4     MISCELLANEOUS OFFICE DATA
4E25R1>                                4 ESS
                          4E25R1 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

SESNPOTS  __,          CAD __          SSNVPATM  _____,       CAD __
3     10  14               80          3     10  14 18            80

SESPOTS   __,          CAD __          SSP4DCID  __,          CAD __
3     9   14               80          3     10  14               80

SESSDND   __,          CAD __          T_ADJ     _____,       CAD __
3     9   14               80          3   7     14 17            80

SESSDNI   __,          CAD __          TBMUF     __,          CAD __
3     9   14               80          3   7     14               80

TBCDS     __,          CAD __          TCANIFP   __,          CAD __
3   7     14               80          3   9     14               80

TBSAB     __,          CAD __          UUDACT    __,          CAD __
3   7     14               80          3    8    14               80

TEXAD     _____,       CAD __          WFATAMA    __,         CAD __
3   7     14 16            80          3     9    14             80

VDESEP    _____,       CAD __          WFATDIFHT _____,       CAD __
3    8    14 16            80          3      11 14 16            80

WFATCTP   _____,       CAD __          WFATINOR  _____,       CAD __
3     9   14 17            80          3     10  14 16            80

WFATDOM   _____,       CAD __          WFATSDI   _____,       CAD __
3     9   14 16            80          3     9   14 16            80

WFATRNA   _____,       CAD __
3     9   14 16            80
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ODA 406Z Miscellaneous, Continued

406Z Form (cont'd.)

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ESS 406Z SHEET 6 OF 6 TG-4     MISCELLANEOUS OFFICE DATA
4E25R1>                                 4 ESS
                          4E25R1 AND LATER GENERIC PROGRAMS

                             ESS UNIT _____________________________

WFATSSFHT _____,         CAD __              WFATSSP   _____,         CAD __
3      11 14 16               80              3     9   14 16              80

WFATTERM  _____,         CAD __              WFATTRAN  _____,         CAD __
3     10  14 16               80              3     10  14 16              80


REMARKS ____________________________________________________ PAGE ____ OF ____
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LUCENT TECHNOLOGIES PROPRIETARY
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ODA 406Z Miscellaneous, Continued

Form Entries

- **FORM CODE**
  - This field is always preprinted with 6Z.

- **3BRECCAP**
  - 3B Recording Capacity Improvements
    Entries: Y or N.

- **AASE**
  - Announcement Administration System Equipment (4E18R3>)
    Entries: “Blank”, Y, or N.

- **ADDA**
  - Not Applicable
    Entries: “Blank”.

- **ADEAMF**
  - Not Applicable
    Entries: “Blank”.

- **ADNISUP**
  - Not Applicable
    Entries: “Blank”.

- **AINCFRTH**
  - AIN Call Forwarding Redirection Threshold (4E18>)
    Entries: “Blank” or 1 to 32.

- **AINCGFHT**
  - AIN Automatic Call Gap Final Handling Treatment (4E18>)
    Entries: “Blank”, AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

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ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **AINFHT**
  - AIN Final Handling Treatment (4E18>)
    Entries: ”Blank”, AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01 I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

- **AINRDFLT**
  - AIN Route Using Default (4E18>)
    Entries: “Blank”, Y, or N.

- **AINRESP**
  - AIN Response Timer (4E18>)
    Entries: “Blank” or 100 to 500 (centiseconds).

- **AINSSN**
  - Advanced Intelligent Network Subsystem Number
    Entries: “Blank”, 0-1, 4, 6-255.

- **AINTRIG**
  - AIN Serial Trigger Max (4E18>)
    Entries: “Blank” or 1 to 6.

- **ANNIDNCP**
  - Not Applicable
    Entries: “Blank”.

- **ANNIDSDN**
  - Not Applicable
    Entries: “Blank”.

- **ATPSCU**
  - Not Applicable
    Entries: “Blank”.

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **BBFPFHT**
  - Blue Box Fraud Prevention Final Handling Treatment
    Entries: “Blank”, AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

- **BFTIS**
  - Backward Failure Treatment all ISUP
    Entries: “Blank”, ANN, or REL.

- **BFTNI**
  - Backward Failure Treatment not all ISUP
    Entries: “Blank”, ANN, or REL.

- **BLKBXPS**
  - Black Box Fraud Prevention Switch
    Entries: Y or N.

- **CAD**
  - Change, Add, or Delete
    Entries: C, A, or D.

- **CDSRT**
  - Not Applicable
    Entries: “Blank”.

- **CIC_DA**
  - Not Applicable Entries: “Blank”.

- **C7NIDLY**
  - Not Applicable
    Entries: “Blank”.

- **DEF_ERPI_DOM_IN**
  - Not Applicable
    Entries: “Blank”.

Continued on next page

ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **DEF_ERPI_DOM_OUT**
  - Not Applicable
    Entries: “Blank”.

- **DEF_ERPI_INT_IN**
  - Not Applicable
    Entries: “Blank”.

- **DEF_ERPI_INT_IN**
  - Not Applicable
    Entries: “Blank”.

- **DSDNSCATL**
  - DSD NSC Above Threshold
    Entries: 0 to 127.

- **DSDNSCBTL**
  - DSD NSC Below Threshold
    Entries: 0 to 127.

- **DSDNSCTHR**
  - DSD NSC Threshold
    Entries: 0 to 1023.

- **EADOM**
  - Equal Access Domain
    Entries: “Blank” or 20 to 69.

- **EADOM56K**
  - 56K Equal Access Domain
    Entries: “Blank” or 20 to 69.

- **EADOM64K**
  - 64K Equal Access Domain
    Entries: “Blank” or 20 to 69.

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LUCENT TECHNOLOGIES PROPRIETARY
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ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **EAR**
  - Emergency Alternate Routing
    Entries: Y or N.

- **EASATMFO**
  - Equal Access Signaling Address Timer MF Overload
    Entries: “Blank” or 300 to 28500 (hundredths of a second).

- **EASATNOL**
  - Equal Access Signaling Address Timer No Overload
    Entries: “Blank” or 300 to 28500 (hundredths of a second).

- **EASCRNOL**
  - Equal Access Signaling CR Holding Time No Overload
    Entries: “Blank” or 300 to 28500 (hundredths of a second).

- **EASCRO**
  - Equal Access Signaling CR Holding Time Under Overload
    Entries: “Blank” or 300 to 28500 (hundredths of a second).

- **EPAV_TIME**
  - Not Applicable
    Entries: “Blank”.

- **FSFRT**
  - Not Applicable
    Entries: “Blank”.

- **GETSAOF1-5**
  - Not Applicable
    Entries: “Blank”.

- **GETSAON1-5**
  - Not Applicable
    Entries: “Blank”.

Continued on next page

ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **GETSDOF1**
  - Not Applicable
    Entries: “Blank”.
- **GETSDON1**
  - Not Applicable
    Entries: “Blank”.
- **GETSRQLT**
  - Not Applicable
    Entries: “Blank”.
- **GTT**
  - Not Applicable
    Entries: “Blank”.
- **ICTFLUSH**
  - Not Applicable
    Entries: “Blank”.
- **INTLSRLC**
  - International Release Guard Timer
    Entries: “Blank” or 0 to 255.
- **MFEADLY**
  - Not Applicable
    Entries: “Blank”.
- **MMTC**
  - Meet-Me Teleconferencing
    Entries: Y or N.
- **NCDDPC**
  - Network Call Denial Destination Point Code
    Entries: Y or N.

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LUCENT TECHNOLOGIES PROPRIETARY
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ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **NPARFHT**
  - NPA Reconstruction Final Handling Treatment
    Entries: ”Blank”, AR, BT, EA1, EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

- **NSCSTCAA**
  - NSCS Trunk Control Area A
    Entries: “Blank” or TCA1 to TCA9.

- **NSCSTCAB**
  - NSCS Trunk Control Area B
    Entries: “Blank” or TCA1 to TCA9.

- **OFCAG**
  - Not Applicable
    Entries: “Blank”.

- **PCP**
  - Not Applicable
    Entries: “Blank”.

- **PCP_NCP**
  - Not Applicable
    Entries: “Blank”.

- **PCPPRMPT**
  - Not Applicable
    Entries: “Blank”.

- **PTSDURATN**
  - PTS Signal Duration
    Entries: “Blank”, 0 and 700-1270 (in msec).

Continued on next page

ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **PUSECLAN**
  - Not Applicable
    Entries: “Blank”.

- **PUSECSAD**
  - Not Applicable
    Entries: “Blank”.

- **PVM**
  - Preassigned Value Message handling
    Entries: “Blank”, Y, or N.

- **RFFHT**
  - Not Applicable
    Entries: “Blank”.

- **RHFHT**
  - Not Applicable
    Entries: “Blank”.

- **RMAPSTC**
  - Remote Carrier Alarm Preserve Stable Call
    Entries: Y or N.

- **RQOLT**
  - Not Applicable
    Entries: “Blank”.

- **RTORT**
  - Real Time Overload Retry Treatment
    Entries: NONE, AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

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LUCENT TECHNOLOGIES PROPRIETARY
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ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **SB_NCD**
  - Not Applicable
    Entries: “Blank”.
- **SCFHT**
  - Not Applicable
    Entries: “Blank”.
- **SCSDIGS**
  - Not Applicable
    Entries: “Blank”.
- **SCS_PAY800**
  - Not Applicable
    Entries: “Blank”.
- **SCS_P800_ADT**
  - Not Applicable
    Entries: “Blank”.
- **SCSRSCUC**
  - Not Applicable
    Entries: “Blank”.
- **SCSSETS1**
  - Not Applicable
    Entries: “Blank”.
- **SCSUST**
  - SCS Update System Type(4E18>)
    Entries: “Blank”, ASM, and AAP.
- **SCS_ERAN**
  - Not Applicable
    Entries: “Blank”.

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ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **SCS_RPRM**
  - Not Applicable
    Entries: “Blank”.
- **SCSVBL**
  - Not Applicable
    Entries: “Blank”.
- **SCSVBT**
  - Not Applicable
    Entries: “Blank”.
- **SDNNPARP**
  - SDN NPA digit Reconstruction Prohibit
    Entries: Y or N.
- **SES**
  - Service Evaluation System Function
    Entries: OLD or NEW.
- **SESDEGR**
  - Not Applicable
    Entries: “Blank”.
- **SESDSD**
  - Not Applicable
    Entries: “Blank”.
- **SESINTL**
  - Not Applicable
    Entries: “Blank”.

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LUCENT TECHNOLOGIES PROPRIETARY
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ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **SESINTL2S**
  - Not Applicable Entries: “Blank”.
- **SESINTLEA**
  - Not Applicable Entries: “Blank”.
- **SESINTLIT**
  - Not Applicable Entries: “Blank”.
- **SESINWATS**
  - Not Applicable Entries: “Blank”.
- **SESNPOTS**
  - Not Applicable Entries: “Blank”.
- **SESPOTS**
  - Not Applicable Entries: “Blank”.
- **SESSDND**
  - Not Applicable Entries: “Blank”.
- **SESSDNI**
  - Not Applicable Entries: “Blank”.
- **SSNVPATM**
  - Not Applicable Entries: “Blank”.

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ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **SSP4DCID**
  - Service Switching Point 4 Digit Carrier Identification Code (4E18>)
    Entries: “Blank”, Y or N.

- **T_ADJ**
  - Not Applicable
    Entries: “Blank”.

- **TBCDS**
  - Not Applicable
    Entries: “Blank”.

- **TBMUF**
  - Not Applicable
    Entries: “Blank”.

- **TBSAB**
  - Not Applicable
    Entries: “Blank”.

- **TCANIFP**
  - Teleconferencing ANI Fraud Prevention
    Entries: Y or N.

- **TEXMD**
  - Timer for Exit Message Delay
    Entries: “Blank” or 10 to 120.

- **UUDACT**
  - Not Applicable
    Entries: “Blank”.

- **VDESEP**
  - Not Applicable
    Entries: “Blank”.

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LUCENT TECHNOLOGIES PROPRIETARY
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ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **WFATAMA**
  - Waiting For Answer Timing for AMA Recorded Calls
    Entries: Y or N.

- **WFATCTP**
  - Waiting For Answer Timeout value for Completion of Transmission Path
    Entries: “Blank” or 100 to 8191.

- **WFATDIFHT**
  - Waiting For Answer Timeout Final Handling Treatment for Domestic and International Calls
    Entries: “Blank”, AR, BT, EA1, EA2, EA3, EA4, EA5, EA6, EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, and WAT.

- **WFATDOM**
  - Waiting For Answer Timeout for Domestic Calls
    Entries: “Blank” or 1 to 127.

- **WFATINOR**
  - Waiting For Answer Timeout for International Originating Calls
    Entries: “Blank” or 1 to 127.

- **WFATRNA**
  - Not Applicable
    Entries: “Blank”.

- **WFATSDI**
  - Not Applicable
    Entries: “Blank”.

Continued on next page

ODA 406Z Miscellaneous, Continued

Form Entries (cont'd.)

- **WFATSSFHT**
  - Waiting For Answer Timeout Final Handling Treatment for SSP International and Access Tandem FGB Calls
    Entries: “Blank”, AR, BT, EA1, EA2, EA3, EA4, EA5, EA6, EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, and WAT.

- **WFATSSP**
  - Waiting For Answer Timeout for SSP
    Entries: “Blank” or 0 to 127.

- **WFATTERM**
  - Waiting For Answer Timeout for International Terminating Calls
    Entries: “Blank” or 1 to 127.

- **WFATTRAN**
  - Waiting For Answer Timeout for International Transit Calls
    Entries: “Blank” or 1 to 127.

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

TRANSLATION GUIDE

TG-4

DIVISION 7

RECENT CHANGE

RECENT CHANGE

INDEX

Section 1	Trunk Subgroup Characteristics
Section 2	Trunk Assignments
Section 3	Code Grouping
Section 4	Centralized Automatic Message Accounting Screening
Section 5	Routing Data Blocks
Section 6	Miscellaneous
Section 7	Unit Type
Section 8	Special
Section 10	Administrative

SECTION 1 - TRUNK SUBGROUP CHARACTERISTICS

SECTION	RC#	
1a	100	Establish a new two-way Trunk Subgroup
1b	101	Establish a new one-way incoming Trunk Subgroup
1c	102	Establish a new one-way outgoing Trunk Subgroup
1d	103	Establish a new voice frequency link Trunk Subgroup
1e	104	Add a traffic number block to an existing Trunk Subgroup
1f	105	Delete a traffic number block from an existing Trunk Subgroup
1g	106	Delete a Trunk Subgroup
1h	107	Change the characteristics of an existing two-way Trunk Subgroup
1i	108	Change the characteristics of an existing one-way incoming Trunk Subgroup
1j	109	Change the characteristics of an existing one-way outgoing Trunk Subgroup
1k	110	Change the Incoming Separation Class of an existing Trunk Subgroup
1l	111	Trunk Subgroup conversion (CCIS6/CCS7)
1m	112	Change the first traffic number of an existing TSG traffic number block
1n	113	TSG Carrier Identification Code list

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

RC:TSG;NEW;OPT(TWOWAY),- - -:

FORM # 100 ESTABLISH A NEW TWO-WAY TRUNK SUBGROUP

1. GENERAL

1.01 Form #100 establishes the translations for a new two-way Trunk Subgroup. This message is classed as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:TSG;NEW;OPT(TWOWAY),- - -:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACCDTA** - Entries: blank.

2.03 **ACCID** - Entries: blank.

2.04 **ACD** - Automatic Call Distributor
Entries: blank, Y, N, or T.

2.05 **ADIG** - 'A' Digit Reconstruction
Entries: blank, 0, or 2 to 9.

2.06 **ANCR** - Entries: blank.

2.07 **ANISID** - ANI/SID Request
Entries: blank, NONE, ANI, PANI, PSID, REQ, or SID.

2.08 **AOPC** - Alias Origination Point Code
Entries: blank or

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

2.09 **APS** - Accunet® Packet Service
Entries: blank, Y, or N.

2.10 **ATRIG** - AIN TSG Trigger (4E22>)
Entries: blank, Y, or N.

2.11 **BFTIS** - Backward Failure Treatment all ISUP
Entries: blank, ANN, or REL.

2.12 **BFTNI** - Backward Failure Treatment not all ISUP
Entries: blank, ANN, or REL.

2.13 **BN** - Billing Number
Entries: blank, 3, 4, or 10 digit number.

2.14 **BNPT** - Entries: blank.

2.15 **BRL** - Billing Record Length
Entries: blank, L, or S.

2.16 **CAREA** - Control Area
Entries: 0 to 9.

2.17 **CARSON** - Entries: blank.

2.18 **CBC** - Entries: blank.

2.19 **CBN** - Incoming Trunk Connecting Network Access Billing Number option (4E22R2>)
Entries: blank, N, or L.

2.20 **CBN DIGS** - Incoming Trunk Connecting Network access Billing Number (4E22R2>)
Entries: blank or 10 digit number.

2.21 **CBNPR** - Calling Party Number/Billing Number Default Presentation Restriction Indicator
Entries: blank, PA, or PR.

2.22 **CCIF** - Entries: blank.

2.23 **CCIS2WRE** - Common Channel Interoffice Signaling 2Wire
Entries: blank, Y, or N.

2.24 **CCTT** - Entries: blank.

2.25 **CHNEG** - Channel Negotiation
Entries: blank, Y, or N.

2.26 **CID** - Carrier ID(4E20>)
Entries: blank or 0000 to 9999.

2.27 **CMERGE** - Entries: blank.

2.28 **CODSC** - CPE Outgoing Disconnect (<4E20) or CPE Outgoing Disconnect/Reset SS7 TSG PCIS Bits (4E21>)
Entries: blank, Y, or N.

2.29 **CPOS** - Control Position
Entries: 0 to 9.

2.30 **CSCSET** - Entries: blank.

2.31 **CSN** - Entries: blank.

2.32 **D3DBN** - Entries: blank.

2.33 **DATA** - Data Service
Entries: blank, Y, or N.

2.34 **DATAF** - Entries: blank.

2.35 **DDD** - Entries: blank.

2.36 **DELAY** - Delay Interval
Entries: blank, 20, 80, 220, or 70, 140, 210, or 280.

2.37 **DNHR** - Dynamic Non-Hierarchical Routing
Entries: Y or N.

2.38 **DNP** - Dialed Number Preferred
Entries: blank, Y, or N.

2.39 **DOFP** - Disable Outgoing Fraud Prevention
Entries: Y or N.

2.40 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.41 **DPC** - Destination Point Code
If PCF equals ATT, then DPC is composed of:

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

If PCF equals ANSI, then DPC is composed of:

— NET = 000 to 255.
— CLU = 000 to 255.
— MEM = 000 to 255.

If PCF equals ISPC, then DPC is composed of:

— WGZ = 1 to 7.
— ANI = 000 to 255.
— SPID = 0 to 7.

2.42 **DPSTOP** - Dial Pulse Stop
Entries: blank, Y, or N.

2.43 **E1T1** - Entries: blank.

2.44 **EACC** - Entries: blank.

2.45 **EAS** - Equal Access Signaling
Entries: N, A, E, D, or R.

2.46 **EXSEQ** - Entries: blank.

2.47 **FAI** - Entries: blank.

2.48 **FAR4E** - Far End 4E
Entries: blank, Y, or N.

2.49 **FEAREA** - Entries: blank.

2.50 **FELATA** - Far End Local Access and Transport Area
Entries: blank or 000 to 999.

2.51 **FELN** - Entries: blank.

2.52 **FENCLASS** - Far End Network Class
Entries: blank, ACCESA, ACCESI, ACCESO, CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.53 **FENID** - Far End Network ID
Entries: blank or 1 to 6 alphanumeric characters.

2.54 **FENPA** - Far End Numbering Plan Area
Entries: 200 to 999 and, for international, 2 to 9 and 20 to 99.

2.55 **FEOFC** - Far End Office
Entries: blank or 000 to 999.

2.56 **FEPTY** - Entries: blank.

2.57 **FESC6** - Far End 6-Digit Screening
Entries: Y or N.

2.58 **FESWID** - Entries: blank.

2.59 **FLDSPR** - Entries: blank.

2.60 **FOLI** - Entries: blank.

2.61 **FOSPS** - Entries: blank.

2.62 **FVSR** - Entries: blank.

2.63 **GEOSEP** - Geographical Traffic Separation Class
Entries: 0 to 31.

2.64 **GLARE** - Glare Control
Entries: blank, A, E, O, N.

2.65 **GNSC** - Go/No Go Screening Class
Entries: 0 to 3.

2.66 **GSDN** - Entries: blank.

2.67 **GSDNPHSE** - Entries: blank.

2.68 **HUNT** - Entries: blank.

2.69 **HYBRD** - Entries: blank.

2.70 **IDDD** - Entries: blank.

2.71 **IFITR** - Entries: blank.

2.72 **INCID** - Number of Carrier ID digits to be received (4E18>)
Entries: blank, 3, 4, or B.

2.73 **INSEP** - Incoming Traffic Separation Class
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

2.74 **ISC** - Incoming Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMADG, DPIMMED, DTMFWK, DTS, INUP, ISUP, MFDDSD, MFOPWK, MFWINK, Q931, or TUP.

2.75 **IT** - Intertoll Treatment
Entries: blank, Y, or N.

2.76 **ITC** - Incoming Trunk Subgroup Class
Entries: blank or 0 to 3.

2.77 **ITCENC** - Information Transfer Capability (4E21>).
Entries: blank, Y, or N.

2.78 **ITELCO** - Entries: blank.

2.79 **IWZ1** - International World Zone 1
Entries: blank, Y, or N.

2.80 **IXC** - Entries: blank.

2.81 **LCVT** - Entries: blank.

2.82 **LNPIC** - A TSG field not used
Entries: blank.

2.83 **LRN** - Location Routing Number (4E22R2>)
Entries: blank or 10 digit number.

2.84 **LSST** - LATA/state Screening State (<4E21)
Entries: blank or two alphabetic characters.

2.85 **MEGC** - Entries: blank.

2.86 **MEM** - Trunk Hunt with Memory
Entries: blank, Y, or N.

2.87 **MFSPEED** - Multi-Frequency Speed
Entries: blank, 7, or 10.

2.88 **MTSC** - Multiple Treatment Screening Class
Entries: 0 to 63.

2.89 **MULAW** - A-law/Mu-law Encoding (4E18>)
Entries: blank, Y, or N.

2.90 **NEOTR** - Near Operational Test Responsibility
Entries: Y or N.

2.91 **NCAR.tsg** - Entries: blank.

2.92 **NPARINH** - Inhibit NPA Reconstruction
Entries: blank, Y, or N.

2.93 **OFITR** - Entries: blank.

2.94 **ONCID** - Number of Carrier ID digits to send (4E18>)
Entries: blank, 3, or 4.

2.95 **ORNU** - Order Number
Entries: 1 to 999999.

2.96 **OSC** - Outgoing Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMMED, DPWINK, DTMFWK, ICOPNOP, INUP, ISUP, MFDDSD, MFWINK, MIOPNOP, Q931, or TUP.

2.97 **OTMTN** - Operational Terminating Test Number
Entries: blank or 000 to 9999999.

2.98 **OTMTT** - Operational Terminating Test Type
Entries: N, ATMC, CTX2, CTX3, SXS, SYNC, or T103.

2.99 **OTSTN** - Operational Thru Switch Test Number
Entries: blank or 000 to 9999999.

2.100 **OTSTT** - Operational Thru Switch Test Type
Entries: N, ATMB, CTX2, CTX3, SXS, SYNC, or T103.

2.101 **OVLP** - Overlap Signaling
Entries: blank, Y, or N.

2.102 **OWAT** - Entries: blank.

2.103 **PBXAW** - PBX Answer Withheld
Entries: blank, Y, or N.

2.104 **PBXESGD** - PBX Expect Station Group Designation
Entries: blank, Y, or N.

2.105 **PBXNWW** - PBX No Wait for Wink
Entries: blank, Y, or N.

2.106 **PCF** - Point Code Format
Entries: blank, ATT, ANSI, or ISPC.

2.107 **PCPEACEL** - Entries: blank.

2.108 **PRIT** - Entries: blank.

2.109 **PSATP** - Prohibit Sending Access Transport Parameters
Entries: blank, Y, or N.

2.110 **PSBN** - Prohibit Sending Billing Number
Entries: blank, PNNA (4E18>), PALL (4E18>), or SALL (4E18>).

2.111 **PSCPN** - Prohibit Sending Calling Party Number
Entries: blank, Y, or N.

2.112 **PSES** - Prohibit Service Evaluation
Entries: blank, Y, or N.

2.113 **PSOLI** - Prohibit Sending Originating Line Identity
Entries: blank, Y, or N.

2.114 **PSTNG** - Entries: blank.

2.115 **PSUUI** - Prohibit Sending User-to-User Information
Entries: blank, Y, or N.

2.116 **QTFN** - Quantity of Traffic Numbers
Entries: 24 to 504 by 24s.

2.117 **REV** - Reverse Traffic Numbers
Entries: Y or N.

2.118 **REVAMP** - Entries: blank.

2.119 **RFA** - Ring Forward Allowed
Entries: Y or N.

2.120 **RFMP** - Ring Forward Miscellaneous Distributor Point
Entries: blank, Y, or N.

2.121 **S1** - Spare 1
Entries: blank or 0 to 7.

2.122 **S2-S10** - Spares 2 through 10
Entries: blank, Y, or N.

2.123 **S5DIG** - Entries: blank.

2.124 **SAT** - Satellite
Entries: Y or N.

2.125 **SBRIV** - Entries: blank.

2.126 **SCFN** - Send Confusion Message
Entries: blank, Y, or N.

2.127 **SDNA** - Entries: blank.

2.128 **SDNPLAN** - Entries: blank.

2.129 **SDS** - Entries: blank.

2.130 **SINDEX** - Access Charge Verification Sampling Rate Index
Entries: blank, 0, 1, 2, 4, 8, 16, 32, or 64.

2.131 **SKSP** - Entries: blank.

2.132 **SOIP** - Entries: blank.

2.133 **SPN** - Signal Ported Number (4E22R2>)
Entries: blank, Y, or N.

2.134 **STBI** - Entries: blank.

2.135 **SUPBLK** - Entries: blank.

2.136 **TCC** - Entries: blank.

2.137 **TFG** - Type of Feature Group
Entries: blank, B, C, or D.

2.138 **TOT** - Type of Trunk
Entries: ETC, INTL, INTLO, ITAND, ITOLL, ITOPA, LCC, NSDSD, OCC, PBX, SECIT, STC, TAND, or TOLLC.

2.139 **TRIDX** - Entries: blank.

2.140 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.141 **TSGBBC** - TSG BroadBand Capability
Entries: blank or 0 to 6.

2.142 **TTA** - Entries: blank.

2.143 **UT15DA** - Entries: blank.

2.144 **VDCAP** - Entries: blank.

2.145 **WANISID** - WATS Service ANI/SID Request
Entries: blank, NONE, ANI, PANI, PSID, REQ, or SID.

2.146 **WATSBN** - WATS Billing Number
Entries: blank or 10 digit number.

2.147 **WBNPT** - Entries: blank.

2.148 **XCPA** - Transceiver (XC) Pad Adjustment
Entries: blank or 0 to 3.

2.149 **XTMTN** - Transmission Terminating Test Number
Entries: blank or 000 to 9999999.

2.150 **XTMTT** - Transmission Terminating Test Type
Entries: N, T100, T102, or T105.

2.151 **XTSTN** - Transmission Thru Switch Test Number
Entries: blank or 000 to 9999999.

2.152 **XTSTT** - Transmission Thru Switch Test Type
Entries: N, ATMA, T100, T102, or T105.

TABLE A
VALID CHARACTERISTICS FOR TWO-WAY TRUNK SUBGROUPS

ISC — TYPE OF TRUNK (TOT)

SIGNALING TYPES	ETC	INTL	INTLO	ITAND	ITOLL	ITOPA	LCC	NSDSD	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC
CCITT5		X	X												
CCITT6		X	X												
DOMCCIS				X	X			X				X		X	X
DPDDSD				X	X					X		X	X	X	X
DPIMADG				X	X							X	X	X	X
DPIMMED				X	X					X		X	X	X	X
DTMFWK										X			X		
DTS										X			X		
INUP		X	X												
ISUP	X			X	X		X		X	X	X	X		X	X
MFDDSD				X	X					X		X		X	X
MFOPWK						X									
MFWINK	X			X	X		X		X	X		X		X	X
Q931										X					
TUP		X	X												

RING FORWARD ALLOWED

(RFA)	Y/N	INTL	INTLO	ITAND	ITOLL	ITOPA	LCC	NSDSD	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC
	Y	Y	Y	N	Y	Y	Y	N	Y	N	Y	Y	N	Y	N
	N						N		N		N			N	

TABLE A (CONTINUED)
VALID CHARACTERISTICS FOR TWO-WAY TRUNK SUBGROUPS

OSC TYPE OF TRUNK (TOT)

SIGNALING TYPES	ETC	INTL	INTLO	ITAND	ITOLL	ITOPA	LCC	NSDSD	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC
CCITT5		X	X												
CCITT6		X	X												
DOMCCIS				X	X			X				X		X	X
DPDDSD				X	X					X		X	X	X	X
DPIMMED				X	X					X		X	X	X	X
DPWINK				X	X					X		X	X	X	X
DTMFWK										X			X		
ICOPNOP						X				X			X		
INUP		X	X												
ISUP	X			X	X		X		X	X	X	X		X	X
MFDDSD				X	X		X			X		X		X	X
MFWINK	X			X	X		X		X	X		X		X	X
MIOPNOP										X			X		
Q931										X					
TUP		X	X												

```
# FORM 100          ADD A NEW TWO WAY TRUNK SUBGROUP
  4E18/4E19


RC:TSG;NEW;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,          TFG _, TSGBBC _, VDCAP ______, DATAF _,
QTFN ___,   TOT ______, SAT _,            DOM _____, ACD _,  IT _,
FENPA ___,  FEOFC ___, FELATA ___,        FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ___,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                    CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,         DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                      REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,   GSDNPHSE _,  EAS _,         NPARINH _,
WATSBN ___________, PSBN _____, PSCPN _,  ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____,   CMERGE _,    SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,       PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,    DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,      SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,
ONCID _, D3DBN _, MULAW _,
ANCR _,  ACCID __,  ACCDTA __,

CAREA _,    CPOS _,   SINDEX __,          CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,             OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,             XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401A

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 100           ADD A NEW TWO WAY TRUNK SUBGROUP
  4E20


RC:TSG;NEW;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,   TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _____, PSCPN _,   ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____,   CMERGE _,     SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _, S5DIG _,
ONCID _, D3DBN _, MULAW _,     CSCSET_____,   CID _____,
ANCR _,  ACCID __,  ACCDTA __, PSTNG _, FLDSPR _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 100          ADD A NEW TWO WAY TRUNK SUBGROUP
  4E20R2


RC:TSG;NEW;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,   TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _____, PSCPN _,   ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____,   CMERGE _,     SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _, S5DIG _,
ONCID _, D3DBN _, MULAW _,     CSCSET_____,   CID _____,
ANCR _,  ACCID ___,  ACCDTA __, PSTNG _, FLDSPR _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 100           ADD A NEW TWO WAY TRUNK SUBGROUP
  4E21


RC:TSG;NEW;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,   TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _____, PSCPN _,   ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____,   CMERGE _,     SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,   IFITR _,   PCPEACEL _,
ONCID _, D3DBN _,   MULAW _,   CSCSET_____,   CID _____, ITCENC _, OFITR _,
ANCR _,  ACCID ___,  PSTNG _,  FLDSPR _, REVAMP _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 100           ADD A NEW TWO WAY TRUNK SUBGROUP
  4E22


RC:TSG;NEW;OPT(TWOWAY),___:                                  BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,   TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                       CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,      DNP _,                        REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _____, PSCPN _,   ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____,   CMERGE _,     SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,   IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ONCID _, D3DBN _,   MULAW _,   CSCSET_____,   CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID ___,  PSTNG _,  FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _,
CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS _____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 100           ADD A NEW TWO WAY TRUNK SUBGROUP
  4E23R1


RC:TSG;NEW;OPT(TWOWAY),___:                                BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

QTFN ___,    TOT ______, SAT _,            DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,   FEOFC ___, FELATA ___,        FESC6 _,  IWZ1 _,
MEM _,       PSES _,     INSEP ___,        MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,     ADIG _,                      CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,    DPSTOP _,         DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _____, PSCPN _,   ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____,    CMERGE _,    SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,   IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ONCID _, D3DBN _,   MULAW _,   CSCSET_____,   CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID ___,  PSTNG _,  FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FOLI _, FELN _, HUNT __, CSN __,
CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 100   ADD A NEW TWO WAY TRUNK SUBGROUP
  4E24

RC:TSG;NEW;OPT(TWOWAY),---:                              BTFN TOWN ST BL FBS NBS

ORNU ------,                                          TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                           DPC ---------,

FENCLASS ------, FENID ------,           TFG -, TSGBBC -, VDCAP -----, DATAF -,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,

QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,  IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                      CCIS2WRE -, CBNPR ---,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --, DNHR -,
XCPA -,      DNP -,                      REV -,       GLARE -,    PSOLI -,

BN ----------, BRL -,  ITC -,  GSDN -,   GSDNPHSE -,  EAS -,        NPARINH -,
WATSBN ----------, PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -, CHNEG -, PSATP -, PBXESGD -,      PBXAW -, FAR4E -, DOFP -, SBRIV -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -, CCIF -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -, CCTT -,
INCID -, ITELCO -,  S5DIG -,  SDS -,  FVSR -,   IFITR -, PCPEACEL -, UT15DA -,
LRN ----------, CBN DIGS ----------, CBN -,
ONCID -, D3DBN -,   MULAW -,   CSCSET ------, CID ----, ITCENC -, OFITR -,
SPN -, LNPIC -, NCAR -, TTA -,
ANCR -,  ACCID ---, PSTNG -,  FLDSPR -,  REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
IXC -, FOLI -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -, S6 -, S7 -, S8 -, S9 -, S10 -,


REMARKS ------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 100   ADD A NEW TWO WAY TRUNK SUBGROUP
  4E25

RC:TSG;NEW;OPT(TWOWAY),---:                              BTFN TOWN ST BL FBS NBS

ORNU ------,                                        TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                         DPC ---------,

FENCLASS ------, FENID ------,           TFG -, TSGBBC -, VDCAP -----, DATAF -,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,

QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,  IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                       CCIS2WRE -, CBNPR ---,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --, DNHR -,
XCPA -,      DNP -,                      REV -,       GLARE -,    PSOLI -,

BN ----------, BRL -,  ITC -,  GSDN -,   GSDNPHSE -,  EAS -,        NPARINH -,
WATSBN ----------, PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -, CHNEG -, PSATP -, PBXESGD -,      PBXAW -, FAR4E -, DOFP -, SBRIV -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -, CCIF -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -, CCTT -,
INCID -, ITELCO -,  S5DIG -,  SDS -,  FVSR -,   IFITR -, PCPEACEL -, UT15DA -,
LRN ----------, CBN DIGS ----------, CBN -,
ONCID -, D3DBN -,   MULAW -,   CSCSET ------, CID ----, ITCENC -, OFITR -,
SPN -, LNPIC -, NCAR -, TTA -, BNI -, EACC --, LCVT -,
ANCR -,  ACCID ---, PSTNG -,  FLDSPR -,  REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
IXC -, FOLI -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -, S6 -, S7 -, S8 -, S9 -, S10 -,


REMARKS ------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

RC:TSG;NEW;OPT(IN1WAY),- - -:

FORM # 101 ESTABLISH A NEW ONE-WAY INCOMING TRUNK SUBGROUP

1. GENERAL

1.01 Form #101 establishes the translations for a new one-way incoming Trunk Subgroup. This message is classed as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:TSG;NEW;OPT(IN1WAY),- - -:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACCDTA** - Entries: blank.

2.03 **ACCID** - Entries: blank.

2.04 **ADIG** - 'A' Digit Reconstruction
Entries: blank, 0, or 2 to 9.

2.05 **ANCR** - Entries: blank.

2.06 **AOPC** - Alias Origination Point Code
Entries: blank or

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

2.07 **APS** - Accunet® Packet Service
Entries: blank, Y, or N.

2.08 **ATRIG** - AIN TSG Trigger (4E22>)
Entries: blank, Y, or N.

2.09 **BFTIS** - Backward Failure Treatment all ISUP
Entries: blank, ANN, or REL.

2.10 **BFTNI** - Backward Failure Treatment not all ISUP
Entries: blank, ANN, or REL.

2.11 **BN** - Billing Number
Entries: blank, 3, 4, or 10 digit number.

2.12 **BNPT** - Entries: blank.

2.13 **BRL** - Billing Record Length
Entries: blank, L, or S.

2.14 **CAREA** - Control Area
Entries: 0 to 9.

2.15 **CARSON** - Entries: blank.

2.16 **CBC** - Entries: blank.

2.17 **CBN** - Incoming Trunk Connecting Network Access Billing Number option (4E22R2>)
Entries: blank, N, or L.

2.18 **CBN DIGS** - Incoming Trunk Connecting Network access Billing Number (4E22R2>)
Entries: blank or 10 digit number.

2.19 **CBNPR** - Calling Party Number/Billing Number Default Presentation Restriction Indicator
Entries: blank, PA, or PR.

2.20 **CCIS2WRE** - Common Channel Interoffice Signaling 2Wire
Entries: blank, Y, or N.

2.21 **CCTT** - Entries: blank.

2.22 **CID** - Carrier ID(4E23>)
Entries: blank or 0000 to 9999.

2.23 **CMERGE** - Entries: blank.

2.24 **CMTYP** - CAMA Type
Entries: blank, 1, or 2.

2.25 **CPOS** - Control Position
Entries: 0 to 9.

2.26 **CSN** - Entries: blank.

2.27 **DATA** - Data Service
Entries: blank, Y, or N.

2.28 **DDD** - Entries: blank.

2.29 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.30 **DPC** - Destination Point Code
If PCF equals ATT, then DPC is composed of:

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

If PCF equals ANSI, then DPC is composed of:

— NET = 000 to 255.
— CLU = 000 to 255.
— MEM = 000 to 255.

If PCF equals ISPC, then DPC is composed of:

— WGZ = 1 to 7.
— ANI = 000 to 255.
— SPID = 0 to 7.

2.31 **E1T1** - Entries: blank.

2.32 **EACC** - Entries: blank.

2.33 **EAS** - Equal Access Signaling
Entries: N, A, E, D, or R.

2.34 **FAI** - Entries: blank.

2.35 **FAR4E** - Far End 4E
Entries: blank, Y, or N.

2.36 **FELATA** - Far End Local Access and Transport Area
Entries: blank or 000 to 999.

2.37 **FELN** - Entries: blank.

2.38 **FENCLASS** - Far End Network Class
Entries: blank, ACCESA, ACCESI, ACCESO, CAMA, CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.39 **FENID** - Far End Network ID
Entries: blank or 1 to 6 alphanumeric characters.

2.40 **FENPA** - Far End Numbering Plan Area
Entries: 200 to 999 and, for international, 2 to 9 and 20 to 99.

2.41 **FEOFC** - Far End Office
Entries: blank or 000 to 999.

2.42 **FESC6** - Far End 6-Digit Screening
Entries: Y or N.

2.43 **FLDSPR** - Entries: blank.

2.44 **FOSPS** - Entries: blank.

2.45 **FVSR** - Entries: blank.

2.46 **GEOSEP** - Geographical Traffic Separation Class
Entries: 0 to 31.

2.47 **GNSC** - Go/No Go Screening Class
Entries: 0 to 3.

2.48 **GSDN** - Entries: blank.

2.49 **GSDNPHSE** - Entries: blank.

2.50 **HUNT** - Entries: blank.

2.51 **HYBRD** - Entries: blank.

2.52 **IDDD** - Entries: blank.

2.53 **IFITR** - Entries: blank.

2.54 **INCID** - Number of Carrier ID digits to be received (4E18>)

Entries: blank, 3, 4, or B.

2.55 **INSEP** - Incoming Traffic Separation Class
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

2.56 **ISC** - Incoming Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMADG, DPIMMED, DPIMPSW, DTMFWK, DTS, INUP, ISUP, MFDDSD, MFOPWK, MFWINK, Q931, TOLLMFD, TSPSMFD, TSPSMFW, or TUP.

2.57 **IT** - Intertoll Treatment
Entries: blank, Y, or N.

2.58 **ITC** - Incoming Trunk Subgroup Class
Entries: blank or 0 to 3.

2.59 **ITELCO** - Entries: blank.

2.60 **IWZ1** - International World Zone 1
Entries: blank, Y, or N.

2.61 **IXC** - Entries: blank.

2.62 **LCVT** - Entries: blank.

2.63 **LRN** - Location Routing Number (4E22R2>)
Entries: blank or 10 digit number.

2.64 **LSST** - LATA/state Screening State (<4E21)
Entries: blank or two alphabetic characters.

2.65 **MEGC** - Entries: blank.

2.66 **MEM** - Trunk Hunt with Memory
Entries: blank, Y, or N.

2.67 **MTSC** - Multiple Treatment Screening Class
Entries: 0 to 63.

2.68 **NCAR.tsg** - Entries: blank.

2.69 **NPARINH** - Inhibit NPA Reconstruction
Entries: blank, Y, or N.

2.70 **ORNU** - Order Number
Entries: 1 to 999999.

2.71 **OVLP** - Overlap Signaling
Entries: blank, Y, or N.

2.72 **OWAT** - Entries: blank.

2.73 **PBXAW** - PBX Answer Withheld
Entries: blank, Y, or N.

2.74 **PBXESGD** - PBX Expect Station Group Designation
Entries: blank, Y, or N.

2.75 **PBXNWW** - PBX No Wait for Wink
Entries: blank, Y, or N.

2.76 **PCF** - Point Code Format
Entries: blank, ATT, ANSI, or ISPC.

2.77 **PCPEACEL** - Entries: blank.

2.78 **PRIT** - Entries: blank.

2.79 **PSATP** - Prohibit Sending Access Transport Parameters
Entries: blank, Y, or N.

2.80 **PSES** - Prohibit Service Evaluation
Entries: blank, Y, or N.

2.81 **PSTNG** - Entries: blank.

2.82 **PSUUI** - Prohibit Sending User-to-User Information
Entries: blank, Y, or N.

2.83 **QTFN** - Quantity of Traffic Numbers
Entries: 24 to 504 by 24s.

2.84 **REVAMP** - Entries: blank.

2.85 **RFA** - Ring Forward Allowed
Entries: Y or N.

2.86 **S1** - Spare 1
Entries: blank or 0 to 7.

2.87 **S2-S10** - Spares 2 through 10
Entries: blank, Y, or N.

2.88 **S5DIG** - Entries: blank.

2.89 **SAT** - Satellite
Entries: Y or N.

2.90 **SCFN** - Send Confusion Message
Entries: blank, Y, or N.

2.91 **SDNA** - Entries: blank.

2.92 **SDNPLAN** - Entries: blank.

2.93 **SDS** - Entries: blank.

2.94 **SINDEX** - Access Charge Verification Sampling Rate Index
Entries: blank, 0, 1, 2, 4, 8, 16, 32, or 64.

2.95 **SKSP** - Entries: blank.

2.96 **SOIP** - Entries: blank.

2.97 **STBI** - Entries: blank.

2.98 **SUPBLK** - Entries: blank.

2.99 **TCC** - Entries: blank.

2.100 **TFG** - Type of Feature Group
Entries: blank, B, C, or D.

2.101 **TOT** - Type of Trunk
Entries: CAMAA, CAMAO, ETC, INTL, INTLO, ITAND, ITOLL, ITOP, ITOPB, LCC, MISC, OCC, PBX, SECIT, STC, TAND, TOLLC, or TSPS.

2.102 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.103 **TSGBBC** - TSG BroadBand Capability
Entries: blank or 0 to 6.

2.104 **TTA** - Entries: blank.

2.105 **UT15DA** - Entries: blank.

2.106 **WATSBN** - WATS Billing Number
Entries: blank or 10 digit number.

2.107 **WBNPT** - Entries: blank.

TABLE A
VALID CHARACTERISTICS FOR ONE-WAY INCOMING TRUNK SUBGROUPS

ISC — TYPE OF TRUNK (TOT)

SIGNALING TYPES	CAMAA	CAMAO	ETC	INTL	INTLO	ITAND	ITOLL	ITOP	ITOPB	LCC	MISC	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC	TSPS
CCITT5				X	X														
CCITT6				X	X														
DOMCCIS						X	X								X		X	X	
DPDDSD	X	X				X	X				X		X		X	X	X	X	
DPIMADG	X	X				X	X				X					X	X	X	
DPIMMED	X	X				X	X				X		X		X	X	X	X	
DPIMPSW	X	X																	
DTMFWK													X			X			
DTS													X			X			
INUP				X	X														
ISUP			X			X	X			X		X	X	X	X		X	X	
MFDDSD	X	X				X	X				X		X		X		X	X	
MFOPWK								X	X										
MFWINK	X	X	X			X	X			X	X	X	X		X		X	X	
Q931													X						
TOLLMFD											X				X			X	X
TSPSMFD															X				X
TSPSMFW															X				X
TUP				X	X														

RING FORWARD ALLOWED

(RFA)	N	N	Y/N	Y	Y	N	Y	Y	Y	Y/N	Y/N	Y/N	N	Y/N	Y	N	Y/N	N	Y

```
# FORM 101           ADD A NEW ONE WAY INCOMING TRUNK SUBGROUP
  4E18/4E19


RC:TSG;NEW;OPT(IN1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

QTFN ___,   TOT ______, SAT _,             DOM _____,         IT _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                       CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                  PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _,          PSATP _, PBXESGD _,        PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,
ANCR _,  ACCID __,  ACCDTA __,

CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401B

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 101           ADD A NEW ONE WAY INCOMING TRUNK SUBGROUP
  4E20


RC:TSG;NEW;OPT(IN1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

QTFN ___,   TOT ______, SAT _,             DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ____,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                 PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _,          PSATP _, PBXESGD _,        PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _, S5DIG _,
ANCR _,  ACCID __,  ACCDTA __, PSTNG _, FLDSPR _,

CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 101           ADD A NEW ONE WAY INCOMING TRUNK SUBGROUP
  4E20R2


RC:TSG;NEW;OPT(IN1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

QTFN ___,   TOT ______, SAT _,             DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ____,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                       CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                 PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _,          PSATP _, PBXESGD _,        PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _, S5DIG _,
ANCR _,  ACCID ___,  ACCDTA __, PSTNG _, FLDSPR _,

CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 101           ADD A NEW ONE WAY INCOMING TRUNK SUBGROUP
  4E21


RC:TSG;NEW;OPT(IN1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

QTFN ___,   TOT ______, SAT _,             DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ____,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                  PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _,          PSATP _, PBXESGD _,        PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,   IFITR _,   PCPEACEL _,
ANCR _,  ACCID ___,  PSTNG _,  FLDSPR _, REVAMP _,

CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS _____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 101           ADD A NEW ONE WAY INCOMING TRUNK SUBGROUP
  4E22


RC:TSG;NEW;OPT(IN1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

QTFN ___,   TOT ______, SAT _,             DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                          CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,   GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                   PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _,          PSATP _, PBXESGD _,        PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,   IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ANCR _,  ACCID ___,  PSTNG _,  FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _,
CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 101           ADD A NEW ONE WAY INCOMING TRUNK SUBGROUP
  4E23R1


RC:TSG;NEW;OPT(IN1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

QTFN ___,   TOT ______, SAT _,             DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                          CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,   GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                    PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _,          PSATP _, PBXESGD _,        PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5DIG _,  SDS _,  FVSR _,   IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
CID _____,
ANCR _,  ACCID ___,  PSTNG _,  FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FELN _, HUNT __, CSN __,
CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 101   ADD A NEW ONE WAY INCOMING TRUNK SUBGROUP
  4E24

RC:TSG;NEW;OPT(IN1WAY),---:                              BTFN TOWN ST BL FBS NBS

ORNU ------,                                        TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                         DPC ---------,

FENCLASS ------, FENID ------,           TFG -,    TSGBBC -,

QTFN ---,   TOT -----, SAT -,            DOM ----,         IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                      CCIS2WRE -, CBNPR ---,

BN ----------, BRL -,  ITC -,  GSDN -,   GSDNPHSE -, EAS -, CMTYP -, NPARINH -,
WATSBN ----------,                                                   PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -,          PSATP -, PBXESGD -,      PBXAW -, FAR4E -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -, CCTT -,
INCID -, ITELCO -,  S5DIG -,  SDS -,  FVSR -,   IFITR -, PCPEACEL -, UT15DA -,
LRN ----------, CBN DIGS ----------, CBN -,
CID ----, NCAR -, TTA -,
ANCR -,  ACCID ---, PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
IXC -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

CAREA -,    CPOS -,   SINDEX --,

S1 -, S2 -, S3 -, S4 -, S5 -, S6 -, S7 -, S8 -, S9 -, S10 -,


REMARKS ------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 101   ADD A NEW ONE WAY INCOMING TRUNK SUBGROUP
  4E25

RC:TSG;NEW;OPT(IN1WAY),---:                              BTFN TOWN ST BL FBS NBS

ORNU ------,                                          TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                           DPC ---------,

FENCLASS ------, FENID ------,           TFG -,    TSGBBC -,

QTFN ---,   TOT -----, SAT -,            DOM ----,         IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                        CCIS2WRE -, CBNPR ---,

BN ----------, BRL -,  ITC -,  GSDN -,   GSDNPHSE -, EAS -, CMTYP -, NPARINH -,
WATSBN ----------,                                                   PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -,          PSATP -, PBXESGD -,      PBXAW -, FAR4E -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -, CCTT -,
INCID -, ITELCO -,  S5DIG -,  SDS -,  FVSR -,   IFITR -, PCPEACEL -, UT15DA -,
LRN ----------, CBN DIGS ----------, CBN -,
CID ----, NCAR -, TTA -, BNI -, EACC --, LCVT -,
ANCR -,  ACCID ---, PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
IXC -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

CAREA -,    CPOS -,   SINDEX --,

S1 -, S2 -, S3 -, S4 -, S5 -, S6 -, S7 -, S8 -, S9 -, S10 -,


REMARKS ------------------------------------------------!


                                ASSOCIATED VERIFY MESSAGES

                                INPUT-11a-VER:TSG:CIN....
                                INPUT-11c-VER:TSG:TSGN....

                           OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

                            OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):
```

RC:TSG;NEW;OPT(OUT1WAY),- - -:

FORM # 102 ESTABLISH A NEW ONE-WAY OUTGOING TRUNK SUBGROUP

1. GENERAL

1.01 Form #102 establishes the translations for a new one-way outgoing Trunk Subgroup. This message is classed as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:TSG;NEW;OPT(OUT1WAY),- - -:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACCDTA** - Entries: blank.

2.03 **ACCID** - Entries: blank.

2.04 **ACD** - Automatic Call Distributor
Entries: blank, Y, N, or T.

2.05 **ANCR** - Entries: blank.

2.06 **ANISID** - ANI/SID Request
Entries: blank, NONE, ANI, PANI, PSID, REQ, or SID.

2.07 **AOPC** - Alias Origination Point Code
Entries: blank or

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

2.08 **APS** - Accunet® Packet Service
Entries: blank, Y, or N.

2.09 **BN** - Billing Number
Entries: blank, 3, 4, or 10 digit number.

2.10 **BNPT** - Entries: blank.

2.11 **BRL** - Billing Record Length
Entries: blank, L, or S.

2.12 **CAREA** - Control Area
Entries: 0 to 9.

2.13 **CARSON** - Entries: blank.

2.14 **CCIF** - Entries: blank.

2.15 **CCIS2WRE** - Common Channel Interoffice Signaling 2Wire
Entries: blank, Y, or N.

2.16 **CHNEG** - Channel Negotiation
Entries: blank, Y, or N.

2.17 **CID** - Carrier ID(4E20>)
Entries: blank or 0000 to 9999.

2.18 **CMERGE** - Entries: blank.

2.19 **CODSC** - CPE Outgoing Disconnect (<4E20) or CPE Outgoing Disconnect/Reset SS7 TSG PCIS Bits (4E21>)
Entries: blank, Y, or N.

2.20 **CPOS** - Control Position
Entries: 0 to 9.

2.21 **CSCSET** - Entries: blank.

2.22 **CSN** - Entries: blank.

2.23 **D3DBN** - Entries: blank.

2.24 **DELAY** - Delay Interval
Entries: blank, 20, 80, 220, or 70, 140, 210, or 280.

2.25 **DNP** - Dialed Number Preferred
Entries: blank, Y, or N.

2.26 **DOFP** - Disable Outgoing Fraud Prevention
Entries: Y or N.

2.27 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.28 **DPC** - Destination Point Code
If PCF equals ATT, then DPC is composed of:

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

If PCF equals ANSI, then DPC is composed of:

— NET = 000 to 255.
— CLU = 000 to 255.
— MEM = 000 to 255.

If PCF equals ISPC, then DPC is composed of:

— WGZ = 1 to 7.
— ANI = 000 to 255.
— SPID = 0 to 7.

2.29 **DPSTOP** - Dial Pulse Stop
Entries: blank, Y, or N.

2.30 **E1T1** - Entries: blank.

2.31 **EACC** - Entries: blank.

2.32 **EXSEQ** - Entries: blank.

2.33 **FAI** - Entries: blank.

2.34 **FEAREA** - Entries: blank.

2.35 **FELATA** - Far End Local Access and Transport Area
Entries: blank or 000 to 999.

2.36 **FELN** - Entries: blank.

2.37 **FENCLASS** - Far End Network Class
Entries: blank, ACCESA, ACCESI, ACCESO, CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.38 **FENID** - Far End Network ID
Entries: blank or 1 to 6 alphanumeric characters.

2.39 **FENPA** - Far End Numbering Plan Area
Entries: 200 to 999 and, for international, 2 to 9 and 20 to 99.

2.40 **FEOFC** - Far End Office
Entries: blank or 000 to 999.

2.41 **FEPTY** - Entries: blank.

2.42 **FESWID** - Entries: blank.

2.43 **FLDSPR** - Entries: blank.

2.44 **FOLI** - Entries: blank.

2.45 **FOSPS** - Entries: blank.

2.46 **GSDN** - Entries: blank.

2.47 **HUNT** - Entries: blank.

2.48 **ITCENC** - Information Transfer Capability (4E21>).
Entries: blank, Y, or N.

2.49 **IWZ1** - International World Zone 1
Entries: blank, Y, or N.

2.50 **IXC** - Entries: blank.

2.51 **LCVT** - Entries: blank.

2.52 **LNPIC** - A TSG field not used
Entries: blank.

2.53 **MEM** - Trunk Hunt with Memory
Entries: blank, Y, or N.

2.54 **MFSPEED** - Multi-Frequency Speed
Entries: blank, 7, or 10.

2.55 **MULAW** - A-law/Mu-law Encoding (4E18>)
Entries: blank, Y, or N.

2.56 **NCAR.tsg** - Entries: blank.

2.57 **NEOTR** - Near Operational Test Responsibility
Entries: Y or N.

2.58 **OFITR** - Entries: blank.

2.59 **ONCID** - Number of Carrier ID digits to send (4E18>)
Entries: blank, 3, or 4.

2.60 **ORNU** - Order Number
Entries: 1 to 999999.

2.61 **OSC** - Outgoing Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMMED, DPWINK, DTMFWK, ICOPNOP, INUP, ISUP, MFDDSD, MFWINK, MIOPNOP, Q931, SIOPMFW, SIOPNOP, TWOPDPD, TWOPDPI, TWOPDPW, TWOPMFW, or TUP.

2.62 **OTMTN** - Operational Terminating Test Number
Entries: blank or 000 to 9999999.

2.63 **OTMTT** - Operational Terminating Test Type
Entries: N, ATMC, CTX2, CTX3, SXS, SYNC, or T103.

2.64 **OTSTN** - Operational Thru Switch Test Number
Entries: blank or 000 to 9999999.

2.65 **OTSTT** - Operational Thru Switch Test Type
Entries: N, ATMB, CTX2, CTX3, SXS, SYNC, or T103.

2.66 **PCF** - Point Code Format
Entries: blank, ATT, ANSI, or ISPC.

2.67 **PRIT** - Entries: blank.

2.68 **PSATP** - Prohibit Sending Access Transport Parameters
Entries: blank, Y, or N.

2.69 **PSBN** - Prohibit Sending Billing Number
Entries: blank, PNNA (4E18>), PALL (4E18>), or SALL (4E18>).

2.70 **PSCPN** - Prohibit Sending Calling Party Number
Entries: blank, Y, or N.

2.71 **PSES** - Prohibit Service Evaluation
Entries: blank, Y, or N.

2.72 **PSOLI** - Prohibit Sending Originating Line Identity
Entries: blank, Y, or N.

2.73 **PSTNG** - Entries: blank.

2.74 **PSUUI** - Prohibit Sending User-to-User Information
Entries: blank, Y, or N.

2.75 **QTFN** - Quantity of Traffic Numbers
Entries: 24 to 504 by 24s.

2.76 **REVAMP** - Entries: blank.

2.77 **RFMP** - Ring Forward Miscellaneous Distributor Point
Entries: blank, Y, or N.

2.78 **S1** - Spare 1
Entries: blank or 0 to 7.

2.79 **S2-S10** - Spares 2 through 10
Entries: blank, Y, or N.

2.80 **SAT** - Satellite
Entries: Y or N.

2.81 **SBRIV** - Entries: blank.

2.82 **SCFN** - Send Confusion Message
Entries: blank, Y, or N.

2.83 **SINDEX** - Access Charge Verification Sampling Rate Index
Entries: blank, 0, 1, 2, 4, 8, 16, 32, or 64.

2.84 **SOIP** - Entries: blank.

2.85 **SPN** - Signal Ported Number (4E22R2>)
Entries: blank, Y, or N.

2.86 **STBI** - Entries: blank.

2.87 **SUPBLK** - Entries: blank.

2.88 **TCC** - Entries: blank.

2.89 **TFG** - Type of Feature Group
Entries: blank, B, C, or D.

2.90 **TOT** - Type of Trunk
Entries: ETC, INTL, INTLO, ITAND, ITOLL, ITOP, LCC, MISC, OCC, PBX, SECIT, STC, TAND, or TOLLC.

2.91 **TRIDX** - Entries: blank.

2.92 **TSGBBC** - TSG BroadBand Capability
Entries: blank or 0 to 6.

2.93 **TTA** - Entries: blank.

2.94 **VDCAP** - Entries: blank.

2.95 **WANISID** - WATS Service ANI/SID Request
Entries: blank, NONE, ANI, PANI, PSID, REQ, or SID.

2.96 **XCPA** - Transceiver (XC) Pad Adjustment
Entries: blank or 0 to 3.

2.97 **XTMTN** - Transmission Terminating Test Number
Entries: blank or 000 to 9999999.

2.98 **XTMTT** - Transmission Terminating Test Type
Entries: N, T100, T102, or T105.

2.99 **XTSTN** - Transmission Thru Switch Test Number
Entries: blank or 000 to 9999999.

2.100 **XTSTT** - Transmission Thru Switch Test Type
Entries: N, ATMA, T100, T102, or T105.

TABLE A
VALID CHARACTERISTICS FOR ONE-WAY OUTGOING TRUNK SUBGROUPS

OSC — TYPE OF TRUNK (TOT)

SIGNALING TYPES	ETC	INTL	INTLO	ITAND	ITOLL	ITOP	LCC	MISC	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC
CCITT5		X	X												
CCITT6		X	X												
DOMCCIS				X	X			X				X		X	X
DPDDSD				X	X			X		X		X	X	X	X
DPIMMED				X	X			X		X		X	X	X	X
DPWINK				X	X			X		X		X	X	X	X
DTMFWK										X			X		
ICOPNOP						X		X		X			X		
INUP		X	X												
ISUP	X			X	X		X	X	X	X	X	X		X	X
MFDDSD				X	X		X	X		X		X		X	X
MFWINK	X			X	X		X	X	X	X		X		X	X
MIOPNOP								X		X			X		
Q931										X					
SIOPMFW												X			
SIOPNOP												X			
TUP		X	X												
TWOPDPD															X
TWOPDPI															X
TWOPDPW															X
TWOPMFW															X

```
# FORM 102          ADD A NEW ONE-WAY OUTGOING TRUNK SUBGROUP
  4E18/4E19


RC:TSG;NEW;OPT(OUT1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

QTFN ___,   TOT ______, SAT _,             DOM _____, ACD _,
FENPA ___,  FEOFC ___, FELATA ___,                    IWZ1 _,
MEM _,      PSES _,

                                                        CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __,
XCPA _,       DNP _,                                    PSOLI _,

BN ___________, BRL _,          GSDN _,
                PSBN _____, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,               CMERGE _,        SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                      DOFP _, SBRIV _,
                                                              FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,
ANCR _,  ACCID __,  ACCDTA __,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401C

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 102          ADD A NEW ONE-WAY OUTGOING TRUNK SUBGROUP
  4E20


RC:TSG;NEW;OPT(OUT1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _,  VDCAP ______,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,
QTFN ___,   TOT ______, SAT _,             DOM _____, ACD _,            FAI _,
FENPA ___,  FEOFC ___, FELATA ___,                    IWZ1 _,
MEM _,      PSES _,

                                                        CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __,
XCPA _,      DNP _,                                     PSOLI _,

BN ___________, BRL _,          GSDN _,
               PSBN _____, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,              CMERGE _,        SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                    DOFP _, SBRIV _,
                                                            FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,     CSCSET ______, CID _____,
ANCR _,  ACCID __,  ACCDTA __, PSTNG _, FLDSPR _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401C

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 102          ADD A NEW ONE-WAY OUTGOING TRUNK SUBGROUP
  4E20R2


RC:TSG;NEW;OPT(OUT1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,            TFG _, TSGBBC _,  VDCAP ______,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,
QTFN ___,    TOT ______, SAT _,             DOM _____, ACD _,             FAI _,
FENPA ___,   FEOFC ___, FELATA ___,                    IWZ1 _,
MEM _,       PSES _,

                                                       CCIS2WRE _,
OSC ________, RFMP _,    DPSTOP _,          DELAY ___,   MFSPEED __,
XCPA _,       DNP _,                                   PSOLI _,

BN ___________, BRL _,           GSDN _,
                PSBN _____, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,               CMERGE _,        SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                     DOFP _, SBRIV _,
                                                             FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,      CSCSET ______, CID _____,
ANCR _,  ACCID ___,  ACCDTA __, PSTNG _, FLDSPR _,

CAREA _,     CPOS _,    SINDEX __,          CODSC _,     NEOTR _,     TRIDX __,
OTSTT _____, OTSTN _________,               OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,               XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401C

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 102          ADD A NEW ONE-WAY OUTGOING TRUNK SUBGROUP
  4E21


RC:TSG;NEW;OPT(OUT1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,     TSGBBC _,  VDCAP _____,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,
QTFN ___,    TOT ______, SAT _,            DOM _____, ACD _,               FAI _,
FENPA ___,   FEOFC ___, FELATA ___,                   IWZ1 _,
MEM _,       PSES _,

                                                        CCIS2WRE _,
OSC ________, RFMP _,    DPSTOP _,         DELAY ___,   MFSPEED __,
XCPA _,       DNP _,                                    PSOLI _,

BN ___________, BRL _,           GSDN _,
                PSBN _____, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,               CMERGE _,        SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                     DOFP _, SBRIV _,
                                                             FOSPS _, CCIF _,
ONCID _, D3DBN _,  MULAW _,    CSCSET ______,  CID _____,  ITCENC _, OFITR _,
ANCR _,  ACCID ___, PSTNG _,   FLDSPR _, REVAMP _,

CAREA _,     CPOS _,    SINDEX __,         CODSC _,     NEOTR _,     TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401C

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 102          ADD A NEW ONE-WAY OUTGOING TRUNK SUBGROUP
  4E22


RC:TSG;NEW;OPT(OUT1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,     TSGBBC _,  VDCAP _____,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,
QTFN ___,    TOT ______, SAT _,            DOM _____, ACD _,              FAI _,
FENPA ___,   FEOFC ___, FELATA ___,                   IWZ1 _,
MEM _,       PSES _,

                                                        CCIS2WRE _,
OSC ________, RFMP _,    DPSTOP _,         DELAY ___,   MFSPEED __,
XCPA _,       DNP _,                                    PSOLI _,

BN ___________, BRL _,           GSDN _,
                PSBN _____, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,               CMERGE _,        SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                     DOFP _, SBRIV _,
                                                             FOSPS _, CCIF _,
ONCID _, D3DBN _,  MULAW _,    CSCSET ______,  CID _____,  ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID ___, PSTNG _,  FLDSPR _, REVAMP _, E1T1 _,  SUPBLK _,
IXC _,
CAREA _,     CPOS _,    SINDEX __,          CODSC _,     NEOTR _,     TRIDX __,
OTSTT _____, OTSTN _________,               OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,               XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401C

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 102          ADD A NEW ONE-WAY OUTGOING TRUNK SUBGROUP
  4E23R1


RC:TSG;NEW;OPT(OUT1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,     TSGBBC _,  VDCAP _____,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,
QTFN ___,    TOT ______, SAT _,            DOM _____, ACD _,              FAI _,
FENPA ___,   FEOFC ___, FELATA ___,                   IWZ1 _,
MEM _,       PSES _,

                                                        CCIS2WRE _,
OSC ________, RFMP _,    DPSTOP _,         DELAY ___,   MFSPEED __,
XCPA _,       DNP _,                                    PSOLI _,

BN ___________, BRL _,           GSDN _,
                PSBN _____, PSCPN _,      ANISID _____, WANISID _____, PSUUI _,
BNPT _____,               CMERGE _,       SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                    DOFP _, SBRIV _,
                                                            FOSPS _, CCIF _,
ONCID _, D3DBN _,  MULAW _,    CSCSET ______,  CID _____,  ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID ___, PSTNG _,  FLDSPR _, REVAMP _, E1T1 _,  SUPBLK _,
IXC _, FOLI _, FELN _, HUNT __, CSN __,
CAREA _,     CPOS _,    SINDEX __,          CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,               OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,               XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401C

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 102   ADD A NEW ONE WAY OUTGOING TRUNK SUBGROUP
  4E24

RC:TSG;NEW;OPT(OUT1WAY),---:                              BTFN TOWN ST BL FBS NBS

ORNU ------,                                          TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                           DPC ---------,

FENCLASS ------, FENID ------,           TFG -, TSGBBC -, VDCAP -----,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,

QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,           FAI -,
FENPA ---,  FEOFC ---, FELATA ---,                 IWZ1 -,
MEM -,      PSES -,

                                                     CCIS2WRE -,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,  MFSPEED --,
XCPA -,      DNP -,                                  PSOLI -,

BN ----------, BRL -,          GSDN -,
                  PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----,              CMERGE -,       SCFN -,          PRIT ------,
APS -, CHNEG -, PSATP -,                                 DOFP -, SBRIV -,
                                                         FOSPS -, CCIF -,
ONCID -, D3DBN -,   MULAW -,   CSCSET ------, CID ----, ITCENC -, OFITR -,
SPN -, LNPIC -, NCAR -, TTA -,
ANCR -,  ACCID ---,  PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -,
IXC -, FOLI-, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -, S6 -, S7 -, S8 -, S9 -, S10 -,


REMARKS ------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 102   ADD A NEW ONE WAY OUTGOING TRUNK SUBGROUP
  4E25

RC:TSG;NEW;OPT(OUT1WAY),---:                          BTFN TOWN ST BL FBS NBS

ORNU ------,                                      TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                       DPC ---------,

FENCLASS ------, FENID ------,           TFG -, TSGBBC -, VDCAP -----,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,

QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,           FAI -,
FENPA ---,  FEOFC ---, FELATA ---,                IWZ1 -,
MEM -,      PSES -,

                                                     CCIS2WRE -,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,  MFSPEED --,
XCPA -,      DNP -,                                  PSOLI -,

BN ----------, BRL -,          GSDN -,
                  PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----,              CMERGE -,       SCFN -,          PRIT ------,
APS -, CHNEG -, PSATP -,                                 DOFP -, SBRIV -,
                                                         FOSPS -, CCIF -,
ONCID -, D3DBN -,   MULAW -,   CSCSET ------, CID ----, ITCENC -, OFITR -,
SPN -, LNPIC -, NCAR -, TTA -, BNI -, EACC --, LCVT -,
ANCR -,  ACCID ---,  PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -,
IXC -, FOLI-, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -, S6 -, S7 -, S8 -, S9 -, S10 -,


REMARKS -------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

RC:TSG;NEW;OPT(VFL),- - -:

FORM # 103 ESTABLISH A NEW VFL TRUNK SUBGROUP

1. GENERAL

1.01 Form #103 establishes the translations for a new Common channel Interoffice Signaling Voice Frequency Link (CCIS VFL) Trunk Subgroup. This message is classed as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:TSG;NEW;OPT(VFL),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CAREA** - Control Area
Entries: 0 to 9.

2.03 **CPOS** - Control Position
Entries: 0 to 9.

2.04 **DOM** - Domain
Entries: POTS or INTL.

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

2.06 **QTFN** - Quantity of Traffic Numbers
Entries: 24 to 504 by 24s.

2.07 **SAT** - Satellite
Entries: Y or N.

2.08 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 103             ADD A VFL TRUNK SUBGROUP


RC:TSG;NEW;OPT(VFL),___:                                BTFN TOWN ST BL FBS NBS

ORNU _______,                                       TSG _____ _____ __ __ ___ ___,

QTFN ___,                    SAT _,      DOM _____,

CAREA _,    CPOS _,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401F

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....

OUTPUT(CHARACTERISTICS)-1f-VER:TSG,OPT(VFL):

RC:TSG;NEW;OPT(ADDTFNB),- - -:

FORM # 104 ADD A TRAFFIC NUMBER BLOCK TO AN EXISTING TRUNK SUBGROUP

1. GENERAL

1.01 Form #104 adds a block of traffic numbers to an existing Trunk Subgroup. This message is classed as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:TSG;NEW;OPT(ADDTFNB),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **FTFN** - First Traffic Number
Entries: 0 to 9976.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **QTFN** - Quantity of Traffic Numbers
Entries: 24 to 504 by 24s.

2.05 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 104   ADD A TRAFFIC NUMBER BLOCK TO AN EXISTING TRUNK SUBGROUP


RC:TSG;NEW;OPT(ADDTFNB),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,

QTFN ___,   FTFN _____,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401D

ASSOCIATED VERIFY MESSAGES

INPUT-11e-VER:TFNB:TG

OUTPUT-1h-VER:TFNB

RC:TSG;CHG;OPT(OUTTFNB),- - -:

FORM # 105 DELETE A TRAFFIC NUMBER BLOCK FROM AN EXISTING TRUNK SUBGROUP

1. GENERAL

1.01 Form #105 deletes a block of traffic numbers from an existing Trunk Subgroup. This message is classed as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:TSG;CHG;OPT(OUTTFNB),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **FTFN** - First Traffic Number
Entries: 0 to 9976.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **QTFN** - Quantity of Traffic Numbers
Entries: 24.

2.05 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 105  DELETE A TRAFFIC NUMBER BLOCK FROM AN EXISTING TRUNK SUBGROUP


RC:TSG;CHG;OPT(OUTTFNB),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,

QTFN   24,   FTFN _____,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-11e-VER:TFNB:TG

OUTPUT-1h-VER:TFNB

RC:TSG;OUT;- - -:

FORM # 106 DELETE A TRUNK SUBGROUP

1. GENERAL

1.01 Form #106 deletes an entire Trunk Subgroup. This message does not remove individual trunk members (see RC:TRK;OUT;- - -). All trunks must be deleted from the TSG. The TSG must be removed from all RDBs, network management controls, network management studies and measurement reports before it can be deleted. This message is classed as a Recent Change Data Message (RCDM).

1.02 Deleting a TSG with type of trunk (TOT) INTL or INTLO, requires that a new CINMAP tape be made at the end of the day. Make only one tape for all changes that day.

2. FORM ENTRIES

2.01 RC:TSG;OUT;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ORNU** - Order Number
Entries: 1 to 999999.

2.03 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 106                DELETE A TRUNK SUBGROUP

RC:TSG;OUT;___:                                        BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG...

OUTPUT-1a/1b/1c-VER:TSG...(ALL ZEROS)

RC:TSG;CHG;OPT(TWOWAY),- - -:

FORM # 107 CHANGE A TWO-WAY TRUNK SUBGROUP

1. GENERAL

1.01 Form #107 changes the translations for a two-way Trunk Subgroup. Form #107 can also be used to convert a one-way Trunk Subgroup to a two-way Trunk Subgroup. This message is classed as a Recent Change Data Message (RCDM).

1.02 There are two characteristics which are not changeable with this form: Circuit Identification Name (CIN) [see form 802] and Quantity of Traffic Numbers (QTFN) [see forms 104 & 105]

Restrictions are imposed for changing the Domain (DOM) which are

a. The Existing Domain has to be in the range of 20 through 69.

b. The New Domain has to be in the range of 20 through 69.

All other changes to the Domain are prohibited.

There are certain characteristics which cannot be changed unless all trunks in the Trunk Subgroup are in a particular state. Refer to Table B (Div. 7, Sec. 1h) for more information.

1.03 If input to the FEAREA and/or IWZ1 field are modified, the Recent Change Form must update RDB Alternate Route Lists. If the Rollback Area becomes full from these updates, the Form will print a warning message that not all the RDB Route Lists have been updated and that the TSG form must be reentered. The user must reenter the form to complete building the RDB Route Lists.

2. FORM ENTRIES

2.01 RC:TSG;CHG;OPT(TWOWAY),- - -:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACCDTA** - Entries: blank.

2.03 **ACCID** - Entries: blank.

2.04 **ACD** - Automatic Call Distributor
Entries: blank, Y, N, or T.

2.05 **ADIG** - 'A' Digit Reconstruction
Entries: blank, 0, or 2 to 9.

2.06 **ANCR** - Entries: blank.

2.07 **ANISID** - ANI/SID Request
Entries: blank, NONE, ANI, PANI, PSID, REQ, or SID.

2.08 **AOPC** - Alias Origination Point Code
Entries: blank or

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

2.09 **APS** - Accunet® Packet Service
Entries: blank, Y, or N.

2.10 **ATRIG** - AIN TSG Trigger (4E22>)
Entries: blank, Y, or N.

2.11 **BFTIS** - Backward Failure Treatment all ISUP
Entries: blank, ANN, or REL.

2.12 **BFTNI** - Backward Failure Treatment not all ISUP
Entries: blank, ANN, or REL.

2.13 **BN** - Billing Number
Entries: blank, 3, 4, or 10 digit number.

2.14 **BNPT** - Entries: blank.

2.15 **BRL** - Billing Record Length
Entries: blank, L, or S.

2.16 **C1WTO2W** - Convert a one-way Trunk Subgroup to a two-way Trunk Subgroup
Entries: blank, Y, or N.

2.17 **CAREA** - Control Area
Entries: 0 to 9.

2.18 **CARSON** - Entries: blank.

2.19 **CBC** - Entries: blank.

2.20 **CBN** - Incoming Trunk Connecting Network Access Billing Number option (4E22R2>)
Entries: blank, N, or L.

2.21 **CBN DIGS** - Incoming Trunk Connecting Network access Billing Number (4E22R2>)
Entries: blank or 10 digit number.

2.22 **CBNPR** - Calling Party Number/Billing Number Default Presentation Restriction Indicator
Entries: blank, PA, or PR.

2.23 **CCIF** - Entries: blank.

2.24 **CCIS2WRE** - Common Channel Interoffice Signaling 2Wire
Entries: blank, Y, or N.

2.25 **CCTT** - Entries: blank.

2.26 **CHNEG** - Channel Negotiation
Entries: blank, Y, or N.

2.27 **CID** - Carrier ID(4E20>)
Entries: blank or 0000 to 9999.

2.28 **CMERGE** - Entries: blank.

2.29 **CODSC** - CPE Outgoing Disconnect (<4E20) or CPE Outgoing Disconnect/Reset SS7 TSG PCIS Bits (4E21>)
Entries: blank, Y, or N.

2.30 **CPOS** - Control Position
Entries: 0 to 9.

2.31 **CSCSET** - Entries: blank.

2.32 **CSN** - Entries: blank.

2.33 **D3DBN** - Entries: blank.

2.34 **DATA** - Data Service
Entries: blank, Y, or N.

2.35 **DATAF** - Entries: blank.

2.36 **DDD** - Entries: blank.

2.37 **DELAY** - Delay Interval
Entries: blank, 20, 80, 220, or 70, 140, 210, or 280.

2.38 **DNHR** - Dynamic Non-Hierarchical Routing
Entries: Y or N.

2.39 **DNP** - Dialed Number Preferred
Entries: blank, Y, or N.

2.40 **DOFP** - Disable Outgoing Fraud Prevention
Entries: Y or N.

2.41 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.42 **DPC** - Destination Point Code
If PCF equals ATT, then DPC is composed of:

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

If PCF equals ANSI, then DPC is composed of:

— NET = 000 to 255.
— CLU = 000 to 255.
— MEM = 000 to 255.

If PCF equals ISPC, then DPC is composed of:

— WGZ = 1 to 7.
— ANI = 000 to 255.
— SPID = 0 to 7.

2.43 **DPSTOP** - Dial Pulse Stop
Entries: blank, Y, or N.

2.44 **E1T1** - Entries: blank.

2.45 **EAS** - Equal Access Signaling
Entries: N, A, E, D, or R.

2.46 **EACC** - Entries: blank.

2.47 **EXSEQ** - Entries: blank.

2.48 **FAI** - Entries: blank.

2.49 **FAR4E** - Far End 4E
Entries: blank, Y, or N.

2.50 **FEAREA** - Entries: blank.

2.51 **FELATA** - Far End Local Access and Transport Area
Entries: blank or 000 to 999.

2.52 **FELN** - Entries: blank.

2.53 **FENCLASS** - Far End Network Class
Entries: blank, ACCESA, ACCESI, ACCESO, CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.54 **FENID** - Far End Network ID
Entries: blank or 1 to 6 alphanumeric characters.

2.55 **FENPA** - Far End Numbering Plan Area
Entries: 200 to 999 and, for international, 2 to 9 and 20 to 99.

2.56 **FEOFC** - Far End Office
Entries: blank or 000 to 999.

2.57 **FEPTY** - Entries: blank.

2.58 **FESC6** - Far End 6-Digit Screening
Entries: Y or N.

2.59 **FESWID** - Entries: blank.

2.60 **FLDSPR** - Entries: blank.

2.61 **FOLI** - Entries: blank.

2.62 **FOSPS** - Entries: blank.

2.63 **FVSR** - Entries: blank.

2.64 **GEOSEP** - Geographical Traffic Separation Class
Entries: 0 to 31.

2.65 **GLARE** - Glare Control
Entries: blank, A, E, O, N.

2.66 **GNSC** - Go/No Go Screening Class
Entries: 0 to 3.

2.67 **GSDN** - Entries: blank.

2.68 **GSDNPHSE** - Entries: blank.

2.69 **HUNT** - Entries: blank.

2.70 **HYBRD** - Entries: blank.

2.71 **IDDD** - Entries: blank.

2.72 **IFITR** - Entries: blank.

2.73 **INCID** - Number of Carrier ID digits to be received (4E18>)
Entries: blank, 3, 4, or B.

2.74 **INSEP** - Incoming Traffic Separation Class
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

2.75 **ISC** - Incoming Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMADG, DPIMMED, DTMFWK, DTS, INUP, ISUP, MFDDSD, MFOPWK, MFWINK, Q931, or TUP.

2.76 **IT** - Intertoll Treatment
Entries: blank, Y, or N.

2.77 **ITC** - Incoming Trunk Subgroup Class
Entries: blank or 0 to 3.

2.78 **ITCENC** - Information Transfer Capability (4E21>).
Entries: blank, Y, or N.

2.79 **ITELCO** - Entries: blank.

2.80 **IWZ1** - International World Zone 1
Entries: blank, Y, or N.

2.81 **IXC** - Entries: blank.

2.82 **LCVT** - Entries: blank.

2.83 **LNPIC** - A TSG field not used
Entries: blank.

2.84 **LRN** - Location Routing Number (4E22R2>)
Entries: blank or 10 digit number.

2.85 **LSST** - LATA/state Screening State (<4E21)
Entries: blank or two alphabetic characters.

2.86 **MEGC** - Entries: blank.

2.87 **MEM** - Trunk Hunt with Memory
Entries: blank, Y, or N.

2.88 **MFSPEED** - Multi-Frequency Speed
Entries: blank, 7, or 10.

2.89 **MTSC** - Multiple Treatment Screening Class
Entries: 0 to 63.

2.90 **MULAW** - A-law/Mu-law Encoding (4E18>)
Entries: blank, Y, or N.

2.91 **NCAR.tsg** - Entries: blank.

2.92 **NEOTR** - Near Operational Test Responsibility
Entries: Y or N.

2.93 **NPARINH** - Inhibit NPA Reconstruction
Entries: blank, Y, or N.

2.94 **OFITR** - Entries: blank.

2.95 **ONCID** - Number of Carrier ID digits to send (4E18>)
Entries: blank, 3, or 4.

2.96 **ORNU** - Order Number
Entries: 1 to 999999.

2.97 **OSC** - Outgoing Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMMED, DPWINK, DTMFWK, ICOPNOP, INUP, ISUP, MFDDSD, MFWINK, MIOPNOP, Q931, or TUP.

2.98 **OTMTN** - Operational Terminating Test Number
Entries: blank or 000 to 9999999.

2.99 **OTMTT** - Operational Terminating Test Type
Entries: N, ATMC, CTX2, CTX3, SXS, SYNC, or T103.

2.100 **OTSTN** - Operational Thru Switch Test Number
Entries: blank or 000 to 9999999.

2.101 **OTSTT** - Operational Thru Switch Test Type
Entries: N, ATMB, CTX2, CTX3, SXS, SYNC, or T103.

2.102 **OVLP** - Overlap Signaling
Entries: blank, Y, or N.

2.103 **OWAT** - Entries: blank.

2.104 **PBXAW** - PBX Answer Withheld
Entries: blank, Y, or N.

2.105 **PBXESGD** - PBX Expect Station Group Designation
Entries: blank, Y, or N.

2.106 **PBXNWW** - PBX No Wait for Wink
Entries: blank, Y, or N.

2.107 **PCF** - Point Code Format
Entries: blank, ATT, ANSI, or ISPC.

2.108 **PCPEACEL** - Entries: blank.

2.109 **PRIT** - Entries: blank.

2.110 **PSATP** - Prohibit Sending Access Transport Parameters
Entries: blank, Y, or N.

2.111 **PSBN** - Prohibit Sending Billing Number
Entries: blank, PNNA (4E18>), PALL (4E18>), or SALL (4E18>).

2.112 **PSCPN** - Prohibit Sending Calling Party Number
Entries: blank, Y, or N.

2.113 **PSES** - Prohibit Service Evaluation
Entries: blank, Y, or N.

2.114 **PSOLI** - Prohibit Sending Originating Line Identity
Entries: blank, Y, or N.

2.115 **PSTNG** - Entries: blank.

2.116 **PSUUI** - Prohibit Sending User-to-User Information
Entries: blank, Y, or N.

2.117 **REV** - Reverse Traffic Numbers
Entries: Y or N.

2.118 **REVAMP** - Entries: blank.

2.119 **RFA** - Ring Forward Allowed
Entries: Y or N.

2.120 **RFMP** - Ring Forward Miscellaneous Distributor Point
Entries: blank, Y, or N.

2.121 **S1** - Spare 1
Entries: blank or 0 to 7.

2.122 **S2-S10** - Spares 2 through 10
Entries: blank, Y, or N.

2.123 **S5DIG** - Entries: blank.

2.124 **SAT** - Satellite
Entries: Y or N.

2.125 **SBRIV** - Entries: blank.

2.126 **SCFN** - Send Confusion Message
Entries: blank, Y, or N.

2.127 **SDNA** - Entries: blank.

2.128 **SDNPLAN** - Entries: blank.

2.129 **SDS** - Entries: blank.

2.130 **SINDEX** - Access Charge Verification Sampling Rate Index
Entries: blank, 0, 1, 2, 4, 8, 16, 32, or 64.

2.131 **SKSP** - Entries: blank.

2.132 **SOIP** - Entries: blank.

2.133 **SPN** - Signal Ported Number (4E22R2>)
Entries: blank, Y, or N.

2.134 **STBI** - Entries: blank.

2.135 **SUPBLK** - Entries: blank.

2.136 **TCC** - Entries: blank.

2.137 **TFG** - Type of Feature Group
Entries: blank, B, C, or D.

2.138 **TOT** - Type of Trunk
Entries: ETC, INTL, INTLO, ITAND, ITOLL, ITOPA, LCC, NSDSD, OCC, PBX, SECIT, STC, TAND, or TOLLC.

2.139 **TRIDX** - Entries: blank.

2.140 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.141 **TSGBBC** - TSG BroadBand Capability
Entries: blank or 0 to 6.

2.142 **TTA** - Entries: blank.

2.143 **UT15DA** - Entries: blank.

2.144 **VDCAP** - Entries: blank.

2.145 **WANISID** - WATS Service ANI/SID Request
Entries: blank, NONE, ANI, PANI, PSID, REQ, or SID.

2.146 **WATSBN** - WATS Billing Number
Entries: blank or 10 digit number.

2.147 **WBNPT** - Entries: blank.

2.148 **XCPA** - Transceiver (XC) Pad Adjustment
Entries: blank or 0 to 3.

2.149 **XTMTN** - Transmission Terminating Test Number

Entries: blank or 000 to 9999999.

2.150 **XTMTT** - Transmission Terminating Test Type
Entries: N, T100, T102, or T105.

2.151 **XTSTN** - Transmission Thru Switch Test Number
Entries: blank or 000 to 9999999.

2.152 **XTSTT** - Transmission Thru Switch Test Type
Entries: N, ATMA, T100, T102, or T105.

TABLE A
VALID CHARACTERISTICS FOR TWO-WAY TRUNK SUBGROUPS

ISC — TYPE OF TRUNK (TOT)

SIGNALING TYPES	ETC	INTL	INTLO	ITAND	ITOLL	ITOPA	LCC	NSDSD	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC
CCITT5		X	X												
CCITT6		X	X												
DOMCCIS				X	X			X				X		X	X
DPDDSD				X	X					X		X	X	X	X
DPIMADG				X	X							X	X	X	X
DPIMMED				X	X					X		X	X	X	X
DTMFWK										X			X		
DTS										X			X		
INUP		X	X												
ISUP	X			X	X		X		X	X	X	X		X	X
MFDDSD				X	X					X		X		X	X
MFOPWK						X									
MFWINK	X			X	X		X		X	X		X		X	X
Q931										X					
TUP		X	X												

RING FORWARD ALLOWED

(RFA)	Y / N	Y	Y	N	Y	Y	Y / N	N	Y / N	N	Y / N	Y	N	Y / N	N

TABLE A (CONTINUED)
VALID CHARACTERISTICS FOR TWO-WAY TRUNK SUBGROUPS

OSC TYPE OF TRUNK (TOT)

SIGNALING TYPES	ETC	INTL	INTLO	ITAND	ITOLL	ITOPA	LCC	NSDSD	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC
CCITT5		X	X												
CCITT6		X	X												
DOMCCIS				X	X			X				X		X	X
DPDDSD				X	X					X		X	X	X	X
DPIMMED				X	X					X		X	X	X	X
DPWINK				X	X					X		X	X	X	X
DTMFWK										X			X		
ICOPNOP						X				X			X		
INUP		X	X												
ISUP	X			X	X		X		X	X	X	X		X	X
MFDDSD				X	X		X			X		X		X	X
MFWINK	X			X	X		X		X	X		X		X	X
MIOPNOP										X			X		
Q931										X					
TUP		X	X												

TABLE B
RELATIONSHIP BETWEEN CHARACTERISTICS AND STATE OF TRUNKS IN TRUNK SUBGROUP

CHARACTERISTIC	STATE OF TRUNKS IN TRUNK SUBGROUP		
	NO TRUNKS ALLOWED	MANUALLY DISABLED	ANY STATE
ISC (to or from CCITT5 or CCS)	X		
OSC (to or from CCITT5 or CCS)	X		
ISC (except to or from CCITT5 or CCS)		X	
OSC (except to or from CCITT5 or CCS)		X	
ADIG		X	
C1WTO2W		X	
CCIS2WRE	X		
DOM		X	
AOPC	X		
DPC		X	
REV	X		
RFMP	X		
TSGBBC		X	
ALL OTHER CHARACTERISTICS			X

CCS = Common Channel Signaling (CCITT6, DOMCCIS, INUP, Q931, TUP)

```
# FORM 107          CHANGE A TWO WAY TRUNK SUBGROUP
  4E18/4E19


RC:TSG;CHG;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,          TFG _, TSGBBC _, VDCAP ______, DATAF _,

C1WTO2W _,  TOT ______, SAT _,            DOM _____, ACD _,  IT _,
FENPA ___,  FEOFC ___, FELATA ___,        FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ___,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                    CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,         DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                      REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,   GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _____, PSCPN _,  ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,      SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,       PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,    DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,      SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,
ONCID _, D3DBN _, MULAW _,
ANCR _,  ACCID __,  ACCDTA __,

CAREA _,    CPOS _,   SINDEX __,          CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,             OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,             XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401A

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 107          CHANGE A TWO WAY TRUNK SUBGROUP
  4E20


RC:TSG;CHG;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

C1WTO2W _,  TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                    CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,         NPARINH _,
WATSBN ___________, PSBN _____, PSCPN _,   ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _, S5DIG _,
ONCID _, D3DBN _, MULAW _,     CSCSET ______, CID _____,
ANCR _,  ACCID __,  ACCDTA __, PSTNG _, FLDSPR _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 107          CHANGE A TWO WAY TRUNK SUBGROUP
  4E20R2


RC:TSG;CHG;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

C1WTO2W _,  TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _____, PSCPN _,   ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _, S5DIG _,
ONCID _, D3DBN _, MULAW _,     CSCSET ______, CID _____,
ANCR _,  ACCID ___,  ACCDTA __, PSTNG _, FLDSPR _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 107          CHANGE A TWO WAY TRUNK SUBGROUP
  4E21


RC:TSG;CHG;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

C1WTO2W _,  TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,         NPARINH _,
WATSBN ___________, PSBN _____, PSCPN _,   ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,  S5DIG _, SDS_,   FVSR _,   IFITR _,    PCPEACEL _,
ONCID _, D3DBN _,   MULAW _,   CSCSET ______,  CID _____, ITCENC _, OFITR _,
ANCR _,  ACCID ___,  PSTNG _, FLDSPR _,  REVAMP _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 107          CHANGE A TWO WAY TRUNK SUBGROUP
  4E22


RC:TSG;CHG;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

C1WTO2W _,  TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _____, PSCPN _,   ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,  S5DIG _, SDS_,   FVSR _,   IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ONCID _, D3DBN _,   MULAW _,   CSCSET ______,  CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID ___,  PSTNG _, FLDSPR _,  REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _,
CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 107          CHANGE A TWO WAY TRUNK SUBGROUP
  4E23R1


RC:TSG;CHG;OPT(TWOWAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _, TSGBBC _, VDCAP ______, DATAF _,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

C1WTO2W _,  TOT ______, SAT _,             DOM _____, ACD _,  IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ___,          MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR ___,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __, DNHR _,
XCPA _,       DNP _,                       REV _,       GLARE _,    PSOLI _,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _,  EAS _,          NPARINH _,
WATSBN ___________, PSBN _____, PSCPN _,   ANISID _____, WANISID _____, PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT _______,
APS _, CHNEG _, PSATP _, PBXESGD _,        PBXAW _, FAR4E _, DOFP _, SBRIV _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _, CCIF _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5DIG _, SDS_,   FVSR _,   IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ONCID _, D3DBN _,   MULAW _,   CSCSET ______,  CID _____, ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID ___,  PSTNG _, FLDSPR _,  REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FOLI _, FELN _, HUNT __, CSN __,
CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 107   CHANGE A TWO WAY TRUNK SUBGROUP
  4E24

RC:TSG;CHG;OPT(TWOWAY),---:                              BTFN TOWN ST BL FBS NBS

ORNU ------,                                          TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                           DPC ---------,

FENCLASS ------, FENID ------,           TFG -, TSGBBC -, VDCAP -----, DATAF -,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,

C1WTO2W -,  TOT -----, SAT -,            DOM ----, ACD -,  IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                      CCIS2WRE -, CBNPR ---,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --, DNHR -,
XCPA -,      DNP -,                      REV -,       GLARE -,    PSOLI -,

BN ----------, BRL -,  ITC -,  GSDN -,   GSDNPHSE -,  EAS -,      NPARINH -,
WATSBN ----------, PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -, CHNEG -, PSATP -, PBXESGD -,      PBXAW -, FAR4E -, DOFP -, SBRIV -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -, CCIF -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -, CCTT -,
INCID -, ITELCO -,  S5DIG -, SDS -,  FVSR -,   IFITR -, PCPEACEL -, UT15DA -,
LRN ----------, CBN DIGS ----------, CBN -,
ONCID -, D3DBN -,   MULAW -,   CSCSET ------, CID ----, ITCENC -, OFITR -,
SPN -, LNPIC -, NCAR -, TTA -,
ANCR -,  ACCID ---, PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
IXC -, FOLI -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -, S6 -, S7 -, S8 -, S9 -, S10 -,


REMARKS -------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 107   CHANGE A TWO WAY TRUNK SUBGROUP
  4E25

RC:TSG;CHG;OPT(TWOWAY),---:                              BTFN TOWN ST BL FBS NBS

ORNU ------,                                        TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                         DPC ---------,

FENCLASS ------, FENID ------,           TFG -, TSGBBC -, VDCAP -----, DATAF -,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,

C1WTO2W -,  TOT -----, SAT -,            DOM ----, ACD -,  IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                       CCIS2WRE -, CBNPR ---,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --, DNHR -,
XCPA -,      DNP -,                      REV -,       GLARE -,    PSOLI -,

BN ----------, BRL -,  ITC -,  GSDN -,   GSDNPHSE -,  EAS -,      NPARINH -,
WATSBN ----------, PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -, CHNEG -, PSATP -, PBXESGD -,      PBXAW -, FAR4E -, DOFP -, SBRIV -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -, CCIF -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -, CCTT -,
INCID -, ITELCO -,  S5DIG -, SDS -,  FVSR -,   IFITR -, PCPEACEL -, UT15DA -,
LRN ----------, CBN DIGS ----------, CBN -,
ONCID -, D3DBN -,   MULAW -,   CSCSET ------, CID ----, ITCENC -, OFITR -,
SPN -, LNPIC -, NCAR -, TTA -, BNI -, EACC --, LCVT -,
ANCR -,  ACCID ---, PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
IXC -, FOLI -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -, S6 -, S7 -, S8 -, S9 -, S10 -,


REMARKS -------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1a-VER:TSG,OPT(TWOWAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

RC:TSG;CHG;OPT(IN1WAY),- - -:

FORM # 108 CHANGE A ONE-WAY INCOMING TRUNK SUBGROUP

1. GENERAL

1.01 Form #108 changes the translations for a one-way incoming Trunk Subgroup. This message is classed as a Recent Change Data Message (RCDM).

1.02 There are two characteristics which are not changeable with this form: Circuit Identification Name (CIN) [see form 802] and Quantity of Traffic Numbers (QTFN) [see forms 104 & 105]

Restrictions are imposed for changing the Domain (DOM) which are

a. The Existing Domain has to be in the range of 20 through 69.

b. The New Domain has to be in the range of 20 through 69.

All other changes to the Domain are prohibited.

There are certain characteristics which cannot be changed unless all trunks in the Trunk Subgroup are in a particular state. Refer to Table B (Div. 7, Sec. 1h) for more information.

1.03 If input to the FEAREA and/or IWZ1 field are modified, the Recent Change Form must update RDB Alternate Route Lists. If the Rollback Area becomes full from these updates, the Form will print a warning message that not all the RDB Route Lists have been updated and that the TSG form must be reentered. The user must reenter the form to complete building the RDB Route Lists.

2. FORM ENTRIES

2.01 RC:TSG;CHG;OPT(IN1WAY),- - -:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACCDTA** - Entries: blank.

2.03 **ACCID** - Entries: blank.

2.04 **ADIG** - 'A' Digit Reconstruction
Entries: blank, 0, or 2 to 9.

2.05 **ANCR** - Entries: blank.

2.06 **AOPC** - Alias Origination Point Code
Entries: blank or

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

2.07 **APS** - Accunet® Packet Service
Entries: blank, Y, or N.

2.08 **ATRIG** - AIN TSG Trigger (4E22>)
Entries: blank, Y, or N.

2.09 **BFTIS** - Backward Failure Treatment all ISUP
Entries: blank, ANN, or REL.

2.10 **BFTNI** - Backward Failure Treatment not all ISUP
Entries: blank, ANN, or REL.

2.11 **BN** - Billing Number
Entries: blank, 3, 4, or 10 digit number.

2.12 **BNPT** - Entries: blank.

2.13 **BRL** - Billing Record Length
Entries: blank, L, or S.

2.14 **CAREA** - Control Area
Entries: 0 to 9.

2.15 **CARSON** - Entries: blank.

2.16 **CBC** - Entries: blank.

2.17 **CBN** - Incoming Trunk Connecting Network Access Billing Number option (4E22R2>)
Entries: blank, N, or L.

2.18 **CBN DIGS** - Incoming Trunk Connecting Network access Billing Number (4E22R2>)
Entries: blank or 10 digit number.

2.19 **CBNPR** - Calling Party Number/Billing Number Default Presentation Restriction Indicator
Entries: blank, PA, or PR.

2.20 **CCIS2WRE** - Common Channel Interoffice Signaling 2Wire
Entries: blank, Y, or N.

2.21 **CCTT** - Entries: blank.

2.22 **CID** - Carrier ID(4E23>)
Entries: blank or 0000 to 9999.

2.23 **CMERGE** - Entries: blank.

2.24 **CMTYP** - CAMA Type
Entries: blank, 1, or 2.

2.25 **CPOS** - Control Position
Entries: 0 to 9.

2.26 **CSN** - Entries: blank.

2.27 **DATA** - Data Service
Entries: blank, Y, or N.

2.28 **DDD** - Entries: blank.

2.29 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.30 **DPC** - Destination Point Code
If PCF equals ATT, then DPC is composed of:

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

If PCF equals ANSI, then DPC is composed of:

— NET = 000 to 255.
— CLU = 000 to 255.
— MEM = 000 to 255.

If PCF equals ISPC, then DPC is composed of:

— WGZ = 1 to 7.
— ANI = 000 to 255.
— SPID = 0 to 7.

2.31 **E1T1** - Entries: blank.

2.32 **EACC** - Entries: blank.

2.33 **EAS** - Equal Access Signaling
Entries: N, A, E, D, or R.

2.34 **FAI** - Entries: blank.

2.35 **FAR4E** - Far End 4E
Entries: blank, Y, or N.

2.36 **FELATA** - Far End Local Access and Transport Area
Entries: blank or 000 to 999.

2.37 **FELN** - Entries: blank.

2.38 **FENCLASS** - Far End Network Class
Entries: blank, ACCESA, ACCESI, ACCESO, CAMA, CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.39 **FENID** - Far End Network ID
Entries: blank or 1 to 6 alphanumeric characters.

2.40 **FENPA** - Far End Numbering Plan Area
Entries: 200 to 999 and, for international, 2 to 9 and 20 to 99.

2.41 **FEOFC** - Far End Office
Entries: blank or 000 to 999.

2.42 **FESC6** - Far End 6-Digit Screening
Entries: Y or N.

2.43 **FLDSPR** - Entries: blank.

2.44 **FOSPS** - Entries: blank.

2.45 **FVSR** - Entries: blank.

2.46 **GEOSEP** - Geographical Traffic Separation Class
Entries: 0 to 31.

2.47 **GNSC** - Go/No Go Screening Class
Entries: 0 to 3.

2.48 **GSDN** - Entries: blank.

2.49 **GSDNPHSE** - Entries: blank.

2.50 **HUNT** - Entries: blank.

2.51 **HYBRD** - Entries: blank.

2.52 **IDDD** - Entries: blank.

2.53 **IFITR** - Entries: blank.

2.54 **INCID** - Number of Carrier ID digits to be received (4E18>)
Entries: blank, 3, 4, or B.

2.55 **INSEP** - Incoming Traffic Separation Class
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

2.56 **ISC** - Incoming Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMADG, DPIMMED, DPIMPSW, DTMFWK, DTS, INUP, ISUP, MFDDSD, MFOPWK, MFWINK, Q931, TOLLMFD, TSPSMFD, TSPSMFW, or TUP.

2.57 **IT** - Intertoll Treatment
Entries: blank, Y, or N.

2.58 **ITC** - Incoming Trunk Subgroup Class
Entries: blank or 0 to 3.

2.59 **ITELCO** - Entries: blank.

2.60 **IWZ1** - International World Zone 1
Entries: blank, Y, or N.

2.61 **IXC** - Entries: blank.

2.62 **LCVT** - Entries: blank.

2.63 **LRN** - Location Routing Number (4E22R2>)
Entries: blank or 10 digit number.

2.64 **LSST** - LATA/state Screening State (<4E21)
Entries: blank or two alphabetic characters.

2.65 **MEGC** - Entries: blank.

2.66 **MEM** - Trunk Hunt with Memory
Entries: blank, Y, or N.

2.67 **MTSC** - Multiple Treatment Screening Class
Entries: 0 to 63.

2.68 **NCAR.tsg** - Entries: blank.

2.69 **NPARINH** - Inhibit NPA Reconstruction
Entries: blank, Y, or N.

2.70 **ORNU** - Order Number
Entries: 1 to 999999.

2.71 **OVLP** - Overlap Signaling
Entries: blank, Y, or N.

2.72 **OWAT** - Entries: blank.

2.73 **PBXAW** - PBX Answer Withheld
Entries: blank, Y, or N.

2.74 **PBXESGD** - PBX Expect Station Group Designation
Entries: blank, Y, or N.

2.75 **PBXNWW** - PBX No Wait for Wink
Entries: blank, Y, or N.

2.76 **PCF** - Point Code Format
Entries: blank, ATT, ANSI, or ISPC.

2.77 **PCPEACEL** - Entries: blank.

2.78 **PRIT** - Entries: blank.

2.79 **PSATP** - Prohibit Sending Access Transport Parameters
Entries: blank, Y, or N.

2.80 **PSES** - Prohibit Service Evaluation
Entries: blank, Y, or N.

2.81 **PSTNG** - Entries: blank.

2.82 **PSUUI** - Prohibit Sending User-to-User Information
Entries: blank, Y, or N.

2.83 **REVAMP** - Entries: blank.

2.84 **RFA** - Ring Forward Allowed
Entries: Y or N.

2.85 **S1** - Spare 1
Entries: blank or 0 to 7.

2.86 **S2-S10** - Spares 2 through 10
Entries: blank, Y, or N.

2.87 **S5DIG** - Entries: blank.

2.88 **SAT** - Satellite
Entries: Y or N.

2.89 **SCFN** - Send Confusion Message
Entries: blank, Y, or N.

2.90 **SDNA** - Entries: blank.

2.91 **SDNPLAN** - Entries: blank.

2.92 **SDS** - Entries: blank.

2.93 **SINDEX** - Access Charge Verification Sampling Rate Index
Entries: blank, 0, 1, 2, 4, 8, 16, 32, or 64.

2.94 **SKSP** - Entries: blank.

2.95 **SOIP** - Entries: blank.

2.96 **STBI** - Entries: blank.

2.97 **SUPBLK** - Entries: blank.

2.98 **TCC** - Entries: blank.

2.99 **TFG** - Type of Feature Group
Entries: blank, B, C, or D.

2.100 **TOT** - Type of Trunk
Entries: CAMAA, CAMAO, ETC, INTL, INTLO, ITAND, ITOLL, ITOP, ITOPB, LCC, MISC, OCC, PBX, SECIT, STC, TAND, TOLLC, or TSPS.

2.101 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.102 **TSGBBC** - TSG BroadBand Capability
Entries: blank or 0 to 6.

2.103 **TTA** - Entries: blank.

2.104 **UT15DA** - Entries: blank.

2.105 **WATSBN** - WATS Billing Number
Entries: blank or 10 digit number.

2.106 **WBNPT** - Entries: blank.

TABLE A
VALID CHARACTERISTICS FOR ONE-WAY INCOMING TRUNK SUBGROUPS

ISC — TYPE OF TRUNK (TOT)

SIGNALING TYPES	CAMAA	CAMAO	ETC	INTL	INTLO	ITAND	ITOLL	ITOP	ITOPB	LCC	MISC	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC	TSPS
CCITT5				X	X														
CCITT6				X	X														
DOMCCIS						X	X								X		X	X	
DPDDSD	X	X				X	X				X		X		X	X	X	X	
DPIMADG	X	X				X	X				X					X	X	X	
DPIMMED	X	X				X	X				X		X		X	X	X	X	
DPIMPSW	X	X																	
DTMFWK													X			X			
DTS													X			X			
INUP				X	X														
ISUP			X			X	X			X		X	X	X	X		X	X	
MFDDSD	X	X				X	X				X		X		X		X	X	
MFOPWK								X	X										
MFWINK	X	X	X			X	X			X	X	X	X		X		X	X	
Q931													X						
TOLLMFD											X				X			X	X
TSPSMFD															X				X
TSPSMFW															X				X
TUP				X	X														

RING FORWARD ALLOWED

(RFA)	N	N	Y/N	Y	Y	N	Y	Y	Y	Y/N	Y/N	Y/N	N	Y/N	Y	N	Y/N	N	Y

```
# FORM 108           CHANGE A ONE WAY INCOMING TRUNK SUBGROUP
  4E18/4E19

RC:TSG;CHG;OPT(IN1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,          TFG _,    TSGBBC _,

            TOT ______, SAT _,            DOM _____,         IT _,
FENPA ___,  FEOFC ___, FELATA ___,        FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ____,        MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,   GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                   PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,      SCFN _,  OVLP _,  PRIT ______,
APS _,          PSATP _, PBXESGD _,       PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,    DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,      SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,
ANCR _,  ACCID __,  ACCDTA __,

CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401B

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 108           CHANGE A ONE WAY INCOMING TRUNK SUBGROUP
  4E20

RC:TSG;CHG;OPT(IN1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

            TOT ______, SAT _,             DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ____,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                  PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT ______,
APS _,          PSATP _, PBXESGD _,        PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _, S5DIG_,
ANCR _,  ACCID __,  ACCDTA __, PSTNG _, FLDSPR _,

CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 108           CHANGE A ONE WAY INCOMING TRUNK SUBGROUP
  4E20R2

RC:TSG;CHG;OPT(IN1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

            TOT ______, SAT _,             DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ____,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,    GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                  PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT ______,
APS _,          PSATP _, PBXESGD _,        PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _, S5DIG_,
ANCR _,  ACCID ___,  ACCDTA __, PSTNG _, FLDSPR _,

CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS _____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 108           CHANGE A ONE WAY INCOMING TRUNK SUBGROUP
  4E21

RC:TSG;CHG;OPT(IN1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,

            TOT ______, SAT _,             DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,         FESC6 _,  IWZ1 _, LSST __,
MEM _,      PSES _,    INSEP ____,         MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,   GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                    PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,       SCFN _,  OVLP _,  PRIT ______,
APS _,          PSATP _, PBXESGD _,        PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,     DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,       SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,  S5DIG_,  SDS_,   FVSR _,   IFITR _,   PCPEACEL _,
ANCR _,  ACCID ___,  PSTNG _,  FLDSPR _, REVAMP _,

CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS _____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 108           CHANGE A ONE WAY INCOMING TRUNK SUBGROUP
  4E22

RC:TSG;CHG;OPT(IN1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,          TFG _,    TSGBBC _,

            TOT ______, SAT _,            DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,        FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ____,        MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                      CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,   GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                  PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,      SCFN _,  OVLP _,  PRIT ______,
APS _,          PSATP _, PBXESGD _,       PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,    DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ___, BFTNI ___,      SKSP _, PBXNWW _, HYBRD _,
INCID _, ITELCO _,  S5DIG_,  SDS_,   FVSR _,   IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
ANCR _,  ACCID ___,  PSTNG _,  FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _,
CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 108           CHANGE A ONE WAY INCOMING TRUNK SUBGROUP
  4E23R1

RC:TSG;CHG;OPT(IN1WAY),___:                                  BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,          TFG _,    TSGBBC _,

            TOT ______, SAT _,            DOM _____,         IT _,  FAI _,
FENPA ___,  FEOFC ___, FELATA ___,        FESC6 _,  IWZ1 _,
MEM _,      PSES _,    INSEP ____,        MTSC __,  GNSC _, GEOSEP __,

ISC ________, RFA _,    ADIG _,                        CCIS2WRE _, CBNPR ___,

BN ___________, BRL _,  ITC _,  GSDN _,   GSDNPHSE _, EAS _, CMTYP _, NPARINH _,
WATSBN ___________,                                                    PSUUI _,
BNPT _____,   WBNPT _____, CMERGE _,      SCFN _,  OVLP _,  PRIT ______,
APS _,          PSATP _, PBXESGD _,       PBXAW _, FAR4E _,
MEGC _, SDNA _, OWAT _, DATA _, CBC _,    DDD _, IDDD _,    FOSPS _,
SDNPLAN _____, BFTIS ____, BFTNI ____,    SKSP _, PBXNWW _, HYBRD _, CCTT _,
INCID _, ITELCO _,  S5DIG_,  SDS_,   FVSR _,   IFITR _,   PCPEACEL _, UT15DA _,
LRN ___________, CBN DIGS ___________, CBN _,
CID _____,
ANCR _,  ACCID ____,  PSTNG _,  FLDSPR _, REVAMP _, E1T1 _, SUPBLK _, ATRIG _,
IXC _, FELN _, HUNT __, CSN __,
CAREA _,    CPOS _,   SINDEX __,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 108   CHANGE A ONE WAY INCOMING TRUNK SUBGROUP
  4E24

RC:TSG;CHG;OPT(IN1WAY),---:                              BTFN TOWN ST BL FBS NBS

ORNU ------,                                          TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                           DPC ---------,

FENCLASS ------, FENID ------,           TFG -,    TSGBBC -,

            TOT -----, SAT -,            DOM ----,         IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                        CCIS2WRE -, CBNPR ---,

BN ----------, BRL -,  ITC -,  GSDN -,   GSDNPHSE -, EAS -, CMTYP -, NPARINH -,
WATSBN ----------,                                                  PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -,          PSATP -, PBXESGD -,      PBXAW -, FAR4E -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -, CCTT -,
INCID -, ITELCO -,  S5DIG -, SDS -,  FVSR -,   IFITR -, PCPEACEL -, UT15DA -,
LRN ----------, CBN DIGS ----------, CBN -,
CID ----, NCAR -, TTA -,
ANCR -,  ACCID ---, PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
IXC -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

CAREA -,    CPOS -,   SINDEX --,

S1 -, S2 -, S3 -, S4 -, S5 -, S6 -, S7 -, S8 -, S9 -, S10 -,


REMARKS ------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 108   CHANGE A ONE WAY INCOMING TRUNK SUBGROUP
  4E25

RC:TSG;CHG;OPT(IN1WAY),---:                              BTFN TOWN ST BL FBS NBS

ORNU ------,                                        TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                         DPC ---------,

FENCLASS ------, FENID ------,           TFG -,    TSGBBC -,

            TOT -----, SAT -,            DOM ----,         IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                      CCIS2WRE -, CBNPR ---,

BN ----------, BRL -,  ITC -,  GSDN -,   GSDNPHSE -, EAS -, CMTYP -, NPARINH -,
WATSBN ----------,                                                  PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -,          PSATP -, PBXESGD -,      PBXAW -, FAR4E -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -, CCTT -,
INCID -, ITELCO -,  S5DIG -, SDS -,  FVSR -,   IFITR -, PCPEACEL -, UT15DA -,
LRN ----------, CBN DIGS ----------, CBN -,
CID ----, NCAR -, TTA -, BNI -, EACC --, LCVT -,
ANCR -,  ACCID ---, PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
IXC -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

CAREA -,    CPOS -,   SINDEX --,

S1 -, S2 -, S3 -, S4 -, S5 -, S6 -, S7 -, S8 -, S9 -, S10 -,


REMARKS -------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1b-VER:TSG,OPT(IN1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

RC:TSG;CHG;OPT(OUT1WAY),- - -:

FORM # 109 CHANGE A ONE-WAY OUTGOING TRUNK SUBGROUP

1. GENERAL

1.01 Form #109 changes the translations for a one-way outgoing Trunk Subgroup. This message is classed as a Recent Change Data Message (RCDM).

1.02 There are two characteristics which are not changeable with this form: Circuit Identification Name (CIN) [see form 802] and Quantity of Traffic Numbers (QTFN) [see forms 104 & 105]

Restrictions are imposed for changing the Domain (DOM) which are

a. The Existing Domain has to be in the range of 20 through 69.

b. The New Domain has to be in the range of 20 through 69.

All other changes to the Domain are prohibited.

There are certain characteristics which cannot be changed unless all trunks in the Trunk Subgroup are in a particular state. Refer to Table B (Div. 7, Sec. 1h) for more information.

1.03 If input to the FEAREA and/or IWZ1 field are modified, the Recent Change Form must update RDB Alternate Route Lists. If the Rollback Area becomes full from these updates, the Form will print a warning message that not all the RDB Route Lists have been updated and that the TSG form must be reentered. The user must reenter the form to complete building the RDB Route Lists.

2. FORM ENTRIES

2.01 RC:TSG;CHG;OPT(OUT1WAY),- - -:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACCDTA** - Entries: blank.

2.03 **ACCID** - Entries: blank.

2.04 **ACD** - Automatic Call Distributor
Entries: blank, Y, N, or T.

2.05 **ANCR** - Entries: blank.

2.06 **ANISID** - ANI/SID Request
Entries: blank, NONE, ANI, PANI, PSID, REQ, or SID.

2.07 **AOPC** - Alias Origination Point Code
Entries: blank or

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

2.08 **APS** - Accunet® Packet Service
Entries: blank, Y, or N.

2.09 **BN** - Billing Number
Entries: blank, 3, 4, or 10 digit number.

2.10 **BNPT** - Entries: blank.

2.11 **BRL** - Billing Record Length
Entries: blank, L, or S.

2.12 **CAREA** - Control Area
Entries: 0 to 9.

2.13 **CARSON** - Entries: blank.

2.14 **CCIF** - Entries: blank.

2.15 **CCIS2WRE** - Common Channel Interoffice Signaling 2Wire
Entries: blank, Y, or N.

2.16 **CHNEG** - Channel Negotiation
Entries: blank, Y, or N.

2.17 **CID** - Carrier ID(4E20>)
Entries: blank or 0000 to 9999.

2.18 **CMERGE** - Entries: blank.

2.19 **CODSC** - CPE Outgoing Disconnect (<4E20) or CPE Outgoing Disconnect/Reset SS7 TSG PCIS Bits (4E21>)
Entries: blank, Y, or N.

2.20 **CPOS** - Control Position
Entries: 0 to 9.

2.21 **CSCSET** - Entries: blank.

2.22 **CSN** - Entries: blank.

2.23 **D3DBN** - Entries: blank.

2.24 **DELAY** - Delay Interval
Entries: blank, 20, 80, 220, or 70, 140, 210, or 280.

2.25 **DNP** - Dialed Number Preferred
Entries: blank, Y, or N.

2.26 **DOFP** - Disable Outgoing Fraud Prevention
Entries: Y or N.

2.27 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA,

DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.28 **DPC** - Destination Point Code
If PCF equals ATT, then DPC is composed of:

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

If PCF equals ANSI, then DPC is composed of:

— NET = 000 to 255.
— CLU = 000 to 255.
— MEM = 000 to 255.

If PCF equals ISPC, then DPC is composed of:

— WGZ = 1 to 7.
— ANI = 000 to 255.
— SPID = 0 to 7.

2.29 **DPSTOP** - Dial Pulse Stop
Entries: blank, Y, or N.

2.30 **E1T1** - Entries: blank.

2.31 **EACC** - Entries: blank.

2.32 **EXSEQ** - Entries: blank.

2.33 **FAI** - Entries: blank.

2.34 **FEAREA** - Entries: blank.

2.35 **FELATA** - Far End Local Access and Transport Area
Entries: blank or 000 to 999.

2.36 **FELN** - Entries: blank.

2.37 **FENCLASS** - Far End Network Class
Entries: blank, ACCESA, ACCESI, ACCESO, CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.38 **FENID** - Far End Network ID
Entries: blank or 1 to 6 alphanumeric characters.

2.39 **FENPA** - Far End Numbering Plan Area
Entries: 200 to 999 and, for international, 2 to 9 and 20 to 99.

2.40 **FEOFC** - Far End Office
Entries: blank or 000 to 999.

2.41 **FEPTY** - Entries: blank.

2.42 **FESWID** - Entries: blank.

2.43 **FLDSPR** - Entries: blank.

2.44 **FOLI** - Entries: blank.

2.45 **FOSPS** - Entries: blank.

2.46 **GSDN** - Entries: blank.

2.47 **HUNT** - Entries: blank.

2.48 **ITCENC** - Information Transfer Capability (4E21>).
Entries: blank, Y, or N.

2.49 **IWZ1** - International World Zone 1
Entries: blank, Y, or N.

2.50 **IXC** - Entries: blank.

2.51 **LCVT** - Entries: blank.

2.52 **LNPIC** - A TSG field not used
Entries: blank.

2.53 **MEM** - Trunk Hunt with Memory
Entries: blank, Y, or N.

2.54 **MFSPEED** - Multi-Frequency Speed
Entries: blank, 7, or 10.

2.55 **MULAW** - A-law/Mu-law Encoding (4E18>)
Entries: blank, Y, or N.

2.56 **NCAR.tsg** - Entries: blank.

2.57 **NEOTR** - Near Operational Test Responsibility
Entries: Y or N.

2.58 **OFITR** - Entries: blank.

2.59 **ONCID** - Number of Carrier ID digits to send (4E18>)
Entries: blank, 3, or 4.

2.60 **ORNU** - Order Number
Entries: 1 to 999999.

2.61 **OSC** - Outgoing Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMMED, DPWINK, DTMFWK, ICOPNOP, INUP, ISUP, MFDDSD, MFWINK, MIOPNOP, Q931, SIOPMFW, SIOPNOP, TWOPDPD, TWOPDPI, TWOPDPW, TWOPMFW, or TUP.

2.62 **OTMTN** - Operational Terminating Test Number
Entries: blank or 000 to 9999999.

2.63 **OTMTT** - Operational Terminating Test Type
Entries: N, ATMC, CTX2, CTX3, SXS, SYNC, or T103.

2.64 **OTSTN** - Operational Thru Switch Test Number
Entries: blank or 000 to 9999999.

2.65 **OTSTT** - Operational Thru Switch Test Type
Entries: N, ATMB, CTX2, CTX3, SXS, SYNC, or T103.

2.66 **PCF** - Point Code Format
Entries: blank, ATT, ANSI, or ISPC.

2.67 **PRIT** - Entries: blank.

2.68 **PSATP** - Prohibit Sending Access Transport Parameters
Entries: blank, Y, or N.

2.69 **PSBN** - Prohibit Sending Billing Number
Entries: blank, PNNA (4E18>), PALL (4E18>), or SALL (4E18>).

2.70 **PSCPN** - Prohibit Sending Calling Party Number
Entries: blank, Y, or N.

2.71 **PSES** - Prohibit Service Evaluation
Entries: blank, Y, or N.

2.72 **PSOLI** - Prohibit Sending Originating Line Identity
Entries: blank, Y, or N.

2.73 **PSTNG** - Entries: blank.

2.74 **PSUUI** - Prohibit Sending User-to-User Information
Entries: blank, Y, or N.

2.75 **RFMP** - Ring Forward Miscellaneous Distributor Point
Entries: blank, Y, or N.

2.76 **REVAMP** - Entries: blank.

2.77 **S1** - Spare 1
Entries: blank or 0 to 7.

2.78 **S2-S10** - Spares 2 through 10
Entries: blank, Y, or N.

2.79 **SAT** - Satellite
Entries: Y or N.

2.80 **SBRIV** - Entries: blank.

2.81 **SCFN** - Send Confusion Message
Entries: blank, Y, or N.

2.82 **SINDEX** - Access Charge Verification Sampling Rate Index
Entries: blank, 0, 1, 2, 4, 8, 16, 32, or 64.

2.83 **SOIP** - Entries: blank.

2.84 **SPN** - Signal Ported Number (4E22R2>)
Entries: blank, Y, or N.

2.85 **STBI** - Entries: blank.

2.86 **SUPBLK** - Entries: blank.

2.87 **TCC** - Entries: blank.

2.88 **TFG** - Type of Feature Group
Entries: blank, B, C, or D.

2.89 **TOT** - Type of Trunk
Entries: ETC, INTL, INTLO, ITAND, ITOLL, ITOP, LCC, MISC, OCC, PBX, SECIT, STC, TAND, or TOLLC.

2.90 **TRIDX** - Entries: blank.

2.91 **TSGBBC** - TSG BroadBand Capability
Entries: blank or 0 to 6.

2.92 **TTA** - Entries: blank.

2.93 **VDCAP** - Entries: blank.

2.94 **WANISID** - WATS Service ANI/SID Request
Entries: blank, NONE, ANI, PANI, PSID, REQ, or SID.

2.95 **XCPA** - Transceiver (XC) Pad Adjustment
Entries: blank or 0 to 3.

2.96 **XTMTN** - Transmission Terminating Test Number
Entries: blank or 000 to 9999999.

2.97 **XTMTT** - Transmission Terminating Test Type
Entries: N, T100, T102, or T105.

2.98 **XTSTN** - Transmission Thru Switch Test Number
Entries: blank or 000 to 9999999.

2.99 **XTSTT** - Transmission Thru Switch Test Type
Entries: N, ATMA, T100, T102, or T105.

TABLE A
VALID CHARACTERISTICS FOR ONE-WAY OUTGOING TRUNK SUBGROUPS

OSC — TYPE OF TRUNK (TOT)

SIGNALING TYPES	ETC	INTL	INTLO	ITAND	ITOLL	ITOP	LCC	MISC	OCC	PBX	RCC	SECIT	STC	TAND	TOLLC
CCITT5		X	X												
CCITT6		X	X												
DOMCCIS				X	X			X				X		X	X
DPDDSD				X	X			X		X		X	X	X	X
DPIMMED				X	X			X		X		X	X	X	X
DPWINK				X	X			X		X		X	X	X	X
DTMFWK										X			X		
ICOPNOP						X		X		X			X		
INUP		X	X												
ISUP	X			X	X		X	X	X	X	X	X		X	X
MFDDSD				X	X		X	X		X		X		X	X
MFWINK	X			X	X		X	X	X	X		X		X	X
MIOPNOP								X		X			X		
Q931										X					
SIOPMFW												X			
SIOPNOP												X			
TUP		X	X												
TWOPDPD															X
TWOPDPI															X
TWOPDPW															X
TWOPMFW															X

```
# FORM 109          CHANGE A ONE-WAY OUTGOING TRUNK SUBGROUP
  4E18/4E19

RC:TSG;CHG;OPT(OUT1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,          TFG _,    TSGBBC _,

            TOT ______, SAT _,            DOM _____, ACD _,
FENPA ___,  FEOFC ___, FELATA ___,                   IWZ1 _,
MEM _,      PSES _,

                                                        CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,         DELAY ___,   MFSPEED __,
XCPA _,      DNP _,                                     PSOLI _,

BN ___________, BRL _,          GSDN _,
               PSBN _____, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,               CMERGE _,       SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                    DOFP _, SBRIV _,
                                                            FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,
ANCR _,  ACCID __,  ACCDTA __,

CAREA _,    CPOS _,   SINDEX __,          CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,             OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,             XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401C

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 109          CHANGE A ONE-WAY OUTGOING TRUNK SUBGROUP
  4E20

RC:TSG;CHG;OPT(OUT1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,            TFG _,     TSGBBC _, VDCAP _____,
FEAREA _____________, FESWID _____________,  EXSEQ _,  FEPTY _,

            TOT _____, SAT _,           DOM _____,  ACD _,                FAI_,
FENPA ___,  FEOFC ___, FELATA ___,                  IWZ1 _,
MEM _,      PSES _,

                                                       CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,  MFSPEED __,
XCPA _,      DNP _,                                    PSOLI _,

BN ___________, BRL _,          GSDN _,
                PSBN _____, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,               CMERGE _,        SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                     DOFP _, SBRIV _,
                                                             FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,     CSCSET _____, CID _____,
ANCR _,  ACCID __,  ACCDTA __, PSTNG _, FLDSPR _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401C

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 109          CHANGE A ONE-WAY OUTGOING TRUNK SUBGROUP
  4E20R2

RC:TSG;CHG;OPT(OUT1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,            TFG _,     TSGBBC _, VDCAP _____,
FEAREA _____________, FESWID _____________,  EXSEQ _,  FEPTY _,

            TOT _____, SAT _,           DOM _____,  ACD _,                FAI_,
FENPA ___,  FEOFC ___, FELATA ___,                  IWZ1 _,
MEM _,      PSES _,

                                                       CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,  MFSPEED __,
XCPA _,      DNP _,                                    PSOLI _,

BN ___________, BRL _,          GSDN _,
                PSBN _____, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,               CMERGE _,        SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                     DOFP _, SBRIV _,
                                                             FOSPS _, CCIF _,
ONCID _, D3DBN _, MULAW _,     CSCSET _____, CID _____,
ANCR _,  ACCID ___,  ACCDTA __, PSTNG _, FLDSPR _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401C

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 109          CHANGE A ONE-WAY OUTGOING TRUNK SUBGROUP
  4E21

RC:TSG;CHG;OPT(OUT1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,  VDCAP _____,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

            TOT _____, SAT _,              DOM _____, ACD _,               FAI _,
FENPA ___,  FEOFC ___, FELATA ___,                    IWZ1 _,
MEM _,      PSES _,

                                                        CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __,
XCPA _,      DNP _,                                     PSOLI _,

BN ___________, BRL _,          GSDN _,
                PSBN _____, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,               CMERGE _,        SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                     DOFP _, SBRIV _,
                                                             FOSPS _, CCIF _,
ONCID _, D3DBN _,   MULAW _,   CSCSET _____, CID _____,  ITCENC _, OFITR _,
ANCR _,  ACCID ___,  PSTNG _, FLDSPR _,  REVAMP _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401C

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 109          CHANGE A ONE-WAY OUTGOING TRUNK SUBGROUP
  4E22

RC:TSG;CHG;OPT(OUT1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,  VDCAP _____,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

            TOT ______, SAT _,             DOM _____, ACD _,               FAI _,
FENPA ___,  FEOFC ___, FELATA ___,                    IWZ1 _,
MEM _,      PSES _,

                                                        CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __,
XCPA _,      DNP _,                                     PSOLI _,

BN ___________, BRL _,          GSDN _,
                PSBN _____, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,               CMERGE _,        SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                     DOFP _, SBRIV _,
                                                             FOSPS _, CCIF _,
ONCID _, D3DBN _,   MULAW _,   CSCSET ______, CID _____,  ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID ___,  PSTNG _, FLDSPR _,  REVAMP _, E1T1 _, SUPBLK _,
IXC _,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401C

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 109          CHANGE A ONE-WAY OUTGOING TRUNK SUBGROUP
  4E23R1

RC:TSG;CHG;OPT(OUT1WAY),___:                              BTFN TOWN ST BL FBS NBS

ORNU _______,                                          TSG _____ _____ __ __ ___ ___,
PCF _____,   AOPC __________,                          DPC __________,

FENCLASS _______, FENID _______,           TFG _,    TSGBBC _,  VDCAP ______,
FEAREA _____________, FESWID _____________, EXSEQ _, FEPTY _,

            TOT ______, SAT _,             DOM _____, ACD _,               FAI _,
FENPA ___,  FEOFC ___, FELATA ___,                    IWZ1 _,
MEM _,      PSES _,

                                                        CCIS2WRE _,
OSC ________, RFMP _,   DPSTOP _,          DELAY ___,   MFSPEED __,
XCPA _,      DNP _,                                     PSOLI _,

BN ___________, BRL _,          GSDN _,
                PSBN _____, PSCPN _,       ANISID _____, WANISID _____, PSUUI _,
BNPT _____,               CMERGE _,        SCFN _,           PRIT _______,
APS _, CHNEG _, PSATP _,                                     DOFP _, SBRIV _,
                                                             FOSPS _, CCIF _,
ONCID _, D3DBN _,   MULAW _,   CSCSET ______, CID _____,  ITCENC _, OFITR _,
SPN _, LNPIC _,
ANCR _,  ACCID ___,  PSTNG _, FLDSPR _,  REVAMP _, E1T1 _, SUPBLK _,
IXC _, FOLI _, FELN _, HUNT __, CSN __,

CAREA _,    CPOS _,   SINDEX __,           CODSC _,    NEOTR _,    TRIDX __,
OTSTT _____, OTSTN _________,              OTMTT _____, OTMTN _________,
XTSTT _____, XTSTN _________,              XTMTT _____, XTMTN _________,

S1 _, S2 _, S3 _, S4 _, S5 _, S6 _, S7 _, S8 _, S9 _, S10 _,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 401C

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 109   CHANGE A ONE WAY OUTGOING TRUNK SUBGROUP
  4E24
RC:TSG;CHG;OPT(OUT1WAY),---:                              BTFN TOWN ST BL FBS NBS

ORNU ------,                                          TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                           DPC ---------,

FENCLASS ------, FENID ------,           TFG -, TSGBBC -, VDCAP -----,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,

            TOT -----, SAT -,            DOM ----, ACD -,           FAI -,
FENPA ---,  FEOFC ---, FELATA ---,                 IWZ1 -,
MEM -,      PSES -,

                                                      CCIS2WRE -,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --,
XCPA -,      DNP -,                                   PSOLI -,

BN ----------, BRL -,          GSDN -,
                  PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----,              CMERGE -,       SCFN -,           PRIT ------,
APS -, CHNEG -, PSATP -,                                  DOFP -, SBRIV -,
                                                          FOSPS -, CCIF -,
ONCID -, D3DBN -,   MULAW -,   CSCSET ------, CID ----, ITCENC -, OFITR -,
SPN -, LNPIC -, NCAR -, TTA -,
ANCR -,  ACCID ---,  PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -,
IXC -, FOLI -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -, S6 -, S7 -, S8 -, S9 -, S10 -,


REMARKS -------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

```
# FORM 109   CHANGE A ONE WAY OUTGOING TRUNK SUBGROUP
  4E25

RC:TSG;CHG;OPT(OUT1WAY),---:                          BTFN TOWN ST BL FBS NBS

ORNU ------,                                      TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                       DPC ---------,

FENCLASS ------, FENID ------,           TFG -, TSGBBC -, VDCAP -----,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,

            TOT -----, SAT -,            DOM ----, ACD -,           FAI -,
FENPA ---,  FEOFC ---, FELATA ---,                 IWZ1 -,
MEM -,      PSES -,

                                                     CCIS2WRE -,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,  MFSPEED --,
XCPA -,      DNP -,                                  PSOLI -,

BN ----------, BRL -,          GSDN -,
                  PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----,              CMERGE -,       SCFN -,          PRIT ------,
APS -, CHNEG -, PSATP -,                                 DOFP -, SBRIV -,
                                                         FOSPS -, CCIF -,
ONCID -, D3DBN -,   MULAW -,   CSCSET ------, CID ----, ITCENC -, OFITR -,
SPN -, LNPIC -, NCAR -, TTA -, BNI -, EACC --, LCVT -,
ANCR -,  ACCID ---,  PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -,
IXC -, FOLI -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -, S6 -, S7 -, S8 -, S9 -, S10 -,


REMARKS ------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG:CIN....
INPUT-11c-VER:TSG:TSGN....

OUTPUT(CHARACTERISTICS)-1c-VER:TSG,OPT(OUT1WAY):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

RC:TSG;CHG;OPT(INSEP),- - -:

FORM # 110 CHANGE THE INCOMING SEPARATION CLASS
OF AN EXISTING TRUNK SUBGROUP

1. GENERAL

1.01 Form #110 will be used to change the Incoming Separation Class of an existing Trunk Subgroup without specifying other Trunk Subgroup characteristics.

2. FORM ENTRIES

2.01 RC:TSG;CHG;OPT(INSEP),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CIN** - Circuit Identification Name

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.03 **INSEP** - Incoming Traffic Separation Class
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 110       CHANGE THE INCOMING SEPARATION CLASS
                 OF AN EXISTING TRUNK SUBGROUP


RC:TSG;CHG:OPT(INSEP),---:

ORNU ------,

         CIN                                          OLD        NEW
BTFN TOWN ST BL FBS NBS                              INSEP      INSEP

---- ---- -- -- --- ---,                             ---,       ---,
---- ---- -- -- --- ---,                             ---,       ---,
---- ---- -- -- --- ---,                             ---,       ---,
---- ---- -- -- --- ---,                             ---,       ---,
---- ---- -- -- --- ---,                             ---,       ---,
---- ---- -- -- --- ---,                             ---,       ---,
---- ---- -- -- --- ---,                             ---,       ---,
---- ---- -- -- --- ---,                             ---,       ---,
---- ---- -- -- --- ---,                             ---,       ---,
---- ---- -- -- --- ---,                             ---,       ---,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES - NONE

RC:TSG;CHG;OPT(CCIS6,CCS7),- - -:

FORM # 111 CCIS6/CCS7 TRUNK SUBGROUP CONVERSION

1. GENERAL

1.01 Form #111 provides the capability to change a Trunk Subgroup's characteristics to support the CCIS6 to CCS7 signaling conversion process. This form will provide the following capabilities:

1. To define a Destination Point Code for an existing CCIS6 Trunk Subgroup.
2. To change the ISC and OSC values of a Trunk Subgroup from DOMCCIS to ISUP and from ISUP to DOMCCIS.
3. To change an existing Destination Point Code.

The following rules apply when changing the Destination Point Code:

1. The ISC or OSC cannot be changed at the same time.
2. If the TSG is being used in the Real Time Network Routing (RTNR) network, it must be removed from RTNR.

When this form is used to change the CCS7 Destination Point Code (DPC) of a TSG, additional rules apply.

1. The TSG cannot be used in the Real Time Network Routing (RTNR) feature. Use Recent Change form 644 to remove the NSN from all the affected TSGs and then use Recent Change form 635 to remove the NSN from the DPC.
2. This form is not allowed to change a DPC if the DPC is used in one of the assigned entries in the HT4ADS (ANI Delivery Service) Translator. Use Recent Change forms 627 & 628 to remove the DPC from the HT4ADS Translator.
3. The old and new DPCs must have been entered on RC form 808.

This message is classed as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:TSG;NEW;OPT(CCIS6,CCS7),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **DPC** - Destination Point Code

— NET = blank or 0 to 255

— CR = blank or 0 to 31.

— CT = blank or 0 to 7.

— MEM = blank or 0 to 255.

2.03 **ISC OSC** - Incoming/Outgoing Signaling Characteristics
Entries: DOMCCIS or ISUP.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **RELEASE CCIS** - Release CCIS Translators
Entries: blank or Y.

2.06 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 111      CCIS6/CCS7 TRUNK SUBGROUP CONVERSION

RC:TSG;CHG;OPT(CCIS6,CCS7),___:    NET CR CT MEM        BTFN TOWN ST BL FBS NBS

ORNU _______,                   DPC ___,__,_, ___,   TSG _____ _____ __ __ ___ ___,

ISC OSC ________,    RELEASE CCIS _,

REMARKS _____________________________________________________!
```

RC:TSG;CHG;OPT(CHGTFNB),- - -:

FORM # 112 CHANGE THE FIRST TRAFFIC NUMBER OF AN EXISTING TRUNK SUBGROUP TRAFFIC NUMBER BLOCK

1. GENERAL

1.01 Form #112, available with the 4E15 and later Generic Program, changes a traffic number block of an existing Trunk Subgroup from an old range to a new range. The first traffic number of the old range must match up with a first traffic number of an existing traffic number block. All numbers in the new traffic block range must not overlap any part of an existing traffic number block range for any of the trunk subgroups in the affected trunk group. This message is classed as a Recent Change Data Message (RCDM).

WARNING: If the OLDFTFN matches the BTFN of the TSG, then the NEWFTFN will be the new BTFN identifying the TSG.

1.02 This change capability is prohibited for trunk subgroups with ISUP, INUP, and TUP signaling.

All trunks in the affected trunk blocks must be in the Manually Disabled state.

This message is not allowed for non-message trunk subgroups.

2. FORM ENTRIES

2.01 RC:TSG;CHG;OPT(CHGTFNB),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **OLDFTFN** - Old First Traffic Number
Entries: 0 to 9976.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **NEWFTFN** - New First Traffic Number
Entries: 0 to 9976.

2.05 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 112   CHANGE THE FIRST TRAFFIC NUMBER OF AN EXISTING
                TRUNK SUBGROUP TRAFFIC NUMBER BLOCK

RC:TSG;CHG;OPT(CHGTFNB),___:                          BTFN TOWN ST BL FBS NBS

ORNU _______,                                    TSG _____ _____ __ __ ___ ___,

OLDFTFN _____,   NEWFTFN _____,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-11e-VER:TFNB:TG

OUTPUT-1h-VER:TFNB

RC:TSG;CHG;OPT(CICS),- - -:

FORM # 113 TSG CARRIER IDENTIFICATION CODE LIST

1. GENERAL

1.01 Form #113 provides the capability to populate a list of Carrier Identificaiton Codes (CICs) associated with a Trunk Subgroup.

Populating all CIC fields with blanks will delete the CIC list for the TSG.

2. FORM ENTRIES

2.01 RC:TSG;CHG;OPT(CICS),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **TSG -** Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **CIC** - Carrier Identification Code
Entries: blank, 0000 to 9999. Blank is treated as delete.

```
# FORM 113      REPLACE CARRIER IDENTIFICATION CODE LIST
  <4E22R2

RC:TSG;CHG;OPT(CICS),---:              BTFN TOWN ST BL FBS NBS

ORNU ------,                        TSG ---- ---- -- -- --- ---,


               CIC    CIC    CIC    CIC

              ----,  ----,  ----,  ----,
              ----,  ----,  ----,  ----,
              ----,  ----,  ----,  ----,
              ----,  ----,  ----,  ----,


REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-VER:MISC CIP: CIN 201KSCYMO0914T! (EOT)

OUTPUT-1i-VER:TSG;OPT(CICS)

```
# FORM 113      REPLACE CARRIER IDENTIFICATION CODE LIST
  4E22 R3>


RC:TSG;CHG;OPT(CICS),---:              BTFN TOWN ST BL FBS NBS

ORNU ------,                        TSG ---- ---- -- -- --- ---,


CIC    CIC    CIC    CIC    CIC    CIC    CIC    CIC    CIC

----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,


REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-VER:MISC CIP: CIN 201KSCYMO0914T! (EOT)

OUTPUT-1i-VER:TSG;OPT(CICS)

Future

SECTION 2 - TRUNK ASSIGNMENTS

SECTION	RC#	
2a	200	Add new trunks, assign TANs manually
2c	202	Delete message and VFL trunks
2d	203	Add new Common Channel Signaling (CCS) trunks, assign TANs manually
2e	204	Add new VFL trunks, assign TANs manually
2f	205	Add new TAN Nailups
2g	206	Delete TAN Nailups
2h	207	LACID to D-Channel Assignment
2i	208	Change Trunk Characteristics
2j	209	Change ISDN Service Data

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

RC:TRK;NEW;OPT(MANUAL),- - -:

FORM # 200 ADD NEW TRUNKS, ASSIGN TANS MANUALLY

1. GENERAL

1.01 Form #200 is used to add new trunks to an existing Trunk Subgroup. This message is classed as a Recent Change Data Message (RCDM).

See TABLE A for the D1D/D2 channel to Time Slot conversion information.

For further information regarding the use of this form for adding service circuits to the Service Circuit System (SCS) frame see Div. 6, Section 2g.

2. FORM ENTRIES

2.01 RC:TRK;NEW;OPT(MANUAL),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **BBC** - Broadband Capability
Entries: blank or 0 to 6.

2.03 **D1D2** - D1 or D2
Entries: blank, D1, or D2.

2.04 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.05 **FAC** - Facility Number
Entries: blank or 0 to 31.

2.06 **FCHAN** - Far-end Channel
Entries: blank or 1 to 24.

2.07 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.08 **FTRID** - First Trunk ID
Entries: blank or 1 to 255.

2.09 **LACID** - Link Access Identifier
Entries: blank or 0 to 2047.

2.10 **ORNU** - Order Number
Entries: 1 to 999999.

2.11 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.12 **SCGA** - Software Carrier Group Alarm
Entries: blank, Y, or N.

2.13 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.14 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.15 **VCR** - Voice Path Assurance Cancellation Rate
Entries: 0, 50, 87, or 100.

TABLE A

D1D/D2 CHANNEL-TO-TIME SLOT CONVERSION

Far End Channel	D1D Time Slot	D2 Time Slot
1	FTS+ 0	FTS+ 2
2	FTS+ 2	FTS+14
3	FTS+ 4	FTS+ 8
4	FTS+ 6	FTS+ 20
5	FTS+ 8	FTS+ 4
6	FTS+ 10	FTS+ 16
7	FTS+ 12	FTS+ 10
8	FTS+ 14	FTS+ 22
9	FTS+ 16	FTS+ 6
10	FTS+ 18	FTS+ 18
11	FTS+ 20	FTS+ 12
12	FTS+ 22	FTS+ 0
13	FTS+ 1	FTS+ 1
14	FTS+ 3	FTS+ 13
15	FTS+ 5	FTS+ 7
16	FTS+ 7	FTS+ 19
17	FTS+ 9	FTS+ 3
18	FTS+ 11	FTS+ 15
19	FTS+ 13	FTS+ 9
20	FTS+ 15	FTS+ 21
21	FTS+ 17	FTS+ 5
22	FTS+ 19	FTS+ 17
23	FTS+ 21	FTS+ 11
24	FTS+ 23	FTS+ 23

FTS = 1, 25, 49, 73, or 97

These numbers represent the 1st, 2nd, 3rd, 4th, and 5th set of 24 time slots of the 120 assignable time slots in a level. One group of 24 time slots (out of 5) in a digroup terminal is called a "digroup."

```
# FORM 200   ADD NEW TRUNKS, ASSIGN TANS MANUALLY
  4E18>


RC:TRK;NEW;OPT(MANUAL),---:                              BTFN TOWN ST BL FBS NBS

ORNU ------,                                        TSG ---- ---- -- -- --- ---,

ES ----,                            D1D2 --,

                       TAN
QTRK  FTFN      TSI SPC LVL FTS    FCHAN     LACID FAC FTRID    VCR  BBC   SCGA

---,  ----,     --,  -,  -, ---,    --,      ----, --,  ---,    ---,  -,    -,
---,  ----,     --,  -,  -, ---,    --,      ----, --,  ---,    ---,  -,    -,
---,  ----,     --,  -,  -, ---,    --,      ----, --,  ---,    ---,  -,    -,
---,  ----,     --,  -,  -, ---,    --,      ----, --,  ---,    ---,  -,    -,
---,  ----,     --,  -,  -, ---,    --,      ----, --,  ---,    ---,  -,    -,
---,  ----,     --,  -,  -, ---,    --,      ----, --,  ---,    ---,  -,    -,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 402A

ASSOCIATED VERIFY MESSAGES

INPUT-12a-VER:TRK:

OUTPUT-2a-VER:TRK:

Future

RC:TRK;OUT;- - -:

FORM # 202 DELETE MESSAGE AND VFL TRUNKS

1. GENERAL

1.01 Form #202 is used to delete non-CCIS and CCIS message trunks from existing messge Trunk Subgroups and to delete VFL trunks from VFL Trunk Subgroups. This message is classed as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:TRK;OUT;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.05 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 202   DELETE MESSAGE TRUNKS

RC:TRK;OUT;---:                                          BTFN TOWN ST BL FBS NBS

ORNU ------,                                       TSG ---- ---- -- -- --- ---,

QTRK    FTFN

---,    ----,
---,    ----,
---,    ----,
---,    ----,
---,    ----,
---,    ----,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG...

OUTPUT(CHARACTERISTICS)-1a/1b/1c-VER:TSG,OPT(TWOWAY/IN1WAY/OUT1WAY/VFL):

OUTPUT(LIST OF TRUNKS)-1d-VER:TSG,OPT(TRUNKS):

RC:TRK;NEW;OPT(MANUAL,CCS),- - -:

FORM # 203 ADD NEW CCS TRUNKS, ASSIGN TANS MANUALLY

1. GENERAL

1.01 Form #203 provides the capability to add Common Channel Signaling (CCS) trunks to a Trunk Subgroup which has incoming or outgoing signaling characteristics of CCITT6, DOMCCIS, INUP, ISUP, or TUP. This message is classed as a Recent Change Data Message (RCDM).

1.02 The Primary and Secondary terminal numbers and the Label for each trunk will distribute the traffic load between STPs. A block of four trunks will be assigned from the COLR card.

1.03 Every CCIS/CCITT6 trunk will have an individual identity consisting of the terminal number, a band number and a member number. Translation in the 4 ESS can be made on a ˆ4-trunk minimodule basis to conserve memory. This requires that four consecutive TANs must correspond to four consecutive member numbers within the same terminal and band. The block of TANs begin with a base of one while the member numbers begin with a base of zero. The relationship between the TAN and the member number must always meet the following conditions.

```
TIME SLOT       REMAINDER  1  2  3  0
DIVIDED BY 4     EQUAL TO
-------------------------------------
MEMBER NUMBER   REMAINDER  0  1  2  3
DIVIDED BY 4    MUST EQUAL
```

See TABLE A for a complete list of TAN (i.e., Time Slot) to member number relationship.

1.04 CCIS/CCITT6 trunks are spread between the two terminals of the pair by internal program algorithms. This will distribute the traffic load between STPs. A block of four trunks will be assigned on a primary or secondary terminal basis depending on the member numbers within a CCS label as indicated below:

MEMBER NUMBER	TERMINAL
0, 1, 2, 3	Primary
4, 5, 6, 7	Secondary
8, 9, 10, 11	Secondary
12, 13, 14, 15	Primary

For CCITT6, all nonsatellite trunks must be assigned, if possible, to a terminal that has a nonsatellite VFL. After meeting the above restriction, the total number of trunks must be assigned as equally as possible between the two terminals. The algorithm for this distribution is as follows:

1. Both terminals associated with satellite (nonsatellite) VFL are assigned half of the satellite (nonsatellite) trunks to each terminal.
2. One terminal associated with a satellite VFL; the other associated with a nonsatellite VFL.
    a. Assign all nonsatellite trunks to the terminal associated with the nonsatellite VFL.
    b. If the number of satellite trunks is less than or equal to the number of nonsatellite trunks, assign all satellite trunks to the terminal associated with the satellite VFL.
    c. If the number of satellite trunks is greater than the number of nonsatellite trunks, assign a number of satellite trunks (equal to the number of nonsatellite trunks) to the terminal associated with the satellite VFL. Assign the remaining satellite trunks equally between the two terminals.

1.05 When a 4 ESS uses T1 Carrier systems to interface with ˆfar-end D1D or D2 channel banks, and CCS signaling is to be used on the trunks, the circuit order must be written so that sequential traffic numbers and sequential CCS labels appear on sequential 4 ESS time slots. See Table B (D1D) or Table C (D2) for T Carrier channel to 4 ESS time slot relationship. See Table D (D1D) or Table E (D2) for D1D/D2 CCS minimodule association.

1.06 For a Digital Interface Frame (DIF), the Base TANs of a Digital Interface Unit (DIU) are easily determined because the 5 DS1s in a DIU always have a Base TAN in which the FTS is either 1, 25, 49, 73, or 97. For XTSI D3Us, the Base TAN depends on the D3U & DS1 number and TABLE F must be used to determine the SPC, LVL, and FTS of the Base TAN.

2. FORM ENTRIES

2.01 RC:TRK;NEW;OPT(MANUAL,CCS),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **BBC** - Broadband Capability
Entries: blank or 0 to 6.

2.03 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.04 **FCIC** - First Circuit Identification Code
Entries: blank or 0 to 4095.

2.05 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.06 **LABEL**

— FBAND - First Band Entries: 0 to 510 for CCIS, 0 to 127 for CCITT6, or blank.

— FMEMN - First Member Number Entries: 0 to 15 or blank.

2.07 **ORNU** - Order Number
Entries: 1 to 999999.

2.08 **PTERM** - Primary Terminal
Entries: 0 to 255.

2.09 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.10 **SCGA** - Software Carrier Group Alarm
Entries: blank, Y, or N.

2.11 **STERM** - Secondary Terminal
Entries: 0 to 255.

2.12 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.13 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.14 **VCR** - Voice Path Assurance Cancellation Rate
Entries: 0, 50, 87, or 100.

TABLE A
CCIS/CCS TIME SLOT
TO
MEMBER NUMBER ASSOCIATION

TIME SLOT	MEMBER NUMBER	TIME SLOT	MEMBER NUMBER	TIME SLOT	MEMBER NUMBER
1	0, 4, 8, 12	41	8, 12, 0, 4	81	0, 4, 8, 12
2	1, 5, 9, 12	42	9, 13, 1, 5	82	1, 5, 9, 13
3	2, 6, 10, 14	43	10, 14, 2, 6	83	2, 6, 10, 14
4	3, 7, 11, 15	44	11, 15, 3, 7	84	3, 7, 11, 15
5	4, 8, 12, 0	45	12, 0, 4, 8	85	4, 8, 12, 0
6	5, 9, 13, 1	46	13, 1, 5, 9	86	5, 9, 13, 1
7	6, 10, 14, 2	47	14, 2, 6, 10	87	6, 10, 14, 2
8	7, 11, 15, 3	48	15, 3, 7, 11	88	7, 11, 15, 3
9	8, 12, 0, 4	49	0, 4, 8, 12	89	8, 12, 0, 4
10	9, 13, 1, 5	50	1, 5, 9, 13	90	9, 13, 1, 5
11	10, 14, 2, 6	51	2, 6, 10, 14	91	10, 14, 2, 6
12	11, 15, 3, 7	52	3, 7, 11, 15	92	11, 15, 3, 7
13	12, 0, 4, 8	53	4, 8, 12, 0	93	12, 0, 4, 8
14	13, 1, 5, 9	54	5, 9, 13, 1	94	13, 1, 5, 9
15	14, 2, 6, 10	55	6, 10, 14, 2	95	14, 2, 6, 10
16	15, 3, 7, 11	56	7, 11, 15, 3	96	15, 3, 7, 11
17	0, 4, 8, 12	57	8, 12, 0, 4	97	0, 4, 8, 12
18	1, 5, 9, 13	58	9, 13, 1, 5	98	1, 5, 9, 13
19	2, 6, 10, 14	59	10, 14, 2, 6	99	2, 6, 10, 14
20	3, 7, 11, 15	60	11, 15, 3, 7	100	3, 7, 11, 15
21	4, 8, 12, 0	61	12, 0, 4, 8	101	4, 8, 12, 0
22	5, 9, 13, 1	62	13, 1, 5, 9	102	5, 9, 13, 1
23	6, 10, 14, 2	63	14, 2, 6, 10	103	6, 10, 14, 2
24	7, 11, 15, 3	64	15, 3, 7, 11	104	7, 11, 15, 3
25	8, 12, 0, 4	65	0, 4, 8, 12	105	8, 12, 0, 4
26	9, 13, 1, 5	66	1, 5, 9, 13	106	9, 13, 1, 5
27	10, 14, 2, 6	67	2, 6, 10, 14	107	10, 14, 2, 6
28	11, 15, 3, 7	68	3, 7, 11, 15	108	11, 15, 3, 7
29	12, 0, 4, 8	69	4, 8, 12, 0	109	12, 0, 4, 8
30	13, 1, 5, 9	70	5, 9, 13, 1	110	13, 1, 5, 9
31	14, 2, 6, 10	71	6, 10, 14, 2	111	14, 2, 6, 10
32	15, 3, 7, 11	72	7, 11, 15, 3	112	15, 3, 7, 11
33	0, 4, 8, 12	73	8, 12, 0, 4	113	0, 4, 8, 12
34	1, 5, 9, 13	74	9, 13, 1, 5	114	1, 5, 9, 13
35	2, 6, 10, 14	75	10, 14, 2, 6	115	2, 6, 10, 14
36	3, 7, 11, 15	76	11, 15, 3, 7	116	3, 7, 11, 15
37	4, 8, 12, 0	77	12, 0, 4, 8	117	4, 8, 12, 0
38	5, 9, 13, 1	78	13, 1, 5, 9	118	5, 9, 13, 1
39	6, 10, 14, 2	79	14, 2, 6, 10	119	6, 10, 14, 2
40	7, 11, 15, 3	80	15, 3, 7, 11	120	7, 11, 15, 3

TABLE B
D1D Channel Bank

Channel	Time Slot
1	1
2	3
3	5
4	7
5	9
6	11
7	13
8	15
9	17
10	19
11	21
12	23
13	2
14	4
15	6
16	8
17	10
18	12
19	14
20	16
21	18
22	20
23	22
24	24

TABLE D
D1D CCIS/CCS Minimodules

4ESS Time Slot	D1D Channel
1	1
2	13
3	2
4	14
5	3
6	15
7	4
8	16
9	5
10	17
11	6
12	18
13	7
14	19
15	8
16	20
17	9
18	21
19	10
20	22
21	11
22	23
23	12
24	24

TABLE C
D2 Channel Bank

Channel	Time Slot
1	3
2	15
3	9
4	21
5	5
6	17
7	11
8	23
9	7
10	19
11	13
12	1
13	2
14	14
15	8
16	20
17	4
18	16
19	10
20	22
21	6
22	18
23	12
24	24

TABLE E
D2 CCIS/CCS Minimodules

4ESS Time Slot	D2 Channel
1	12
2	13
3	1
4	17
5	5
6	21
7	9
8	15
9	3
10	19
11	7
12	23
13	11
14	14
15	2

16	18
17	6
18	22
19	10
20	16
21	4
22	20
23	8
24	24

TABLE F - XTSI D3U BASE TANS FOR EVEN MEMBER NUMBERED XTSI's

Even TSI Member number.

XTSI		TAN			XTSI		TAN		
D3U	DS1	SPC	LVL	FTS	D3U	DS1	SPC	LVL	FTS
0	1	0	0	001	0	15	1	0	001
0	2	0	0	025	0	16	1	0	025
0	3	0	0	049	0	17	1	0	049
0	4	0	0	073	0	18	1	0	073
0	5	0	0	097	0	19	1	0	097
0	6	0	0	121	0	20	1	0	121
0	7	0	1	017	0	21	1	1	017
0	8	0	1	041	0	22	1	1	041
0	9	0	1	065	0	23	1	1	065
0	10	0	1	089	0	24	1	1	089
0	11	0	1	113	0	25	1	1	113
0	12	0	2	009	0	26	1	2	009
0	13	0	2	033	0	27	1	2	033
0	14	0	2	057	0	28	1	2	057
1	1	0	2	081	1	15	1	2	081
1	2	0	2	105	1	16	1	2	105
1	3	0	3	001	1	17	1	3	001
1	4	0	3	025	1	18	1	3	025
1	5	0	3	049	1	19	1	3	049
1	6	0	3	073	1	20	1	3	073
1	7	0	3	097	1	21	1	3	097
1	8	0	3	121	1	22	1	3	121
1	9	0	4	017	1	23	1	4	017
1	10	0	4	041	1	24	1	4	041
1	11	0	4	065	1	25	1	4	065
1	12	0	4	089	1	26	1	4	089
1	13	0	4	113	1	27	1	4	113
1	14	0	5	009	1	28	1	5	009
2	1	0	5	033	2	15	1	5	033
2	2	0	5	057	2	16	1	5	057
2	3	0	5	081	2	17	1	5	081
2	4	0	5	105	2	18	1	5	105
2	5	0	6	001	2	19	1	6	001
2	6	0	6	025	2	20	1	6	025
2	7	0	6	049	2	21	1	6	049
2	8	0	6	073	2	22	1	6	073
2	9	0	6	097	2	23	1	6	097
2	10	0	6	121	2	24	1	6	121
2	11	0	7	017	2	25	1	7	017
2	12	0	7	041	2	26	1	7	041
2	13	0	7	065	2	27	1	7	065
2	14	0	7	089	2	28	1	7	089

Maintenance channels are defined as TANs when LVL & FTS are 0 and when LVL is 7 & FTS is 113 through 127. Maintenance Channels cannot be assigned.

TABLE F (cont) - XTSI D3U BASE TANS FOR ODD MEMBER NUMBERED XTSI's

Odd TSI Member number.

XTSI		TAN			XTSI		TAN		
D3U	DS1	SPC	LVL	FTS	D3U	DS1	SPC	LVL	FTS
3	1	0	0	001	3	15	1	0	001
3	2	0	0	025	3	16	1	0	025
3	3	0	0	049	3	17	1	0	049
3	4	0	0	073	3	18	1	0	073
3	5	0	0	097	3	19	1	0	097
3	6	0	0	121	3	20	1	0	121
3	7	0	1	017	3	21	1	1	017
3	8	0	1	041	3	22	1	1	041
3	9	0	1	065	3	23	1	1	065
3	10	0	1	089	3	24	1	1	089
3	11	0	1	113	3	25	1	1	113
3	12	0	2	009	3	26	1	2	009
3	13	0	2	033	3	27	1	2	033
3	14	0	2	057	3	28	1	2	057
4	1	0	2	081	4	15	1	2	081
4	2	0	2	105	4	16	1	2	105
4	3	0	3	001	4	17	1	3	001
4	4	0	3	025	4	18	1	3	025
4	5	0	3	049	4	19	1	3	049
4	6	0	3	073	4	20	1	3	073
4	7	0	3	097	4	21	1	3	097
4	8	0	3	121	4	22	1	3	121
4	9	0	4	017	4	23	1	4	017
4	10	0	4	041	4	24	1	4	041
4	11	0	4	065	4	25	1	4	065
4	12	0	4	089	4	26	1	4	089
4	13	0	4	113	4	27	1	4	113
4	14	0	5	009	4	28	1	5	009
5	1	0	5	033	5	15	1	5	033
5	2	0	5	057	5	16	1	5	057
5	3	0	5	081	5	17	1	5	081
5	4	0	5	105	5	18	1	5	105
5	5	0	6	001	5	19	1	6	001
5	6	0	6	025	5	20	1	6	025
5	7	0	6	049	5	21	1	6	049
5	8	0	6	073	5	22	1	6	073
5	9	0	6	097	5	23	1	6	097
5	10	0	6	121	5	24	1	6	121
5	11	0	7	017	5	25	1	7	017
5	12	0	7	041	5	26	1	7	041
5	13	0	7	065	5	27	1	7	065
5	14	0	7	089	5	28	1	7	089

Maintenance channels are defined as TANs when LVL & FTS are 0 and when LVL is 7 & FTS is 113 through 127. Maintenance Channels cannot be assigned.

```
# FORM 203   ADD NEW CCS TRUNKS, ASSIGN TANS MANUALLY

RC:TRK;NEW;OPT(MANUAL,CCS),---:                          BTFN TOWN ST BL FBS NBS

ORNU ------,                                        TSG ---- ---- -- -- --- ---,

ES ----,                                PTERM ---,
                                        STERM ---,

                     TAN            LABEL
QTRK  FTFN    TSI  SPC LVL FTS    FBAND FMEMN   FCIC    VCR  BBC  SCGA

---,  ----,   --,   -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
---,  ----,   --,   -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
---,  ----,   --,   -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
---,  ----,   --,   -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
---,  ----,   --,   -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
---,  ----,   --,   -,  -, ---,   ---,   --,    -----,  ---,  -,   -,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 402C

ASSOCIATED VERIFY MESSAGES

INPUT-12a-VER:TRK:

OUTPUT-2b-VER:TRK;OPT(CCS):

RC:TRK;NEW;OPT(VFL),- - -:

FORM # 204 ADD NEW VFL TRUNKS, ASSIGN TANS MANUALLY

1. GENERAL

1.01 Form #204 is used to add new Common Channel Interoffice Signaling Voice Frequency Link (CCIS VFL) trunks. This message is classed as a Recent Change Data Message (RCDM).

See TABLE A for the D1D/D2 channel to Time Slot conversion information.

2. FORM ENTRIES

2.01 RC:TRK;NEW;OPT(VFL),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **D1D2** - D1 or D2
Entries: blank, D1, or D2.

2.03 **FCHAN** - Far-end Channel
Entries: blank or 1 to 24.

2.04 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

2.06 **QTRK** - Quantity of Trunks
Entries: 1.

2.07 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.08 **TERM** - Terminal Number
Entries: 0 to 255.

2.09 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

TABLE A

D1D/D2 CHANNEL-TO-TIME SLOT CONVERSION

Far End Channel	D1D Time Slot	D2 Time Slot
1	FTS+ 0	FTS+ 2
2	FTS+ 2	FTS+14
3	FTS+ 4	FTS+ 8
4	FTS+ 6	FTS+ 20
5	FTS+ 8	FTS+ 4
6	FTS+ 10	FTS+ 16
7	FTS+ 12	FTS+ 10
8	FTS+ 14	FTS+ 22
9	FTS+ 16	FTS+ 6
10	FTS+ 18	FTS+ 18
11	FTS+ 20	FTS+ 12
12	FTS+ 22	FTS+ 0
13	FTS+ 1	FTS+ 1
14	FTS+ 3	FTS+ 13
15	FTS+ 5	FTS+ 7
16	FTS+ 7	FTS+ 19
17	FTS+ 9	FTS+ 3
18	FTS+ 11	FTS+ 15
19	FTS+ 13	FTS+ 9
20	FTS+ 15	FTS+ 21
21	FTS+ 17	FTS+ 5
22	FTS+ 19	FTS+ 17
23	FTS+ 21	FTS+ 11
24	FTS+ 23	FTS+ 23

FTS = 1, 25, 49, 73, or 97

These numbers represent the 1st, 2nd, 3rd, 4th, and 5th set of 24 time slots of the 120 assignable time slots in a level. One group of 24 time slots (out of 5) in a digroup terminal is called a "digroup."

```
# FORM 204  ADD PRIMARY/RESERVE VFL TRUNKS

RC:TRK;NEW;OPT(VFL),---:                                  BTFN TOWN ST BL FBS NBS

ORNU ------,                                          TSG ---- ---- -- -- --- ---,

TERM ---,                                          D1D2 --,

                         TAN
QTRK  FTFN        TSI SPC LVL FTS        FCHAN

  1,  ----,       --,  -,  -, ---,         --,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 402D

ASSOCIATED VERIFY MESSAGES

INPUT-12a-VER:TRK:

OUTPUT-2a-VER:TRK:

RC:TRK;NEW;OPT(NAILUP),- - -:

FORM # 205 ADD TAN NAILUPS

1. GENERAL

1.01 Form #205 is used to nail-up trunks. All trunks being nailed up must be CAD.DSA. After this Recent Change message is activated, transmission paths are kept open until the input message "ORD:TL;RLS:CIN ..." is entered for each trunk. This message is classed as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:TRK;NEW;OPT(NAILUP),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ORNU** - Order Number
Entries: 1 to 999999.

2.03 **QTRK** - Quantity of Trunks
Entries: 1 to 24.

2.04 **RDC** - Red Circuit
Entries: blank, Y, or N.

2.05 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.06 **TYP** - Type of Connection
Entries: blank, FSP, R56, R64, C64, DCH, and LNK.

```
# FORM 205   ADD NEW NAILUP ASSIGNMENTS


RC:TRK;NEW;OPT(NAILUP),---:

ORNU ------,

                     TAN                       TAN
QTRK           TSI SPC LVL FTS           TSI SPC LVL FTS      TYP      RDC

 --,           --,  -,  -, ---,          --,  -,  -, ---,     ---,      -,
 --,           --,  -,  -, ---,          --,  -,  -, ---,     ---,      -,
 --,           --,  -,  -, ---,          --,  -,  -, ---,     ---,      -,
 --,           --,  -,  -, ---,          --,  -,  -, ---,     ---,      -,
 --,           --,  -,  -, ---,          --,  -,  -, ---,     ---,      -,
 --,           --,  -,  -, ---,          --,  -,  -, ---,     ---,      -,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-12d-VER:NAILUP

OUTPUT-2n-VER:NAILUP

RC:TRK;OUT;OPT(NAILUP),- - -:

FORM # 206 DELETE TAN NAILUPS

1. GENERAL

1.01 Form #206 is used to delete TAN nailups. This message is classed as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:TRK;OUT;OPT(NAILUP),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ORNU** - Order Number
Entries: 1 to 999999.

2.03 **QTRK** - Quantity of Trunks
Entries: 1 to 24.

2.04 **RDC** - Red Circuit
Entries: blank, Y, or N.

2.05 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

```
# FORM 206   DELETE NAILUP ASSIGNMENTS


RC:TRK;OUT;OPT(NAILUP),---:

ORNU ------,

                     TAN                          TAN
QTRK           TSI   SPC LVL FTS           TSI   SPC LVL FTS      RDC

 --,            --,   -,  -, ---,           --,   -,  -, ---,       -,
 --,            --,   -,  -, ---,           --,   -,  -, ---,       -,
 --,            --,   -,  -, ---,           --,   -,  -, ---,       -,
 --,            --,   -,  -, ---,           --,   -,  -, ---,       -,
 --,            --,   -,  -, ---,           --,   -,  -, ---,       -,
 --,            --,   -,  -, ---,           --,   -,  -, ---,       -,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-12d-VER:NAILUP

OUTPUT-2n-VER:NAILUP

RC:TRK;NEW;OPT(LACID),- - -:

FORM # 207 LACID TO D-CHANNEL ASSIGNMENT

1. GENERAL

1.01 Form #207 is used to associate a LACID with the D-Channel port TANs. One or two D-Channels may be assigned to a LACID depending on whether D-Channel backup will be used or not. The TAN(s) specified on this form must be assigned to the ACI*DCHN Trunk Subgroup.

An ACTION of "A" is used to either add a new LACID assignment with one or two D-Channels or to add a second D-Channel to an existing LACID entry that has only one D-Channel assigned. An ACTION of "D" is used to either delete one D-Channel from an existing LACID entry that has two D-Channels associated with it or to delete the LACID entry and its associated D-Channels.

2. FORM ENTRIES

2.01 RC:TRK;NEW;OPT(LACID),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACTION** - Action
Entries: A or D.

2.03 **LACID** - Link Access Identifier
Entries: 0 to 2047.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

```
# FORM 207   LACID TO D-CHANNEL ASSIGNMENT


RC:TRK;NEW;OPT(LACID),---:                                      LACID ----,

ORNU ------,  ACTION -,

      TAN
TSI SPC LVL FTS

--,  -,  -, ---,
--,  -,  -, ---,


REMARKS ----------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 402E

ASSOCIATED VERIFY MESSAGES

INPUT-12a-VER:TRK:

OUTPUT-2a-VER:TRK:

RC:TRK;CHG,- - -:

FORM # 208 CHANGE TRUNK CHARACTERISTICS

1. GENERAL

1.01 Form #208 is used to change trunk characteristics.

2. FORM ENTRIES

2.01 RC:TRK;CHG,- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **BBC** - Broadband Capability
Entries: blank or 0 to 6.
Leave blank if no change.

2.03 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.
Leave blank if no change.

2.04 **FAC** - Facility Number
Entries: blank or 0 to 31.
Leave blank if no change.

2.05 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.06 **FTRID** - First Trunk ID
Entries: blank or 1 to 255.
Leave blank if no change.

2.07 **LACID** - Link Access Identifier
Entries: blank or 0 to 2047.
Leave blank if no change.

2.08 **ORNU** - Order Number
Entries: 1 to 999999.

2.09 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.10 **SCGA** - Software Carrier Group Alarm
Entries: blank, Y, or N.
Leave blank if no change.

2.11 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.12 **VCR** - Voice Path Assurance Cancellation Rate
Entries: 0, 50, 87, or 100.
Leave blank if no change.

```
# FORM 208   CHANGE TRUNK CHARACTERISTICS
  4E18>


RC:TRK;CHG,---:                                          BTFN TOWN ST BL FBS NBS

ORNU ------,                                          TSG ---- ---- -- -- --- ---,


QTRK  FTFN       LACID FAC FTRID    VCR   BBC   SCGA   ES

---,  ----,      ----, --,  ---,    ---,   -,    -,   ----,
---,  ----,      ----, --,  ---,    ---,   -,    -,   ----,
---,  ----,      ----, --,  ---,    ---,   -,    -,   ----,
---,  ----,      ----, --,  ---,    ---,   -,    -,   ----,
---,  ----,      ----, --,  ---,    ---,   -,    -,   ----,
---,  ----,      ----, --,  ---,    ---,   -,    -,   ----,


REMARKS -------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-12a-VER:TRK:

OUTPUT-2a-VER:TRK:

RC:TRK;CHG;OPT(ISDN),---:

FORM # 209 CHANGE ISDN SERVICE DATA

1. GENERAL

1.01 Recent Change Form 209, available with the 4E15 Generic Program, is used to change ISDN service related data associated with a LACID (Link Access Identifier).

A blank field for one of the data entries indicates "no change" to that entry.

2. FORM ENTRIES

2.01 RC:TRK;CHG;OPT(ISDN),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CN** - Connected Number
Entries: blank or 1 to 10 decimal digits. An asterisk may be entered to remove the connected number.

2.03 **CNPR** - Connected Number Presentation Restricted
Entries: blank, Y, or N.

2.04 **CNS** - Connected Number Subscription
Entries: blank, Y, or N.

2.05 **EESP** - Entries: blank.

2.06 **ESP** - Entries: blank.

2.07 **LACID** - Link Access Identifier
Entries: 0 to 2047.

2.08 **ORNU** - Order Number
Entries: 1 to 999999.

2.09 **SRVC** - ISDN Service
Entries: SDN, SDS, ILDS, MEGC, M800, NOVA, I800.

```
# FORM 209   CHANGE ISDN SERVICE DATA
  4E18>


RC:TRK;CHG;OPT(ISDN),___:                              LACID ____,

ORNU _______,


CN ___________,    CNPR _,    CNS _,   ESP _,   EESP _,


SRVC    SRVC    SRVC    SRVC    SRVC    SRVC    SRVC    SRVC
____,   ____,   ____,   ____,   ____,   ____,   ____,   ____,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 402F

ASSOCIATED VERIFY MESSAGES

INPUT-12f-VER:TRK:LACID a,SRVC b

OUTPUT-2q-VER:TRK;OPT(ISDN)

SECTION 3 - CODE GROUPING

SECTION	RC#	
3a	300	Change 3 Digit Translation
3b	301	Change 4, 5, or 6 Digit Translation
3c	302	Change 7, 8, or 9 Digit Translation
3d	303	Change 10, 11, or 12 Digit Translation
3e	304	Change Subsequent Digit Routing
3f	305	Delete Subsequent Digit Routing
3h	307	Add a Served NPA
3i	308	Protect Terminating Office Codes
3j	309	Add a new Non POTS Domain
3l	311	Change Number of Translatable Digits
3m	312	Overlap Signaling Acceptable Digit Count
3n	313	Change Country Code
3o	314	Change Language Digit
3p	315	Change National Number Part 1
3q	316	Change National Number Part 2
3r	317	Add Country Code
3s	318	Delete Country Code
3t	319	Add Three Digit Type
3u	320	Delete Three Digit Type
3ab	327	Change DESEPS for 3 Digit Translations
3ac	328	Change DESEPS for 4, 5, or 6 Digit Translations
3ad	329	Change DESEPS for 7, 8, or 9 Digit Translations
3ae	330	Change DESEPS for 10, 11, or 12 Digit Translations
3af	331	Change 00Y Translations

3ag	332	Change Proportional Routing
3ah	333	Delete Proportional Routing
3ai	334	Change Equal Access Signaling II Digits and/or OLI Values
3aj	335	Change NX or ZZ to TNS Translator
3ak	336	Change II Digits to OLI or OLI to II Digits Translator
3al	337	Change Equal Access Signaling II Digits and/or OLI Value Service Type
3am	338	Change Service Identity Index Related Information
3ap	341	Emergency Alternate Routing Database
3aq	342	Emergency Alternate Routing Activate/Deactivate
3ar	343	FG-D CIC Expansion
3as	344	Add/Delete Domain Type Information
3at	345	Set/Reset AIN Trigger
3ax	349	Change Equal Access Forwarding Default II Digits
3ay	350	Change Equal Access Forwarding Default OLI Values

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

RC:CODEGRP;CHG;OPT(DIG3),- - -:

FORM # 300 CHANGE 3 DIGIT TRANSLATION

1. GENERAL

1.01 Form #300 changes the treatment of a group of three digit codes.

Table A shows the codegroup population rules. Table B shows the Go/No Go screening conditions.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(DIG3),- - -:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **ADC** - Acceptable Digit Count
Entries: blank or 3 to 15.

2.05 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SDINDEX (1 to 16383),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV, INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,N64C,N64R,IVT,APN, NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.06 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.07 **AD3** - blank.

2.08 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) - APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - 1 to 8191.

SD1/SD2/SD3 - 1 to 16383 (<4E22R4).

SDX - Subsequent Digit Index (1 to 16383).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, SYN.

TTS - Terminating Toll Switch Index.

2.09 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1 (<4E22R4), SD2 (<4E22R4), SD3 (<4E22R4), SDX, SSP, TEL, TST, TTS.

2.10 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.11 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.12 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.13 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.14 **NTD** - Number of Translatable Digits
Entries: 3.

2.15 **ORNU** - Order Number
Entries: 1 to 999999.

2.16 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

TABLE A
4E18 AND LATER GENERICS CALL TYPE POPULATION TABLE

CALL TYPE	CALL DATA	AD1	AD2	ADC	SC	CHI	DESEP	DNST
CRB	CRBI			req'd	optional	optional	1..255	optional
DSD	IQ10			req'd (10)	opt (DSD)	optional		optional
	SQ7			req'd (7)	opt (DSD)	optional		optional
	SQ10			req'd (10)	opt (DSD)	optional		optional
	IN10			req'd (10)	opt (DSD)	optional		optional
	SDN7			req'd (7)	opt (SDN)	optional		optional
	SD10			req'd (10)	opt (SDN)	optional		optional
	ARA			req'd (10)	opt (DSD)	optional		optional
	RDOM	DOM1		req'd	opt (DSD)	optional		optional
	DSD1..DSD12			req'd	opt (DSD)	optional		optional
DSN	NSN			req'd	optional	optional	1..255	optional
EAR	RDBI			req'd	optional	optional	1..255	optional
FHT	FHTI	CDNT						
GNS	RDBI	GN	GNSC entry	req'd	optional	optional	1..255	
INW	blank <800>			req'd (10)	opt (INW)	optional		optional
	blank,0..999			req'd (10)	opt (INW)	optional		optional
IRA	EASXP			req'd	optional	optional		optional
	EASIN			req'd	optional	optional		optional
	TRD81			req'd	optional	optional		optional
	TRDIN			req'd	optional	optional		optional
	RTRIN	DOM2		req'd	optional	optional		optional
	D2RIN	DOM2		req'd	optional	optional		optional
	RTRDOM	DOM3		req'd	optional	optional		optional
	D3RDOM	DOM3		req'd	optional	optional		optional
MMT	RDBI			req'd	optional	optional	1..255	optional
MRT	MRTI			req'd	optional	optional	1..255	optional
NVD	NVDI							
PAS	12 digit #			req'd (7,10)	optional	optional	1..255	optional
PRT	PRTI			req'd	optional	optional	1..255	optional
RDB	RDBI			req'd	optional	optional	1..255	optional
RNR	RDBI			req'd	optional	optional	1..255	optional
SDX	SDINDEX	SDTYPE						
SD1	SDINDEX	SDTYPE						
SD2	SDINDEX	SDTYPE						
SD3	SDINDEX	SDTYPE						
SSP	RT	TOS	CID	req'd	optional	optional		
	RTOOY	TOS	CID	req'd	optional	optional		
	RTCOIN	TOS	CID	req'd	optional	optional		
	NCP12	TOS	CID	req'd (9,12)	optional	optional		
	DB	TOS		req'd (10)	optional	optional		
	DB7	TOS		req'd (7)	optional	optional		
	DBOOY	TOS		req'd (10)	optional	optional		
	DBCOIN	TOS		req'd (10)	optional	optional		
	EASDNA			req'd	optional	optional		
	EASEQ			req'd	optional	optional		
	NDB	NDBI		req'd	optional	ND,NDB, NDBB	1..255	

TABLE A (cont.)

CALL TYPE POPULATION TABLE

CALL TYPE	CALL DATA	AD1	AD2	ADC	SC	CHI	DESEP	DNST
	TNSND	NDBI	CIDT	req'd	optional	ND,NDB, NDBB	1..255	
	RTP			req'd	optional	optional	1..255	
	SIAQ	TOS		req'd	optional	optional		
	SICQ	TOS		req'd	optional	optional		
	AIIO			req'd	optional	optional		
	ACPN			req'd	optional	optional		
	SFA	SFAI		req'd	optional	optional		
TEL	12 digit #	SAPN		req'd (7,10)	opt (DLT)	optional	1..255	optional
TST	100..105			req'd	opt (TST)	optional		
	108, 109			req'd	opt (TST)	optional		
	SYN			req'd	opt (TST)	optional		
TTS	TTSI	GN entry optional	GNSC entry req'd if AD1	req'd	optional	optional	1..255	optional

( ) - indicates standard entries < > - comments

AD1	AD2	ADC Values
blank	blank	0 = Use RDB
Go/Nogo entry	GN Screening Class	IN = International
SAPN entry	Carrier ID (CID)	AL = All counts
Type of Ser (TOS)	State entry	3..15 = 3 to 15 ADC
LATA entry	CIDT entry	
NDBI entry	entry	
DELETE entry		
SD index TYPE		
DOM1 entry		
DOM2 entry		
DOM3 entry		
DOM4 entry		
CDNT entry		
SFAI entry		

SC		CHI	
blank	INW	blank	IBLK
ALAP	IOP	AAT2	ICDR
ATAP	LDA	ABBB	IEA
CANP	MCPP	ABLK	MSC1
CARP	MSC1..4	ACD	MSC2
CUSP	MULT	CP00..CP19	ND
CUTP	NWZ1	EAAR	NDB
DA	RSYS	EGRH	NDBB
DLT	SC1..36	ESD2	PR00..PR19
DSD	SDN	ESSD	WAC2
EASC	SDND	FGB	WACK
HAWP	SPDI	IBBB	WSNO
ICIN	SSP		
INCN	TC		
INCO	TST		
INET			

Legal Values--->

- CID = 0000..9999
- CRBI = 1..32767
- DELETE = 0..15 or blank
- GNSC = 0..3
- LATA = 000..999
- NDBI = 1..1023
- NSN = 1..167
- NVDI = 0..127
- PRTI = 1..127
- RDBI = 1..8191
- SFAI = 0..6(39,4E23>)
- TOS = 0..31
- TTSI = 1..31
- SAPN = 0..63
- CDNT = blank,ITRA†,PRIV†,CORR†,ITER†,WZ1†

DNST = blank,UNAS,HC800,I800,INWATS,TC,D900,DSD800, NETS,MQ,DNST1-DNST23

Go/Nogo = (G,N)
STATE = two alphabetic characters
SDINDEX = 1..16383
SDTYPE = MTS,RSI,DC,DRTC,GSDN,TPC,SDN,IPR,CSRT,FAI,FPR,V31K
FHTI = AR,BT,EA1-EA7,HW,IFF,INC,IVC,MCA,NCA,NCC, NCD,NWC,OOB,ROA,SP1,SP2,T,VCA,DNN,DOO,INF, E01-E20,I01-I30,ISB,LDV,LOB,LSA,NCB,NWN,OOA,OTS,
DOM2 = INTO,IO56,IO64,IOH0,IOH1 R01-R10,S01-S19,SNA,STO,TDN,UNN,VMA,WAT

CIDT = blank,INTA,INTR,IAIR,INTL,IRIL,CIII
DOM1 = HNPA,IT,20-83,DED,DEV,INCD,IVT,APN,NH0C,NH1C
DOM2 = INTO,IO56,IO64
DOM3 = HNPA,IT,20-83,DED,DEV,INCD,I56D,I64C,IVT, N64C,N64R,APN,NH0C,NH1C

†DAVT domain only with CALLDATA=LSA

TABLE A
4E24 GENERIC CALL TYPE POPULATION TABLE

CALL TYPE	CALL DATA	AD1	AD2	AD3	ADC	SC	CHI	DESEP	DNST
CRB	CRBI			optional	req'd	optional	optional	1..255	optional
DSD	IQ10			optional	req'd (10)	opt (DSD)	optional		optional
	SQ7			optional	req'd (7)	opt (DSD)	optional		optional
	SQ10			optional	req'd (10)	opt (DSD)	optional		optional
	IN10			optional	req'd (10)	opt (DSD)	optional		optional
	IN12			optional	req'd	opt (DSD)	optional		optional
	ITS			optional	req'd	opt (DSD)	optional		optional
	GSDN			optional	req'd(8-15)	opt (DSD)	optional		optional
	SDN7			optional	req'd (7)	opt (SDN)	optional		optional
	SD10			optional	req'd (10)	opt (SDN)	optional		optional
	ARA			optional	req'd (10)	opt (DSD)	optional		optional
	IQAR			optional	req'd (10)	opt (DSD)	optional		optional
	RDOM	DOM1		optional	req'd (10)	opt (DSD)	optional		optional
	NRAS			optional	req'd (10)	opt (DSD)	optional		optional
	D1ST			optional	req'd (10)	opt (DSD)	optional		optional
	S710			optional	req'd (7,10)	opt (DSD)	optional		optional
	SO12			optional	req'd	opt (DSD)	optional		optional
	DSD1			optional	req'd	opt (DSD)	optional		optional
	DSD1-DSD12			optional	req'd	opt (DSD)	optional		optional
DSN	NSN			optional	req'd	optional	optional	1..255	optional
EAR	RDBI			optional	req'd	optional	optional	1..255	optional
FHT	FHTI								
GNS	RDBI	GN	GNSC entry	optional	req'd	optional	optional	1..255	
INW	blank	TFNPA		optional	req'd (10)	opt (INW)	optional		optional
	blank,0..999			optional	req'd (10)	opt (INW)	optional		optional
IRA	EAORI				req'd	optional	optional		optional
	EAORI				req'd	optional	optional		optional
	EASXP				req'd	optional	optional		optional
	EASIN				req'd	optional	optional		optional
	TRD81				req'd	optional	optional		optional
	TRDIN				req'd	optional	optional		optional
	RTRIN	DOM2			req'd	optional	optional		optional
	D2RIN	DOM2			req'd	optional	optional		optional
	RTRDOM	DOM3			req'd (10)	optional	optional		optional
	EASDN	DOM4			req'd	optional	optional		optional
	D3RDOM	DOM3			req'd (13)	optional	optional		optional
LSI	APN	LATA	STATE						
	NANP	LATA	STATE						
MCT	MCTI			optional	req'd	optional	optional	1..255	optional
MMT	RDBI			optional	req'd	optional	optional	1..255	optional
MRT	MRTI	blank,INH		optional	req'd	optional	optional	1..255	optional
NVD	NVDI								

TABLE A (cont.)
4E24 GENERIC CALL TYPE POPULATION TABLE

CALL TYPE	CALL DATA	AD1	AD2	AD3	ADC	SC	CHI	DESEP	DNST
PAS	12 digit #			optional	req'd (7,10)	optional	optional	1..255	optional
PRT	PRTI			optional	req'd	optional	optional	1..255	optional
RDB	RDBI		blank,OP0-OP7	optional	req'd	optional	optional	1..255	optional
RNR	RDBI			optional	req'd	optional	optional	1..255	optional
SDX	SDINDEX	SDTYPE	blank,CTR						
SD1	SDINDEX	SDTYPE							
SD2	SDINDEX	SDTYPE							
SD3	SDINDEX	SDTYPE							
SSP	RT	TOS	CID		req'd	optional	optional		
	RTOOY	TOS	CID		req'd	optional	optional		
	RTCOIN	TOS	CID		req'd	optional	optional		
	NCP12	TOS	CID		req'd (9,12)	optional	optional		
	DB	TOS			req'd (10)	optional	optional		
	DB7	TOS			req'd (7)	optional	optional		
	DBOOY	TOS			req'd (10)	optional	optional		
	DBCOIN	TOS			req'd (10)	optional	optional		
	EASDNA				req'd	optional	optional		
	EASEQ				req'd	optional	optional		
	NDB	NDBI	RIO		req'd	optional	ND,NDB, NDBB	1..255	
	TNSND	NDBI	RIO		req'd	optional	ND,NDB, NDBB	1..255	
	RTP				req'd	optional	optional	1..255	
	SIAQ	TOS			req'd	optional	optional		
	SICQ	TOS			req'd	optional	optional		
	AIIO				req'd	optional	optional		
	ACPN				req'd	optional	optional		
	SFA	SFAI			req'd	optional	optional		
TEL	12 digit #	SAPN		optional	req'd (7,10)	opt (DLT)	optional	1..255	optional
TST	100..105				req'd	opt (TST)	optional		
	108, 109				req'd	opt (TST)	optional		
	SYN				req'd	opt (TST)	optional		
TTS	TTSI	GN entry optional	GNSC entry req'd if AD1	optional	req'd	optional	optional	1..255	optional

( ) - indicates standard entries < > - comments

TABLE A (cont.)
4E24 GENERIC CALL TYPE POPULATION TABLE

AD1	AD2	ADC Values	SC		CHI	
blank	blank	blank	blank	INW	blank	IBLK
Go/Nogo entry	GN Screening	2..15 International	ALAP	IOP	AAT2	ICDR
SAPN entry	Class	3..15 Domestic	ATAP	LDA	ABBB	IEA
Type of Ser (TOS)	Carrier ID (CID)		CANP	MCPP	ABLK	MSC1
LATA entry	State entry		CARP	MSC1..4	ACD	MSC2
NDBI entry	RIO entry		CUSP	MULT	ATOS	ND
DELETE entry	entry		CUTP	NWZ1	CP00..CP19	NDB
SD index TYPE	CTR		DA	QTM	EAAR	NDBB
DOM1 entry			DLT	RSYS	EGRH	PR00..PR19
DOM2 entry			DSD	SC1..36	ESD2	WAC2
DOM3 entry			EASC	SDN	ESSD	WACK
DOM4			HAWP	SDND	FGB	WSNO
TFNPA entry			ICIN	SPDI	IBBB	
SFAI entry			INCN	SSP		
	OP0..OP7		INCO	TC		
			INET	TST		

AD3 Mnemonic	Calltypes	Application
A	MRT,RDB,MCT,PRT	EGRESS indicator
B	CRB,DSD,DSN,GNS,INW,PAS,PRT,RDB,TEL,TTS,MRT	Hicap indicator
C	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	TSAA Provider Present
D	CRB,DSN,GNS,MCT,MRT,PRT,RDB,RNR	1+DL indicator
E	none	No meaning - unassigned
F	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	ECOS Operator Code
G	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	International Advanced Fax
H	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	Project R Phase 2 feature (4E22R4>)
I	none	No meaning - unassigned
J	none	No meaning - unassigned
K	none	No meaning - unassigned
L	none	No meaning - unassigned

Legal Values--->

CID = 0000..9999	DNST = blank,UNAS,HC800,I800,INWATS,TC,D900,DSD800,
CRBI = 1..32767	NETS,MQ,DNST1-DNST23
DELETE =0..15 or blank	
GNSC = 0..3	Go/Nogo = (G,N)
LATA = 000..999	STATE = two alphabetic characters
MCTI = 1..255	SDTYPE = MTS,RSI,DC,DRTC,GSDN,TPC,SDN,IPR,CSRT,FPR,V31K,LRN (4E22R2>)
MRTI = 1..8191	
NDBI = 1..1023	FHTI = AR,BT,EA1-EA7,HW,IFF,INC,IVC,MCA,NCA,NCC,
NSN = 1..167	NCD,NWC,OOB,ROA,SP1,SP2,T,VCA,DNN,DOO,INF,
NVDI = 0..127	E01-E20,I01-I30,ISB,LDV,LOB,LSA,NCB,NWN,OOA,OTS,
	R01-R10,S01-S19,SNA,STO,TDN,UNN,VMA,WAT
PRTI = 1..127	DOM1 = HNPA,IT,20-83,DED,DEV,DEC0,DEC1,DEC6,
RDBI = 1..8191	DER0,DER1,DER6,INCD,IVT,APN,NH0C,NH1C
SFAI = 0..6(39,4E23>)	DOM2 = INTO,IO56,IO64,IOH0,IOH1
SAPN = 0..63	DOM2 = INTO,IO56,IO64,IOH0,IOH1
SDINDEX = 1..16383	DOM3 = HNPA,IT,20-83,DED,DEV,DEC6,DER6,INCD,
TOS = 0..31	I56D,I64C,I384,N64C,N64R,IVT,APN,NH0C,NH1C,IH1C
TTSI = 1..31	DOM4 = HNPA,IT,20-83,SDNA,DED,DEV,DEC6,DER6,
RIO = blank,N,Y	I56D,I64C,N64C,N64R,IVT,APN
TFNPA= blank or 8YY (Y=0,2-8)	

TABLE A
4E25 AND LATER GENERICS CALL TYPE POPULATION TABLE

CALL TYPE	CALL DATA	AD1	AD2	AD3	ADC	SC	CHI	DESEP	DNST
CRB	CRBI			optional	req'd	optional	optional	1..255	optional
DSD	IQ10			optional	req'd (10)	opt (DSD)	optional		optional
	SQ7			optional	req'd (7)	opt (DSD)	optional		optional
	SQ10			optional	req'd (10)	opt (DSD)	optional		optional
	IN10			optional	req'd (10)	opt (DSD)	optional		optional
	IN12			optional	req'd	opt (DSD)	optional		optional
	ITS			optional	req'd	opt (DSD)	optional		optional
	GSDN			optional	req'd(8-15)	opt (DSD)	optional		optional
	SDN7			optional	req'd (7)	opt (SDN)	optional		optional
	SD10			optional	req'd (10)	opt (SDN)	optional		optional
	ARA			optional	req'd (10)	opt (DSD)	optional		optional
	IQAR			optional	req'd (10)	opt (DSD)	optional		optional
	RDOM	DOM1		optional	req'd (10)	opt (DSD)	optional		optional
	NRAS			optional	req'd (10)	opt (DSD)	optional		optional
	D1ST			optional	req'd (10)	opt (DSD)	optional		optional
	S710			optional	req'd (7,10)	opt (DSD)	optional		optional
	SO12			optional	req'd	opt (DSD)	optional		optional
	DSD1			optional	req'd	opt (DSD)	optional		optional
	DSD1-DSD12			optional	req'd	opt (DSD)	optional		optional
DSN	NSN			optional	req'd	optional	optional	1..255	optional
EAR	RDBI			optional	req'd	optional	optional	1..255	optional
FHT	FHTI								
GNS	RDBI	GN	GNSC entry	optional	req'd	optional	optional	1..255	
INW	blank	TFNPA		optional	req'd (10)	opt (INW)	optional		optional
	blank,0..999			optional	req'd (10)	opt (INW)	optional		optional
IRA	EAORI				req'd	optional	optional		optional
	EAORI				req'd	optional	optional		optional
	EASXP				req'd	optional	optional		optional
	EASIN				req'd	optional	optional		optional
	TRD81				req'd	optional	optional		optional
	TRDIN				req'd	optional	optional		optional
	RTRIN	DOM2			req'd	optional	optional		optional
	D2RIN	DOM2			req'd	optional	optional		optional
	RTRDOM	DOM3			req'd (10)	optional	optional		optional
	EASDN	DOM4			req'd	optional	optional		optional
	D3RDOM	DOM3			req'd (13)	optional	optional		optional
LSI	APN	LATA	STATE						
	NANP	LATA	STATE						
MCT	MCTI			optional	req'd	optional	optional	1..255	optional
MMT	RDBI			optional	req'd	optional	optional	1..255	optional
MRT	MRTI	blank,INH		optional	req'd	optional	optional	1..255	optional
NVD	NVDI								

TABLE A (cont.)
4E25 AND LATER GENERICS CALL TYPE POPULATION TABLE

CALL TYPE	CALL DATA	AD1	AD2	AD3	ADC	SC	CHI	DESEP	DNST
PAS	12 digit #			optional	req'd (7,10)	optional	optional	1..255	optional
PRT	PRTI			optional	req'd	optional	optional	1..255	optional
RDB	RDBI		blank,OP0-OP7	optional	req'd	optional	optional	1..255	optional
RNR	RDBI			optional	req'd	optional	optional	1..255	optional
SDX	SDINDEX	SDTYPE	blank,CTR						
SD1	SDINDEX	SDTYPE							
SD2	SDINDEX	SDTYPE							
SD3	SDINDEX	SDTYPE							
SSP	RT	TOS	CID		req'd	optional	optional		
	RTOOY	TOS	CID		req'd	optional	optional		
	RTCOIN	TOS	CID		req'd	optional	optional		
	NCP12	TOS	CID		req'd (9,12)	optional	optional		
	DB	TOS			req'd (10)	optional	optional		
	DB7	TOS			req'd (7)	optional	optional		
	DBOOY	TOS			req'd (10)	optional	optional		
	DBCOIN	TOS			req'd (10)	optional	optional		
	EASDNA				req'd	optional	optional		
	EASEQ				req'd	optional	optional		
	NDB	NDBI	RIO		req'd	optional	ND,NDB, NDBB	1..255	
	TNSND	NDBI	RIO		req'd	optional	ND,NDB, NDBB	1..255	
	RTP				req'd	optional	optional	1..255	
	SIAQ	TOS			req'd	optional	optional		
	SICQ	TOS			req'd	optional	optional		
	AIIO				req'd	optional	optional		
	ACPN				req'd	optional	optional		
	SFA	SFAI			req'd	optional	optional		
TEL	12 digit #	SAPN		optional	req'd (7,10)	opt (DLT)	optional	1..255	optional
TST	100..105				req'd	opt (TST)	optional		
	108, 109				req'd	opt (TST)	optional		
	SYN				req'd	opt (TST)	optional		
TTS	TTSI	GN entry optional	GNSC entry req'd if AD1	optional	req'd	optional	optional	1..255	optional

( ) - indicates standard entries < > - comments

TABLE A (cont.)
4E25 AND LATER GENERICS CALL TYPE POPULATION TABLE

AD1	AD2	ADC Values	SC		CHI	
blank	blank	blank	blank	INW	blank	IBLK
Go/Nogo entry	GN Screening	2..15 International	ALAP	IOP	AAT2	ICDR
SAPN entry	Class	3..15 Domestic	ATAP	LDA	ABBB	IEA
Type of Ser (TOS)	Carrier ID (CID)		CANP	MCPP	ABLK	MSC1
LATA entry	State entry		CARP	MSC1..4	ACD	MSC2
NDBI entry	RIO entry		CUSP	MULT	ATOS	ND
DELETE entry	entry		CUTP	NWZ1	CP00..CP19	NDB
SD index TYPE	CTR		DA	QTM	EAAR	NDBB
DOM1 entry			DLT	RSYS	EGRH	PR00..PR19
DOM2 entry			DSD	SC1..36	ESD2	WAC2
DOM3 entry			EASC	SDN	ESSD	WACK
DOM4			HAWP	SDND	FGB	WSNO
TFNPA entry			ICIN	SPDI	IBBB	
SFAI entry			INCN	SSP		
	OP0..OP7		INCO	TC		
			INET	TST		

AD3 Mnemonic	Calltypes	Application
A	MRT,RDB,MCT,PRT	EGRESS indicator
B	CRB,DSD,DSN,GNS,INW,PAS,PRT,RDB,TEL,TTS,MRT	Hicap indicator
C	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	TSAA Provider Present
D	CRB,DSN,GNS,MCT,MRT,PRT,RDB,RNR	1+DL indicator
E	none	No meaning - unassigned
F	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	ECOS Operator Code
G	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	International Advanced Fax
H	CRB,DSN,EAR,GNS,MCT,MMT,MRT,PRT,RDB,RNR	Project R Phase 2 feature (4E22R4>)
I	none	No meaning - unassigned
J	none	No meaning - unassigned
K	none	No meaning - unassigned
L	none	No meaning - unassigned

	CID = 0000..9999	DNST = blank,UNAS,HC800,I800,INWATS,TC,D900,DSD800,
	CRBI = 1..32767	NETS,MQ,DNST1-DNST23
	DELETE =0..15 or blank	
	GNSC = 0..3	Go/Nogo = (G,N)
	LATA = 000..999	STATE = two alphabetic characters
	MCTI = 1..255	SDTYPE = MTS,RSI,DC,DRTC,GSDN,TPC,SDN,IPR,CSRT,FPR,V31K,LRN (4E22R2>)
	MRTI = 1..8191	
Legal	NDBI = 1..1023	FHTI = AR,BT,EA1-EA7,HW,IFF,INC,IVC,MCA,NCA,NCC,
Values--->	NSN = 1..167	NCD,NWC,OOB,ROA,SP1,SP2,T,VCA,DNN,DOO,INF,
	NVDI = 0..127	E01-E20,I01-I30,ISB,LDV,LOB,LSA,NCB,NWN,OOA,OTS,
		R01-R10,S01-S19,SNA,STO,TDN,UNN,VMA,WAT
	PRTI = 1..127	DOM1 = HNPA,IT,20-83,DED,DEV,DEC0,DEC1,DEC6,
	RDBI = 1..8191	DER0,DER1,DER6,INCD,IVT,APN,NH0C,NH1C
	SFAI = 0..6(39,4E23>)	DOM2 = INTO,IO56,IO64,IOH0,IOH1
	SAPN = 0..63	DOM2 = INTO,IO56,IO64,IOH0,IOH1
	SDINDEX = 1..16383	DOM3 = HNPA,IT,20-83,DED,DEV,DEC6,DER6,INCD,
	TOS = 0..31	I56D,I64C,I384,N64C,N64R,IVT,APN,NH0C,NH1C,IH1C
	TTSI = 1..31	DOM4 = HNPA,IT,20-83,SDNA,DED,DEV,DEC6,DER6,
	RIO = blank,N,Y	I56D,I64C,N64C,N64R,IVT,APN
	TFNPA= blank or 8YY (Y=0,2-8)	

TABLE B

GO/NO GO SCREENING CONDITIONS

GN FIELD		GNSC FIELD	TREATMENT
Go	on	0	If the subgroup class is 0, advance to routing. For subgroup class 1, 2, and 3, go to vacant code Final Handling Treatment.
Go	on	1	Class 1 to routing, class 0, 2, and 3 denied.
Go	on	2	Class 2 to routing, class 0, 1, and 3 denied.
Go	on	3	Class 3 to routing, class 0, 1, and 2 denied.
No go	on	0	If the subgroup class is 0, go to final handling (vacant code). Allow classes 1, 2, and 3 to advance to the regular touting.
No go	on	1	Deny class 1, allow 0, 2, and 3 to advance.
No go	on	2	Deny class 2, allow 0, 1, and 3 to advance.
No go	on	3	Deny class 3, allow 0, 1, and 2 to advance.

```
# FORM 300   CHANGE 3 DIGIT TRANSLATION
  <4E22R4

RC:CODEGRP;CHG;OPT(DIG3),___:                        DOM ____, NTD 3,   AC _,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC    CHI   DESEP   DNST

OLD   ___,  ____________________,  ____,  _______,  ____,  ____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  ____,  _______,  ____,  ____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


ABC  ABC  ABC  ABC  ABC  ABC  ABC  ABC

___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403D

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3a-VER:CODEGRP;OPT(DIG3)

```
# FORM 300   CHANGE 3 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG3),___:                          DOM ____, NTD 3,   AC _,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC    CHI   DESEP   DNST

OLD   ___,  ____________________,  ____,  _______,  ____,  ____,  ___,  _______,

            AD3 _____________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  ____,  _______,  ____,  ____,  ___,  _______,

            AD3 _____________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


ABC  ABC  ABC  ABC  ABC  ABC  ABC  ABC

___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403D

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3a-VER:CODEGRP;OPT(DIG3)

RC:CODEGRP;CHG;OPT(DIG456),- - -:

FORM # 301 CHANGE 4, 5, or 6 DIGIT TRANSLATION

1. GENERAL

1.01 Form #301 changes the treatment of a group of 4, 5, or 6 digit codes.

Table A shows the corresponding codegroup DEF/EFG digits for a given Incoming Trunk Class, Type of Service, and International Indicator bit grouping.

Table B shows the corresponding codegroup DE/EF digits for converting the international indicator bit and Access Tandem Transit Network Selection index.

See Table A of Div. 7, Sec. 3a for the codegroup population rules and Table B of the same section for the Go/No Go screening conditions.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(DIG456),- - -:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **ADC** - Acceptable Digit Count
Entries: blank or 3 to 15.

2.05 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SDINDEX (1 to 16383),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN,
TPC,SDN,IPR,CSRT,FPR,
V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV,
INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV,
INCD,I56D,I64C,N64C,N64R,IVT,APN,
NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.06 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.07 **AD3** - blank.

2.08 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) - APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - 1 to 8191.

SD1/SD2/SD3 - 1 to 16383 (<4E22R4).

SDX - Subsequent Digit Index (1 to 16383).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, SYN.

TTS - Terminating Toll Switch Index.

2.09 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1 (<4E22R4), SD2 (<4E22R4), SD3 (<4E22R4), SDX, SSP, TEL, TST, TTS.

2.10 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.11 **DEF** - DEF Digits
Entries: blank, 0 to 999.

2.12 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.13 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.14 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.15 **NTD** - Number of Translatable Digits
Entries: 4, 5, or 6.

2.16 **ORNU** - Order Number
Entries: 1 to 999999.

2.17 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

TABLE A

ITC = Incoming Trunk Class
TOS = Type Of Service
ITL = International Bit
DEF = DEF Digits
OPER = Route to Operator Position

ITC = 0 ITL = 0 OPER= 0			ITC = 1 ITL = 0 OPER= 0			ITC = 2 ITL = 0 OPER= 0			ITC = 3 ITL = 0 OPER= 0		
TOS	<4E17 DEF	4E18> EFG	TOS	<4E17 DEF	4E18> EFG	TOS	<4E17 DEF	4E18> EFG	TOS	<4E17 DEF	4E18> EFG
0	000	000	0	064	001	0	128	002	0	192	003
1	002	010	1	066	011	1	130	012	1	194	013
2	004	020	2	068	021	2	132	022	2	196	023
3	006	030	3	070	031	3	134	032	3	198	033
4	008	040	4	072	041	4	136	042	4	200	043
5	010	050	5	074	051	5	138	052	5	202	053
6	012	060	6	076	061	6	140	062	6	204	063
7	014	070	7	078	071	7	142	072	7	206	073
8	016	080	8	080	081	8	144	082	8	208	083
9	018	090	9	082	091	9	146	092	9	210	093
10	020	100	10	084	101	10	148	102	10	212	103
11	022	110	11	086	111	11	150	112	11	214	113
12	024	120	12	088	121	12	152	122	12	216	123
13	026	130	13	090	131	13	154	132	13	218	133
14	028	140	14	092	141	14	156	142	14	220	143
15	030	150	15	094	151	15	158	152	15	222	153
16	032	160	16	096	161	16	160	162	16	224	163
17	034	170	17	098	171	17	162	172	17	226	173
18	036	180	18	100	181	18	164	182	18	228	183
19	038	190	19	102	191	19	166	192	19	230	193
20	040	200	20	104	201	20	168	202	20	232	203
21	042	210	21	106	211	21	170	212	21	234	213
22	044	220	22	108	221	22	172	222	22	236	223
23	046	230	23	110	231	23	174	232	23	238	233
24	048	240	24	112	241	24	176	242	24	240	243
25	050	250	25	114	251	25	178	252	25	242	253
26	052	260	26	116	261	26	180	262	26	244	263
27	054	270	27	118	271	27	182	272	27	246	273
28	056	280	28	120	281	28	184	282	28	248	283
29	058	290	29	122	291	29	186	292	29	250	293
30	060	300	30	124	301	30	188	302	30	252	303
31	062	310	31	126	311	31	190	312	31	254	313

TABLE A(cont)

ITC = Incoming Trunk Class
TOS = Type Of Service
ITL = International Bit
DEF = DEF Digits
OPER = Route to Operator Position

ITC = 0 ITL = 1 OPER= 0			ITC = 1 ITL = 1 OPER= 0			ITC = 2 ITL = 1 OPER= 0			ITC = 3 ITL = 1 OPER= 0		
TOS	<4E17 DEF	4E18> EFG	TOS	<4E17 DEF	4E18> EFG	TOS	<4E17 DEF	4E18> EFG	TOS	<4E17 DEF	4E18> EFG
0	001	004	0	065	005	0	129	006	0	193	007
1	003	014	1	067	015	1	131	016	1	195	017
2	005	024	2	069	025	2	133	026	2	197	027
3	007	034	3	071	035	3	135	036	3	199	037
4	009	044	4	073	045	4	137	046	4	201	047
5	011	054	5	075	055	5	139	056	5	203	057
6	013	064	6	077	065	6	141	066	6	205	067
7	015	074	7	079	075	7	143	076	7	207	077
8	017	084	8	081	085	8	145	086	8	209	087
9	019	094	9	083	095	9	147	096	9	211	097
10	021	104	10	085	105	10	149	106	10	213	107
11	023	114	11	087	115	11	151	116	11	215	117
12	025	124	12	089	125	12	153	126	12	217	127
13	027	134	13	091	135	13	155	136	13	219	137
14	029	144	14	093	145	14	157	146	14	221	147
15	031	154	15	095	155	15	159	156	15	223	157
16	033	164	16	097	165	16	161	166	16	225	167
17	035	174	17	099	175	17	163	176	17	227	177
18	037	184	18	101	185	18	165	186	18	229	187
19	039	194	19	103	195	19	167	196	19	231	197
20	041	204	20	105	205	20	169	206	20	233	207
21	043	214	21	107	215	21	171	216	21	235	217
22	045	224	22	109	225	22	173	226	22	237	227
23	047	234	23	111	235	23	175	236	23	239	237
24	049	244	24	113	245	24	177	246	24	241	247
25	051	254	25	115	255	25	179	256	25	243	257
26	053	264	26	117	265	26	181	266	26	245	267
27	055	274	27	119	275	27	183	276	27	247	277
28	057	284	28	121	285	28	185	286	28	249	287
29	059	294	29	123	295	29	187	296	29	251	297
30	061	304	30	125	305	30	189	306	30	253	307
31	063	314	31	127	315	31	191	316	31	255	317

TABLE A

ITC = Incoming Trunk Class
TOS = Type Of Service
ITL = International Bit
DEF = DEF Digits
OPER = Route to Operator Position

ITC = 0 ITL = 0 OPER= 1			ITC = 1 ITL = 0 OPER= 1			ITC = 2 ITL = 0 OPER= 1			ITC = 3 ITL = 0 OPER= 1		
TOS	<4E17 DEF	4E18> EFG	TOS	<4E17 DEF	4E18> EFG	TOS	<4E17 DEF	4E18> EFG	TOS	<4E17 DEF	4e18> EFG
0	000	320	0	064	321	0	128	322	0	192	323
1	002	330	1	066	331	1	130	332	1	194	333
2	004	340	2	068	341	2	132	342	2	196	343
3	006	350	3	070	351	3	134	352	3	198	353
4	008	360	4	072	361	4	136	362	4	200	363
5	010	370	5	074	371	5	138	372	5	202	373
6	012	380	6	076	381	6	140	382	6	204	383
7	014	390	7	078	391	7	142	392	7	206	393
8	016	400	8	080	401	8	144	402	8	208	403
9	018	410	9	082	411	9	146	412	9	210	413
10	020	420	10	084	421	10	148	422	10	212	423
11	022	430	11	086	431	11	150	432	11	214	433
12	024	440	12	088	441	12	144	442	12	216	443
13	026	450	13	090	451	13	154	452	13	218	453
14	028	460	14	092	461	14	156	462	14	220	463
15	030	470	15	094	471	15	158	472	15	222	473
16	032	480	16	096	481	16	160	482	16	224	483
17	034	490	17	098	491	17	162	492	17	226	493
18	036	500	18	100	501	18	164	502	18	228	503
19	038	510	19	102	511	19	166	512	19	230	513
20	040	520	20	104	521	20	168	522	20	232	523
21	042	530	21	106	531	21	170	532	21	234	533
22	044	540	22	108	541	22	172	542	22	236	543
23	046	550	23	110	551	23	174	552	23	238	553
24	048	560	24	112	561	24	176	562	24	240	563
25	050	570	25	114	571	25	178	572	25	242	573
26	052	580	26	116	581	26	180	582	26	244	583
27	054	590	27	118	591	27	182	592	27	246	593
28	056	600	28	120	601	28	184	602	28	248	603
29	058	610	29	122	611	29	186	612	29	250	613
30	060	620	30	124	621	30	188	622	30	252	623
31	063	630	31	126	631	31	190	632	31	254	633

TABLE A(cont)

ITC = Incoming Trunk Class
TOS = Type Of Service
ITL = International Bit
DEF = DEF Digits
OPER = Route to Operator Position

ITC = 0 ITL = 1 OPER= 1			ITC = 1 ITL = 1 OPER= 1			ITC = 2 ITL = 1 OPER= 1			ITC = 3 ITL = 1 OPER= 1		
TOS	<4E17 DEF	4E18> EFG	TOS	<4E17 DEF	4E18> EFG	TOS	<4E17 DEF	4E18> EFG	TOS	<4E17 DEF	4e18> EFG
0	001	324	0	065	325	0	129	326	0	193	327
1	003	334	1	067	335	1	131	336	1	195	337
2	005	344	2	069	345	2	133	346	2	197	347
3	007	354	3	071	355	3	135	356	3	199	357
4	009	364	4	073	365	4	137	366	4	201	367
5	011	374	5	075	375	5	139	376	5	203	377
6	013	384	6	077	385	6	141	386	6	205	387
7	015	394	7	079	395	7	143	396	7	207	397
8	017	404	8	081	405	8	145	406	8	209	407
9	019	414	9	083	415	9	147	416	9	211	417
10	021	424	10	085	425	10	149	426	10	213	427
11	023	434	11	087	435	11	143	436	11	215	437
12	025	444	12	089	445	12	153	446	12	217	447
13	027	454	13	091	455	13	155	456	13	219	457
14	029	464	14	093	465	14	157	466	14	221	467
15	031	474	15	095	475	15	159	476	15	223	477
16	033	484	16	097	485	16	161	486	16	225	487
17	035	494	17	099	495	17	163	496	17	227	497
18	037	504	18	101	505	18	165	506	18	229	507
19	039	514	19	103	515	19	167	516	19	231	517
20	041	524	20	105	525	20	169	526	20	233	527
21	043	534	21	107	535	21	171	536	21	235	537
22	045	544	22	109	545	22	173	546	22	237	547
23	047	554	23	111	555	23	175	556	23	239	557
24	049	564	24	113	565	24	177	566	24	241	567
25	051	574	25	115	575	25	179	576	25	243	577
26	053	584	26	117	585	26	181	586	26	245	587
27	055	594	27	119	595	27	183	596	27	247	597
28	057	604	28	121	605	28	185	606	28	249	607
29	059	614	29	123	615	29	187	616	29	251	617
30	061	624	30	125	625	30	189	626	30	253	627
31	063	634	31	127	635	31	191	636	31	255	637

TABLE B

TNSI = Access Tandem Transit Network Selection Index
ITL = International Bit
DE = DE Digits

ITL = 0			ITL = 1		
TNSI	<4E17 DE	4E18> EF	TNSI	<4E17 DE	4E18> EF
0	00	00	0	16	16
1	01	01	1	17	17
2	02	02	2	18	18
3	03	03	3	19	19
4	04	04	4	20	20
5	05	05	5	21	21
6	06	06	6	22	22
7	07	07	7	23	23
8	08	08	8	24	24
9	09	09	9	25	25
10	10	10	10	26	26
11	11	11	11	27	27
12	12	12	12	28	28
13	13	13	13	29	29
14	14	14	14	30	30
15	15	15	15	31	31

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  <4E22R4

RC:CODEGRP;CHG;OPT(DIG6),___:                          DOM _____, NTD _,   AC _,
                                                       ABC ___,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP   DNST

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403E

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3c-VER:CODEGRP;OPT(DIG6)

```
# FORM 301   CHANGE 4, 5, OR 6 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG6),___:                          DOM _____, NTD _,   AC _,
                                                       ABC ___,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP   DNST

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

            AD3 _______________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

            AD3 _______________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403E

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3c-VER:CODEGRP;OPT(DIG6)

RC:CODEGRP;CHG;OPT(DIG789),- - -:

FORM # 302 CHANGE 7, 8, or 9 DIGIT TRANSLATION

1. GENERAL

1.01 Form #302 changes the treatment of a group of 7, 8, or 9 digit codes.

See Table A of Div. 7, Sec. 3a for the codegroup population rules and Table B of the same section for the Go/No Go screening conditions.

See Table A of Div. 7, Sec. 3b for defining routing for a given Incoming Trunk Class, Type of Service, and International Indicator bit grouping.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(DIG789),- - -:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **ADC** - Acceptable Digit Count
Entries: blank or 3 to 15.

2.05 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SDINDEX (1 to 16383),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN,
TPC,SDN,IPR,CSRT,FPR,
V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV,
INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV,
INCD,I56D,I64C,N64C,N64R,IVT,APN,
NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.06 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.07 **AD3** - blank.

2.08 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) - APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - 1 to 8191.

SD1/SD2/SD3 - 1 to 16383 (<4E22R4).

SDX - Subsequent Digit Index (1 to 16383).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, SYN.

TTS - Terminating Toll Switch Index.

2.09 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1 (<4E22R4), SD2

(<4E22R4), SD3 (<4E22R4), SDX, SSP, TEL, TST, TTS.

2.10 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.11 **DEF** - DEF Digits
Entries: 000 to 999.

2.12 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.13 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.14 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR (4E18>), INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.15 **GHI** - GHI Digits
Entries: blank, 0 to 999.

2.16 **NTD** - Number of Translatable Digits
Entries: 7, 8, or 9.

2.17 **ORNU** - Order Number
Entries: 1 to 999999.

2.18 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
  <4E22R4

RC:CODEGRP;CHG;OPT(DIG9),___:                          DOM _____, NTD _,   AC _,
                                                       ABC ___,  DEF ___,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP   DNST

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403F

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3e-VER:CODEGRP;OPT(DIG9)

```
# FORM 302   CHANGE 7, 8, OR 9 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG9),___:                        DOM _____, NTD _,   AC _,
                                                     ABC ___,  DEF ___,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP   DNST

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

            AD3 _____________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

            AD3 _____________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


GHI  GHI  GHI  GHI  GHI  GHI  GHI  GHI

___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403F

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3e-VER:CODEGRP;OPT(DIG9)

RC:CODEGRP;CHG;OPT(DIG12),- - -:

FORM # 303 CHANGE 10, 11, or 12 DIGIT TRANSLATION

1. GENERAL

1.01 Form #303 changes the treatment of a group of 10, 11, or 12 digit codes.

See Table A of Div. 7, Sec. 3a for the codegroup population rules and Table B of the same section for the Go/No Go screening conditions.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(DIG12),- - -:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **ADC** - Acceptable Digit Count
Entries: blank or 3 to 15.

2.05 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SDINDEX (1 to 16383),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN,
TPC,SDN,IPR,CSRT,FPR,
V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV,
INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV,
INCD,I56D,I64C,N64C,N64R,IVT,APN,
NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.06 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.07 **AD3** - blank.

2.08 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) - APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - 1 to 8191.

SD1/SD2/SD3 - 1 to 16383 (<4E22R4).

SDX - Subsequent Digit Index (1 to 16383).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, SYN.

TTS - Terminating Toll Switch Index.

2.09 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1 (<4E22R4), SD2 (<4E22R4), SD3 (<4E22R4), SDX, SSP, TEL, TST, TTS.

2.10 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.11 **DEF** - DEF Digits
Entries: 000 to 999.

2.12 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.13 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.14 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.15 **GHI** - GHI Digits
Entries: 000 to 999.

2.16 **JKL** - JKL Digits
Entries: blank, 0 to 999.

2.17 **NTD** - Number of Translatable Digits
Entries: 10, 11, or 12.

2.18 **ORNU** - Order Number
Entries: 1 to 999999.

2.19 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

```
# FORM 303   CHANGE 10, 11, OR 12 DIGIT TRANSLATION
  <4E22R4

RC:CODEGRP;CHG;OPT(DIG12),___:                    DOM _____, NTD __,  AC _,
                                                  ABC ___,  DEF ___, GHI ___,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP   DNST


OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

                AD3 _________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


JKL  JKL  JKL  JKL  JKL  JKL  JKL  JKL

___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403V

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3v-VER:CODEGRP;OPT(DIG12)

```
# FORM 303   CHANGE 10, 11, OR 12 DIGIT TRANSLATION
  4E23R1>

RC:CODEGRP;CHG;OPT(DIG12),___:                    DOM _____, NTD __,  AC _,
                                                  ABC ___,  DEF ___, GHI ___,

ORNU _______,

     CALLTYP     CALLDATA         AD1     AD2     SC     CHI  DESEP   DNST


OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

            AD3 _____________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,  _______,

            AD3 _____________,  ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


JKL  JKL  JKL  JKL  JKL  JKL  JKL  JKL

___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,
___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403V

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3v-VER:CODEGRP;OPT(DIG12)

RC:CODEGRP;CHG;OPT(SDX),- - -:

FORM # 304 SUBSEQUENT DIGIT ROUTING

1. GENERAL

1.01 Form #304 is used to create and change a subsequent digit entry.

Table A shows which calltypes are valid for each domain class.

See Table A of Div. 7, Sec. 3a for the codegroup population rules and Table B of the same section for the Go/No Go screening conditions.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(SDX),- - -:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACTION** - Action
Entries: A or C.

2.03 **ADC** - Acceptable Digit Count
Entries: blank or 2 to 15.

2.04 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SDINDEX (1 to 16383),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV, INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,N64C,N64R,IVT,APN, NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.05 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.06 **AD3** - blank.

2.07 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 000 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3/SDX - 1 to 16383 (<4E22R4).

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value.

TST - 100, 101, 102, 103, 104, 105, 108, 109, SYN.

TTS - Terminating Toll Switch Index.

2.08 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SD1 (<4E22R4), SD2 (<4E22R4), SD3 (<4E22R4), SDX, SSP, TEL, TST, TTS.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK,

WAC2, WSNO.

2.10 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.11 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.12 **DOMCLASS** - Domain Class
Entries: APN, ATNS, DOM, GSDN, INTL, ITRP, NSR.

2.13 **INDEX** - Subsequent Digit Entry
Entries: 0 to 1022.

2.14 **ORNU** - Order Number
Entries: 1 to 999999.

2.15 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

2.16 **SDINDEX** - Subsequent Digit Routing Index
Entries: 1 to 16383.

2.17 **SIZE** - Size of Subsequent Digit Entry
Entries: 1 to 3.

TABLE A

VALID CALLTYPES AND DOMAIN CLASS FOR SDX BLOCKS

CALLTYP	DOMCLASS						
	APN	DOM	ITRP	INTL	NSR	ATNS	GSDN
CRB	X	X			X		
DSD	X	X					X
DSN	X	X	X	X			
DUP	X	X			X		
EAR		X					
FHT	X	X	X	X	X	X	X
GNS	X	X	X	X			X
INW	X	X			X		
IRA	X	X	X				
MCT	X	X	X	X			X
MMT	X	X	X				
MRT	X	X	X	X			
PAS	X	X			X		
PRT	X	X	X	X	X		
RDB	X	X	X	X	X		X
RNR	X	X	X				
SDX	X	X	X	X	X	X	X
SSP	X	X	X		X	X	
TEL	X	X			X		
TST	X	X	X				X
TTS	X	X	X				

*

```
# FORM 304   CHANGE SUBSEQUENT DIGIT ROUTING
  <4E22R4

RC:CODEGRP;CHG;OPT(SDX),___:          SDINDEX ______, SIZE _, DOMCLASS ____,

ORNU _______,  ACTION _,

INDEX  CALLTYP      CALLDATA        AD1    AD2     SC     CHI   DESEP   DNST

____,   ___,   ____________________, ____, _______,  ____,  ____,   ___,  _______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,   ____________________, ____, _______,  ____,  ____,   ___,  _______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,   ____________________, ____, _______,  ____,  ____,   ___,  _______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,   ____________________, ____, _______,  ____,  ____,   ___,  _______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,   ____________________, ____, _______,  ____,  ____,   ___,  _______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,   ____________________, ____, _______,  ____,  ____,   ___,  _______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,   ____________________, ____, _______,  ____,  ____,   ___,  _______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

____,   ___,   ____________________, ____, _______,  ____,  ____,   ___,  _______,
                    AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403G

ASSOCIATED VERIFY MESSAGES

INPUT-13c-VER:CODEGRP:SDINDEX

OUTPUT-3g-VER:CODEGRP;OPT(SDX)

```
# FORM 304   CHANGE SUBSEQUENT DIGIT ROUTING
  4E23R1>

RC:CODEGRP;CHG;OPT(SDX),___:          SDINDEX ______, SIZE _, DOMCLASS ____,

ORNU _______,  ACTION _,

INDEX  CALLTYP      CALLDATA        AD1    AD2     SC     CHI   DESEP   DNST

_____,   ___,   ____________________, _____, _______,  _____,  _____,   ___,  _______,
              AD3 _______________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

_____,   ___,   ____________________, _____, _______,  _____,  _____,   ___,  _______,
              AD3 _______________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

_____,   ___,   ____________________, _____, _______,  _____,  _____,   ___,  _______,
              AD3 _______________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

_____,   ___,   ____________________, _____, _______,  _____,  _____,   ___,  _______,
              AD3 _______________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

_____,   ___,   ____________________, _____, _______,  _____,  _____,   ___,  _______,
              AD3 _______________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

_____,   ___,   ____________________, _____, _______,  _____,  _____,   ___,  _______,
              AD3 _______________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

_____,   ___,   ____________________, _____, _______,  _____,  _____,   ___,  _______,
              AD3 _______________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

_____,   ___,   ____________________, _____, _______,  _____,  _____,   ___,  _______,
              AD3 _______________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403G

ASSOCIATED VERIFY MESSAGES

INPUT-13c-VER:CODEGRP:SDINDEX

OUTPUT-3g-VER:CODEGRP;OPT(SDX)

RC:CODEGRP;OUT;OPT(SDX),- - -:

FORM # 305 DELETE SUBSEQUENT DIGIT ROUTING

1. GENERAL

1.01 Form #305 is used to delete a subsequent digit entry.

2. FORM ENTRIES

2.01 RC:CODEGRP;OUT;OPT(SDX),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ORNU** - Order Number
Entries: 1 to 999999.

2.03 **SDINDEX** - Subsequent Digit Routing Index
Entries: 1 to 16383.

```
# FORM 305   DELETE SUBSEQUENT DIGIT ROUTING

RC:CODEGRP;OUT;OPT(SDX),___:                                SDINDEX _____,

ORNU _______,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-13c-VER:CODEGRP:SDINDEX

OUTPUT-3g-VER:CODEGRP;OPT(SDX)

RC:CODEGRP;NEW;OPT(SNPA),- - -:

FORM # 307 ADD A NEW SERVED NPA

1. GENERAL

1.01 Form #307 adds a served NPA to the 4 ESS translation.

2. FORM ENTRIES

2.01 RC:CODEGRP;NEW;OPT(SNPA),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **DOM** - Domain
Entry: POTS.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **SNPA** - Served NPA
Entries: 200 to 999.

```
# FORM 307 ADD A  NEW  SERVED  NPA

RC:CODEGRP;NEW;OPT(SNPA),___:                                DOM POTS, SNPA ___,

ORNU _______,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403A

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP:ABC

OUTPUT-3c-VER:CODEGRP;OPT(DIG6)

RC:CODEGRP;CHG;OPT(PROTCTED),- - -:

FORM # 308 PROTECT TERMINATING OFFICE CODES

1. GENERAL

1.01 Form #308 is used to add or delete protected terminating office codes.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(PROTCTED),- - -:

Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ONPA** - Originating Numbering Plan Area
Entries: 200 to 999.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **PROTECT**
Entries: Y or N.

2.05 **TNPA** - Terminating Numbering Plan Area
Entries: 200 to 999.

2.06 **TOFC** - Terminating Office Code
Entries: 200 to 999.

```
# FORM 308 PROTECT OFFICE CODES

RC:CODEGRP;CHG;OPT(PROTCTED),___:                                    ONPA ___,

ORNU _______,

TNPA ___, PROTECT _,

TOFC  TOFC  TOFC  TOFC

___,  ___,  ___,  ___,
___,  ___,  ___,  ___,

REMARKS _____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403B

ASSOCIATED VERIFY MESSAGES - NONE

RC:CODEGRP;NEW;OPT(DOM),- - -:

FORM # 309 ADD A NEW NONPOTS DOMAIN

1. GENERAL

1.01 Form #309 adds a new domain (non-DDD) and specifies the storage requirement for that domain.

Low numbered Non-POTS domains (20-69) should be assigned first, where possible. High numbered domains (70-83) may, in the future, be reserved for special purposes, just as domains 81 and 82 are today, and may require special interworking rules. Unless the rules governing the use of these domains are obeyed, these domains should NOT be used. In order to avoid possible mishandling of calls due to incorrect use of a special domain, and unnecessary administrative effort associated with changing domains, these high numbered domains should be used with extreme caution.

2. FORM ENTRIES

2.01 RC:CODEGRP;NEW;OPT(DOM),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **DOM** - Domain
Entries: 20 to 83, NSR, INCD, LSI (<4E21), DAVT, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), I56D, I64C, N64C, N64R, ATNS, GSDN, IVT, STCD (4E22R4>), APN, NH0C, NH1C.

2.03 **FSONLY** - File Store Only
Entry: N.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 309   ADD  A  NEW  NONPOTS  DOMAIN

RC:CODEGRP;NEW;OPT(DOM),___:                                    DOM ____,

ORNU _______,


FSONLY N,



REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403C

ASSOCIATED VERIFY MESSAGES - NONE

RC:CODEGRP;CHG;OPT(CHGNTD),- - -:

FORM # 311 CHANGE NUMBER OF TRANSLATABLE DIGITS

1. GENERAL

1.01 Form #311 is used to change the number of digits to be translated for a given dialed address.

1.02 This Recent Change Message can be used to make the following changes to the number of translatable digits:

OLD	NEW
3	4,5,6
6	7,8,9
9	10,11,12
4,5,6	3
7,8,9	6
10,11,12	9

When this form is used to decrease the NTD, the routing treatment for all codes being decreased must be identical.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(CHGNTD),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.03 **CODEGRP** - Code Group
Entries: blank, 0 to 999999999.

2.04 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.05 **NTD** - Number of Translatable Digits
Entries: 3 to 12.

2.06 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 311   CHANGE NUMBER OF TRANSLATABLE DIGITS

RC:CODEGRP;CHG;OPT(CHGNTD),___:                                  DOM ____,  AC _,

ORNU _______,


OLD NTD __, NEW NTD __,

CODEGRP __________,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3a/3c/3e/3v-VER:CODEGRP;OPT(DIG3/6/9/12)

RC:CODEGRP;CHG;OPT(CCDADC),- - -:

FORM #312 OVERLAP SIGNALING ACCEPTABLE DIGIT COUNT

1. GENERAL

1.01 Form #312 is used to change the acceptable digit count of a country code group to be used by CCITT7 Overlap Signaling.

The CCD field can be one digit, two digit and three digit country codes. When digits two and/or three are omitted, they default to digits: 0 through 9. e.g. CCD: 01 => 010 through 019, CCD: 1 => 100 through 199.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(CCDADC),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ADC** - Acceptable Digit Count
Entries: all blanks, 3 to 15.

2.03 **CCD** - Country Code
Entries: 0 to 999.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 312   CHANGE OVERLAP SIGNALING ACCEPTABLE DIGIT COUNT
  4E18>

RC:CODEGRP;CHG;OPT(CCDADC),___:

ORNU _______,

CCD                                   ADC

____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)
____,              (__,__,__,__,__,__,__,__,__,__,__,__,__,__)

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403Q

ASSOCIATED VERIFY MESSAGES

INPUT-13j-VER:CCDADC:CCD a! (EOT)

OUTPUT-3p-VER:CODEGRP;OPT(CCDADC)

RC:CODEGRP;CHG;OPT(CCD),- - -:

FORM # 313 CHANGE COUNTRY CODE

1. GENERAL

1.01 Form #313 is used to change the treatment of a Country Code group.

See Table A of Div. 7, Sec. 3a for the codegroup population rules and Table B of the same section for the Go/No Go screening conditions.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(CCD),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ADC** - Acceptable Digit Count
Entries: blank or 2 to 15.

2.03 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K,
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.04 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CIDT (4E18R3>), GNSC (0 to 3), STATE ((<4E21) two alphabetic characters).

2.05 **AD3** - blank.

2.06 **CALLDATA** - Call Data

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

MCT - Multiple Carrier Index (1 to 127), (1 to 255 for 4E20R1>).

MRT - Multiple Routing Index (1 to 8191).

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

SD1/SD2/SD3 - 1 to 16383 (<4E22R4).

SDX - Subsequent Digit Index (1 to 16383).

2.07 **CALLTYP** - Call Type
Entries: FHT, GNS, MCT, MRT, PRT, RDB, SD1 (<4E22R4), SD2 (<4E22R4), SD3 (<4E22R4), SDX.

2.08 **CCD** - Country Code
Entries: 0 to 999.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.10 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.11 **DOM** - Domain
Entries: INTO or INTT.

2.12 **NTD** - Number of Translatable Digits
Entries: 1 to 3.

2.13 **ORNU** - Order Number
Entries: 1 to 999999.

2.14 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

```
# FORM 313   CHANGE COUNTRY CODE ROUTING TREATMENT
  <4E22R4

RC:CODEGRP;CHG;OPT(CCD),___:                                    DOM ____, NTD _,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI   DESEP

OLD   ___,  ____________________,  ____,  _______,  ____,  ____,  ___,

         AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  ____,  _______,  ____,  ____,  ___,

         AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


CCD    CCD    CCD    CCD    CCD

___,   ___,   ___,   ___,   ___,
___,   ___,   ___,   ___,   ___,
___,   ___,   ___,   ___,   ___,
___,   ___,   ___,   ___,   ___,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403K

ASSOCIATED VERIFY MESSAGES

INPUT-13a-VER:CODEGRP

OUTPUT-3i-VER:CODEGRP;OPT(CCD),___:

```
# FORM 313   CHANGE COUNTRY CODE ROUTING TREATMENT
  4E23R1>

RC:CODEGRP;CHG;OPT(CCD),___:                                    DOM _____, NTD _,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI   DESEP

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

            AD3 _____________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

            AD3 _____________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


CCD    CCD    CCD    CCD    CCD

___,   ___,   ___,   ___,   ___,
___,   ___,   ___,   ___,   ___,
___,   ___,   ___,   ___,   ___,
___,   ___,   ___,   ___,   ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403K

ASSOCIATED VERIFY MESSAGES

INPUT-13a-VER:CODEGRP

OUTPUT-3i-VER:CODEGRP;OPT(CCD),___:

Future

RC:CODEGRP;CHG;OPT(LD),- - -:

FORM # 314 CHANGE LANGUAGE DIGIT

1. GENERAL

1.01 Form #314 is used to change the treatment of a Country Code and Language Digit when the Language Digit is to be translated.

See Table A of Div. 7, Sec. 3a for the codegroup population rules and Table B of the same section for the Go/No Go screening conditions.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(LD),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ADC** - Acceptable Digit Count
Entries: blank or 2 to 15.

2.03 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K,
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.04 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CIDT (4E18R3>), GNSC (0 to 3), STATE ((<4E21) two alphabetic characters).

2.05 **AD3** - blank.

2.06 **CALLDATA** - Call Data

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MRT - Multiple Routing Index (1 to 8191).

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

SD1/SD2/SD3 - 1 to 16383 (<4E22R4).

SDX - Subsequent Digit Index (1 to 16383).

2.07 **CALLTYP** - Call Type
Entries: FHT, GNS, MCT, MRT, PRT, RDB, SD1 (<4E22R4), SD2 (<4E22R4), SD3 (<4E22R4), SDX.

2.08 **CCD** - Country Code
Entries: 0 to 999.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.10 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.11 **DOM** - Domain
Entries: INTO or INTT.

2.12 **LD** - Language Digit
Entries: blank or 0 to 9.

2.13 **NTD** - Number of Translatable Digits
Entries: 2 to 4.

2.14 **ORNU** - Order Number
Entries: 1 to 999999.

2.15 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

```
# FORM 314   CHANGE L-DIGIT ROUTING TREATMENT
  <4E22R4

RC:CODEGRP;CHG;OPT(LD),___:                          DOM _____, NTD _, CCD ___,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI   DESEP

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

         AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

         AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


LD    LD    LD    LD

_,    _,    _,    _,
_,    _,    _,    _,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403L

ASSOCIATED VERIFY MESSAGES

INPUT-13a-VER:CODEGRP

OUTPUT-3j-VER:CODEGRP;OPT(LD),___:

```
# FORM 314   CHANGE L-DIGIT ROUTING TREATMENT
  4E23R1>

RC:CODEGRP;CHG;OPT(LD),___:                          DOM _____, NTD _, CCD ___,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

            AD3 _____________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

            AD3 _____________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


LD    LD    LD    LD

_,    _,    _,    _,
_,    _,    _,    _,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403L

ASSOCIATED VERIFY MESSAGES

INPUT-13a-VER:CODEGRP

OUTPUT-3j-VER:CODEGRP;OPT(LD),___:

Future

RC:CODEGRP;CHG;OPT(NN1),- - -:

FORM # 315 CHANGE NATIONAL NUMBER PART 1

1. GENERAL

1.01 Form #315 is used to change the treatment of a Country Code, Language Digit, or National Number Part 1.

See Table A of Div. 7, Sec. 3a for the codegroup population rules and Table B of the same section for the Go/No Go screening conditions.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(NN1),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ADC** - Acceptable Digit Count
Entries: blank or 2 to 15.

2.03 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K,
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.04 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CIDT (4E18R3>), GNSC (0 to 3), STATE ((<4E21) two alphabetic characters).

2.05 **AD3** - blank.

2.06 **CALLDATA** - Call Data

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MRT - Multiple Routing Index (1 to 8191).

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

SD1/SD2/SD3 - 1 to 16383 (<4E22R4).

SDX - Subsequent Digit Index (1 to 16383).

2.07 **CALLTYP** - Call Type
Entries: FHT, GNS, MCT, MRT, PRT, RDB, SD1 (<4E22R4), SD2 (<4E22R4), SD3 (<4E22R4), SDX.

2.08 **CCD** - Country Code
Entries: 0 to 999.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.10 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.11 **DOM** - Domain
Entries: INTO or INTT.

2.12 **LD** - Language Digit
Entries: blank or 0 to 9.

2.13 **NN1** - National Number Part 1
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.14 **NTD** - Number of Translatable Digits
Entries: 2 to 10.

2.15 **ORNU** - Order Number
Entries: 1 to 999999.

2.16 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

```
# FORM 315   CHANGE NATIONAL NUMBER PART 1 ROUTING TREATMENT
  <4E22R4

RC:CODEGRP;CHG;OPT(NN1),___:                  DOM _____, NTD __, CCD ___, LD _,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

         AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

         AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


NN1     NN1     NN1     NN1     NN1

_______, _______, _______, _______, _______,
_______, _______, _______, _______, _______,
_______, _______, _______, _______, _______,
_______, _______, _______, _______, _______,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403M

ASSOCIATED VERIFY MESSAGES

INPUT-13a-VER:CODEGRP

OUTPUT-3k-VER:CODEGRP;OPT(NN1),___:

```
# FORM 315   CHANGE NATIONAL NUMBER PART 1 ROUTING TREATMENT
  4E23R1>

RC:CODEGRP;CHG;OPT(NN1),___:                  DOM _____, NTD __, CCD ___, LD _,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI   DESEP

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

            AD3 _______________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

            AD3 _______________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


NN1     NN1     NN1     NN1     NN1

_______, _______, _______, _______, _______,
_______, _______, _______, _______, _______,
_______, _______, _______, _______, _______,
_______, _______, _______, _______, _______,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403M

ASSOCIATED VERIFY MESSAGES

INPUT-13a-VER:CODEGRP

OUTPUT-3k-VER:CODEGRP;OPT(NN1),___:

Future

RC:CODEGRP;CHG;OPT(NN2),- - -:

FORM # 316 CHANGE NATIONAL NUMBER PART 2

1. GENERAL

1.01 Form #316 is used to change the treatment of a Country Code, Language Digit, National Number Part 1, and National Number Part 2.

See Table A of Div. 7, Sec. 3a for the codegroup population rules and Table B of the same section for the Go/No Go screening conditions.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(NN2),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ADC** - Acceptable Digit Count
Entries: blank or 2 to 15.

2.03 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K,
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.04 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CIDT (4E18R3>), GNSC (0 to 3), STATE ((<4E21) two alphabetic characters).

2.05 **AD3** - blank.

2.06 **CALLDATA** - Call Data

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MRT - Multiple Routing Index (1 to 8191).

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

SD1/SD2/SD3 - 1 to 16383 (<4E22R4).

SDX - Subsequent Digit Index (1 to 16383).

2.07 **CALLTYP** - Call Type
Entries: FHT, GNS, MCT, MRT, PRT, RDB, SD1 (<4E22R4), SD2 (<4E22R4), SD3 (<4E22R4), SDX.

2.08 **CCD** - Country Code
Entries: 0 to 999.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.10 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.11 **DOM** - Domain
Entries: INTO or INTT.

2.12 **LD** - Language Digit
Entries: blank or 0 to 9.

2.13 **NN1** - National Number Part 1
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.14 **NN2** - National Number Part 2
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.15 **NTD** - Number of Translatable Digits
Entries: 3 to 14.

2.16 **ORNU** - Order Number
Entries: 1 to 999999.

2.17 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

```
# FORM 316   CHANGE NATIONAL NUMBER PART 2 ROUTING TREATMENT
  <4E22R4

RC:CODEGRP;CHG;OPT(NN2),___:       DOM _____, NTD __, CCD ___, LD _, NN1 _______,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

         AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

         AD3 _________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


NN2     NN2     NN2     NN2     NN2

_______, _______, _______, _______, _______,
_______, _______, _______, _______, _______,
_______, _______, _______, _______, _______,
_______, _______, _______, _______, _______,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403N

ASSOCIATED VERIFY MESSAGES

INPUT-13a-VER:CODEGRP

OUTPUT-3l-VER:CODEGRP;OPT(NN2),___:

```
# FORM 316   CHANGE NATIONAL NUMBER PART 2 ROUTING TREATMENT
  4E23R1>

RC:CODEGRP;CHG;OPT(NN2),___:       DOM _____, NTD __, CCD ___, LD _, NN1 _______,

ORNU _______,

     CALLTYP     CALLDATA          AD1     AD2     SC     CHI  DESEP

OLD   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

            AD3 _____________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,

NEW   ___,  ____________________,  _____,  _______,  _____,  _____,  ___,

            AD3 _____________, ADC__,__,__,__,__,__,__,__,__,__,__,__,__,__,


NN2     NN2     NN2     NN2     NN2

_______, _______, _______, _______, _______,
_______, _______, _______, _______, _______,
_______, _______, _______, _______, _______,
_______, _______, _______, _______, _______,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403N

ASSOCIATED VERIFY MESSAGES

INPUT-13a-VER:CODEGRP

OUTPUT-3l-VER:CODEGRP;OPT(NN2),___:

Future

RC:CODEGRP;NEW;OPT(CCDCONV),- - -:

FORM # 317 ADD COUNTRY CODE

1. GENERAL

1.01 Form #317 is used to add Country Code groups to translations at an ISC and domestic offices. The population of the translations table is necessary at all AT&T domestic switches so that international calls destined for AT&T ISCs can be transported across the AT&T network in a single stage via CCIS or ISUP.

The population of the translations table is also necessary at a Service Switching Point (SSP) switch for MF equal access.

In 4E14, the translation table is also necessary at the Access Tandem switch for MF and ISUP network interconnect.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(CCDCONV),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **CBONLY** - Cable only indicator
Entries: Y or N.

2.04 **CCD** - Country Code
Entries: 0 to 999.

2.05 **FAXPR** - Entries: blank.

2.06 **LD** - Language Digit
Entries: 0 to 9.

2.07 **ORNU** - Order Number
Entries: 1 to 999999.

2.08 **RESELL** - Blank.

2.09 **SCLB** - Suppress Clear-Back Message
Entries: Y, N, blank.

```
# FORM 317   ADD COUNTRY CODE
4E18-4E20R2

RC:CODEGRP;NEW;OPT(CCDCONV),___:  CCD ___, LD _, CBONLY _, FAXPR _,

ORNU _______,

ABC   ABC   ABC   ABC

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403J

ASSOCIATED VERIFY MESSAGES

INPUT-13e-VER:CCDCONV:ABC

OUTPUT-3m-VER:CODEGRP;OPT(CCDCONV)

```
# FORM 317   ADD COUNTRY CODE
4E20R3-4E22R4

RC:CODEGRP;NEW;OPT(CCDCONV),___:  CCD ___, LD _, CBONLY _,

SCLB _,

ORNU _______,

ABC   ABC   ABC   ABC

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

REMARKS ____________________________________________________
```

ASSOCIATED VERIFY MESSAGES

INPUT-13e-VER:CCDCONV:ABC

OUTPUT-3m-VER:CODEGRP;OPT(CCDCONV)

```
# FORM 317   ADD COUNTRY CODE
4E23R1

RC:CODEGRP;NEW;OPT(CCDCONV),___:  CCD ___, LD _, CBONLY _, FAXPR _,

SCLB _, RESELL _,

ORNU _______,

ABC   ABC   ABC   ABC

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

REMARKS _____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-13e-VER:CCDCONV:ABC

OUTPUT-3m-VER:CODEGRP;OPT(CCDCONV)

```
# FORM 317   ADD COUNTRY CODE
4E24R1

RC:CODEGRP;NEW;OPT(CCDCONV),___:  CCD ___, LD _, CBONLY _, FAXPR _,

SCLB _, RESELL _, CCRF _,

ORNU _______,

ABC   ABC   ABC   ABC

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403J

ASSOCIATED VERIFY MESSAGES

INPUT-13e-VER:CCDCONV:ABC

OUTPUT-3m-VER:CODEGRP;OPT(CCDCONV)

Future

RC:CODEGRP;OUT;OPT(CCDCONV),- - -:

FORM # 318 DELETE COUNTRY CODE

1. GENERAL

1.01 Form #318 is used to delete Country Code groups from translations.

2. FORM ENTRIES

2.01 RC:CODEGRP;OUT;OPT(CCDCONV),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **CCD** - Country Code
Entries: 0 to 999.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 318   DELETE COUNTRY CODE

RC:CODEGRP;OUT;OPT(CCDCONV),___:              CCD ___,

ORNU _______,

ABC   ABC   ABC   ABC

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

___,  ___,  ___,  ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-13e-VER:CCDCONV

OUTPUT-3m-VER:CODEGRP;OPT(CCDCONV)

RC:CODEGRP;NEW;OPT(DIGTYP),- - -:

FORM # 319 ADD THREE DIGIT TYPE

1. GENERAL

1.01 Form #319 is used to specify codes to be added to a Digit Type Category.

If the digit type is UTC, then this form also changes the routing treatment in any Served NPAs.

2. FORM ENTRIES

2.01 RC:CODEGRP;NEW;OPT(DIGTYP),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **DIG** - 3 Digit Codes
Entries: 000 to 999.

2.03 **DIGTYP** - Three Digit Type
Entries: BNPA, DEF1, DEF2, DEF3, DEF4, DNHR (<4E21), DP3, DP6, DT1-DT17 (4E20R2>), FCID (4E18>), I809, IIA, IIC, INO, INT, IRS, ITS, IWZ1, NRA, NRN, NRNX, UTC, WZ1A.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **RDIG** - 01R Digit
Entries: blank or 0 to 9.

```
# FORM 319   ADD 3 DIGIT TYPE

RC:CODEGRP;NEW;OPT(DIGTYP),___:              DIGTYP _____, RDIG _,

ORNU _______,

DIG  DIG  DIG  DIG  DIG  DIG  DIG  DIG

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403I

ASSOCIATED VERIFY MESSAGES

INPUT-13d-VER:CODEGRP:DIGTYP

OUTPUT-3h-VER:CODEGRP;OPT(DIGTYP)

RC:CODEGRP;OUT;OPT(DIGTYP),- - -:

FORM # 320 DELETE THREE DIGIT TYPE

1. GENERAL

1.01 Form #320 is used to specify codes to be deleted from a Digit Type Category.

If the digit type is UTC, then this form also removes the routing treatment from any Served NPAs.

2. FORM ENTRIES

2.01 RC:CODEGRP;OUT;OPT(DIGTYP),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **DIG** - 3 Digit Codes
Entries: 000 to 999.

2.03 **DIGTYP** - Three Digit Type
Entries: BNPA, DEF1, DEF2, DEF3, DEF4, DNHR (<4E21), DP3, DP6, DT1-DT17 (4E20R2>), FCID (4E18>), I809, IIA, IIC, INO, INT, IRS, ITS, IWZ1, NRA, NRN, NRNX, UTC, WZ1A.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 320   DELETE 3 DIGIT TYPE

RC:CODEGRP;OUT;OPT(DIGTYP),___:                          DIGTYP ____,

ORNU _______,

DIG  DIG  DIG  DIG  DIG  DIG  DIG  DIG

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-13d-VER:CODEGRP:DIGTYP

OUTPUT-3h-VER:CODEGRP;OPT(DIGTYP)

RC:CODEGRP;CHG;OPT(DIG3,DESEP),- - -:

FORM # 327 CHANGE DESEPS FOR 3 DIGIT TRANSLATIONS

1. GENERAL

1.01 Form #327 allows the changing of the DESEPs in three digit translations by only specifying the code group.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(DIG3,DESEP),- - -:

Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.05 **DOM** - Domain
Entries: POTS, 20 to 83, VRFY, SDNA, DED, DEV, STCD (4E22R4>), I56D, I64C, N64C, N64R, NSR, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, GSDN, IVT, APN, NH0C, NH1C.

2.06 **NTD** - Number of Translatable Digits
Entries: 3.

2.07 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 327   CHANGE THE DESEP FOR 3 DIGIT TRANSLATION

RC:CODEGRP;CHG;OPT(DIG3,DESEP),___:                DOM ____, NTD 3,   AC _,

ORNU _______,


       OLD    NEW
ABC   DESEP  DESEP

___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403D

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3a-VER:CODEGRP;OPT(DIG3)

RC:CODEGRP;CHG;OPT(DIG6,DESEP),- - -:

FORM # 328 CHANGE DESEPS FOR 4, 5, or 6 DIGIT TRANSLATIONS

1. GENERAL

1.01 Form #328 allows the changing of the DESEPs in 4, 5, or 6 digit translations by only specifying the code group.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(DIG6,DESEP),- - -:

Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **DEF** - DEF Digits
Entries: blank, 0 to 999.

2.05 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.06 **DOM** - Domain
Entries: POTS, 20 to 83, VRFY, SDNA, DED, DEV, STCD (4E22R4>), I56D, I64C, N64C, N64R, NSR, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, GSDN, IVT, APN, NH0C, NH1C.

2.07 **NTD** - Number of Translatable Digits
Entries: 4, 5, or 6.

2.08 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 328   CHANGE THE DESEP FOR 4, 5, OR 6 DIGIT TRANSLATIONS

RC:CODEGRP;CHG;OPT(DIG6,DESEP),___:                DOM _____, NTD _,   AC _,
                                                   ABC ___,

ORNU _______,

       OLD    NEW
DEF   DESEP  DESEP

___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403E

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3c-VER:CODEGRP;OPT(DIG6)

RC:CODEGRP;CHG;OPT(DIG9DESEP),- - -:

FORM # 329 CHANGE DESEPS FOR 7, 8, or 9 DIGIT TRANSLATIONS

1. GENERAL

1.01 Form #329 allows the changing of the DESEPs in 7, 8, or 9 digit translations by only specifying the code group.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(DIG9,DESEP),- - -:

Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **DEF** - DEF Digits
Entries: 000 to 999.

2.05 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.06 **DOM** - Domain
Entries: POTS, 20 to 83, VRFY, SDNA, DED, DEV, STCD (4E22R4>), I56D, I64C, N64C, N64R, ATNS, GSDN, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), IVT, APN, NH0C, NH1C.

2.07 **GHI** - GHI Digits
Entries: blank, 0 to 999.

2.08 **NTD** - Number of Translatable Digits
Entries: 7, 8, or 9.

2.09 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 329   CHANGE THE DESEP FOR 7, 8, OR 9 DIGIT TRANSLATIONS

RC:CODEGRP;CHG;OPT(DIG9,DESEP),___:                DOM _____, NTD _,    AC _,
                                                   ABC ___,  DEF ___,

ORNU _______,

       OLD    NEW
GHI   DESEP  DESEP

___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403F

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3e-VER:CODEGRP;OPT(DIG9)

RC:CODEGRP;CHG;OPT(DIG12,DESEP),- - -:

FORM # 330 CHANGE DESEPS FOR 10, 11, or 12 DIGIT TRANSLATIONS

1. GENERAL

1.01 Form #330 allows the changing of the DESEPs in 10, 11, or 12 digit translations by only specifying the code group.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(DIG12,DESEP),- - -:

Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **DEF** - DEF Digits
Entries: 000 to 999.

2.05 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.06 **DOM** - Domain
Entries: POTS, 20 to 83, VRFY, SDNA, DED, DEV, STCD (4E22R4>), I56D, I64C, N64C, N64R, ATNS, GSDN, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), IVT, APN, NH0C, NH1C.

2.07 **GHI** - GHI Digits
Entries: 000 to 999.

2.08 **JKL** - JKL Digits
Entries: blank, 0 to 999.

2.09 **NTD** - Number of Translatable Digits
Entries: 10, 11, or 12.

2.10 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 330   CHANGE THE DESEP FOR 10, 11, AND 12 DIGIT TRANSLATIONS

RC:CODEGRP;CHG;OPT(DIG12,DESEP),___:              DOM _____, NTD __,  AC _,
                                                  ABC ___,  DEF ___, GHI ___,

ORNU _______,

       OLD    NEW
JKL   DESEP  DESEP

___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,
___,   ___,   ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403V

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3v-VER:CODEGRP;OPT(DIG12)

RC:CODEGRP;CHG;OPT(YCODE),- - -:

FORM # 331 CHANGE OOY TRANSLATIONS

1. GENERAL

1.01 Form #331 is used to relate "OOY" codes to a far end office Number Plan Area (NPA) and Local Access and Transport Area (LATA).

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(YCODE),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **COIN** - Coin Identifier
Entries: Y or N.

2.03 **FELATA** - Far End Local Access and Transport Area
Entries: 000 to 999.

2.04 **FENPA** - Far End Numbering Plan Area
Entries: 000 to 999.

2.05 **OOY** - Y Digit
Entries: 0 to 9.

2.06 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 331  OOY TRANSLATOR

    RC:CODEGRP;CHG;OPT(YCODE),___:

    ORNU _______,

    OOY              OLD                 NEW
    CODE       FENPA    FELATA      FENPA   FELATA   COIN

     _,         ___,     ___,        ___,    ___,     _,

    REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403X

ASSOCIATED VERIFY MESSAGES

INPUT-13k-VER:CODEGRP:YCODE

OUTPUT-3x-VER:CODEGRP;OPT(YCODE)

RC:CODEGRP;CHG;OPT(PRT),---:

FORM # 332 CHANGE PROPORTIONAL ROUTING

1. GENERAL

1.01 Form #332 is used to create and change a proportional routing block.

Table A shows which calltypes are valid for each domain class.

See Table A of Div. 7, Sec. 3a for the codegroup population rules and Table B of the same section for the Go/No Go screening conditions.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(PRT),---:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACTION** - Action
Entries: A or C.

2.03 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K,
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.04 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.05 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSN - 1 to 167.

EAR - RDBI.

GNS - RDBI.

PAS - 12 digit value.

RDB - 1 to 8191.

TEL - 12 digit value

TTS - Terminating Toll Switch Index.

2.06 **CALLTYP** - Call Type
Entries: CRB, DSN, EAR, GNS, PAS, RDB, TEL, TTS.

2.07 **DOMCLASS** - Domain Class
Entries: APN, DOM, INTL, ITRP, NSR.

2.08 **ORNU** - Order Number
Entries: 1 to 999999.

2.09 **PERCENT** - Percent
Entries: 1 to 100.

2.10 **PRTI** - Proportional Routing Index
Entries: 1 to 127.

TABLE A

VALID CALLTYPES AND DOMAIN CLASS FOR PRT BLOCKS

CALLTYP	DOMCLASS				
	APN	DOM	ITRP	INTL	NSR
CRB	X	X			X
DSN	X	X	X	X	
EAR		X			
GNS	X	X	X	X	
PAS	X	X			X
RDB	X	X	X	X	X
TEL	X	X			X
TTS	X	X	X		

```
# FORM 332  CHANGE PROPORTIONAL ROUTING
  4E18>

RC:CODEGRP;CHG;OPT(PRT),___:                          PRTI ___, DOMCLASS ____,

ORNU _______,  ACTION _,

PERCENT   CALLTYP     CALLDATA          AD1     AD2

  ___,      ___, ____________________,  ____,  ______,

  ___,      ___, ____________________,  ____,  ______,

  ___,      ___, ____________________,  ____,  ______,

  ___,      ___, ____________________,  ____,  ______,

  ___,      ___, ____________________,  ____,  ______,

  ___,      ___, ____________________,  ____,  ______,

  ___,      ___, ____________________,  ____,  ______,

  ___,      ___, ____________________,  ____,  ______,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403H

ASSOCIATED VERIFY MESSAGES

INPUT-13l-VER:CODEGRP:PRTI

OUTPUT-3y-VER:CODEGRP;OPT(PRT)

RC:CODEGRP;OUT;OPT(PRT),---:

FORM # 333 DELETE PROPORTIONAL ROUTING

1. GENERAL

1.01 Form #333 is used to delete a proportional routing block.

2. FORM ENTRIES

2.01 RC:CODEGRP;OUT;OPT(PRT),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ORNU** - Order Number
Entries: 1 to 999999.

2.03 **PRTI** - Proportional Routing Index
Entries: 1 to 127.

```
# FORM 333  DELETE PROPORTIONAL ROUTING

RC:CODEGRP;OUT;OPT(PRT),___:                                    PRTI ___,

ORNU _______,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-13l-VER:CODEGRP:PRTI

OUTPUT-3y-VER:CODEGRP;OPT(PRT)

RC:EA;CHG;OPT(EAANI),---:

FORM # 334 CHANGE EQUAL ACCESS SIGNALING II DIGITS AND/OR OLI VALUES

1. GENERAL

1.01 Form #334 is used to specify the actions to be taken for the valid II digits and/or OLI values that can be received by an Inter-LATA Carrier switch via Equal Access Signaling. The II digits are the two information digits which precede the ANI (if the ANI option is chosen). The OLI parameter is part of the ISUP signaling message.

If the ANI option is chosen, eight possible II+ANI sequences can be received: II+3 to II+10 digits. Normally either II+10 digits or II+3 digits will be received. The 10 digit ANI will correspond to the billing number of the originating party. The 3 digit ANI will be received when the originating party cannot be identified (e.g., multi-party lines) and will consist of the originating NPA. Only the number of ANI digits are included in the number entered in the ANICOUNT field.

2. FORM ENTRIES

2.01 RC:EA;CHG;OPT(EAANI),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ANIACTN** - ANI Action
Entries: CANI, IAROA, IAAFA, NONEA.

2.03 **ANICOUNT** - ANI Count
Entries: 3 to 10 for II. 0, 3, 10, or X for OLI.

2.04 **II** - II Digits
Entries: blank or 00 to 99.

2.05 **OLI** - Originating Line Identifier
Entries: blank or 0 to 255.

2.06 **ORNU** - Order Number
Entries: 1 to 999999.

2.07 **RESELL** - Blank.

```
# FORM 334  CHANGE EQUAL ACCESS SIGNALING II DIGITS AND/OR OLI VALUES
  <4E22R4


RC:EA;CHG;OPT(EAANI),___:

ORNU _______,

II    OLI       ANICOUNT      ANIACTN

__,   ____,        __,        _______,
__,   ____,        __,        _______,
__,   ____,        __,        _______,
__,   ____,        __,        _______,
__,   ____,        __,        _______,
__,   ____,        __,        _______,
__,   ____,        __,        _______,
__,   ____,        __,        _______,
__,   ____,        __,        _______,
__,   ____,        __,        _______,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 403T

ASSOCIATED VERIFY MESSAGES

INPUT-13n-VER:EA;FUNC:IIDIGITS
VER:EA;FUNC:OLI

OUTPUT-3af-VER:EA;OPT(FUNC,IIDIGITS)
3ag-VER:EA;OPT(FUNC,OLI)

```
# FORM 334  CHANGE EQUAL ACCESS SIGNALING II DIGITS AND/OR OLI VALUES
  4E23R1


RC:EA;CHG;OPT(EAANI),___:

ORNU _______,

II    OLI      ANICOUNT      ANIACTN    RESELL

__,   ___,        __,        _______,      _,
__,   ___,        __,        _______,      _,
__,   ___,        __,        _______,      _,
__,   ___,        __,        _______,      _,
__,   ___,        __,        _______,      _,
__,   ___,        __,        _______,      _,
__,   ___,        __,        _______,      _,
__,   ___,        __,        _______,      _,
__,   ___,        __,        _______,      _,
__,   ___,        __,        _______,      _,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 403T

ASSOCIATED VERIFY MESSAGES

INPUT-13n-VER:EA;FUNC:IIDIGITS
VER:EA;FUNC:OLI

OUTPUT-3af-VER:EA;OPT(FUNC,IIDIGITS)
3ag-VER:EA;OPT(FUNC,OLI)

Future

RC:CODEGRP;CHG;OPT(TNSI),---:

FORM # 335 CHANGE NX OR ZZ TO TNS TRANSLATOR

1. GENERAL

1.01 Form #335 is used to convert from the ZZ or NX digits of MF equal access signaling to the TNS index value for ISUP. The Operator indicator field applies only to NX digits.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(TNSI),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **NX/ZZ DIGITS** - NX or ZZ Equal Access Digits
Entries: 00 to 99.

2.03 **OPR** - Operator indicator
Entries: blank, Y or N.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **TNSD** - TNS Digit Indicator
Entries: NX or ZZ.

2.06 **TNSI** - Access Tandem Transit Network Selection Index
Entries: 0 to 15.

```
# FORM 335  CHANGE NX OR ZZ TO TNSI TRANSLATOR


RC:CODEGRP;CHG;OPT(TNSI),___:        TNSD __,

ORNU _______,

   NX / ZZ
   DIGITS  TNSI   OPR

    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,
    __,     __,    _,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 403Y

ASSOCIATED VERIFY MESSAGES

INPUT-13o-VER:EA:NX/ZZ

OUTPUT-3ad-VER:EA;OPT(NX/ZZ)

RC:CODEGRP;CHG;OPT(II,OLI),---:

FORM # 336 CHANGE II DIGITS TO OLI OR OLI TO II DIGITS TRANSLATOR

1. GENERAL

1.01 Form #336 is used to convert between the II digits of MF equal access signaling and the OLI parameter of ISUP.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(II,OLI),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **AININD1** - AIN Indicator (4E18>)
Entries: blank, Y, or N.

2.03 **AININD2** - AIN Indicator (4E18>)
Entries: blank, Y, or N.

2.04 **II** - II Digits
Entries: blank or 00 to 99.

2.05 **OLI** - Originating Line Identifier
Entries: blank or 0 to 255.

2.06 **ORNU** - Order Number
Entries: 1 to 999999.

2.07 **TOS1** - Type of Service (4E18>)
Entries: blank or 0 to 31.

2.08 **TOS2** - Type of Service (4E18>)
Entries: blank or 0 to 31.

```
# FORM 336  CHANGE II DIGITS AND OLI CONVERSION TRANSLATOR
4E18>

RC:CODEGRP;CHG;OPT(II,OLI),___:

ORNU _______,

II  TO  OLI   AININD1 TOS1   OLI  TO  II   AININD2 TOS2

__,     ____,     _,    __,   ____,     __,     _,    __,
__,     ____,     _,    __,   ____,     __,     _,    __,
__,     ____,     _,    __,   ____,     __,     _,    __,
__,     ____,     _,    __,   ____,     __,     _,    __,
__,     ____,     _,    __,   ____,     __,     _,    __,
__,     ____,     _,    __,   ____,     __,     _,    __,
__,     ____,     _,    __,   ____,     __,     _,    __,
__,     ____,     _,    __,   ____,     __,     _,    __,
__,     ____,     _,    __,   ____,     __,     _,    __,
__,     ____,     _,    __,   ____,     __,     _,    __,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 403Z

ASSOCIATED VERIFY MESSAGES

INPUT-13p-VER:EA;CONV:IIDIGITS
INPUT-13p-VER:EA;CONV:OLI

OUTPUT-3ae-VER:EA;OPT(CONV)

RC:EA;CHG;OPT(EASVC),---:

FORM # 337 CHANGE EQUAL ACCESS SIGNALING II DIGITS AND/OR OLI VALUE SERVICE TYPE

1. GENERAL

1.01 Form #337 is used to specify the service type that the II digits and/or OLI values are dedicated to. The II digits are the two information digits which precede the ANI (if the ANI option is chosen). The OLI parameter is part of the ISUP signaling message.

2. FORM ENTRIES

2.01 RC:EA;CHG;OPT(EASVC),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **II** - II Digits
Entries: blank or 00 to 99.

2.03 **OLI** - Originating Line Identifier
Entries: blank or 0 to 255.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **SRVCT** - Service Type
Entries: CMC, EAPOTS, SDN, OWATS, TRS, or T800.

```
# FORM 337  CHANGE EQUAL ACCESS SIGNALING II DIGITS AND/OR OLI VALUE SERVICE TYPE

RC:EA;CHG;OPT(EASVC),___:

ORNU _______,

II     SRVCT         OLI     SRVCT

__,   _______,       ___,   _______,
__,   _______,       ___,   _______,
__,   _______,       ___,   _______,
__,   _______,       ___,   _______,
__,   _______,       ___,   _______,
__,   _______,       ___,   _______,
__,   _______,       ___,   _______,
__,   _______,       ___,   _______,
__,   _______,       ___,   _______,
__,   _______,       ___,   _______,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 403S

ASSOCIATED VERIFY MESSAGES

INPUT-13n-VER:EA;FUNC:IIDIGITS
VER:EA;FUNC:OLI

OUTPUT-3af-VER:EA;OPT(FUNC,IIDIGITS)
3ag-VER:EA;OPT(FUNC,OLI)

RC:EA;CHG;OPT(SII),---:

FORM # 338 CHANGE SERVICE IDENTITY INDEX RELATED INFORMATION

1. GENERAL

1.01 Form #338, available with the 4E15 Generic Program, is used to specify the OLI value, calling party number handling, billing number handling, and SID/ANI increment message handling at the terminating toll switch for the specified SII value. Fields left blank on this form specify that no change is to be made to the existing setting of the translations data.

2. FORM ENTRIES

2.01 RC:EA;CHG;OPT(SII),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ASAI** - Avoid sending SID/ANI Increment Message
Entries: blank, Y, or N.

2.03 **BNA** - Billing Number Action
Entries: blank, T (TSG), P (pass), and D (drop).

2.04 **CPNA** - Calling Party Number Action
Entries: blank, T (TSG), P (pass), and D (drop).

2.05 **CSCI** - Entries: blank.

2.06 **DESV** - Dedicated Egress Service
Entries: blank, UNK, GSDN, I800, ILDS, M800, MQ, SDI, SDN, and SDS.

2.07 **OLI** - Originating Line Identifier
Entries: blank or 0 to 255.
An asterisk may be entered to remove an OLI value.

2.08 **ORNU** - Order Number
Entries: 1 to 999999.

2.09 **SII** - Service Identity Index
Entries: 0 to 255.

2.10 **SST** - Entries: blank.

```
# FORM 338  CHANGE INFORMATION ASSOCIATED WITH A SERVICE IDENTITY INDEX
  <4E21R4

RC:EA;CHG;OPT(SII),___:                    SII ___,

ORNU _______,

OLI ___,  BNA _,  CPNA _,  ASAI _,  DESV ____,  SST _____,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403R

ASSOCIATED VERIFY MESSAGES

INPUT-13q-VER:EA:SII

OUTPUT-3ah-VER:EA;OPT(SII)

```
# FORM 338  CHANGE INFORMATION ASSOCIATED WITH A SERVICE IDENTITY INDEX
  4E22R1>

RC:EA;CHG;OPT(SII),___:                    SII ___,

ORNU _______,

OLI ___,  BNA _,  CPNA _,  ASAI _,  DESV ____,  SST _____,  CSCI __,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 403R

ASSOCIATED VERIFY MESSAGES

INPUT-13q-VER:EA:SII

OUTPUT-3ah-VER:EA;OPT(SII)

Future

RC:CODEGRP;CHG;OPT(EARDAT),---:

FORM # 341 EMERGENCY ALTERNATE ROUTING DATABASE

1. GENERAL

1.01 Form #341 is used to update the Emergency Alternate Routing Database. In the event of a natural disaster, or a bomb threat or other terrorist activity, the customers' alternate number (ALTNUM) and primary domain (PRIMDOM) will be used to route a call. This form will only update the database - the service must be activated/deactivated via RC form 342 or already be active in ODA.

For Action of Add, the customers primary number (PRIMNUM), primary domain (PRIMDOM), and alternate number (ALTNUM) will be installed in the data base.

The Action of Delete, the customers' data will be removed from the database (this action will not be permitted if the customer is currently actively rerouting).

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(EARDAT),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACTION** - Action
Entries: A or D.

2.03 **ALTNUM** - Alternate Number
Entries: 7 or 10 digit number. Leave this field blank if ACTION=D.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **PRIMDOM** - Primary Domain
Entries: POTS, nonPOTS (20-80,82,83), SDNA, DEV, DED, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), INCD, N64C, N64R, NH0C, and NH1C.

2.06 **PRIMNUM** - Primary Number
Entries: 7 or 10 digit number.

```
# FORM 341   EMERGENCY ALTERNATE ROUTING DATABASE
  4E18>

RC:CODEGRP;CHG;OPT(EARDAT),___:

ORNU _______,     ACTION _,

   PRIMNUM    PRIMDOM      ALTNUM

 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,
 ___________,   _____,    ___________,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 4031

ASSOCIATED VERIFY MESSAGES

INPUT-13r-VER:CODEGRP:EAR

OUTPUT-3q-VER:CODEGRP;OPT(EAR):

RC:CODEGRP;CHG;OPT(EAR),---:

FORM # 342 EMERGENCY ALTERNATE ROUTING ACTIVATE/DEACTIVATE

1. GENERAL

1.01 This form is used to activate/deactivate a customer that is in the Emergency Alternate Routing Database (via RC form 341). When the customer is active then the customers' alternate number (ALTNUM) and primary domain (PRIMDOM) will be used to route a call. When the customer is deactivated then the customers' primary number (PRIMNUM) and primary domain (PRIMDOM) will be used to route a call.

1.02 It is possible for Form 342 to fail to Activate or Deactivate all of the alternate routing numbers specified on the form. This may happen when the customer data base is large. In case of such a failure, a warning message is displayed which tells the user which form entries must be reentered.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(EARDAT),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **AC/DEAC** - Activate/Deactivate
Entries: AC or DEAC.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **PRIMDOM** - Primary Domain
Entries: POTS, nonPOTS (20-80,82,83), SDNA, DEV, DED, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), INCD, N64C, N64R, NH0C, and NH1C.

2.05 **PRIMNUM** - Primary Number
Entries: 7 or 10 digit number.

```
# FORM 342   EMERGENCY ALTERNATE ROUTING ACTIVATE/DEACTIVATE
  4E18>

RC:CODEGRP;CHG;OPT(EAR),___:

ORNU _______,     AC/DEAC _____,


   PRIMNUM    PRIMDOM

 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,
 ___________,   _____,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 4031

ASSOCIATED VERIFY MESSAGES

INPUT-13r-VER:CODEGRP:EAR

OUTPUT-3q-VER:CODEGRP;OPT(EAR):

RC:CODEGRP;CHG;OPT(FCIC),- - -:

FORM # 343 FG-D CIC EXPANSION

1. GENERAL

1.01 Form 343, available with 4E18 and later Generic Programs, is used to expand code groups as given in table below. (X means any digit from 0-9 and all other explicit digits given are only those cases allowed.) Routable means that no other existing codes will be destroyed when this new code is defined.

Table 1

OLD CODEGROUP	NEW CODEGROUP	RESTRICTIONS
1XX-X	1XX-0X	1XX-0X must be routable
1XX-XX	1XX-0XX	1XX-0XX must be routable
1XX-XXX	1XX-0XX-X	1XX-0XX-X must be routable
1XX-XXX-X	1XX-0XX-XX	1XX-0XX-XX must be routable
1XX-XXX-XX	1XX-0XX-XXX	1XX-0XX-XXX must be routable
1XX-XXX-XXX	1XX-0XX-XXX-X	1XX-0XX-XXX-X must be routable
0XX-X	0XX-0X	0XX-0X must be routable
0XX-XX	0XX-0XX	0XX-0XX must be routable
0XX-XXX	0XX-0XX-X	0XX-0XX-X must be routable

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(FCIC),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ABC-DEF-GHI** - Only those values given for "OLD CODEGROUP" column in Table 1 are allowed. X is any number from 0-9.

Note: valid calltypes of the digits must be one of the following: SDX, RDB, GNS, PRT (that has at least one calltype treatment of RDB, TTS, or GNS), RNR, TTS.

2.03 **DOM** - Domain
Entries: POTS, 20 to 83, IVT, SDNA, DED, DEV, STCD (4E22R4>), I56D, I64C, INCD, N64C, N64R, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), GSDN, APN, NH0C, NH1C.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 343   FG-D CIC EXPANSION
  4E18>


RC:CODEGRP;CHG;OPT(FCIC),___:      DOM ____,

ORNU _______,


ABC  DEF  GHI
___, ___, ___,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 4032

ASSOCIATED VERIFY MESSAGES

INPUT-13b-VER:CODEGRP

OUTPUT-3a/3c/3e/3v-VER:CODEGRP;OPT(DIG3/6/9/12)

RC:CODEGRP;CHG;OPT(DOMTYP),- - -:

FORM # 344 ADD/DELETE A DOMAIN TYPE INFORMATION

1. GENERAL

1.01 Form #344, available with 4E18 and later generic programs, is used to add or delete domain specific information.

2. FORM ENTRIES

2.01 RC:CODEGRP;CHG;OPT(DOMTYP),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACTION** - Action
Entries: A or D.

2.03 **DOM** - Domain
Entries: POTS, 20 to 83, INTO,INTT, VRFY, SDNA, DED, DEV, STCD (4E22R4>), NSR, INCD, LSI, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.04 **DOMTYP** - Domain Type
Entries: FCID, SDAC or TDAC.

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 344  ADD/DELETE A DOMAIN TYPE INFORMATION
  4E18>

RC:CODEGRP;CHG;OPT(DOMTYP),___:              DOMTYP _____,


ORNU _______,    ACTION _,


 DOM  DOM   DOM   DOM  DOM


_____, _____, _____, _____, _____,

_____, _____, _____, _____, _____,

_____, _____, _____, _____, _____,

_____, _____, _____, _____, _____,


REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 4030

ASSOCIATED VERIFY MESSAGES

INPUT-13s-VER:CODEGRP:TYPE

OUTPUT-3ai-VER:CODEGRP;OPT(TYPE)

RC:AIN;OPT(LIST),- - -:

FORM # 345 SET/RESET AIN TRIGGER

1. GENERAL

1.01 Form 345, available with 4E18 and later Generic Programs, is used to set or reset an Advanced Intelligent Network (AIN) trigger in the subsequent digit translations. In 4E20R2 and later Generic Programs, a limited change capability to alter four new fields was added. Below is a description of how the actions and the new fields interact on this form.

If ACTION=A:

i. If FH is blank or FH=FT, then the remaining new fields on the form (DRCC, SCSANN, and DFRN) must be blank.

ii. If FH is DR, then DRCC and SCSANN must be entered and DFRN is optional. The exception is when DRCC=DRN, then DFRN is required.

If ACTION=C, then DOM, AC, ABC DEF GHI J, and TOS must be entered (where appropriate) and must match an entry that is already in translations. Therefore, only the new fields (FH, SCSANN, DRCC, and DFRN) can actually change and the input for these fields must correspond to the population rules defined for the add action.

If ACTION=D, then all the fields must be entered (where appropriate) and must match an entry that is already in translations.

2. FORM ENTRIES

2.01 RC:AIN;OPT(LIST),- - -:
Entries: blank, BUF, ACT, FTA, FTB.

2.02 **ABC DEF GHI J** - ABC-DEF-GHI-J Digits
Entries: Any Digits (0 to 9) with existing routing of RDB, GNS, SD1, SD2, SD3, or SDX.

2.03 **AC** - Area Code
Entries: blank, Y, or N.

2.04 **ACTION** - Action
Entries: A, C, or D.

2.05 **DFRN** - Default Routing Number (4E20R2>)
Entries: blank or a 10 digit routing number. When the field is populated, it must contain 10 digits. Blank zeros out the 10 routing digits. (Note: if DRCC=DRN, then DFRN must be entered; otherwise, this field may either be populated or left blank, with the exception that DFRN must be blank when FH=FT).

2.06 **DOM** - Domain
Entries: POTS, 20 to 69, 82, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), STCD (4E22R4>), N64C. [Note: 82 and N64C valid 4E21R4>]

2.07 **DRCC** - Default Routing Control Code (4E20R2>)
Entries: blank, TRM, DRN, CPN. TRM is the default. Blank is valid if and only if FH=FT.

2.08 **FH** - AIN Fault Handling (4E20R2>)
Entries: blank, FT, or DR. Blank translates to FT, which is the default.

2.09 **LTOS** - Local number portability Type of Service (4E22R2>)
Entries: blank, or 0 to 31. A type of service must be entered here if, and only if, the Trigger TYPE is LNP or Both (LNP & AIN).

2.10 **ORNU** - Order Number
Entries: 1 to 999999.

2.11 **SCSANN** - SCS Number for Default Routing Voice Announcement (4E20R2>)
Entries: blank, 0 to 65535. Zero (0) indicates no announcement, which is the default. Blank is valid if and only if FH=FT.

2.12 **TOS** - Type of Service
Entries: blank, or 0 to 31. A type of service must be entered here if, and only if, the Trigger TYPE is AIN or Both (LNP & AIN).

2.13 **TTYPE** - Trigger Type (4E22R2>)
Entries: A (AIN), L (LNP), or B (both LNP & AIN).

```
# FORM 345   SET/RESET AIN TRIGGER
  4E18-4E20R1


RC:AIN;OPT(LIST),___:

ORNU _______,        ACTION _,

DOM    AC     ABC  DEF  GHI  J      TOS
_____,  _,     ___, ___, ___, _,     __,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 4033

ASSOCIATED VERIFY MESSAGES

INPUT-13t-VER:AIN:LIST

OUTPUT-3aj-VER:AIN;OPT(LIST)

```
# FORM 345   SET/RESET AIN TRIGGER
  4E20R2-4E22R1


RC:AIN;OPT(LIST),___:

ORNU _______,        ACTION _,

DOM    AC     ABC  DEF  GHI  J      TOS   FH   SCSANN   DRCC       DFRN
_____,  _,     ___, ___, ___, _,     __,   __,   ______,   ___,   ___________,

REMARKS _____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-13t-VER:AIN:LIST

OUTPUT-3aj-VER:AIN;OPT(LIST)

```
# FORM 345   SET/RESET AIN TRIGGER
  4E22R2>


RC:AIN;OPT(LIST),___:

ORNU _______,        ACTION _,

DOM    AC     ABC  DEF  GHI  J
_____,  _,     ___, ___, ___, _,

TTYPE  LTOS  TOS   FH   SCSANN   DRCC       DFRN
  _,    __,  __,   __,   ______,   ___,   ___________,

REMARKS _____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-13t-VER:AIN:LIST

OUTPUT-3aj-VER:AIN;OPT(LIST)

RC:CODEGRP;NEW;OPT(LNP),- - -:

FORM # 347 ADD/DELETE LNP 6 DIGIT TYPE

1. GENERAL

1.01 Form #347 is used to specify codes to be added or deleted to the LNP 6 Digit Ty!pe translator. The LNP 6-digit type translator is used to determine if a code is open to Local Number Portability.

2. FORM ENTRIES

2.01 RC:CODEGRP;NEW;OPT(LNP),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ABC** - 3 Digit (NPA) codes
Entries: 200 to 999.

2.03 **ACTION** - Action
Entries: A or D.

2.04 **DEF** - Three Digits
Entries: 000 to 999.

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 347   ADD/DELETE LNP 6 DIGIT TYPE

RC:CODEGRP;NEW;OPT(LNP),___:                    ABC ____,

ORNU _______,  ACTION _,

DEF  DEF  DEF  DEF  DEF  DEF  DEF  DEF

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

___, ___, ___, ___, ___, ___, ___, ___,

REMARKS _____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES

INPUT-13av-VER:CODEGRP;OPT LNP

OUTPUT-3av-VER:CODEGRP;OPT(LNP)

RC:EA;CHG;OPT(EADFI),---:

FORM # 349 CHANGE EQUAL ACCESS FORWARDING DEFAULT II DIGITS

1. GENERAL

1.01 Form #349 is used to specify the default II digits that are to be forwarded to an IXC if Flexible ANI/II restrictions apply. The II digits are two information digits which precede the ANI (if the ANI option is chosen).

Note: the II defaults can only be provisioned if the Tandem Flexible ANI/II Digit Restriction feature has been purchased. Also, a specific II default "IDEF" can only be provisioned (ID1 through ID6) if the corresponding default (IID) has been provisioned. These specific "IID" default values are provisioned via recent change form 811 and verified by verify input messages: 13ba VER:EA:OPT DFI.

The "PSS" (PASS as received) entry is used instead of the default ID1 through ID6 entries to indicate when the II digits should be passed as received. Also, if II digits are specified in the "II" field the accompanying "IDEF" field must be a non-blank entry.

2. FORM ENTRIES

2.01 RC:EA;CHG;OPT(EADFI),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **II** - II Digits
Entries: blank or 00 to 99.

2.03 **IDEF** - II Digits Default (blank is only allowed if the accompanying "II" field is blank)
Entries: blank, PSS or ID1 to ID6.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 349  CHANGE EQUAL ACCESS FORWARDING DEFAULT II DIGITS
  4E24R1


RC:EA;CHG;OPT(EADFI),___:

ORNU _______,

II    IDEF                II    IDEF

__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,
__,   ____,               __,   ____,

REMARKS ----------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-13ba-VER:EA:OPT DFI

OUTPUT-3ba-VER:EA;OPT(DFI)

RC:EA;CHG;OPT(EADFO),---:

FORM # 350 CHANGE EQUAL ACCESS FORWARDING DEFAULT OLI VALUES

1. GENERAL

1.01 Form #350 is used to specify the default OLI values that are to be forwarded to an IXC if Flexible ANI/II restrictions apply. The OLI parameter is part of the ISUP signaling message.

Note: the OLI defaults can only be provisioned if the Tandem Flexible ANI/II Digit Restriction feature has been purchased. Also, a specific OLI default "ODEF" can only be provisioned (OD1 through OD6) if the corresponding default (OLID) has been provisioned. These specific "OLID" default values are provisioned via recent change form 811 and verified by verify input messages: 13bb-VER:EA:OPT DFO.

The "PSS" (PASS as received) entry is used instead of the default OD1 through OD6 entries to indicate when the OLI parameter should be passed as received. Also, if an OLI value is specified in the "OLI" field the accompanying "ODEF" field must be a non-blank entry.

2. FORM ENTRIES

2.01 RC:EA;CHG;OPT(EADFO),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **OLI** - Originating Line Identifier
Entries: blank or 0 to 255.

2.03 **ODEF** - OLI Default (blank is only allowed if the accompanying "OLI" field is blank)
Entries: blank, PSS or OD1 to OD6.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 350  CHANGE EQUAL ACCESS FORWARDING DEFAULT OLI VALUES
  4E24R1


RC:EA;CHG;OPT(EADFO),___:

ORNU _______,

OLI    ODEF                OLI    ODEF

___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,
___,   ___,                ___,   ___,

REMARKS ----------------------------------------------------!
```

ASSOCIATED VERIFY MESSAGES

INPUT-13bb-VER:EA:OPT DFO

OUTPUT-3bb-VER:EA;OPT(DFO)

SECTION 4
CENTRALIZED AUTOMATIC MESSAGE ACCOUNTING SCREENING

SECTION	RC#	
4a	400	Point Office codes at a profile.
4b	401	Change local call intercept blocking pattern.
4c	402	Add a terminating NPA and its local call intercept blocking pattern to a profile.
4d	403	Block unauthorized area codes.
4e	404	Block unauthorized office codes.
4f	405	Copy a profile.
4g	406	Delete a terminating NPA from a profile.

RC:CAMASCRN;CHG;OPT(OOFCG),_ _ _:

FORM #400 POINT OFFICE CODES AT A PROFILE

1. GENERAL

1.01 FORM #400 defines the valid originating office codes that may be received via a CAMA Trunk Group. This form is classed as a Recent Change Data Message (RCDM). A RC FORM #400 must be input for each CAMA Trunk Sub-Group added on a RC FORM #101. For 4E22>, this RC form is not valid for offices using SNPA 10-Digit Routing.

2. FORM ENTRIES

2.01 RC:CAMASCRN;CHG;OPT(OOFCG),_ _ _:

Entries in the field appended to this message indicate the action to be taken by the Recent Change system. If no entry is made in this field, it will default to the buffered state.

"BUF" places the message in the buffered state.

"TST" indicates that the message is to be buffered and then immediately processed to the test state.

"ACT" specifies that the message is to be processed through the buffered and test states and then activated.

For 4E8 and later Generic Programs:

"BUF" places the message in the buffer after performing only form checks.

"TST" indicates that all defensive checks are to be performed before buffering the message.

"ACT" indicates that the message is to be immediately activated following all defensive checks. It is not buffered.

For 4E10 and later Generic Programs:

"FTA" is a special form of the "ACT" action which limits output text during the processing of the action to a success or failure message.

2.02 TOWN ST BL FBS NBS
TG _ _ _ _ _ _ _ _ _ _ _ _ _,

This series of codes identifies a particular group of CAMA trunks. The town, state, building and building subdivision for the distant end of the trunk group, plus the near end building subdivision, make up the trunk group designation. This Common Language Location Identification (CLLI) code is used in the Long Lines Routing Guide. Rules for establishing these codes are covered in AT&T Practice 795-100-100.

TOWN - This code is a four character alphabetic combination representing the town, city or location for the far end of the Trunk Sub-Group.

ST - The state is a two character alphabetic code for the far end state, province or foreign country.

BL - This field contains the office identity for the far end of the subgroup. The code may be either two alphabetic or two numeric characters.

FBS - The far building subdivision code is a three character alphanumeric for internal building identification.

NBS - This code identifies the internal building subdivision for the near end of the subgroup. It is a three character alphanumeric combination.

2.03 ORNU _ _ _ _ _ _,

The order number identifies a particular Recent Change Message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique order number.

2.04 OLCIGI _ _ _,

The originating local call intercept group index is a number from 1 to 255. This index (except for 1) points to a group of terminating office codes that are to be intercepted. These terminating codes are defined by another Recent Change Form (401). OLCIGI 1 is reserved for those CAMA Trunk Groups from offices that do their own local call intercept. In these cases, no definition of terminating codes is required.

2.05 POVC _,

Pass Originating Validity Check - Normally, a given originating office code will only be valid on one CAMA Trunk Group. Part of the screening for the CAMA operation involves a check of the originating validity. Certain codes, however, may be received on more than one CAMA group. These codes (special billing-QZ) must be passed (ignored) by the originating validity check.

A "Y" for yes in this field causes all of the codes listed in the OOFC to pass the originating validity check regardless of the incoming CAMA group.

If "N" for no, all the listed codes will be checked against the incoming CAMA Trunk Group for validity. This is the usual case.

2.06 OOFC OOFC OOFC OOFC
_ _ _, _ _ _, _ _ _, _ _ _,

_ _ _, _ _ _, _ _ _, _ _ _,

Originating Office Code - This field may contain any three digit code from 000 to 999. For a given form, the originating codes listed in this field are those that are valid for the CAMA trunk group. If any other originating code is received, (other than one with POVC equal to yes) the call will be intercepted as an invalid originating code.

2.07 REMARKS_____!

This field may be used to record short comments pertinent to this Recent Change. Up to fifty characters (including blanks) can be stored with a given Recent Change. These entries are not part of translation and are only retained while the message is in the buffered state (until the message is put in the test state). For 4E8 and later Generic Programs, these entries are not part of translations and are only retained while the message is in the buffer. All characters are valid in the remarks field with the exception of the exclamation point which denotes the end of the Recent Change Message.

FORM #400 POINT OFFICE CODES AT A PROFILE

```
RC:CAMASCRN;CHG;OPT(OOFCG),---:                    TOWN ST BL FBS NBS

ORNU ------,                                     TG ---- -- -- --- ---,

OLCIGI ---, POVC -,

OOFC   OOFC   OOFC   OOFC

---,   ---,   ---,   ---,
---,   ---,   ---,   ---,

REMARKS ----------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 404A

ASSOCIATED VERIFY MESSAGE

INPUT-14a-VER: CAMASCRN. . .

OUTPUT-4a-VER: CAMASCRN;OPT(OOFCG),_ _ _:

FIGURE 1

RC MESSAGE #400 - SAMPLE

RC;CAMASCRN;CHG;OPT(LCIBPAT),_ _ _:

FORM #401 CHANGE LOCAL CALL INTERCEPT BLOCKING PATTERN

1. GENERAL

1.01 Form #401 is used to change the terminating office code portion of the Local Call Intercept (LCI) blocking pattern for an established profile. This pattern is used to prevent local calls from being processed over the toll network via CAMA trunks (ANI or ONI). For 4E22>, this RC form is not valid for offices using SNPA 10-Digit Routing.

2. FORM ENTRIES

2.01 RC:CAMASCRN;CHG;OPT(LCIBPAT),_ _ _:

Entries in the field appended to this message indicate the action to be taken by the Recent Change system. If no entry is made in this field, it will default to the buffered state.

"BUF" places the message in the buffered state.

"TST" indicates that the message is to be buffered and then immediately processed to the test state.

"ACT" specifies that the message is to be processed through the buffered and test states and then activated.

For 4E8 and later Generic Programs:

"BUF" places the message in the buffer after performing only form checks.

"TST" indicates that all defensive checks are to be performed before buffering the message.

"ACT" indicates that the message is to be immediately activated following all defensive checks. It is not buffered.

For 4E10 and later Generic Programs:

"FTA" is a special form of the "ACT" action which limits output text during the processing of the action to a success or failure message.

2.02 OLCIGI _ _ _,

The originating local call intercept group index is a number from 2 to 255 for this form. This index correlates a group of terminating codes for a Local Call Intercept (LCI) blocking pattern.

2.03 ORNU _ _ _ _ _ _,

The order number identifies a particular recent change message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique order number.

2.04 TNPA _ _ _,

This field identifies the area code associated with the terminating office codes listed on this form. The valid range for TNPA is 200-999.

2.05 BLOCK _,

The block field specifies whether or not the codes listed on this form are to be blocked (intercepted) or allowed to continue as a valid call.

A "Y" for yes indicates that the code will be intercepted.

A "N" for no indicates that the terminating code is valid as a CAMA call over the trunk group associated with the profile index (form 400).

2.06 TOFC TOFC TOFC TOFC
_ _ _, _ _ _, _ _ _, _ _ _,
TOFC TOFC TOFC TOFC
_ _ _, _ _ _, _ _ _, _ _ _,

The TOFC field lists the terminating office codes within a given NPA that are to be blocked or not blocked. The valid range for terminating office codes is from 200 to 999.

2.07 REMARKS_____!

This field may be used to record short comments pertinent to this recent change. Up to fifty characters (including blanks) can be stored with a given recent change. These entries are not part of translations and are only retained while the message is in the buffered state (until the message is put in the test state). For 4E8 and later Generic Programs, these entries are not part of translations and are only retained while the message is in the buffer. All characters are valid in the remarks field with the exception of the exclamation point (!) which denotes the end of the Recent Change Message.

```
# FORM 401   CHANGE LOCAL CALL INTERCEPT BLOCKING PATTERN


RC:CAMASCRN;CHG;OPT(LCIBPAT),---:                                OLCIGI ---,

ORNU ------,

TNPA ---,                    BLOCK -,

TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC

---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE

INPUT-14a-VER: CAMASCRN...

OUTPUT-4b-VER: CAMASCRN;OPT(LCIBPAT),_ _ _:

FIGURE 1

RC MESSAGE #401 - SAMPLE

RC:CAMASCRN;CHG;OPT(LCIBPAT,NEWTNPA),_ _ _:

FORM #402 ADD A TERMINATING NPA AND
ITS LOCAL CALL INTERCEPT BLOCKING PATTERN
TO A PROFILE

1. GENERAL

1.01 Form #402 adds a new group of terminating office codes (within a new NPA) that should be blocked on CAMA Trunk Groups. This Local Call Intercept (LCI) blocking pattern prevents local calls from being placed over the toll network via CAMA Trunk Groups (ANI or ONI). For 4E22>, this RC form is not valid for offices using SNPA 10-Digit Routing.

2. FORM ENTRIES

2.01 RC:CAMASCRN;CHG;OPT
(LCIBPAT,NEWTNPA),_ _ _:

Entries in the field appended to this message indicate the action to be taken by the Recent Change system. If no entry is made in this field, it will default to the buffered state.

"BUF" places the message in the buffered state.

"TST" indicates that the message is to be buffered and then immediately processed to the test state.

"ACT" specifies that the message is to be processed through the buffered and test states and then activated.

For 4E8 and later Generic Programs:

"BUF" places the message in the buffer after performing only form checks.

"TST" indicates that all defensive checks are to be performed before buffering the message.

"ACT" indicates that the message is to be immediately activated following all defensive checks. It is not buffered.

For 4E10 and later Generic Programs:

"FTA" is a special form of the "ACT" action which limits output text during the processing of the action to a success or failure message.

2.02 OLCIGI _ _ _,

The originating local call intercept group index is a number from 2 to 255 for this form. This index correlates a group of originating codes (form 400) to a group of terminating codes for a LCI blocking pattern.

2.03 ORNU _ _ _ _ _ _,

The order number identifies a particular recent change message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique order number.

2.04 TNPA _ _ _,

This field identifies the new area code associated with the terminating office codes listed on this form. Valid entries for TNPA are 200-999.

2.05 BLOCK Y,

The block field specifies whether or not the codes listed on this form are to be blocked (intercepted). Since this form adds a new TNPA, the BLOCK field is set to "Y" for yes.

2.06 TOFC TOFC TOFC TOFC
_ _ _, _ _ _, _ _ _, _ _ _,
TOFC TOFC TOFC TOFC
_ _ _, _ _ _, _ _ _, _ _ _,

The TOFC field lists the terminating office codes within the new NPA that are to be blocked. The valid range for terminating office codes is from 200 to 999.

2.07 REMARKS_____!

This field may be used to record short comments pertinent to this Recent Change. Up to fifty characters (including blanks) can be stored with a given Recent Change. These entries are not part of translations and are only retained while the message is in the buffered state (until the message is put in the test state). For 4E8 and later Generic Programs, these entries are not part of translations and are only retained while the message is in the buffer. All characters are valid in the remarks field with the exception of the exclamation point which denotes the end of the Recent Change Message.

```
FORM #402    ADD A TERMINATING NPA AND ITS LOCAL CALL INTERCEPT BLOCKING
                   PATTERN TO A PROFILE




RC:CAMASCRN;CHG;OPT(LCIBPAT,NEWTNPA),---:                          OLCIGI ---,

ORNU ------,

TNPA ---,                      BLOCK Y,

TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC
---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,

REMARKS ----------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 404B

ASSOCIATED VERIFY MESSAGE

INPUT-14b-VER: CAMASCRN...

OUTPUT-4b-VER: CAMASCRN;OPT(LCIBPAT),____:

FIGURE 1

RC MESSAGE #402 - SAMPLE

RC:CAMASCRN;CHG;OPT(UNAREA),_ _ _:

FORM #403 BLOCK UNAUTHORIZED AREA CODES

1. GENERAL

1.01 Form #403 changes the list of area codes that are unauthorized for CAMA. This form is classed as a recent change data message. For 4E22>, this RC form is not valid for offices using SNPA 10-Digit Routing.

2. FORM ENTRIES

2.01 RC:CAMASCRN;CHG;OPT(UNAREA),_ _ _:

Entries in the field appended to this message indicate the action to be taken by the Recent Change system. If no entry is made in this field, it will default to the buffered state.

"BUF" places the message in the buffered state.

"TST" indicates that the message is to be buffered and then immediately processed to the test state.

"ACT" specifies that the message is to be processed through the buffered and test states and then activated.

For 4E8 and later Generic Programs:

"BUF" places the message in the buffer after performing only form checks.

"TST" indicates that all defensive checks are to be performed before buffering the message.

"ACT" indicates that the message is to be immediately activated following all defensive checks. It is not buffered.

For 4E10 and later Generic Programs:

"FTA" is a special form of the "ACT" action which limits output text during the processing of the action to a success or failure failure message.

2.02 BLKFCTN - Block Function - This field is preset to UNAREA for this form. It indicates that the blocking function defined on this form is for unauthorized area codes associated with the CAMA operation.

2.03 ORNU _ _ _ _ _ _,

The order number identifies a particular Recent Change Message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique order number.

2.04 BLOCK _,

This field may be "Y" for yes or "N" for no. BLOCK indicates if the listed terminating NPAs are to be blocked and sent to unauthorized CAMA announcement.

2.05 TNPA TNPA TNPA TNPA
_ _ _, _ _ _, _ _ _, _ _ _,
TNPA TNPA TNPA TNPA
_ _ _, _ _ _, _ _ _, _ _ _,

Terminating Numbering Plan Area - This field lists the three digit codes that are to be blocked or allowed to process when they are received as the called (terminating) area code component of a CAMA call. Blocked codes will be directed to the "unauthorized CAMA" announcement while codes that are not blocked will be allowed to continue CAMA processing. Valid entries range from 200 to 999.

2.06 REMARKS_____!

This field may be used to record short comments pertinent to this Recent Change. Up to fifty characters (including blanks) can be stored with a given Recent Change. These entries are not part of translations and are only retained while the message is in the buffered state (until the message is put in the test state). For 4E8 and later Generic Programs, these entries are not part of translations and are only retained while the message is in the buffer. All characters are valid in the remarks field with the exception of the exclamation point which denotes the end of the Recent Change Message.

FORM #403 BLOCK UNAUTHORIZED AREA CODES

```
RC:CAMASCRN;CHG;OPT(UNAREA),---:                          BLKFCTN UNAREA,

ORNU ------,                BLOCK -,

TNPA   TNPA   TNPA   TNPA   TNPA   TNPA   TNPA   TNPA

---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,

REMARKS ----------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 404C

ASSOCIATED VERIFY MESSAGE

INPUT-14c-VER: CAMASCRN...

OUTPUT-4c-VER: CAMASCRN;OPT(UNAREA),_____:

FIGURE 1

RC MESSAGE #403 - SAMPLE

RC:CAMASCRN;CHG;OPT(UNAOFC),_ _ _:

FORM #404 BLOCK UNAUTHORIZED OFFICE CODES

1. GENERAL

1.01 Form 404 changes the list of called (terminating) office codes that are unauthorized for CAMA. This form is classed as a Recent Change Data Message (RCDM). For 4E22>, this RC form is not valid for offices using SNPA 10-Digit Routing.

2. FORM ENTRIES

2.01 RC:CAMASCRN;CHG;OPT(UNAOFC),_ _ _:

Entries in the field appended to this message indicate the action to be taken by the Recent Change system. If no entry is made in this field, it will default to the buffered state.

"BUF" places the message in the buffered state.

"TST" indicates that the message is to be buffered and then immediately processed to the test state.

"ACT" specifies that the message is to be processed through the buffered and test states and then activated.

For 4E8 and later Generic Programs:

"BUF" places the message in the buffer after performing only form checks.

"TST" indicates that all defensive checks are to be performed before buffering the message.

"ACT" indicates that the message is to be immediately activated following all defensive checks. It is not buffered.

For 4E10 and later Gneric Programs:

"FTA" is a special form of the "ACT" action which limits output text during the processing of the action to a success or failure message.

2.02 BLKFCTN - Block Function - This field is preset to UNAOFC for this form. It indicates that the blocking function defined on this form is for unauthorized terminating office codes associated with the CAMA FUNCTION.

2.03 ORNU _ _ _ _ _ _,

The order number identifies a particular recent change message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique order number.

2.04 BLOCK _,

This field may be "Y" for yes or "N" for no. BLOCK indicates if the listed terminating office codes are to be blocked and sent to "Unauthorized CAMA" announcement.

2.05 TOFC TOFC TOFC TOFC
_ _ _, _ _ _, _ _ _, _ _ _,
TOFC TOFC TOFC TOFC
_ _ _, _ _ _, _ _ _, _ _ _,

Terminating Office Codes - This field lists the three digit codes that are to be blocked or not blocked when they are received as the called (terminating) office code component of a CAMA call. The range of valid entries is from 200 to 999.

2.06 REMARKS_____!

This field may be used to record short comments pertinent to this Recent Change. Up to fifty characters (including blanks) can be stored with a given Recent Change. These entries are not part of translations and are only retained while the message is in the buffered state (until the message is put in the test state). For 4E8 and later Generic Programs, these entries are not part of translations and are only retained while the message is in the buffer. All characters are valid in the remarks field with the exception of the exclamation point which denotes the end of the Recent Change Message.

FORM #404 BLOCK UNAUTHORIZED OFFICE CODES

```
RC:CAMASCRN;CHG;OPT(UNAOFC),---:                                BLKFCTN UNAOFC,

ORNU ------,                  BLOCK -,

TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC

---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 404D

ASSOCIATED VERIFY MESSAGE

INPUT-14c-VER: CAMASCRN...

OUTPUT-4d-VER: CAMASCRN;OPT(UNAOFC),_____:

FIGURE 1

RC MESSAGE #404 - SAMPLE

RC:CAMASCRN;CHG;OPT(COPY),_ _ _:

FORM #405 COPY A PROFILE

1. GENERAL

1.01 Form #405 is used to copy a local call intercept profile for CAMA operation. This message points a new Originating Local Call Intercept Group (OLCIG) at the same terminating LCI blocking profile(s) as stored for an existing OLCIG. A terminating NPA can then be added to or deleted from the new OLCIG using RC 402 or 406 Form. For 4E22, this RC form is not valid for offices using SNPA 10-Digit Routing.

CAUTION: This message should not be used to add a new OLCIGI if it is expected that different LCI blocking profiles will be required for all TNPA's appearing in both OLCIG's. Any changes made to the LCI blocking profiles for those TNPAs become applicable to both OLCIGs unless the TNPA is first deleted from and then readded back to the OLCIGI needing the LCI profile change. A paper record must be maintained to administer the OLCIGIs built with this message to identify jointly used LCI profiles. This form is a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:CAMASCRN;CHG;OPT(COPY),_ _ _:

Entries in the field appended to this message indicate the action to be taken by the Recent Change system. If no entry is made in this field, it will default to the buffered state.

"BUF" places the message in the buffered state.

"TST" indicates that the message is to be buffered and then immediately processed to the test state.

"ACT" specifies that the message is to be processed through the buffered and test states and then activated.

For 4E8 and later Generic Programs:

"BUF" places the message in the buffer after performing only form checks.

"TST" indicates that all defensive checks are to be performed before buffering the message.

"ACT" indicates that the message is to be immediately activated following all defensive checks. It is not buffered.

For 4E10 and later Generic Programs:

"FTA" is a special form of the "ACT" action which limits output text during the processing of the action to a success or failure message.

2.02 OLCIGI _ _ _,

The Originating Local Call Intercept Group Index is a link between a group of originating office codes and a group of terminating codes. This profile is for the purpose of intercepting local calls that should not be placed over the toll network. For this form, the OLCIGI is a new number (not previously assigned) from 2 to 255. This new profile will be copied from an existing Local Call Intercept (LCI) profile (defined in the OOLCIGI field).

2.03 ORNU _ _ _ _ _ _,

The Order Number identifies a particular Recent Change message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique Order Number.

2.04 OOLCIGI _ _ _,

This field will contain an existing Originating Local Call Intercept (LCI) Group Index in the range of 2 to 255. For this form, OOLCIGI is the OLCIGI profile that will be copied.

2.05 REMARKS_____!

This field may be used to record short comments pertinent to this Recent Change. Up to fifty characters (including blanks) can be stored with a given Recent Change. These entries are not part of translations and are only retained while the message is in the buffered state (until the message is put in the test state). For 4E8 and later Generic Programs, these entries are not part of translations and are only retained while the message is in the buffer. All characters are valid in the remarks field with the exception of the exclamation point which denotes the end of the Recent Change Message.

FORM #405 COPY A PROFILE

```
RC:CAMASCRN;CHG;OPT(COPY).---:                                  OLCIGI ---,

ORNU ------,                  OOLCIGI ---,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE

INPUT-14d-VER: CAMASCRN...

OUTPUT-4e-VER: CAMASCRN;OPT(OLCIGI),_____:

FIGURE 1

RC MESSAGE #405 - SAMPLE

RC:CAMASCRN;CHG;OPT(OUTTNPA),_ _ _:

FORM #406 DELETE A TERMINATING NPA FROM A PROFILE

1. GENERAL

1.01 Form #406 deletes a terminating NPA from a Local Call Intercept (LCI) profile. The LCI profile is used to block local traffic from being processed by CAMA. This form is classed as a Recent Change Data Message (RCDM). For 4E22>, this RC form is not valid for offices using SNPA 10-Digit Routing.

2. FORM ENTRIES

2.01 RC:CAMASCRN;CHG;OPT(OUTTNPA),_ _ _:

Entries in the field appended to this message indicate the action to be taken by the Recent Change system. If no entry is made in this field, it will default to the buffered state.

"BUF" places the message in the buffered state.

"TST" indicates that the message is to be buffered and then immediately processed to the test state.

"ACT" specifies that the message is to be processed through the buffered and test states and then activated.

For 4E8 and later Generic Programs:

"BUF" places the message in the buffer after performing only form checks.

"TST" indicates that all defensive checks are to be performed before buffering the message.

"ACT" indicates that the message is to be immediately activated following all defensive checks. It is not buffered.

For 4E10 and later Generic Programs:

"FTA" is a special form of the "ACT" action which limits output text during the processing of the action to a success or failure message.

2.02 OLCIGI _ _ _,

The originating local call intercept group index is a number from 1 to 255. This profile of numbers identifies a group of originating office codes and a group of terminating office codes. The profile is used to block local calls that should not be placed over CAMA facilities. Since profile No. 1 (OLCIGI equal to one) is reserved for those profiles that have no terminating codes, the range of entries for this field may be an assigned profile from 2 to 255.

2.03 ORNU _ _ _ _ _ _,

The order number identifies a particular Recent Change Message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique order number.

2.04 TNPA _ _ _,

Terminating Numbering Plan Area - The terminating office codes in the Local Call Intercept (LCI) pattern may be located in up to four NPAs. This field lists the TNPA that is being deleted on this Recent Change Message. If this TNPA is the last, or only, NPA in the profile, the entire profile will be deleted. The valid range for TNPA is 200 to 999.

2.05 REMARKS_____!

This field may be used to record short comments pertinent to this Recent Change. Up to fifty characters (including blanks) can be stored with a given Recent Change. These entries are not part of translations and are only retained while the message is in the buffered state (until the message is put in the test state). For 4E8 and later Generic Programs, these entries are not part of translations and are only retained while the message is in the buffer. All characters are valid in the remarks field with the exception of the exclamation point which denotes the end of the Recent Change Message.

FORM #406 DELETE A TERMINATING NPA FROM A PROFILE

```
RC:CAMASCRN;CHG;OPT(OUTTNPA),---:                          OLCIGI ---,

ORNU ------,

TNPA ---,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE

INPUT-14d-VER: CAMASCRN...

OUTPUT-4e-VER: CAMASCRN;OPT(OLCIGI),_____:

FIGURE 1

RC MESSAGE #406 - SAMPLE

SECTION 5 - ROUTING DATA BLOCKS

SECTION	RC#	
5a	500	Add new in-chain Routing Data Block
5d	503	Change in-chain Routing Data Block characteristics
5f	505	Add Trunk Subgroups to an existing Routing Data Block
5i	508	Delete Trunk Subgroups from an existing Routing Data Block
5k	510	Delete Routing Data Block
5n	513	Add a Trunk Subgroup to existing Routing Data Blocks
5o	514	Delete a Trunk Subgroup from existing Routing Data Blocks
5r	517	Add a new international inchain/ADG Routing Data Block
5t	519	Add Trunk Subgroups to an existing international Routing Data Block
5v	521	Add new Terminating Toll Switch
5w	522	Change Terminating Toll Switch
5x	523	Delete Terminating Toll Switch
5y	524	Add/Change Number Data Block Translator entry
5z	525	Delete Number Data Block Translator entry

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

RC:RDB;NEW:- - -:

FORM # 500 ADD A NEW DOMESTIC INCHAIN/ADG ROUTING DATA BLOCK

1. GENERAL

1.01 Form #500 is used to add a new in-chain or Automatic Distribution Group Routing Data Block.

1.02 It should be noted that 4 ESS will allow a maximum of fourteen Trunk Subgroups to be associated with an in-chain RDB. Therefore, Recent Change form 505 must be used along with this form when more than seven Trunk Subgroups are to be associated with the specified RDBI.

1.03 ADG Routing Data Block routes are not required to be contiguous in an RDB. ADG Routing Data Block holes in new RDBs will be handled by using dummy TSGs. The dummy TSG will be removed using a delete TSG message and new TSGs added using the add TSG message.

1.04 Table A gives some acceptable digit count examples. Table B shows the TSG and RDB correlation.

2. FORM ENTRIES

2.01 RC:RDB;NEW:- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ADG** - Automatic Distribution Group
Entries: blank or 0 to 3.

2.03 **ANFHT** - ANI Failure Action Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.04 **DEL** - Delete
Entries: 0 to 15.

2.05 **DNHRTYPE** - Dynamic Non-Hierarchical Routing Type
Entries: blank, ED, EV, ID, or RT.

2.06 **ORNU** - Order Number
Entries: 1 to 999999.

2.07 **PREFIX** - Prefix Digits
Entries: blank or 0 to 999999.

2.08 **RDBFHT** - RDB Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.09 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.10 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.11 **TTSI** - Terminating Toll Switch Index
Entries: blank or 1 to 31.

TABLE A

Acceptable Digit Count Examples

NONAREA CODE	AREA CODE	INWATS	TEST
1X1	NPA-1X1	800-NXX-XXXX	10X
* TTC-1X1	NPA-TTC-1X1	00X-NXX-XXXX	TTC-10X
NXX-XXXX	NPA-NXX-XXXX	08Z-NNX-XXXX	NXX-XXXX
		1BZ-XXXX	
** 11NX	NPA-11NX		
11NXX	NPA-11NXX		
TTC-11NX	NPA-TTC-11NX		
TTC-11NXX			

POSSIBLE ADC COMBINATIONS SEE NOTE 1

	NAC	AC	INWATS	TEST
ADC	3,4,5,6,7,8,	6,7,8,9,10,11	7,10	3,6,7

* TTC - TERMINATING TOLL CENTER CODE MAY BE 0XX/1XX COMBINATION

** LEAVE WORD 2 AND 3 DIGIT OPERATOR CODES, USUALLY, ONLY 2-DIGIT CODES ARE USED WITH THE NPA AND THE TTC.

NOTE 1

Not every office will have all of the possible digit combinations.

Example:

If an NPA uses Terminating Toll Center codes for routing operator codes, the area code combinations might be similar to the following.

NPA-TTC-1X1
NPA-NXX-XXXX
NPA-TTC-11NX

In this case the possible digit combinations specified for the RDB would be 9 and 10.

The nonarea code combinations in the home NPA might not use the TTC. Then combinations might be:

1X1
NXX-XXXX
11NXX

In this case then the ADC setting for the RDB would be 3, 5 and 7.

TABLE B

Valid TSGs in an RDB

TYPE RDB	Determinate	Domestic ADG	INTL ADG (1)	International Transit	Originating
TOT=INTL DOM=INTL ISC/OSC=CCITT5, CCITT6, INUP, or TUP	N	N	N	Y	Y
TOT=INTLO DOM=INTL ISC/OSC=CCITT6	N	N	N	Y	N
TOT=INTLO DOM=INTL ISC/OSC=CCITT5, INUP, or TUP	Y	N	N	Y	N
TOT=ITOLL DOM=INTL ISC/OSC=MF	N	N	N	N	Y
TOT=dc DOM=dc ISC/OSC=CCIS or ISUP	Y	Y	Y	Y	Y
TOT=ITOPA or ITOP DOM=INTL ISC/OSC=dc	N	N	Y	Y	Y
TOT=ITOPA or ITOP DOM=NOT INTL ISC/OSC=dc	Y	Y	N	N	N
NONE OF PREVIOUS CHARACTERISTICS	Y	Y	Y	N	N

(1) If the IOC operator in the INTL ADG is on another switching machine, domestic signaling will be used between machines.

```
# FORM 500   ADD A NEW DOMESTIC INCHAIN/ADG ROUTING DATA BLOCK
  4E18>

RC:RDB;NEW;___:                                                    RDBI ____,

ORNU _______,

TTSI ___, RDBFHT ___, ADG _, ANFHT ___,

BTFN TOWN ST BL FBS NBS       DEL      PREFIX    DNHRTYPE

____ ____ __ __ ___ ___,      __,      _______,      __,
____ ____ __ __ ___ ___,      __,      _______,      __,
____ ____ __ __ ___ ___,      __,      _______,      __,
____ ____ __ __ ___ ___,      __,      _______,      __,
____ ____ __ __ ___ ___,      __,      _______,      __,
____ ____ __ __ ___ ___,      __,      _______,      __,
____ ____ __ __ ___ ___,      __,      _______,      __,

REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 405B

ASSOCIATED VERIFY MESSAGES

INPUT-15a-VER:RDB:RDBI ----!(EOT)

OUTPUT-5a-VER:RDB,OPT(INCHAIN)

Future

RC:RDB;CHG;OPT(RDBCHAR),---:

FORM # 503 CHANGE IN-CHAIN ROUTING DATA BLOCK CHARACTERISTICS

1. GENERAL

1.01 Form #503 is used to change the existing characteristics of an In-Chain Routing Data Block.

2. FORM ENTRIES

2.01 RC:RDB;CHG;OPT(RDBCHAR),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ANFHT** - ANI Failure Action Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

If no change is to be made, leave this field blank. An asterisk may be entered to indicate that the treatment should be deleted.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **RDBFHT** - RDB Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

If no change is to be made, leave this field blank.

2.05 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.06 **TTSI** - Terminating Toll Switch Index
Entries: 1 to 31 (4E18>).

If no change is to be made of the TTSI, leave this field blank. If the existing TTSI is to be deleted, enter "N" in this field. If no TTSI exists in the RDB or if the existing TTSI is to be changed, enter the new TTSI.

NOTE: If any Trunk Subgroup in the RDB has a non-blank DNHRTYPE, a TTSI may not be assigned.

```
# FORM 503   CHANGE INCHAIN ROUTING DATA BLOCK CHARACTERISTICS
  4E18>

RC:RDB;CHG;OPT(RDBCHAR),___:                                    RDBI ____,

ORNU _______,

TTSI ___, RDBFHT ___, ANFHT ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-15a-VER:RDB:RDBI ----!(EOT)

OUTPUT-5a-VER:RDB,OPT(INCHAIN)

RC:RDB;CHG;OPT(ADDTSGS),- - -:

FORM # 505 ADD TRUNK SUBGROUPS TO AN EXISTING ROUTING DATA BLOCK

1. GENERAL

1.01 Form #505 is used to add Trunk Subgroups to an existing in-chain Routing Data Block.

2. FORM ENTRIES

2.01 RC:RDB;CHG;OPT(ADDTSGS),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ADG** - Automatic Distribution Group
Entries: blank or 0 to 3.

2.03 **DEL** - Delete
Entries: 0 to 15.

2.04 **DNHRTYPE** - Dynamic Non-Hierarchical Routing Type
Entries: blank, ED, EV, ID, or RT.

2.05 **INSERT NEWTSG**
Entries: A or B.
1 to 32 for ADG RDB.

2.06 **ORNU** - Order Number
Entries: 1 to 999999.

2.07 **PREFIX** - Prefix Digits
Entries: blank or 0 to 999999.

2.08 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.09 **REFTSG/NEWTSG**
REFTSG - Reference TSG is the TSG (in a list of TSGs) above or below which the New TSG(s) (NEWTSG) will be inserted.

2.10 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 505   ADD TRUNK SUBGROUPS TO EXISTING ROUTING DATA BLOCK

RC:RDB;CHG;OPT(ADDTSGS),___:                                        RDBI ____,

ORNU _______,                  ADG _,

        REFTSG
BTFN TOWN ST BL FBS NBS
____ ____ __ __ ___ ___,       INSERT NEWTSG __,

        NEWTSG
BTFN TOWN ST BL FBS NBS        DEL      PREFIX    DNHRTYPE
____ ____ __ __ ___ ___,       __,      _______,     __,
____ ____ __ __ ___ ___,       __,      _______,     __,
____ ____ __ __ ___ ___,       __,      _______,     __,
____ ____ __ __ ___ ___,       __,      _______,     __,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-15a-VER:RDB:RDBI ----!(EOT)

OUTPUT-5a-VER:RDB,OPT(INCHAIN)

RC:RDB;CHG;OPT(OUTTSGS),- - -:

FORM # 508 DELETE TRUNK SUBGROUPS FROM AN EXISTING ROUTING DATA BLOCK

1. GENERAL

1.01 Form #508 is used to delete Trunk Subgroups from an in-chain Routing Data Block. This Recent Change message can be used to delete any TSG except for the last remaining TSG. Form #510 must be used to delete the last remaining TSG and the RDB. If all of the TSGs are to be removed at one time, then Form #510 may be used to remove the RDB and all of the TSGs with one message.

2. FORM ENTRIES

2.01 RC:RDB;NEW:- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ORNU** - Order Number
Entries: 1 to 999999.

2.03 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.04 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 508   DELETE TRUNK SUBGROUPS FROM AN EXISTING ROUTING DATA BLOCK

RC:RDB;CHG;OPT(OUTTSGS),___:                                        RDBI ____,

ORNU _______,


ROUTES TO BE DELETED
BTFN TOWN ST BL FBS NBS
____ ____ __ __ ___ ___,
____ ____ __ __ ___ ___,
____ ____ __ __ ___ ___,
____ ____ __ __ ___ ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-15a-VER:RDB:RDBI ----!(EOT)

OUTPUT-5a/5d-VER:RDB,OPT(INCHAIN/INTL)

RC:RDB;OUT:- - -:

FORM # 510 DELETE ROUTING DATA BLOCK

1. GENERAL

1.01 Form #510 is used to delete an entire in-chain Routing Data Block.

2. FORM ENTRIES

2.01 RC:RDB;OUT:- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ORNU** - Order Number
Entries: 1 to 999999.

2.03 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

```
# FORM 510   DELETE ROUTING DATA BLOCK

RC:RDB;OUT;___:                                                    RDBI ____,

ORNU _______,

REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-15a-VER:RDB:RDBI ----!(EOT)

OUTPUT-5a/d-VER:RDB(ALL ZEROES)

RC:RDB;CHG;OPT(ADD1TSG),- - -:

FORM # 513 ADD A TRUNK SUBGROUP TO EXISTING ROUTING DATA BLOCKS

1. GENERAL

1.01 Form #513 is used to add a Trunk Subgroup to the set of outgoing routes associated with up to 24 in-chain Routing Data Blocks. This message is used to establish a new TSG with the delete and prefix information assumed from the reference Trunk Subgroup. The reference TSG can then have its characteristics changed, as when converting from MF to CCIS.

2. FORM ENTRIES

2.01 RC:RDB;CHG;OPT(ADD1TSG),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **DNHRTYPE** - Dynamic Non-Hierarchical Routing Type
Entries: blank, ED, EV, ID, or RT.

2.03 **INSERT NEWTSG**
Entries: A or B.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.06 **REFTSG/NEWTSG**
REFTSG - Reference TSG is the TSG (in a list of TSGs) above or below which the New TSG(s) (NEWTSG) will be inserted.

2.07 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 513  ADD A TRUNK SUBGROUP TO 24 ROUTING DATA BLOCKS


RC:RDB;CHG;OPT(ADD1TSG),___:

ORNU _______,

        REFTSG
BTFN TOWN ST BL FBS NBS
____ ____ __ __ ___ ___,       INSERT NEWTSG _,

        NEWTSG
BTFN TOWN ST BL FBS NBS
____ ____ __ __ ___ ___,       DNHRTYPE __,

RDBI     RDBI     RDBI     RDBI
____,    ____,    ____,    ____,
____,    ____,    ____,    ____,
____,    ____,    ____,    ____,
____,    ____,    ____,    ____,
____,    ____,    ____,    ____,
____,    ____,    ____,    ____,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 405B

ASSOCIATED VERIFY MESSAGES

INPUT-15b-VER:RDBLIST;ALL:TSG ---!(EOT)

OUTPUT-5f-VER:RDB;OPT(LIST)

RC:RDB;CHG;OPT(DEL1TSG),- - -:

FORM # 514 DELETE A TRUNK SUBGROUP FROM EXISTING ROUTING DATA BLOCKS

1. GENERAL

1.01 Form #514 is used to delete a Trunk Subgroup from in-chain Routing Data Blocks. This Recent Change message is used primarily, in conjunction with Forms 107-109, to change Trunk Subgroup characteristics.

2. FORM ENTRIES

2.01 RC:RDB;CHG;OPT(DEL1TSG),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ORNU** - Order Number
Entries: 1 to 999999.

2.03 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.04 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 514  DELETE A TRUNK SUBGROUP FROM EXISTING ROUTING DATA BLOCKS


RC:RDB;CHG;OPT(DEL1TSG),___:

ORNU _______,

ROUTE TO BE DELETED
BTFN TOWN ST BL FBS NBS
____ _____ __ __ ___ ___,

RDBI     RDBI     RDBI     RDBI
_____,   _____,   _____,   _____,
_____,   _____,   _____,   _____,
_____,   _____,   _____,   _____,
_____,   _____,   _____,   _____,
_____,   _____,   _____,   _____,
_____,   _____,   _____,   _____,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-15b-VER:RDBLIST;ALL:TSG ---!(EOT)

OUTPUT-5f-VER:RDB;OPT(LIST)

RC:RDB;NEW;OPT(INTL),- - -:

FORM # 517 ADD A NEW INTERNATIONAL INCHAIN/ADG ROUTING DATA BLOCK

1. GENERAL

1.01 Form #517 is used to add a new international in-chain or Automatic Distribution Group Routing Data Block.

1.02 The 4 ESS will allow a maximum of forty-eight International in-chain Trunk Subgroups or a maximum of 32 Automatic Distribution Group Trunk Subgroups to be associated with a given Routing Data Block Index. Therefore, Recent Change form 519 must be used along with this form when more than seven Trunk Subgroups are to be associated with the specified RDBI.

1.03 ADG Routing Data Block routes are not required to be contiguous in an RDB. ADG Routing Data Block holes in new RDBs will be handled by using dummy TSGs. The dummy TSG will be removed using a delete TSG message and new TSGs added using the add TSG message.

1.04 See Table B of Div. 7, Sec. 5a for the TSG to RDB correlation.

2. FORM ENTRIES

2.01 RC:RDB;NEW;OPT(INTL),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ADG** - Automatic Distribution Group
Entries: blank or 0 to 3.

2.03 **ANFHT** - ANI Failure Action Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.04 **DEL** - Delete
Entries: 0 to 15.

2.05 **IDOM** - International Domain
Entries: blank, T, or O.

2.06 **KP** - Key Pulse
Entries: 1 or 2.

2.07 **ORNU** - Order Number
Entries: 1 to 999999.

2.08 **PREFIX** - Prefix Digits
Entries: blank or 1 to 6 digits each having values 0 to 9, B, or C.

2.09 **RDBFHT** - RDB Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.10 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.11 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 517  ADD AN INTERNATIONAL INCHAIN OR AUTOMATIC DISTRIBUTION GROUP RDB
  4E18>


RC:RDB;NEW;OPT(INTL),___:                    RDBI _____, IDOM _,

ORNU _______,

RDBFHT ___, ADG _, ANFHT ___,

BTFN TOWN ST BL FBS NBS        DEL        PREFIX        KP
_____ _____ __ __ ____ ____,   __,        _______,      _,
_____ _____ __ __ ____ ____,   __,        _______,      _,
_____ _____ __ __ ____ ____,   __,        _______,      _,
_____ _____ __ __ ____ ____,   __,        _______,      _,
_____ _____ __ __ ____ ____,   __,        _______,      _,
_____ _____ __ __ ____ ____,   __,        _______,      _,
_____ _____ __ __ ____ ____,   __,        _______,      _,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 405E

ASSOCIATED VERIFY MESSAGES

INPUT-15a-VER:RDB:RDBI ----!(EOT)

OUTPUT-5d-VER:RDB,OPT(INTL)

RC:RDB;CHG;OPT(ADDTSGS,INTL),- - -:

FORM # 519 ADD TRUNK SUBGROUPS TO AN EXISTING INTERNATIONAL ROUTING DATA BLOCK

1. GENERAL

1.01 Form #519 is used to add Trunk Subgroups to an existing international in-chain/ADG Routing Data Block.

2. FORM ENTRIES

2.01 RC:RDB;CHG;OPT(ADDTSGS,INTL),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ADG** - Automatic Distribution Group
Entries: blank or 0 to 3.

2.03 **DEL** - Delete
Entries: 0 to 15.

2.04 **INSERT NEWTSG**
Entries: A or B.
1 to 32 for ADG RDB.

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

2.06 **PREFIX** - Prefix Digits
Entries: blank or 1 to 6 digits each having values 0 to 9, B, or C.

2.07 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.08 **REFTSG/NEWTSG**
REFTSG - Reference TSG is the TSG (in a list of TSGs) above or below which the New TSG(s) (NEWTSG) will be inserted.

2.09 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 519  ADD TRUNK SUBGROUPS TO AN EXISTING INTERNATIONAL RDB

RC:RDB;CHG;OPT(ADDTSGS,INTL),___:           RDBI ____,

ORNU _______,                  ADG _,

        REFTSG
BTFN TOWN ST BL FBS NBS
____ ____ __ __ ___ ___,       INSERT NEWTSG __,

        NEWTSG
BTFN TOWN ST BL FBS NBS        DEL       PREFIX       KP
____ ____ __ __ ___ ___,        __,   _ _ _ _ _ _,     _,
____ ____ __ __ ___ ___,        __,   _ _ _ _ _ _,     _,
____ ____ __ __ ___ ___,        __,   _ _ _ _ _ _,     _,
____ ____ __ __ ___ ___,        __,   _ _ _ _ _ _,     _,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-15a-VER:RDB:RDBI ----!(EOT)

OUTPUT-5d-VER:RDB,OPT(INTL)

RC:TTS;NEW;- - -:

FORM # 521 ADD A NEW TERMINATING TOLL SWITCH

1. GENERAL

1.01 Form #521 is used in the Dynamic Non-Hierarchical Routing plan to establish routing for a new Terminating Toll Switch (TTS).

2. FORM ENTRIES

2.01 RC:TTS;NEW;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **NSN** - Entries: blank.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **TTSI** - Terminating Toll Switch Index
Entries: 1 to 31 (4E18>).

2.05 **TTSNAME** - Terminating Toll Switch Name

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— TI = alphanumeric.

2.06 RDBI's FOR EACH FORECAST PERIOD
To define routing for a TTS, two time periods must be recognized; the active forecast period and the standby forecast period. The two forecast periods are represented by two blocks: BLOCK A and BLOCK B. The routing in either block (e.g., BLOCK B) may represent the active forecast period. When the next forecast period arrives, the routing in the other block (e.g., BLOCK A) will represent the active forecast period. When assigning a new TTS, routing treatment must be specified for both blocks. Each block consists of 16 entries, corresponding to the 16 possible Load Set Periods (LSP's). Valid entries are RDBI's in the range of 1 through 8191. Entries for LSP's 1 to 15 in both blocks must be made. LSP 0 is optional.

NOTE: The data on this form is date and time sensitive for forecast periods. This Recent Change must be activated prior to a forecast period change.

2.07 **LSP** - Load Set Period
Entries: 0 to 15.

2.08 **BLOCK A** - RDBI list
Entries: 1 to 8191.

2.09 **BLOCK B** - RDBI list
Entries: 1 to 8191.

```
# FORM 521  ADD A NEW TERMINATING TOLL SWITCH


RC:TTS;NEW;___:                          TTSI ___,

ORNU _______,

              TOWN ST BL FBS TI
TTSNAME       _____ __ __ ___ _,   NSN ___,

       RDBIS FOR EACH FORECAST PERIOD
 LSP       BLOCK A       BLOCK B
  0         _____,         _____,
  1         _____,         _____,
  2         _____,         _____,
  3         _____,         _____,
  4         _____,         _____,
  5         _____,         _____,
  6         _____,         _____,
  7         _____,         _____,
  8         _____,         _____,
  9         _____,         _____,
 10         _____,         _____,
 11         _____,         _____,
 12         _____,         _____,
 13         _____,         _____,
 14         _____,         _____,
 15         _____,         _____,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 405G

ASSOCIATED VERIFY MESSAGES

INPUT-15c-VER:TTS:TTSI ---!(EOT)

OUTPUT-5h-VER:TTS;OPT(TTSI)

RC:TTS;CHG;- - -:

FORM # 522 CHANGE TERMINATING TOLL SWITCH

1. GENERAL

1.01 Form #522 is used in the Dynamic Non-Hierarchical Routing plan to change routing for an existing Terminating Toll Switch (TTS). Either the TTSNAME, NSN, or at least one LSP must change.

2. FORM ENTRIES

2.01 RC:TTS;CHG;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **NSN** - Entries: blank.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **TTSI** - Terminating Toll Switch Index
Entries: 1 to 31 (4E18>).

2.05 **TTSNAME** - Terminating Toll Switch Name

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— TI = alphanumeric.

If TTSNAME doesn't change, the TTSNAME field must be left blank.

2.06 RDBI's FOR EACH FORECAST PERIOD
To define routing for a TTS, two time periods must be recognized; the active forecast period and the standby forecast period. The two forecast periods are represented by two blocks: BLOCK A and BLOCK B. The routing in either block (e.g., BLOCK B) may represent the active forecast period. When the next forecast period arrives, the routing in the other block (e.g., BLOCK A) will represent the active forecast period. When assigning a new TTS, routing treatment must be specified for both blocks. Each block consists of 16 entries, corresponding to the 16 possible Load Set Periods (LSP's). Valid entries are RDBI's in the range of 1 through 8191.

2.07 **LSP** - Load Set Period
Entries: 0 to 15.

2.08 **BLOCK A** - RDBI list
Entries: 1 to 8191.

2.09 **BLOCK B** - RDBI list
Entries: 1 to 8191.

In order to change the RDBI in effect during a given LSP, both the old RDBI and new RDBI for the LSP must be entered.

For a given LSP per block, the old RDBI cannot equal the new RDBI.

To leave unchanged the RDBI in effect during a given LSP, both old and new RDBI must be blank.

If TTSNAME is unchanged, left blank, then at least one LSP must change or the NSN must change.

```
# FORM 522  CHANGE A TERMINATING TOLL SWITCH

RC:TTS;CHG;___:                          TTSI ___,

ORNU _______,

              TOWN ST BL FBS TI
TTSNAME       _____ __ __ ___ _,   NSN ___,

          RDBIS FOR EACH FORECAST PERIOD
           BLOCK A               BLOCK B
 LSP    OLD     NEW           OLD     NEW
  0    _____,  _____,        _____,  _____,
  1    _____,  _____,        _____,  _____,
  2    _____,  _____,        _____,  _____,
  3    _____,  _____,        _____,  _____,
  4    _____,  _____,        _____,  _____,
  5    _____,  _____,        _____,  _____,
  6    _____,  _____,        _____,  _____,
  7    _____,  _____,        _____,  _____,
  8    _____,  _____,        _____,  _____,
  9    _____,  _____,        _____,  _____,
 10    _____,  _____,        _____,  _____,
 11    _____,  _____,        _____,  _____,
 12    _____,  _____,        _____,  _____,
 13    _____,  _____,        _____,  _____,
 14    _____,  _____,        _____,  _____,
 15    _____,  _____,        _____,  _____,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-15c-VER:TTS:TTSI ---!(EOT)

OUTPUT-5h-VER:TTS;OPT(TTSI)

RC:TTS;OUT;- - -:

FORM # 523 DELETE TERMINATING TOLL SWITCH

1. GENERAL

1.01 Form #523 is used to delete a Terminating Toll Switch from the Dynamic Non-Hierarchical Routing network.

2. FORM ENTRIES

2.01 RC:TTS;OUT;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ORNU** - Order Number
Entries: 1 to 999999.

2.03 **TTSI** - Terminating Toll Switch Index
Entries: 1 to 31 (4E18>).

```
# FORM 523 DELETE A TERMINATING TOLL SWITCH

RC:TTS;OUT;---:                         TTSI ---,

ORNU ------,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-15c-VER:TTS:TTSI ---!(EOT)

OUTPUT-5h-VER:TTS;OPT(TTSI)

RC:NDB;CHG;- - -:

FORM # 524 CHANGE NUMBER DATA BLOCK TRANSLATOR

1. GENERAL

1.01 Form #524 is used to define SSP Number Services routing Data Blocks.

An ACTION of "A" is used to add a new routing block. An ACTION of "C" is used to change the characteristics of an existing routing block.

2. FORM ENTRIES

2.01 RC:NDB;CHG;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACTION** - Action
Entries: A or C.

2.03 **ANI** - Automatic Number Identification
Entries: Y or N.

2.04 **CPN** - Calling Party Number
Entries: Y or N.

2.05 **FENCLASS** - Far End Network Class
Entries: ACCESA.

2.06 **FENID** - Far End Network ID
Entries: 6 alphanumeric characters.

2.07 **FG** - Feature Group
Entries: C or D.

2.08 **INTL** - International Signaling Indicator
Entries: Y or N.

2.09 **NDB** - Number Services Routing Data Block
Entries: 1 to 1023.

2.10 **NNDB** - Next Number Services Routing Data Block
Entries: blank, "*", or 1 to 1023.

2.11 **NXZZ** - NX/ZZ for IC/INC Signaling
Entries: 00 to 99.

2.12 **ORNU** - Order Number
Entries: 1 to 999999.

2.13 **PATH** - Signaling Path
Entries: "DIR", "ATD", or "ATI".

2.14 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

```
# FORM 524  NUMBER DATA BLOCK ROUTING DEFINITION

RC:NDB;CHG;___:                    NDB _____,    ACTION _,

ORNU _______,

FENCLASS _______,         FENID _______,

RDBI _____,   NXZZ __,   NNDB _____,

FG _,         ANI _,     CPN _,     PATH ___,    INTL _,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 405H

ASSOCIATED VERIFY MESSAGES

INPUT-15g-VER:NDB:NDBI

OUTPUT-5l-VER:RDB,OPT(NDB):

RC:NDB;OUT;- - -:

FORM # 525 DELETE NDB TRANSLATOR

1. GENERAL

1.01 Form #525 is used to delete SSP Number Services routing Data Blocks.

2. FORM ENTRIES

2.01 RC:NDB;OUT;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **NDB** - Number Services Routing Data Block
Entries: 1 to 1023.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 525  DELETE A NUMBER DATA BLOCK ROUTING DEFINITION

RC:NDB;OUT;---:                          NDB ----,

ORNU ------,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-15g-VER:NDB:NDBI

OUTPUT-5l-VER:RDB,OPT(NDB):

SECTION 6 - MISCELLANEOUS

SECTION	RC#	
6a	600	Activate more than one Recent Change message at a time
6b	601	Add a Dial Up Port Client
6c	602	Change a Dial Up Port Client's characteristics
6d	603	Delete a Dial Up Port Client
6e	604	Add PAS Announcement
6f	605	Change PAS Announcement
6g	606	Delete PAS Announcement
6h	607	Add PAS with TELEVOTE
6i	608	Change PAS TELEVOTE
6j	609	Delete PAS with TELEVOTE
6k	610	Add PAS with Cut-Through
6l	611	Change PAS with Cut-Through
6m	612	Delete PAS with Cut-Through
6n	613	Add TSGs to a TASI-E Frame
6o	614	Delete TSGs from a TASI-E Frame
6p	615	Change DNHR parameters
6q	616	Change the INSEP-DESEP Matrix
6r	617	Establish a new Far End Network
6s	618	Change characteristics of a new Far End Network
6t	619	Delete a Far End Network
6u	620	Add Customer Routing Block
6v	621	Delete Customer Routing Block
6w	622	Add/Change a Customer Data Block

SECTION	RC#	
6x	623	Delete a Customer Data Block
6y	624	Announcement Index to Treatment Mapping
6z	625	AMA Call Code to Structure Code Mapping
6aa	626	Type of Service to Dialed Code Mapping
6ad	629	Change LATA/state Screening Areas
6ae	630	Change LATA/state Screening Matrix
6af	631	Change Service Parameters
6ag	632	Change NPA to Destination Point Code Mapping
6ah	633	Change Carrier ID Code and TNS Type Designation
6ai	634	Change Service Circuit System - Expanded Announcement
6bi	660	SCP Announcement Index to SCS Announcement Mapping
6bm	664	XTSI DS3 Unit DS1 Performance Monitoring Thresholds
6dg		Add or Delete 10-Digit AIN Triggers

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

RC:MISC;NEW;OPT(MULTACT),- - -:

FORM # 600 ACTIVATE MORE THAN ONE RECENT CHANGE

1. GENERAL

1.01 Form #600 is used to simultaneously advance a number of Recent Changes that reside in buffer. The messages entered on this form will be processed in the sequence in which they are listed.

1.02 Even though this message is called a Multi activate message, it still must be called up and entered in the appropriate state (usually buffered).

The messages in the ORNU table must be in the buffer. When the Form #600 on which they are listed is put into the test state by an RCTST message, all of the messages on the form will be activated. This message does not have an activate state.

2. FORM ENTRIES

2.01 RC:MISC;NEW;OPT(MULTACT),- - -:
Entries: blank, BUF, TST.

"BUF" places the message into the buffer.

"TST" sequentially activates the ORNUs listed in the table.

2.02 **ORNU** - Order Number
Entries: 1 to 999999.

This field lists the Order Numbers of the Recent Change Messages that are to be activated. These Order Numbers must already be in the buffer. These messages will be tested and activated as this (MULTACT) Recent Change is put in the "TST" state. Internally, each message is still processed serially and individually.

```
# FORM 600   ACTIVATE MORE THAN ONE RECENT CHANGE MESSAGE AT A TIME

RC:MISC;NEW;OPT(MULTACT),---:                                    ORNU ------,


 ORNU     ORNU     ORNU     ORNU
------,  ------,  ------,  ------,
------,  ------,  ------,  ------,
------,  ------,  ------,  ------,
------,  ------,  ------,  ------,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES - NONE

RC:DIALUP;NEW;- - -:

FORM # 601 ADD A DIAL UP PORT CLIENT

1. GENERAL

1.01 Form #601 is used to add a new Dial Up Port Client descriptor. Adding a client to the Dial Up Port feature allows the client to access data via a Data Link established over a DDD connection. 255 dial up clients may interface with the 4 ESS.

2. FORM ENTRIES

2.01 RC:DIALUP;NEW;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CTYPE** - Client Type
Entries: TDAS or TVSP.

2.03 **DUPCBN** - Dial Up Port Call Back Number
Entries: 0 to 99999999999.

2.04 **DUPID** - Dial Up Port Identification
Entries: Two alphanumeric characters

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

2.06 **PTCL** - Protocol
Entries: A.

```
# FORM 601   ADD A DIAL UP PORT CLIENT

RC:DIALUP;NEW;___:


ORNU _______,


CTYPE _____,  DUPID ______,  PTCL _,  DUPCBN _____________,


REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406E

ASSOCIATED VERIFY MESSAGES

INPUT-16a-VER:DIALUP

OUTPUT-6a-VER:DIALUP;---:

RC:DIALUP;CHG;- - -:

FORM # 602 CHANGE A DIALUP PORT CLIENT

1. GENERAL

1.01 Form #602 is used to change the characteristics of a Dial Up Port Client. These changes can only be made when the client is not communicating with the 4 ESS.

1.02 One or more parameters may be changed using one RC Form #602. Other fields are left blank if no change is to be made.

2. FORM ENTRIES

2.01 RC:DIALUP;CHG;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CTYPE** - Client Type
Entries: TDAS or TVSP.

2.03 **DUPCBN** - Dial Up Port Call Back Number
Entries: 0 to 99999999999.

2.04 **DUPID** - Dial Up Port Identification
Entries: Two alphanumeric characters

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

2.06 **PTCL** - Protocol
Entries: A.

```
# FORM 602   CHANGE A DIAL UP PORT CLIENT'S CHARACTERISTICS

RC:DIALUP;CHG;___:

ORNU _______,

CTYPE _____, OLD DUPID ______,  OLD DUPCBN _____________,

NEW DUPID ______,  PTCL _,  DUPCBN _____________,

REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406E

ASSOCIATED VERIFY MESSAGES

INPUT-16a-VER:DIALUP

OUTPUT-6a-VER:DIALUP;---:

RC:DIALUP;OUT;- - -:

FORM # 603 DELETE A DIALUP PORT CLIENT

1. GENERAL

1.01 Form #603 is used to delete a Dial Up Port Client. The client descriptor may not be deleted when the client is in the process of communicating with the 4 ESS.

2. FORM ENTRIES

2.01 RC:DIALUP;OUT;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CTYPE** - Client Type
Entries: TDAS or TVSP.

2.03 **DUPCBN** - Dial Up Port Call Back Number
Entries: 0 to 99999999999.

2.04 **DUPID** - Dial Up Port Identification
Entries: Two alphanumeric characters

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 603   DELETE A DIAL UP PORT CLIENT

RC:DIALUP;OUT;___:

ORNU _______,

CTYPE _____,  DUPID ______,  DUPCBN _____________,

REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406E

ASSOCIATED VERIFY MESSAGES

INPUT-16a-VER:DIALUP

OUTPUT-6a-VER:DIALUP;---:

RC:PAS;NEW;OPT(ANN);- - -:

FORM # 604 ADD A NEW PAS ANNOUNCEMENT

1. GENERAL

1.01 Form #604 is used to add a Public Announcement Service (PAS) announcement. PAS will provide pre-recorded announcements to a large volume of callers who dial an advertised number to hear a specified announcement.

2. FORM ENTRIES

2.01 RC:PAS;NEW;OPT(ANN);- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ADFHT** - Entries: Blank.

2.03 **ADSI** - Entries: See Blank.

2.04 **ANNUM** - Announcement Number
Entries: 1 to 511.

2.05 **ANSEP** - Announcement Separation Class
Entries: 0 to 31.

2.06 **ANSWR** - Answer Supervision
Entries: Y or N.

2.07 **CAREA** - Control Area
Entries: 0 to 9.

2.08 **CPOS** - Control Position
Entries: 0 to 9.

2.09 **LENGTH** - Length of announcement
Entries: 5 to 300 seconds.

2.10 **ORNU** - Order Number
Entries: 1 to 999999.

2.11 **PLAYS** - Number of announcement playbacks
Entries: 1 to 15 or U.

2.12 **SAN** - Service Circuit System Announcement Number
Entries: blank or 1 to 4095.

2.13 **SID** - Service Identity
Entries:
SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

2.14 **SSI** - Service Circuit System TSG ID
Entries: blank, FHA, or FHB.

2.15 **STOPT** - Stop Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute).

2.16 **STRTT** - Start Time
Entries: 00 to 23 (hour) and 00 to 59 (minute).

2.17 **TYPE** - Announcement Type
Entries: BI or SCS.

2.18 **UFH** - Use Final Handling
Entries: blank, Y, or N.

2.19 **VSSID** - Voice Storage System Identity
Entries: 0.

```
# FORM 604   ADD A PAS ANNOUNCEMENT

RC:PAS;NEW;OPT(ANN);___: TYPE ___, UFH _, VSSID _____, SID _______,

ORNU _______,

START TIME
  STRTT __:__,
STOP TIME
  STOPT __:__,

LENGTH ___, PLAYS __,

ANSWR _, ANNUM ___,

CAREA _, CPOS _, ANSEP ___,

SSI _____, SAN _____,

      SPECIAL HANDLING

ADSI __,  ADFHT ___, ANNUM ___,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 408C

ASSOCIATED VERIFY MESSAGES

INPUT-16d-VER:PASANN

OUTPUT-6e-VER:PASANN,OPT(LIST):
OUTPUT-6f-VER:PASANN,OPT(ANN):

RC:PAS;CHG;OPT(ANN);- - -:

FORM # 605 CHANGE PAS ANNOUNCEMENT

1. GENERAL

1.01 Form #605 is used to modify the parameters of an existing PAS announcement. Only parameters which may be changed are present on the form, with exception of the fields TYPE, VSSID, and SID. These three fields are used solely for identification of the announcement being updated. The other parameters of the announcement (e.g., MEMN and ANNUM) may not be changed. (The MEMN and ANNUM fields on the ADSI line may be changed.) Only by deleting the announcement and subsequently redefining it may these parameters be altered.

1.02 A blank input field will leave the field unchanged. Setting the field back to the system default (i.e. deleting the field) is accomplished by entering an asterisk in the field. Only the time fields and the ADFHT, MEMN and ANNUM fields on the ADSI line may be deleted.

2. FORM ENTRIES

2.01 RC:PAS;CHG;OPT(ANN);- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ADFHT** - Entries: Blank.

2.03 **ADSI** - Entries: See Blank.

2.04 **ANNUM** - Entries: Blank.

2.05 **ANSEP** - Announcement Separation Class
Entries: 0 to 31.

This field may be left blank if it is unchanged.

2.06 **ANSWR** - Answer Supervision
Entries: Y or N.

This field may be left blank if it is unchanged.

2.07 **CAREA** - Control Area
Entries: 0 to 9.

This field may be left blank if it is unchanged.

2.08 **CPOS** - Control Position
Entries: 0 to 9.

This field may be left blank if it is unchanged.

2.09 **ORNU** - Order Number
Entries: 1 to 999999.

2.10 **PLAYS** - Number of announcement playbacks
Entries: 1 to 15 or U.

2.11 **SAN** - Service Circuit System Announcement Number
Entries: blank or 1 to 4095.

2.12 **SID** - Service Identity
Entries:
SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

2.13 **SSI** - Service Circuit System TSG ID
Entries: blank, FHA, or FHB.

2.14 **STRTT** - Start Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute). An asterisk may be entered to remove the time field.

2.15 **STOPT** - Stop Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute). An asterisk may be entered to remove the time field.

2.16 **TYPE** - Announcement Type
Entries: BI or SCS.

2.17 **UFH** - Use Final Handling
Entries: blank, Y, or N.

2.18 **VSSID** - Voice Storage System Identity
Entries: 0.

```
# FORM 605   CHANGE PAS ANNOUNCEMENT


RC:PAS;CHG;OPT(ANN);___: TYPE ___, UFH _, VSSID _____, SID _______,

ORNU _______,

START TIME
  STRTT __:__,
STOP TIME
  STOPT __:__,

PLAYS __,

ANSWR _,

CAREA _, CPOS _, ANSEP ___,

SSI _____, SAN _____,

      SPECIAL HANDLING

ADSI __,  ADFHT ___, ANNUM ___,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 408C

ASSOCIATED VERIFY MESSAGES

INPUT-16d-VER:PASANN

OUTPUT-6e-VER:PASANN,OPT(LIST):
OUTPUT-6f-VER:PASANN,OPT(ANN):

RC:PAS;OUT;OPT(ANN);- - -:

FORM # 606 DELETE PAS ANNOUNCEMENT

1. GENERAL

1.01 Form #606 is used to delete a PAS announcement. This Recent Change will not delete the audio from the MAS unit. Audio can be deleted manually. To delete an active audio set, use RC Form #605 to stop the announcement. To delete standby audio, use the Trunk Maintenance TTY message (RMV: STBY...).

2. FORM ENTRIES

2.01 RC:PAS;OUT;OPT(ANN);- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ANNUM** - Announcement Number
Entries: 1 to 511.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **SID** - Service Identity
Entries:
SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

2.05 **TYPE** - Announcement Type
Entries: BI or SCS.

2.06 **VSSID** - Voice Storage System Identity
Entries: 0.

```
# FORM 606   DELETE A MAS ANNOUNCEMENT

RC:PAS;OUT;OPT(ANN);___: TYPE ___, VSSID _____, SID _______,

ORNU _______,

ANNUM ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES - NONE

RC:PAS;NEW;OPT(TELEVOTE);- - -:

FORM # 607 ADD PAS WITH TELEVOTE

1. GENERAL

1.01 Form #607 is used to add PAS with TELEVOTE. This service provides a telephone voting mechanism so that callers can dial an advertised set of numbers to register their opinion concerning an advertised issue. Counts are kept on the number of calls and delivered via a Dial Up Port to the sponsor.

See Table A for the required entries corresponding to the Televote application.

2. FORM ENTRIES

2.01 RC:PAS;NEW;OPT(TELEVOTE);- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACNTR** - Accumulating Counter Index
Entries: blank or 0 to 127.

2.03 **DSFUN** - CCIS Direct Signaling Function Number
Entries: blank or 1 to 32767.

2.04 **DUPID** - Dial Up Port Identification
Entries: blank or two alphanumeric characters.

2.05 **MAN** - Mass Announcement Number
Entries: 4 or 10 digit number.

Four MAN's can be entered on this form. Additional MAN"s are added by using RC Form 608 in increments of 10 entries at a time to a total of 64.

2.06 **MAPN** - Master Application Number
Entries: 0 to 63.

2.07 **MSI** - Master Slave Indicator
Entries: M, S, or B.

2.08 **ORNU** - Order Number
Entries: 1 to 999999.

2.09 **SAPN** - Slave Application Number
Entries: blank or 0 to 63.

2.10 **SID** - Service Identity
Entries:
SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

If MSI equals M, this field must be blank. Up to 64 VSSID's may be specified, four entries on this RC Form, and the remainder on RC Form 608.

2.11 **SKEW** - Skew offset
Entries: blank or 0 to 300.

2.12 **START DATE** - Start Date
Entries: Fields STRTD, STRTM, and STRTY.

2.13 **STOPD** - Stop Day
Entries: 0 to 31.

2.14 **STOP DATE** - Stop Date
Entries: Fields STOPD, STOPM, and STOPY.

2.15 **STOPM** - Stop Month
Entries: 1 to 12.

2.16 **STOPT** - Stop Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute).

2.17 **STOPY** - Stop Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.18 **STRTD** - Start Day
Entries: 0 to 31.

2.19 **STRTM** - Start Month
Entries: 1 to 12.

2.20 **STRTT** - Start Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute).

2.21 **STRTY** - Start Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.22 **TCNTR** - TELEVOTE Counter Index
Entries: blank or 0 to 127.

If MSI equals M, this field must be blank.

2.23 **VSSID** - Voice Storage System Identity
Entries: blank or 0.

If MSI equals M, this field must be blank. Up to 64 VSSID's may be specified, four entries on this RC Form, and the remainder on RC Form 608.

TABLE A

ENTRIES FOR TELEVOTE APPLICATION

MSI	SLAVE	BOTH	MASTER
SAPN	0-63	0-63	
MAPN	0-63	0-63	0-63
DUPID		A-Z 0-9	A-Z 0-9
DSFUN	1-32,767		
SKEW	0-300		
MAN	10 Digits	10 Digits or 4 Digits	4 Digits
TCNTR	0-127	0-127	
ACNTR		0-127	0-127

```
# FORM 607   ADD A TELEVOTE ANNOUNCEMENT
RC:PAS;NEW;OPT(TELEVOTE);___: MSI _, SAPN __, MAPN __,

ORNU _______,

START DATE

  STRTM __, STRTD __, STRTY __,

STOP DATE

  STOPM __, STOPD __, STOPY __,

STRTT __:__, STOPT __:__,

DUPID __, DSFUN ______, SKEW ___,

   MAN      VSSID    SID   TCNTR ACNTR

___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,

REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 408E

ASSOCIATED VERIFY MESSAGES

INPUT-16f-VER:PASTVOTE

OUTPUT-6h-VER:PASTVOTE,OPT(SLAVE);
OUTPUT-6i-VER:PASTVOTE,OPT(MASTER);

Future

RC:PAS;CHG;OPT(TELEVOTE);- - -:

FORM # 608 CHANGE PAS TELEVOTE

1. GENERAL

1.01 Form #608 is used to add an additional 60 TELEVOTE options to the initial four assigned on Recent Change Form #607. The additional MAN's can be assigned in increments of up to 10 using this form. This form may be used to delete specific TELEVOTE entries without having to delete the entire application. The entry and the corresponding counters may then be reassigned to the same or to some other application. Before deleting a TELEVOTE entry, applicable code group change forms (300-304) should be entered to remove TELEVOTE Call Type work linkages.

See Table A for the required entries corresponding to the Televote application.

2. FORM ENTRIES

2.01 RC:PAS;CHG;OPT(TELEVOTE);- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACNTR** - Accumulating Counter Index
Entries: blank or 0 to 127.

2.03 **ACTION** - Action
Entries: A or D.

2.04 **MAN** - Mass Announcement Number
Entries: 4 or 10 digit number.

2.05 **MAPN** - Master Application Number
Entries: 0 to 63.

2.06 **MSI** - Master Slave Indicator
Entries: M, S, or B.

2.07 **ORNU** - Order Number
Entries: 1 to 999999.

2.08 **SAPN** - Slave Application Number
Entries: blank or 0 to 63.

2.09 **SID** - Service Identity
Entries:
SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

2.10 **TCNTR** - TELEVOTE Counter Index
Entries: blank or 0 to 127.

2.11 **VSSID** - Voice Storage System Identity
Entries: blank or 0.

TABLE A

ENTRIES FOR TELEVOTE APPLICATION

MSI	SAPN	MAPN	MAN	TCNTR	ACNTR
SLAVE	0-63	0-63	10 Digit	0-127	
BOTH	0-63	0-63	10 Digit or 4 Digit	0-127	0-127
MASTER		0-63	4 Digit		0-127

```
# FORM 608   CHANGE PAS TELEVOTE

RC:PAS;CHG;OPT(TELEVOTE);___: MSI _, SAPN __, MAPN __,

ORNU _______,

ACTION _,

    MAN     VSSID    SID   TCNTR ACNTR

___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,
___________, ______, ________, ___,  ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 408E-1

ASSOCIATED VERIFY MESSAGES

INPUT-16f-VER:PASTVOTE

OUTPUT-6h-VER:PASTVOTE,OPT(SLAVE);
OUTPUT-6i-VER:PASTVOTE,OPT(MASTER);

Future

RC:PAS;OUT;OPT(TELEVOTE);- - -:

FORM # 609 DELETE PAS WITH TELEVOTE

1. GENERAL

1.01 Form #609 is used to delete a TELEVOTE application. Before entering RC Form #609, code group change forms (#300, 301, 302, 303 or 304) should be entered to remove TELEVOTE linkages in the Call Type word.

2. FORM ENTRIES

2.01 RC:PAS;OUT;OPT(TELEVOTE);- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **MAPN** - Master Application Number
Entries: 0 to 63.

2.03 **MSI** - Master Slave Indicator
Entries: M, S, or B.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **SAPN** - Slave Application Number
Entries: blank or 0 to 63.

```
# FORM 609   DELETE TELEVOTE ANNOUNCEMENT

RC:PAS;OUT;OPT(TELEVOTE);---: MSI -, SAPN --, MAPN --,

ORNU ------,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES - NONE

RC:PAS;NEW;OPT(CUTTHRU);- - -:

FORM # 610 ADD PAS WITH CUT-THROUGH

1. GENERAL

1.01 Form #610 is used to add the Cut-Through function to a PAS announcement.

1.02 PAS with Cut-Through provides a dynamic choking service for callers who dial an advertised number. Only a limited number of callers will be cut-through from this advertised number to another DDD number. Callers who are not cut-through will hear a PAS announcement.

2. FORM ENTRIES

2.01 RC:PAS;NEW;OPT(CUTTHRU);- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CAPPN** - Cut-thru Application Number
Entries: 0 to 63.

2.03 **CTN** - Cut-Through Number
Entries: blank or 10-digit number.

2.04 **CTTYPE** - Cut-Through Type
Entries: 1 or 2.

2.05 **GAPI** - Gap Index
Entries: 0 to 15.

2.06 **MAN** - Mass Announcement Number
Entries: 6 to 10 digit number.

2.07 **ORNU** - Order Number
Entries: 1 to 999999.

2.08 **SID** - Service Identity
Entries:
SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

2.09 **START DATE** - Start Date
Entries: Fields STRTD, STRTM, and STRTY.

2.10 **STOPD** - Stop Day
Entries: 0 to 31.

2.11 **STOP DATE** - Stop Date
Entries: Fields STOPD, STOPM, and STOPY.

2.12 **STOPM** - Stop Month
Entries: 1 to 12.

2.13 **STOPT** - Stop Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute).

2.14 **STOPY** - Stop Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.15 **STRTD** - Start Day
Entries: 0 to 31.

2.16 **STRTM** - Start Month
Entries: 1 to 12.

2.17 **STRTT** - Start Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute).

2.18 **STRTY** - Start Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.19 **VSSID** - Voice Storage System Identity
Entries: 0.

```
# FORM 610   ADD A CUTTHRU ANNOUNCEMENT

RC:PAS;NEW;OPT(CUTTHRU);___: CAPPN __, CTTYPE _, VSSID _____, SID _______,

ORNU ______,

START DATE

  STRTM __, STRTD __, STRTY __,

STOP DATE

  STOPM __, STOPD __, STOPY __,

STRTT __:__, STOPT __:__,

MAN __________, CTN __________, GAPI __,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 408D

ASSOCIATED VERIFY MESSAGES

INPUT-16e-VER:PASCTHRU

OUTPUT-6g-VER:PASCTHRU,OPT(CUTHRU)

RC:PAS;CHG;OPT(CUTTHRU);- - -:

FORM # 611 CHANGE PAS WITH CUT-THROUGH

1. GENERAL

1.01 Form #611 is used to change the Cut-Through function on a PAS announcement.

2. FORM ENTRIES

2.01 RC:PAS;CHG;OPT(CUTTHRU);- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CAPPN** - Cut-thru Application Number
Entries: 0 to 63.

This field may be left blank or entered to identify the Cut-Through. This field cannot be changed by this form.

2.03 **CTN** - Cut-Through Number
Entries: blank or 10-digit number.

This field may be left blank if unchanged.

2.04 **CTTYPE** - Cut-Through Type
Entries: 1 or 2.

This field may be left blank if it is not being changed.

2.05 **GAPI** - Gap Index
Entries: 0 to 15.

2.06 **ORNU** - Order Number
Entries: 1 to 999999.

2.07 **SID** - Service Identity
Entries:
SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

2.08 **START DATE** - Start Date
Entries: Fields STRTD, STRTM, and STRTY.

This field may be left blank if it is unchanged.

2.09 **STOPD** - Stop Day
Entries: 0 to 31.

2.10 **STOP DATE** - Stop Date
Entries: Fields STOPD, STOPM, and STOPY. If the Stop Date is to be deleted, one asterisk must be entered in each leftmost field. This implies that the Cut-Through service is to be available on a permanent basis until removed by a Recent Change. This field may be left blank if it is unchanged.

2.11 **STOPM** - Stop Month
Entries: 1 to 12.

2.12 **STOPT** - Stop Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute).
If the Stop Time is to be deleted, an asterisk may be used in the leftmost field.

2.13 **STOPY** - Stop Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.14 **STRTD** - Start Day
Entries: 0 to 31.

2.15 **STRTM** - Start Month
Entries: 1 to 12.

2.16 **STRTT** - Start Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute).

2.17 **STRTY** - Start Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.18 **VSSID** - Voice Storage System Identity
Entries: 0.

```
# FORM 611   CHANGE A CUTTHRU ANNOUNCEMENT

RC:PAS;CHG;OPT(CUTTHRU);___: CAPPN __, CTTYPE _, VSSID _____, SID _______,

ORNU ______,

START DATE

  STRTM __, STRTD __, STRTY __,

STOP DATE

  STOPM __, STOPD __, STOPY __,

STRTT __:__, STOPT __:__,

               CTN __________, GAPI __,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 408D

ASSOCIATED VERIFY MESSAGES

INPUT-16e-VER:PASCTHRU

OUTPUT-6g-VER:PASCTHRU,OPT(CUTHRU)

RC:PAS;OUT;OPT(CUTTHRU);- - -:

FORM # 612 DELETE PAS WITH CUT-THROUGH

1. GENERAL

1.01 Form #612 is used to delete the cut through function for PAS. All fields must be specified when using this message.

2. FORM ENTRIES

2.01 RC:PAS;OUT;OPT(CUTTHRU);- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CAPPN** - Cut-thru Application Number
Entries: 0 to 63.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **SID** - Service Identity
Entries:
SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

2.05 **VSSID** - Voice Storage System Identity
Entries: 0.

```
# FORM 612   DELETE A CUTTHRU ANNOUNCEMENT

RC:PAS;OUT;OPT(CUTTHRU);___: CAPPN __, VSSID _____, SID _______,

ORNU ______,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-16e-VER:PASCTHRU

OUTPUT-6g-VER:PASCTHRU,OPT(CUTHRU)

RC:TASI;NEW,- - -:

FORM # 613 ADD TRUNK SUBGROUPS TO A TASI-E FRAME

1. GENERAL

1.01 Form #613 is used to assign Trunk Subgroups to cliques of a TASI-E Frame.

1.02 It should be noted that the Recent Change System will not deny the addition of any message TSG per TASI-E Frame. Since the TASI-E frames are outside the administration boundary of the 4 ESS, it is assumed that further restrictions upon these assignments lies beyond the responsibility of the Recent Change System.

2. FORM ENTRIES

2.01 RC:TASI;NEW,- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CLIQUE** - Clique
Entries: 0 to 4.

2.03 **FRAME** - Time Assignment Speech Interpolation Frame
Entries: 0 to 255.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 613   ADD TRUNK SUBGROUPS
                                TO A TASI-E FRAME

RC:TASI;NEW,---:              FRAME ---,

ORNU ------,


    TSGS TO BE ADDED

BTFN TOWN ST BL FBS NBS           CLIQUE
---- ---- -- -- --- ---,            -,
---- ---- -- -- --- ---,            -,
---- ---- -- -- --- ---,            -,
---- ---- -- -- --- ---,            -,
---- ---- -- -- --- ---,            -,


REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 406I

ASSOCIATED VERIFY MESSAGES

INPUT-16g-VER:TASI:

OUTPUT-6j-VER:TASI:

RC:TASI;OUT,- - -:

FORM # 614 DELETE TRUNK SUBGROUPS FROM A TASI-E FRAME

1. GENERAL

1.01 Form #614 is used to delete Trunk Subgroups from the cliques of a TASI-E frame.

2. FORM ENTRIES

2.01 RC:TASI;OUT,- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CLIQUE** - Clique
Entries: 0 to 4.

2.03 **FRAME** - Time Assignment Speech Interpolation Frame
Entries: 0 to 255.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
# FORM 614   DELETE TRUNK SUBGROUPS
                              FROM A TASI-E FRAME

RC:TASI;OUT,---:              FRAME ---,

ORNU ------,


   TSGS TO BE DELETED

BTFN TOWN ST BL FBS NBS           CLIQUE
---- ---- -- -- --- ---,            -,
---- ---- -- -- --- ---,            -,
---- ---- -- -- --- ---,            -,
---- ---- -- -- --- ---,            -,
---- ---- -- -- --- ---,            -,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-16g-VER:TASI:

OUTPUT-6j-VER:TASI:

RC:DNHR;CHG;- - -:

FORM # 615 CHANGE DNHR PARAMETERS

1. GENERAL

1.01 Form #615 is used in the DNHR plan to change DNHR parameters, including the Forecast Period date and Load Set Period time.

2. FORM ENTRIES

2.01 RC:DNHR;CHG;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CFPBLOCK** - Change Forecast Period Block
Entries: blank, BLOCKA, or BLOCKB.

2.03 **CFPDATE** - Change Forecast Period Date
Entries: Fields CFPDAY, CFPMONTH, and CFPYEAR. If no change of date is required, these fields may be blank.

2.04 **CFPDAY** - Change Forecast Period Day
Entries: 1 to 31.

2.05 **CFPHOUR** - Change Forecast Period Hour
Entries: 00 to 23. This field may be blank if no change is to be made.

2.06 **CFPMONTH** - Change Forecast Period Month
Entries: 1 to 12.

2.07 **CFPYEAR** - Change Forecast Period Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.08 **LSPDAY** - Load Set Period Day
Entries: SUN, MON, TUE, WED, THU, FRI, SAT.

2.09 **LSPHOUR** - Load Set Period Hour
Entries: 1 to 15.

An entry may be left blank to indicate that the currently specified Load Set Period for that hour is to remain. If the date and/or time is the only change, all these fields may be left blank.

2.10 **ORNU** - Order Number
Entries: 1 to 999999.

2.11 **STRTY** - Start Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.12 **STOPY** - Stop Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

```
# FORM 615   CHANGE DNHR PARAMETERS

RC:DNHR;CHG;---:

ORNU ------,


CFPDATE                                      CFPTIME
   CFPMONTH --,  CFPDAY --,  CFPYEAR --,       CFPHOUR --,      CFPBLOCK ------,


                                    LSPHOUR
LSPDAY 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23

   SUN --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,
   MON --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,
   TUE --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,
   WED --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,
   THU --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,
   FRI --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,
   SAT --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 406K

ASSOCIATED VERIFY MESSAGES

INPUT-16h-VER:DNHRMISC!(EOT)

OUTPUT-6k-VER:DNHRMISC:

RC:IDAM;CHG;- - -:

FORM # 616 CHANGE THE INSEP-DESEP MATRIX

1. GENERAL

1.01 Form #616 is used to change cell grouping indexes for traffic separations by specifying the INSEP-DESEP pair and its related cell group index. Cell Group Index 1 should be used only for test calls, i.e., for INSEP-DESEP pairs which include INSEP 31. INSEP 31 and DESEP 63 are related to Cell Group Index 1 generically by ODA.

2. FORM ENTRIES

2.01 RC:IDAM;CHG;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CELL GROUP** - Cell Grouping Index
Entries: 1 to 1023.

2.03 **FDESEP** - First DESEP
Entries: 1 to 255 (non-AT&T offices) or 1 to 127 (AT&T offices).

2.04 **FINSEP** - First INSEP
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

2.06 **QDESEP** - Quantity of DESEPs
Entries: 1 to 255 (non-AT&T offices) or 1 to 127 (AT&T offices).

2.07 **QINSEP** - Quantity of INSEPs
Entries: 1 to 256 (non-AT&T offices) or 1 to 128 (AT&T offices).

```
# FORM 616   CHANGE CELL GROUP NUMBERS IN THE INSEP-DESEP MATRIX

RC:IDAM;CHG;---:

ORNU ------,

                                    OLD      NEW
FINSEP  QINSEP  FDESEP  QDESEP  CELLGRP  CELLGRP

 ---,    ---,    ---,    ---,    ----,    ----,
 ---,    ---,    ---,    ---,    ----,    ----,
 ---,    ---,    ---,    ---,    ----,    ----,
 ---,    ---,    ---,    ---,    ----,    ----,
 ---,    ---,    ---,    ---,    ----,    ----,
 ---,    ---,    ---,    ---,    ----,    ----,
 ---,    ---,    ---,    ---,    ----,    ----,
 ---,    ---,    ---,    ---,    ----,    ----,
 ---,    ---,    ---,    ---,    ----,    ----,
 ---,    ---,    ---,    ---,    ----,    ----,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 406J

ASSOCIATED VERIFY MESSAGES

INPUT-16i-VER:IDAM:INSEP a,DESEPR b!(EOT)
INPUT-16i-VER:IDAM:DESEP a,INSEPR b!(EOT)

OUTPUT-6l-VER:IDAM

RC:FEN;NEW;- - -:

FORM # 617 ESTABLISH A NEW FAR END NETWORK

1. GENERAL

1.01 Form #617 is used to specify the identity and characteristics of a new Far End Network (FEN). These characteristics then apply to all Trunk Subgroups defined to be within this FEN.

2. FORM ENTRIES

2.01 RC:FEN;NEW;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **AFA** - ANI Failure Action
Entries: blank, RR, KA, or KW.

2.03 **ALAP** - Alaskan POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.04 **ATAP** - Access Tandem Area POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.05 **CANP** - Canadian POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.06 **CARP** - Caribbean, Non-US Territories, POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.07 **CLASS** - Far End Network Classification
Entries: ACCESA, ACCESI, ACCESO, CAMA, CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.08 **CUSP** - Continental United States POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.09 **CUTP** - Caribbean, US Territories, POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.10 **DA** - Directory Assistance
Entries: N, B, D, Q, R, I, M, C, A.

2.11 **DEF1** - DEF Digits 1
Entries: blank, Y, or N.

2.12 **DEF2** - DEF Digits 2
Entries: blank, Y, or N.

2.13 **DEF3** - DEF Digits 3
Entries: blank, Y, or N.

2.14 **DEF4** - DEF Digits 4
Entries: blank, Y, or N.

2.15 **DFHT** - Denied Call Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.16 **DLT** - Dial-It
Entries: N, B, D, Q, R, I, M, C, A.

2.17 **DSD** - Direct Services Dialing
Entries: N, B, D, Q, R, I, M, C, A.

2.18 **EASC** - Exchange Access Signaling Code
Entries: N, B, D, Q, R, I, M, C, A.

2.19 **FID** - Far End Network Identification
Entries: blank or 1 to 6 alphanumeric characters.

2.20 **HAWP** - Hawaiian POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.21 **ICIN** - Inter-LATA Carrier switch's International Carrier
Entries: N, B, D, Q, R, I, M, C, A.

2.22 **INCN** - International Carrier, non-IC owner's INC
Entries: N, B, D, Q, R, I, M, C, A.

2.23 **INCO** - International Carrier
Entries: N, B, D, Q, R, I, M, C, A.

2.24 **INET** - Interim Nationwide Emergency Telecommunications System
Entries: N, B, D, Q, R, I, M, C, A.

2.25 **INW** - Inward WATS
Entries: N, B, D, Q, R, I, M, C, A.

2.26 **IOP** - Inward Operator
Entries: N, B, D, Q, R, I, M, C, A.

2.27 **LDA** - Local Directory Assistance
Entries: N, B, D, Q, R, I, M, C, A.

2.28 **MCPP** - Multiquest Calling Party-Paid
Entries: N, B, D, Q, R, I, M, C, A.

2.29 **MSC1** - Miscellaneous 1
Entries: N, B, D, Q, R, I, M, C, A.

2.30 **MSC2** - Miscellaneous 2
Entries: N, B, D, Q, R, I, M, C, A.

2.31 **MSC3** - Miscellaneous 3
Entries: N, B, D, Q, R, I, M, C, A.

2.32 **MSC4** - Miscellaneous 4
Entries: N, B, D, Q, R, I, M, C, A.

2.33 **MULT** - Multiquest
Entries: N, B, D, Q, R, I, M, C, A.

2.34 **NWZ1** - Non-World Zone 1
Entries: N, B, D, Q, R, I, M, C, A.

2.35 **ORNU** - Order Number
Entries: 1 to 999999.

2.36 **QTM** - Entries: N

2.37 **RSYS** - Restricted System Codes
Entries: N, B, D, Q, R, I, M, C, A.

2.38 **SC1-SC36** - Spare Category 1 to 36
Entries: N, B, D, Q, R, I, M, C, A.

2.39 **SDN** - Software Defined Network
Entries: N, B, D, Q, R, I, M, C, A.

2.40 **SDND** - SDN Data
Entries: N, B, D, Q, R, I, M, C, A.

2.41 **SPDI** - Sponsor-Paid Dial-It
Entries: N, B, D, Q, R, I, M, C, A.

2.42 **SSP** - Service Switching Point
Entries: N, B, D, Q, R, I, M, C, A.

2.43 **TC** - Teleconferencing
Entries: N, B, D, Q, R, I, M, C, A.

2.44 **TST** - Test Line
Entries: N, B, D, Q, R, I, M, C, A.

2.45 **UNSP** - Unspecified
Entries: N, B, D, Q, R, I, M, C, A.

```
# FORM 617   ESTABLISH A NEW FAR END NETWORK


RC:FEN;NEW;---:                          CLASS ------,       FID ------,

ORNU ------,

AFA --,

SERVICE CATEGORY TREATMNT

UNSP -,   ATAP -,   CUSP -,   CARP -,   CANP -,   HAWP -,   NWZ1 -,   INW -,
DSD -,    DLT -,    TC -,     DA -,     IOP -,    TST -,    RSYS -,   MSC1 -,
MSC2 -,   MSC3 -,   MSC4 -,   INCN -,   ALAP -,   CUTP -,   INCO -,   EASC -,
ICIN -,   SC1 -,    SC2 -,    SC3 -,    SC4 -,    SC5 -,    SC6 -,    SC7 -,
SC8 -,    SC9 -,    SC10 -,   SC11 -,   SC12 -,   SC13 -,   SC14 -,   SC15 -,
SC16 -,   SC17 -,   SC18 -,   SC19 -,   SC20 -,   SC21 -,   SC22 -,   SC23 -,
SC24 -,   SC25 -,   SC26 -,   SC27 -,   SC28 -,   SC29 -,   SC30 -,   SC31 -,
SC32 -,   SC33 -,   SC34 -,   SC35 -,   SC36 -,   SDN -,    LDA -,    SSP -,
SPDI -,   MULT -,   MCPP -,   INET -,   SDND -,   QTM -,

SCREEN TREATMNT

DEF1 -,   DEF2 -,   DEF3 -,   DEF4 -,                      DFHT ---,


REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 406L

ASSOCIATED VERIFY MESSAGES

INPUT-16m-VER:FEN:

OUTPUT-6s-VER:FEN:

RC:FEN;CHG;- - -:

FORM # 618 CHANGE THE CHARACTERISTICS OF AN EXISTING FAR END NETWORK

1. GENERAL

1.01 Form #618 is used to change the characteristics of an existing Far End Network (FEN). These characteristics then apply to all Trunk Subgroups defined to be within this FEN. It should be noted that all relevant data fields must contain an entry, even though some of these characteristics are not being changed.

1.02 The CLASS and FID entered on this form must match an existing FEN.

2. FORM ENTRIES

2.01 RC:FEN;CHG;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **AFA** - ANI Failure Action
Entries: blank, RR, KA, or KW.

2.03 **ALAP** - Alaskan POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.04 **ATAP** - Access Tandem Area POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.05 **CANP** - Canadian POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.06 **CARP** - Caribbean, Non-US Territories, POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.07 **CLASS** - Far End Network Classification
Entries: ACCESA, ACCESI, ACCESO, CAMA, CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.08 **CUSP** - Continental United States POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.09 **CUTP** - Caribbean, US Territories, POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.10 **DA** - Directory Assistance
Entries: N, B, D, Q, R, I, M, C, A.

2.11 **DEF1** - DEF Digits 1
Entries: blank, Y, or N.

2.12 **DEF2** - DEF Digits 2
Entries: blank, Y, or N.

2.13 **DEF3** - DEF Digits 3
Entries: blank, Y, or N.

2.14 **DEF4** - DEF Digits 4
Entries: blank, Y, or N.

2.15 **DFHT** - Denied Call Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.16 **DLT** - Dial-It
Entries: N, B, D, Q, R, I, M, C, A.

2.17 **DSD** - Direct Services Dialing
Entries: N, B, D, Q, R, I, M, C, A.

2.18 **EASC** - Exchange Access Signaling Code
Entries: N, B, D, Q, R, I, M, C, A.

2.19 **FID** - Far End Network Identification
Entries: blank or 1 to 6 alphanumeric characters.

2.20 **HAWP** - Hawaiian POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.21 **ICIN** - Inter-LATA Carrier switch's International Carrier
Entries: N, B, D, Q, R, I, M, C, A.

2.22 **INCN** - International Carrier, non-IC owner's INC
Entries: N, B, D, Q, R, I, M, C, A.

2.23 **INCO** - International Carrier
Entries: N, B, D, Q, R, I, M, C, A.

2.24 **INET** - Interim Nationwide Emergency Telecommunications System
Entries: N, B, D, Q, R, I, M, C, A.

2.25 **INW** - Inward WATS
Entries: N, B, D, Q, R, I, M, C, A.

2.26 **IOP** - Inward Operator
Entries: N, B, D, Q, R, I, M, C, A.

2.27 **LDA** - Local Directory Assistance
Entries: N, B, D, Q, R, I, M, C, A.

2.28 **MCPP** - Multiquest Calling Party-Paid
Entries: N, B, D, Q, R, I, M, C, A.

2.29 **MSC1** - Miscellaneous 1
Entries: N, B, D, Q, R, I, M, C, A.

2.30 **MSC2** - Miscellaneous 2
Entries: N, B, D, Q, R, I, M, C, A.

2.31 **MSC3** - Miscellaneous 3
Entries: N, B, D, Q, R, I, M, C, A.

2.32 **MSC4** - Miscellaneous 4
Entries: N, B, D, Q, R, I, M, C, A.

2.33 **MULT** - Multiquest
Entries: N, B, D, Q, R, I, M, C, A.

2.34 **NWZ1** - Non-World Zone 1
Entries: N, B, D, Q, R, I, M, C, A.

2.35 **ORNU** - Order Number
Entries: 1 to 999999.

2.36 **QTM** - Entries: N

2.37 **RSYS** - Restricted System Codes
Entries: N, B, D, Q, R, I, M, C, A.

2.38 **SC1-SC36** - Spare Category 1 to 36
Entries: N, B, D, Q, R, I, M, C, A.

2.39 **SDN** - Software Defined Network
Entries: N, B, D, Q, R, I, M, C, A.

2.40 **SDND** - SDN Data
Entries: N, B, D, Q, R, I, M, C, A.

2.41 **SPDI** - Sponsor-Paid Dial-It
Entries: N, B, D, Q, R, I, M, C, A.

2.42 **SSP** - Service Switching Point
Entries: N, B, D, Q, R, I, M, C, A.

2.43 **TC** - Teleconferencing
Entries: N, B, D, Q, R, I, M, C, A.

2.44 **TST** - Test Line
Entries: N, B, D, Q, R, I, M, C, A.

2.45 **UNSP** - Unspecified
Entries: N, B, D, Q, R, I, M, C, A.

```
# FORM 618   CHANGE THE CHARACTERISTICS OF AN EXISTING FAR END NETWORK


RC:FEN;CHG;---:                          CLASS ------,       FID ------,

ORNU ------,

AFA --,

SERVICE CATEGORY TREATMNT

UNSP -,   ATAP -,   CUSP -,   CARP -,   CANP -,   HAWP -,   NWZ1 -,   INW -,
DSD -,    DLT -,    TC -,     DA -,     IOP -,    TST -,    RSYS -,   MSC1 -,
MSC2 -,   MSC3 -,   MSC4 -,   INCN -,   ALAP -,   CUTP -,   INCO -,   EASC -,
ICIN -,   SC1 -,    SC2 -,    SC3 -,    SC4 -,    SC5 -,    SC6 -,    SC7 -,
SC8 -,    SC9 -,    SC10 -,   SC11 -,   SC12 -,   SC13 -,   SC14 -,   SC15 -,
SC16 -,   SC17 -,   SC18 -,   SC19 -,   SC20 -,   SC21 -,   SC22 -,   SC23 -,
SC24 -,   SC25 -,   SC26 -,   SC27 -,   SC28 -,   SC29 -,   SC30 -,   SC31 -,
SC32 -,   SC33 -,   SC34 -,   SC35 -,   SC36 -,   SDN -,    LDA -,    SSP -,
SPDI -,   MULT -,   MCPP -,   INET -,   SDND -,   QTM -,

SCREEN TREATMNT

DEF1 -,   DEF2 -,   DEF3 -,   DEF4 -,                      DFHT ---,


REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 406L

ASSOCIATED VERIFY MESSAGES

INPUT-16m-VER:FEN:

OUTPUT-6s-VER:FEN:

RC:FEN;OUT;- - -:

FORM # 619 DELETE A FAR END NETWORK

1. GENERAL

1.01 Form #619 is used to remove a Far End Network.

2. FORM ENTRIES

2.01 RC:FEN;OUT;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CLASS** - Far End Network Classification
Entries: ACCESA, ACCESI, ACCESO, CAMA, CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.03 **FID** - Far End Network Identification
Entries: blank or 1 to 6 alphanumeric characters.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 619   DELETE A FAR END NETWORK

RC:FEN;OUT;---:                        CLASS ------,       FID ------,

ORNU ------,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-16m-VER:FEN

OUTPUT-6r-VER:FEN

RC:CRB;NEW;- - -:

FORM # 620 ADD CUSTOMER ROUTING BLOCK

1. GENERAL

1.01 Form #620 is used to is used to assign a Customer Routing Block (CRB). This form is also used to link CRBs together for multiple trunk customers. For multiple trunk terminations no more than 16 trunks can be linked together in any one list (CRBI/NCRBI combinations).

2. FORM ENTRIES

2.01 RC:CRB;NEW;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CDBI** - Customer Data Block Index
Entries: 1 to 4095.

2.03 **CRBI** - Customer Routing Block Index
Entries: 1 to 32767.

2.04 **NCRBI** - Next Customer Routing Block Index
Entries: blank or 1 to 32767.

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

2.06 **PCRBI** - Previous Customer Routing Block Index
Entries: blank or 1 to 32767.

2.07 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

```
# FORM 620  ADD A CUSTOMER ROUTING BLOCK


RC:CRB;NEW;---:

ORNU ------,

                    TAN
 CRBI       TSI   SPC LVL   FTS       PCRBI       NCRBI       CDBI

-----,      --,    -,  -,   ---,      -----,      -----,      ----,
-----,      --,    -,  -,   ---,      -----,      -----,      ----,
-----,      --,    -,  -,   ---,      -----,      -----,      ----,
-----,      --,    -,  -,   ---,      -----,      -----,      ----,
-----,      --,    -,  -,   ---,      -----,      -----,      ----,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 406N

ASSOCIATED VERIFY MESSAGES

INPUT-16p-VER:CRB:CRBI

OUTPUT-6w-VER:CRB:

RC:CRB;OUT;- - -:

FORM # 621 DELETE CUSTOMER ROUTING BLOCK

1. GENERAL

1.01 Form #621 is used to delete a Customer Routing Block. All code grouping pointing to the CRBI must be removed prior to this Recent Change.

2. FORM ENTRIES

2.01 RC:CRB;OUT;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CRBI** - Customer Routing Block Index
Entries: 1 to 32767.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 621  DELETE A CUSTOMER ROUTING BLOCK

RC:CRB;OUT;---:                                                    CRBI -----,

ORNU ------,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-16p-VER:CRB:CRBI

OUTPUT-6w-VER:CRB:

RC:CDB;NEW;- - -:

FORM # 622 ADD/CHANGE A CUSTOMER DATA BLOCK

1. GENERAL

1.01 Form #622 is used to define billing and routing related information for single trunk customers. This form is used in conjunction with Recent Change form 620 for defining Customer Routing Blocks.

2. FORM ENTRIES

2.01 RC:CDB;NEW;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACTION** - Action
Entries: A or C.

2.03 **BN** - Billing Number
Entries: 10 digit number.

This field may be left blank, if this is a change message and the billing number is not being changed.

2.04 **BNPT** - Entries: blank.

2.05 **CDBI** - Customer Data Block Index
Entries: 1 to 4095.

2.06 **DEL** - Delete Digits
Entries: 0 to 15.

This field may be left blank, if this is a change message and the delete field is not being changed.

2.07 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 622  ADD/CHANGE A CUSTOMER DATA BLOCK

RC:CDB;NEW;___:                                                    CDBI ____,

ORNU _______,          ACTION _,

BN  ___________,       BNPT ____,      DEL __,

REMARKS _____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406O

ASSOCIATED VERIFY MESSAGES

INPUT-16r-VER:CDB:CDBI

OUTPUT-6y-VER:CDB:

RC:CDB;OUT;- - -:

FORM # 623 DELETE A CUSTOMER DATA BLOCK

1. GENERAL

1.01 Form #623 is used to delete a Customer Data Block for single trunk customers. The CDBI cannot be deleted if it is pointed to by a Customer Routing Block.

2. FORM ENTRIES

2.01 RC:CDB;OUT;- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CDBI** - Customer Data Block Index
Entries: 1 to 4095.

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 623  DELETE A CUSTOMER DATA BLOCK

RC:CDB;OUT;---:                                                    CDBI ----,

ORNU ------,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-16r-VER:CDB:CDBI

OUTPUT-6y-VER:CDB:

RC:ANN;CHG:- - -:

FORM # 624 ANNOUNCEMENT INDEX TO TREATMENT MAPPING

1. GENERAL

1.01 Form #624 is used to define the mapping of SSP database return message announcement index values to local announcement treatments.

2. FORM ENTRIES

2.01 RC:ANN;CHG:- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ANINDEX** - Announcement Index
Entries: 0 to 255.

2.03 **ANN** - Announcement
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 624  ANNOUNCEMENT INDEX TO ANNOUNCEMENT MAPPING

    RC:ANN;CHG;___:

    ORNU _______,

                 OLD          NEW
   ANINDEX       ANN          ANN

    ____,        ____,        ____,
    ____,        ____,        ____,
    ____,        ____,        ____,
    ____,        ____,        ____,
    ____,        ____,        ____,

    REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406P

ASSOCIATED VERIFY MESSAGES

INPUT-16t-VER:ANINDEX

OUTPUT-6aa-VER:MISC,OPT(ANN)

RC:AMA;CHG:- - -:

FORM # 625 AMA CALL CODE TO STRUCTURE CODE MAPPING

1. GENERAL

1.01 Form #625 is used to define which AMA structure code set is to be used for each AMA Call Code.

See Table A for the list of structure codes for each set.

2. FORM ENTRIES

2.01 RC:AMA;CHG:- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **CALL CODE**
Entries: 0 to 999.

2.03 **CODE SET**
Entries: NONE, SET1, or SET2.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

TABLE A

SET1

Structure Code	Conditions
00360	Number Services, IC
00361	Number Services, IC, Alternate Billing Number
00362	Number Services, IC, Long Duration
00363	Number Services, IC, Long Duration, Alternate Billing Number

SET2

Structure Code	Conditions
00364	Number Services, TELCo
00365	Number Services, TELCo, Alternate Billing Number
00366	Number Services, TELCo, Long Duration
00367	Number Services, TELCo, Long Duration, Alternate Billing Number
00368	Number Services, TELCo, Unanswered
00369	Number Services, TELCo, Unanswered Alternate Billing Number

```
# FORM 625  AMA CALL CODE TO STRUCTURE CODE MAPPING


RC:AMA;CHG;---:

ORNU ------,


    CALL       OLD           NEW
    CODE     CODE SET      CODE SET

    ---,       ----,         ----,
    ---,       ----,         ----,
    ---,       ----,         ----,
    ---,       ----,         ----,
    ---,       ----,         ----,
    ---,       ----,         ----,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 406Q

ASSOCIATED VERIFY MESSAGES

INPUT-16u-VER:AMACODE

OUTPUT-6ab-VER:MISC,OPT(AMA)

Future

RC:TOS;CHG:- - -:

FORM # 626 TYPE OF SERVICE TO DIALED CODE MAPPING

1. GENERAL

1.01 Form #626 is used to define the mapping between the Type of Service index values to the customer dialed number sequence of Number Services calls.

2. FORM ENTRIES

2.01 RC:TOS;CHG:- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **AIN TFREE** - Advanced Intelligent Network (AIN) 800/Tollfree Indicator (4E21R3>).
Entries: Y, N, or blank (blank defaults to N and blank must be entered if the feature has not been purchased).

2.03 **CODE**
Entries: 000 to 999.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **SSN** - Subsystem Number
Entries: 232 to 255.
For Advanced Intelligent Network (AIN), SSN field on this form will be ignored (just enter any SSN value to get by the form check). AIN SSN is assigned one per office with RC form 810.

2.06 **TOS** - Type of Service
Entries: 0 to 31.

2.07 **TT** - Translation Type
Entries: 0 to 255.

```
# FORM 626  TYPE OF SERVICE TO DIALED CODE MAPPING
  <4E21R2


RC:TOS;CHG;___:

ORNU _______,

TOS __,   TT ___,   SSN ___,   OLD CODE ___,   NEW CODE ___,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406R

ASSOCIATED VERIFY MESSAGES

INPUT-16v-VER:TOS

OUTPUT-6ac-VER:MISC,OPT(TOS)

```
# FORM 626  TYPE OF SERVICE TO DIALED CODE MAPPING
  4E21R3>


RC:TOS;CHG;___:

ORNU _______,

TOS __,   TT ___,   SSN ___,   OLD CODE ___,   NEW CODE ___,   AIN TFREE _,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406R

ASSOCIATED VERIFY MESSAGES

INPUT-16v-VER:TOS

OUTPUT-6ac-VER:MISC,OPT(TOS)

Future

RC:LATASTAT;CHG;OPT(AREAS),---:

FORM # 629 CHANGE LATA/STATE SCREENING AREAS

1. GENERAL

1.01 Form #629 is used to change LATA/state screening area assignment. When LATA/state areas are deleted, all TSGs that originate from the deleted LATA/state are automatically disassociated with the LATA/state. When a LATA/state is added, all TSGs that originate from the new LATA/state and require screening must be updated to turn screening on.

2. FORM ENTRIES

2.01 RC:LATASTAT;CHG;OPT(AREAS),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACTION** - Action
Entries: A or D.

2.03 **LATA** - Local Access Transport Area
Entries: 000 to 999.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **STATE** - State
Entries: Two alphabetic characters.

```
# FORM 629   CHANGE LATA/STATE SCREENING AREAS
  <4E21


RC:LATASTAT;CHG;OPT(AREAS),---:

ORNU ------,  ACTION -,


  LATA    STATE

  ---,     --,
  ---,     --,
  ---,     --,
  ---,     --,
  ---,     --,
  ---,     --,
  ---,     --,
  ---,     --,

REMARKS ------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 406T

ASSOCIATED VERIFY MESSAGES

INPUT-16x-VER:LATASTAT:AREAS!(EOT)

OUTPUT-6ae-VER:LATASTAT;OPT(AREAS)

RC:LATASTAT;CHG;OPT(MATRIX),---:

FORM # 630 CHANGE LATA/STATE SCREENING MATRIX

1. GENERAL

1.01 Form #630 is used to change a LATA/state screening matrix. All traffic from one specified LATA/state to another will be blocked for any service using the matrix.

2. FORM ENTRIES

2.01 RC:LATASTAT;CHG;OPT(MATRIX),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACTION** - Action
Entries: A or D.

2.03 **FROM LATA** - From Local Access Transport Area
Entries: 000 to 999.

2.04 **FROM STATE** - From State
Entries: Two alphabetic characters.

2.05 **MATRIX** - LATA/state Screening Matrix
Entries: 1 to 7.

2.06 **ORNU** - Order Number
Entries: 1 to 999999.

2.07 **TO LATA** - To Local Access Transport Area
Entries: 000 to 999.

2.08 **TO STATE** - To State
Entries: Two alphabetic characters.

2.09 **TWOWAY** - Twoway
Entries: blank or Y.

```
# FORM 630   CHANGE LATA/STATE SCREENING MATRIX
  <4E21


RC:LATASTAT;CHG;OPT(MATRIX),---:                          MATRIX -,

ORNU ------,  ACTION -,


      FROM              TO
   LATA  STATE      LATA  STATE     TWOWAY

   ---,   --,       ---,   --,        -,
   ---,   --,       ---,   --,        -,
   ---,   --,       ---,   --,        -,
   ---,   --,       ---,   --,        -,
   ---,   --,       ---,   --,        -,
   ---,   --,       ---,   --,        -,
   ---,   --,       ---,   --,        -,
   ---,   --,       ---,   --,        -,

REMARKS -------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - ESS 406U

ASSOCIATED VERIFY MESSAGES

INPUT-16y-VER:LATASTAT:MATRIX a!(EOT)

OUTPUT-6af-VER:LATASTAT;OPT(MATRIX)

RC:SERVICE;CHG;OPT(PARAMS),---:

FORM # 631 CHANGE SERVICE PARAMETERS

1. GENERAL

1.01 Form #631 is used to change service related parameters.

1.02 Fields that are not being changed may be left blank.

2. FORM ENTRIES

2.01 RC:SERVICE;CHG;OPT(PARAMS),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **LSFHT** - LATA/state Screening Final Handling Treatment (<4E21)
Entries: blank, AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT. Enter an asterisk to remove the assignment.

2.03 **LSMTX** - LATA/state Screening Matrix (<4E21)
Entries: blank or 1 to 7. Enter an asterisk to remove the assignment.

2.04 **NUMPL** - Numbering Plan (<4E21)
Entries: APN, INTL, or NANP.

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

2.06 **RSFHT** - Route Selection Final Handling Treatment
Entries: blank, AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT. Enter an asterisk to remove the assignment.

2.07 **RSI** - Route Selection Index
Entries: blank or 0 to 126.

2.08 **RSIDF** - Route Selection Index Default
Entries: A or D.

2.09 **RTDOM** - Routing Domain
Entries: blank, HNPA (4E22> - for LEC offices only), IT, 20-83, INTO, INTT, SDNA, DEV, DED, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), INCD, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C. Enter an asterisk to remove the assignment.

2.10 **SRVC** - Service
Entries: MEGC, NCAT, INTV, INTD, 20-76, 81, 82, INTO, INTT, SDNA, DEV, DED, INCD, IO56, IO64, ITD, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

```
# FORM 631  CHANGE SERVICE PARAMETERS
  <4E21

RC:SERVICE;CHG;OPT(PARAMS),___:                              SRVC ____,

ORNU _______,

NUMPL ____,    RTDOM ____,    RSI ___,    RSIDF _,    RSFHT ___,

LSMTX _,   LSFHT ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406V

ASSOCIATED VERIFY MESSAGES

INPUT-16z-VER:SERVICE:SRVC a!(EOT)

OUTPUT-6ag-VER:SERVICE,OPT(PARAMS)

```
# FORM 631  CHANGE SERVICE PARAMETERS
  4E22>


RC:SERVICE;CHG;OPT(PARAMS),___:                              SRVC ____,

ORNU _______,


RTDOM ____,    RSI ___,    RSIDF _,    RSFHT ___,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406V

ASSOCIATED VERIFY MESSAGES

INPUT-16z-VER:SERVICE:SRVC a!(EOT)

OUTPUT-6ag-VER:SERVICE,OPT(PARAMS)

Future

RC:NPADPC;CHG,---:

FORM # 632 CHANGE NPA TO DESTINATION POINT CODE MAPPING

1. GENERAL

1.01 Form #632 is used to change the Destination Point Code or Subsystem Number used to route Network Call Denial queries directly to the NCD Network Control Point for calls destined for the specified NPA.

For an ACTION entry of D, the SSN and DPC fields need not be entered.

2. FORM ENTRIES

2.01 RC:NPADPC;CHG,---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACTION** - Action
Entries: A or D.

2.03 **DPC** - Destination Point Code

— NET = 0 to 255

— CR = 0 to 31.

— CT = 0 to 7.

— MEM = 0 to 255.

2.04 **NPA** - Numbering Plan Area
Entries: 200-999.

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

2.06 **SSN** - Subsystem Number
Entries: 232 to 255.

```
# FORM 632  CHANGE NPA TO DESTINATION POINT CODE

RC:NPADPC;CHG,___:              NPA ___,

ORNU _______,  ACTION _,

                     NET CR CT MEM

SSN ___,          DPC ___,__,_, ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-16aa-VER:NPADPC:NPA a!(EOT)

OUTPUT-6ah-VER:NPADPC;OPT(NPA)

RC:EA;CHG;OPT(CID),---:

FORM # 633 CHANGE CARRIER ID CODE AND TNS TYPE DESIGNATION

1. GENERAL

1.01 Form #633 is used to add or delete a Carrier ID code and to designate the type of call associated with each of the valid TNS values.

An ACTION of A is used to initially define TNS values for a Carrier ID. An ACTION of C is used to change TNS values for a Carrier ID. An ACTION of D is used to remove a Carrier ID.

4E22R1>: If ACTION=A, the entry must currently be unassigned for the CID (i.e. all TNSI values for the CID must have a TNSTYP currently set to INV).

4E22R1>: If ACTION=C, at least one TNSI value must not have a TNSTYP set to INV and the entry must currently be assigned.

4E22R1>: If ACTION=D, all TNSI values must have a TNSTYP set to INV and the entry must currently be assigned.

2. FORM ENTRIES

2.01 RC:EA;CHG;OPT(CID),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ACTION** - Action
Entries: A, C, or D.

2.03 **CID** - Carrier ID
Entries: 0 to 999 (0000 to 9999 for 4E18>).

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **TNSI** - Access Tandem Transit Network Selection Index
Entries: 0 to 15.

2.06 **TNSTYP** - TNS Type
Entries: INV, IOT, or GSDN.

```
# FORM 633  CARRIER ID CODE AND TNS TYPE DESIGNATION

RC:EA;CHG;OPT(CID),___:              CID ___,

ORNU _______,  ACTION _,

TNSI      TNSTYP

 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,
 __,       _____,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406X

ASSOCIATED VERIFY MESSAGES

INPUT-16ab-VER:EA:CID a!(EOT)

OUTPUT-6ai-VER:EA;OPT(CID)

RC:SCS;CHG;OPT(FHT),---:
FORM # 634 SERVICE CIRCUIT SYSTEM - EXPANDED ANNOUNCEMENTS

1. GENERAL

1.01 Form 634, for 4E17 and later Generic Programs, is used to specify per-announcement data. Fields AIR, AN4R, and ANIR are only used by ISUP for AT&T offices. Fields CAUSE, CIVO, and LOC are not used by ISUP when determining clearing treatments when TOT (Type of Trunk) is ETC (End Office and Tandem Connecting) and OCC (Other Carrier Connecting). Field TUBM is used by TUP. SSI, SAN, and TUBM fields may be left blank. For 4E18 and later Generic Programs, fields AIR, ANIR, CIVO, CAUSE, LOC, NPLY, and OFHT may be left blank which will result in the translations data corresponding to the blank fields to not change.

If a release message is to be sent, then this form can specify the cause value to be used in the release message.

Table A lists the cause values and their meanings.

Table B lists the locations and their meanings.

Table C lists the meanings of TUP unsuccessful backwards messages (TUBM).

2. FORM ENTRIES

2.01 RC:SCS;CHG;OPT(FHT),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **AIR** - AT&T ISUP Releasability (AIR)
Entries: Y or N.

2.03 **AN4R** - AT&T Non-4 ESS Releasability
Entries: PA (Play announcement) or REL (Release).

2.04 **ANIR** - AT&T Network Interconnect Releasability
Entries: PA (Play announcement) or REL (Release).

2.05 **CAUSE** - Cause Value
Entries: blank or 0 to 127.

2.06 **CIVO** - Common Channel Signal (ISUP and INUP) Voice Calls and Old Announcements
Entries: PA (Play announcement) or REL (Release).

2.07 **LOC** - Location
Entries: 0 to 15.

2.08 **MT** - Main Transition
Entries: OLD or NEW.

2.09 **NPLY** - Number of Plays
Entries: 1 to 4.

2.10 **OFHT** - Old Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA.

2.11 **ORNU** - Order Number
Entries: 1 to 999999.

2.12 **SAN** - Service Circuit System Announcement Number
Entries: blank or 1 to 511. An asterisk may be entered to remove an assignment.

2.13 **SCSFHT** - Service Circuit System Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.14 **SSI** - Service Circuit System TSG ID
Entries: blank, FHA, or FHB. An asterisk may be entered to remove an assignment.

2.15 **TUBM** - TUP Unsuccessful Backwards Release
Entries: blank, SEL, CGC, ADI, CFL, SSB, UNN, SP1, SP2.

TABLE A

Cause	Description
1	unallocated number
2	no route to specified transit network
3	no route to destination
4	send special information tone
5	misdialed trunk prefix
16	normal clearing
17	user busy
18	no user responding
21	call rejected
22	number changed
27	destination out of service
28	address incomplete
31	normal - unspecified
34	no circuit available
38	network out of order
41	temporary failure
42	switching equipment congestion
43	user information discarded
44	requested channel not available
45	preemption
47	resource unavailable - unspecified
57	bearer capability not authorized
58	bearer capability not presently available
63	service/option not available - unspecified
65	bearer capability not implemented
66	channel type not implemented
70	only restricted digital information bearer capability is available
79	service or option not implemented - unspecified
81	invalid call reference value
88	incompatible destination
95	invalid message, unspecified
97	message type nonexistent or not implemented
99	parameter nonexistent or not implemented
100	invalid parameter contents
111	protocol error, unspecified
127	interworking, unspecified

This table lists the current cause values as specified in Q.763 ISUP Protocol Spec - Issue 2 of T1S1.3-88/02501 Editted T1.113.2 + T1.113.3 Documents.

TABLE B

Location	Description
0	User
1	local private network
2	local local network
3	transit network
4	remote local network
5	remote private network
6	local interface controlled by this signalling link
7	international network
8	spare
9	spare
10	unknown
11-15	spare

TABLE C

TUBM	Description
SEL	Switching-equiptment-congestion signal
CGC	Circuit-group-congestion signal
ADI	Address-incomplete signal
CFL	Call-failure signal
SSB	Subscriber-busy signal
UNN	Unallocated-number
SP1	Spare 1
SP2	Spare 2

```
# FORM 634   SERVICE CIRCUIT SYSTEM - EXPANDED ANNOUNCEMENTS

RC:SCS;CHG;OPT(FHT),___:              SCSFHT ___,    MT ___,

ORNU _______,

AIR _,   ANIR ___, AN4R ___,  CIVO ___, CAUSE ___,

LOC ___, NPLY _,   OFHT ___,  SAN ____, SSI ___,  TUBM ___,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406W

ASSOCIATED VERIFY MESSAGES

INPUT-16ac-VER:SCS:FHT

OUTPUT-6aj-VER:SCS;OPT(FHT)

RC:AIN;OPT(ANNUM):- - -:

FORM # 660 SCP ANNOUNCEMENT TO SCS ANNOUNCEMENT MAPPING

1. GENERAL

1.01 Form #660 is used to define the mapping of SCP announcement return to the SCS announcements.

2. FORM ENTRIES

2.01 RC:AIN;OPT(ANNUM);- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ORNU** - Order Number
Entries: 1 to 999999.

2.03 **SCPANN** - SCP Announcement Index
Entries: 0 to 255.

2.04 **SCSANN** - SCS Announcement Number
Entries: 1 to 65535.

```
# FORM 660  SCP ANNOUNCEMENT INDEX TO SCS ANNOUNCEMENT MAPPING
  <4E18R2


    RC:AIN;OPT(ANNUM);___:

    ORNU _______,


   SCPANN      SCSANN

    ___,        ______,
    ___,        ______,
    ___,        ______,
    ___,        ______,
    ___,        ______,
    ___,        ______,
    ___,        ______,
    ___,        ______,
    ___,        ______,
    ___,        ______,


    REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 406Y

ASSOCIATED VERIFY MESSAGES

INPUT-16ay-VER:AIN:ANNUM

OUTPUT-6bd-VER:AIN;OPT(ANNUM)

RC:MISC;OPT(XTSIPM),- - -:

FORM # 664 XTSI DS3 UNIT DS1 PERFORMANCE MONITORING THRESHOLDS

1. GENERAL

1.01 Form 664, available with 4E22 and later Generic Programs, is used to define the XTSI DS3 UNIT DS1 15 minute and 24 Performance Monitoring Thresholds.

Fields that are left blank will leave the corresponding translations data unchanged.

2. FORM ENTRIES

2.01 RC:MISC;OPT(XTSIPM),- - -:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **AISS P** - Alarm Indication Signal Seconds Path
Entries: blank or 0 to 63.

2.03 **BIN** - Bin
Entries: Pre-populated with **B15 MINUTE** (for the 15 minute bin) or **B24 HOUR** (for the 24 hour bin).

2.04 **CSS P** - Controlled Slip Seconds Path
Entries: blank or 0 to 63.

2.05 **CV P** - Coding Violations Path
Entries: blank or 0 to 65535.

2.06 **ES P** - Errored Seconds Path
Entries: blank or 0 to 900.

2.07 **ORNU** - Order Number
Entries: 1 to 999999.

2.08 **SAS P** - SES/AIS Seconds Path
Entries: blank or 0 to 63.

2.09 **SES P** - Severely Errored Seconds Path
Entries: blank or 0 to 63.

2.10 **UAS P** - Unavailable Seconds Path
Entries: blank or 0 to 63.

```
# FORM 664  XTSI DS3 UNIT DS1 PERFORMANCE MONITORING THRESHOLDS
  4E22>


    RC:MISC;OPT(XTSIPM),___:

    ORNU _______,


        BIN      CV P    ES P   SES P   SAS P   AISS P   CSS P   UAS P

    B15 MINUTE  ______,   ____,    __,     __,     __,      __,     __,
    B24 HOUR    ______,   ____,    __,     __,     __,      __,     __,


    REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - None

ASSOCIATED VERIFY MESSAGES

INPUT-16ab-VER:VFUNC XTSIPM!

OUTPUT-6bm-VER:MISC;OPT(XTSIPM)

RC:MISC;FHT,FTA:AINTRIGnn,a,b,c,d!

RECENT CHANGE #6dg ADD or DELETE 10-DIGIT AIN TRIGGERS

1. GENERAL

1.01 This message is used to add or delete up to 16 10-digit AIN triggers at one time.

2. FORM ENTRIES

2.01 `RC:MISC;FHT,FTA:AINTRIGnn,a,b,c,d!`

The above format represents the input message that must be entered. The upper case letters represent data that must be entered exactly as shown. The lower case letters are acronyms for variable fields that require user input data. The exclamation point (!) following the message denotes the end of the input message. The following paragraphs define the entries for each of the variable items.

2.02 `nn`

This field is the TOS, which is encoded in the nine character ASCII string. The TOS must be within the ASCII string and must be two numeric characters. When concatenated, the characters must be between 00 and 31, inclusive.

2.03 `a`

This is the order number. It must be a unique number in the range 000001 to 999999.

2.04 `b`

This field specifies the action required. Entries are:
A - add
D - delete
When adding, the trigger entered must not already be present. When deleting, the trigger must be present and the TOS must match what was entered when the trigger was added. If there is an error for any one trigger for a message, the entire message fails and there is no action taken for any trigger. (i.e., the fifth trigger being deleted has a different TOS between what was entered on the form and what is currently in translations, then the message will fail and no triggers will be deleted)

2.05 `c`

This field specifies the domain. The only valid entry is **P**, which indicates that all AIN 10-digit triggers for this message are in the POTS domain.

2.06 `d`

This field is for the 10-digit triggers. All triggers must be 10 digits. There must be at least one trigger entered, but no more than 16 triggers (separated by a comma) on a single message.

3. ERROR CODES

3.01 Numeric Error Codes

If the input message cannot be successfully processed, an error code or error code with message is output. For almost all syntax errors, the following numeric error code will be printed (shown below). The remaining errors, which relate to form usage, will print an error code with a message or description of the error (these are not listed below).

CODE	EXPLANATION
0010, 448 -	Invalid Recent Change Message

SAMPLE MESSAGES

1. To add three 10-digit AIN triggers (3125551234,3125559999,3125551995) with a TOS (0).

```
RC:MISC;FHT,FTA:AINTRIG00,00001,A,P,3125551234,3125559999,3125551995!
```

2. To add two 10-digit AIN triggers (7085551111,7085555555) with a TOS (31).

```
RC:MISC;FHT,FTA:AINTRIG31,99999,A,P,7085551111,7085555555!
```

3. To delete two 10-digit AIN triggers (3125551234,3125559999) with the corresponding TOS (0).
   Note, the TOS must match what was entered when the trigger was added for all triggers being deleted.

```
RC:MISC;FHT,FTA:AINTRIG00,00002,D,P,3125551234,3125559999!
```

4. To delete one 10-digit AIN trigger (7085555555) with a TOS (31).

```
RC:MISC;FHT,FTA:AINTRIG31,99998,D,P,7085555555!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT - 16dg - VER:MISC:FHT AINTRIG, DIG a

OUTPUT - 6dg - VER:MISC:FHT AINTRIG:

RECENT CHANGE 10-DIGIT AIN TRIGGERS
IN 4E19R4 AND LATER GENERICS

SECTION 7 - UNIT TYPE

SECTION	RC#	
7a	700	Grow Unit Type Equipage Bits
7b	701	Degrow Unit Equipage Bits
7c	702	DIU Function Assignment
7d	703	Service Circuit System
7e	704	DS3 Unit (D3U) Type Equipage
7f	705	Sub-Unit XTSI Type Data
7h	707	XTSI DS1 Static A/B Configuration (<4E23)/XTSI DS1 Configuration Information (4E24>)
7i	708	XTSI IBU Sub-Unit Type Data
7j	709	SPP Node Equipage and Node Type Data

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

RC:UTYPE;CHG;OPT(EQP,GROW),TST:

FORM #700 GROW UNIT TYPE EQUIPAGE BITS

1. GENERAL

1.01 Form #700 is a Recent Change message used to change the equipage state of 4 ESS equipment for growth purposes. This message is normally associated with special growth procedures for adding new equipment.

2. FORM ENTRIES

2.01 RC:UTYPE;CHG;OPT(EQP,GROW),TST:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

NOTE: An administration message must be used to activate this Recent Change - See Division 7, Section 10a.

2.02 **MEMN** _ _ _,

Member Number - The MEMN field specifies the Member Number of a particular unit. The range of entries for each unit is as follows:

UTYN		MEMN
DIF	-	2 to 31
DT	-	0 to 127
DUS	-	0 to 3
EST	-	0 to 31
FS	-	0 to 3
GRID	-	1 to 15
MAS	-	0 to 7
MFS	-	0 to 31
PUBB	-	0
PUC	-	0 to 7
SCS	-	0 to 7
SP	-	0 to 31
TAC	-	0 to 15
TGR	-	0 to 15
TMS	-	0 to 3
TMSP	-	0 to 3
TPOS	-	0 to 99
TSI	-	0 to 63 - SEE NOTE 1
TUC	-	0 to 31
VIF	-	0 to 127
XTSI	-	0 to 63 - SEE NOTE 1

NOTE 1: Only the even member will be allowed in the MEMN field for cost reduced or eXpanded TSI if no sub-memn is specified. Both are allowed if sub-memn is specified although only even member number should be used for eXpanded TSI.

2.03 OLD NEW
ME (_ _ _ _, _ _ _ _),
Member Equipage - This field indicates the equipage state for the unit. Valid entries are:

UNEQ - Unequipped
GROW - First state of growth
SGRO - Special growth
OPER - Operational

The states must be activated in succession. For example, if a frame is unequipped (UNEQ), the next state must be GROW; then SGRO and finally OPER. An exception to sequential growth exists for Toll Terminal Frames. Equipage for all Toll Terminal Frames (TTF) changes will be done in one step. Entries will be (OLD) UNEQ, (NEW) OPER. This field is completed only when changing Member Equipage. It must be left blank when changing Sub-Member Equipage.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **SUBMEM** _ _ _ _ _ _ _ _,
Submember - The SUBMEM field defines the Sub-Member Equipage. Each of the unit types has specific entries to identify individual subcategories. The numbers in parentheses indicate the valid range for that character(s). There may be no blanks or spaces embedded in the entry. For example, the Sub-Member entries for TSIF are:

T0PRTEQ0, T0PRTEQ1, T0PRTEQ2,
T0PRTEQ3, T0PRTEQ4, T0PRTEQ5,
T0PRTEQ6, T1PRTEQ0, T1PRTEQ1,
T1PRTEQ2, T1PRTEQ3, T1PRTEQ4,
T1PRTEQ5, T1PRTEQ6.

This field is completed only when changing Sub-Member Equipage. It must be left blank when changing Member Equipage.

UTYN	VALID SUBMEN ENTRIES
DIF	DIUEQ(0-31) DIUSPQ(A&B)
DT	DTUEQ(0-7)
DUS	None
EST	ESEQ(0 to 14)
FS	FSEQSME(0-3)

UTYN	VALID SUBMEN ENTRIES
GRID	None
MAS	MAUEQ(0-7)
MFS	None
PUBB	CKHEQ(0 to 7)
PUC	PUCEQ(0-29)
SCS	SCUEQ(0 to 15)
SP	BFE CFE MDNBLK(0 or 1) MSNBLK(0 to 1) SP2EQ(0-3) TDNBLK(0 to 3) TSNBLK(0 to 3)
TAC	TMGRP(0 to 15)
TGR	TMGRP(0 to 15)
TMS	C(0 or 1)MBLK(0 to 3) C(0 to 1)GRWTH
TMSP	C(0 or 1)MBLK(0 to 3) C(0 to 1) GROWTH
TPOS	None
TSI	T(0 or 1)PRTEQ(0-6)
TUC	None
VIF	VIUEQ(0 to 6)
XTSI	XTSID3U(0-7, 6 & 7 are Spare)

2.06 OLD NEW
SME (_ _ _ _, _ _ _ _),
Sub Member Equipage - The SME field indicates the equipage state of the individual subcategories defined in the preceding paragraph. Valid entries are:

UNEQ - Unequipped
GROW - First stage of growth
SGRO - Special growth
OPER - Operational

The states must be activated in succession. For example, if the unit was previously unequipped (UNEQ), the next stage must be GROW. The GROW stage must be followed by SGRO and SGRO must be followed by OPER. This field is completed only when changing Sub-Member Equipage.

2.07 **UTYN** _ _ _ _ _,

This field specifies the type of equipment whose growth is to be defined. The following acronyms may be entered.

DIF - Digital Interface Frame
DT - Digroup Terminal
DUS - Data Unit Selector
EST - Digital Echo Suppressor
FS - File Store
GRID - Alarm Grid
MFS - Multi Frequency Signaling Frame
PUBB - Peripheral Unit Bus Branching Frame
SCS - Service Circuit System
SP - Signal Processor
TAC - Terminal Access Circuit
TGR - CCIS Terminal Group
TMS - Time Multiplex Switching Frame
TMSP - Time Multiplex Switch Pair
TPOS - Test Position
TSI - Time Slot Interchange
TUC - Tape Unit Controller
VIF - Voiceband Interface Frame
XTSI - eXpanded TSI

```
# FORM 700    GROW UNIT TYPE EQUIPAGE BITS

RC:UTYPE;CHG;OPT(EQP,GROW),TST:                                  UTYN _____,

ORNU _______,

                      OLD   NEW
MEMN ___,         ME (_____, _____),

                       OLD  NEW
SUBMEM _________, SME (_____,_____),

REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE

```
INPUT-17a-VER:UTYPE:-------- ---,ME/SME ---/ENTRY!(EOT)

OUTPUT-7a/7b/7c-VER:UTMN;OPT(ME/SME/ENTRY),_ _ _:

OUTPUT (EXPANSION)-7d-VER:UTMN;OPT(MISC),CUR:
```

RC:UTYPE;CHG;OPT(EQP,DEGROW),TST:

FORM #701 DEGROW UNIT EQUIPAGE BITS

1. GENERAL

1.01 Form #701 is a Recent Change Message used to change the equipage state of 4 ESS Switch equipment. This message is used to reverse the growth process (DEGROW).

2. FORM ENTRIES

2.01 RC:UTYPE;CHG;OPT(EQP,DEGROW),TST:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

NOTE: An administration message must be used to activate this Recent Change - See Division 7, Section 10a.

2.02 **MEMN** _ _ _,
Member Number - The MEMN field specifies the member number of a particular unit. The range of entries for each unit is as follows:

UTYN		MEMN	
DIF	-	2 to 31	
DT	-	0 to 127	
DUS	-	0 to 3	
EST	-	0 to 31	
FS	-	0 to 3	
GRID	-	1 to 15	
MAS	-	0 to 7	
MFS	-	0 to 31	
PUBB	-	0	
PUC	-	0 to 7	
SCS	-	0 to 7	
SP	-	0 to 31	
TAC	-	0 to 15	
TGR	-	0 to 15	
TMS	-	0 to 3	
TMSP	-	0 to 3	
TPOS	-	0 to 99	
TSI	-	0 to 63	SEE NOTE 1
TUC	-	0 to 31	
VIF	-	0 to 127	
XTSI	-	0 to 63	SEE NOTE 1

NOTE 1: Only the even member will be allowed in the MEMN field for a cost reduced or eXpanded TSI if no sub-memn is specified. Both are allowed if sub-memn is specified although only even member number should be used for eXpanded TSI.

2.03 OLD NEW
ME (_ _ _ _, _ _ _ _),
Member Equipage - This field indicates the equipage state for the unit. Valid entries are:

UNEQ - Unequipped
GROW - First stage of growth
SGRO - Special growth
OPER - Operational

The states must be activated in descending order. For example, if a frame is operational (OPER), the next state must be SGRO, then GROW and finally UNEQ. An exception to sequential growth exists for Toll Terminal Frames. Equipage for all Toll Terminal Frames (TTF) changes will be done in one step. Entries will be (OLD) OPER, (NEW) UNEQ. This field is completed only when changing member equipage. It must be left blank when changing submember equipage.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **SUBMEM** _ _ _ _ _ _ _ _,
Sub member - The SUBMEM field defines the submember equipage. Each of the unit types has specific entries to identify individual sub categories. The numbers in parentheses indicate the valid range for that character(s). There may be no blanks or spaces embedded in the entry. For example, the submember entries for TSIF are:

TOPRTEQ0, TOPRTEQ1, TOPRTEQ2, TOPRTEQ3, TOPRTEQ4, TOPRTEQ5, TOPRTEQ6, T1PRTEQ0, T1PRTEQ1, T1PRTEQ2, T1PRTEQ3, T1PRTEQ4, T1PRTEQ5, T1PRTEQ6.

This field is completed only when changing submember equipage. It must be left blank when changing member equipage.

UTYN	VALID SUBMEN ENTRIES
DIF	DIUEQ(0-31) DIUSPQ(A&B)
DT	DTUEQ(0 to 7)
DUS	None
EST	ESEQ(0 to 14)
FS	FSEQSME(0 to 3)
GRID	None
MAS	MAUEQ(0 to 1)

UTYN	VALID SUBMEN ENTRIES
MFS	None
PUBB	CKHEQ(0 to 7)
PUC	PUCUEQ(0 to 29)
SCS	SCUEQ(0 to 15)
SP	BFE CFE MDNBLK(0 or 1) MSNBLK(0 or 1) *SP2EQ(0 to 3) TDNBLK(0 to 3) TSNBLK(0 to 3)
TAC	TMGRP(0 to 15)
TGR	TMGRP(0 to 15)
TMS	C(0 or 1)MBLK(0 to 3) C(0 or 1)GRWTH
TMSP	C(0 or 1)MBLK(0 to 3) C(0 or 1)GRWTH
TPOS	None
TSI	T(0 or 1)PRTEQ(0 to 6)
TUC	None
VIF	VIUEQ(0 to 6)
XTSI	XTSID3U(0-7, 6 & 7 are Spare)

2.06 OLD NEW
SME (_ _ _ _, _ _ _ _),
Sub Member Equipage - The SME field indicates the equipage state of the individual subcategories defined in the preceding paragraph. Valid entries are:

UNEQ - Unequipped
GROW - First state of growth
SGRO - Special growth
OPER - Operational

The states must be activated in descending order. For example, if the unit was previously operational (OPER), the next stage must be SGRO. The SGRO stage must be followed by GROW and GROW must be followed by UNEQ. This field is completed only when changing submember equipage.

2.07 **UTYN** _ _ _ _ _,

This field specifies the type of equipment whose growth is to be defined. The following acronyms may be entered.

DIF - Digital Interface Frame
DT - Digroup Terminal
DUS - Data Unit Selector
EST - Digital Echo Suppressor Terminal
FS - File Store
GRID - Alarm Grid
MFS - Multi Frequency Signaling Frame
PUBB - Peripheral Unit Bus Branching Frame
SCS - Service Circuit System
SP - Signal Processor
TAC - Terminal Access Circuit
TGR - CCIS Terminal Group
TMS - Time Multiplex Switching Frame
TMSP - Time Multiplex Switch Pair
TPOS - Test Position
TSI - Time Slot Interchange
TUC - Tape Unit Controller
VIF - Voiceband Interface Frame
XTSI - eXpanded TSI

```
# FORM 701    DEGROW UNIT TYPE EQUIPAGE BITS

RC:UTYPE;CHG;OPT(EQP,DEGROW),TST:                                  UTYN _____,

ORNU _______,

                       OLD   NEW
MEMN ___,         ME (_____, _____),

                        OLD   NEW
SUBMEM _________, SME (_____, _____),

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM _ NONE

ASSOCIATED VERIFY MESSAGE

```
INPUT-17a-VER:UTYPE:-------- ---,ME/SME ---/ENTRY!(EOT)

    OUTPUT-7a/7b/7c-VER:UTMN;OPT(ME/SME/ENTRY),---:

     OUTPUT (EXPANSION)-7d-VER:UTMN;OPT(MISC),CUR:
```

RC:UTYPE;CHG;OPT(DIU),TST:

FORM # 702 DIU FUNCTION ASSIGNMENT

1. GENERAL

1.01 Form #702 provides the capability to change the functional capability of the SM9 and SM10 based DIU. These DIUs can take on multiple functions based on the TDIU value of the DIU in the DIF unit type.

Table A lists the valid TDIU values and associated functions that may be changed via this form prior to the 4E21 generic. Table B lists possible combinations for THW, THW5, and TDG DIGROUP1 through DIGROUP5 for generics 4E21 and later.

Note that SM9 values cannot be changed to SM10 and SM10 values cannot be changed to SM9 by this form.

2. FORM ENTRIES

2.01 RC:UTYPE;CHG;OPT(DIU),TST:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **DIF MEMN** - DIF Member Number
Entries: 2 to 31.

2.03 **DIU MEMN** - DIU Member Number
Entries: 0 to 31.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **TDG DIGROUP1 - DIGROUP5** - Type of DiGroup
Entries: blank or

```
1 for SF+ZCS (SM1B equivalent)
2 for SF+B8ZS (RB or 64CC as determined by TSG
  signaling char.)
3 for SF+ZCS  (International CCITT5)
4 for ESF+B8ZS (International CCITT5)
5 for ESF+ZCS (64kb restricted)
6 for ESF+B8ZS (RB or 64CC as determined by TSG
  signaling char.)
7 for ESF+B8ZS (64CC only - not RB)
8 for ESF+B8ZS (64CC only, with PCC)
```

2.06 **TDIU** - Type of DIU
Entries: 9-21, 24-27 and 29-41, 44-48.

See Table A for a list of the TDIU values and the associated function.

2.07 **THW** - Type of Hardware
Entries: blank, 1 (SM1B), 6 (SM6), 7 (SM7), 9 (SM9), or 10 (SM10).

2.08 **THW5** - Type of Hardware for DI-Group 5
Entries: blank, 1 (SM1B), 9 (SM9), 10 (SM10).

TABLE A (<4E20)

TDIU VALUE	FUNCTION
9 - 4XLUS9BDI	CSDC - SF+ZCS
10 - 4XLUS9CDI	IAD - SF+ZCS
11 - 4XLUS9DDI	Clear 64 - ESF+B8ZS
12 - 4XLUS9EDI	DMI - SF+ZCS
13 - 4XLUS9FDI	DMI - ESF+B8ZS
14 - 4XLUS9GDI	Standard - SF+ZCS
15 - 4XLUS9HDI	Standard - ESF+ZCS
16 - 4XLUS9IDI	IAD - ESF+ZCS
17 - 4XLUS9JDI	IAD - ESF+B8ZS
18 - 4XLUS9KDI	Standard - SF, No ZCS, B8ZS
19 - 4XLUS9LDI	Standard - SF+B8ZS
20 - 4XLUS9MDI	IAD - SF+B8ZS
21 - 4XLUS9NDI	DMI - ESF+ZCS
24 - 4XLUS9QDI	Standard - ESF+B8ZS
25 - 4XLUS9RDI	CSDC - ESF+ZCS
26 - 4XLUS9SDI	CSDC - ESF+B8ZS
27 - 4XLUS9TDI	CSDC - SF+B8ZS
29 - 4XLUS10BDI	CSDC - SF+ZCS
30 - 4XLUS10CDI	IAD - SF+ZCS
31 - 4XLUS10DDI	Clear 64 - ESF+B8ZS
32 - 4XLUS10EDI	DMI - SF+ZCS
33 - 4XLUS10FDI	DMI - ESF+B8ZS
34 - 4XLUS10GDI	Standard - SF+ZCS
35 - 4XLUS10HDI	Standard - ESF+ZCS
36 - 4XLUS10IDI	IAD - ESF+ZCS
37 - 4XLUS10JDI	IAD - ESF+B8ZS
38 - 4XLUS10KDI	Standard - SF, No ZCS, B8ZS
39 - 4XLUS10LDI	Standard - SF+B8ZS
40 - 4XLUS10MDI	IAD - SF+B8ZS
41 - 4XLUS10NDI	DMI - ESF+ZCS
44 - 4XLUS10QDI	Standard - ESF+B8ZS
45 - 4XLUS10RDI	CSDC - ESF+ZCS
46 - 4XLUS10SDI	CSDC - ESF+B8ZS
47 - 4XLUS10TDI	CSDC - SF+B8ZS
48 - 4XLUS10UDI	PCC - ESF+B8ZS

TABLE B (4E21>)

THW	THW5	TDG DIGROUP1	DIGROUP2	DIGROUP3	DIGROUP4	DIGROUP5
1	blank	1	1	1	1	1
6	1	blank	blank	blank	blank	1
6	9	blank	blank	blank	blank	1,2,5,6,7
6	10	blank	blank	blank	blank	1,2,5,6,7,8
7	1	blank	blank	blank	blank	1
7	9	blank	blank	blank	blank	1,2,5,6,7
7	10	blank	blank	blank	blank	1,2,5,6,7,8
9	blank	3,4	3,4	3,4	3,4	3,4
9	blank	1,2,5,6,7	1,2,5,6,7	1,2,5,6,7	1,2,5,6,7	1,2,5,6,7
10	blank	3,4	3,4	3,4	3,4	3,4
10	blank	1,2,5,6,7,8	1,2,5,6,7,8	1,2,5,6,7,8	1,2,5,6,7,8	1,2,5,6,7,8

```
# FORM 702  CHANGE DIU FUNCTION CAPABILITY
  <4E20

RC:UTYPE;CHG;OPT(DIU),TST:

ORNU _______,

                                                 OLD   NEW
DIF MEMN __,        DIU MEMN __,        TDIU ( __,    __ ),


REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-17a-VER:UTYPE:DIF

OUTPUT-7b-VER:UTMN;OPT()

```
# FORM 702  CHANGE DIU FUNCTION CAPABILITY
  4E21>

RC:UTYPE;CHG;OPT(DIU),TST:

ORNU _______,


DIF MEMN __,         DIU MEMN __,

                        DIGROUP1 DIGROUP2 DIGROUP3 DIGROUP4 DIGROUP5
THW __, THW5 __,   TDG    __,      __,      __,      __,      __,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-17a-VER:UTYPE:DIF

OUTPUT-7b-VER:UTMN;OPT()

Future

RC:UTYPE;CHG;OPT(SCU),TST:

FORM # 703 SCS UNIT TYPE - SCU SUBUNIT DATA

1. GENERAL

1.01 Form #703, available with 4E17 and later Generic Programs, is used as the subunit type source for the 4 ESS Service Circuit System Unit Type Equipment.

Field that are left blank will leave the corresponding translations data unchanged.

2. FORM ENTRIES

2.01 RC:UTYPE;CHG;OPT(SCU),TST:

2.02 **ASRAPP** - Automatic Speech Recognition Application
Entries: blank, or 0 to 7.

2.03 **CDSC FLOOR** - Custom Data Service Cabinet Floor Location (must correspond to an Office Alarm GRID) (4E21>)

Entries: blank, or 0 to 99.

2.04 **CDSC FRAME NUM** - Custom Data Service Cabinet Frame (or Bay) Number (4E21>)
Entries: blank, 0 to 99.

2.05 **CDSC GLF** - Octal representation of the Custom Data Service Cabinet's GRID Unit Type Member Number, Line Number, and Frame/Bay Number

Entries: blank or eight octal digits.

2.06 **CDSC GRID** - Unit Type Member Number of the office GRID Alarm the Custom Data Service Cabinet is wired to (4E21>)

Entries: blank, 0 to remove or 1 to 15.

2.07 **CDSC LINE NUM** - Custom Data Service Cabinet Line Number (4E21>)
Entries: blank, 0 to 999.

2.08 **CDSC NUM** - Custom Data Service Cabinet Number (4E21>)
Entries: blank, 0 to 63.

2.09 **CDSC UL** - Custom Data Service Cabinet Upper/Lower Indicator for CDSC HV of 2 (4E21>)

Entries: blank, U for upper half of CDSC, or L for lower half of the CDSC.

2.10 **CDSU HV** - Custom Data Service Unit Hardware Version (4E21>)

Entries: blank, 0 to remove (Hardware Version Undefined), 1 for CDSU Vintage version, 2 for CDSU Version 2.

2.11 **DLAN** - Duplexed Local Area Network
Entries: blank, Y, or N.

2.12 **DSKC0-1** - Disk Capacity
Entries: blank or 0 to 3.

2.13 **DSKEQ0-1** - Disk Pair Equippage
Entries: blank, P, S, G, or F.

2.14 **LANADDR** - Local Area Network Address
Entries: blank or 0 to 255.

2.15 **MAS FH AIN** - Mass Announcement Services, Final Handling, and Advanced Intelligent Network announcements all combined on one SCU.

Entries: blank, Y or N.

2.16 **MIPEQ0-1** - Multi-functional Interface Processor Board Equipage
Entries: blank, P,S, G, or F.

2.17 **MIPFV0-1** - Multi-functional Interface Processor Board Firmware Version
Entries: blank, 0, or 1.

2.18 **MON** - Entries: blank.

2.19 **MSBEQ0-3** - Multiple Signal Processor Board Equipage
Entries: blank, P, S, G, or F.

2.20 **MSBFV0-3** - Multiple Signal Processor Board Firmware Version
Entries: blank or 0 to 3.

2.21 **NCDSU** - Number of Custom Data Service Units Installed
Entries: blank, 0 to remove (no CDSUs), or 1 to 5 (1 to 2 when CDSU HV is 2).

2.22 **SCS** - Service Circuit System Member Number
Entries: 0 to 7.

2.23 **SCU** - SCU Member Number
Entries: 0 to 15.

2.24 **SCUFV** - SCU Firmware Version
Entries: blank or 0 to 3.

2.25 **SCUHV** - SCU Hardware Version (4E22R4>)
Entries: blank or 0 to 7.

2.26 **SVCT** - Service Type
Entries: blank or 0 to 7.

```
# FORM 703  CHANGE SCU ME AND SME DATA
  4E18/4E19/4E20R1-R2


RC:UTYPE;CHG;OPT(SCU),TST:                SCS _, SCU __, DLAN _,

ORNU _______,

SVCT _,  SCUFV _,  LANADDR ___,  MON _,

   MSBEQ          MSBFV         DSKEQ      DSKC
0 1 2 3 4 5    0 1 2 3 4 5    0 1 2 3    0 1 2 3
_,_,_,_,_,_,   _,_,_,_,_,_,   _,_,_,_,   _,_,_,_,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 407P

ASSOCIATED VERIFY MESSAGES

INPUT-17a-VER:UTYPE:SCS

OUTPUT-7a-VER:UTMN;OPT(ME)
OUTPUT-7b-VER:UTMN;OPT(SME)

```
# FORM 703  CHANGE SCU ME AND SME DATA
  4E20R3-R4


RC:UTYPE;CHG;OPT(SCU),TST:                SCS _, SCU __, DLAN _,

ORNU _______,

SVCT _,  SCUFV _,  LANADDR ___,  MON _,  ASRAPP _, NCDSU _,

 MSBEQ   MIPEQ    MSBFV   MIPFV    DSKEQ      DSKC
0 1 2 3   0 1    0 1 2 3   0 1    0 1 2 3    0 1 2 3
_,_,_,_,  _,_,   _,_,_,_,  _,_,   _,_,_,_,   _,_,_,_,

REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 407P

ASSOCIATED VERIFY MESSAGES

INPUT-17a-VER:UTYPE:SCS

OUTPUT-7a-VER:UTMN;OPT(ME)
OUTPUT-7b-VER:UTMN;OPT(SME)

```
# FORM 703  CHANGE SCU ME AND SME DATA
  4E21 through 4E22 Release 3


RC:UTYPE;CHG;OPT(SCU),TST:                SCS _, SCU __, DLAN _,

ORNU _______,

SVCT _,  SCUFV _,  LANADDR ___,  MON _,  ASRAPP _, NCDSU _,


MAS FH AIN _,  CDSU HV _,  CDSC UL _,  CDSC NUM __,

CDSC GRID __,  CDSC FLOOR __,  CDSC LINE NUM ___,  CDSC FRAME NUM __,
CDSC GLF __________,



 MSBEQ   MIPEQ    MSBFV   MIPFV    DSKEQ      DSKC
0 1 2 3   0 1    0 1 2 3   0 1    0 1 2 3    0 1 2 3
_,_,_,_,  _,_,   _,_,_,_,  _,_,   _,_,_,_,   _,_,_,_,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 407P

ASSOCIATED VERIFY MESSAGES

INPUT-17a-VER:UTYPE:SCS

OUTPUT-7a-VER:UTMN;OPT(ME)
OUTPUT-7b-VER:UTMN;OPT(SME)

```
# FORM 703  CHANGE SCU ME AND SME DATA
  4E22 Release 4>


RC:UTYPE;CHG;OPT(SCU),TST:                SCS _, SCU __, DLAN _,

ORNU _______,

SVCT _,  SCUFV _,  LANADDR ____,  MON _,  ASRAPP _, NCDSU _,
         SCUHV _,


MAS FH AIN _,  CDSU HV _,  CDSC UL _,  CDSC NUM __,

CDSC GRID __,  CDSC FLOOR __,  CDSC LINE NUM ____,  CDSC FRAME NUM __,
CDSC GLF __________,



 MSBEQ   MIPEQ    MSBFV   MIPFV  DSKEQ  DSKC
0 1 2 3   0 1    0 1 2 3   0 1    0 1   0 1
_,_,_,_,  _,_,   _,_,_,_,  _,_,   _,_,  _,_,

REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 407P

ASSOCIATED VERIFY MESSAGES

INPUT-17a-VER:UTYPE:SCS

OUTPUT-7a-VER:UTMN;OPT(ME)
OUTPUT-7b-VER:UTMN;OPT(SME)
OUTPUT-7k-VER:UTYPE;OPT(SCSDATA)

Future

RC:UTYPE;CHG;OPT(D3U),___:

FORM # 704 DS3 UNIT (D3U) TYPE EQUIPAGE

1. GENERAL

1.01 Form #704, available with 4E21 and later Generic Programs, is used to equip a DS3 on a XTSI frame/member number including all required DS1 data.

Fields that are left blank will leave the corresponding translations data unchanged.

When E or S is entered for FRMFnn, the corresponding EQPnn must be entered as F by a previous RC 704 form.

2. FORM ENTRIES

2.01 RC:UTYPE;CHG;OPT(D3U),___:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **D3UN** - D3U Number
Entries: 0 to 7. 6 is the Spare D3U Number for D3U Numbers 0, 1 and 2. 7 is the Spare D3U Number for D3U Numbers 3, 4 and 5.

2.03 **DS1** - DS1 Number (4E24>)
Entries: Pre-printed with 1 through 28.

2.04 **DS3 APPL** - DS3 Application
Entries: blank, CBP, or M23.

2.05 **EQP01 through EQP28** - Equipage for the 1st through the 28th DS1 for this D3U. (<4E23)
Entries: blank, F (for Future), or P (for present/provisioned).

2.06 **EQUIPAGE** - Equipage for the 1st through the 28th DS1 for this D3U. (4E24>)
Entries: blank, F (for Future), or P (for present/provisioned).

2.07 **FRAME FORMAT** - Frame Format for the 1st through the 28th DS1 for this D3U. (4E24>)
Entries: blank, E (for Extended Superframe), or S (for Superframe).

2.08 **FRMF01 through FRMF28** - Frame Format for the 1st through the 28th DS1 for this D3U. (<4E23)

Entries: blank, E (for Extended Superframe), or S (for Superframe).

2.09 **INBAND D3U** - In-band signaling state enabled for the D3U. (4E24>)
Entries: blank, N (for In-band disabled), or Y (for In-band enabled).

2.10 **INBAND DS1** - In-band signaling state enabled for the DS1. (4E24>)
Entries: blank, N (for In-band disabled), or Y (for In-band enabled).

2.11 **MAX LBO** - Maximum Line Build Out for cable length.
Entries: blank, 225 (for 0 to 225), or 450 (for 225 to 450).

2.12 **ORNU** - Order Number
Entries: 1 to 999999.

2.13 **REM ALARM** - Remote Alarm Indication.
Entries: blank, STD (for Standard), INV (for Inverted), or IGN (for Ignore).

2.14 **STATIC A/B** - Static A/B enabled for this DS1 (4E24>).
Entries: blank, Y (for Static A/B - 56R), or N (for 64 clear channel).

2.15 **TSI MEMN** - TSI Member Number (4E21 only)
Entries: 2 to 62 - even numbers only.

2.16 **XTSI MEMN** - TSI Member Number of an Expanded Time Slot Interchange (XTSI) (4E22>)

Entries: 2 to 62 - even numbers only.

```
# FORM 704          DS3 UNIT TYPE EQUIPMENT DATA
  4E21

RC:UTYPE;CHG;OPT(D3U),___:      TSI MEMN __, D3UN _,

ORNU _______,


REM ALARM ___, MAX LBO ___, DS3 APPL ___,



                   DS1 INFO

EQP01 _, FRMF01 _,            EQP02 _, FRMF02 _,
EQP03 _, FRMF03 _,            EQP04 _, FRMF04 _,
EQP05 _, FRMF05 _,            EQP06 _, FRMF06 _,
EQP07 _, FRMF07 _,            EQP08 _, FRMF08 _,
EQP09 _, FRMF09 _,            EQP10 _, FRMF10 _,
EQP11 _, FRMF11 _,            EQP12 _, FRMF12 _,
EQP13 _, FRMF13 _,            EQP14 _, FRMF14 _,
EQP15 _, FRMF15 _,            EQP16 _, FRMF16 _,
EQP17 _, FRMF17 _,            EQP18 _, FRMF18 _,
EQP19 _, FRMF19 _,            EQP20 _, FRMF20 _,
EQP21 _, FRMF21 _,            EQP22 _, FRMF22 _,
EQP23 _, FRMF23 _,            EQP24 _, FRMF24 _,
EQP25 _, FRMF25 _,            EQP26 _, FRMF26 _,
EQP27 _, FRMF27 _,            EQP28 _, FRMF28 _,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 407Z

ASSOCIATED VERIFY MESSAGES - 16ba and 7g

```
# FORM 704          DS3 UNIT TYPE EQUIPMENT DATA
  4E22-4E23

RC:UTYPE;CHG;OPT(D3U),___:     XTSI MEMN __, D3UN _,

ORNU _______,


REM ALARM ___, MAX LBO ___, DS3 APPL ___,



                     DS1 INFO

EQP01 _, FRMF01 _,              EQP02 _, FRMF02 _,
EQP03 _, FRMF03 _,              EQP04 _, FRMF04 _,
EQP05 _, FRMF05 _,              EQP06 _, FRMF06 _,
EQP07 _, FRMF07 _,              EQP08 _, FRMF08 _,
EQP09 _, FRMF09 _,              EQP10 _, FRMF10 _,
EQP11 _, FRMF11 _,              EQP12 _, FRMF12 _,
EQP13 _, FRMF13 _,              EQP14 _, FRMF14 _,
EQP15 _, FRMF15 _,              EQP16 _, FRMF16 _,
EQP17 _, FRMF17 _,              EQP18 _, FRMF18 _,
EQP19 _, FRMF19 _,              EQP20 _, FRMF20 _,
EQP21 _, FRMF21 _,              EQP22 _, FRMF22 _,
EQP23 _, FRMF23 _,              EQP24 _, FRMF24 _,
EQP25 _, FRMF25 _,              EQP26 _, FRMF26 _,
EQP27 _, FRMF27 _,              EQP28 _, FRMF28 _,


REMARKS ____________________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 407Z

ASSOCIATED VERIFY MESSAGES - 16ba and 7g

```
# FORM 704         DS3 UNIT TYPE EQUIPMENT DATA
  4E24>

RC:UTYPE;CHG;OPT(D3U),___:     XTSI MEMN __, D3UN _,

ORNU _______,

REM ALARM ___, MAX LBO ___, DS3 APPL ___, INBAND D3U _,



                          DS1 INFO

DS1 NUMBER   1, 2, 3, 4, 5, 6, 7, 8, 9,10,11,12,13,14,
EQUIPAGE     _, _, _, _, _, _, _, _, _, _, _, _, _, _,
FRAME FORMAT _, _, _, _, _, _, _, _, _, _, _, _, _, _,
STATIC A/B   _, _, _, _, _, _, _, _, _, _, _, _, _, _,
INBAND DS1   _, _, _, _, _, _, _, _, _, _, _, _, _, _,


DS1 NUMBER  15,16,17,18,19,20,21,22,23,24,25,26,27,28,
EQUIPAGE     _, _, _, _, _, _, _, _, _, _, _, _, _, _,
FRAME FORMAT _, _, _, _, _, _, _, _, _, _, _, _, _, _,
STATIC A/B   _, _, _, _, _, _, _, _, _, _, _, _, _, _,
INBAND DS1   _, _, _, _, _, _, _, _, _, _, _, _, _, _,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - ESS 407Z

ASSOCIATED VERIFY MESSAGES - 16ba and 7g

RC:UTYPE;CHG;OPT(SUXTSI),___:

FORM # 705 SUB-UNIT XTSI TYPE DATA

1. GENERAL

1.01 Form #705, available with 4E21 and later Generic Programs, is used to set the software versions for a D3U on an XTSI frame/member number.

For 4E22 and later Generic Programs, this form is also used to set the SPU Software Version, SPU Hardware Version, SPU Equipage, XTSI Controller Software Version, XTSI Controller Hardware Version, and D3U Hardware Version.

Fields that are left blank will leave the corresponding translations data unchanged.

2. FORM ENTRIES

2.01 RC:UTYPE;CHG;OPT(SUXTSI),___:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ALF** - Hardware version of the ALF pack for XTSI controller 0 or 1. (4E24>)
Entries: blank, or 0 (for initial 4WB6 ALF pack).

2.03 **CIA** - Hardware version of the CIA pack for XTSI controller 0 or 1. (4E24>)
Entries: blank, or 0 (for initial UN547 CIA pack).

2.04 **CSP** - Hardware version of the CSP pack for XTSI controller 0 or 1. (4E24>)
Entries: blank, 0 (for no CSP pack present), or 1 (for initial 4WB9 CSP pack - needed for in-band).

2.05 **D3UEQ** - D3U Unit Equipage (4E22>)
Entries: blank, U (Unequipped), G (Grow), S (Special Grow), or O (Operational).

2.06 **D3UHV** - D3U Hardware Version (4E22>)
Entries: blank, or 0 (for initial 4WB3 version), or 1 (for 4WB11 in-band capable version).

2.07 **D3UN** - D3U Number
Entries: Pre-printed with 0 to 7. 6 is the Spare D3U Number for D3U Numbers 0, 1 and 2. 7 is the Spare D3U Number for D3U Numbers 3, 4 and 5.

2.08 **D3USV** - D3U Software Version
Entries: blank, or 0 to 7.

2.09 **EXEC** - Hardware version of the EXEC pack for XTSI controller 0 or 1. (4E24>)
Entries: blank, 0 (for initial UN548 EXEC pack), or 1 (for UN549 EXEC pack - needed for in-band).

2.10 **GRAM** - Hardware version of the GRAM pack for XTSI controller 0 or 1. (4E24>)
Entries: blank, or 0 (for initial UN557 GRAM pack).

2.11 **IBUEQ** - IBU Equipage (4E24>)
Entries: blank, U (Unequipped), G (Grow), S (Special Grow), or O (Operational).

2.12 **IBUHV** - IBU hardware version. (4E24>)
Entries: blank, or 0 (initial hardware version).

2.13 **IBUSV** - IBU software version. (4E24>)
Entries: blank, or 0 to 7.

2.14 **ORNU** - Order Number
Entries: 1 to 999999.

2.15 **PUBI** - Hardware version of the PUBI pack for XTSI controller 0 or 1. (4E24>)
Entries: blank, 0 (for initial KBN16 PUBI pack), or 1 (for KBN23 PUBI pack - needed for in-band).

2.16 **SPUEQ** - Entries: blank.

2.17 **SPUHV** - Entries: blank.

2.18 **SPUN** - Entries: blank.

2.19 **SPUSV** - Entries: blank.

2.20 **TSI MEMN** - TSI Member Number (4E21 only)
Entries: 2 to 62 - even numbers only.

2.21 **XTCHV** - XTSI Controller Hardware Version (4E22>)
Entries: blank, or 0 to 7.

2.22 **XTCN** - XTSI Controller Number (4E22>)
Entries: Pre-printed with 0 to 1.

2.23 **XTCSV** - XTSI Controller Software Version (4E22>)
Entries: blank, or 0 to 7.

2.24 **XTSI FRAME INBAND ENABLED** - Hardware generation for the XTSI. (4E24>)
Entries: blank, N (for XTSI without in-band signaling), or Y (for XTSI with in-band signaling enabled).

2.25 **XTSI MEMN** - TSI Member Number of an Expanded Time Slot Interchange (XTSI) (4E22>)

Entries: 2 to 62 - even numbers only.

```
# FORM 705         SUB-UNIT XTSI TYPE DATA
  4E21

RC:UTYPE;CHG;OPT(SUXTSI),___:      TSI MEMN __,

ORNU _______,

D3UN  0 1 2 3 4 5 6 7                                                    |
D3USV  _,_,_,_,_,_,_,_,


REMARKS _____________________________________________________________!
```

ASSOCIATED VERIFY MESSAGES - 16ba and 7g

```
# FORM 705          SUB-UNIT XTSI TYPE DATA
  4E22-4E23

RC:UTYPE;CHG;OPT(SUXTSI),___:     XTSI MEMN __,

ORNU _______,

XTCN   0,1
XTCHV  _,_
XTCSV  _,_

D3UN  0 1 2 3 4 5   6 7                                                    |
D3UEQ  _,_,_,_,_,_,  _,_,
D3UHV  _,_,_,_,_,_,  _,_,
D3USV  _,_,_,_,_,_,  _,_,


SPUN   0 1 2 3 4 5 6 7 8 9   10 11
SPUEQ  _,_,_,_,_,_,_,_,_,_,  _, _,
SPUHV  _,_,_,_,_,_,_,_,_,_,  _, _,
SPUSV  _,_,_,_,_,_,_,_,_,_,  _, _,


REMARKS ____________________________________________________________!
```

ASSOCIATED VERIFY MESSAGES - 16ba and 7h

```
# FORM 705         SUB-UNIT XTSI TYPE DATA
  4E24>

RC:UTYPE;CHG;OPT(SUXTSI),___:     XTSI MEMN __,

ORNU _______,

XTCN   0 1                                                                  |
XTCHV  _,_,                                                                 |
XTCSV  _,_,                                                                 |

           CSP,PUBI,GRAM,CIA,ALF,EXEC,                                      |
XTC0 PACKS   -,   -,   -,  -,  -,  --,                                      |
XTC1 PACKS   -,   -,   -,  -,  -,  --,                                      |

XTSI FRAME INBAND ENABLED _,

IBUEQ _,
IBUHV _,
IBUSV _,

D3UN   0 1 2 3 4 5   6 7
D3UEQ  _,_,_,_,_,_,  _,_,
D3UHV  _,_,_,_,_,_,  _,_,
D3USV  _,_,_,_,_,_,  _,_,


SPUN   0 1 2 3 4 5 6 7 8 9   10 11
SPUEQ  _,_,_,_,_,_,_,_,_,_,  _, _,
SPUHV  _,_,_,_,_,_,_,_,_,_,  _, _,
SPUSV  _,_,_,_,_,_,_,_,_,_,  _, _,


REMARKS _____________________________________________________________!
```

ASSOCIATED VERIFY MESSAGES - 16ba and 7h

RC:UTYPE;CHG;OPT(XTSIAB),- - -:

FORM # 707 XTSI DS1 STATIC A/B CONFIGURATION (<4E23)
FORM # 707 XTSI DS1 CONFIGURATION INFORMATION (4E24>)

1. GENERAL

1.01 Form #707, available with 4E21 Release 4, 4E22 Release 2 and later Generic Programs, is used to change the static A/B signaling bit configuration for an XTSI DS1.

Beginning with 4E24 Release 1, this form is used to change all of the DS1-related configuration information, not just the static A/B data.

Note, while this form is used to update DS1 configuration information for a single DS1 in a D3U, form 704 can be used to update information for multiple DS1s in a D3U.

2. FORM ENTRIES

2.01 RC:UTYPE;CHG;OPT(XTSIAB),___:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **D3UN** - D3U Number
Entries: 0 to 5.

2.03 **DS1** - DS1 Number
Entries: 1 to 28.

2.04 **EQUIPAGE** - Equipage for the 1st through the 28th DS1 for this D3U. (4E24>)
Entries: blank, F (for Future), or P (for present/provisioned).

2.05 **FRAME FORMAT** - Frame Format for the 1st through the 28th DS1 for this D3U. (4E24>)
Entries: blank, E (for Extended Superframe), or S (for Superframe).

2.06 **INBAND DS1** - In-band signaling state enabled for the DS1. (4E24>)
Entries: blank, N (for In-band disabled), or Y (for In-band enabled).

2.07 **ORNU** - Order Number
Entries: 1 to 999999.

2.08 **STATIC A/B** - Static A/B enabled for this DS1 (4E24>).
Entries: blank, Y (for Static A/B - 56R), or N (for 64 clear channel).

2.09 **XTSI MEMN** - TSI Member Number of an Expanded Time Slot Interchange (XTSI)
Entries: 2 to 62 - even numbers only.

```
# FORM 707         XTSI DS1 STATIC A/B CONFIGURATION
  4E21-4E23

RC:UTYPE;CHG;OPT(XTSIAB),___:      XTSI MEMN __, D3UN _, DS1 __,

ORNU _______,    STATIC A/B _,


REMARKS _____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES - 16ba and 7g

```
# FORM 707         XTSI DS1 CONFIGURATION INFORMATION
  4E24>

RC:UTYPE;CHG;OPT(XTSIAB),___:      XTSI MEMN __, D3UN _, DS1 __,

ORNU _______,

EQUIPAGE     _,
FRAME FORMAT _,
STATIC A/B   _,
INBAND DS1   _,


REMARKS _____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES - 16ba and 7g

Future

RC:UTYPE;CHG;OPT(XTSIIBU),___:

FORM # 708 XTSI IBU SUB-UNIT TYPE DATA

1. GENERAL

1.01 Form #708, available with 4E24 and later Generic Programs, is used to set XTSI IBU configuration data.

Fields that are left blank will leave the corresponding translations data unchanged.

2. FORM ENTRIES

2.01 RC:UTYPE;CHG;OPT(XTSIIBU),___:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **MF OR DTMF** - Type of signaling (receivers/transmitters) supported by the IBU.
Entries: blank, MF, or DTMF

2.03 **ORNU** - Order Number
Entries: 1 to 999999.

2.04 **TANS RESERVED** - Indicates whether the TANs associated with the IBU should be reserved.

Entries: blank, N, or Y.

2.05 **XCVR CONFIG** - Type of miscellaneous service circuits the IBU supports. There are two possible types: 1) 16 Continuity Check Transceivers (CCT), or 2) 12 CCTs plus 4 miscellaneous service circuits (i.e., digital Milliwatt, digital Milliwatt-10, Common Systems Tone Detector, and CCT test).

Entries: blank, CCT (for 16 CCTs), or MISC (for 12 CCTs and miscellaneous circuits)

2.06 **XTSI MEMN** - TSI Member Number of an Expanded Time Slot Interchange (XTSI)
Entries: 2 to 62 - even numbers only.

```
# FORM 708         IBU SUB-UNIT XTSI TYPE DATA
  4E24>

RC:UTYPE;CHG;OPT(XTSIIBU),___:     XTSI MEMN __,

ORNU _______,


TANS RESERVED _,

MF OR DTMF _____,

XCVR CONFIG  ______,


REMARKS _____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES - 16ba and 7m

RC:UTYPE;CHG;OPT(SPPNODE),___:

FORM # 709 SPP NODE EQUIPAGE AND NODE TYPE DATA

1. GENERAL

1.01 Form #709, available with 4E24 and later Generic Programs, is used to set SPP Node equipage and node type data.

Fields that are left blank will leave the corresponding translations data unchanged.

2. FORM ENTRIES

2.01 RC:UTYPE;CHG;OPT(SPPNODE),___:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **NODEEQ** - SPP Node Equipage
Entries: blank, UNEQ, or OPER.

2.03 **NODETYPE** - SPP Node Type
Entries: blank, NSFI, or NAP.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **SPPNODE** - SPP Node Number
Entries: 0 to 255.

```
# FORM 709          SPP NODE EQUIPAGE AND NODE TYPE DATA
  4E24>

RC:UTYPE;CHG;OPT(SPPNODE),___:     SPPNODE ___,

ORNU _______,


NODEEQ    ____,     NODETYPE    ____,

REMARKS _____________________________________________________!
```

ASSOCIATED VERIFY MESSAGES - 16ba and 7l

SECTION 8 - SPECIAL

SECTION	RC#	
8a	800	Absolute word change
8b	801	Functional translator change
8c	802	Change building subdivisions in existing CIN
8d	803	Add Signal Transfer Pairings
8e	804	Delete Signal Transfer Pairings
8f	805	Add Back Up Band Assignments
8g	806	Delete Back Up Band Assignments
8h	807	Change Terminal Label Assignments
8i	808	Set up Synonymous DPCs for Rehoming Switch to a different STP Pair
8j	809	Change Feature Bits
8k	810	Change Miscellaneous Feature Information
8l	811	Change Feature Field
8m	812	Enhanced Absolute Word Change

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

RC:FUNC;CHG;OPT(ABSOLUTE),- - -:

FORM #800 ABSOLUTE WORD CHANGE

1. GENERAL

1.01 Form #800 is used to change one or more bits (maximum 24) in a word at some absolute address. This form is classed as a Recent Change Data Message (RCDM).

1.02 Up to 24 bits in a word can be altered by this message. For example, a word may be made up of several groups of bits. Let A thru F represent the groups. A 24 bit word might look like CFFFFEEDDDDDDDDAAAAAAABB. The letters represent the bits where a given item appears. To change the entire word, a size of 24 with a displacement of zero would be used. This means, "change 24 bits beginning zero places from the right."

A single item may be changed with the remaining bits left untouched. As an example, to change item A in the preceding word, a size of seven with a displacement of two would be used. Items E and F could be changed by specifying a size of 6 with a displacement of 17.

2. FORM ENTRIES

2.01 RC:FUNC;CHG;OPT(ABSOLUTE),_ _ _:

Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 ADDRESS _ _ _ _ _ _ _ _,

If the WORDNO field is left blank, then this field will contain the absolute address of the word to be changed. If the WORDNO field contains input data, then this field will specify the starting address of a translations entry. The address must be an octal number (to the base eight). Valid addresses range from 0 to 33577777 if FSONLY equals "N". If FSONLY is equal to "Y" the addresses range from 0 to 11607777 for file store community 0 or 20000000 to 31607777 for file store community 1.

2.03 BINOCT _,

This field indicates if the data fields (NEWDATA and OLDDATA) contain octal or binary information. Valid entries are "B" for binary or "O" for octal.

2.04 DISP _ _,

This field identifies the right most bit position of the data to be changed within the specified translation word. The displacement of the data refers to the number of places (bits) from the right. In this case, the data specified in the NEWDATA field will be inserted in the translation word at a point displaced from the right most bit as specified by this field (DISP). The size of the data (SIZE) plus the displacement of the data (DISP) cannot exceed 24 (Decimal). Valid entries range from 0 to 23 (Decimal).

2.05 FSONLY _,

Enter a "Y" for Yes in this field if the data to be changed resides only in file store. Enter an "N" for No in this field if the data to be changed resides in core, backed up by file store. It is not possible to change the file store copy of a word that resides in core with file store back up by specifying the file store address and setting FSONLY to Y. If this is attempted an error message will be received.

2.06 NEWDATA _ _ _ _ _ _ _

address of the word to be changed. Valid entries may range from 0-1023 or this field may be left blank.

```
# FORM 800    ABSOLUTE WORD CHANGE


RC:FUNC;CHG;OPT(ABSOLUTE),---:              FSONLY -, ADDRESS --------,

ORNU ------,

WORDNO ----,

SIZE --,  DISP --,

BINOCT -,

NEWDATA ------------------------,

OLDDATA ------------------------,

REMARKS ------------------------------------------------!


                EQUIVALENT ODA INPUT FORM - NONE

                   ASSOCIATED VERIFY MESSAGE

                INPUT - 18a - VER:ABSOLUTE:ADR --------,CORE/DISK!(EOT)

                OUTPUT - 8a - VER:ABSOLUTE,OPT(CORE/DISK,---):
```

Future

RC:FUNC;CHG;OPT(TRANS),_ _ _:

FORM #801 FUNCTIONAL TRANSLATOR CHANGE

1. GENERAL

1.01 Form #801 will be used to modify one word of data in the Miscellaneous Scanner Number (MSN), Miscellaneous Distributor Number (MDN) or Unit Type translator. This change is different from the absolute word change (Form #800) in that it identifies the word to be altered by its relative position in the translator rather than by the absolute address. This form is classed as a Recent Change Data Message (RCDM).

1.02 Up to 24 bits in a word can be altered by this message. For example, a word may be made up of several groups of bits. Let A thru F represent the groups. A 24 bit word might look like CFFFFEEDDDDDDDDAAAAAAA BB. The letters represent the bits where a given item appears. To change the entire word, a size of 24 with a displacement of zero would be used. This means, "change 24 bits beginning zero places from the right."

A single item may be changed with the remaining bits left untouched. As an example, to change item A in the preceding word, a size of seven with a displacement of two would be used. Items E and F could be changed by specifying a size of 6 with a displacement of 17.

2. FORM ENTRIES

2.01 RC:FUNC;CHG;OPT(TRANS),_ _ _:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 BINOCT _,

This field indicates if the information in the NEWDATA and OLDDATA fields contain octal or binary data. Valid entries are "B" for binary or "O" for octal.

2.03 DISP _ _,

This field identifies the right most bit position of the data to be changed within the specified Translation Word. The displacement of data refers to the number of places (bits) from the right. In this case, the data specified in the *NEWDATA* field will be inserted in the Translation Word at a point displaced from the right most bit as specified by this field (DISP). The size of the data (SIZE) plus the displacement of the data (DISP) cannot exceed 24 (decimal). Valid entries range from 0 to 23 (decimal).

2.04 ENTRY _ _ _ _ _ _ _,

If the MSN or MDN translator is specified, the field will contain the SP (0-31), Matrix (0-1), Row (0-63) and Column (0-15). All seven spaces must be completed in the following arrangement:

_ _ _ _ _ _ _ _
SP MML ROW COLUMN

If the Unit Type translator is specified, this field will contain a Member Number. The valid Member Number range for the different Unit Types are as follows:

ADG	-	0 to 3
CCDS	-	0 to 15
CCT	-	0 to 19
CS	-	0 to 63
DIF	-	2 to 31
DOCRN	-	0 (<4E17)
DOCTN	-	0 (<4E17)
DT	-	0 to 127
DUS	-	0 to 3
FS	-	0 to 3
IOUS	-	0 to 15
MAS	-	0 to 7
MB	-	0 to 6
MCF	-	0
MFS	-	0 to 31
OA	-	0 to 127
PS	-	0 to 32
PUBB	-	0
PUC	-	0 to 7
SCS	-	0 to 7
SP	-	0 to 31
TGR	-	0 to 15
TMS	-	0 to 3
TP51A	-	0 to 99
TPOS	-	0 to 99
TSI	-	0 to 63
TTFO	-	TTF7 - 0 to 127
TUC	-	0 to 31
VIF	-	0 to 127
XTSI	-	2 to 63

If CDSCFIC is specified for the TRANSID field, which indicates that the OD4SCSCDSCFIC translator will be populated, then this field (ENTRY) designates the Service Circuit System (SCS). The valid entries are 0 to 3 (4E20 R3/R4 ONLY).

2.05 NEWDATA _ _ _ _ _ _

contain up to 24 binary bits or an octal number from 0 to 77777777. The entry in this field may not exceed the number of bits to be changed as specified in the SIZE field.

2.06 OLDDATA _,

This field contains the *current* contents of the data in the Translation Word as specified by SIZE and DISP. The right most bit position of the data to be changed in this word will be replaced by the right most bit in the NEWDATA field. This field may contain up to 24 binary bits or an octal number from 0 to 77777777. The entry in this field may not exceed the number of bits to be changed as specified in the SIZE field.

2.07 ORNU _ _ _ _ _ _,

The Order Number identifies a particular Recent Change Message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique Order Number.

2.08 SIZE _ _,

The size field specifies the number of bits to be changed in the word. This number can range from 1 to 24 (decimal).

2.09 TRANSID _ _ _ _ _ _ _,

This variable length field identifies the translator in which the change is to occur. Valid entries are:

ADG - Automatic Distribution Group
MSN - Miscellaneous Scanner Number
MDN - Miscellaneous Distributor Number
UT - Unit Type

CDSCFIC - Customer Data Service Cabinet Floor Identification Code (4E20 R3/R4 ONLY)

The UT suffix may be any one of the following:

CCDS* - CCIS Data set Frame
CCT - CCIS Transceiver
CS - Call Store
DIF - Digital Interface Frame
DOCR - Dynamic Overload Control Receiver (<4E17)
DOCT - Dynamic Overload Control Transmitter (<4E17)
DT - Digroup Terminal
DUS - Data Unit Selector
EST - Digital Echo Suppressor
FS - File Store
IOUS - Input/Output Unit Selector
MAS - Mass Announcement Service (<4E16)
MB - Miscellaneous Frame B
MCF - Miscellaneous Frame C
MFS - Multifrequency Signaling
OA - Office Dependent Alarm
PS - Program Store
PUBB - Peripheral Unit Bus Branching Frame
PUC - Peripheral Unit Control Frame (<4E16)
SCS - Service Circuit System (4E17>)
SP - Signal Processor
TGR - CCIS Terminal Group
TMSP - Time Multiplex Switching Port
TPOS - Test Position
TSI - Time Slot Interchange frame
TTFN - Toll Terminal Frame (when N ranges from 0 to 7)
TUC - Tape Unit Controller
VIF - Voiceband Interface Frame
XTSI - eXpanded Time Slot Interchange frame

2.10 WORDNO _ _ _ _,

This decimal number identifies a word within a Unit Type entry. Enter a zero in this field when the MSN or MDN translator is specified. If no entry is made in this field it will default to zero.

If CDSCFIC is specified for the TRANSID field, which indicates that the OD4SCSCDSCFIC translator will be populated, then this field (WORDNO) designates the Service Circuit Unit (SCU). The valid entries are 0 to 15 (4E20 R3/R4 ONLY).

```
# FORM 801    FUNCTIONAL TRANSLATOR CHANGE



RC:FUNC;CHG;OPT(TRANS),---:                        TRANSID -------,

ORNU ------,

ENTRY -------, WORDNO ----,

SIZE --,         DISP --,

BINOCT -,

NEWDATA ------------------------,

OLDDATA ------------------------,

REMARKS ----------------------------------------------------!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

```
INPUT - 17a - VER:UTYPE;...ENTRY
OUTPUT - 7c - VER:UTYPE,OPT(ENTRY,---):

                  MSN
INPUT - 16f - VER:MDN;...

                  MSN
OUTPUT - 6i - VER:MDN;...
```

Future

RC:FUNC;CHG;OPT(TGNAME),- - -:

FORM # 802 CHANGE BUILDING SUBDIVISIONS FOR A TRUNK GROUP
OR
RENAME/MOVE A TRUNK SUBGROUP

1. GENERAL

Form #802 is a dual purpose form. Its function depends on if the TSGBTFN field is blank or not.

1.01 If the TSGBTFN field **is** blank, this form will be used to change the Far Building Subdivision code (FBS) and/or the building subdivision for the near end of the Trunk Group (NBS). No other Fields may be changed.

1.02 If the TSGBTFN field **is not** blank, this form can also be used to change the TOWN, ST, BL, FBS, and NBS, for a Trunk **Sub**group resulting in the renaming of or the moving of the Trunk **Sub**group from one Trunk group to another, different Trunk group.

Restrictions for renaming/moving a TSG:

a. The Trunk subgroup being renamed/moved cannot have an assigned DPC (see DIV. 7, SEC. 1a-1c & 1h-1j and DIV. 8, SEC. 1 of the TG-4 manual).

b. The renaming/moving of TSGs is not allowed for non-message TSGs.

c. All trunks in the affected TSG must be in the Manually Disabled state.

2. FORM ENTRIES

2.01 RC:FUNC:CHG:OPT (TGNAME),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **NEWTG** - New Trunk Group

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

TOWN, ST, and BL must be equal to entry for the OLDTG (unless TSGBTFN is not blank).

2.03 **OLDTG** - Old Trunk Group

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

2.05 **TSGBTFN** - Trunk Subgroup Base Traffic Number (4E15>)
Entries: blank or 0 to 9976.

```
# FORM 802  CHANGE BUILDING SUBDIVISIONS IN EXISTING TRUNK GROUP CIN
                              OR
                    RENAME/MOVE A TRUNK SUBGROUP
  4E18>

RC:FUNC;CHG;OPT(TGNAME),___:

ORNU _______,

           TOWN ST BL FBS NBS

OLD TG     _____ __ __ ___ ___,              TSGBTFN ____,

NEW TG     _____ __ __ ___ ___,

REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

INPUT-11a-VER:TSG

OUTPUT-1a/1b/1c-VER:TSG,OPT(TWOWAY/IN1WAY/OUT1WAY):

RC:FUNC;CHG;OPT(ADDPAIR),_ _ _

FORM #803 ADD SIGNAL TRANSFER PAIRINGS

1. GENERAL

1.01 FORM #803 will be used to add international signaling links to an office acting as an International Signal Transfer Point (STP) for CCITT6 signal messages. This form is classed as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:FUNC;CHG;OPT(ADDPAIR),_ _ _:

Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 BAND1

_ _ _,

The band within the first complement for message transfer. Valid range is 0-127.

2.03 BAND2

_ _ _,

The band within the second complement for message transfer. Valid range is 0-127.

2.04 ORNU_ _ _ _ _ _,

The Order Number identifies a particular Recent Change Message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique Order Number.

2.05 SLCINDX1

_ _ _,

First Signaling Complement Index for message transfer. The range for this entry is 0 to INTLTERM-1 (as specified on the ESS 406C Form) but not to exceed 255.

2.06 SLCINDX2

_ _ _,

Second signaling complement for message transfer. Range for this entry is the same as SLCINDX1.

```
#FORM 803             ADD SIGNAL TRANSFER PARINGS



          RC:FUNC;CHG;OPT(ADDPAIR),_ _ _:

          ORNU_ _ _ _ _ _,



          SLCINDX1        BAND1        SLCINDX2        BAND2

          _ _ _,          _ _ _,       _ _ _,          _ _ _,

          _ _ _,          _ _ _,       _ _ _,          _ _ _,

          _ _ _,          _ _ _,       _ _ _,          _ _ _,

          _ _ _,          _ _ _,       _ _ _,          _ _ _,


REMARKS_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _!



          EQUIVALENT ODA INPUT FORM - ESS 406F

               ASSOCIATED VERIFY MESSAGE

                 INPUT - 12a - VER:TRK

           OUTPUT - 2b - VER:TRK;OPT(CCITT6):
```

RC:FUNC;CHG;OPT(DELPAIR), _ _ _

FORM #804 DELETE SIGNAL TRANSFER PAIRINGS

1. GENERAL

1.01 FORM #804 will be used to delete international signaling links from an office acting as an International Signal Transfer Point (STP) for CCITT6 signal messages. This form is classed as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:FUNC;CHG;OPT(DELPAIR), _ _ _:

Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 BAND1

_ _ _,

The band within the first complement for message transfer. Valid range is 0-127.

2.03 BAND2

_ _ _,

The band within the second complement for message transfer. Valid range is 0-127.

2.04 ORNU _ _ _ _ _ _,

The Order Number identifies a particular Recent Change Message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique Order Number.

2.05 SLCINDX1

_ _ _,

First Signaling Complement Index for message transfer that is to be deleted. The range for this entry is 0 to INTLTERM-1 (as specified on the ESS 406C Form) but not to exceed 255.

2.06 SLCINDX2

_ _ _,

Second signaling complement for message transfer to be deleted. The range for this entry is the same as SLCINDX1.

```
#FORM 804                DELETE SIGNAL TRANSFER PAIRINGS

  RC:FUNC;CHG;OPT(DELPAIR), _ _ _:

  ORNU _ _ _ _ _ _,



  SLCINDX1   BAND 1     SLCINDX2   BAND 2

  _ _ _,     _ _ _,     _ _ _,     _ _ _,

  _ _ _,     _ _ _,     _ _ _,     _ _ _,

  _ _ _,     _ _ _,     _ _ _,     _ _ _,

  _ _ _,     _ _ _,     _ _ _,     _ _ _,

REMARKS _____________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE
ASSOCIATED VERIFY MESSAGE

INPUT - 12a VER:TRK

OUTPUT - 2b VER:TRK;OPT(CCITT6):

RC:FUNC;CHG;OPT(ADDBKBAND),_ _ _:

FORM #805 ADD BACKUP BAND ASSIGNMENTS

1. GENERAL

1.01 Form #805 will be used to add a signaling complement to back up another complement for reliability. This form is classed as a Recent Change Data Message (RCDM).

1.02 To provide more flexible link security arrangements for CCITT6 systems a simplex complemented is available. Associated with this feature is the ability to backup bands within one signaling complement by band within other complements.

1.03 The backup arrangements will always be on a band by band basis. No band of a signaling complement will be both backed up and serve as a backup.

2. FORM ENTRIES

2.01 RC:FUNC;CHG;OPT(ADDBKBAND),_ _ _

Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 ORNU_ _ _ _ _ _,

The Order Number identifies a particular Recent Change Message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique Order Number.

2.03 PBAND

_ _ _,

Primary Band number - The band within PSLCINDX which is to be backed up. Valid range is 0 to 127.

2.04 PSLCINDX

_ _ _,

Primary Signaling Link Complement Index - The index of the complement whose band is to be backed up. It is a number unique to the office in the range of 0 to INTLTERM-1 (as specified on the ESS 406C Form) but not to exceed 255.

2.05 SBAND

_ _ _,

Secondary Band Number - The band within SSLCINDX which provides the back up security. Valid range is 0-127.

2.06 SSLCINDX

_ _ _,

Secondary Signaling Link Complement Index - The index of the complement whose band is to provide the back up security. Valid range is the same as for the SSLCINDX field.

#FORM 805 ADD BACKUP BAND ASSIGNMENTS

RC:FUNC;CHG;OPT(ADDBKBAND),_ _ _:

ORNU _ _ _ _ _ _,

PSLCINDX PBAND SSLCINDX SBAND

_ _ _, _ _ _, _ _ _, _ _ _,

_ _ _, _ _ _, _ _ _, _ _ _,

_ _ _, _ _ _, _ _ _, _ _ _,

_ _ _, _ _ _, _ _ _, _ _ _,

REMARKS _____!

EQUIVALENT ODA INPUT FORM - ESS 406G

ASSOCIATED VERIFY MESSAGE - NONE

RC:FUNC;CHG;OPT(DELBKBAND),_ _ _:

FORM #806 DELETE BACKUP BAND ASSIGNMENTS

1. GENERAL

1.01 Form #806 will be used to delete a signaling link complement back up band from a CCITT6 system. This form is classified as a Recent Change Data Message (RCDM).

2. FORM ENTRIES

2.01 RC:FUNC;CHG;OPT(DELBKBAND),_ _ _:

Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 ORNU _ _ _ _ _ _,

The Order Number identifies a particular Recent Change Message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique Order Number.

2.03 PBAND

_ _ _,

Primary Band Number - The band within the PSLCINDX whose back up band is to be deleted. Valid range 0-127.

2.04 PSLCINDX

_ _ _,

Primary Signaling Link Complement Index - The index number of complement whose band will have the back up band deleted. Valid range is 0-255.

2.05 SBAND

_ _ _,

Secondary Band Number - The band within SSLCINDX which provided the back up and is to be deleted. Valid range 0-127.

2.06 SSLCINDX

_ _ _,

Secondary Signaling Link Complement. The index number of the complement whose band provided the back up and which is to be deleted. Valid range is 0-255.

#FORM 806 DELETE BACKUP BAND ASSIGNMENTS

RC:FUNC;CHG;OPT(DELBKBAND),_ _ _:

ORNU _ _ _ _ _ _

PSLCINDX PBAND SSLCINDX SBAND

_ _ _, _ _ _, _ _ _, _ _ _,

_ _ _, _ _ _, _ _ _, _ _ _,

_ _ _, _ _ _, _ _ _, _ _ _,

_ _ _, _ _ _, _ _ _, _ _ _,

REMARKS _____!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

RC:FUNC;CHG;OPT(BAND),_ _ _:

FORM #807 CHANGE TERMINAL LABEL ASSIGNMENTS

1. GENERAL

1.01 Recent Change Form #807 is used to rehome CCIS trunks from No. 1 STPs to No. 2 STPs without taking the trunks out of service. Rehoming is done on a band-by-band basis. This form covers a three step process and must be coordinated with the far end office for each step. Both end offices must perform the same step before proceeding to the next step.

If there is a need to return to the initial state of translations after the activation of a STEP 1 or a STEP 2, the process can be reversed by the following:

Once a STEP 1 message is activated, it can be reversed by exchanging the old and the new PTERM, STERM, and BAND information and doing a STEP 3.

A STEP 2 message that has been activated can be reversed by exchanging the old and the new PTERM, STERM, and BAND information and doing another STEP 2 and then a STEP 3.

2. FORM ENTRIES

2.01 RC:FUNC;CHG;OPT(BAND),_ _ _:

Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 ORNU _ _ _ _ _ _,

The Order Number identifies a particular Recent Change Message. This number may range from 1 to 999999. Each message in the buffer must have a unique Order Number.

2.03 STEP _ OF 3,

This field identifies which step of three is being initiated. The steps must be performed in order and coordinated with the far end office. Valid entries are 1 to 3.

2.04

	BTFN	TOWN	ST	BL	FBS	NBS
TSG	----	----	--	--	---	---,

This series of codes identifies the Trunk Sub-Group. The town, state, building and building subdivision for the distant end of the trunk, plus the near end building subdivision, make up the Trunk Group designation. This Common Language Location Identification (CLLI) code is used in the AT&T-C Routing Guide. Rules for establishing these codes are covered in AT&T Practices 795-100-100.

BTFN - Base Traffic Number - The Base Traffic Number is a number in the range of 0 to 9976 that is part of the Trunk Sub-Group designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a Trunk Sub-Group. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value that the BTFN can be assigned to the TSG but the BTFN remains as defined above.

TOWN - Town - This code is a four character alphabetic combination representing the town, city or location for the far end of the Trunk Sub-Group.

ST - State - The state is a two character alphabetic code for the far end state, province, or foreign country.

BL - Building - This field contains the office identity for the far end of the Trunk Sub-Group. The code may be either two alphabetic or two numeric characters. Independent Telephone Company locations are always designated by an "X" plus some alpha character in this field. If the Trunk Sub-Group terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

FBS - Far Building Subdivision - The far building subdivision code is a three character alphanumeric for internal building identification.

NBS - Near Building Subdivision - This code identifies the internal building subdivision for the near end of the Trunk Sub-Group. It is a three character alphanumeric combination.

2.05

	PTERM	STERM	BAND
OLD	_ _ _,	_ _ _,	_ _ _,

This identifies the old primary and secondary terminal label and band number that is being changed.

PTERM - Primary Terminal label of the pair. Valid range is 0-255.

STERM - Secondary Terminal label of the pair. Valid range is 0-255.

BAND - Band number of the terminal pair. Valid range is 0-511.

2.06

	PTERM	STERM	BAND
NEW	_ _ _,	_ _ _,	_ _ _,

This identifies the new primary and secondary terminal label and band number being changed to.

PTERM - Primary Terminal label of the pair. Valid range is 0-255.

STERM - Secondary Terminal label of the pair. Valid

range is 0-255.

BAND - Band number of the terminal pair. Valid range is 0-511.

```
#FORM 807                    CHANGE TERMINAL LABEL ASSIGNMENTS
                                        4 ESS

RC:FUNC;CHG;OPT(BAND),---:                                BTFN TOWN ST BL FBS NBS

ORNU ------,               STEP - OF 3,              TSG ---- ---- -- -- --- ---,

      PTERM   STERM   BAND

OLD   ---,    ---,    ---,

NEW   ---,    ---,    ---,

REMARKS ------------------------------------------------------------!


                        EQUIVALENT ODA INPUT FORM - NONE
                        ASSOCIATED VERIFY MESSAGE - NONE
```

Future

RC:FUNC;CHG;OPT(REHOME),- - -:

FORM # 808 SET UP SYNONYMOUS DPCS FOR REHOMING
A 4 ESS™ SWITCH TO A DIFFERENT STP

1. GENERAL

1.01 Form 808, available with the 4E15 and later Generic Program, defines the two (Old & New) Destination Point Codes (DPCs) used when a 4 ESS™ Switch is being rehomed to a different Signaling Transfer Point (STP).

2. FORM ENTRIES

2.01 RC:FUNC;CHG;OPT(REHOME),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **ORNU** - Order Number
Entries: 1 to 999999.

2.03 **REHOME NEW DPC** - Rehome New Destination Point Code

— NET = blank or 0 to 255

— CR = blank or 0 to 31.

— CT = blank or 0 to 7.

— MEM = blank or 0 to 255.

2.04 **REHOME OLD DPC** - Rehome Old Destination Point Code

— NET = blank or 0 to 255

— CR = blank or 0 to 31.

— CT = blank or 0 to 7.

— MEM = blank or 0 to 255.

```
# FORM 808  SET UP SYNONYMOUS DPCS FOR REHOMING A 4 ESS™ SWITCH
                      TO A DIFFERENT STP
  4E18>


RC:FUNC;CHG;OPT(REHOME),___:


ORNU _______,


                NET CR CT MEM

REHOME OLD DPC ___,__,_, ___,

REHOME NEW DPC ___,__,_, ___,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES - NONE

RC:FTR;CHG;OPT(BIT),---:

FORM # 809 CHANGE FEATURE BITS

1. GENERAL

1.01 Form #809, available with 4E18 and later Generic Programs, is used to enable and disable feature bits which require special processing.

2. FORM ENTRIES

2.01 RC:FTR;CHG;OPT(BIT),---:
Entries: BUF, TST, ACT, FTA, FTB, FTT.

2.02 **FEATURE ITEM** - Feature Item to turn off or on.
Entries:

AASE (Announcement Administration System Equipment Office parameter. This office parameter specifies if the Announcement Administration System Equipment [either Administration Processor (AAP) or the Announcement Systems Manager (ASM)] is equiped or not equipped. If FEATURE ITEM is set to AASE and ON or OFF is set to OFF, the Announcement Administration System Equipment is set to not equipped. If FEATURE ITEM is set to AASE and ON or OFF is set to ON, the Announcement Administration System Equipment is set to equipped),

AINON (Advanced Intelligent Network On/Off Switch),

AINRDFLT (AIN Route Using Default),

ASM (SCS Update System Type-ASM/AAP. FEATURE ITEM input ASM specifies the protocol to be used on the LAN for the SCS Update System Type. If FEATURE ITEM is set to ASM and ON or OFF is set to ON, then the Announcement Systems Manager (ASM) protocol will be used in LAN communications. If FEATURE ITEM is set to ASM and ON or OFF is set to OFF, then the Administration Processor (AAP) protocol will be used in LAN communications),

CPESR (Call Prompter with Enhanced Speech Recognition),

F1 (Network Access Interruption),

F2 (Spare Non-Proprietary Activation Bits reserved for future use),

F3 (SCS Multiple Announcements),

F4 (I800 Overseas 10D GTT Feature Bit),

F5 (Spare Non-Proprietary Activation Bits reserved for future use),

F6 (Information Transfer Capability),

F7 (AIN default routing for CNT calls - Phase I),

F8 (Spare Non-Proprietary Activation Bits reserved for future use),

F9 (Perform basic rather than improved processing of non-idle Q.931 trunks),

F10 (Transition to XTSI Release 2 Performance Monitoring **- once enabled, cannot be disabled**),

F11 (Terminating Bandwidth Screening),

F12 (Committed for internal use only),

F13 (15 Digit International Numbering Plan Feature Active),

F14 (Message Header Reduction for API Capacity/API Capacity Improvement Features),

F15 (CVU Echo-back Interface Feature Enabled),

F16 (Extend ACM Timer for CCS7 Feature),

F17 (NAI for Direct Connect Calls Feature),

F18 (Ignore AIN Called Number Triggers on Location Routing Numbers - 4E22R4>),

F19 (Analyze Ported Number GAP for AIN CNTs feature - 4E23R3>),

F20 (Domain Check capability for AIN 10-Digit Triggers - 4E23R3>),

F21 (LEC LNP/AIN Domain Option (#534) feature - 4E22>),

F22 (LEC Originating LNP Module AMA Enhancements - 4E23R4>) Feature 537,

F23 (Tandem Flexible ANI/II Digit Restriction - 4E24R1>),

F24 (CNAR Trunk Subgroup Billing Number Option (#547) feature - 4E24R2>),

F25-F72 (Spare Non-Proprietary Activation Bits reserved for future use),

SUA (Software Update Automation).

2.03 **ON OR OFF** - ON or OFF
Entries: ON or OFF.

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 809  CHANGE FEATURE BITS
  4E18>


RC:FTR;CHG;OPT(BIT),___:

ORNU _______,

FEATURE ITEM _________,        ON OR OFF ___,


REMARKS _____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

OUTPUT - 8j VER:MISC;OPT(ONOFF)

INPUT - 16az VER:MISC ONOFF

RC:FTR;CHG;OPT(MSC),---:

FORM # 810 CHANGE MISCELLANEOUS FEATURE INFORMATION

1. GENERAL

1.01 Form #810, available with 4E18 and later Generic Programs, is used to change miscellaneous feature information such as timers, counters, and other numeric data.

2. FORM ENTRIES

2.01 RC:FTR;CHG;OPT(MSC),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **FEATURE INFO** - Feature Information to change.
Entries: A6TOS (4E23R3>), AINCFRTH, AINCGFHT, AINFHT, AINRESP, AINSSN, AINTRIG, ATOS (4E22>), L6TOS (4E23R3>), or OFFLATA.

2.03 **DATA** - Feature Data

A6TOS (4E23R3>) - blank, or 0 to 31

AINCFRTH - 1 to 32

AINCGFHT - 0 to 127

AINFHT - 0 to 127

AINRESP - 100 to 500

AINSSN - 0,1,4,6 to 255

AINTRIG - 1 to 6

ATOS - blank, 0 to 31

L6TOS (4E23R3>) - blank, or 0 to 31

OFFLATA - 0 to 999

2.04 **ORNU** - Order Number
Entries: 1 to 999999.

3. ASSOCIATED VERIFY MESSAGES.

3.01 For the provisionable items within the CPN Anomaly Reporting feature control data structure; **CAR**CHAN, **CAR**MFCS, **CAR**MODE, & **CAR**THRES refer to verify input message 16do "VER:MISC:FHT CAROFCDAT" and verify output form 6do.

```
# FORM 810  CHANGE MISCELLANEOUS FEATURE INFORMATION

RC:FTR;CHG;OPT(MSC),___:

ORNU _______,

FEATURE INFO _________,        DATA _________,

REMARKS ____________________________________________________!
```

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGES

SEE SECTION FOLLOWING *FORM ENTRIES*

RC:FTR;CHG;OPT(FLD),---:

FORM # 811 CHANGE FEATURE FIELD

1. GENERAL

1.01 Form #811, available with 4E16 and later Generic Programs, is used to change feature related data for information residing in tables having index range.

2. FORM ENTRIES

2.01 RC:FTR;CHG;OPT(FLD),---:
Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

2.02 **DATA** - New Data
Entries:
RVASRNSX - 1 to 30.

2.03 **FEATURE INFO** - Feature Information
Entries: RVASRNSX (4E20R1-R3>).

2.04 **INDX** - Translator Index
Entries:
RVASRNSX - 0 to 7.

2.05 **ORNU** - Order Number
Entries: 1 to 999999.

```
# FORM 811  CHANGE FEATURE FIELD

RC:FTR;CHG;OPT(FLD),___:

ORNU _______,

      FEATURE INFO          INDX            DATA
      __________,           ____,           _______,
      __________,           ____,           _______,
      __________,           ____,           _______,
      __________,           ____,           _______,
      __________,           ____,           _______,
      __________,           ____,           _______,
      __________,           ____,           _______,
      __________,           ____,           _______,
      __________,           ____,           _______,
      __________,           ____,           _______,

REMARKS ____________________________________________________________!
```

ASSOCIATED VERIFY MESSAGES - NONE

RC:FUNC;CHG;OPT(ENHABS),- - -:

FORM #812 ENHANCED ABSOLUTE WORD CHANGE

1. GENERAL

1.01 Form #812, available with 4E21 and later Generic Programs, is used to change one or more bits of a maximum of 24 words of ODA translation data which is in core, backed up on disk, or is disk only data. This form is classed as a Recent Change Data Message (RCDM).

1.02 Up to 24 bits in a word can be altered by this message. For example, a word may be made up of several groups of bits. Let A thru F represent the groups. A 24 bit word might look like CFFFFEEDDDDDDDDAAAAAAABB. The letters represent the bits where a given item appears. To change the entire word, a size of 24 with a displacement of zero would be used. This means, "change 24 bits beginning zero places from the right."

A single item may be changed with the remaining bits left untouched. As an example, to change item A in the preceding word, a size of seven with a displacement of two would be used. Items E and F could be changed by specifying a size of 6 with a displacement of 17.

1.1.1 FORM ENTRIES

1.03 RC:FUNC;CHG;OPT(ENHABS),_ _ _:

Entries: blank, BUF, TST, ACT, FTA, FTB, FTT.

1.04 ADDRESS _ _ _ _ _ _ _ _ _ _,

If the ADDRESS contains input data, then this field will specify the starting address of a translation entry. The address must be an octal number (to the base eight). The program will check for valid address. For consecutive addresses, the field can be blank, but SIZE, DISP, OLDDATA, and NEWDATA must have input data.

1.05 DISP _ _,

This field identifies the right most bit position of the data to be changed within the specified translation word. The displacement of the data refers to the number of places (bits) from the right. In this case, the data specified in the NEWDATA field will be inserted in the translation word at a point displaced from the right most bit as specified by this field (DISP). The size of the data (SIZE) plus the displacement of the data (DISP) cannot exceed 24 (Decimal). Valid entries range from 0 to 23 (Decimal).

1.06 FSEG _ _,

The FSEG field specifies the File Segment that the translation words store. Valid entries are 0, 1, 2, or 3.

1.07 FSONLY _,

Enter a "Y" for Yes in this field if the data to be changed resides only in file store. Enter an "N" for No in this field if the data to be changed resides in main core or XS, backed up by file store. It is not possible to change the file store copy of a word that resides in main core or XS, with file store back up, by specifying the file store address and setting FSONLY to Y. If this is attempted an error message will be received.

1.08 NEWDATA _ _ _ _ _ _ _ _,

This field contains the NEWDATA to be inserted into the translation word. The right most bit position in this field will replace the right most bit of the data to be changed as specified by the DISP field. This field will contain an octal numbers from 0 to 77777777. The entry in this field may not exceed the number of bits to be changed as specified in the SIZE field.

1.09 OLDDATA _ _ _ _ _ _ _ _,

This field contains the *current* contents of the data in the translation word as specified by SIZE and DISP. The right most bit position of the data to be changed in this word will be replaced by the right most bit in the NEWDATA field. This field will contain an octal numbers from 0 to 77777777. The entry in this field may not exceed the number of bits to be changed as specified in the SIZE field.

1.10 ORNU _ _ _ _ _ _,

The Order Number identifies a particular Recent Change Message. This number may range from 1 to 999999. Each message in the buffered or test state must have a unique Order Number.

1.11 SIZE _ _,

The SIZE field specifies the number of bits to be changed in the translation word. This number can range from 1 to 24 (decimal).

```
# FORM 812  ENHANCED ABSOLUTE WORD CHANGE


RC:FUNC;CHG;OPT(ENHABS),---:    FSONLY -,  FSEG --,

ORNU ------,

 ADDRESS    SIZE    DISP     OLDDATA      NEWDATA

--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,
--------,    --,     --,    --------,    --------,

REMARKS ----------------------------------------------------!


                EQUIVALENT ODA INPUT FORM - NONE

                   ASSOCIATED VERIFY MESSAGE


                INPUT - 18a - VER:ABSOLUTE:ADR --------,CORE/DISK/XS!(EOT)


                OUTPUT - 8a - VER:ABSOLUTE,OPT(CORE/DISK/XS):
```

SECTION 10 ADMINISTRATIVE

SECTION	RC#	
10a	None	Request a form to be filled out (N=3 digit number).
10a	None	Cancel a buffered message (N=1 to 9999999).
10a	None	Output hard copy of a buffered message (N=1 to 9999999).
10a	None	Place a buffered message into test state (N=1 to 9999999).
10a	None	Activate a test state message (N=1 to 9999999).
10a	None	Clear the Recent Change disk buffer.
10a	None	Print order numbers contained in Recent Change disk message buffer.
10a	None	Print space remaining in Recent Change disk message buffer.
10a	None	Roll back the last Recent Change Message.
10a	None	Clear a channel of all forms.
10a	None	Print Order Number in Rollback Area in Reverse Chronological order.

ADMINISTRATIVE RECENT CHANGES

OP:RCFORM_!
RCCNL:RCBORNU_!
OP:RCBMSG,ORNU_!
RCTST:ORNU_!
RCACT:ORNU_!
CLR:RCB!
OP:RCBORNU!
OP:RCBSPACE!
OP:RCTORNU!
RCCNL:RCTORNU!
RCCNL:ROLLBACK!
CLR:CHAN!
OP:RCRORNU,_ _ _ _ _!

1. GENERAL

1.01 These messages are for Recent Change Administration. They are one-line messages that cause some action to take place in Recent Change. All of the messages are classed as Recent Change Action Messages (RCAM).

2. MESSAGE DESCRIPTION

2.01 OP:RCFORM_! This message is used to call up one of the Recent Change Data Message forms. These forms are referenced by a three-digit Recent Change number.

2.02 RCCNL:RCBORNU_! The RCCNL input cancels a previously buffered message. ORNU range is 1 to 999999.

2.03 OP:RCBMSG,ORNU_! This message request prints a copy of a buffered message. The buffered message is identified by an order number in the range of 1 to 999999.

2.04 RCTST:ORNU_! The RCTST message advances a buffered RCDM to the test state. The RCDM is identified by an order number from 1 to 999999.

For 4E8 and later Generic Programs, this message causes all defensive checks to be performed on the RCDM.

2.05 RCACT:ORNU_! This message activates a previously entered Recent Change that is in the test state. Identity is by order number in the range of 1 to 999999.

For 4E8 and later Generic Programs, this message activates a previously entered Recent Change that is in the buffer.

2.06 CLR:RCB! The CLR message causes all messages on the Recent Change disk buffer to be cleared.

2.07 OP:RCBORNU! A list of all order numbers in the Recent Change buffer is printed out, in ascending numerical order, via this message.

2.08 OP:RCBSPACE! This message prints the available buffer storage space as unused 32-word blocks.

2.09 RCCNL:ROLLBACK! 4E8 and later Generic Programs. This message causes the last Recent Change Message that was activated to be rolled back. Messages that potentially can cause machine disruption if rolled back must be rolled back with the UCL keyword.

2.10 CLR:CHAN! This message clears any and all displays from the channel on which it is input.

2.11 OP:RCRORNU,aaaa/N! This message is used to list the order numbers in the rollback area in reverse chronological order.

2.12 RCCNL:RCTORNU_! This message cancels a Recent Change that is presently in the test state. Identity is by order number in the range of 1 to 999999.

2.13 OP:RCTORNU! This message requests a printout of all order numbers that are presently in the test state.

A slash through a letter *a* indicates that this is an optional space. aaaa*/* indicates two possible entries: ALL or LAST.

N may be either a decimal number or TAPE.

When ALL is specified, all of the entries in the rollback area are listed. If a decimal is used with LAST, then the last "N" entries are listed. If TAPE is used with LAST, then all entries since the last translation tape dump are listed. If no entry is specified, this field will default to LAST TAPE.

This message is available for 4E1 and later Generic Programs.

REQUEST A FORM TO BE FILLED OUT (N= a 3 DIGIT RECENT CHANGE NUMBER)

OP:RCFORM N!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

VALID RECENT CHANGE NUMBERS FOR "N".

TSG	TRK	CODE	CAMA	RDB	MISC	UNITTYPE	SPECIAL
100	200	300	400	500	600	700	800
101	201	301	401	501	601	701	801
102	202	302	402	503	602	702	802
103	203	303	403	504	603		803
104	204	304	404	505	604		804
105	205	305	405	507	605		805
106	206	306	406	508	606		806
107	207	307		510	607		807
108	208	308		513	608		
109	209	309		514	609		
110		311		517	610		
111		313		519	611		
112		314		521	612		
		315		522	613		
		316		523	614		
		317		524	615		
		318		525	616		
		319			617		
		320			618		
		321			619		
		322			620		
		327			621		
		328			622		
		329			623		
		330			624		
		331			625		
		332			626		
		333			627		
		334			628		
		335			629		
		336			630		
		337			631		
		338			632		
					633		
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					636		
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					641		
					642		
					643		
					644		
					645		

FIGURE 1 - SHEET 1

RC MESSAGE #NONE - SAMPLE

CANCEL A BUFFERED MESSAGE (N=1 TO 999999)

RCCNL:RCBORNU N!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

FIGURE 1 - SHEET 2

RC MESSAGE #NONE - SAMPLE

OUTPUT HARD COPY OF A BUFFERED MESSAGE (N=1 TO 999999)

OP:RCBMSG,ORNU N!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

FIGURE 1 - SHEET 3

RC MESSAGE #NONE - SAMPLE

PLACE BUFFERED MESSAGE INTO TEST STATE (N=1 TO 999999)

RCTST:ORNU N!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

FIGURE 1 - SHEET 4

RC MESSAGE #NONE - SAMPLE

TEST A PREVIOUSLY BUFFERED MESSAGE (N=1 TO 999999)

RCTST:ORNU N!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

FIGURE 1 - SHEET 5

RC MESSAGE #NONE - SAMPLE

ACTIVATE A TEST STATE MESSAGE (N=1 TO 999999)

RCACT: ORNU N!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

FIGURE 1 - SHEET 6

RC MESSAGE #NONE - SAMPLE

TEST AND ACTIVATE A PREVIOUSLY BUFFERED MESSAGE (N=1 TO 999999)

RCACT: ORNU N!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

FIGURE 1 - SHEET 7

RC MESSAGE #NONE - SAMPLE

CLEAR THE RECENT CHANGE DISK BUFFER

CLR:RCB!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

FIGURE 1 - SHEET 8

RC MESSAGE #NONE - SAMPLE

PRINT ORDER NUMBERS CONTAINED IN RECENT CHANGE DISK MESSAGE BUFFER

OP:RCBORNU!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

FIGURE 1 - SHEET 9

RC MESSAGE #NONE - SAMPLE

REQUEST A PRINTOUT OF ALL ORDER NUMBERS IN THE TEST STATE

OP:RCTORNU!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

FIGURE 1 - SHEET 10

RC MESSAGE #NONE - SAMPLE

CANCEL A RECENT CHANGE MESSAGE THAT IS IN THE TEST STATE (N=1 TO 999999)

RCCNL:RCTORNUN!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

FIGURE 1 - SHEET 11

RC MESSAGE #NONE - SAMPLE

CLEAR A CHANNEL OF ALL FORMS

CLR:CHAN!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

FIGURE 1 - SHEET 12

RC MESSAGE #NONE - SAMPLE

PRINT ORDER NUMBERS IN ROLLBACK AREA IN REVERSE CHRONOLOGICAL ORDER

OP:RCRORNU,aaaa/...N!

EQUIVALENT ODA INPUT FORM - NONE

ASSOCIATED VERIFY MESSAGE - NONE

This message available for 4E1 and later Generic Programs.

FIGURE 1 - SHEET 13

RC MESSAGE #NONE - SAMPLE

TRANSLATION GUIDE

TG-4

DIVISION 8

VERIFICATION

VERIFICATION

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Section 3	Output Verify Messages - Code Grouping
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Section 5	Output Verify Messages - Routing Data Blocks
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INPUT VERIFY MESSAGES

Section 11	Input Verify Requests - Trunk Subgroup Characteristics
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Section 14	Input Verify Requests - CAMA Screening
Section 15	Input Verify Requests - Routing Data Blocks
Section 16	Input Verify Requests - Miscellaneous
Section 17	Input Verify Requests - Unit Type
Section 18	Input Verify Requests - Special

SECTION 1 - OUTPUT VERIFY MESSAGES

TRUNK SUBGROUP CHARACTERISTICS

SECTION	MESSAGE	
1a	Output 1a	Verify two-way Trunk Subgroup characteristics
1b	Output 1b	Verify one-way incoming Trunk Subgroup characteristics
1c	Output 1c	Verify one-way outgoing Trunk Subgroup characteristics
1d	Output 1d	Verify a list of trunks within a Trunk Subgroup
1e	Output 1e	Verify a list of Trunk Subgroups with one or more of the same specified characteristics
1f	Output 1f	Verify non-message Trunk Subgroup characteristics
1g	Output 1g	Verify CCIS Voice Frequency Link (VFL) Trunk Subgroup characteristics
1h	Output 1h	Verify the list of Traffic Number Blocks in each Trunk Subgroup in the Trunk Group
1i	Output 1i	Verification of Carrier Identification Parameter

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

VER:TSG,OPT(TWOWAY):

VERIFY OUTPUT #1a TWO-WAY TRUNK SUBGROUP CHARACTERISTICS

1. GENERAL

1.01 This message is used to verify translation data associated with two-way Trunk Subgroup characteristics. The verify input message specifies the Trunk Subgroup Circuit Identification Name (CIN). The output includes the specified CIN, Trunk Subgroup assignment status and characteristics.

1.02 Trunk Subgroup characteristic verifications are always accompanied by a list of trunks. This list is a separate verify message (Section 1d of this Division) even though it does not require a separate input.

2. FORM ENTRIES

2.01 VER:TSG,OPT(TWOWAY):

2.02 **ACCDTA** - Entries: blank.

2.03 **ACCID** - Entries: blank.

2.04 **ACD** - Automatic Call Distributor
Entries: blank, Y, N, or T.

2.05 **ADIG** - 'A' Digit Reconstruction
Entries: blank, 0, or 2 to 9.

2.06 **ANCR** - Entries: blank.

2.07 **ANISID** - ANI/SID Request
Entries: blank, NONE, ANI, PANI, PSID, REQ, or SID.

2.08 **AOPC** - Alias Origination Point Code
Entries: blank or

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

2.09 **ATRIG** - AIN TSG Trigger (4E22>)
Entries: Y or N.

2.10 **APS** - Accunet® Packet Service
Entries: blank, Y, or N.

2.11 **BFTIS** - Backward Failure Treatment all ISUP
Entries: blank, ANN, or REL.

2.12 **BFTNI** - Backward Failure Treatment not all ISUP
Entries: blank, ANN, or REL.

2.13 **BN** - Billing Number
Entries: blank, 3, 4, or 10 digit number.

2.14 **BNPT** - Entries: blank.

2.15 **BRL** - Billing Record Length
Entries: blank, L, or S.

2.16 **CAREA** - Control Area
Entries: 0 to 9.

2.17 **CARSON** - Entries: blank.

2.18 **CBC** - Entries: blank.

2.19 **CBN** - Incoming Trunk Connecting Network Access Billing Number option (4E22R2>)
Entries: blank, N, or L.

2.20 **CBN DIGS** - Incoming Trunk Connecting Network access Billing Number (4E22R2>)
Entries: blank or 10 digit number.

2.21 **CBNPR** - Calling Party Number/Billing Number Default Presentation Restriction Indicator
Entries: blank, PA, or PR.

2.22 **CCIF** - Entries: blank.

2.23 **CCIS2WRE** - Common Channel Interoffice Signaling 2Wire
Entries: blank, Y, or N.

2.24 **CCTT** - Entries: blank.

2.25 **CHNEG** - Channel Negotiation
Entries: blank, Y, or N.

2.26 **CID** - Carrier ID(4E20>)
Entries: blank or 0000 to 9999.

2.27 **CMERGE** - Entries: blank.

2.28 **CODSC** - CPE Outgoing Disconnect (<4E20) or CPE Outgoing Disconnect/Reset SS7 TSG PCIS Bits (4E21>)
Entries: blank, Y, or N.

2.29 **CPOS** - Control Position
Entries: 0 to 9.

2.30 **CSCSET** - Entries: blank.

2.31 **CSN** - Entries: blank.

2.32 **D3DBN** - Entries: blank.

2.33 **DATA** - Data Service
Entries: blank, Y, or N.

2.34 **DATAF** - Entries: blank.

2.35 **DDD** - Entries: blank.

2.36 **DELAY** - Delay Interval
Entries: blank, 20, 80, 220, or 70, 140, 210, or 280.

2.37 **DNHR** - Dynamic Non-Hierarchical Routing
Entries: Y or N.

2.38 **DNP** - Dialed Number Preferred
Entries: blank, Y, or N.

2.39 **DOFP** - Disable Outgoing Fraud Prevention
Entries: Y or N.

2.40 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.41 **DPC** - Destination Point Code
If PCF equals ATT, then DPC is composed of:

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

If PCF equals ANSI, then DPC is composed of:

— NET = 000 to 255.
— CLU = 000 to 255.
— MEM = 000 to 255.

If PCF equals ISPC, then DPC is composed of:

— WGZ = 1 to 7.
— ANI = 000 to 255.
— SPID = 0 to 7.

2.42 **DPSTOP** - Dial Pulse Stop
Entries: blank, Y, or N.

2.43 **E1T1** - Entries: blank.

2.44 **EACC** - Entries: blank.

2.45 **EAS** - Equal Access Signaling
Entries: N, A, E, D, or R.

2.46 **EXSEQ** - Entries: blank.

2.47 **FAI** - Entries: blank.

2.48 **FAR4E** - Far End 4E
Entries: blank, Y, or N.

2.49 **FEAREA** - Entries: blank.

2.50 **FELATA** - Far End Local Access and Transport Area
Entries: blank or 000 to 999.

2.51 **FELN** - Entries: blank.

2.52 **FENCLASS** - Far End Network Class
Entries: blank, ACCESA, ACCESI, ACCESO, ACU (4E24R2>), CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.53 **FENID** - Far End Network ID
Entries: blank or 1 to 6 alphanumeric characters.

2.54 **FENPA** - Far End Numbering Plan Area
Entries: 200 to 999 and, for international, 2 to 9 and 20 to 99.

2.55 **FEOFC** - Far End Office
Entries: blank or 000 to 999.

2.56 **FEPTY** - Entries: blank.

2.57 **FESC6** - Far End 6-Digit Screening
Entries: Y or N.

2.58 **FESWID** - Entries: blank.

2.59 **FLDSPR** - Entries: blank.

2.60 **FOLI** - Entries: blank.

2.61 **FOSPS** - Entries: blank.

2.62 **FVSR** - Entries: blank.

2.63 **GEOSEP** - Geographical Traffic Separation Class
Entries: 0 to 31.

2.64 **GLARE** - Glare Control
Entries: blank, A, E, O, N.

2.65 **GNSC** - Go/No Go Screening Class
Entries: 0 to 3.

2.66 **GSDN** - Entries: blank.

2.67 **GSDNPHSE** - Entries: blank.

2.68 **HUNT** - Entries: blank.

2.69 **HYBRD** - Entries: blank.

2.70 **IDDD** - Entries: blank.

2.71 **IFITR** - Entries: blank.

2.72 **INCID** - Number of Carrier ID digits to be received (4E18>)
Entries: blank, 3, 4, or B.

2.73 **INSEP** - Incoming Traffic Separation Class
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

2.74 **ISC** - Incoming Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMADG, DPIMMED, DTMFWK, DTS, INUP, ISUP, MFDDSD, MFOPWK, MFWINK, Q931, or TUP.

2.75 **IT** - Intertoll Treatment
Entries: blank, Y, or N.

2.76 **ITC** - Incoming Trunk Subgroup Class
Entries: blank or 0 to 3.

2.77 **ITCENC** - Information Transfer Capability (4E21>).
Entries: blank, Y, or N.

2.78 **ITELCO** - Entries: blank.

2.79 **IWZ1** - International World Zone 1
Entries: blank, Y, or N.

2.80 **IXC** - Entries: blank.

2.81 **LCVT** - Entries: blank.

2.82 **LNPIC** - A TSG field not used
Entries: blank.

2.83 **LRN** - Location Routing Number (4E22R2>)
Entries: blank or 10 digit number.

2.84 **LSST** - LATA/state Screening State (<4E21)
Entries: blank or two alphabetic characters.

2.85 **MEGC** - Entries: blank.

2.86 **MEM** - Trunk Hunt with Memory
Entries: blank, Y, or N.

2.87 **MFSPEED** - Multi-Frequency Speed
Entries: blank, 7, or 10.

2.88 **MTSC** - Multiple Treatment Screening Class
Entries: 0 to 63.

2.89 **MULAW** - A-law/Mu-law Encoding (4E18>)
Entries: blank, Y, or N.

2.90 **NCAR.tsg** - Entries: blank.

2.91 **NEOTR** - Near Operational Test Responsibility
Entries: Y or N.

2.92 **NPARINH** - Inhibit NPA Reconstruction
Entries: blank, Y, or N.

2.93 **OFITR** - Entries: blank.

2.94 **OFITR** - Entries: blank.

2.95 **OSC** - Outgoing Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMMED, DPWINK, DTMFWK, ICOPNOP, INUP, ISUP, MFDDSD, MFWINK, MIOPNOP, Q931, or TUP.

2.96 **OTMTN** - Operational Terminating Test Number
Entries: blank or 000 to 9999999.

2.97 **OTMTT** - Operational Terminating Test Type
Entries: N, ATMC, CTX2, CTX3, SXS, SYNC, or T103.

2.98 **OTSTN** - Operational Thru Switch Test Number
Entries: blank or 000 to 9999999.

2.99 **OTSTT** - Operational Thru Switch Test Type
Entries: N, ATMB, CTX2, CTX3, SXS, SYNC, or T103.

2.100 **OVLP** - Overlap Signaling
Entries: blank, Y, or N.

2.101 **OWAT** - Entries: blank.

2.102 **PBXAW** - PBX Answer Withheld
Entries: blank, Y, or N.

2.103 **PBXESGD** - PBX Expect Station Group Designation
Entries: blank, Y, or N.

2.104 **PBXNWW** - PBX No Wait for Wink
Entries: blank, Y, or N.

2.105 **PCF** - Point Code Format
Entries: blank, ATT, ANSI, or ISPC.

2.106 **PCPEACEL** - Entries: blank.

2.107 **PRIT** - Entries: blank.

2.108 **PSATP** - Prohibit Sending Access Transport Parameters
Entries: blank, Y, or N.

2.109 **PSBN** - Prohibit Sending Billing Number
Entries: blank, PNNA (4E18>), PALL (4E18>), or SALL (4E18>).

2.110 **PSCPN** - Prohibit Sending Calling Party Number
Entries: blank, Y, or N.

2.111 **PSES** - Prohibit Service Evaluation
Entries: blank, Y, or N.

2.112 **PSOLI** - Prohibit Sending Originating Line Identity
Entries: blank, Y, or N.

2.113 **PSTNG** - Entries: blank.

2.114 **PSUUI** - Prohibit Sending User-to-User Information
Entries: blank, Y, or N.

2.115

2.116 **QTFN** - Quantity of Traffic Numbers
Entries: 24 to 504 by 24s.

2.117 **REV** - Reverse Traffic Numbers
Entries: Y or N.

2.118 **REVAMP** - Entries: blank.

2.119 **RFA** - Ring Forward Allowed
Entries: Y or N.

2.120 **RFMP** - Ring Forward Miscellaneous Distributor Point
Entries: blank, Y, or N.

2.121 **S1** - Spare 1
Entries: blank or 0 to 7.

2.122 **S2-S10** - Spares 2 through 10
Entries: blank, Y, or N.

2.123 **S5DIG** - Entries: blank.

2.124 **SAT** - Satellite
Entries: Y or N.

2.125 **SBRIV** - Entries: blank.

2.126 **SCFN** - Send Confusion Message
Entries: blank, Y, or N.

2.127 **SDNA** - Entries: blank.

2.128 **SDNPLAN** - Entries: blank.

2.129 **SDS** - Entries: blank.

2.130 **SINDEX** - Access Charge Verification Sampling Rate Index
Entries: blank, 0, 1, 2, 4, 8, 16, 32, or 64.

2.131 **SKSP** - Entries: blank.

2.132 **SOIP** - Entries: blank.

2.133 **SPN** - Signal Ported Number (4E22R2>)
Entries: blank, Y, or N.

2.134 **STBI** - Entries: blank.

2.135 **SUPBLK** - Entries: blank.

2.136 **TCC** - Entries: blank.

2.137 **TFG** - Type of Feature Group
Entries: blank, B, C, or D.

2.138 **TOT** - Type of Trunk
Entries: ETC, INTL, INTLO, ITAND, ITOLL, ITOPA, LCC, NSDSD, OCC, PBX, SECIT, STC, TAND, or TOLLC.

2.139 **TRIDX** - Entries: blank.

2.140 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.141 **TTA** - Entries: blank.

2.142 **TSGBBC** - TSG BroadBand Capability
Entries: blank or 0 to 6.

2.143 **UT15DA** - Entries: blank.

2.144 **VDCAP** - Entries: blank.

2.145 **WANISID** - WATS Service ANI/SID Request
Entries: blank, NONE, ANI, PANI, PSID, REQ, or SID.

2.146 **WATSBN** - WATS Billing Number
Entries: blank or 10 digit number.

2.147 **WBNPT** - Entries: blank.

2.148 **XCPA** - Transceiver (XC) Pad Adjustment
Entries: blank or 0 to 3.

2.149 **XTMTN** - Transmission Terminating Test Number
Entries: blank or 000 to 9999999.

2.150 **XTMTT** - Transmission Terminating Test Type
Entries: N, T100, T102, or T105.

2.151 **XTSTN** - Transmission Thru Switch Test Number
Entries: blank or 000 to 9999999.

2.152 **XTSTT** - Transmission Thru Switch Test Type
Entries: N, ATMA, T100, T102, or T105.

2.153 The following output format will be printed if the Trunk Subgroup Number(s) (TSGNs) being verified is unassigned in current translations.

VER:TSG QTSGN ____, FTSGN ____

UNASSIGNED

2.154 **QTSGN** - Quantity of Trunk Subgroup Numbers
Entries: 1 to 4095.

2.155 **FTSGN** - First Trunk Subgroup Number
Entries: 1 to 4095.

2.156 **UNASSIGNED**

This phrase indicates current translation data does not exist for the specified TSGN(s).

INPUT: VERIFY 11a/11c

INPUT-11a-VER:TSG:CIN a!(EOT)

a = Circuit Identification Name (CIN) for the Trunk Subgroup. However, any traffic number within the existing TSG may be entered. Internal programs will translate this number to the actual BTFN. Verify output data will reflect the actual internal BTFN.

INPUT-11c-VER:TSG:TSGN a!(EOT)

a = Enter a valid Trunk Subgroup Number (TSGN) in the range of 1 to 4095.

OUTPUT: VERIFY 1a

```
VER:TSG,OPT(TWOWAY):                                    BTFN TOWN ST BL FBS NBS

                                                    TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                         DPC ---------,

FENCLASS ------, FENID ------,          TFG -, TSGBBC -, VDCAP -----, DATAF -,
QTFN ---,   TOT -----, SAT -,           DOM ----, ACD -,  IT -,
FENPA ---,  FEOFC ---, FELATA ---,      FESC6 -,  IWZ1 -, LSST --,
MEM -,      PSES -,    INSEP ---,       MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                    CCIS2WRE -, CBNPR ---,
OSC -------, RFMP -,   DPSTOP -,        DELAY ---,   MFSPEED --, DNHR -,
XCPA -,      DNP -,                     REV -,       GLARE -,    PSOLI -,

BN ----------, BRL -,  ITC -,  GSDN -,  GSDNPHSE -,  EAS -,      NPARINH -,
WATSBN ----------, PSBN ----, PSCPN -,  ANISID ----, WANISID ----, PSUUI -,
BNPT ----, WBNPT ----,   CMERGE -,      SCFN -,  OVLP -,  PRIT ------,
APS -, CHNEG -, PSATP -, PBXESGD -,     PBXAW -, FAR4E -, DOFP -, SBRIV -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,  DDD -, IDDD -,    FOSPS -, CCIF -,
SDNPLAN ----, BFTIS ---, BFTNI ---,     SKSP -, PBXNWW -, HYBRD -,
INCID -, ITELCO -,
ONCID -, D3DBN -, MULAW -,
ANCR -,  ACCID --,  ACCDTA --,

CAREA -,    CPOS -,   SINDEX --,        CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,             OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,             XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -,           S6 -, S7 -, S8 -, S9 -, S10 -,
```

ODA INPUT SOURCE - ESS 401A
RECENT CHANGE INPUT SOURCE - FORM #100 - RC:TSG;NEW;OPT(TWOWAY),- - -:

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1a

VER:TSG,OPT(TWOWAY):                              BTFN TOWN ST BL FBS NBS

                                                TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                     DPC ---------,

FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----, DATAF -,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,  IT -, FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -, LSST --,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                       CCIS2WRE -, CBNPR ---,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --, DNHR -,
XCPA -,      DNP -,                      REV -,       GLARE -,    PSOLI -,

BN ----------, BRL -,  ITC -,  GSDN -,   GSDNPHSE -,  EAS -,      NPARINH -,
WATSBN ----------, PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----, WBNPT ----,   CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -, CHNEG -, PSATP -, PBXESGD -,      PBXAW -, FAR4E -, DOFP -, SBRIV -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -, CCIF -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -,
INCID -, ITELCO -, S5DIG -,
ONCID -, D3DBN -, MULAW -,  CSCSET ------, CID ----,
ANCR -,  ACCID --,  ACCDTA --, PSTNG -, FLDSPR -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -,            S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #100 - RC:TSG;NEW;OPT(TWOWAY),- - -:

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1a

VER:TSG,OPT(TWOWAY):                              BTFN TOWN ST BL FBS NBS

                                                TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                     DPC ---------,

FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----, DATAF -,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
QTFN ---,   TOT -----, SAT -,             DOM ----, ACD -,  IT -, FAI -,
FENPA ---,  FEOFC ---, FELATA ---,        FESC6 -,  IWZ1 -, LSST --,
MEM -,      PSES -,    INSEP ---,         MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                        CCIS2WRE -, CBNPR ---,
OSC -------, RFMP -,   DPSTOP -,          DELAY ---,   MFSPEED --, DNHR -,
XCPA -,      DNP -,                       REV -,       GLARE -,    PSOLI -,

BN ----------, BRL -,  ITC -,  GSDN -,    GSDNPHSE -,  EAS -,      NPARINH -,
WATSBN ----------, PSBN ----, PSCPN -,    ANISID ----, WANISID ----, PSUUI -,
BNPT ----, WBNPT ----,   CMERGE -,        SCFN -,  OVLP -,  PRIT ------,
APS -, CHNEG -, PSATP -, PBXESGD -,       PBXAW -, FAR4E -, DOFP -, SBRIV -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,    DDD -, IDDD -,    FOSPS -, CCIF -,
SDNPLAN ----, BFTIS ---, BFTNI ---,       SKSP -, PBXNWW -, HYBRD -,
INCID -, ITELCO -, S5DIG -,
ONCID -, D3DBN -, MULAW -,  CSCSET ------, CID ----,
ANCR -,  ACCID ---,  ACCDTA --, PSTNG -, FLDSPR -,

CAREA -,    CPOS -,   SINDEX --,          CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,               OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,               XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -,             S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #100 - RC:TSG;NEW;OPT(TWOWAY),- - -:

INPUT: VERIFY 11a/11c

INPUT-11a-VER:TSG:CIN a!(EOT)

a = Circuit Identification Name (CIN) for the Trunk Subgroup. However, any traffic number within the existing TSG may be entered. Internal programs will translate this number to the actual BTFN. Verify output data will reflect the actual internal BTFN.

INPUT-11c-VER:TSG:TSGN a!(EOT)

a = Enter a valid Trunk Subgroup Number (TSGN) in the range of 1 to 4095.

OUTPUT: VERIFY 1a

```
VER:TSG,OPT(TWOWAY):                                BTFN TOWN ST BL FBS NBS

                                                 TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                      DPC ---------,

FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----, DATAF -,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,  IT -, FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -, LSST --,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                        CCIS2WRE -, CBNPR ---,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --, DNHR -,
XCPA -,      DNP -,                      REV -,       GLARE -,    PSOLI -,

BN ----------, BRL -,  ITC -,  GSDN -,   GSDNPHSE -,  EAS -,      NPARINH -,
WATSBN ----------, PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----, WBNPT ----,   CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -, CHNEG -, PSATP -, PBXESGD -,      PBXAW -, FAR4E -, DOFP -, SBRIV -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -, CCIF -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -,
INCID -, ITELCO -, S5DIG -, SDS -,  FVSR -,    IFITR -, PCPEACEL -,
ONCID -, D3DBN -, MULAW -, CSCSET -----,  CID ----, ITCENC -,  OFITR -,
ANCR -,  ACCID ---, PSTNG -, FLDSPR -,  REVAMP -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -,            S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #100 - RC:TSG;NEW;OPT(TWOWAY),- - -:

VERIFY TWO-WAY TRUNK SUBGROUP CHARACTERISTICS
4E21 GENERIC PROGRAM

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.

OUTPUT:                   VERIFY 1a

VER:TSG,OPT(TWOWAY):                              BTFN TOWN ST BL FBS NBS

                                                 TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                      DPC ---------,

FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----, DATAF -,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,  IT -, FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                       CCIS2WRE -, CBNPR ---,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --, DNHR -,
XCPA -,      DNP -,                      REV -,       GLARE -,    PSOLI -,

BN ----------, BRL -,  ITC -,  GSDN -,   GSDNPHSE -,  EAS -,      NPARINH -,
WATSBN ----------, PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----, WBNPT ----,   CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -, CHNEG -, PSATP -, PBXESGD -,      PBXAW -, FAR4E -, DOFP -, SBRIV -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -, CCIF -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -,
INCID -, ITELCO -, S5DIG -, SDS -,  FVSR -,    IFITR -, PCPEACEL -, UT15DA -,
LRN ----------, CBN DIGS ----------, CBN -,
ONCID -, D3DBN -, MULAW -, CSCSET -----,  CID ----, ITCENC -,  OFITR -,
SPN -, LNPIC -,
ANCR -,  ACCID ---, PSTNG -, FLDSPR -,  REVAMP -, E1T1 -,  SUPBLK -, ATRIG -,
IXC -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -,            S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #100 - RC:TSG;NEW;OPT(TWOWAY),- - -:

VERIFY TWO-WAY TRUNK SUBGROUP CHARACTERISTICS
4E22 GENERIC PROGRAM

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.

OUTPUT:                   VERIFY 1a

VER:TSG,OPT(TWOWAY):                              BTFN TOWN ST BL FBS NBS

                                                TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                     DPC ---------,

FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----, DATAF -,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,  IT -, FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                       CCIS2WRE -, CBNPR ---,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --, DNHR -,
XCPA -,      DNP -,                      REV -,       GLARE -,    PSOLI -,

BN ----------, BRL -,  ITC -,  GSDN -,   GSDNPHSE -,  EAS -,      NPARINH -,
WATSBN ----------, PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----, WBNPT ----,   CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -, CHNEG -, PSATP -, PBXESGD -,      PBXAW -, FAR4E -, DOFP -, SBRIV -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -, CCIF -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -, CCTT -,
INCID -, ITELCO -, S5DIG -, SDS -,  FVSR -,    IFITR -, PCPEACEL -, UT15DA -,
LRN ----------, CBN DIGS ----------, CBN -,
ONCID -, D3DBN -, MULAW -, CSCSET -----,  CID ----, ITCENC -,  OFITR -,
SPN -, LNPIC -,
ANCR -,  ACCID ---, PSTNG -, FLDSPR -,  REVAMP -, E1T1 -,  SUPBLK -, ATRIG -,
IXC -, FOLI -, FELN -, HUNT --, CSN --,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -,            S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #100 - RC:TSG;NEW;OPT(TWOWAY),- - -:

VERIFY TWO-WAY TRUNK SUBGROUP CHARACTERISTICS
4E23R1 GENERIC PROGRAM

INPUT: VERIFY 11a/11c

INPUT-11a-VER:TSG:CIN a!(EOT)

a = Circuit Identification Name (CIN) for the Trunk Subgroup. However, any traffic number within the existing TSG may be entered. Internal programs will translate this number to the actual BTFN. Verify output data will reflect the actual internal BTFN.

INPUT-11c-VER:TSG:TSGN a!(EOT)

a = Enter a valid Trunk Subgroup Number (TSGN) in the range of 1 to 4095.

OUTPUT: VERIFY 1a

```
     VER:TSG,OPT(TWOWAY):                                  BTFN TOWN ST BL FBS NBS

                                                        TSG ---- ---- -- -- --- ---,
     PCF ----,   AOPC ------------,                     DPC ------------,

     FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----, DATAF -,
     FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
     QTFN ----,  TOT -----, SAT -,          DOM ----, ACD -,  IT -,  FAI -,
     FENPA ---,  FEOFC ---, FELATA ---,     FESC6 -,  IWZ1 -,
     MEM -,      PSES -,    INSEP ---,      MTSC --,  GNSC -, GEOSEP --,

     ISC -------, RFA -,    ADIG -,                      CCIS2WRE -, CBNPR --,
     OSC -------, RFMP -,   DPSTOP -,       DELAY ---,   MFSPEED --, DNHR -,
     XCPA -,      DNP -,                    REV -,       GLARE -,    PSOLI -,

     BN ----------, BRL -,  ITC -,  GSDN -, GSDNPHSE -,  EAS -,      NPARINH -,
     WATSBN ----------, PSBN ----, PSCPN -, ANISID ----, WANISID ----, PSUUI -,
     BNPT ----,   WBNPT ----, CMERGE -,     SCFN -,  OVLP -,  PRIT ------,
     APS -, CHNEG -, PSATP -, PBXESGD -,    PBXAW -, FAR4E -, DOFP -, SBRIV -,
     MEGC -, SDNA -, OWAT -, DATA -, CBC -, DDD -, IDDD -,    FOSPS -, CCIF -,
     SDNPLAN ----, BFTIS ---, BFTNI ---,    SKSP -, PBXNWW -, HYBRD -, CCTT -,
     INCID -, ITELCO -,  S5DIG -, SDS -,  FVSR -,   IFITR -, PCPEACEL -, UT15DA -,
     LRN ----------, CBN DIGS ----------, CBN -,
     ONCID -, D3DBN -,   MULAW -,   CSCSET ------, CID ----, ITCENC -, OFITR -,
     SPN -, LNPIC -, NCAR -, TTA -,
     ANCR -,  ACCID ---, PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
     IXC -, FOLI -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

     CAREA  -,   CPOS  -,    SINDEX --,     CODSC -,    NEOTR -,    TRIDX --,
     OTSTT ----, OTSTN --------,            OTMTT ----, OTMTN --------,
     XTSTT ----, XTSTN --------,            XTMTT ----, XTMTN --------,

     S1 -, S2 -, S3 -, S4 -, S5 -,          S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #100 - RC:TSG;NEW;OPT(TWOWAY),- - -:

VERIFY TWO-WAY TRUNK SUBGROUP CHARACTERISTICS
4E24 GENERIC PROGRAM

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.

OUTPUT:                   VERIFY 1a

     VER:TSG,OPT(TWOWAY):                                BTFN TOWN ST BL FBS NBS

                                                      TSG ---- ---- -- -- --- ---,
     PCF ----,   AOPC ------------,                   DPC ------------,

     FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----, DATAF -,
     FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
     QTFN ----,  TOT -----, SAT -,          DOM ----, ACD -,  IT -,  FAI -,
     FENPA ---,  FEOFC ---, FELATA ---,     FESC6 -,  IWZ1 -,
     MEM -,      PSES -,    INSEP ---,      MTSC --,  GNSC -, GEOSEP --,

     ISC -------, RFA -,    ADIG -,                      CCIS2WRE -, CBNPR --,
     OSC -------, RFMP -,   DPSTOP -,       DELAY ---,   MFSPEED --, DNHR -,
     XCPA -,      DNP -,                    REV -,       GLARE -,    PSOLI -,

     BN ----------, BRL -,  ITC -,  GSDN -, GSDNPHSE -,  EAS -,      NPARINH -,
     WATSBN ----------, PSBN ----, PSCPN -, ANISID ----, WANISID ----, PSUUI -,
     BNPT ----,   WBNPT ----, CMERGE -,     SCFN -,  OVLP -,  PRIT ------,
     APS -, CHNEG -, PSATP -, PBXESGD -,    PBXAW -, FAR4E -, DOFP -, SBRIV -,
     MEGC -, SDNA -, OWAT -, DATA -, CBC -, DDD -, IDDD -,    FOSPS -, CCIF -,
     SDNPLAN ----, BFTIS ---, BFTNI ---,    SKSP -, PBXNWW -, HYBRD -, CCTT -,
     INCID -, ITELCO -,  S5DIG -, SDS -,  FVSR -,   IFITR -, PCPEACEL -, UT15DA -,
     LRN ----------, CBN DIGS ----------, CBN -,
     ONCID -, D3DBN -,   MULAW -,   CSCSET ------, CID ----, ITCENC -, OFITR -,
     SPN -, LNPIC -, NCAR -, TTA -, BNI -, EACC --, LCVT -, QPE -, NSA -,         |
     ANCR -,  ACCID ---, PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
     IXC -, FOLI -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

     CAREA  -,   CPOS  -,    SINDEX --,     CODSC -,    NEOTR -,    TRIDX --,
     OTSTT ----, OTSTN --------,            OTMTT ----, OTMTN --------,
     XTSTT ----, XTSTN --------,            XTMTT ----, XTMTN --------,

     S1 -, S2 -, S3 -, S4 -, S5 -,          S6 -, S7 -, S8 -, S9 -, S10 -,

         RECENT CHANGE INPUT SOURCE - FORM #100 - RC:TSG;NEW;OPT(TWOWAY),- - -:
```

VERIFY TWO-WAY TRUNK SUBGROUP CHARACTERISTICS
4E25 GENERIC PROGRAM

VER:TSG,OPT(IN1WAY):

VERIFY OUTPUT #1b ONE-WAY INCOMING TRUNK SUBGROUP CHARACTERISTICS

1. GENERAL

1.01 This message is used to verify translation data associated with one-way incoming Trunk Subgroup characteristics. The verify input message specifies the Trunk Subgroup Circuit Identification Name (CIN). The output includes the specified CIN, Trunk Subgroup assignment status and characteristics.

1.02 Trunk Subgroup characteristic verifications are always accompanied by a list of trunks. This list is a separate verify message (Section 1d of this Division) even though it does not require a separate input.

2. FORM ENTRIES

2.01 VER:TSG,OPT(IN1WAY):

2.02 **ACCDTA** - Entries: blank.

2.03 **ACCID** - Entries: blank.

2.04 **ADIG** - 'A' Digit Reconstruction
Entries: blank, 0, or 2 to 9.

2.05 **ANCR** - Entries: blank.

2.06 **AOPC** - Alias Origination Point Code
Entries: blank or

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

2.07 **APS** - Accunet® Packet Service
Entries: blank, Y, or N.

2.08 **ATRIG** - AIN TSG Trigger (4E22>)
Entries: Y or N.

2.09 **BFTIS** - Backward Failure Treatment all ISUP
Entries: blank, ANN, or REL.

2.10 **BFTNI** - Backward Failure Treatment not all ISUP
Entries: blank, ANN, or REL.

2.11 **BN** - Billing Number
Entries: blank, 3, 4, or 10 digit number.

2.12 **BNPT** - Entries: blank.

2.13 **BRL** - Billing Record Length
Entries: blank, L, or S.

2.14 **CAREA** - Control Area
Entries: 0 to 9.

2.15 **CARSON** - Entries: blank.

2.16 **CBC** - Entries: blank.

2.17 **CBN** - Incoming Trunk Connecting Network Access Billing Number option (4E22R2>)
Entries: blank, N, or L.

2.18 **CBN DIGS** - Incoming Trunk Connecting Network access Billing Number (4E22R2>)
Entries: blank or 10 digit number.

2.19 **CBNPR** - Calling Party Number/Billing Number Default Presentation Restriction Indicator
Entries: blank, PA, or PR.

2.20 **CCIS2WRE** - Common Channel Interoffice Signaling 2Wire
Entries: blank, Y, or N.

2.21 **CCTT** - Entries: blank.

2.22 **CID** - Carrier ID(4E23>)
Entries: blank or 0000 to 9999.

2.23 **CMERGE** - Entries: blank.

2.24 **CMTYP** - CAMA Type
Entries: blank, 1, or 2.

2.25 **CPOS** - Control Position
Entries: 0 to 9.

2.26 **CSN** - Entries: blank.

2.27 **DATA** - Data Service
Entries: blank, Y, or N.

2.28 **DDD** - Entries: blank.

2.29 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.30 **DPC** - Destination Point Code
If PCF equals ATT, then DPC is composed of:

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

If PCF equals ANSI, then DPC is composed of:

— NET = 000 to 255.
— CLU = 000 to 255.

— MEM = 000 to 255.

If PCF equals ISPC, then DPC is composed of:

— WGZ = 1 to 7.
— ANI = 000 to 255.
— SPID = 0 to 7.

2.31 **E1T1** - Entries: blank.

2.32 **EACC** - Entries: blank.

2.33 **EAS** - Equal Access Signaling
Entries: N, A, E, D, or R.

2.34 **FAI** - Entries: blank.

2.35 **FAR4E** - Far End 4E
Entries: blank, Y, or N.

2.36 **FELATA** - Far End Local Access and Transport Area
Entries: blank or 000 to 999.

2.37 **FELN** - Entries: blank.

2.38 **FENCLASS** - Far End Network Class
Entries: blank, ACCESA, ACCESI, ACCESO, ACU (4E24R2>), CAMA, CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.39 **FENID** - Far End Network ID
Entries: blank or 1 to 6 alphanumeric characters.

2.40 **FENPA** - Far End Numbering Plan Area
Entries: 200 to 999 and, for international, 2 to 9 and 20 to 99.

2.41 **FEOFC** - Far End Office
Entries: blank or 000 to 999.

2.42 **FESC6** - Far End 6-Digit Screening
Entries: Y or N.

2.43 **FLDSPR** - Entries: blank.

2.44 **FOSPS** - Entries: blank.

2.45 **FVSR** - Entries: blank.

2.46 **GEOSEP** - Geographical Traffic Separation Class
Entries: 0 to 31.

2.47 **GNSC** - Go/No Go Screening Class
Entries: 0 to 3.

2.48 **GSDN** - Entries: blank.

2.49 **GSDNPHSE** - Entries: blank.

2.50 **HUNT** - Entries: blank.

2.51 **HYBRD** - Entries: blank.

2.52 **IDDD** - Entries: blank.

2.53 **IFITR** - Entries: blank.

2.54 **INCID** - Number of Carrier ID digits to be received (4E18>)
Entries: blank, 3, 4, or B.

2.55 **INSEP** - Incoming Traffic Separation Class
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

2.56 **ISC** - Incoming Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMADG, DPIMMED, DPIMPSW, DTMFWK, DTS, INUP, ISUP, MFDDSD, MFOPWK, MFWINK, Q931, TOLLMFD, TSPSMFD, TSPSMFW, or TUP.

2.57 **IT** - Intertoll Treatment
Entries: blank, Y, or N.

2.58 **ITC** - Incoming Trunk Subgroup Class
Entries: blank or 0 to 3.

2.59 **ITELCO** - Entries: blank.

2.60 **IWZ1** - International World Zone 1
Entries: blank, Y, or N.

2.61 **IXC** - Entries: blank.

2.62 **LCVT** - Entries: blank.

2.63 **LRN** - Location Routing Number (4E22R2>)
Entries: blank or 10 digit number.

2.64 **LSST** - LATA/state Screening State (<4E21)
Entries: blank or two alphabetic characters.

2.65 **MEGC** - Entries: blank.

2.66 **MEM** - Trunk Hunt with Memory
Entries: blank, Y, or N.

2.67 **MTSC** - Multiple Treatment Screening Class
Entries: 0 to 63.

2.68 **NCAR.tsg** - Entries: blank.

2.69 **NPARINH** - Inhibit NPA Reconstruction
Entries: blank, Y, or N.

2.70 **OFITR** - Entries: blank.

2.71 **OVLP** - Overlap Signaling
Entries: blank, Y, or N.

2.72 **OWAT** - Entries: blank.

2.73 **PBXAW** - PBX Answer Withheld
Entries: blank, Y, or N.

2.74 **PBXESGD** - PBX Expect Station Group Designation
Entries: blank, Y, or N.

2.75 **PBXNWW** - PBX No Wait for Wink
Entries: blank, Y, or N.

2.76 **PCF** - Point Code Format
Entries: blank, ATT, ANSI, or ISPC.

2.77 **PCPEACEL** - Entries: blank.

2.78 **PRIT** - Entries: blank.

2.79 **PSATP** - Prohibit Sending Access Transport Parameters
Entries: blank, Y, or N.

2.80 **PSES** - Prohibit Service Evaluation
Entries: blank, Y, or N.

2.81 **PSTNG** - Entries: blank.

2.82 **PSUUI** - Prohibit Sending User-to-User Information
Entries: blank, Y, or N.

2.83

2.84 **QTFN** - Quantity of Traffic Numbers
Entries: 24 to 504 by 24s.

2.85 **REVAMP** - Entries: blank.

2.86 **RFA** - Ring Forward Allowed
Entries: Y or N.

2.87 **S1** - Spare 1
Entries: blank or 0 to 7.

2.88 **S2-S10** - Spares 2 through 10
Entries: blank, Y, or N.

2.89 **S5DIG** - Entries: blank.

2.90 **SAT** - Satellite
Entries: Y or N.

2.91 **SCFN** - Send Confusion Message
Entries: blank, Y, or N.

2.92 **SDNA** - Entries: blank.

2.93 **SDNPLAN** - Entries: blank.

2.94 **SDS** - Entries: blank.

2.95 **SINDEX** - Access Charge Verification Sampling Rate Index
Entries: blank, 0, 1, 2, 4, 8, 16, 32, or 64.

2.96 **SKSP** - Entries: blank.

2.97 **SOIP** - Entries: blank.

2.98 **STBI** - Entries: blank.

2.99 **SUPBLK** - Entries: blank.

2.100 **TCC** - Entries: blank.

2.101 **TFG** - Type of Feature Group
Entries: blank, B, C, or D.

2.102 **TOT** - Type of Trunk
Entries: CAMAA, CAMAO, ETC, INTL, INTLO, ITAND, ITOLL, ITOP, ITOPB, LCC, MISC, OCC, PBX, SECIT, STC, TAND, TOLLC, or TSPS.

2.103 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.104 **TSGBBC** - TSG BroadBand Capability
Entries: blank or 0 to 6.

2.105 **TTA** - Entries: blank.

2.106 **UT15DA** - Entries: blank.

2.107 **WATSBN** - WATS Billing Number
Entries: blank or 10 digit number.

2.108 **WBNPT** - Entries: blank.

2.109 The following output format will be printed if the Trunk Subgroup Number(s) (TSGNs) being verified is unassigned in current translations.

VER:TSG QTSGN ____, FTSGN ____

UNASSIGNED

2.110 **QTSGN** - Quantity of Trunk Subgroup Numbers
Entries: 1 to 4095.

2.111 **FTSGN** - First Trunk Subgroup Number
Entries: 1 to 4095.

2.112 **UNASSIGNED**
This phrase indicates current translation data does not exist for the specified TSGN(s).

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1b

VER:TSG,OPT(IN1WAY):                                    BTFN TOWN ST BL FBS NBS

                                                    TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                         DPC ---------,

FENCLASS ------, FENID ------,          TFG -,    TSGBBC -,

QTFN ---,   TOT -----, SAT -,          DOM ----,         IT -,
FENPA ---,  FEOFC ---, FELATA ---,     FESC6 -,  IWZ1 -, LSST --,
MEM -,      PSES -,    INSEP ---,      MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                    CCIS2WRE -, CBNPR ---,

BN ----------, BRL -,  ITC -,  GSDN -, GSDNPHSE -, EAS -, CMTYP -, NPARINH -,
WATSBN ----------,                                                   PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,     SCFN -,  OVLP -,  PRIT ------,
APS -,          PSATP -, PBXESGD -,    PBXAW -, FAR4E -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -, DDD -, IDDD -,    FOSPS -,
SDNPLAN ----, BFTIS ---, BFTNI ---,    SKSP -, PBXNWW -, HYBRD -,
INCID -, ITELCO -,
ANCR -,  ACCID --,  ACCDTA --,

CAREA -,    CPOS -,   SINDEX --,

S1 -, S2 -, S3 -, S4 -, S5 -,          S6 -, S7 -, S8 -, S9 -, S10 -,
```

ODA INPUT SOURCE - ESS 401B

RECENT CHANGE INPUT SOURCE - FORM #101 - RC:TSG;NEW;OPT(IN1WAY),- - -:

INPUT: VERIFY 11a/11c

INPUT-11a-VER:TSG:CIN a!(EOT)

a = Circuit Identification Name (CIN) for the Trunk Subgroup. However, any traffic number within the existing TSG may be entered. Internal programs will translate this number to the actual BTFN. Verify output data will reflect the actual internal BTFN.

INPUT-11c-VER:TSG:TSGN a!(EOT)

a = Enter a valid Trunk Subgroup Number (TSGN) in the range of 1 to 4095.

OUTPUT: VERIFY 1b

```
VER:TSG,OPT(IN1WAY):                                    BTFN TOWN ST BL FBS NBS

                                                      TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                           DPC ---------,

FENCLASS ------, FENID ------,          TFG -,    TSGBBC -,

QTFN ---,   TOT -----, SAT -,          DOM ----,         IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,     FESC6 -,  IWZ1 -, LSST --,
MEM -,      PSES -,    INSEP ---,      MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                      CCIS2WRE -, CBNPR ---,

BN ----------, BRL -,  ITC -,  GSDN -, GSDNPHSE -, EAS -, CMTYP -, NPARINH -,
WATSBN ----------,                                                    PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,     SCFN -,  OVLP -,  PRIT ------,
APS -,          PSATP -, PBXESGD -,    PBXAW -, FAR4E -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -, DDD -, IDDD -,    FOSPS -,
SDNPLAN ----, BFTIS ---, BFTNI ---,    SKSP -, PBXNWW -, HYBRD -,
INCID -, ITELCO -, S5DIG -,
ANCR -,  ACCID --,  ACCDTA --, PSTNG -, FLDSPR -,

CAREA -,    CPOS -,   SINDEX --,

S1 -, S2 -, S3 -, S4 -, S5 -,          S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #101 - RC:TSG;NEW;OPT(IN1WAY),- - -:

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1b

VER:TSG,OPT(IN1WAY):                                    BTFN TOWN ST BL FBS NBS

                                                    TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                         DPC ---------,

FENCLASS ------, FENID ------,          TFG -,    TSGBBC -,

QTFN ---,   TOT -----, SAT -,          DOM ----,         IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,     FESC6 -,  IWZ1 -, LSST --,
MEM -,      PSES -,    INSEP ---,      MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                      CCIS2WRE -, CBNPR ---,

BN ----------, BRL -,  ITC -,  GSDN -, GSDNPHSE -, EAS -, CMTYP -, NPARINH -,
WATSBN ----------,                                                    PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,     SCFN -,  OVLP -,  PRIT ------,
APS -,          PSATP -, PBXESGD -,    PBXAW -, FAR4E -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -, DDD -, IDDD -,    FOSPS -,
SDNPLAN ----, BFTIS ---, BFTNI ---,    SKSP -, PBXNWW -, HYBRD -,
INCID -, ITELCO -, S5DIG -,
ANCR -,  ACCID ---,  ACCDTA --, PSTNG -, FLDSPR -,

CAREA -,    CPOS -,   SINDEX --,

S1 -, S2 -, S3 -, S4 -, S5 -,          S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #101 - RC:TSG;NEW;OPT(IN1WAY),- - -:

```
INPUT:                    VERIFY 11a/11c

                INPUT-11a-VER:TSG:CIN a!(EOT)

                a = Circuit Identification Name (CIN) for the Trunk
                    Subgroup.  However, any traffic number within
                    the existing TSG may be entered.  Internal
                    programs will translate this number to the
                    actual BTFN.  Verify output data will reflect
                    the actual internal BTFN.

                INPUT-11c-VER:TSG:TSGN a!(EOT)

                a = Enter a valid Trunk Subgroup Number (TSGN) in
                    the range of 1 to 4095.


OUTPUT:                   VERIFY 1b

VER:TSG,OPT(IN1WAY):                                    BTFN TOWN ST BL FBS NBS

                                                      TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                           DPC ---------,

FENCLASS ------, FENID ------,          TFG -,    TSGBBC -,

QTFN ---,   TOT -----, SAT -,           DOM ----,         IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,      FESC6 -,  IWZ1 -, LSST --,
MEM -,      PSES -,    INSEP ---,       MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                      CCIS2WRE -, CBNPR ---,

BN ----------, BRL -,  ITC -,  GSDN -, GSDNPHSE -, EAS -, CMTYP -, NPARINH -,
WATSBN ----------,                                                    PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,      SCFN -,  OVLP -,  PRIT ------,
APS -,          PSATP -, PBXESGD -,     PBXAW -, FAR4E -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,  DDD -, IDDD -,    FOSPS -,
SDNPLAN ----, BFTIS ---, BFTNI ---,     SKSP -, PBXNWW -, HYBRD -,
INCID -, ITELCO -, S5DIG -, SDS -,    FVSR -,  IFITR -, PCPEACEL -,
ANCR -,  ACCID ---, PSTNG -, FLDSPR -, REVAMP -,

CAREA -,    CPOS -,   SINDEX --,

S1 -, S2 -, S3 -, S4 -, S5 -,           S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #101 - RC:TSG;NEW;OPT(IN1WAY),- - -:

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1b

VER:TSG,OPT(IN1WAY):                                      BTFN TOWN ST BL FBS NBS

                                                      TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                           DPC ---------,

FENCLASS ------, FENID ------,           TFG -,    TSGBBC -,

QTFN ---,   TOT -----, SAT -,            DOM ----,         IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,       FESC6 -,  IWZ1 -,
MEM -,      PSES -,    INSEP ---,        MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                        CCIS2WRE -, CBNPR ---,

BN ----------, BRL -,  ITC -,  GSDN -, GSDNPHSE -, EAS -, CMTYP -, NPARINH -,
WATSBN ----------,                                                    PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,       SCFN -,  OVLP -,  PRIT ------,
APS -,          PSATP -, PBXESGD -,      PBXAW -, FAR4E -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -,   DDD -, IDDD -,    FOSPS -,
SDNPLAN ----, BFTIS ---, BFTNI ---,      SKSP -, PBXNWW -, HYBRD -,
INCID -, ITELCO -, S5DIG -, SDS -,    FVSR -,  IFITR -, PCPEACEL -, UT15DA -,
LRN ----------, CBN DIGS ----------, CBN -,
ANCR -,  ACCID ---, PSTNG -, FLDSPR -,   REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
IXC -,

CAREA -,    CPOS -,   SINDEX --,

S1 -, S2 -, S3 -, S4 -, S5 -,            S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #101 - RC:TSG;NEW;OPT(IN1WAY),- - -:

VERIFY ONE-WAY INCOMING TRUNK SUBGROUP CHARACTERISTICS
4E22 GENERIC PROGRAM

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1b

VER:TSG,OPT(IN1WAY):                                      BTFN TOWN ST BL FBS NBS

                                                      TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                           DPC ---------,

FENCLASS ------, FENID ------,          TFG -,    TSGBBC -,

QTFN ---,   TOT -----, SAT -,          DOM ----,         IT -,  FAI -,
FENPA ---,  FEOFC ---, FELATA ---,     FESC6 -,  IWZ1 -,
MEM -,      PSES -,    INSEP ---,      MTSC --,  GNSC -, GEOSEP --,

ISC -------, RFA -,    ADIG -,                      CCIS2WRE -, CBNPR ---,

BN ----------, BRL -,  ITC -,  GSDN -, GSDNPHSE -, EAS -, CMTYP -, NPARINH -,
WATSBN ----------,                                                    PSUUI -,
BNPT ----,   WBNPT ----, CMERGE -,     SCFN -,  OVLP -,  PRIT ------,
APS -,          PSATP -, PBXESGD -,    PBXAW -, FAR4E -,
MEGC -, SDNA -, OWAT -, DATA -, CBC -, DDD -, IDDD -,    FOSPS -,
SDNPLAN ----, BFTIS ---, BFTNI ---,    SKSP -, PBXNWW -, HYBRD -, CCTT -,
INCID -, ITELCO -, S5DIG -, SDS -,   FVSR -,  IFITR -, PCPEACEL -, UT15DA -,
LRN ----------, CBN DIGS ----------, CBN -,
CID ----,
ANCR -,  ACCID ---, PSTNG -, FLDSPR -,  REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
IXC -, FELN -, HUNT --, CSN --,

CAREA -,    CPOS -,   SINDEX --,

S1 -, S2 -, S3 -, S4 -, S5 -,          S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #101 - RC:TSG;NEW;OPT(IN1WAY),- - -:

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1b

     VER:TSG,OPT(IN1WAY):                              BTFN TOWN ST BL FBS NBS

                                                    TSG ---- ---- -- -- --- ---,
     PCF ----,   AOPC ------------,                 DPC ------------,

     FENCLASS ------, FENID ------, TFG -,  TSGBBC -,
     QTFN ----,  TOT -----, SAT -,          DOM ----,         IT -,  FAI -,
     FENPA ---,  FEOFC ---, FELATA ---,     FESC6 -,  IWZ1 -,
     MEM -,      PSES -,    INSEP ---,      MTSC --,  GNSC -, GEOSEP --,

     ISC -------, RFA -,    ADIG -,                      CCIS2WRE -, CBNPR --,

     BN ----------, BRL -, ITC -, GSDN -, GSDNPHSE -, EAS -, CMTYP -,NPARINH -,
     WATSBN ----------,                                                 PSUUI -,
     BNPT ----,   WBNPT ----, CMERGE -,     SCFN -,  OVLP -,  PRIT ------,
     APS -,          PSATP -, PBXESGD -,    PBXAW -, FAR4E -,
     MEGC -, SDNA -, OWAT -, DATA -, CBC -, DDD -, IDDD -,    FOSPS -,
     SDNPLAN ----, BFTIS ---, BFTNI ---,    SKSP -, PBXNWW -, HYBRD -, CCTT -,
     INCID -, ITELCO -,  S5DIG -, SDS -,  FVSR -,   IFITR -, PCPEACEL -, UT15DA -,
     LRN ----------, CBN DIGS ----------, CBN -,
     CID ----, NCAR -, TTA -,
     ANCR -,  ACCID ---, PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
     IXC -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

     CAREA  -,   CPOS  -,    SINDEX --,

     S1 -, S2 -, S3 -, S4 -, S5 -,          S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #101 - RC:TSG;NEW;OPT(IN1WAY),- - -:

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.

OUTPUT:                   VERIFY 1b

     VER:TSG,OPT(IN1WAY):                              BTFN TOWN ST BL FBS NBS

                                                    TSG ---- ---- -- -- --- ---,
     PCF ----,   AOPC ------------,                 DPC ------------,

     FENCLASS ------, FENID ------, TFG -,  TSGBBC -,
     QTFN ----,  TOT -----, SAT -,          DOM ----,         IT -,  FAI -,
     FENPA ---,  FEOFC ---, FELATA ---,     FESC6 -,  IWZ1 -,
     MEM -,      PSES -,    INSEP ---,      MTSC --,  GNSC -, GEOSEP --,

     ISC -------, RFA -,    ADIG -,                      CCIS2WRE -, CBNPR --,

     BN ----------, BRL -, ITC -, GSDN -, GSDNPHSE -, EAS -, CMTYP -,NPARINH -,
     WATSBN ----------,                                                PSUUI -,
     BNPT ----,   WBNPT ----, CMERGE -,     SCFN -,  OVLP -,  PRIT ------,
     APS -,          PSATP -, PBXESGD -,    PBXAW -, FAR4E -,
     MEGC -, SDNA -, OWAT -, DATA -, CBC -, DDD -, IDDD -,    FOSPS -,
     SDNPLAN ----, BFTIS ---, BFTNI ---,    SKSP -, PBXNWW -, HYBRD -, CCTT -,
     INCID -, ITELCO -,  S5DIG -, SDS -,  FVSR -,   IFITR -, PCPEACEL -, UT15DA -,
     LRN ----------, CBN DIGS ----------, CBN -,
     CID ----, NCAR -, TTA -, BNI -, EACC --, LCVT -, QPE -, NSA -,                |
     ANCR -,  ACCID ---, PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -, ATRIG -,
     IXC -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

     CAREA  -,   CPOS  -,    SINDEX --,

     S1 -, S2 -, S3 -, S4 -, S5 -,          S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #101 - RC:TSG;NEW;OPT(IN1WAY),- - -:

VER:TSG,OPT(OUT1WAY):

VERIFY OUTPUT #1c ONE-WAY OUTGOING TRUNK SUBGROUP CHARACTERISTICS

1. GENERAL

1.01 This message is used to verify translation data associated with one-way outgoing Trunk Subgroup characteristics. The verify input message specifies the Trunk Subgroup Circuit Identification Name (CIN). The output includes the specified CIN, Trunk Subgroup assignment status and characteristics.

1.02 Trunk Subgroup characteristic verifications are always accompanied by a list of trunks. This list is a separate verify message (Section 1d of this Division) even though it does not require a separate input.

2. FORM ENTRIES

2.01 VER:TSG,OPT(OUT1WAY):

2.02 **ACCDTA** - Entries: blank.

2.03 **ACCID** - Entries: blank.

2.04 **ACD** - Automatic Call Distributor
Entries: blank, Y, N, or T.

2.05

2.06 **ANCR** - Entries: blank.

2.07 **ANISID** - ANI/SID Request
Entries: blank, NONE, ANI, PANI, PSID, REQ, or SID.

2.08 **AOPC** - Alias Origination Point Code
Entries: blank or

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

2.09 **APS** - Accunet® Packet Service
Entries: blank, Y, or N.

2.10 **BN** - Billing Number
Entries: blank, 3, 4, or 10 digit number.

2.11 **BNPT** - Entries: blank.

2.12 **BRL** - Billing Record Length
Entries: blank, L, or S.

2.13 **CAREA** - Control Area
Entries: 0 to 9.

2.14 **CARSON** - Entries: blank.

2.15 **CCIF** - Entries: blank.

2.16 **CCIS2WRE** - Common Channel Interoffice Signaling 2Wire
Entries: blank, Y, or N.

2.17 **CHNEG** - Channel Negotiation
Entries: blank, Y, or N.

2.18 **CID** - Carrier ID(4E20>)
Entries: blank or 0000 to 9999.

2.19 **CMERGE** - Entries: blank.

2.20 **CODSC** - CPE Outgoing Disconnect (<4E20) or CPE Outgoing Disconnect/Reset SS7 TSG PCIS Bits (4E21>)
Entries: blank, Y, or N.

2.21 **CPOS** - Control Position
Entries: 0 to 9.

2.22 **CSCSET** - Entries: blank.

2.23 **CSN** - Entries: blank.

2.24 **D3DBN** - Entries: blank.

2.25 **DELAY** - Delay Interval
Entries: blank, 20, 80, 220, or 70, 140, 210, or 280.

2.26 **DNP** - Dialed Number Preferred
Entries: blank, Y, or N.

2.27 **DOFP** - Disable Outgoing Fraud Prevention
Entries: Y or N.

2.28 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.29 **DPC** - Destination Point Code
If PCF equals ATT, then DPC is composed of:

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

If PCF equals ANSI, then DPC is composed of:

— NET = 000 to 255.
— CLU = 000 to 255.
— MEM = 000 to 255.

If PCF equals ISPC, then DPC is composed of:

— WGZ = 1 to 7.
— ANI = 000 to 255.
— SPID = 0 to 7.

2.30 **DPSTOP** - Dial Pulse Stop
Entries: blank, Y, or N.

2.31 **E1T1** - Entries: blank.

2.32 **EACC** - Entries: blank.

2.33 **EXSEQ** - Entries: blank.

2.34 **FAI** - Entries: blank.

2.35 **FEAREA** - Entries: blank.

2.36 **FELATA** - Far End Local Access and Transport Area
Entries: blank or 000 to 999.

2.37 **FELN** - Entries: blank.

2.38 **FENCLASS** - Far End Network Class
Entries: blank, ACCESA, ACCESI, ACCESO, ACU (4E24R2>), CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.39 **FENID** - Far End Network ID
Entries: blank or 1 to 6 alphanumeric characters.

2.40 **FENPA** - Far End Numbering Plan Area
Entries: 200 to 999 and, for international, 2 to 9 and 20 to 99.

2.41 **FEOFC** - Far End Office
Entries: blank or 000 to 999.

2.42 **FEPTY** - Entries: blank.

2.43 **FESWID** - Entries: blank.

2.44 **FLDSPR** - Entries: blank.

2.45 **FOLI** - Entries: blank.

2.46 **FOSPS** - Entries: blank.

2.47 **GSDN** - Entries: blank.

2.48 **HUNT** - Entries: blank.

2.49 **ITCENC** - Information Transfer Capability (4E21>).
Entries: blank, Y, or N.

2.50 **IWZ1** - International World Zone 1
Entries: blank, Y, or N.

2.51 **IXC** - Entries: blank.

2.52 **LCVT** - Entries: blank.

2.53 **LNPIC** - A TSG field not used
Entries: blank.

2.54 **MEM** - Trunk Hunt with Memory
Entries: blank, Y, or N.

2.55 **MFSPEED** - Multi-Frequency Speed
Entries: blank, 7, or 10.

2.56 **MULAW** - A-law/Mu-law Encoding (4E18>)
Entries: blank, Y, or N.

2.57 **NCAR.tsg** - Entries: blank.

2.58 **NEOTR** - Near Operational Test Responsibility
Entries: Y or N.

2.59 **OFITR** - Entries: blank.

2.60 **OFITR** - Entries: blank.

2.61 **ONCID** - Number of Carrier ID digits to send (4E18>)
Entries: blank, 3, or 4.

2.62 **OSC** - Outgoing Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMMED, DPWINK, DTMFWK, ICOPNOP, INUP, ISUP, MFDDSD, MFWINK, MIOPNOP, Q931, SIOPMFW, SIOPNOP, TWOPDPD, TWOPDPI, TWOPDPW, TWOPMFW, or TUP.

2.63 **OTMTN** - Operational Terminating Test Number
Entries: blank or 000 to 9999999.

2.64 **OTMTT** - Operational Terminating Test Type
Entries: N, ATMC, CTX2, CTX3, SXS, SYNC, or T103.

2.65 **OTSTN** - Operational Thru Switch Test Number
Entries: blank or 000 to 9999999.

2.66 **OTSTT** - Operational Thru Switch Test Type
Entries: N, ATMB, CTX2, CTX3, SXS, SYNC, or T103.

2.67 **PCF** - Point Code Format
Entries: blank, ATT, ANSI, or ISPC.

2.68 **PRIT** - Entries: blank.

2.69 **PSATP** - Prohibit Sending Access Transport Parameters
Entries: blank, Y, or N.

2.70 **PSBN** - Prohibit Sending Billing Number
Entries: blank, PNNA (4E18>), PALL (4E18>), or SALL (4E18>).

2.71 **PSCPN** - Prohibit Sending Calling Party Number
Entries: blank, Y, or N.

2.72 **PSES** - Prohibit Service Evaluation
Entries: blank, Y, or N.

2.73 **PSOLI** - Prohibit Sending Originating Line Identity
Entries: blank, Y, or N.

2.74 **PSTNG** - Entries: blank.

2.75 **PSUUI** - Prohibit Sending User-to-User Information
Entries: blank, Y, or N.

2.76 **QTFN** - Quantity of Traffic Numbers
Entries: 24 to 504 by 24s.

2.77 **REVAMP** - Entries: blank.

2.78 **RFMP** - Ring Forward Miscellaneous Distributor Point
Entries: blank, Y, or N.

2.79 **S1** - Spare 1
Entries: blank or 0 to 7.

2.80 **S2-S10** - Spares 2 through 10
Entries: blank, Y, or N.

2.81 **SAT** - Satellite
Entries: Y or N.

2.82 **SBRIV** - Entries: blank.

2.83 **SCFN** - Send Confusion Message
Entries: blank, Y, or N.

2.84 **SINDEX** - Access Charge Verification Sampling Rate Index
Entries: blank, 0, 1, 2, 4, 8, 16, 32, or 64.

2.85 **SOIP** - Entries: blank.

2.86 **SPN** - Signal Ported Number (4E22R2>)
Entries: blank, Y, or N.

2.87 **STBI** - Entries: blank.

2.88 **SUPBLK** - Entries: blank.

2.89 **TCC** - Entries: blank.

2.90 **TFG** - Type of Feature Group
Entries: blank, B, C, or D.

2.91 **TOT** - Type of Trunk
Entries: ETC, INTL, INTLO, ITAND, ITOLL, ITOP, LCC, MISC, OCC, PBX, SECIT, STC, TAND, or TOLLC.

2.92 **TRIDX** - Entries: blank.

2.93 **TSGBBC** - TSG BroadBand Capability
Entries: blank or 0 to 6.

2.94 **TTA** - Entries: blank.

2.95 **VDCAP** - Entries: blank.

2.96 **WANISID** - WATS Service ANI/SID Request
Entries: blank, NONE, ANI, PANI, PSID, REQ, or SID.

2.97 **XCPA** - Transceiver (XC) Pad Adjustment
Entries: blank or 0 to 3.

2.98 **XTMTN** - Transmission Terminating Test Number
Entries: blank or 000 to 9999999.

2.99 **XTMTT** - Transmission Terminating Test Type
Entries: N, T100, T102, or T105.

2.100 **XTSTN** - Transmission Thru Switch Test Number
Entries: blank or 000 to 9999999.

2.101 **XTSTT** - Transmission Thru Switch Test Type
Entries: N, ATMA, T100, T102, or T105.

2.102 The following output format will be printed if the Trunk Subgroup Number(s) (TSGNs) being verified is unassigned in current translations.

VER:TSG QTSGN ____, FTSGN ____

UNASSIGNED

2.103 **QTSGN** - Quantity of Trunk Subgroup Numbers
Entries: 1 to 4095.

2.104 **FTSGN** - First Trunk Subgroup Number
Entries: 1 to 4095.

2.105 **UNASSIGNED**
This phrase indicates current translation data does not exist for the specified TSGN(s).

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1c

VER:TSG,OPT(OUT1WAY):                                    BTFN TOWN ST BL FBS NBS

                                                      TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                           DPC ---------,

FENCLASS ------, FENID ------,          TFG -,    TSGBBC -,

QTFN ---,   TOT -----, SAT -,           DOM ----, ACD -,
FENPA ---,  FEOFC ---, FELATA ---,                IWZ1 -,
MEM -,      PSES -,

                                                    CCIS2WRE -,
OSC -------, RFMP -,   DPSTOP -,        DELAY ---,  MFSPEED --,
XCPA -,      DNP -,                                 PSOLI -,

BN ----------, BRL -,          GSDN -,
                PSBN ----, PSCPN -,     ANISID ----, WANISID ----, PSUUI -,
BNPT ----,              CMERGE -,       SCFN -,           PRIT ------,
APS -, CHNEG -, PSATP -,                          DOFP -, SBRIV -,
                                                  FOSPS -, CCIF -,
ONCID -, D3DBN -, MULAW -,
ANCR -,  ACCID --,  ACCDTA --,

CAREA -,    CPOS -,   SINDEX --,        CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,             OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,             XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -,           S6 -, S7 -, S8 -, S9 -, S10 -,
```

ODA INPUT SOURCE - ESS 401C
RECENT CHANGE INPUT SOURCE - FORM #102 - RC:TSG;NEW;OPT(OUT1WAY),- - -:

VERIFY ONE-WAY OUTGOING TRUNK SUBGROUP CHARACTERISTICS
4E18 AND 4E19 GENERIC PROGRAMS

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1c

VER:TSG,OPT(OUT1WAY):                            BTFN TOWN ST BL FBS NBS

                                                TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                     DPC ---------,

FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,      FAI -,
FENPA ---,  FEOFC ---, FELATA ---,                 IWZ1 -,
MEM -,      PSES -,

                                                      CCIS2WRE -,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --,
XCPA -,      DNP -,                                   PSOLI -,

BN ----------, BRL -,          GSDN -,
                PSBN ----, PSCPN -,      ANISID ----, WANISID ----, PSUUI -,
BNPT ----,              CMERGE -,        SCFN -,           PRIT ------,
APS -, CHNEG -, PSATP -,                                 DOFP -, SBRIV -,
                                                         FOSPS -, CCIF -,
ONCID -, D3DBN -, MULAW -,  CSCSET ------, CID ----,
ANCR -,  ACCID --,  ACCDTA --, PSTNG -, FLDSPR -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -,            S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #102 - RC:TSG;NEW;OPT(OUT1WAY),- - -:

INPUT: VERIFY 11a/11c

INPUT-11a-VER:TSG:CIN a!(EOT)

a = Circuit Identification Name (CIN) for the Trunk Subgroup. However, any traffic number within the existing TSG may be entered. Internal programs will translate this number to the actual BTFN. Verify output data will reflect the actual internal BTFN.

INPUT-11c-VER:TSG:TSGN a!(EOT)

a = Enter a valid Trunk Subgroup Number (TSGN) in the range of 1 to 4095.

OUTPUT: VERIFY 1c

```
VER:TSG,OPT(OUT1WAY):                              BTFN TOWN ST BL FBS NBS

                                                TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                     DPC ---------,

FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,      FAI -,
FENPA ---,  FEOFC ---, FELATA ---,                 IWZ1 -,
MEM -,      PSES -,

                                                      CCIS2WRE -,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --,
XCPA -,      DNP -,                                   PSOLI -,

BN ----------, BRL -,          GSDN -,
                PSBN ----, PSCPN -,      ANISID ----, WANISID ----, PSUUI -,
BNPT ----,              CMERGE -,        SCFN -,           PRIT ------,
APS -, CHNEG -, PSATP -,                                 DOFP -, SBRIV -,
                                                         FOSPS -, CCIF -,
ONCID -, D3DBN -, MULAW -,  CSCSET ------, CID ----,
ANCR -,  ACCID ---,  ACCDTA --, PSTNG -, FLDSPR -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -,            S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #102 - RC:TSG;NEW;OPT(OUT1WAY),- - -:

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1c

VER:TSG,OPT(OUT1WAY):                            BTFN TOWN ST BL FBS NBS

                                                TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                     DPC ---------,

FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,      FAI -,
FENPA ---,  FEOFC ---, FELATA ---,                 IWZ1 -,
MEM -,      PSES -,

                                                      CCIS2WRE -,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --,
XCPA -,      DNP -,                                   PSOLI -,

BN ----------, BRL -,          GSDN -,
                  PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----,              CMERGE -,       SCFN -,           PRIT ------,
APS -, CHNEG -, PSATP -,                                 DOFP -, SBRIV -,
                                                         FOSPS -, CCIF -,
ONCID -, D3DBN -, MULAW -, CSCSET -----,   CID ----, ITCENC -, OFITR -,
ANCR -,  ACCID ---, PSTNG -, FLDSPR -,   REVAMP -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -,            S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #102 - RC:TSG;NEW;OPT(OUT1WAY),- - -:

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1c

VER:TSG,OPT(OUT1WAY):                            BTFN TOWN ST BL FBS NBS

                                                TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                     DPC ---------,

FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,      FAI -,
FENPA ---,  FEOFC ---, FELATA ---,                 IWZ1 -,
MEM -,      PSES -,

                                                      CCIS2WRE -,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --,
XCPA -,      DNP -,                                   PSOLI -,

BN ----------, BRL -,          GSDN -,
                  PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----,              CMERGE -,       SCFN -,           PRIT ------,
APS -, CHNEG -, PSATP -,                                 DOFP -, SBRIV -,
                                                         FOSPS -, CCIF -,
ONCID -, D3DBN -, MULAW -, CSCSET -----,   CID ----, ITCENC -, OFITR -,
SPN -, LNPIC -,
ANCR -,  ACCID ---, PSTNG -, FLDSPR -,   REVAMP -, E1T1 -, SUPBLK -,
IXC -,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -,            S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #102 - RC:TSG;NEW;OPT(OUT1WAY),- - -:

VERIFY ONE-WAY OUTGOING TRUNK SUBGROUP CHARACTERISTICS
4E22 GENERIC PROGRAM

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1c

VER:TSG,OPT(OUT1WAY):                            BTFN TOWN ST BL FBS NBS

                                                TSG ---- ---- -- -- --- ---,
PCF ----,   AOPC ---------,                     DPC ---------,

FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----,
FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
QTFN ---,   TOT -----, SAT -,            DOM ----, ACD -,      FAI -,
FENPA ---,  FEOFC ---, FELATA ---,                 IWZ1 -,
MEM -,      PSES -,

                                                      CCIS2WRE -,
OSC -------, RFMP -,   DPSTOP -,         DELAY ---,   MFSPEED --,
XCPA -,      DNP -,                                   PSOLI -,

BN ----------, BRL -,          GSDN -,
                  PSBN ----, PSCPN -,   ANISID ----, WANISID ----, PSUUI -,
BNPT ----,              CMERGE -,       SCFN -,           PRIT ------,
APS -, CHNEG -, PSATP -,                                 DOFP -, SBRIV -,
                                                         FOSPS -, CCIF -,
ONCID -, D3DBN -, MULAW -, CSCSET -----,   CID ----, ITCENC -, OFITR -,
SPN -, LNPIC -,
ANCR -,  ACCID ---, PSTNG -, FLDSPR -,   REVAMP -, E1T1 -, SUPBLK -,
IXC -, FOLI -, FELN -, HUNT --, CSN --,

CAREA -,    CPOS -,   SINDEX --,         CODSC -,    NEOTR -,    TRIDX --,
OTSTT ----, OTSTN --------,              OTMTT ----, OTMTN --------,
XTSTT ----, XTSTN --------,              XTMTT ----, XTMTN --------,

S1 -, S2 -, S3 -, S4 -, S5 -,            S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #102 - RC:TSG;NEW;OPT(OUT1WAY),- - -:

```
INPUT:                    VERIFY 11a/11c

                 INPUT-11a-VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.

                 INPUT-11c-VER:TSG:TSGN a!(EOT)

                 a = Enter a valid Trunk Subgroup Number (TSGN) in
                     the range of 1 to 4095.


OUTPUT:                   VERIFY 1c

     VER:TSG,OPT(OUT1WAY):                              BTFN TOWN ST BL FBS NBS

                                                    TSG ---- ---- -- -- --- ---,
     PCF ----,   AOPC ------------,                 DPC ------------,

     FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----,
     FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
     QTFN ----,  TOT -----, SAT -,          DOM ----, ACD -,         FAI --,
     FENPA ---,  FEOFC ---, FELATA ---,               IWZ1 -,
     MEM -,      PSES -,

                                                      CCIS2WRE -,
     OSC -------, RFMP -,   DPSTOP -,       DELAY ---,   MFSPEED --,
     XCPA -,      DNP -,                                 PSOLI -,

     BN ----------, BRL -,          GSDN -,
                       PSBN ----, PSCPN -, ANISID ----, WANISID ----, PSUUI -,
     BNPT ----,              CMERGE -,     SCFN -,           PRIT ------,
     APS -, CHNEG -, PSATP -,                               DOFP -, SBRIV -,
                                                            FOSPS -, CCIF -,

     ONCID -, D3DBN -,   MULAW -,   CSCSET ------, CID ----, ITCENC -, OFITR -,
     SPN -, LNPIC -, NCAR -, TTA -,
     ANCR -,  ACCID ---,  PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -,
     IXC -, FOLI -, FELN -, HUNT --, CSN --, CARSON -, SOIP -,

     CAREA  -,   CPOS  -,    SINDEX --,     CODSC -,    NEOTR -,    TRIDX --,
     OTSTT ----, OTSTN --------,            OTMTT ----, OTMTN --------,
     XTSTT ----, XTSTN --------,            XTMTT ----, XTMTN --------,

     S1 -, S2 -, S3 -, S4 -, S5 -,          S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #102 - RC:TSG;NEW;OPT(OUT1WAY),- - -:

VERIFY ONE-WAY OUTGOING TRUNK SUBGROUP CHARACTERISTICS
4E24 GENERIC PROGRAM

INPUT: VERIFY 11a/11c

INPUT-11a-VER:TSG:CIN a!(EOT)

a = Circuit Identification Name (CIN) for the Trunk Subgroup. However, any traffic number within the existing TSG may be entered. Internal programs will translate this number to the actual BTFN. Verify output data will reflect the actual internal BTFN.

INPUT-11c-VER:TSG:TSGN a!(EOT)

a = Enter a valid Trunk Subgroup Number (TSGN) in the range of 1 to 4095.

OUTPUT: VERIFY 1c

```
     VER:TSG,OPT(OUT1WAY):                                BTFN TOWN ST BL FBS NBS

                                                      TSG ---- ---- -- -- --- ---,
     PCF ----,   AOPC ------------,                   DPC ------------,

     FENCLASS ------, FENID ------, TFG -,  TSGBBC -, VDCAP -----,
     FEAREA ------------, FESWID ------------, EXSEQ -, FEPTY -,
     QTFN ----,  TOT -----, SAT -,          DOM ----, ACD -,         FAI -,
     FENPA ---,  FEOFC ---, FELATA ---,               IWZ1 -,
     MEM -,      PSES -,    ADS -,

                                                        CCIS2WRE -,
     OSC -------, RFMP -,   DPSTOP -,       DELAY ---,   MFSPEED --,
     XCPA -,      DNP -,                                 PSOLI -,

     BN ----------, BRL -,          GSDN -,
                       PSBN ----, PSCPN -, ANISID ----, WANISID ----, PSUUI -,
     BNPT ----,               CMERGE -,     SCFN -,           PRIT ------,
     APS -, CHNEG -, PSATP -,                                 DOFP -, SBRIV -,
                                                              FOSPS -, CCIF -,

     ONCID -, D3DBN -,   MULAW -,   CSCSET ------, CID ----, ITCENC -, OFITR -,
     SPN -, LNPIC -, NCAR -, TTA -, BNI -, EACC --, LCVT -, NSA -,                |
     ANCR -,  ACCID ---,  PSTNG -,  FLDSPR -, REVAMP -, E1T1 -, SUPBLK -,
     IXC -, FOLI -, FELN -, HUNT --, CSN --, CARSON -, SOIP -, TCC --, STBI -,

     CAREA  -,   CPOS  -,    SINDEX --,     CODSC -,    NEOTR -,    TRIDX --,
     OTSTT ----, OTSTN --------,            OTMTT ----, OTMTN --------,
     XTSTT ----, XTSTN --------,            XTMTT ----, XTMTN --------,

     S1 -, S2 -, S3 -, S4 -, S5 -,          S6 -, S7 -, S8 -, S9 -, S10 -,
```

RECENT CHANGE INPUT SOURCE - FORM #102 - RC:TSG;NEW;OPT(OUT1WAY),- - -:

VERIFY TWO-WAY TRUNK SUBGROUP CHARACTERISTICS
4E25 GENERIC PROGRAM

VER:TSG,OPT(TRUNKS):

VERIFY OUTPUT #1d LIST OF TRUNKS FOR A TRUNK SUBGROUP

1. GENERAL

1.01 This message lists the trunks associated with a specific Trunk Subgroup. It automatically follows the list of characteristics (Section 1a, b, c, e or f) for the Trunk Subgroup. The input specifies the Circuit Identification Name (CIN) of the Trunk Subgroup. Output data included in this form consists of blocks of trunks by traffic number plus the Trunk Appearance Number (TAN) assignment and status.

2. FORM ENTRIES

2.01 VER:TSG,OPT(TRUNKS):

2.02 **D1D2** - D1 or D2
Entries: blank, D1, or D2.

2.03 **FCHAN** - Far-end Channel
Entries: blank or 1 to 24.

2.04 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.05 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.06 **STATUS** - Status
Entries: ASN, CAD, MTC, or UNA.

2.07 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

INPUT: VERIFY 11a/11b/11c

INPUT-11a - VER:TSG:CIN aaaaaaaaaaaaaaaaa,[bb]!(EOT)

a = Circuit Identification Name (CIN) identifying a message Trunk Subgroup.

b = D1 or D2 - May be used if far-end of Trunk Subgroup is connected to a D1D or D2 channel bank. This will unscramble TAN-traffic number relationship and allow each line of output data to represent a maximum of 24 trunks with consecutive traffic numbers.

INPUT-11b - VER:TSG:CIN aaaaaaaaa!(EOT)

a = Circuit Identification Name (CIN) identifying a nonmessage Trunk Subgroup.

INPUT-11c - VER:TSG:TSGN aaaa!(EOT)

a = Valid Trunk Subgroup Number from 1 to 4095.

OUTPUT: VERIFY 1d

VER:TSG,OPT(TRUNKS):

D1D2 --,

QTRK	FTFN	TAN TSI	SPC	LVL	FTS	FCHAN	STATUS
---,	----,	--,	-,	-,	---,	--,	---,
---,	----,	--,	-,	-,	---,	--,	---,
---,	----,	--,	-,	-,	---,	--,	---,
---,	----,	--,	-,	-,	---,	--,	---,
---,	----,	--,	-,	-,	---,	--,	---,
---,	----,	--,	-,	-,	---,	--,	---,

ODA INPUT SOURCE - ESS 402A/402C/402D

RECENT CHANGE INPUT SOURCE - FORM #200/202/203/204 - RC:TRK;

VERIFY THE LIST OF TRUNKS FOR A TRUNK SUBGROUP

VER:TSG;OPT(LIST):

VERIFY OUTPUT #1e LIST TRUNK SUBGROUPS WITH ONE OR MORE OF THE SAME SPECIFIED CHARACTERISTICS

1. GENERAL

1.01 This message verifys all Trunk Subgroups having one or more of the same specified characteristics or, if no characteristics are specified on the input message, all Trunk Subgroups in the office will be listed. The output message lists the trunks in alphabetical order.

2. FORM ENTRIES

2.01 VER:TSG;OPT(LIST):

2.02 This field in the message heading will designate the characteristics asked for on the input message. The Trunk Subgroups subsequently listed have the same characteristic or set of characteristics. One or more keywords may have been requested on input.

2.03 **TSG -** Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.04 **TSGN** - Trunk Subgroup Number
Entries: 1 to 4095.

```
INPUT:                    VERIFY 11d

VER:TSGLIST:[FD1 a,DT1 b],[FD2 a,DT2 b],[FD3 a,DT3 b],[FD4 a,DT4 b]!(EOT)


OUTPUT:                   VERIFY 1e

VER:TSG;OPT(LIST):


BTFN  TOWN  ST  BL  FBS  NBS     TSGN
----  ----  --  --  ---  ---,    ----,
 .     .    .   .    .    .       .
 .     .    .   .    .    .       .
 .     .    .   .    .    .       .
 .     .    .   .    .    .       .
----  ----  --  --  ---  ---,    ----,
```

ODA INPUT SOURCE - ESS 401A/401B

RECENT CHANGE INPUT SOURCE - FORM #100/101

VERIFY TRUNK SUBGROUPS WITH SAME SPECIFIED CHARACTERISTICS

VER:TSG;OPT(NONMSG):

VERIFY OUTPUT #1f NON-MESSAGE TRUNK SUBGROUP CHARACTERISTICS

1. GENERAL

1.01 This message verifies translation data associated with nonmessage Trunk Subgroup characteristics. The input specifies the Circuit Identification Name (CIN) of the Trunk Subgroup.

1.02 Trunk Subgroup characteristic verifications are always accompanied by a list of trunks. This list is a separate verify message (Section 1d of this Division) even though it does not require a separate input.

2. FORM ENTRIES

2.01 VER:TSG;OPT(NONMSG):

2.02 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— MC - Major Category.
Entries: ACI*, ATM*, CLN*, INT*, MAS*, MIS*, SVC*, or TAS*.

— SC - Sub-Category.
Entries:

ACI*: DCHN.

ATM*: RT0T, RT1T, RT0A, RT1A, RPCU.

CLN*: DLPC, DTAT, TAT*, 104*, 104D, 105*, 105D, 109*, TND*, RESD, RESV.

INT*: CCS7.

MAS*: BIPB.

MIS*: AART, CKEY, CTLK, CCWS, TERM, OBS0, OBS1.

SVC*: AIN* (4E18>), DMRV, DMXM, MFR*, MFX*, XCVR, XCVT, MFRT, MFXT, SCAN, SCBN, SCNS.

TAS*: ANN*, TONE, MWAT, MW10.

— FBS - Far Building Subdivision
For 4E19 and earlier: ***.
Entries for 4E20 and later depend on MC and SC:

SVC* AIN*: j** - where j is 0 through 7 and represents the ASR application (when j is 0, no ASR capabilities apply).

SVC* SCNS: j** - where j is 0 through 7 and represents the ASR application (when j is 0, no ASR capabilites apply).

all others: ***.

— NBS = blank or alphanumeric.

2.03 **CAREA** - Control Area
Entries: 0 to 9.

2.04 **CPOS** - Control Position
Entries: 0 to 9.

2.05 **INSEP** - Incoming Traffic Separation Class
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

2.06 **ISC** - Incoming Signaling Characteristics
Entries: CAMACW, CAMAKEY, DCHAN, ICCS, RPAC-S, RPAC-U, TESTATP, or 1WAYOUT.

2.07 **OSC** - Outgoing Signaling Characteristics
Entries: ANN, CAMACW, CAMAKEY, CAMATLK, DATALPC, DATATAT, DCHAN, DTMFRCR, DTMFXMR, ICCS, MFRCVR, MFRCVRT, MFXMTR, MFXMTRT, MSFH, MWATT, NSCX, RMSDRES, RMSVRES, ROTLCA0, ROTLCA1, ROTLTA0, ROTLTA1, TERM, TESTATP, TONE, TONEDT, VFL, XCVR, 1WAYIN, 104, 104D, 105D, 105T, 109.

2.08 **PRIT** - Entries: blank.

2.09 **QTFN** - Quantity of Traffic Numbers
Entries: 1 to 9984.

2.10 **TOT** - Type of Trunk

```
INPUT:                    VERIFY 11b

                 VER:TSG:CIN a!(EOT)

                 a = Circuit Identification Name (CIN) for the Trunk
                     Subgroup.  However, any traffic number within
                     the existing TSG may be entered.  Internal
                     programs will translate this number to the
                     actual BTFN.  Verify output data will reflect
                     the actual internal BTFN.
                         The actual BTFN for a nonmessage
                         Trunk Subgroup will always equal zero.


OUTPUT:                    VERIFY 1f

VER:TSG;OPT(NONMSG):                                   BTFN   MC    SC   FBS  NBS
                                                   TSG ----  ----  ----  ***  ---,

QTFN ----,   TOT ----,

INSEP ---,

ISC -------,

OSC -------,

PRIT ----,

CAREA -, CPOS -,
```

ODA INPUT SOURCE - ESS 401E

RECENT CHANGE INPUT SOURCE - NONE

VER:TSG,OPT(VFL):

VERIFY OUTPUT #1g - VOICE FREQUENCY LINK TRUNK SUBGROUP CHARACTERISTICS

1. GENERAL

1.01 This message is used to verify translation data associated with voice frequency link Trunk Subgroup characteristics. The verify input message specifies the Trunk Subgroup Circuit Identification Name (CIN). The output includes the specified CIN, Trunk Subgroup assignment status and characteristics.

1.02 Trunk Subgroup characteristic verifications are always accompanied by a list of trunks. This list is a separate verify message (Section 1d of this Division) even though it does not require a separate input.

2. FORM ENTRIES

2.01 VER:TSG,OPT(VFL):

2.02 **CAREA** - Control Area
Entries: 0 to 9.

2.03 **CPOS** - Control Position
Entries: 0 to 9.

2.04 **DOM** - Domain
Entries: POTS or INTL.

2.05 **QTFN** - Quantity of Traffic Numbers
Entries: 1 to 9984.

2.06 **SAT** - Satellite
Entries: Y or N.

2.07 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.08 The following output format will be printed if the Trunk Subgroup Number(s) (TSGNs) being verified is unassigned in current translations.

VER:TSG QTSGN ____, FTSGN ____

UNASSIGNED

2.09 **QTSGN** - Quantity of Trunk Subgroup Numbers
Entries: 1 to 4095.

2.10 **FTSGN** - First Trunk Subgroup Number
Entries: 1 to 4095.

2.11 **UNASSIGNED**
This phrase indicates current translation data does not exist for the specified TSGN(s).

INPUT: VERIFY 11a

```
VER:TSG:CIN a!(EOT)

a = Circuit Identification Name (CIN) for the Trunk
    Subgroup.  However, any traffic number within
    the existing TSG may be entered.  Internal
    programs will translate this number to the
    actual BTFN.  Verify output data will reflect
    the actual internal BTFN.
```

OUTPUT: VERIFY 1g

```
VER:TSG,OPT(VFL):                                BTFN  TOWN  ST  BL  FBS  NBS
                                              TSG ----  ----  --  --  ---  ---,

QTFN ---,
CAREA -, CPOS -,     SAT -, DOM ----,
```

ODA INPUT SOURCE - ESS 401F

RECENT CHANGE INPUT SOURCE - FORM 103 - RC:TSG;NEW;OPT(VFL),---:

VERIFY VFL TRUNK SUBGROUP CHARACTERISTICS

VER:TFNB:

VERIFY OUTPUT #1h - LIST OF TRAFFIC NUMBER BLOCKS OF TRUNK SUBGROUP IN A TRUNK GROUP

1. GENERAL

1.01 This message lists the traffic number blocks associated with each Trunk Subgroup in a Trunk Group. The output message will be repeated for each Trunk Subgroup, such as, one way incoming, two way, and one way outgoing and lists the First Traffic Number and Quantity of Trunks in each traffic number blocks.

1.02 Trunk Subgroup characteristic verifications are always accompanied by a list of trunks. This list is a separate verify message (Section 1d of this Division) even though it does not require a separate input.

2. FORM ENTRIES

2.01 VER:TFNB:

2.02 **DNHR** - Dynamic Non-Hierarchical Routing
Entries: Y or N.

2.03 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.04 **FTFN** - First Traffic Number
Entries: 0 to 9976.

2.05 **ISC** - Incoming Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMADG, DPIMMED, DPIMPSW, DTMFWK, DTS, INUP, ISUP, MFDDSD, MFOPWK, MFWINK, Q931, TOLLMFD, TSPSMFD, TSPSMFW, or TUP.

2.06 **OSC** - Outgoing Signaling Characteristics
Entries: CCITT5, CCITT6, DOMCCIS, DPDDSD, DPIMMED, DPWINK, DTMFWK, ICOPNOP, INUP, ISUP, MFDDSD, MFWINK, MIOPNOP, Q931, SIOPMFW, SIOPNOP, TWOPDPD, TWOPDPI, TWOPDPW, TWOPMFW, or TUP.

2.07 **QTFN** - Quantity of Traffic Numbers
Entries: 1 to 9984.

2.08 **SAT** - Satellite
Entries: Y or N.

2.09 **TD** - Trunk Directionality
Entries: TWOWAY, 1WAYIN, 1WAYOUT.

2.10 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 11e

                VER:TFNB:TG ----  --  --  ---  ---!(EOT)


OUTPUT:                   VERIFY 1h

VER:TFNB                                                BTFN  TOWN  ST  BL  FBS  NBS
                                                    TSG ----  ----  --  --  ---  ---,

TD -------, ISC -------, OSC -------, SAT -, DOM ----, DNHR -,

FTFN  QTFN  FTFN  QTFN  FTFN  QTFN  FTFN  QTFN

----  ----  ----  ----  ----  ----  ----  ----
----  ----  ----  ----  ----  ----  ----  ----
----  ----  ----  ----  ----  ----  ----  ----
----  ----  ----  ----  ----  ----  ----  ----
```

ODA INPUT SOURCE - ESS 401D

RECENT CHANGE INPUT SOURCE - FORM # 104/105

VERIFY LISTING OF THE TRAFFIC NUMBER BLOCKS ASSOCIATED WITH EACH TSG IN THE TG

VER:TSG;OPT(CICS):

VERIFY OUTPUT #1i - OUTPUT VERIFICATION OF CARRIER IDENTIFICATION PARAMETER

1. GENERAL

1.01 The output message verifies all carrier identification parameters assigned to the tsg specified on the input message.

2. MESSAGE ENTRIES

2.01 VER:TSG;OPT(CICS):

2.02 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.03 **CIC** - Carrier Identification Code
Entries: blank, 0000 to 9999. Blank is unassigned.

```
INPUT:                    VERIFY 16az
<4E22R2
                     VER:MISC CIP: CIN 201KSCYMO0914T!(EOT)



OUTPUT:                  VERIFY 1i


VER:TSG;OPT(CICS):                      BTFN TOWN ST BL FBS NBS

                                    TSG ---- ---- -- -- --- ---,

    CIC    CIC    CIC    CIC

    ----,  ----,  ----,  ----,
    ----,  ----,  ----,  ----,
    ----,  ----,  ----,  ----,
    ----,  ----,  ----,  ----,
```

ODA INPUT SOURCE-NONE

RECENT CHANGE INPUT SOURCE-FORM #113

```
INPUT:                    VERIFY 16az
4E22R3>

                      VER:MISC CIP: CIN a!(EOT)


OUTPUT:                  VERIFY 1i


VER:TSG;OPT(CICS):                     BTFN TOWN ST BL FBS NBS

                                   TSG ---- ---- -- -- --- ---,

CIC    CIC    CIC    CIC    CIC    CIC    CIC    CIC    CIC

----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
```

ODA INPUT SOURCE-NONE

RECENT CHANGE INPUT SOURCE-FORM #113

Future

SECTION 2 - OUTPUT VERIFY MESSAGES

TRUNK ASSIGNMENTS

SECTION	MESSAGE	
2a	Output 2a	Verify trunk assignment for non-CCIS trunks, no miscellaneous points
2b	Output 2b	Verify trunk assignment for CCS trunks, no miscellaneous points
2c	Output 2c	Verify trunk assignment for non-CCIS trunks with miscellaneous points
2d	Output 2d	Verify trunk appearance number to trunk scanner number
2e	Output 2e	Verify trunk assignment with type of software carrier group alarm protection
2f	Output 2f	Verify trunk assignment for CCIS trunks with miscellaneous points
2g	Output 2g	Verify trunk assignment for trunks assigned to a far-end D1D or D2 channel bank
2h	Output 2h	Verify Trunk Appearance Number to Trunk Scanner Number - International
2i	Output 2i	Verify trunk assignment for non-CCIS trunks with Digital Echo Suppressors
2j	Output 2j	Verify trunk assignment for CCITT6 ISTP trunks
2k	Output 2k	Verify trunk assignment for CCITT5 trunks
2l	Output 2l	Verify trunk assignment for CCITT5 trunks with Digital Echo Suppressors
2m	Output 2m	Verify trunk assignment for trunks with Customer Out-of-Band signaling
2n	Output 2n	Verify tan assignments for TAN nailups
2o	Output 2o	Verify trunk assignment for trunks used in broadband switching
2p	Output 2p	Verify B channel to D channel trunk mapping
2q	Output 2q	Verify ISDN service data

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

VER:TRK;OPT(MISC):

VERIFY OUTPUT #2a - NON-CCIS TRUNK ASSIGNMENT, NO MISCELLANEOUS POINTS

1. GENERAL

1.01 This output message verifies assignments for non-CCIS trunks without miscellaneous points. The input message may specify either a Trunk Scanner Number (TSN), Trunk Appearance Number (TAN), or a Circuit Identification Name (CIN). Output data includes the CIN; Echo Suppressor (ES), if any; Quantity of consecutive Trunks (QTRK); First Traffic Number (FTFN); the TAN assignment on the network and the assignment status (STATUS).

2. MESSAGE ENTRIES

2.01 VER:TRK;OPT(MISC):
This heading identifies this particular verify message.

2.02 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.03 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.04 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.05 **STATUS** - Trunk Status
Entries: ASN, CAD, MTC, UNA.

2.06 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.07 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 12a/12c

      INPUT - 12a - VER:TRK: a!(EOT)

                    a = CIN (Circuit Identification Name)
                        TSI (0-63), SPC (0-1), LVL (0-6), FTS (1-120)
                        SP (0-31), ROW (0-127), COL (0-15)


      INPUT - 12c - VER:TRK:TAN a!(EOT)

                    a = Valid Trunk Appearance Number (TAN)
                        or range of TANs.
```

```
OUTPUT:                   VERIFY 2a


VER:TRK:                      BTFN TOWN ST BL FBS NBS

                          TSG ---- ---- -- -- --- ---,

ES ----,                            D1D2 N,

                        TAN
QTRK  FTFN       TSI SPC LVL FTS     FCHAN     STATUS

---,  ----,      --,  -,  -, ---,      0,       ---,
---,  ----,      --,  -,  -, ---,      0,       ---,
---,  ----,      --,  -,  -, ---,      0,       ---,
---,  ----,      --,  -,  -, ---,      0,       ---,
---,  ----,      --,  -,  -, ---,      0,       ---,
---,  ----,      --,  -,  -, ---,      0,       ---,
---,  ----,      --,  -,  -, ---,      0,       ---,
```

ODA INPUT SOURCE - ESS 402A

RECENT CHANGE INPUT SOURCE - FORM #200 - RC:TRK;NEW;OPT(MANUAL),- - -:

VERIFY NON-CCIS TRUNK ASSIGNMENT, NO MISCELLANEOUS POINTS

VER:TRK:OPT(CCS):

VERIFY OUTPUT #2b - TRUNK ASSIGNMENT FOR CCS TRUNKS,
NO MISCELLANEOUS POINTS

1. GENERAL

1.01 This message verifies the assignments of CCIS, CCITT6, or CCS trunks without miscellaneous points. The input message may be either a terminal number and label, Trunk Scanner Number (TSN), Trunk Appearance Number (TAN), or Circuit Identification Name (CIN). Output data includes the CIN, Echo Suppressor (ES) information, terminal pair identification, Quantity of consecutive Trunks (QTRK), First Traffic Number (FTFN), the TAN assignment on the network, label, and the assignment status (STATUS).

2. MESSAGE ENTRIES

2.01 VER:TRK:OPT(CCS):
This heading identifies this particular verify message.

2.02 **BBC** - Broadband Capability
Entries: blank or 0 to 6.

2.03 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.04 **FCIC** - First Circuit Identification Code
Entries: blank or 0 to 4095.

2.05 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.06 **LABEL**

— FBAND - First Band Entries: 0 to 510 for CCIS, 0 to 127 for CCITT6, or blank.

— FMEMN - First Member Number Entries: 0 to 15 or blank.

2.07 **PTERM** - Primary Terminal
Entries: 0 to 255.

2.08 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.09 **STATUS** - Trunk Status
Entries: ASN, CAD, MTC, UNA.

2.10 **STERM** - Secondary Terminal
Entries: 0 to 255.

2.11 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.12 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.13 **VCR** - Voice Path Assurance Cancellation Rate
Entries: 0, 50, 87, or 100.

```
INPUT:                    VERIFY 12a/12c

      INPUT - 12a - VER:TRK: a!(EOT)

                    a = CIN (Circuit Identification Name)
                        TSI (0-63), SPC (0-1), LVL (0-6), FTS (1-120)
                        SP (0-31), ROW (0-255), COL (0-15)
                        CCSTERM (0-255), FBAND (0-511 CCIS) (0-127 CCITT6),
                        FMEMN (0-15)


      INPUT - 12c - VER:TRK:TAN a!(EOT)

                    a = Valid Trunk Appearance Number (TAN)
                        or range of TANs.
```

```
OUTPUT:                   VERIFY 2b


VER:TRK;OPT(CCS):                     BTFN TOWN ST BL FBS NBS

                                  TSG ---- ---- -- -- --- ---,

ES ----,                                                 PTERM ---,
                                                         STERM ---,

                      TAN             LABEL
QTRK  FTFN    TSI   SPC LVL FTS    FBAND FMEMN   FCIC    VCR  BBC  SCGA

 --,  ----,   --,   -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
 --,  ----,   --,   -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
 --,  ----,   --,   -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
 --,  ----,   --,   -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
 --,  ----,   --,   -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
 --,  ----,   --,   -,  -, ---,   ---,   --,    -----,  ---,  -,   -,
```

ODA INPUT SOURCE - ESS 402C

RECENT CHANGE INPUT SOURCE - FORM #203 - RC:TRK;NEW;OPT(CCS),- - -:

VERIFY TRUNK ASSIGNMENT FOR CCS TRUNKS, NO MISCELLANEOUS POINTS

VER:TRK;OPT(MISC):

VERIFY OUTPUT #2c - ASSIGNMENT FOR NON-CCIS TRUNKS WITH MISCELLANEOUS POINTS

1. GENERAL

1.01 This output message verifies assignments for non-CCIS trunks with miscellaneous points. The input message may specify either a Trunk Scanner Number (TSN), Trunk Appearance Number (TAN), or a Circuit Identification Name (CIN). Output data includes the CIN, Echo Suppressor (ES), Quantity of consecutive Trunks (QTRK), First Traffic Number (FTFN), the TAN assignment on the network, Miscellaneous Distributor Number (MDN) and the assignment status (STATUS) of the trunk.

2. MESSAGE ENTRIES

2.01 VER:TRK;OPT(MISC):
This heading identifies this particular verify message.

2.02 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.03 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.04 **MDN** - Miscellaneous Distributor Number

— SP = 0 to 31.

— ROW = 0 to 127.

— COL = 0 to 15.

2.05 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.06 **STATUS** - Trunk Status
Entries: ASN, CAD, MTC, UNA.

2.07 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.08 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 12a/12c

      INPUT - 12a - VER:TRK: a!(EOT)

                    a = CIN (Circuit Identification Name)
                        TSI (0-63), SPC (0-1), LVL (0-6), FTS (1-120)
                        SP (0-31), ROW (0-127), COL (0-15)


      INPUT - 12c - VER:TRK:TAN a!(EOT)

                    a = Valid Trunk Appearance Number (TAN)
                        or range of TANs.




OUTPUT:                   VERIFY 2c


VER:TRK;OPT(MISC):                      BTFN TOWN ST BL FBS NBS

                                    TSG ---- ---- -- -- --- ---,

ES ----,

                        TAN                 MDN
QTRK  FTFN       TSI SPC LVL FTS     SP  ROW  COL     STATUS

---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
```

ODA INPUT SOURCE - ESS 402A

RECENT CHANGE INPUT SOURCE - FORM #200 - RC:TRK;NEW;OPT(MANUAL),- - -:

VERIFY ASSIGNMENT FOR NON-CCIS TRUNKS WITH MISCELLANEOUS POINTS

VER:TRK:OPT(TSN):

VERIFY OUTPUT #2d - TRUNK APPEARANCE NUMBER TO TRUNK SCANNER NUMBER

1. GENERAL

1.01 This message is a summary used to verify the correlation of a Trunk Appearance Number (TAN), to a Trunk Scanner Number (TSN). The output format lists this correlation for the trunk or block of trunks. The input message must include the TSN option keyword following a Circuit Identification Name (CIN), CCIS terminal and label, TAN or TSN.

2. MESSAGE ENTRIES

2.01 VER:TRK:OPT(TSN):
This heading identifies this particular verify message.

2.02 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.03 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.04 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.05 **STATUS** - Trunk Status
Entries: ASN, CAD, MTC, UNA.

2.06 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.07 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.08 **TSN** - Trunk Scanner Number

— SP = 0 to 31.

— ROW = 0 to 255.

— COL = 0 to 15.

```
INPUT:                    VERIFY 12a

             VER:TRK: a,OPT TSN!(EOT)

                    a = CIN (Circuit Identification Name)
                        TSI (0-63), SPC (0-1), LVL (0-6), FTS (1-120)
                        SP (0-31), ROW (0-255), COL (0-15)
                        CCISTERM (0-255), FBAND (0-511), FMEMN (0-15)
```

```
OUTPUT:                   VERIFY 2d

VER:TRK;OPT(TSN):                      BTFN TOWN ST BL FBS NBS

                                    TSG ---- ---- -- -- --- ---,

ES ----,

                         TAN                TSN
QTRK  FTFN       TSI SPC LVL FTS     SP  ROW  COL     STATUS

---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - NONE

VERIFY TRUNK APPEARANCE TO TRUNK SCANNER NUMBER

VER:TRK:OPT(SCGA):

VERIFY OUTPUT #2e - TRUNK ASSIGNMENT WITH TYPE OF SOFTWARE CARRIER GROUP ALARM PROTECTION

1. GENERAL

1.01 This message lists the identity of a trunk(s) assigned a type of Software Carrier Group Alarm Protection. The input message may specify a Circuit Identification Name (CIN), Trunk Scanner Number (TSN), Trunk Appearance Number (TAN), or a CCIS terminal and label. Output data includes the CIN, Echo Suppressor (ES), Quantity of consecutive Trunks (QTRK), First Traffic Number (FTFN), the TAN assignment on the network, Software Carrier Group Alarm (SCGA) protection, and the assignment status (STATUS) of the trunk.

2. MESSAGE ENTRIES

2.01 VER:TRK:OPT(SCGA):
This heading identifies this particular verify message.

2.02 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.03 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.04 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.05 **SCGA** - Software Carrier Group Alarm
Entries: CCIS, EM, HDWR, MIX, UNEQ.

2.06 **STATUS** - Trunk Status
Entries: ASN, CAD, MTC, UNA.

2.07 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.08 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 12a/12c

      INPUT - 12a - VER:TRK: a,OPT SCGA!(EOT)

                    a = CIN (Circuit Identification Name)
                        TSI (0-63), SPC (0-1), LVL (0-6), FTS (1-120)
                        SP (0-31), ROW (0-255), COL (0-15)
                        CCISTERM (0-255), FBAND (0-511), FMEMN (0-15)
```

```
OUTPUT:                   VERIFY 2e

VER:TRK;OPT(SCGA):                      BTFN TOWN ST BL FBS NBS

                                    TSG ---- ---- -- -- --- ---,

ES ----,

                         TAN
QTRK  FTFN       TSI SPC LVL FTS     SCGA     STATUS

---,  ----,      --,  -,  -, ---,    ----,     ---,
---,  ----,      --,  -,  -, ---,    ----,     ---,
---,  ----,      --,  -,  -, ---,    ----,     ---,
---,  ----,      --,  -,  -, ---,    ----,     ---,
---,  ----,      --,  -,  -, ---,    ----,     ---,
---,  ----,      --,  -,  -, ---,    ----,     ---,
```

ODA INPUT SOURCE - ESS 402A/402C

RECENT CHANGE INPUT SOURCE - FORM #200 - RC:TRK;NEW;OPT(MANUAL),- - -:
FORM #203 - RC:TRK;NEW;OPT(MANUAL,CCIS),- - -:

VERIFY ASSIGNMENT FOR A TRUNK WITH TYPE OF
SOFTWARE CARRIER GROUP ALARM PROTECTION

VER:TRK:OPT(CCIS/CCITT6,MISC):

VERIFY OUTPUT #2f - ASSIGNMENT FOR CCIS/CCITT6 TRUNKS
WITH DIGITAL ECHO SUPPRESSORS

1. GENERAL

1.01 This message verifies CCIS/CCITT6 trunks with Digital Echo Suppressors. The input message may be either a terminal number and label, Trunk Scanner Number (TSN), Trunk Appearance Number (TAN), or a Circuit Identification Name (CIN). Output data includes the CIN, Echo Suppressor (ES), terminal pair identification, Quantity of consecutive Trunks (QTRK), First Traffic Number (FTFN), the TAN assignment on the network, label, Miscellaneous Distributor Number (MDN), and the assignment status (STATUS) of the trunk.

2. MESSAGE ENTRIES

2.01 VER:TRK:OPT(CCIS/CCITT6,MISC):
This heading identifies this particular verify message.

2.02 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.03 **ESN** - Echo Suppressor Number

— EST = 1 to 31.

— ESU = 0 to 13.

— CHAN = 1 to 120.

2.04 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.05 **LABEL**

— FBAND - First Band Entries: 0 to 510 for CCIS, 0 to 127 for CCITT6, or blank.

— FMEMN - First Member Number Entries: 0 to 15 or blank.

2.06 **PTERM** - Primary Terminal
Entries: 0 to 255.

2.07 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.08 **STATUS** - Trunk Status
Entries: ASN, CAD, MTC, UNA.

2.09 **STERM** - Secondary Terminal
Entries: 0 to 255.

2.10 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.11 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.12 **VCR** - Voice Path Assurance Cancellation Rate
Entries: 0, 50, 87, or 100.

```
INPUT:                    VERIFY 12a/12c

      INPUT - 12a - VER:TRK: a!(EOT)

                    a = CIN (Circuit Identification Name)
                        TSI (0-63), SPC (0-1), LVL (0-6), FTS (1-120)
                        SP (0-31), ROW (0-127), COL (0-15)
                        CCSTERM (0-255), FBAND (0-511 CCIS) (0-127 CCITT6),
                        FMEMN (0-15)


      INPUT - 12c - VER:TRK:TAN a!(EOT)

                    a = Valid Trunk Appearance Number (TAN)
                        or range of TANs.
```

```
OUTPUT:                   VERIFY 2f


VER:TRK;OPT(CCIS/CCITT6,MISC):              BTFN TOWN ST BL FBS NBS

                                         TSG ---- ---- -- -- --- ---,

ES ----,                                                    PTERM ---,
                                                            STERM ---,

                        TAN              LABEL           ESN
QTRK  FTFN       TSI SPC LVL FTS     FBAND  FMEMN   EST ESU CHAN   VCR   STATUS

---,  ----,      --,  -,  -, ---,     ---,   --,    --, --, ---,   ---,   ---,
---,  ----,      --,  -,  -, ---,     ---,   --,    --, --, ---,   ---,   ---,
---,  ----,      --,  -,  -, ---,     ---,   --,    --, --, ---,   ---,   ---,
---,  ----,      --,  -,  -, ---,     ---,   --,    --, --, ---,   ---,   ---,
---,  ----,      --,  -,  -, ---,     ---,   --,    --, --, ---,   ---,   ---,
```

ODA INPUT SOURCE - ESS 402C

RECENT CHANGE INPUT SOURCE - FORM #203 - RC:TRK;NEW;OPT(MANUAL,CCIS/CCITT6),- - -:

VERIFY TRUNK ASSIGNMENT FOR CCIS/CCITT6 TRUNKS WITH DIGITAL ECHO SUPPRESSORS

VER:TRK:OPT(D1/D2):

VERIFY OUTPUT #2g - ASSIGNMENT FOR A TRUNK ASSIGNED TO A FAR-END D1D OR D2 CHANNEL BANK

1. GENERAL

1.01 This message lists the identity of a trunk(s) assigned to a D1D or D2 channel bank at the far-end office and to a digroup terminal in the 4 ESS. The input message must specify a base TAN identifying a digroup of 24 consecutive time slots, FCHAN identifying the first far-end channel number, and either the D1 or D2 keyword. Output data includes the CIN, Echo Suppressor (ES), either D1 or D2 as specified on the input message, Quantity of consecutive Trunks (QTRK), First Traffic Number (FTFN), the base TAN and first Far-end Channel (FCHAN) as specified on the input message, and the assignment status (STATUS) of the trunk.

2. MESSAGE ENTRIES

2.01 VER:TRK:OPT(D1/D2):
This heading identifies this particular verify message.

2.02 **D1D2** - D1 or D2
Entries: blank, D1, or D2.

2.03 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.04 **FCHAN** - Far-end Channel
Entries: blank or 1 to 24.

2.05 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.06 **QTRK** - Quantity of Trunks
Entries: 1 to 24.

2.07 **STATUS** - Trunk Status
Entries: ASN, CAD, MTC, UNA.

2.08 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.09 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 12a

      VER:TRK:TSI a,SPC b,LVL c,FTS d,FCHAN e,OPT f!(EOT)

          a = 0-63 (Time Slot Interchange)
          b = 0-1 (Switching Permuting Circuit)
          c = 0-6 (Level)
          d = 1-120 (First Time Slot)
          e = 1-24 (First Far-end Channel)
          f = D1 or D2 (Keywords D1 or D2)
```

```
OUTPUT:                   VERIFY 2g

VER:TRK:OPT(D1/D2):                    BTFN TOWN ST BL FBS NBS

                                    TSG ---- ---- -- -- --- ---,

ES ----,                                    D1D2 --,

                         TAN
QTRK  FTFN       TSI SPC LVL FTS     FCHAN     STATUS

 --,  ----,      --,  -,  -, ---,     --,       ---,
 --,  ----,      --,  -,  -, ---,     --,       ---,
 --,  ----,      --,  -,  -, ---,     --,       ---,
 --,  ----,      --,  -,  -, ---,     --,       ---,
 --,  ----,      --,  -,  -, ---,     --,       ---,
 --,  ----,      --,  -,  -, ---,     --,       ---,
```

ODA INPUT SOURCE - ESS 402A

RECENT CHANGE INPUT SOURCE - FORM #200 - RC:TRK;NEW;OPT(MANUAL),- - -:

VERIFY ASSIGNMENT FOR A TRUNK ASSIGNED TO A FAR-END D1D OR D2 CHANNEL BANK

VER:TRK;OPT(INTL.TSN):

VERIFY OUTPUT #2h - INTERNATIONAL - TRUNK APPEARANCE NUMBER TO TRUNK SCANNER NUMBERS

1. GENERAL

1.01 This message is a summary used to verify the correlation of a Trunk Appearance Number (TAN) to the two Trunk Scanner Numbers (TSN) necessary for international CCITT5 and CCITT6 trunks. The output format lists this correlation for the trunk or block of trunks. The input message must include the TSN option keyword following a Circuit Identification Name (CIN), CCIS terminal and label, TAN or TSN.

2. MESSAGE ENTRIES

2.01 VER:TRK;OPT(INTL.TSN):
This heading identifies this particular verify message.

2.02 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.03 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.04 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.05 **STATUS** - Trunk Status
Entries: ASN, CAD, MTC, UNA.

2.06 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.07 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.08 **TSN** - Trunk Scanner Number

— SP = 0 to 31.

— ROW = 0 to 255.

— COL = 0 to 15.

```
INPUT:                    VERIFY 12a

             VER:TRK: a,OPT TSN!(EOT)

                    a = CIN (Circuit Identification Name)
                        TSI (0-63), SPC (0-1), LVL (0-6), FTS (1-120)
                        SP (0-31), ROW (0-255), COL (0-15)
                        CCISTERM (0-255), FBAND (0-511), FMEMN (0-15)
```

```
OUTPUT:                   VERIFY 2h

VER:TRK;OPT(INTL.TSN):                      BTFN TOWN ST BL FBS NBS

                                         TSG ---- ---- -- -- --- ---,

ES ----,

                        TAN              TSN1             TSN2
QTRK  FTFN       TSI SPC LVL FTS     SP  ROW  COL     SP  ROW  COL     STATUS

---,  ----,      --,  -,  -, ---,    --, ---, --,     --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,     --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,     --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,     --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,     --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,     --, ---, --,      ---,
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - NONE

VERIFY TRUNK APPEARANCE TO TRUNK SCANNER NUMBER - INTERNATIONAL

VER:TRK;OPT(MISC):

VERIFY OUTPUT #2i - ASSIGNMENT FOR NON-CCIS TRUNKS WITH DIGITAL ECHO SUPPRESSORS

1. GENERAL

1.01 This output message verifies assignments for non-CCIS trunks with Digital Echo Suppressors. The input message may specify either a Trunk Scanner Number (TSN), Trunk Appearance Number (TAN), or a Circuit Identification Name (CIN). Output data includes the CIN, Echo Suppressor (ES), Quantity of consecutive Trunks (QTRK), First Traffic Number (FTFN), the TAN assignment on the network, Miscellaneous Distributor Number (MDN), and the assignment status (STATUS) of the trunk.

2. MESSAGE ENTRIES

2.01 VER:TRK;OPT(MISC):
This heading identifies this particular verify message.

2.02 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.03 **ESN** - Echo Suppressor Number

— EST = 1 to 31.

— ESU = 0 to 13.

— CHAN = 1 to 120.

2.04 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.05 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.06 **STATUS** - Trunk Status
Entries: ASN, CAD, MTC, UNA.

2.07 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.08 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 12a/12c

      INPUT - 12a - VER:TRK: a!(EOT)

                    a = CIN (Circuit Identification Name)
                        TSI (0-63), SPC (0-1), LVL (0-6), FTS (1-120)
                        SP (0-31), ROW (0-127), COL (0-15)


      INPUT - 12c - VER:TRK:TAN a!(EOT)

                    a = Valid Trunk Appearance Number (TAN)
                        or range of TANs.
```

```
OUTPUT:                   VERIFY 2i


VER:TRK;OPT(MISC):                      BTFN TOWN ST BL FBS NBS

                                    TSG ---- ---- -- -- --- ---,

ES ----,

                        TAN                 ESN
QTRK  FTFN       TSI SPC LVL FTS     EST ESU CHAN     STATUS

---,  ----,      --,  -,  -, ---,    --, --, ---,      ---,
---,  ----,      --,  -,  -, ---,    --, --, ---,      ---,
---,  ----,      --,  -,  -, ---,    --, --, ---,      ---,
---,  ----,      --,  -,  -, ---,    --, --, ---,      ---,
---,  ----,      --,  -,  -, ---,    --, --, ---,      ---,
---,  ----,      --,  -,  -, ---,    --, --, ---,      ---,
```

ODA INPUT SOURCE - ESS 402A

RECENT CHANGE INPUT SOURCE - FORM #200 - RC:TRK;NEW;OPT(MANUAL),- - -:

VERIFY ASSIGNMENT FOR NON-CCIS TRUNKS WITH DIGITAL ECHO SUPPRESSOR

VER:TRK;OPT(ISTP):

VERIFY OUTPUT #2j - COMPLEMENT AND BAND ASSIGNMENT FOR ISTP TRUNKS

1. GENERAL

1.01 This message verifies the assignments of CCIS trunks when the office acts as an International Signal Transfer Point (ISTP). The input message is a terminal number and label. Output data includes the two complement numbers and bands which are assigned to the trunk.

2. MESSAGE ENTRIES

2.01 VER:TRK;OPT(ISTP):
This heading identifies this particular verify message.

2.02 **BAND** - Band Number
Entries: 0 to 127.

2.03 **BAND1/2** - Band Number
Entries: 0 to 127.

2.04 **CCISTERM** - CCITT6 Terminal
Entries: 0 to 255.

2.05 **SLCINDX1/2** - Signaling Link Complement Index
Entries: 0 to 255.

```
INPUT:                    VERIFY 12a

       VER:TRK: a!(EOT)

                a = CCISTERM (0-255), FBAND (0-127), FMEMN (0-15)




OUTPUT:                   VERIFY 2j

VER:TRK;OPT(ISTP):

CCISTERM ---, BAND ---,

SLCINDX1    BAND1    SLCINDX2    BAND2

---,        ---,     ---,        ---,
```

ODA INPUT SOURCE - ESS 406F

RECENT CHANGE INPUT SOURCE - FORM #803 - RC:FUNC;CHG;OPT(ADDPAIR),_ _ _:

VERIFY TRUNK ASSIGNMENT FOR CCITT6 ISTP TRUNKS

VER:TRK;OPT(CCITT5):

VERIFY OUTPUT #2k - ASSIGNMENT FOR CCITT5 TRUNKS

1. GENERAL

1.01 This message verifies the translation for CCITT5 trunks. The input message may be either a Trunk Scanner Number (TSN), Trunk Appearance Number (TAN), or a Circuit Identification Name (CIN). Output data includes the CIN, Echo Suppressor (ES), Quantity of consecutive Trunks (QTRK), First Traffic Number (FTFN), the TAN assignment on the network, Miscellaneous Scanner Number (MSN), and the assignment status (STATUS) of the trunk.

2. MESSAGE ENTRIES

2.01 VER:TRK;OPT(CCITT5):
This heading identifies this particular verify message.

2.02 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.03 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.04 **MSN** - Miscellaneous Scanner Number

— SP = 0 to 31.

— ROW = 0 to 63.

— COL = 0 to 15.

2.05 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.06 **STATUS** - Trunk Status
Entries: ASN, CAD, MTC, UNA.

2.07 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.08 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 12a/12c

      INPUT - 12a - VER:TRK: a!(EOT)

                    a = CIN (Circuit Identification Name)
                        TSI (0-63), SPC (0-1), LVL (0-6), FTS (1-120)
                        SP (0-31), ROW (0-127), COL (0-15)


      INPUT - 12c - VER:TRK:TAN a!(EOT)

                    a = Valid Trunk Appearance Number (TAN)
                        or range of TANs.
```

```
OUTPUT:                   VERIFY 2k


VER:TRK;OPT(CCITT5):                      BTFN TOWN ST BL FBS NBS

                                      TSG ---- ---- -- -- --- ---,

ES ----,

                         TAN                MSN
QTRK  FTFN       TSI SPC LVL FTS     SP  ROW  COL     STATUS

---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,      ---,
```

ODA INPUT SOURCE - ESS 402A

RECENT CHANGE INPUT SOURCE - #200 - RC:TRK;NEW;OPT(MANUAL),_ _ _:

VERIFY ASSIGNMENT FOR CCITT5 TRUNKS

VER:TRK;OPT(CCITT5/MISC):

VERIFY OUTPUT #2l - ASSIGNMENT FOR CCITT5 TRUNKS
WITH DIGITAL ECHO SUPPRESSORS

1. GENERAL

1.01 This message verifies the translation for CCITT5 trunks with Digital Echo Suppressors. The input message may be either a Trunk Scanner Number (TSN), Trunk Appearance Number (TAN), or a Circuit Identification Name (CIN). Output data includes the CIN, Echo Suppressor (ES), Quantity of consecutive Trunks (QTRK), First Traffic Number (FTFN), the TAN assignment on the network, Miscellaneous Scanner Number (MSN), and the assignment status (STATUS) of the trunk.

2. MESSAGE ENTRIES

2.01 VER:TRK;OPT(CCITT5/MISC):
This heading identifies this particular verify message.

2.02 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.03 **ESN** - Echo Suppressor Number

— EST = 1 to 31.

— ESU = 0 to 13.

— CHAN = 1 to 120.

2.04 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.05 **MSN** - Miscellaneous Scanner Number

— SP = 0 to 31.

— ROW = 0 to 63.

— COL = 0 to 15.

2.06 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.07 **STATUS** - Trunk Status
Entries: ASN, CAD, MTC, UNA.

2.08 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.09 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 12a/12c

      INPUT - 12a - VER:TRK: a!(EOT)

                    a = CIN (Circuit Identification Name)
                        TSI (0-63), SPC (0-1), LVL (0-6), FTS (1-120)
                        SP (0-31), ROW (0-127), COL (0-15)


      INPUT - 12c - VER:TRK:TAN a!(EOT)

                    a = Valid Trunk Appearance Number (TAN)
                        or range of TANs.
```

```
OUTPUT:                   VERIFY 2l


VER:TRK;OPT(CCITT5/MISC):                      BTFN TOWN ST BL FBS NBS

                                          TSG ---- ---- -- -- --- ---,

ES ----,

                        TAN               MSN             ESN
QTRK  FTFN       TSI SPC LVL FTS     SP  ROW  COL    EST ESU CHAN   STATUS

---,  ----,      --,  -,  -, ---,    --, ---, --,    --, --, ---,    ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,    --, --, ---,    ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,    --, --, ---,    ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,    --, --, ---,    ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,    --, --, ---,    ---,
---,  ----,      --,  -,  -, ---,    --, ---, --,    --, --, ---,    ---,
```

ODA INPUT SOURCE - ESS 402A

RECENT CHANGE INPUT SOURCE - #200 - RC:TRK;NEW;OPT(MANUAL),_ _ _:

VERIFY ASSIGNMENT FOR CCITT5 TRUNKS WITH DIGITAL ECHO SUPPRESSORS

VER:TRK:OPT(CUS_OOB):

VERIFY OUTPUT #2m - TRUNK ASSIGNMENT FOR CUSTOMER OUT-OF-BAND TRUNKS

1. GENERAL

1.01 This message lists the identity of a Customer Out-of-Band signaling trunk. The input message may specify either a Trunk Scanner Number (TSN), Trunk Appearance Number (TAN), or a Circuit Identification Name (CIN). Output data includes the CIN, Echo Suppressor (ES), Quantity of consecutive Trunks (QTRK), First Traffic Number (FTFN), the TAN assignment on the network, Ring Node Address (RNA), First Trunk ID (FTRID), and the assignment status (STATUS) of the trunk.

2. MESSAGE ENTRIES

2.01 VER:TRK:OPT(CUS_OOB):
This heading identifies this particular verify message.

2.02 **BBC** - Broadband Capability
Entries: blank or 0 to 6.

2.03 **ES** - Echo Suppressor
Entries: EC, FULL, HALF, or N.

2.04 **FAC** - Facility Number
Entries: blank or 0 to 31.

2.05 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.06 **FTRID** - First Trunk ID
Entries: blank or 1 to 255.

2.07 **LACID** - Link Access Identifier
Entries: blank or 0 to 2047.

2.08 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.09 **STATUS** - Trunk Status
Entries: ASN, CAD, MTC, UNA.

2.10 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.11 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.12 **VCR** - Voice Path Assurance Cancellation Rate
Entries: 0, 50, 87, or 100.

```
INPUT:                    VERIFY 12a

      INPUT - 12a - VER:TRK: a,OPT COOB!(EOT)

                    a = CIN (Circuit Identification Name)
                        TSI (0-63), SPC (0-1), LVL (0-6), FTS (1-120)
                        SP (0-31), ROW (0-255), COL (0-15)
```

```
OUTPUT:                   VERIFY 2m

VER:TRK;OPT(CUS_OOB):                      BTFN TOWN ST BL FBS NBS

                                        TSG ---- ---- -- -- --- ---,

ES ----,

                         TAN
QTRK  FTFN       TSI SPC LVL FTS       LACID FAC FTRID   VCR   BBC   STATUS

---,  ----,      --,  -,  -, ---,      ----, --,  ---,   ---,   -,    ---,
---,  ----,      --,  -,  -, ---,      ----, --,  ---,   ---,   -,    ---,
---,  ----,      --,  -,  -, ---,      ----, --,  ---,   ---,   -,    ---,
---,  ----,      --,  -,  -, ---,      ----, --,  ---,   ---,   -,    ---,
---,  ----,      --,  -,  -, ---,      ----, --,  ---,   ---,   -,    ---,
---,  ----,      --,  -,  -, ---,      ----, --,  ---,   ---,   -,    ---,
```

ODA INPUT SOURCE - ESS 402A

RECENT CHANGE INPUT SOURCE - FORM #200 - RC:TRK;NEW;OPT(MANUAL),- - -:

VER:NAILUP

VERIFY OUTPUT #2n - TAN NAILUPS

1. GENERAL

1.01 This message lists the TAN nail-ups requested.

2. MESSAGE ENTRIES

2.01 VER:NAILUP
This heading identifies this particular verify message.

2.02 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.03 **RDC** - Red Circuit
Entries: blank, Y, or N.

2.04 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.05 **TL** - Terminate and Leave Status
Entries: blank, B, L, and R.

2.06 **TYP** - Type of Connection
Entries: blank, FSP, R56, R64, C64, DCH, and LNK.

INPUT: VERIFY 12d

INPUT - 12d - VER:NAILUP:TAN a!(EOT)
VER:NAILUP;ALL!(EOT)

a = Valid Trunk Appearance Number (TAN)
or range of TANs.

OUTPUT: VERIFY 2n

VER:NAILUP

QTRK	TAN TSI	SPC	LVL	FTS	TAN TSI	SPC	LVL	FTS	TYP	RDC	TL
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,
---,	--,	-,	-,	---,	--,	-,	-,	---,	---,	-,	-,

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM #205 - RC:TRK;NEW;OPT(NAILUP),---:

VER:TRK:OPT(BBC):

VERIFY OUTPUT #2o - TRUNK ASSIGNMENT WITH BROADBAND SWITCHING INFORMATION

1. GENERAL

1.01 This message lists the identity of a trunk(s) and the relationship of Trunk Block population to Broadband Circuit assignment.

2. MESSAGE ENTRIES

2.01 VER:TRK:OPT(BBC):
This heading identifies this particular verify message.

2.02 **BBC** - Broadband Capability
Entries: blank or 0 to 6.

2.03 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.04 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.05 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.06 **TB INDEX** - Trunk Block Index
Entries: 1 to 24.

2.07 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 12a

      INPUT - 12a - VER:TRK: a,OPT BBC!(EOT)

                    a = CIN (Circuit Identification Name)
                        TSI (0-63), SPC (0-1), LVL (0-6), FTS (1-120)
                        SP (0-31), ROW (0-127), COL (0-15)
```

```
OUTPUT:                   VERIFY 2o

VER:TRK:OPT(BBC):                                    BTFN TOWN ST BL FBS NBS

                                                   TSG ---- ---- -- -- --- ---,

 TB                              TAN
INDEX    QTRK  FTFN       TSI  SPC LVL FTS   BBC

 --,     ---,  ----,       --,  -,  -, ---,   -,
 --,     ---,  ----,       --,  -,  -, ---,   -,
 --,     ---,  ----,       --,  -,  -, ---,   -,
 --,     ---,  ----,       --,  -,  -, ---,   -,
 --,     ---,  ----,       --,  -,  -, ---,   -,
 --,     ---,  ----,       --,  -,  -, ---,   -,
```

ODA INPUT SOURCE - ESS 402A

RECENT CHANGE INPUT SOURCE - FORM #200 - RC:TRK;NEW;OPT(MANUAL),- - -:

VERIFY TRUNK ASSIGNMENT WITH BROADBAND SWITCHING INFORMATION

VER:TRK;OPT(D_CHANNEL):

VERIFY OUTPUT #2p - B CHANNEL TO D CHANNEL TRUNK OR SADC LINK MAPPING

1. GENERAL

1.01 This message lists the trunks (B Channel) related to a specific out-of-band signaling link, D Channel or the links for an SADC node. When SADC links are output, the D CHANNEL TAN field will be blank.

2. MESSAGE ENTRIES

2.01 VER:TRK;OPT(D_CHANNEL):
This heading identifies this particular verify message.

2.02 **D CHANNEL TAN**
This field identifies the port TAN(s) D Channel termination(s) on the switch. See the TAN description for entries.

2.03 **FTFN** - First Traffic Number
Entries: 0 to 9999.

2.04 **LACID** - Link Access Identifier
Entries: 0 to 2047.

2.05 **QTRK** - Quantity of Trunks
Entries: 1 to 120.

2.06 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

2.07 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 12b

      INPUT - 12b - VER:TRK:LACID a!(EOT)

                    a = up to 4 decimal digits representing a
                        Link Access Identifier (LACID).
                        Legal input values 0-2047.
```

```
OUTPUT:                   VERIFY 2p

VER:TRK;OPT(D_CHANNEL):                          D CHANNEL TAN
                                                TSI SPC LVL FTS
  LACID ----,                                   --,  -,  -, ---,
                                                --,  -,  -, ---,

                                                     TAN
  BTFN TOWN ST BL FBS NBS      QTRK   FTFN      TSI SPC LVL FTS

  ---- ---- -- -- --- ---,     ---,   ----,     --,  -,  -, ---,
  ---- ---- -- -- --- ---,     ---,   ----,     --,  -,  -, ---,
  ---- ---- -- -- --- ---,     ---,   ----,     --,  -,  -, ---,
  ---- ---- -- -- --- ---,     ---,   ----,     --,  -,  -, ---,
  ---- ---- -- -- --- ---,     ---,   ----,     --,  -,  -, ---,
  ---- ---- -- -- --- ---,     ---,   ----,     --,  -,  -, ---,
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - NONE

VER:TRK;OPT(ISDN):

VERIFY OUTPUT #2q - ISDN SERVICE DATA

1. GENERAL

1.01 This verify message, available with the 4E15 Generic Program, is used to output ISDN service data for a given LACID.

2. MESSAGE ENTRIES

2.01 VER:TRK;OPT(ISDN):

2.02 **CN** - Connected Number
Entries: blank or 1 to 10 decimal digits.

2.03 **CNPR** - Connected Number Presentation Restricted
Entries: blank, Y, or N.

2.04 **CNS** - Connected Number Subscription
Entries: blank, Y, or N.

2.05 **EESP** - Entries: blank.

2.06 **ESP** - Entries: blank.

2.07 **LACID** - Link Access Identifier
Entries: 0 to 2047.

2.08 **SRVC** - ISDN Service
Entries: SDN, SDS, ILDS, MEGC, M800, NOVA, I800.

```
INPUT:                    VERIFY 12f

      INPUT - 12f - VER:TRK:LACID a,SRVC b!(EOT)




OUTPUT:                   VERIFY 2q

VER:TRK;OPT(ISDN):                          LACID ----, SRVC ----,

CN ----------,    CNPR -,    CNS -,   ESP -,   EESP -,
```

ODA INPUT SOURCE - ESS 402F

RECENT CHANGE INPUT SOURCE - FORM #209 - RC:TRK;CHG;OPT(ISDN),---:

SECTION 3 - OUTPUT VERIFY MESSAGES

CODE GROUPING

SECTION	MESSAGE	
3a	Output 3a	Verify 3-digit translation
3b	Output 3b	Verify 3-digit codes with one or more of the same specified treatment
3c	Output 3c	Verify 4, 5, or 6 digit translation
3d	Output 3d	Verify 4, 5, or 6 digit codes with one or more of the same specified treatment
3e	Output 3e	Verify 7, 8, or 9 digit translation
3f	Output 3f	Verify 7, 8, or 9 digit codes with one or more of the same specified treatment
3g	Output 3g	Verify subsequent digit routing
3h	Output 3h	Verify 3-digit-type translator
3i	Output 3i	Verify Country Code Translation
3j	Output 3j	Verify Language Digit Translation
3k	Output 3k	Verify National Number Part 1 Translation
3l	Output 3l	Verify National Number Part 2 Translation
3m	Output 3m	Verify Country Code Conversion
3n	Output 3n	Verify International codes with one or more of the same specified treatment
3p	Output 3p	Verify Overlap Signaling Acceptable Digit Count
3q	Output 3q	Verify Emergency Alternate Routing Database
3v	Output 3v	Verify 10, 11, or 12 digit translation
3w	Output 3w	Verify 10, 11, or 12 digit codes with one or more of the same specified treatment
3x	Output 3x	Verify 00Y digit translation
3y	Output 3y	Verify proportional routing block
3z	Output 3z	Verify subsequent digit routing list message

SECTION	MESSAGE	
3aa	Output 3aa	Verify unassigned subsequent digit routing
3ab	Output 3ab	Verify codelist for digits and other index combinations
3ad	Output 3ad	Verify NX or ZZ to TNS Translator
3ae	Output 3ae	Verify II to OLI or OLI to II Conversion Translator
3af	Output 3af	Verify II Digits Translator
3ag	Output 3ag	Verify OLI Translator
3ah	Output 3ah	Verify Service Identity Index Related Information
3ai	Output 3ai	Verify Domain Type Information
3aj	Output 3aj	Verify Digits and Domains with AIN Triggers
3am	Output 3am	Verify Data Referencing Input RDBI
3an	Output 3an	Verify Routing Table List Output Message
3ay	Output 3ay	Verify International Codes having the Same Specified Treatment
3ba	Output 13ba	Verify Forwarding Default II Digits
3bb	Output 13bb	Verify Forwarding OLI Values
3bc	Output 3bc	Verify Recursive Search of International Codes
3bd	Output 3bd	Verify Recursive Search of Domestic Codes
3be	Output 3be	Verify Recursive Search of Domestic Codes in PLU Blocks
3bf	Output 3bf	Verify II Digits PayPhone Designations
3bg	Output 3bg	Verify OLI PayPhone Designations

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

VER:CODEGRP;OPT(DIG3),---:

VERIFY OUTPUT #3a - 3-DIGIT TRANSLATION

1. GENERAL

1.01 This output message verifies the treatment given to a group of 3-digit codes.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(DIG3),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **ADC** - Acceptable Digit Count
Entries: blank or 3 to 15.

2.05 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, SDIG, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV, INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,N64C,N64R,IVT,APN, NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.06 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.07 **AD3** - blank.

2.08 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

NVD - National Vendor ID (0 to 127).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.09 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>),

SSP, TEL, TST, TTS.

2.10 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.11 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.12 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.13 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.14 **IDX1** - SD-Index 1
Entries: 0 to 1022.

2.15 **IDX2** - SD-Index 2
Entries: 0 to 1022.

2.16 **NTD** - Number of Translatable Digits
Entries: 3.

2.17 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

2.18 **ST1** - SD-Type 1
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

2.19 **ST2** - SD-Type 2
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

3. ADDITIONAL OUTPUT MESSAGE INFORMATION

3.01 The following informational phases will be displayed if applicable:

- PERMISSIVE DIALING ALLOWED
- INTERCHANGEABLE CODE
- PROTECTED TO NPA *nxx*
- NON-SHARED POSITIVE LOOK-UP PRESENT (<4E21R4)
- POSITIVE LOOK-UP PRESENT (4E22R1>)
- SHARED POSITIVE LOOK-UP PRESENT (<4E21R4)
- INTERCHANGEABLE CODE AND AIN TRIGGER PRESENT - NUMBER *xxxx*
- INTERCHANGEABLE CODE AND LNP TRIGGER PRESENT - NUMBER *xxxx* (4E22R2>)
- INTERCHANGEABLE CODE AND AIN/LNP TRIGGERS PRESENT - NUMBER *xxxx* (4E22R2>)
- AIN TRIGGER PRESENT - NUMBER *xxxx*
- LNP TRIGGER PRESENT - NUMBER *xxxx* (4E22R2>)
- AIN/LNP TRIGGERS PRESENT - NUMBER *xxxx* (4E22R2>)

```
INPUT:                              VERIFY #13b

VER:CODEGRP[;ALL]:[DOM a,][AC b,]ABC c[,RDB][,ST1 d,IDX1 e][,ST2 d,IDX2 e]!(EOT)
```

```
OUTPUT:                              VERIFY 3a

VER:CODEGRP;OPT(DIG3),---:                DOM ----, NTD 3, AC -,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----,

ABC    CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP    DNST

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - 403D
RECENT CHANGE INPUT SOURCE - #300 RC:CODEGRP;CHG;OPT(DIG3),---:

```
INPUT:                              VERIFY #13b

VER:CODEGRP[;ALL]:[DOM a,][AC b,]ABC c[,RDB][,ST1 d,IDX1 e][,ST2 d,IDX2 e]!(EOT)
```

```
OUTPUT:                              VERIFY 3a

VER:CODEGRP;OPT(DIG3),---:                DOM ----, NTD 3, AC -,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----,

ABC    CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP    DNST

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - 403D
RECENT CHANGE INPUT SOURCE - #300 RC:CODEGRP;CHG;OPT(DIG3),---:

VER:CODEGRP;LIST;OPT(DIG3):

VERIFY OUTPUT #3b - 3-DIGIT CODES WITH ONE OR MORE OF THE SAME SPECIFIED TREATMENT

1. GENERAL

1.01 This output message verifies all 3-digit code groups that use the same treatment that is specified on the input message.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;LIST;OPT(DIG3):

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, SDIG, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV, INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,N64C,N64R,IVT,APN, NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.05 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.06 **AD3** - blank.

2.07 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

NVD - National Vendor ID (0 to 127).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.08 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>), SSP, TEL, TST, TTS.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK,

ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, NONE, WACK, WAC2, WSNO.

2.10 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.11 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.12 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.13 **NTD** - Number of Translatable Digits
Entries: 3.

2.14 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST, UNSP.

```
INPUT:                                VERIFY 13f

VER:CODELIST[;a]:CALLTYPb[,CALLDATAc][,AD1d][,AD2e][,AD3f][,SCg][,CHIh][,DESEPi]
                                   [,DNSTj]!(EOT)
```

```
OUTPUT                                VERIFY 3b

VER:CODEGRP;LIST;OPT(DIG3):   DOM ---, NTD 3, AC -,

CALLTYP     CALLDATA        AD1    AD2    SC   CHI  DESEP  DNST
 ---,  ------------------, ----, ------, ----, ----, ---, ------,
       AD3 --------,

     ABC   ABC   ABC   ABC   ABC   ABC   ABC   ABC
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
```

ODA INPUT SOURCE - ESS 403D - 403N
RECENT CHANGE INPUT SOURCE:VARIOUS RC:CODEGRP

```
INPUT:                                VERIFY 13f

VER:CODELIST[;a]:CALLTYPb[,CALLDATAc][,AD1d][,AD2e][,AD3f][,SCg][,CHIh][,DESEPi]
                                   [,DNSTj]!(EOT)




OUTPUT                                VERIFY 3b

VER:CODEGRP;LIST;OPT(DIG3):   DOM ---, NTD 3, AC -,

CALLTYP     CALLDATA        AD1    AD2    SC   CHI  DESEP  DNST
 ---,  ------------------, ----, ------, ----, ----, ---, ------,
       AD3 ------------,

     ABC   ABC   ABC   ABC   ABC   ABC   ABC   ABC
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
```

ODA INPUT SOURCE - ESS 403D - 403N
RECENT CHANGE INPUT SOURCE:VARIOUS RC:CODEGRP

VER:CODEGRP;OPT(DIG6),---:

VERIFY OUTPUT #3c - 4, 5 OR 6 DIGIT TRANSLATION

1. GENERAL

1.01 This output message verifies the treatment given to a group of 4, 5 or 6 digit codes.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(DIG6),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **ADC** - Acceptable Digit Count
Entries: blank or 3 to 15.

2.05 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, SDIG, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV, INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,N64C,N64R,IVT,APN, NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.06 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.07 **AD3** - blank.

2.08 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

NVD - National Vendor ID (0 to 127).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.09 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>),

SSP, TEL, TST, TTS.

2.10 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.11 **DEF** - DEF Digits
Entries: blank, 0 to 999.

2.12 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.13 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.14 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.15 **IDX1** - SD-Index 1
Entries: 0 to 1022.

2.16 **IDX2** - SD-Index 2
Entries: 0 to 1022.

2.17 **NTD** - Number of Translatable Digits
Entries: 4, 5, or 6.

2.18 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

2.19 **ST1** - SD-Type 1
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

2.20 **ST2** - SD-Type 2
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

3. ADDITIONAL OUTPUT MESSAGE INFORMATION

3.01 The following informational phases will be displayed if applicable:

- `PERMISSIVE DIALING ALLOWED`
- `INTERCHANGEABLE CODE`
- `PROTECTED TO NPA` *nxx*
- `NON-SHARED POSITIVE LOOK-UP PRESENT (<4E21R4)`
- `POSITIVE LOOK-UP PRESENT (4E22R1>)`
- `SHARED POSITIVE LOOK-UP PRESENT (<4E21R4)`
- `INTERCHANGEABLE CODE AND AIN TRIGGER PRESENT - NUMBER` *xxxx*
- `INTERCHANGEABLE CODE AND LNP TRIGGER PRESENT - NUMBER` *xxxx* (4E22R2>)
- `INTERCHANGEABLE CODE AND AIN/LNP TRIGGERS PRESENT - NUMBER` *xxxx* (4E22R2>)
- `AIN TRIGGER PRESENT - NUMBER` *xxxx*
- `LNP TRIGGER PRESENT - NUMBER` *xxxx* (4E22R2>)
- `AIN/LNP TRIGGERS PRESENT - NUMBER` *xxxx* (4E22R2>)

If any other combination of features is encountered for a code group, the abbreviation for each encountered feature is listed after the `FEATURES ALLOWED:` message. The valid feature abbreviations are:

AIN - Advanced Intelligent Network

ICC - Interchangeable Code

LNP - Local Number Portability

PDA - Permissive Dialing Allowed

PLU - Positive Look-Up

PNPA - Protected to NPA

```
INPUT:                              VERIFY #13b

VER:CODEGRP[;ALL]:[DOM a,][AC b,]ABC c,DEF d
[,RDB][,ST1 e,IDX1 f][,ST2 e,IDX2 f]!(EOT)
```

```
OUTPUT:                              VERIFY 3c

VER:CODEGRP;OPT(DIG6),---:                DOM ----, NTD -, AC -,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----,

ABC ---,

DEF    CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP    DNST

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - ESS 403E
RECENT CHANGE INPUT SOURCE - #301 RC:CODEGRP;CHG;OPT(DIG6),---:

```
INPUT:                              VERIFY #13b

VER:CODEGRP[;ALL]:[DOM a,][AC b,]ABC c,DEF d
[,RDB][,ST1 e,IDX1 f][,ST2 e,IDX2 f]!(EOT)
```

```
OUTPUT:                              VERIFY 3c

VER:CODEGRP;OPT(DIG6),---:                DOM ----, NTD -, AC -,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----,

ABC ---,

DEF    CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP    DNST

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - ESS 403E
RECENT CHANGE INPUT SOURCE - #301 RC:CODEGRP;CHG;OPT(DIG6),---:

VER:CODEGRP;LIST;OPT(DIG6):

VERIFY OUTPUT #3d - 4, 5, OR 6 DIGIT CODES WITH ONE OR MORE OF THE SAME SPECIFIED TREATMENT

1. GENERAL

1.01 This output message verifies all 4, 5, or 6 digit code groups that use the same treatment that is specified on the input message.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;LIST;OPT(DIG6):

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, SDIG, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV, INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,N64C,N64R,IVT,APN, NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.05 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.06 **AD3** - blank.

2.07 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

NVD - National Vendor ID (0 to 127).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.08 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>), SSP, TEL, TST, TTS.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK,

ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, NONE, WACK, WAC2, WSNO.

2.10 **DEF** - DEF Digits
Entries: blank, 0 to 999.

2.11 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.12 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.13 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.14 **NTD** - Number of Translatable Digits
Entries: 4, 5, or 6.

2.15 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST, UNSP.

```
INPUT:                              VERIFY #13f

VER:CODELIST[;a]:CALLTYPb[,CALLDATAc][,AD1d][,AD2e][,AD3f][,SCg][,CHIh][,DESEPi]
                                  [,DNSTj]!(EOT)
```

```
OUTPUT:                             VERIFY 3d

VER:CODEGRP;LIST;OPT(DIG6),---:           DOM ----, NTD -, AC -,
                                          ABC ---,

CALLTYP        CALLDATA        AD1     AD2     SC    CHI    DESEP   DNST
 ---,     -----------------, ----,  ------,  ----,  ----,   ---,  ------,
          AD3 --------,

     DEF   DEF   DEF   DEF   DEF   DEF   DEF   DEF
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
```

ODA INPUT SOURCE - ESS 403D - 403N
RECENT CHANGE INPUT SOURCE - VARIOUS RC:CODEGRP

```
INPUT:                              VERIFY #13f

VER:CODELIST[;a]:CALLTYPb[,CALLDATAc][,AD1d][,AD2e][,AD3f][,SCg][,CHIh][,DESEPi]
                                  [,DNSTj]!(EOT)




OUTPUT:                             VERIFY 3d

VER:CODEGRP;LIST;OPT(DIG6),---:           DOM ----, NTD -, AC -,
                                          ABC ---,

CALLTYP        CALLDATA        AD1     AD2     SC    CHI    DESEP   DNST
 ---,     ------------------, ----,  ------,  ----,  ----,   ---,  ------,
          AD3 ------------,

     DEF   DEF   DEF   DEF   DEF   DEF   DEF   DEF
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
```

ODA INPUT SOURCE - ESS 403D - 403N
RECENT CHANGE INPUT SOURCE - VARIOUS RC:CODEGRP

VER:CODEGRP;OPT(DIG9),

VERIFY OUTPUT #3e - 7, 8, OR 9 DIGIT TRANSLATION

1. GENERAL

1.01 This output message verifies the treatment given to a group of 7, 8, or 9 digit codes.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(DIG9),
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **ADC** - Acceptable Digit Count
Entries: blank or 3 to 15.

2.05 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, SDIG, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV, INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,N64C,N64R,IVT,APN, NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.06 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.07 **AD3** - blank.

2.08 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

NVD - National Vendor ID (0 to 127).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.09 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>),

SSP, TEL, TST, TTS.

2.10 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.11 **DEF** - DEF Digits
Entries: 000 to 999.

2.12 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.13 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.14 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.15 **GHI** - GHI Digits
Entries: blank, 0 to 999.

2.16 **IDX1** - SD-Index 1
Entries: 0 to 1022.

2.17 **IDX2** - SD-Index 2
Entries: 0 to 1022.

2.18 **NTD** - Number of Translatable Digits
Entries: 7, 8, or 9.

2.19 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

2.20 **ST1** - SD-Type 1
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

2.21 **ST2** - SD-Type 2
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

3. ADDITIONAL OUTPUT MESSAGE INFORMATION

3.01 The following informational phases will be displayed if applicable:

- `PERMISSIVE DIALING ALLOWED`
- `INTERCHANGEABLE CODE`
- `PROTECTED TO NPA` *nxx*
- `NON-SHARED POSITIVE LOOK-UP PRESENT (<4E21R4)`
- `POSITIVE LOOK-UP PRESENT (4E22R1>)`
- `SHARED POSITIVE LOOK-UP PRESENT (<4E21R4)`
- `INTERCHANGEABLE CODE AND AIN TRIGGER PRESENT - NUMBER` *xxxx*
- `INTERCHANGEABLE CODE AND LNP TRIGGER PRESENT - NUMBER` *xxxx* (4E22R2>)
- `INTERCHANGEABLE CODE AND AIN/LNP TRIGGERS PRESENT - NUMBER` *xxxx* (4E22R2>)
- `AIN TRIGGER PRESENT - NUMBER` *xxxx*
- `LNP TRIGGER PRESENT - NUMBER` *xxxx* (4E22R2>)
- `AIN/LNP TRIGGERS PRESENT - NUMBER` *xxxx* (4E22R2>)

If any other combination of features is encountered for a code group, the abbreviation for each encountered feature is listed after the `FEATURES ALLOWED:` message. The valid feature abbreviations are:

AIN - Advanced Intelligent Network

ICC - Interchangeable Code

LNP - Local Number Portability

PDA - Permissive Dialing Allowed

PLU - Positive Look-Up

PNPA - Protected to NPA

```
INPUT:                              VERIFY #13b

VER:CODEGRP[;ALL]:[DOM a,][AC b,]ABC c,DEF d,GHI e
[,RDB][,ST1 f,IDX1 g][,ST2 f,IDX2 g]!(EOT)




OUTPUT:                              VERIFY 3e

VER:CODEGRP;OPT(DIG9),---:                DOM ----, NTD -, AC -,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----,

ABC ---, DEF ---,

GHI    CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP    DNST

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - ESS 403F
RECENT CHANGE INPUT SOURCE - #302 RC:CODEGRP;CHG;OPT(DIG9),---:

```
INPUT:                              VERIFY #13b

VER:CODEGRP[;ALL]:[DOM a,][AC b,]ABC c,DEF d,GHI e
[,RDB][,ST1 f,IDX1 g][,ST2 f,IDX2 g]!(EOT)




OUTPUT:                              VERIFY 3e

VER:CODEGRP;OPT(DIG9),---:                DOM ----, NTD -, AC -,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----,

ABC ---, DEF ---,

GHI    CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP    DNST

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - ESS 403F
RECENT CHANGE INPUT SOURCE - #302 RC:CODEGRP;CHG;OPT(DIG9),---:

VER:CODEGRP;LIST;OPT(DIG9):

VERIFY OUTPUT #3f - 7, 8, or 9 DIGIT CODES WITH ONE OR MORE OF THE SAME SPECIFIED TREATMENTS

1. GENERAL

1.01 This output message verifies all 7, 8, or 9 digit code groups that use the same treatment that is specified on the input message.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;LIST;OPT(DIG9):

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, SDIG, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV, INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,N64C,N64R,IVT,APN, NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.05 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.06 **AD3** - blank.

2.07 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

NVD - National Vendor ID (0 to 127).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.08 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>), SSP, TEL, TST, TTS.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK,

ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, NONE, WACK, WAC2, WSNO.

2.10 **DEF** - DEF Digits
Entries: 000 to 999.

2.11 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.12 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.13 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.14 **GHI** - GHI Digits
Entries: blank, 0 to 999.

2.15 **NTD** - Number of Translatable Digits
Entries: 7, 8, or 9.

2.16 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST, UNSP.

```
INPUT:                              VERIFY #13f

VER:CODELIST[;a]:CALLTYPb[,CALLDATAc][,AD1d][,AD2e][,AD3f][,SCg][,CHIh][,DESEPi]
                                 [,DNSTj]!(EOT)


OUTPUT:                              VERIFY 3f

VER:CODEGRP;LIST;OPT(DIG9):              DOM ----, NTD -, AC -,
                                         ABC ---, DEF ---,

CALLTYP        CALLDATA        AD1   AD2     SC   CHI  DESEP  DNST
 ---,     ------------------, ----, ------, ----, ----, ---, ------,
          AD3 --------,

     GHI   GHI   GHI   GHI   GHI   GHI   GHI   GHI
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
```

ODA INPUT SOURCE - ESS 403D - 403N
RECENT CHANGE INPUT SOURCE - VARIOUS RC:CODEGRP

```
INPUT:                              VERIFY #13f

VER:CODELIST[;a]:CALLTYPb[,CALLDATAc][,AD1d][,AD2e][,AD3f][,SCg][,CHIh][,DESEPi]
                                 [,DNSTj]!(EOT)


OUTPUT:                              VERIFY 3f

VER:CODEGRP;LIST;OPT(DIG9):              DOM ----, NTD -, AC -,
                                         ABC ---, DEF ---,

CALLTYP        CALLDATA        AD1   AD2     SC   CHI  DESEP  DNST
 ---,     ------------------, ----, ------, ----, ----, ---, ------,
          AD3 ------------,

     GHI   GHI   GHI   GHI   GHI   GHI   GHI   GHI
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
```

ODA INPUT SOURCE - ESS 403D - 403N
RECENT CHANGE INPUT SOURCE - VARIOUS RC:CODEGRP

VER:CODEGRP;OPT(SDX),---:

VERIFY OUTPUT #3g - SUBSEQUENT DIGIT ROUTING

1. GENERAL

1.01 This output message is used to output a subsequent digit entry.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(SDX),---:

2.02 **ADC** - Acceptable Digit Count
Entries: blank or 2 to 15.

2.03 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, SDIG, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV, INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,N64C,N64R,IVT,APN, NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.04 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.05 **AD3** - blank.

2.06 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 000 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3/SDX - 1 to 16383 (<4E22R4).

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value.

TST - 100, 101, 102, 103, 104, 105, 108, 109, SYN.

TTS - Terminating Toll Switch Index.

2.07 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>), SSP, TEL, TST, TTS.

2.08 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.09 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.10 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.11 **DOMCLASS** - Domain Class
Entries: blank, APN, ATNS, DOM, GSDN,

INTL, ITRP, NSR.

2.12 **INDEX** - Subsequent Digit Entry
Entries: 0 to 1022.

2.13 **ORIGIN** - Subsequent Digit Entry Origin
Entries: AUTO or MAN.

2.14 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

2.15 **SDINDEX** - Subsequent Digit Routing Index
Entries: 0 to 16383.

2.16 **SIZE** - Size of Subsequent Digit Entry
Entries: 1 to 3.

```
INPUT:                              VERIFY #13c

                        VER:CODEGRP:SDINDEX a,INDEX b!(EOT)
```

```
OUTPUT:                             VERIFY 3g

VER:CODEGRP;OPT(SDX):    SDINDEX -----, SIZE -, ORIGIN ----, DOMCLASS ----,

 INDEX  CALLTYP      CALLDATA         AD1     AD2     SC     CHI   DESEP  DNST

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - ESS 403G
RECENT CHANGE INPUT SOURCE - #304

VERIFY SUBSEQUENT DIGIT INDEX
4E22R4 AND EARLIER GENERIC PROGRAMS

```
INPUT:                              VERIFY #13c

                        VER:CODEGRP:SDINDEX a,INDEX b!(EOT)



OUTPUT:                              VERIFY 3g

VER:CODEGRP;OPT(SDX):    SDINDEX -----, SIZE -, ORIGIN ----, DOMCLASS ----,

 INDEX  CALLTYP      CALLDATA         AD1     AD2     SC     CHI   DESEP  DNST

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

 ----,    ---,  ------------------,  ----,  ------,  ----,  ----,   ---, ------,
               AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - ESS 403G
RECENT CHANGE INPUT SOURCE - #304

VERIFY SUBSEQUENT DIGIT INDEX
4E23R1 AND LATER GENERIC PROGRAMS

VER:CODEGRP;OPT(DIGTYP),---:

VERIFY OUTPUT #3h - 3-DIGIT-TYPE TRANSLATION

1. GENERAL

1.01 This output message provides the ability to verify the 3-digit-type translator.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(DIGTYP),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **DIG** - 3 Digit Codes
Entries: 000 to 999.

2.03 **DIGTYP** - Three Digit Type
Entries: BNPA, DEF1, DEF2, DEF3, DEF4, DNHR, DP3, DP6, DT1-DT16 (4E20R2>), FCID (4E18>), I809, IIA, IIC, INO, INT, IRS, ITS, IWZ1, NRA, NRN, NRNX, UTC, WZ1A.

2.04 **RDIG** - 01R Digit
Entries: blank or 0 to 9.

```
INPUT:                              VERIFY #13d

VER:CODEGRP:DIGTYP a[,RDIG b]!(EOT)
```

```
OUTPUT:                             VERIFY 3h

VER:CODEGRP;OPT(DIGTYP),---:              DIGTYP ----,   RDIG -,

DIG   DIG   DIG   DIG   DIG   DIG   DIG   DIG   DIG

---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
```

ODA INPUT SOURCE - 403I
RECENT CHANGE INPUT SOURCE - #319 RC:CODEGRP;NEW;OPT(DIGTYP),---:

VER:CODEGRP;OPT(CCD),---:

VERIFY OUTPUT #3i - COUNTRY CODE TRANSLATION

1. GENERAL

1.01 This output message verifies the treatment given to a 1, 2, or 3 digit Country or Pseudo Country Code.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(CCD),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ADC** - Acceptable Digit Count
Entries: blank or 2 to 15.

2.03 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K,SDIG,
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.04 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.05 **AD3** - blank.

2.06 **CALLDATA** - Call Data

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

SD1/SD2/SD3 - Subsequent Digit (1 to 16383).

SDX - 1 to 16383 (4E23>).

1DX - 0 to 8191 (Feature 7344).

2.07 **CALLTYP** - Call Type
Entries: FHT, GNS, MCT, MRT, PRT, RDB, SD1, SD2, SD3, SDX (4E23>), 1DX.

2.08 **CCD** - Country Code
Entries: 0 to 999.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.10 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.11 **DOM** - Domain
Entries: INTO or INTT.

2.12 **IDX1** - SD-Index 1
Entries: 0 to 1022.

2.13 **IDX2** - SD-Index 2
Entries: 0 to 1022.

2.14 **NTD** - Number of Translatable Digits
Entries: 1 to 3.

2.15 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

2.16 **ST1** - SD-Type 1
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

2.17 **ST2** - SD-Type 2
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

```
INPUT:                              VERIFY #13a

VER:CODEGRP[;ALL]:[DOM a,]CCD b[,DCNT c][,ST1 d,IDX1 e][,ST2 d,IDX2 e]!(EOT)
```

```
OUTPUT:                              VERIFY 3i

VER:CODEGRP;OPT(CCD),---:                 DOM ----, NTD --,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----, DCNT --,

CCD       CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP

---,       ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,       ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,       ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,       ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - 403K
RECENT CHANGE INPUT SOURCE - #313

VERIFY COUNTRY CODE TRANSLATION
4E22R4 AND EARLIER GENERIC PROGRAMS

```
INPUT:                              VERIFY #13a

VER:CODEGRP[;ALL]:[DOM a,]CCD b[,DCNT c][,ST1 d,IDX1 e][,ST2 d,IDX2 e]!(EOT)
```

```
OUTPUT:                              VERIFY 3i

VER:CODEGRP;OPT(CCD),---:                 DOM ----, NTD --,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----, DCNT --,

CCD       CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP

---,       ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,       ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,       ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,       ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - 403K
RECENT CHANGE INPUT SOURCE - #313

VER:CODEGRP;OPT(LD),---:

VERIFY OUTPUT #3j - LANGUAGE DIGIT TRANSLATION

1. GENERAL

1.01 This output message verifies the treatment given to a group of 2, 3, or 4 digit codes used in an international call.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(LD),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ADC** - Acceptable Digit Count
Entries: blank or 2 to 15.

2.03 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K,SDIG,
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.04 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.05 **AD3** - blank.

2.06 **CALLDATA** - Call Data

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

SD1/SD2/SD3 - Subsequent Digit (1 to 16383).

SDX - 1 to 16383 (4E23>).

1DX - 0 to 8191 (Feature 7344).

2.07 **CALLTYP** - Call Type
Entries: FHT, GNS, MCT, MRT, PRT, RDB, SD1, SD2, SD3, SDX (4E23>), 1DX.

2.08 **CCD** - Country Code
Entries: 0 to 999.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.10 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.11 **DOM** - Domain
Entries: INTO or INTT.

2.12 **IDX1** - SD-Index 1
Entries: 0 to 1022.

2.13 **IDX2** - SD-Index 2
Entries: 0 to 1022.

2.14 **LD** - Language Digit
Entries: blank or 0 to 9.

2.15 **NTD** - Number of Translatable Digits
Entries: 2 to 4.

2.16 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

2.17 **ST1** - SD-Type 1
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

2.18 **ST2** - SD-Type 2
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

```
INPUT:                              VERIFY #13a

VER:CODEGRP[;ALL]:[DOM a,]CCD b,LD c[,DCNT d][,ST1 e,IDX1 f][,ST2 e,IDX2 f]!(EOT)
```

```
OUTPUT                               VERIFY 3j

VER:CODEGRP;OPT(LD),---:                              DOM ----, NTD --,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----, DCNT --,

CCD ---,

LD        CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP

-,          ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

-,          ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

-,          ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

-,          ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - 403L
RECENT CHANGE SOURCE - #314

VERIFY LANGUAGE DIGIT
4E22R4 AND EARLIER GENERIC PROGRAMS

```
INPUT:                              VERIFY #13a

VER:CODEGRP[;ALL]:[DOM a,]CCD b,LD c[,DCNT d][,ST1 e,IDX1 f][,ST2 e,IDX2 f]!(EOT)
```

```
OUTPUT                               VERIFY 3j

VER:CODEGRP;OPT(LD),---:                              DOM ----, NTD --,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----, DCNT --,

CCD ---,

LD        CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP

-,          ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

-,          ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

-,          ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

-,          ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - 403L
RECENT CHANGE SOURCE - #314

VER:CODEGRP;OPT(NN1),---:

VERIFY OUTPUT #3k - NATIONAL NUMBER PART 1

1. GENERAL

1.01 This output message verifies the treatment given to a group of up to 10 digits used in an international call.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(NN1),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ADC** - Acceptable Digit Count
Entries: blank or 2 to 15.

2.03 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K,SDIG,
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.04 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.05 **AD3** - blank.

2.06 **CALLDATA** - Call Data

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

SD1/SD2/SD3 - Subsequent Digit (1 to 16383).

SDX - 1 to 16383 (4E23>).

1DX - 0 to 8191 (Feature 7344).

2.07 **CALLTYP** - Call Type
Entries: FHT, GNS, MCT, MRT, PRT, RDB, SD1, SD2, SD3, SDX (4E23>), 1DX.

2.08 **CCD** - Country Code
Entries: 0 to 999.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.10 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.11 **DOM** - Domain
Entries: INTO or INTT.

2.12 **IDX1** - SD-Index 1
Entries: 0 to 1022.

2.13 **IDX2** - SD-Index 2
Entries: 0 to 1022.

2.14 **LD** - Language Digit
Entries: blank or 0 to 9.

2.15 **NN1** - National Number Part 1
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.16 **NTD** - Number of Translatable Digits
Entries: 2 to 10.

2.17 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

2.18 **ST1** - SD-Type 1
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

2.19 **ST2** - SD-Type 2
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

```
INPUT:                              VERIFY #13a

VER:CODEGRP[;ALL]:[DOM a,]CCD b[,LD c],NN1 d
[,DCNT e][,ST1 f,IDX1 g][,ST2 f,IDX2 g]!(EOT)




OUTPUT:                              VERIFY 3k

VER:CODEGRP;OPT(NN1),---:                           DOM ----, NTD --,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----, DCNT --,

CCD ---, LD -,

NN1       CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - 403M
RECENT CHANGE SOURCE - #315

```
INPUT:                              VERIFY #13a

VER:CODEGRP[;ALL]:[DOM a,]CCD b[,LD c],NN1 d
[,DCNT e][,ST1 f,IDX1 g][,ST2 f,IDX2 g]!(EOT)
```

```
OUTPUT:                              VERIFY 3k

VER:CODEGRP;OPT(NN1),---:                          DOM ----, NTD --,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----, DCNT --,

CCD ---, LD -,

NN1       CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - 403M
RECENT CHANGE SOURCE - #315

VER:CODEGRP;OPT(NN2),---:

VERIFY OUTPUT #3l - NATIONAL NUMBER PART 2

1. GENERAL

1.01 This output message verifies the treatment given to a group of up to 14 digits used in an international call.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(NN2),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ADC** - Acceptable Digit Count
Entries: blank or 2 to 15.

2.03 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K,SDIG,
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.04 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.05 **AD3** - blank.

2.06 **CALLDATA** - Call Data

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

SD1/SD2/SD3 - Subsequent Digit (1 to 16383).

SDX - 1 to 16383 (4E23>).

1DX - 0 to 8191 (Feature 7344).

2.07 **CALLTYP** - Call Type
Entries: FHT, GNS, MCT, MRT, PRT, RDB, SD1, SD2, SD3, SDX (4E23>), 1DX.

2.08 **CCD** - Country Code
Entries: 0 to 999.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.10 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.11 **DOM** - Domain
Entries: INTO or INTT.

2.12 **IDX1** - SD-Index 1
Entries: 0 to 1022.

2.13 **IDX2** - SD-Index 2
Entries: 0 to 1022.

2.14 **LD** - Language Digit
Entries: blank or 0 to 9.

2.15 **NN1** - National Number Part 1
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.16 **NN2** - National Number Part 2
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.17 **NTD** - Number of Translatable Digits
Entries: 3 to 14.

2.18 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

2.19 **ST1** - SD-Type 1
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

2.20 **ST2** - SD-Type 2
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

```
INPUT                                VERIFY #13a

VER:CODEGRP[;ALL]:[DOM a,]CCD b[,LD c],NN1 d,NN2 e
[,DCNT f][,ST1 g,IDX1 h][,ST2 g,IDX2 h]!(EOT)


OUTPUT                               VERIFY #3l

VER:CODEGRP;OPT(NN2),---:                            DOM ----, NTD --,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----, DCNT --,

CCD ---, LD -, NN1 ------,

NN2       CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
        AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - 403N
RECENT CHANGE SOURCE - #316

```
INPUT                                VERIFY #13a

VER:CODEGRP[;ALL]:[DOM a,]CCD b[,LD c],NN1 d,NN2 e
[,DCNT f][,ST1 g,IDX1 h][,ST2 g,IDX2 h]!(EOT)


OUTPUT                               VERIFY #3l

VER:CODEGRP;OPT(NN2),---:                            DOM ----, NTD --,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----, DCNT --,

CCD ---, LD -, NN1 ------,

NN2       CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,

------,    ---,  ------------------, ----, ------, ----, ----,  ---,
    AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - 403N
RECENT CHANGE SOURCE - #316

VER:CODEGRP;OPT(CCDCONV),---:

VERIFY OUTPUT #3m - COUNTRY CODE CONVERSION

1. GENERAL

1.01 This output message verifies if the digits are a Country Code, Pseudo Country Code, or unassigned.

1.02 The use of this form is also allowed at all domestic offices. Its use is necessary at all AT&T-C domestic switches so that international calls destined for AT&T-C ISCs can be transported across the AT&T-C network in a single stage via CCIS.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(CCDCONV),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **CBONLY** - Cable only indicator
Entries: Y or N.

2.04 **CCCNT** - Country Code Count
Entries: 0 to 999.

2.05 **CCD** - Country Code
Entries: 0 to 999.

2.06 **CCID** - Country Code ID
Entries: CCD or PCCD.

2.07 **FAXPR** - Entries: blank.

2.08 **LD** - Language Digit
Entries: blank or 0 to 9.

2.09 **RESELL** - Blank.

2.10 **SCLB** - Suppress Clear-Back Message
Entries: Y, N.

```
INPUT:                          VERIFY #13e

VER:CCDCONV:ABC a!(EOT)



OUTPUT                          VERIFY #3m

VER:CODEGRP;OPT(CCDCONV):---,

ABC     CCD     LD      CBONLY    FAXPR    CCID       CCCNT

---,    ---,    -,        -,        -,     ----,        -,
```

ODA INPUT SOURCE - ESS 403J
RECENT CHANGE INPUT SOURCE - #317

```
INPUT:                          VERIFY #13e

VER:CCDCONV:ABC a!(EOT)



OUTPUT                          VERIFY #3m

VER:CODEGRP;OPT(CCDCONV):---,

ABC     CCD     LD      CBONLY    FAXPR    CCID       CCCNT     SCLB

---,    ---,    -,        -,        -,     ----,        -,        -,

                   RECENT CHANGE INPUT SOURCE - #317
```

```
INPUT:                          VERIFY #13e

VER:CCDCONV:ABC a!(EOT)



OUTPUT                          VERIFY #3m

VER:CODEGRP;OPT(CCDCONV):---,

ABC     CCD     LD      CBONLY    FAXPR    CCID       CCCNT    SCLB    RESELL

---,    ---,    -,        -,        -,     ----,        -,      _,       _,
```

RECENT CHANGE INPUT SOURCE - #317

```
INPUT:                          VERIFY #13e

VER:CCDCONV:ABC a!(EOT)



OUTPUT                          VERIFY #3m

VER:CODEGRP;OPT(CCDCONV):---,

ABC     CCD     LD      CBONLY    FAXPR    CCID       CCCNT    SCLB    RESELL      CCRF

---,    ---,    -,        -,        -,     ----,        -,      _,       _,     -,
```

RECENT CHANGE INPUT SOURCE - #317

VERIFY COUNTRY CODE CONVERSION
4E24R1 AND LATER GENERIC PROGRAMS

Future

VER:CODEGRP;LIST(OPT,INTL):

VERIFY OUTPUT #3n - INTERNATIONAL CODES HAVING THE SAME SPECIFIED TREATMENT

1. GENERAL

1.01 This output message will verify international codes which point at a specific routing treatment. The codes can be printed for either the INTO (International Originating) or INTT (International Transit) domains. If domain is not specified on the input message, two output messages can be received, one listing codes in the INTO domain, and one listing codes in the INTT domain.

1.02 The codes will be printed in ascending numerical order along with the language digit and digit count if these items apply. The message is sent in groups of nine codes if more than nine codes are found.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;LIST(OPT,INTL):

2.02 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K,SDIG,
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.03 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.04 **AD3** - blank.

2.05 **CALLDATA** - Call Data

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

SD1/SD2/SD3 - Subsequent Digit (1 to 16383).

SDX - 1 to 16383 (4E23>).

1DX - 0 to 8191 (Feature 7344).

2.06 **CALLTYP** - Call Type
Entries: DSN, FHT, GNS, PRT, RDB, SDX (4E23>), 1DX.

2.07 **CCD** - Country Code
Entries: 0 to 999.

2.08 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.09 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.10 **DOM** - Domain
Entries: INTO or INTT.

2.11 **LD** - Language Digit
Entries: blank or 0 to 9.

2.12 **NN1** - National Number Part 1
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.13 **NN2** - National Number Part 2
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.14 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

2.15 **SDX TYPE AND INDEX** -
Entries:

CSRT	0-1022
DC	0-15
DRTC	0-15
FAI	0-1022
FPR	0-1022
GSDN	0-1

IPR	0-1022
MTS	0-63
RSI	0-126
SDN	0-1022
TPC	0-1022

```
INPUT:                          VERIFY #13g

VER:INTLCODE[;a]:[DOMb,]CALLTYPc[,CALLDATAd][,AD1e][,AD2f][,AD3g][,SCh][,CHIi]
[,DESEPj]!(EOT)


OUTPUT                          VERIFY #3n

VER:CODEGRP;LIST(OPT,INTL):                              DOM ----,

CALLTYP        CALLDATA     AD1     AD2   SC   CHI  DESEP

 ---,  ------------------, ----, ------, ----, ----,  ---,
       AD3 --------,

CCD   LD     NN1      NN2  DIGIT COUNT/SDX TYPE AND INDEX
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
```

ODA INPUT SOURCE - ESS 403G,K,L,M,N
RECENT CHANGE INPUT SOURCE - VARIOUS RC:CODEGRP

```
INPUT:                          VERIFY #13g

VER:INTLCODE[;a]:[DOMb,]CALLTYPc[,CALLDATAd][,AD1e][,AD2f][,AD3g][,SCh][,CHIi]
[,DESEPj]!(EOT)


OUTPUT                          VERIFY #3n

VER:CODEGRP;LIST(OPT,INTL):                              DOM ----,

CALLTYP        CALLDATA     AD1     AD2   SC   CHI  DESEP

 ---,  ------------------, ----, ------, ----, ----,  ---,
       AD3 ------------,

CCD   LD     NN1      NN2  DIGIT COUNT/SDX TYPE AND INDEX
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
---,  -,  ------,  ------, [---- ----,] . . . [---- ----,]
```

ODA INPUT SOURCE - ESS 403G,K,L,M,N
RECENT CHANGE INPUT SOURCE - VARIOUS RC:CODEGRP

VER:CODEGRP;OPT(CCDADC),---:

VERIFY OUTPUT #3p - OVERLAP SIGNALING ACCEPTABLE DIGIT COUNT

1. GENERAL

1.01 This output message verifies the acceptable digit count used by CCITT7 Overlap Signaling for the specified country code.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(CCDADC),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ADC** - Acceptable Digit Count
Entries: all blanks, 3 to 15.

2.03 **CCD** - Country Code
Entries: 0 to 999.

```
INPUT:                          VERIFY #13j

                          VER:CCDADC:CCD a!(EOT)


OUTPUT                          VERIFY 3p

VER:CODEGRP;OPT(CCDADC):---,                          CCD ---,

ADC  --,--,--,--,--,--,--,--,--,--,--,--,--
```

ODA INPUT SOURCE - ESS 403Q

RECENT CHANGE INPUT SOURCE - FORM #312

VER:CODEGRP:OPT(EAR):

VERIFY OUTPUT #3q - EMERGENCY ALTERNATE ROUTING DATABASE

1. GENERAL

1.01 Verify message 3q is used to output customer information in the Emergency Alternate Routing Database. This message will output either all customers with the seven or ten digit primary number inputed (the primary number may be in the database in more than one place with different domains) and its status (active or inactive) or all customers and their status (active or inactive).

2. MESSAGE ENTRIES

2.01 VER:CODEGRP:OPT(EAR):

2.02 **AC/DEAC** - Activate/Deactivate
Entries: AC or DEAC.

2.03 **ALTNUM** - Alternate Number
Entries: 7 or 10 digit number.

2.04 **PRIMDOM** - Primary Domain
Entries: POTS, nonPOTS (20-80,82,83), SDNA, DEV, DED, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), INCD, N64C, N64R, NH0C, and NH1C.

2.05 **PRIMNUM** - Primary Number
Entries: 7 or 10 digit number.

```
INPUT:                          VERIFY #13r

                      VER:CODEGRP:LISTEAR!(EOT)

                      VER:CODEGRP:EAR a!(EOT)


OUTPUT:                               VERIFY 3q

VER:CODEGRP;CHG;OPT(EAR):

   PRIMNUM    PRIMDOM      ALTNUM     AC/DEAC

 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
 ----------,   ----,     ----------,  ----,
```

ODA INPUT SOURCE - ESS 4031

RECENT CHANGE INPUT SOURCE - FORM # 341/342

VER:CODEGRP;OPT(DIG12),---:

VERIFY OUTPUT #3v - 10, 11, OR 12 DIGIT TRANSLATION

1. GENERAL

1.01 This output message verifies the treatment given to a group of 10, 11, or 12 digit codes.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(DIG12),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **ADC** - Acceptable Digit Count
Entries: blank or 3 to 15.

2.05 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SDINDEX (1 to 16383),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN,
TPC,SDN,IPR,CSRT,FPR,
V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV,
INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV,
INCD,I56D,I64C,N64C,N64R,IVT,APN,
NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.06 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.07 **AD3** - blank.

2.08 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

NVD - National Vendor ID (0 to 127).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.09 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>),

SSP, TEL, TST, TTS.

2.10 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.11 **DEF** - DEF Digits
Entries: 000 to 999.

2.12 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.13 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.14 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.15 **GHI** - GHI Digits
Entries: 000 to 999.

2.16 **IDX1** - SD-Index 1
Entries: 0 to 1022.

2.17 **IDX2** - SD-Index 2
Entries: 0 to 1022.

2.18 **JKL** - JKL Digits
Entries: blank, 0 to 999.

2.19 **NTD** - Number of Translatable Digits
Entries: 10, 11, or 12.

2.20 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

2.21 **ST1** - SD-Type 1
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

2.22 **ST2** - SD-Type 2
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

3. ADDITIONAL OUTPUT MESSAGE INFORMATION

3.01 The following informational phases will be displayed if applicable:

- `PERMISSIVE DIALING ALLOWED`
- `INTERCHANGEABLE CODE`
- `PROTECTED TO NPA` *nxx*
- `NON-SHARED POSITIVE LOOK-UP PRESENT (<4E21R4)`
- `POSITIVE LOOK-UP PRESENT (4E22R1>)`
- `SHARED POSITIVE LOOK-UP PRESENT (<4E21R4)`
- `INTERCHANGEABLE CODE AND AIN TRIGGER PRESENT - NUMBER` *xxxx*
- `INTERCHANGEABLE CODE AND LNP TRIGGER PRESENT - NUMBER` *xxxx* (4E22R2>)
- `INTERCHANGEABLE CODE AND AIN/LNP TRIGGERS PRESENT - NUMBER` *xxxx* (4E22R2>)
- `AIN TRIGGER PRESENT - NUMBER` *xxxx*
- `LNP TRIGGER PRESENT - NUMBER` *xxxx* (4E22R2>)
- `AIN/LNP TRIGGERS PRESENT - NUMBER` *xxxx* (4E22R2>)

If any other combination of features is encountered for a code group, the abbreviation for each encountered feature is listed after the `FEATURES ALLOWED:` message. The valid feature abbreviations are:

AIN - Advanced Intelligent Network

ICC - Interchangeable Code

LNP - Local Number Portability

PDA - Permissive Dialing Allowed

PLU - Positive Look-Up

PNPA - Protected to NPA

```
INPUT:                              VERIFY #13b

VER:CODEGRP[;ALL]:[DOM a,][AC b,]ABC c,DEF d,GHI e,JKL f
[,RDB][,ST1 g,IDX1 h][,ST2 g,IDX2 h]!(EOT)
```

```
OUTPUT:                              VERIFY 3v

VER:CODEGRP;OPT(DIG12),---:                DOM ----, NTD --, AC -,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----,

ABC ---, DEF ---, GHI ---,

JKL    CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP    DNST

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
              AD3 --------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - ESS 403V
RECENT CHANGE INPUT SOURCE - #303 RC:CODEGRP:CHG;OPT(DIG12),---:

```
INPUT:                              VERIFY #13b

VER:CODEGRP[;ALL]:[DOM a,][AC b,]ABC c,DEF d,GHI e,JKL f
[,RDB][,ST1 g,IDX1 h][,ST2 g,IDX2 h]!(EOT)




OUTPUT:                              VERIFY 3v

VER:CODEGRP;OPT(DIG12),---:                DOM ----, NTD --, AC -,

ST1 ----, IDX1 ----, ST2 ----, IDX2 ----,

ABC ---, DEF ---, GHI ---,

JKL    CALLTYP        CALLDATA     AD1     AD2   SC    CHI  DESEP    DNST

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,

---,    ---,  ------------------, ----, ------, ----, ----,  ---,  ------,
          AD3 ------------, ADC --,--,--,--,--,--,--,--,--,--,--,--,--,--,
```

ODA INPUT SOURCE - ESS 403V
RECENT CHANGE INPUT SOURCE - #303 RC:CODEGRP:CHG;OPT(DIG12),---:

VER:CODEGRP;LIST;OPT(DIG12):

VERIFY OUTPUT #3w - 10, 11, or 12 DIGIT CODES WITH ONE OR MORE OF THE SAME SPECIFIED TREATMENTS

1. GENERAL

1.01 This output message verifies all 10, 11, or 12 digit code groups that use the same treatment that is specified on the input message.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;LIST;OPT(DIG12):

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SDINDEX (1 to 16383),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV, INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,N64C,N64R,IVT,APN, NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.05 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.06 **AD3** - blank.

2.07 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

NVD - National Vendor ID (0 to 127).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.08 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>), SSP, TEL, TST, TTS.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD,

EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, NONE, WACK, WAC2, WSNO.

2.10 **DEF** - DEF Digits
Entries: 000 to 999.

2.11 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.12 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.13 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.14 **GHI** - GHI Digits
Entries: 000 to 999.

2.15 **JKL** - JKL Digits
Entries: blank, 0 to 999.

2.16 **NTD** - Number of Translatable Digits
Entries: 10, 11, or 12.

2.17 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST, UNSP.

```
INPUT:                                VERIFY #13f

VER:CODELIST[;a]:CALLTYPb[,CALLDATAc][,AD1d][,AD2e][,AD3j][,SCf][,CHIg][,DESEPh]
                                    [,DNSTi]!(EOT)



OUTPUT:                               VERIFY 3w

VER:CODEGRP;LIST;OPT(DIG12):             DOM ----, NTD --, AC -,
                                         ABC ---, DEF ---, GHI ---,

CALLTYP    CALLDATA        AD1     AD2    SC   CHI  DESEP   DNST
 ---,  ------------------, ----, ------, ----, ----, ---,  ------,
       AD3 --------,


     JKL   JKL   JKL   JKL   JKL   JKL   JKL   JKL
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
```

ODA INPUT SOURCE - ESS 403D - 403N AND 403V
RECENT CHANGE SOURCE - VARIOUS RC:CODEGRP

```
INPUT:                              VERIFY #13f

VER:CODELIST[;a]:CALLTYPb[,CALLDATAc][,AD1d][,AD2e][,AD3j][,SCf][,CHIg][,DESEPh]
                                  [,DNSTi]!(EOT)



OUTPUT:                              VERIFY 3w

VER:CODEGRP;LIST;OPT(DIG12):           DOM ----, NTD --, AC -,
                                       ABC ---, DEF ---, GHI ---,

CALLTYP    CALLDATA        AD1     AD2    SC   CHI  DESEP   DNST
 ---,  ------------------, ----, ------, ----, ----, ---,  ------,
       AD3 ------------,


     JKL   JKL   JKL   JKL   JKL   JKL   JKL   JKL
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
```

ODA INPUT SOURCE - ESS 403D - 403N AND 403V
RECENT CHANGE SOURCE - VARIOUS RC:CODEGRP

VER:CODEGRP;OPT(YCODE),

VERIFY OUTPUT #3x - OOY DIGIT TRANSLATION

1. GENERAL

1.01 This output message verifies the treatment given to OOY codes 0 through 9.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(YCODE),

2.02 **COIN** - Coin Identifier
Entries: Y or N.

2.03 **FELATA** - Far End Local Access and Transport Area
Entries: 000 to 999.

2.04 **FENPA** - Far End Numbering Plan Area
Entries: 000 to 999.

2.05 **OOY** - Y Digit
Entries: 0 to 9.

INPUT: VERIFY #13k

VER:CODEGRP:YCODE!(EOT)

OUTPUT: VERIFY 3x

```
VER:CODEGRP;OPT(YCODE),

 OOY
CODE          FENPA          FELATA          COIN

  0,           ---,           ---,            -,
  1,           ---,           ---,            -,
  2,           ---,           ---,            -,
  3,           ---,           ---,            -,
  4,           ---,           ---,            -,
  5,           ---,           ---,            -,
  6,           ---,           ---,            -,
  7,           ---,           ---,            -,
  8,           ---,           ---,            -,
  9,           ---,           ---,            -,
```

ODA INPUT SOURCE - ESS 403X
RECENT CHANGE INPUT SOURCE - FORM #331

VERIFY 00Y DIGIT TRANSLATIONS
4E18 AND LATER GENERIC PROGRAMS

VER:CODEGRP;OPT(PRT):

VERIFY OUTPUT #3y - PROPORTIONAL ROUTING

1. GENERAL

1.01 This output message is used to output a proportional routing block.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(PRT):

2.02 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K,
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.03 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.04 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSN - 1 to 167.

EAR - RDBI.

GNS - RDBI.

PAS - 12 digit value.

RDB - 1 to 8191.

TEL - 12 digit value

TTS - Terminating Toll Switch Index.

2.05 **CALLTYP** - Call Type
Entries: CRB, DSN, EAR, GNS, PAS, RDB, TEL, TTS.

2.06 **DOMCLASS** - Domain Class
Entries: APN, DOM, INTL, ITRP, NSR.

2.07 **PERCENT** - Percent
Entries: 1 to 100.

2.08 **PRTI** - Proportional Routing Index
Entries: 0 to 127.

```
INPUT:                              VERIFY #13l

                                VER:CODEGRP:PRTI a!(EOT)
```

```
OUTPUT:                              VERIFY 3y

VER:CODEGRP;OPT(PRT):                                  PRTI ---, DOMCLASS ----,

PERCENT  CALLTYP       CALLDATA         AD1     AD2

  ---,     ---,   ------------------,  ----,  ------,
  ---,     ---,   ------------------,  ----,  ------,
  ---,     ---,   ------------------,  ----,  ------,
  ---,     ---,   ------------------,  ----,  ------,
  ---,     ---,   ------------------,  ----,  ------,
  ---,     ---,   ------------------,  ----,  ------,
  ---,     ---,   ------------------,  ----,  ------,
  ---,     ---,   ------------------,  ----,  ------,
```

ODA INPUT SOURCE - ESS 403H
RECENT CHANGE INPUT SOURCE - FORM #332

VER:CODEGRP;LIST;OPT(SDX):

VERIFY OUTPUT #3z - SUBSEQUENT DIGIT ROUTING LIST MESSAGE

1. GENERAL

1.01 This output message is used to output subsequent digit indexes that contain a particular treatment.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;LIST;OPT(SDX):

2.02 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SDINDEX (1 to 16383),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV, INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,N64C,N64R,IVT,APN, NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.03 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.04 **AD3** - blank.

2.05 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167,

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 000 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E223>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value.

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.06 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SD1 (<4E22R4), SD2 (<4E22R4), SD3 (<4E22R4), SDX, SSP, TEL, TST, TTS.

2.07 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, NONE, WACK, WAC2, WSNO.

2.08 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.09 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.10 **ORIGIN** - Subsequent Digit Entry Origin
Entries: AUTO or MAN.

2.11 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST, UNSP.

2.12 **SDINDEX** - Subsequent Digit Routing Index
Entries: 0 to 16383.

2.13 **SIZE** - Size of Subsequent Digit Entry
Entries: 1 to 3.

```
INPUT:                          VERIFY #13m

VER:SDLIST:CALLTYPa[,CALLDATAb][,AD1c][,AD2d][,AD3e][,SCf][,CHIg][,DESEPh]
[,DNSTi]!(EOT)



OUTPUT                          VERIFY #3z

VER:CODEGRP;LIST;OPT(SDX):


 CALLTYP   CALLDATA         AD1     AD2    SC   CHI  DESEP  DNST

   ---, ------------------, ----, ------, ----, ----, ---, ------,
        AD3 --------,

 SDINDEX   SIZE   ORIGIN
  -----,    -,     ----,
  -----,    -,     ----,
  -----,    -,     ----,
  -----,    -,     ----,
  -----,    -,     ----,
  -----,    -,     ----,
  -----,    -,     ----,
  -----,    -,     ----,
```

ODA INPUT SOURCE - NONE
RECENT CHANGE INPUT SOURCE - NONE

```
INPUT:                          VERIFY #13m

VER:SDLIST:CALLTYPa[,CALLDATAb][,AD1c][,AD2d][,AD3e][,SCf][,CHIg][,DESEPh]
[,DNSTi]!(EOT)



OUTPUT                          VERIFY #3z

VER:CODEGRP;LIST;OPT(SDX):


 CALLTYP   CALLDATA         AD1     AD2    SC   CHI  DESEP  DNST

   ---, ------------------, ----, ------, ----, ----, ---, ------,
        AD3 ------------,

 SDINDEX   SIZE   ORIGIN
  -----,    -,     ----,
  -----,    -,     ----,
  -----,    -,     ----,
  -----,    -,     ----,
  -----,    -,     ----,
  -----,    -,     ----,
  -----,    -,     ----,
  -----,    -,     ----,
```

ODA INPUT SOURCE - NONE
RECENT CHANGE INPUT SOURCE - NONE

VER:CODEGRP;OPT(SDX,UNA):

VERIFY OUTPUT #3aa - UNASSIGNED SUBSEQUENT DIGIT ROUTING

1. GENERAL

1.01 This output message is used to output unassigned subsequent digit entries.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(SDX,UNA):

2.02 **QTY** - Quantity
This number specifies the number of consecutive unassigned subsequent digit indexes starting with SDINDEX.

2.03 **SDINDEX** - Subsequent Digit Routing Index
Entries: 0 to 16383.

```
INPUT:                          VERIFY #13c

VER:CODEGRP:SDINDEX a,UNA!(EOT)



OUTPUT                          VERIFY #3aa

VER:CODEGRP;OPT(SDX,UNA):


 SDINDEX      QTY
  -----,     ----,
  -----,     ----,
  -----,     ----,
  -----,     ----,
  -----,     ----,
  -----,     ----,
  -----,     ----,
```

ODA INPUT SOURCE - NONE
RECENT CHANGE INPUT SOURCE - NONE

VER:CODEGRP;LIST;OPT(ALL):

VERIFY OUTPUT #3ab - ALL DIGIT CODES AND OTHER INDEXES WITH ONE OR MORE OF THE SAME SPECIFIED TREATMENT

1. GENERAL

1.01 This output message will display every combination of digits and other indexes that yield the requested treatment.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;LIST;OPT(ALL):

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
LATA ((<4E21) 000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SDINDEX (1 to 16383),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA, IT,20-83,DED,DEV, INCD,IVT,APN,NH0C, NH1C),
DOM2 - (INTO,IO56,IO64,IOH0,),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,N64C,N64R,IVT,APN, NH0C, NH1C).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.05 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.06 **AD3** - blank.

2.07 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

NVD - National Vendor ID (0 to 127).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.08 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>), SSP, TEL, TST, TTS.

2.09 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD,

EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, NONE, WACK, WAC2, WSNO.

2.10 **DEF** - DEF Digits
Entries: blank, 0 to 999.

2.11 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.12 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.13 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.14 **GHI** - GHI Digits
Entries: blank, 0 to 999.

2.15 **JKL** - JKL Digits
Entries: blank, 0 to 999.

2.16 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST, UNSP.

2.17 **SDX TYPE AND INDEX** -
Entries:

CSRT	0-1022
DC	0-15
DRTC	0-15
FAI	0-1022
FPR	0-1022
GSDN	0-1
IPR	0-1022
MTS	0-63
RSI	0-126
SDN	0-1022
TPC	0-1022

```
INPUT:                              VERIFY #13f

VER:CODELIST;ALL:CALLTYPb[,CALLDATAc][,AD1d][,AD2e][,AD3f][,SCg][,CHIh][,DESEPi]
                                  [,DNSTj]!(EOT)




OUTPUT:                             VERIFY 3ab

VER:CODEGRP;LIST;OPT(ALL),---:                        DOM ----, AC -,


CALLTYP      CALLDATA     AD1     AD2     SC   CHI  DESEP  DNST

 ---, ------------------, ----, ------, ----, ----, ---, ------,
      AD3 --------,


ABC  DEF  GHI  JKL   SDX TYPE AND INDEX
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
```

ODA INPUT SOURCE - ESS 403D/E/F/V
RECENT CHANGE INPUT SOURCE - VARIOUS RC:CODEGRP

VERIFY ALL CODES AND OTHER INDEXES WITH SPECIFIED ROUTING TREATMENT
4E22R4 AND EARLIER GENERIC PROGRAMS

```
INPUT:                              VERIFY #13f

VER:CODELIST;ALL:CALLTYPb[,CALLDATAc][,AD1d][,AD2e][,AD3f][,SCg][,CHIh][,DESEPi]
                                  [,DNSTj]!(EOT)




OUTPUT:                             VERIFY 3ab

VER:CODEGRP;LIST;OPT(ALL),---:                        DOM ----, AC -,


CALLTYP      CALLDATA     AD1     AD2     SC   CHI  DESEP  DNST

 ---, ------------------, ----, ------, ----, ----, ---, ------,
      AD3 ------------,


ABC  DEF  GHI  JKL   SDX TYPE AND INDEX
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
---, ---, ---, ---,  [---- ----,] . . . [---- ----,]
```

ODA INPUT SOURCE - ESS 403D/E/F/V
RECENT CHANGE INPUT SOURCE - VARIOUS RC:CODEGRP

VER:EA;OPT(NX/ZZ):

VERIFY OUTPUT #3ad - NX OR ZZ TO TNS TRANSLATOR

1. GENERAL

1.01 This output message will display the TNS index and operator, if applicable, information for the requested NX or ZZ digit(s).

2. MESSAGE ENTRIES

2.01 VER:EA;OPT(NX/ZZ):

2.02 **NX** - NX Equal Access Digits
Entries: 00 to 99.

2.03 **OPR** - Operator indicator
Entries: blank, Y or N.

2.04 **TNSI** - Access Tandem Transit Network Selection Index
Entries: 0 to 15.

2.05 **ZZ** - ZZ Equal Access Digits
Entries: 00 to 99.

```
INPUT:                              VERIFY #13o

                                 VER:EA:NX a!(EOT)
                                 VER:EA:ZZ a!(EOT)


OUTPUT:                             VERIFY 3ad

VER:EA;OPT(NX):


    NX     TNSI    OPR

    --,     --,     -,
    --,     --,     -,
    --,     --,     -,
    --,     --,     -,
    --,     --,     -,
    --,     --,     -,
    --,     --,     -,
    --,     --,     -,
    --,     --,     -,
    --,     --,     -,

OUTPUT:                             VERIFY 3ad

VER:EA;OPT(ZZ):


    ZZ     TNSI

    --,     --,
    --,     --,
    --,     --,
    --,     --,
    --,     --,
    --,     --,
    --,     --,
    --,     --,
    --,     --,
    --,     --,
```

ODA INPUT SOURCE - ESS 403Y
RECENT CHANGE INPUT SOURCE - #335

VERIFY NX OR ZZ TO TNS TRANSLATOR
4E18 AND LATER GENERIC PROGRAMS

VER:EA;OPT(CONV):

VERIFY OUTPUT #3ae - II TO OLI OR OLI TO II CONVERSION TRANSLATOR

1. GENERAL

1.01 This output message will display the OLI values that correspond to the requested II digits or the II digit values that correspond to the requested OLI input.

2. MESSAGE ENTRIES

2.01 VER:EA;OPT(CONV):

2.02 **AININD1** - AIN Indicator (4E18>)
Entries: blank, Y, or N.

2.03 **AININD2** - AIN Indicator (4E18>)
Entries: blank, Y, or N.

2.04 **II** - II Digits
Entries: blank or 00 to 99.

2.05 **OLI** - Originating Line Identifier
Entries: blank or 0 to 255.

2.06 **TOS1** - Type of Service (4E18>)
Entries: blank or 0 to 31.

2.07 **TOS2** - Type of Service (4E18>)
Entries: blank or 0 to 31.

INPUT: VERIFY #13p

VER:EA;CONV:IIDIGITS a!(EOT)
VER:EA;CONV:OLI a!(EOT)

OUTPUT: VERIFY 3ae

VER:EA;OPT(CONV):

II	TO	OLI	AININD1	TOS1	OLI	TO	II	AININD2	TOS2
--,		---,	-,	--,	---,		--,	-,	--,
--,		---,	-,	--,	---,		--,	-,	--,
--,		---,	-,	--,	---,		--,	-,	--,
--,		---,	-,	--,	---,		--,	-,	--,
--,		---,	-,	--,	---,		--,	-,	--,
--,		---,	-,	--,	---,		--,	-,	--,
--,		---,	-,	--,	---,		--,	-,	--,
--,		---,	-,	--,	---,		--,	-,	--,
--,		---,	-,	--,	---,		--,	-,	--,
--,		---,	-,	--,	---,		--,	-,	--,

ODA INPUT SOURCE - ESS 403Z
RECENT CHANGE INPUT SOURCE - #336

VER:EA;OPT(FUNC,IIDIGITS):

VERIFY OUTPUT #3af - II DIGITS TRANSLATOR

1. GENERAL

1.01 This output message will display the ANI digit count and action information for the requested II digit(s).

2. MESSAGE ENTRIES

2.01 VER:EA;OPT(FUNC,IIDIGITS):

2.02 **DC_3 - DC_10** - Digit Count 3 through 10
Entries: CANI, IAROA, IAAFA, NONEA.

2.03 **II** - II Digits
Entries: 00 to 99.

2.04 **R_3-R_10** - blank.

2.05 **SRVCT** - Service Type
Entries: CMC, EAPOTS, SDN, OWATS, TRS, or T800.

INPUT: VERIFY #13n

VER:EA;FUNC:IIDIGITS a!(EOT)

OUTPUT: VERIFY 3af

VER:EA;OPT(FUNC,IIDIGITS):

					ANIACTN				
II	SRVCT	DC_3	DC_4	DC_5	DC_6	DC_7	DC_8	DC_9	DC_10
--,	------,	-----,	-----,	-----,	-----,	-----,	-----,	-----,	-----,
--,	------,	-----,	-----,	-----,	-----,	-----,	-----,	-----,	-----,
--,	------,	-----,	-----,	-----,	-----,	-----,	-----,	-----,	-----,
--,	------,	-----,	-----,	-----,	-----,	-----,	-----,	-----,	-----,
--,	------,	-----,	-----,	-----,	-----,	-----,	-----,	-----,	-----,
--,	------,	-----,	-----,	-----,	-----,	-----,	-----,	-----,	-----,
--,	------,	-----,	-----,	-----,	-----,	-----,	-----,	-----,	-----,
--,	------,	-----,	-----,	-----,	-----,	-----,	-----,	-----,	-----,
--,	------,	-----,	-----,	-----,	-----,	-----,	-----,	-----,	-----,
--,	------,	-----,	-----,	-----,	-----,	-----,	-----,	-----,	-----,

ODA INPUT SOURCE - ESS 403S/403T
RECENT CHANGE INPUT SOURCE - #334/337

INPUT: VERIFY #13n

VER:EA;FUNC:IIDIGITS a!(EOT)

OUTPUT: VERIFY 3af

VER:EA;OPT(FUNC,IIDIGITS):

				ANIACTN					
II	SRVCT	DC_3	R_3	DC_4	R_4	DC_5	R_5	DC_6	R_6
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,

				ANIACTN					
II	SRVCT	DC_7	R_7	DC_8	R_8	DC_9	R_9	DC_10	R_10
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
--,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,

ODA INPUT SOURCE - ESS 403S/403T
RECENT CHANGE INPUT SOURCE - #334/337

VERIFY II DIGITS TRANSLATOR
4E23 RELEASE 1 AND LATER GENERIC PROGRAMS

VER:EA;OPT(FUNC,OLI):

VERIFY OUTPUT #3ag - OLI TRANSLATOR

1. GENERAL

1.01 This output message will display the ANI count and action information for the requested OLI value(s).

2. MESSAGE ENTRIES

2.01 VER:EA;OPT(FUNC,OLI):

2.02 **DC_0, DC_3, DC_10, DC_X** - Digit Count 0, 3, 10, and other
Entries: CANI, IAROA, IAAFA.

2.03 **OLI** - Originating Line Identifier
Entries: 0 to 255.

2.04 **R_0,R_3,R_10,R_X** - blank.

2.05 **SRVCT** - Service Type
Entries: CMC, EAPOTS, SDN, OWATS, TRS, or T800.

```
INPUT:                              VERIFY #13n

                                VER:EA;FUNC:OLI a!(EOT)



OUTPUT:                             VERIFY 3ag

VER:EA;OPT(FUNC,OLI):


                                      ANIACTN
OLI     SRVCT       DC_0    DC_3   DC_10    DC_X

---,   ------,     -----,  -----,  -----,  -----,
---,   ------,     -----,  -----,  -----,  -----,
---,   ------,     -----,  -----,  -----,  -----,
---,   ------,     -----,  -----,  -----,  -----,
---,   ------,     -----,  -----,  -----,  -----,
---,   ------,     -----,  -----,  -----,  -----,
---,   ------,     -----,  -----,  -----,  -----,
---,   ------,     -----,  -----,  -----,  -----,
---,   ------,     -----,  -----,  -----,  -----,
---,   ------,     -----,  -----,  -----,  -----,
```

ODA INPUT SOURCE - ESS 403S/403T
RECENT CHANGE INPUT SOURCE - #334/337

INPUT: VERIFY #13n

VER:EA;FUNC:OLI a!(EOT)

OUTPUT: VERIFY 3ag

VER:EA;OPT(FUNC,OLI):

		ANIACTN							
OLI	SRVCT	DC_0	R_0	DC_3	R_3	DC_10	R_10	DC_X	R_X
---,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
---,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
---,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
---,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
---,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
---,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
---,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
---,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,
---,	------,	-----,	-,	-----,	-,	-----,	-,	-----,	-,

ODA INPUT SOURCE - ESS 403S/403T
RECENT CHANGE INPUT SOURCE - #334/337

VER:EA;OPT(SII):

VERIFY OUTPUT #3ah - SII RELATED INFORMATION

1. GENERAL

1.01 This output message will display the OLI value, if any, and the billing number and calling party number handling, and SID/ANI increment message handling information for the specified Service Identity Index.

2. MESSAGE ENTRIES

2.01 VER:EA;OPT(SII):

2.02 **ASAI** - Avoid sending SID/ANI Increment Message
Entries: Y or N.

2.03 **BNA** - Billing Number Action
Entries: T (TSG), P (pass), and D (drop).

2.04 **CPNA** - Calling Party Number Action
Entries: T (TSG), P (pass), and D (drop).

2.05 **SST** - Entries: blank.

2.06 **DESV** - Dedicated Egress Service
Entries: blank, UNK, GSDN, I800, ILDS, M800, MQ, SDI, SDN, and SDS.

2.07 **OLI** - Originating Line Identifier
Entries: blank or 0 to 255.

2.08 **SII** - Service Identity Index
Entries: 0 to 255.

2.09 **SST** - Entries: blank.

```
INPUT:                              VERIFY #13q

                                  VER:EA:SII a!(EOT)
```

```
OUTPUT:                             VERIFY 3ah

VER:EA;OPT(SII):                                SII ---,

OLI ---,  BNA -,  CPNA -,  ASAI -,  DESV ----,  SST -----,
```

ODA INPUT SOURCE - ESS 403R
RECENT CHANGE INPUT SOURCE - #338

```
INPUT:                              VERIFY #13q

                                  VER:EA:SII a!(EOT)
```

```
OUTPUT:                             VERIFY 3ah

VER:EA;OPT(SII):                                SII ---,

OLI ---,  BNA -,  CPNA -,  ASAI -,  DESV ----,  SST -----,   CSCI --,
```

ODA INPUT SOURCE - ESS 403R
RECENT CHANGE INPUT SOURCE - #338

Future

VER:CODEGRP;OPT(TYPE),---:

VERIFY OUTPUT #3ai - DOMAIN TYPE INFORMATION

1. GENERAL

1.01 This output message provides the ability to verify which domains have a specified indicator set.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT(TYPE),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **DOM** - Domain
Entries: POTS, 20 to 83, INTO,INTT, VRFY, SDNA, DED, DEV, STCD (4E22R4>), NSR, INCD, LSI, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.03 **DOMTYP** - Domain Type
Entries: FCID, SDAC or TDAC.

```
INPUT:                              VERIFY #13s

                                VER:CODEGRP:TYPE a! (EOT)
```

```
OUTPUT:                             VERIFY 3ai

VER:CODEGRP;OPT(TYPE),---:                DOMTYP ----,

 DOM  DOM   DOM   DOM  DOM

----, ----, ----, ----, ----,

----, ----, ----, ----, ----,

----, ----, ----, ----, ----,

----, ----, ----, ----, ----,
```

ODA INPUT SOURCE - 4030
RECENT CHANGE INPUT SOURCE - #344

VERIFY DOMAIN TYPE INFORMATION

VER:AIN;OPT(LIST):

VERIFY OUTPUT #3aj - OUTPUT DIGITS AND DOMAINS WITH AIN TRIGGER

1. GENERAL

1.01 This output message verifies which digits and domains that have the Advanced Intelligent Network (AIN) Triggers specified.

2. MESSAGE ENTRIES

2.01 VER:AIN;OPT(LIST),---:

2.02 **ABC DEF GHI J** - ABC DEF GHI J Digits
Entries: Any digits (0 to 9) with existing routing of RDB, GNS, SDI (manual or auto), SD2 (manual or auto), SD3 (manual or auto).

2.03 **AC** - Area Code
Entries: blank, Y, or N.

2.04 **AIN TRIGGER** - AIN Trigger Number
Entries: 1 to 8191

2.05 **DFRN** - Default Routing Number (4E20R2>)
Entries: blank or a 10 digit routing number. Should be populated when DRCC=DRN and blank when FH=FT; otherwise, it is optional.

2.06 **DRCC** - Default Routing Control Code (4E20R2>)
Entries: blank, TRM, DRN, CPN. Should be blank when FH=FT.

2.07 **DOM** - Domain
Entries: POTS, 20 to 69, 82, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), STCD (4E22R4>), N64C. [Note: 82 and N64C valid 4E21R4>]

2.08 **FH** - AIN Fault Handling (4E20R2>)
Entries: FT or DR. Should never be blank because blank translates to FT.

2.09 **LTOS** - Local number portability Type of Service (4E22R2>)
Entries: blank, or 0 to 31. A type of service must be entered here if, and only if, the Trigger TYPE is LNP or Both (LNP & AIN).

2.10 **SCSANN** - SCS Number for Default Routing Voice Announcement (4E20R2>)
Entries: blank, 0 to 65535. Should be blank when FH=FT.

2.11 **TOS** - Type of Service
Entries: blank, or 0 to 31. A type of service must be entered here if, and only if, the Trigger TYPE is AIN or Both (LNP & AIN).

2.12 **TTYPE** - Trigger Type (4E22R2>)
Entries: A (AIN), L (LNP), or B (both LNP & AIN).

```
INPUT:                              VERIFY #13t

VER:AIN:LIST a ! (EOT)




OUTPUT:                              VERIFY 3aj

VER:AIN;OPT(LIST):


TRIGGER
NUMBER       DOM  AC     ABC  DEF  GHI  J      TOS

 ----,      ----, _,     ---, ---, ---, -,     --,
 ----,      ----, _,     ---, ---, ---, -,     --,
 ----,      ----, _,     ---, ---, ---, -,     --,
 ----,      ----, _,     ---, ---, ---, -,     --,
 ----,      ----, _,     ---, ---, ---, -,     --,
 ----,      ----, _,     ---, ---, ---, -,     --,
 ----,      ----, _,     ---, ---, ---, -,     --,
 ----,      ----, _,     ---, ---, ---, -,     --,
 ----,      ----, _,     ---, ---, ---, -,     --,
 ----,      ----, _,     ---, ---, ---, -,     --,
```

ODA INPUT SOURCE - ESS 4033
RECENT CHANGE INPUT SOURCE - #345 RC:AIN;OPT(LIST),---:

INPUT: VERIFY #13t

VER:AIN:LIST a ! (EOT)

OUTPUT: VERIFY 3aj

VER:AIN;OPT(LIST):

TRIGGER NUMBER	DOM	AC	ABC	DEF	GHI	J	TOS	FH	SCSANN	DRCC	DFRN
----	----	_	---	---	---	-	--	--	-----	---	----------
----	----	_	---	---	---	-	--	--	-----	---	----------
----	----	_	---	---	---	-	--	--	-----	---	----------
----	----	_	---	---	---	-	--	--	-----	---	----------
----	----	_	---	---	---	-	--	--	-----	---	----------
----	----	_	---	---	---	-	--	--	-----	---	----------
----	----	_	---	---	---	-	--	--	-----	---	----------
----	----	_	---	---	---	-	--	--	-----	---	----------
----	----	_	---	---	---	-	--	--	-----	---	----------
----	----	_	---	---	---	-	--	--	-----	---	----------

RECENT CHANGE INPUT SOURCE - #345 RC:AIN;OPT(LIST),---:

```
INPUT:                              VERIFY #13t

VER:AIN:LIST a ! (EOT)




OUTPUT:                              VERIFY 3aj

VER:AIN;OPT(LIST):


TRIGGER
NUMBER  TTYPE  LTOS   TOS  FH   SCSANN  DRCC     DFRN

 ----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
 ----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
 ----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
 ----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
 ----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
 ----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
 ----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
 ----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
 ----,    -,    --,   --,  --,   -----,  ---,  ----------,
       DOM ----, AC -, ABC ---, DEF ---, GHI ---, J -,
```

RECENT CHANGE INPUT SOURCE - #345 RC:AIN;OPT(LIST),---:

VER:ALLRDB;OPT(xxx):

VERIFY OUTPUT #3am - VERIFY DATA REFERENCING INPUT RDBI

1. GENERAL

1.01 This output message verifies all data structures which reference the input RDBI.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;LIST;OPT(xxx):
xxx defines the type of data referencing the input RDBI:

DIG3: 3 Digit Codes in the Codegroup Tables referencing the input RDBI.

DIG6: 4-6 Digit Codes in the Codegroup Tables referencing the input RDBI.

DIG9: 7-9 Digit Codes in the Codegroup Tables referencing the input RDBI.

DIG12: 10-12 Digit Codes in the Codegroup Tables referencing the input RDBI.

PLU: Line Numbers in the PLU Tables referencing the input RDBI.

CPA: Adjunct Common Data referencing the input RDBI.

ALAOSN: ALA/OSN Data referencing the input RDBI.

ADG: Automatic Distribution Group Data Specified for the input RDBI.

If the RDBI is not referenced in the specific data structure mentioned above, the output message for that data structure will not be displayed.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

2.04 **ADG** - Automatic Distribution Group
Entries: 0 to 3.

2.05 **ALA** - Adjunct Logical Address
Entries: 0 to 15.

2.06 **DEF** - DEF Digits
Entries: 0 to 999.

2.07 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.08 **GHI** - GHI Digits
Entries: 0 to 999.

2.09 **JKL** - JKL Digits
Entries: 0 to 999.

2.10 **NTD** - Number of Translatable Digits
Entries: 3 to 12.

2.11 **OSN** - Originating Switch Number
Entries: 0 to 167.

2.12 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

```
4E22R4>

VER:ALLRDB;OPT(DIG3):                                RDBI    ,

DOM ---, NTD 3, AC -,


     ABC   ABC   ABC   ABC   ABC   ABC   ABC   ABC
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,


VER:ALLRDB;OPT(DIG6):                                RDBI    ,

DOM ----, NTD -, AC -, ABC ---,


     DEF   DEF   DEF   DEF   DEF   DEF   DEF   DEF
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,


VER:ALLRDB;OPT(DIG9):                                RDBI    ,

DOM ----, NTD -, AC -, ABC ---, DEF ---,


     GHI   GHI   GHI   GHI   GHI   GHI   GHI   GHI
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,


VER:ALLRDB;OPT(DIG12):                               RDBI    ,

DOM ----, NTD -, AC -, ABC ---, DEF ---, GHI ---,


     JKL   JKL   JKL   JKL   JKL   JKL   JKL   JKL
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
     ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
```

```
VER:ALLRDB;OPT(PLU):                          RDBI    ,

DOM ----, ABC ---, DEF ---,


GHIJ   GHIJ    GHIJ   GHIJ    GHIJ   GHIJ    GHIJ   GHIJ
MIN    MAX     MIN    MAX     MIN    MAX     MIN    MAX

----,   ----,     ----,   ----,     ----,   ----,     ----,   ----,
----,   ----,     ----,   ----,     ----,   ----,     ----,   ----,
----,   ----,     ----,   ----,     ----,   ----,     ----,   ----,
----,   ----,     ----,   ----,     ----,   ----,     ----,   ----,
----,   ----,     ----,   ----,     ----,   ----,     ----,   ----,
----,   ----,     ----,   ----,     ----,   ----,     ----,   ----,
----,   ----,     ----,   ----,     ----,   ----,     ----,   ----,
----,   ----,     ----,   ----,     ----,   ----,     ----,   ----,
----,   ----,     ----,   ----,     ----,   ----,     ----,   ----,
----,   ----,     ----,   ----,     ----,   ----,     ----,   ----,



VER:ALLRDB;OPT(CPA):                          RDBI    ,


 ALA    ALA    ALA    ALA    ALA    ALA    ALA    ALA
  --,    --,    --,    --,    --,    --,    --,    --,
  --,    --,    --,    --,    --,    --,    --,    --,
```

```
VER:ALLRDB;OPT(ALAOSN):                          RDBI    ,

 ALA    OSN    ALA    OSN    ALA    OSN    ALA    OSN
  --,    ---,    --,    ---,    --,    ---,    --,    ---,
  --,    ---,    --,    ---,    --,    ---,    --,    ---,
  --,    ---,    --,    ---,    --,    ---,    --,    ---,
  --,    ---,    --,    ---,    --,    ---,    --,    ---,
  --,    ---,    --,    ---,    --,    ---,    --,    ---,
  --,    ---,    --,    ---,    --,    ---,    --,    ---,
  --,    ---,    --,    ---,    --,    ---,    --,    ---,
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  --,    ---,    --,    ---,    --,    ---,    --,    ---,
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  --,    ---,    --,    ---,    --,    ---,    --,    ---,
  --,    ---,    --,    ---,    --,    ---,    --,    ---,
  --,    ---,    --,    ---,    --,    ---,    --,    ---,
  --,    ---,    --,    ---,    --,    ---,    --,    ---,
  --,    ---,    --,    ---,    --,    ---,    --,    ---,


VER:ALLRDB;OPT(ADG):                             RDBI    ,

ADG ---,
```

```
RECENT CHANGE SOURCE - VARIOUS RC:CODEGRP
RECENT CHANGE SOURCE - FORM # 521/522/523
RECENT CHANGE SOURCE - FORM # 524/525
RECENT CHANGE SOURCE - FORM # 652
RECENT CHANGE SOURCE - FORM # 656
RECENT CHANGE SOURCE - FORM # 500
```

VER:RTGLIST;OPT(MCT/MRT/PRT)

VERIFY OUTPUT #3an - ROUTING TABLE LIST OUTPUT MESSAGE

1. GENERAL

1.01 This message is used to output the indexes of a given type of routing table (MCT, MRT, or PRT) that contain specific Calltype and Calldata (optional) information.

2. MESSAGE ENTRIES (In the order appearing in the output message.)

2.01 VER:RTGLIST;OPT(- - -):
Entries: MCT, MRT, PRT.

2.02 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

NVD - National Vendor ID (0 to 127).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND.

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.03 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>), SSP, TEL, TST, TTS.

2.04 - - - TABLE
Entries: MCT, MRT, PRT.

2.05 **INDEX** - Routing table indexes.
Entries: 0 to 127 for PRT routing. 1 to 255 (1 to 1023 (4E23>)) for MCT routing. 0 to 8191 for MRT routing tables.

INPUT: VERIFY #13w

VER:RTGLIST;STDP,OPT a:CALLTYP b[,CALLDATA c]!(EOT)

OUTPUT: VERIFY #3an

VER:RTGLIST;OPT(- - -):

CALLTYP CALLDATA

--- , ----------,

--- TABLE

INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX
----,	----,	----,	----,	----,	----,	----,	----,	----,	----,
----,	----,	----,	----,	----,	----,	----,	----,	----,	----,
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----,	----,	----,	----,	----,	----,	----,	----,	----,	----,
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----,	----,	----,	----,	----,	----,	----,	----,	----,	----,

ODA INPUT SOURCE - 403H
RECENT CHANGE INPUT SOURCE - 321,322,332,33,339,340

VERIFY ROUTING TABLE LIST OUTPUT MESSAGE
4E22 RELEASE 4 AND EARLIER GENERIC PROGRAMS

INPUT: VERIFY #13w

VER:RTGLIST;STDP,OPT a:CALLTYP b[,CALLDATA c]!(EOT)

OUTPUT: VERIFY #3an

VER:RTGLIST;OPT(- - -):

CALLTYP CALLDATA

---, ----------,

--- TABLE

INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX
------,	------,	------,	------,	------,	------,	------,	------,	------,	------,
------,	------,	------,	------,	------,	------,	------,	------,	------,	------,
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------,	------,	------,	------,	------,	------,	------,	------,	------,	------,
------,	------,	------,	------,	------,	------,	------,	------,	------,	------,
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ODA INPUT SOURCE - 403H
RECENT CHANGE INPUT SOURCE - 321,322,332,33,339,340

VERIFY ROUTING TABLE LIST OUTPUT MESSAGE
4E23 RELEASE 1 AND LATER GENERIC PROGRAMS

Future

VER:CODEGRP:OPT(LNP),- - -:

VERIFY OUTPUT #3av - LNP 6-DIGIT-TYPE TRANSLATION

1. GENERAL

1.01 This output message provides the ability to verify the LNP 6-digit-type translator.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP:OPT(LNP),- - -:

2.02 **ABC** - 3 Digit (NPA) codes
Entries: 200 to 999.

2.03 **DEF** - Three Digits
Entries: 000 to 999.

```
INPUT:                              VERIFY #13av

VER:CODEGRP;OPT LNP:ABC a,DEF b!(EOT)
```

```
OUTPUT:                               VERIFY 3av

VER:CODEGRP;OPT(LNP):                           ABC ---,

DEF   DEF   DEF   DEF   DEF   DEF   DEF   DEF   DEF   DEF

---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
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---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,  ---,
```

RECENT CHANGE INPUT SOURCE - #347 RC:CODEGRP;NEW;OPT(LNP),---:

VER:CODEGRP;LIST;OPT(STDP):

VERIFY OUTPUT #3ay - INTERNATIONAL CODES HAVING THE SAME SPECIFIED TREATMENT

1. GENERAL

1.01 This output message will verify international codes which point at a specific routing treatment. The codes can be printed for either the INTO (International Originating) or INTT (International Transit) domains. If domain is not specified on the input message, two output messages can be received, one listing codes in the INTO domain, and one listing codes in the INTT domain.

1.02 The codes will be printed in ascending numerical order along with the language digit and digit count if these items apply. The message is sent in groups of nine codes if more than nine codes are found.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;LIST;OPT(STDP):

2.02 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K,SDIG,
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD).
(4E22>) - The HNPA input is valid only in "offices using Traditional Routing".

2.03 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CIDT (4E18R3>), GNSC (0 to 3), STATE ((<4E21) two alphabetic characters).

2.04 **AD3** - blank.

2.05 **CALLDATA** - Call Data

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

SD1/SD2/SD3 - Subsequent Digit (1 to 16383).

SDX - 1 to 16383.

1DX - 1 to 4095.

2.06 **CALLTYP** - Call Type
Entries: DSN, FHT, GNS, PRT, RDB, SDX, 1DX.

2.07 **CCD** - Country Code
Entries: 0 to 999.

2.08 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.09 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.10 **DOM** - Domain
Entries: INTO or INTT.

2.11 **LD** - Language Digit
Entries: blank or 0 to 9.

2.12 **NN1** - National Number Part 1
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.13 **NN2** - National Number Part 2
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.14 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST.

```
INPUT:                          VERIFY #13g

VER:INTLCODE;STDP:[DOMb,]CALLTYPc[,CALLDATAd][,AD1e][,AD2f][,AD3g][,SCh][,CHIi]
[,DESEPj]!(EOT)


OUTPUT                          VERIFY #3ay

VER:CODEGRP;LIST;OPT(STDP):                      DOM ----,

CALLTYP        CALLDATA     AD1     AD2   SC   CHI  DESEP

 ___,  ____________________, ____, ______, ____, ____,  ___,
       AD3 _________,

CCD   LD     NN1      NN2
___,  _,  _______,  _______,
___,  _,  _______,  _______,
___,  _,  _______,  _______,
___,  _,  _______,  _______,
___,  _,  _______,  _______,
___,  _,  _______,  _______,
___,  _,  _______,  _______,
___,  _,  _______,  _______,
___,  _,  _______,  _______,
___,  _,  _______,  _______,
___,  _,  _______,  _______,
___,  _,  _______,  _______,
```

VER:EA;OPT(DFI):

VERIFY OUTPUT #3ba - FORWARDING DEFAULT II DIGITS

1. GENERAL

1.01 This output message will display the default II digits that are to be forwarded to an IXC if Flexible ANI/II restrictions apply. The horizontal heading displays the II digits assigned per default which is provisioned via recent change form 811. The vertical columns which follow displays the II digits default mapping (what default is assigned to what II digits). The II default mapping is provisioned by recent change form 349.

2. MESSAGE ENTRIES

2.01 VER:EA;OPT(DFI):

2.02 **ID1-ID6** - II Digits Default 1 through 6
Entries: blank or 00 to 99.

2.03 **II** - II Digits
Entries: 00 to 99.

2.04 **IDEF** - II Digits Default
Entries: blank, PSS, or ID1 to ID6.

```
4E24R1
INPUT:                    VERIFY #13ba

                       VER:EA:OPT DFI!(EOT)


OUTPUT:                   VERIFY 3ba

VER:EA;OPT(DFI):

                        II DEFAULTS

ID1 --,  ID2 --,  ID3 --,  ID4 --,  ID5 --,  ID6 --,


II   IDEF    II   IDEF    II   IDEF    II   IDEF    II   IDEF    II   IDEF
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
__,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,   __,  ____,
```

RECENT CHANGE INPUT SOURCE - #349/811

VER:EA;OPT(DFO):

VERIFY OUTPUT #13bb - FORWARDING DEFAULT OLI VALUES

1. GENERAL

1.01 This output message will display the default OLI value that is forwarded to an IXC if Flexible ANI/II restrictions apply. The horizontal heading displays the specific OLI value assigned per default which is provisioned via recent change form 811. The vertical columns which follow displays the OLI default mapping (what default is assigned to what OLI value). The OLI default mapping is provisioned by recent change form 350.

2. MESSAGE ENTRIES

VER:EA;OPT(DFO):

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.01 **OD1-OD6** - OLI Value Default 1 through 6
Entries: blank or 0 to 255.

2.02 **OLI** - Originating Line Identifier
Entries: 0 to 255.

2.03 **ODEF** - Originating Line Identifier Default
Entries: blank, PSS, or OD1 to OD6.

```
4E24R1
INPUT:                    VERIFY 13bb

                        VER:EA:OPT DFO!(EOT)
OUTPUT:                   VERIFY 3bb

VER:EA;OPT(DFO):


                         OLI DEFAULTS

OD1 ---,  OD2 ---,  OD3 ---,  OD4 ---,  OD5 ---,  OD6 ---,


OLI  ODEF    OLI  ODEF    OLI  ODEF    OLI  ODEF    OLI  ODEF

___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,
___, ___,    ___, ___,    ___, ___,    ___, ___,    ___, ___,

                RECENT CHANGE INPUT SOURCE - #350/811
```

VER:CODEGRP;LIST;OPT(INTL-RECSCH):

VERIFY OUTPUT #3bc - RECURSIVE SEARCH OF INTERNATIONAL CODES

1. GENERAL

1.01 This output message will verify international codes that point to the input calltype and all codes that point to any PRT/SDX/MCT/MRT/RDB calltypes that were populated in the input calltype.

The codes can be printed for either the INTO (International Originating) or INTT (International Transit) domains. If domain is not specified on the input message, two output messages can be received, one listing codes in the INTO domain, and one listing codes in the INTT domain.

1.02 The codes will be printed in ascending numerical order along with the language digit, calltyp, calldata and AD1 information if these items apply. The message is sent in groups of nine codes if more than nine matches are found.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;LIST;OPT(INTL-RECSCH):

2.02 **AD1** - Additional Data 1
Entries: blank,
Go/NoGo (G,N),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC,
CSRT,FPR, V31K.

2.03 **CALLDATA** - Call Data

GNS - RDBI.

[[MCT - Multiple Carrier Index (1 to 255, 1 to 1023).

MRT - Multiple Routing Index (1 to 8191).]]

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

SDX - 1 to 16383.

2.04 **CALLTYP** - Call Type
Entries: GNS, PRT, RDB, SDX, [[MRT, MCT]].

2.05 **CCD** - Country Code
Entries: 0 to 999.

2.06 **DOM** - Domain
Entries: INTO or INTT.

2.07 **LD** - Language Digit
Entries: blank or 0 to 9.

2.08 **NN1** - National Number Part 1
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.09 **NN2** - National Number Part 2
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

```
INPUT:                          VERIFY #13g                                          |

VER:INTLCODE;STDP,OPT RECSCH:[DOM b,]CALLTYP c,CALLDATA d!(EOT)                      |


OUTPUT                          VERIFY #3bc                                          |

VER:CODEGRP;LIST;OPT(INTL-RECSCH):                          DOM ----,                |


CCD   LD     NN1      NN2   CALLTYP      CALLDATA     AD1                           |

---,  -,  ------,  ------,   ---, ------------------, ----,                         |
---,  -,  ------,  ------,   ---, ------------------, ----,                         |
---,  -,  ------,  ------,   ---, ------------------, ----,                         |
---,  -,  ------,  ------,   ---, ------------------, ----,                         |
---,  -,  ------,  ------,   ---, ------------------, ----,                         |
---,  -,  ------,  ------,   ---, ------------------, ----,                         |
---,  -,  ------,  ------,   ---, ------------------, ----,                         |
---,  -,  ------,  ------,   ---, ------------------, ----,                         |
---,  -,  ------,  ------,   ---, ------------------, ----,                         |
```

VER:CODELIST;STDP,OPT(RECSCH):

VERIFY OUTPUT #3bd - RECURSIVE SEARCH OF DOMESTIC CODES

1. GENERAL

1.01 This output message will verify all domestic codes that point to the input calltype and all domestic codes that point to any PRT/SDX/MCT/MRT/RDB calltypes that were populated in the input calltype.

2. MESSAGE ENTRIES

2.01 VER:CODELIST;STDP,OPT(RECSCH):

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank.

2.04 **AD1** - Additional Data 1
Entries: blank, NONE,
Go/NoGo (G,N),
NDBI (1 to 1023),
SDTYPE (RSI,MTS,DC,DRTC,GSDN,
TPC,SDN,IPR,CSRT,FPR,V31K

2.05 **CALLTYP** - Call Type
Entries: EAR, GNS, MCT, MMT, MRT, PRT, RDB, RNR, SDX, SSP, TTS.

2.06 **CALLDATA** - Call Data

EAR - RDBI.

GNS - RDBI.

MCT - Multiple Carrier Index (1 to 255, 1 to 1023).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - 1 to 8191.

SDX - Subsequent Digit Index (1 to 16383).

SSP - NDB, TNSND

TTS - Terminating Toll Switch Index (1 to 31).

2.07 **DEF** - DEF Digits
Entries: blank, 0 to 999.

2.08 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI, SF00-SF06, SF07-SF39, ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD, APN, NH0C, NH1C.

2.09 **GHI** - GHI Digits
Entries: blank, 0 to 999.

2.10 **JKL** - JKL Digits
Entries: blank, 0 to 999.

```
INPUT:                          VERIFY #13f                                    |

VER:CODELIST;STDP,OPT RECSCH:[DOM b,]CALLTYP c,CALLDATA d!(EOT)                |


OUTPUT                          VERIFY #3bd                                    |

VER:CODELIST;STDP,OPT(RECSCH)            DOM ---, AC -,                        |
                                                                               |
ABC   DEF   GHI   JKL    CALLTYP        CALLDATA   AD1                         |
                                                                               |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
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---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
```

VER:CODELIST;STDP,OPT(RECSCH-PLU):

VERIFY OUTPUT #3be - RECURSIVE SEARCH OF DOMESTIC CODES IN PLU BLOCKS

1. GENERAL

1.01 This output message will verify all domestic Positive Look Up codes that point to the input calltype and that point to any PRT/SDX/MCT/MRT/RDB calltypes that were populated in the input calltype.

2. MESSAGE ENTRIES

2.01 VER:CODELIST;STDP,OPT(RECSCH-PLU):

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank.

2.04 **AD1** - Additional Data 1
Entries: blank, NONE,
Go/NoGo (G,N),
NDBI (1 to 1023),
SDTYPE (RSI,MTS,DC,DRTC,GSDN,
TPC,SDN,IPR,CSRT,FPR,V31K,

2.05 **CALLTYP** - Call Type
Entries: EAR, GNS, MCT, MMT, MRT, PRT, RDB, RNR, SDX, SSP, TTS.

2.06 **CALLDATA** - Call Data

EAR - RDBI.

GNS - RDBI.

MCT - Multiple Carrier Index (1 to 255, 1 to 1023).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - 1 to 8191.

SDX - Subsequent Digit Index (1 to 16383).

SSP - NDB, TNSND.

TTS - Terminating Toll Switch Index (1 to 31).

2.07 **DEF** - DEF Digits
Entries: blank, 0 to 999.

2.08 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI, SF00-SF06, SF07-SF39, ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD, APN, NH0C, NH1C.

2.09 **MIN** - line number minimum
Entries: 0000 to 9999.

2.10 **MAX** - line number maximum
Entries: blank or 0000 to 9999.

```
INPUT:                          VERIFY #13f                                    |

VER:CODELIST;STDP,OPT RECSCH:[DOM b,]CALLTYP c,CALLDATA d!(EOT)                |


OUTPUT                          VERIFY #3be                                    |

VER:CODELIST;STDP,OPT(RECSCH-PLU)         DOM ---, AC -,                       |
                                                                               |
ABC   DEF   MIN   MAX    CALLTYP        CALLDATA   AD1                         |
                                                                               |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
---,  ---, ----, ----,   ---, ------------------, ----,                        |
```

VER:EA;OPT(IPPD):

VERIFY OUTPUT #3bf - II DIGITS PAYPHONE DESIGNATIONS

1. GENERAL

1.01 This output message will display the II digits PayPhone Designations.

2. MESSAGE ENTRIES

2.01 VER:EA;OPT(IPPD):

2.02 **II** - II Digits
Entries: 0 to 99.

2.03 **PPD** - PayPhone Designation
Entries: N, or Y.

```
4E24R3
INPUT:                                VERIFY #13bf

                                   VER:EA;OPT IPPD!(EOT)


OUTPUT:                               VERIFY 3bf

VER:EA;OPT(IPPD):                                                              |

                     II PAYPHONE DESIGNATIONS                                  |

II   PPD     II   PPD     II   PPD     II   PPD     II   PPD                   |
                                                                               |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |

                     RECENT CHANGE INPUT SOURCE - #811                         |
```

VER:EA;OPT(OPPD):

VERIFY OUTPUT #3bg - OLI PAYPHONE DESIGNATIONS

1. GENERAL

1.01 This output message will display the OLI digits PayPhone Designations.

2. MESSAGE ENTRIES

2.01 VER:EA;OPT(OPPD):

2.02 **OLI** - Originating Line Identifier
Entries: 0 to 255.

2.03 **PPD** - PayPhone Designation
Entries: N, or Y.

```
4E24R3
INPUT:                              VERIFY #13bg

                                VER:EA;OPT OPPD!(EOT)


OUTPUT:                             VERIFY 3bg

VER:EA;OPT(OPPD):                                                              |

                    OLI PAYPHONE DESIGNATIONS                                  |

OLI  PPD     OLI  PPD     OLI  PPD     OLI  PPD     OLI  PPD                  |
                                                                               |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |
__,   _,     __,   _,     __,   _,     __,   _,     __,   _,                  |

                    RECENT CHANGE INPUT SOURCE - #811                          |
```

SECTION 4 - OUTPUT VERIFY MESSAGES

CENTRALIZED AUTOMATIC MESSAGE

ACCOUNTING SCREENING

SECTION	MESSAGES	
4a	Output 4a	Verify valid originating office codes (CAMA).
4b	Output 4b	Verify a CAMA local call intercept blocking pattern (terminating).
4c	Output 4c	Verify CAMA unauthorized area codes.
4d	Output 4d	Verify CAMA unauthorized office codes.
4e	Output 4e	Verify CAMA local call intercept pattern.

VER:CAMASCRN;OPT(OOFCG),_ _ _:

VERIFY OUTPUT #4a - VALID ORIGINATING OFFICE CODES

1. GENERAL

1.01 This message verifies the valid originating codes that may be received via a CAMA (Centralized Automatic Message Accounting) Trunk Group. The input request for verification identifies the CAMA Trunk Group. The output data includes the office codes, the originating local call intercept index for each, plus an indicator that identifies special treatment codes.

2. FORM ENTRIES

2.01 VER:CAMASCRN;OPT(OOFCG),_ _ _:

The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 TOWN ST BL FBS NBS
TG _ _ _ _ _ _ _ _ _ _ _ _ _ _ _,

This series of codes identifies a particular group of CAMA trunks. The town, state, building and building subdivision for the distant end of the trunk, plus the near end building subdivision, make up the Trunk Group designation. This Common Language Location Identification (CLLI) code is used in the Long Lines Routing Guide. Rules for establishing these codes are covered in BSP 795-100-100.

TOWN - This code is a four character alphabetic combination representing the town, city or location for the far end of the Trunk Sub-Group.

ST - The state is a two character alphabetic code for the far end state, province or foreign country.

BL - This field contains the office identity for the far end of the subgroup. The code may be either two alphabetic or two numeric characters.

FBS - The far building subdivision code is a three character alphanumeric for internal building identification.

NBS - This code identifies the internal building subdivision for the near end of the subgroup. It is a three character alphanumeric combination.

2.03 OOFC
_ _ _,

Originating Office Codes - This field may contain any three-digit code from 000 to 999. For a given form, the originating codes listed in this field are those that are valid for the CAMA trunk group. If any other code is received on the Trunk Group, the call will be intercepted as an invalid originating code.

2.04 OLCIGI
_ _ _,

Originating Local Call Intercept Group Index - OLCIGI may range from 1 to 255. This index (except for 1) correlates the originating codes to a group of terminating codes for local call intercept. This correlation forms a local call intercept (LCI) profile. The terminating codes may be verified by another CAMASCRN message. CAMA Trunk Groups from offices that do their own local call intercept do not require a definition of an LCI profile. The OLCIGI for the originating codes associated with these Trunk Groups will be 1.

2.05 POVC _,

Pass Originating Validity Check - Normally, a given originating office code will only be valid on one CAMA Trunk Group. Part of the screening for the CAMA operation involves a check of the originating validity. Certain codes, however, may be received on more than one CAMA group. These codes (special billing -QZ) must be passed (ignored) by the originating validity check.

A "Y" for yes in this field causes the codes listed in the OOFC to pass the originating validity check, regardless of the incoming CAMA group.

If "N" for no, the code will be checked against the incoming CAMA trunk group for originating validity. This condition is the usual case.

```
INPUT:                          VERIFY #14a

                          VER:CAMASCRN:TG a!(EOT)



OUTPUT:                         VERIFY 4a

  VER:CAMASCRN;OPT(OOFCG),_ _ _:                  TOWN  ST  BL  FBS  NBS

                                               TG ----  --  --  ---  ---

  OOFC   OLCIGI   POVC

  ---,    ---,     -,
  ---,    ---,     -,
  ---,    ---,     -,
  ---,    ---,     -
```

ODA INPUT SOURCE - ESS 404A

RECENT CHANGE INPUT SOURCE - #400 RC:CAMASCRN;CHG;OPT(OOFCG),_ _ _:

VERIFY VALID ORIGINATING OFFICE CODES

VER:CAMASCRN;OPT(LCIBPAT),_ _ _:

VERIFY OUTPUT #4b - CAMA LOCAL CALL INTERCEPT BLOCKING PATTERN

1. GENERAL

1.01 This message verifies the terminating office code portion of a Local Call Intercept (LCI) blocking pattern for an established profile. The LCI profile is used to prevent local calls from being processed over the toll network via CAMA trunks (ANI or ONI). The input request for verification includes the Originating Local Call Intercept Group Index (OLCIGI) and the terminating NPA. The output lists the terminating office codes that will be intercepted.

2. FORM ENTRIES

2.01 VER:CAMASCRN;OPT(LCIBPAT),_ _ _:

The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 OLCIGI _ _ _,

The Originating Local Call Intercept Group Index is a number from 1 to 255. OLCIGI 1 does not appear on this form (#1 is reserved for codes that do not require local call intercept). This index correlates a group of originating office codes to a group of terminating codes for local call intercept on CAMA Trunk Groups.

2.03 TNPA _ _ _,

This field identifies the area code associated with the terminating office codes listed on this form.

2.04 BLOCK _,

The block field specifies whether or not the codes listed on this form are to be blocked (intercepted) or allowed to continue as a valid call.

A "Y" for yes indicates that the code will be intercepted.

An "N" for no indicates that the terminating code is valid as a CAMA call over the Trunk Group associated with the profile index (OLCIGI).

2.05 TOFC TOFC TOFC TOFC TOFC
_ _ _, _ _ _, _ _ _, _ _ _, _ _ _,
TOFC TOFC TOFC
_ _ _, _ _ _, _ _ _,

The TOFC field lists the terminating office codes within a given NPA that are to be blocked or not blocked. The valid range for terminating office codes is from 200 to 999.

```
INPUT:                          VERIFY #14b

               VER:CAMASCRN:OLCIGI (2-255),TNPA (200-999)!(EOT)


OUTPUT:                         VERIFY 4b

  VER:CAMASCRN;OPT(LCIBPAT),_ _ _:                OLCIGI_ _ _,

  TNPA _ _ _,          BLOCK _,

  TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC

  ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
  ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
  ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
  ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---
```

ODA INPUT SOURCE - ESS 404B

RECENT CHANGE INPUT SOURCE - #402 RC:CAMASCRN;CHG;OPT(LCIBPAT),_ _ _:

VERIFY CAMA LCI BLOCKING PATTERN

VER:CAMASCRN;OPT(UNAREA),- - -:

VERIFY OUTPUT #4c - CAMA UNAUTHORIZED AREA CODES

1. GENERAL

1.01 This message verifies the list of area codes that are unauthorized for CAMA (Centralized Automatic Message Accounting). The output includes the list of codes and whether or not they are blocked.

2. FORM ENTRIES

2.01 VER:CAMASCRN;OPT(UNAREA),- - -:

The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 BLKFCTN

Block Function - This field is preset to UNAREA for this form. It indicates that the blocking function defined on this form is for unauthorized area codes associated with the CAMA operation.

2.03 BLOCK _,

This field may be "Y" for Yes or "N" for No. BLOCK indicates if the listed terminating NPAs are to be blocked and sent to unauthorized CAMA announcement.

2.04 TNPA TNPA TNPA TNPA TNPA TNPA
---, ---, ---, ---, ---, ---,
TNPA TNPA
---, ---,

Terminating Numbering Plan Area - This field lists the three digit codes that are to be blocked or allowed to proceed when they are received as the called (terminating) area code component of a CAMA call. Blocked codes will be directed to the "unauthorized CAMA" announcement while codes that are not blocked will be allowed to continue CAMA processing. Valid entries range from 200 to 999.

```
INPUT:                          VERIFY #14c


                        VER:CAMASCRN:UNAREA!(EOT)


OUTPUT:                         VERIFY 4c


  VER:CAMASCRN;OPT(UNAREA),_ _ _:                    BLKFCTN UNAREA,

                      BLOCK _,

  TNPA   TNPA   TNPA   TNPA   TNPA   TNPA   TNPA   TNPA

  ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
  ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
  ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
  ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---
```

ODA INPUT SOURCE - ESS 404C

RECENT CHANGE INPUT SOURCE - #403 RC:CAMASCRN;CHG;OPT(UNAREA),_ _ _:

VERIFY CAMA UNAUTHORIZED AREA CODES

VER:CAMASCRN;OPT(UNAOFC),_ _ _:

VERIFY OUTPUT #4d - CAMA UNAUTHORIZED OFFICE CODES

1. GENERAL

1.01 This message verifies the list of office codes that are unauthorized for CAMA (Centralized Automatic Message Accounting). The output includes the list of codes and whether or not they are blocked.

2. FORM ENTRIES

2.01 VER:CAMASCRN;OPT(UNAOFC),_ _ _:

The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 BLKFCTN

Block Function - This field is preset to UNAOFC for this form. It indicates that the blocking function defined on this form is for unauthorized terminating office codes associated with the CAMA operation.

2.03 BLOCK _,

This field may be "Y" for yes or "N" for no. BLOCK indicates if the listed terminating office codes are to be blocked and sent to "Unauthorized CAMA" announcement.

2.04 TOFC TOFC TOFC TOFC TOFC TOFC
---, ---, ---, ---, ---, ---,
TOFC TOFC
---, ---,

The TOFC field lists the terminating office codes within a given NPA that are to be blocked or not blocked. The valid range for terminating office codes is from 200 to 999.

```
INPUT:                              VERIFY #14c


                                VER:CAMASCRN:UNAOFC!(EOT)


OUTPUT:                             VERIFY 4d

  VER:CAMASCRN;OPT(UNAOFC),_ _ _:                          BLKFCTN UNAOFC,

                       BLOCK _,

  TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC   TOFC
  ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
  ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
  ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---,
  ---,   ---,   ---,   ---,   ---,   ---,   ---,   ---
```

ODA INPUT SOURCE - ESS 404D

RECENT CHANGE INPUT SOURCE - #404 RC:CAMASCRN;CHG;OPT(UNAOFC),_ _ _:

VER:CAMASCRN;OPT(OLGIGI),_ _ _:

VERIFY OUTPUT #4e - CAMA LOCAL CALL INTERCEPT PATTERN

1. GENERAL

1.01 This message verifies the terminating NPAs associated with each Originating Local Call Intercept Group Index (OLCIGI). The input identifies a particular OLCIGI. Output data includes a list of terminating NPAs associated with a given OLCIGI.

2. FORM ENTRIES

2.01 VER:CAMASCRN;OPT(OLCIGI),_ _ _:

The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 OLCIGI

_ _ _'

The Originating Local Call Intercept Group Index is a number from 1 to 255. OLCIGI 1 does not appear on this form (#1 is reserved for codes that do not require local call intercept). This index correlates a group of originating office codes to a group of terminating codes for local call intercept on CAMA Trunk Groups.

2.03 TNPA TNPA TNPA TNPA
---, ---, ---, ---,

Terminating Numbering Plan Area - This field identifies the TNPAs (up to four) that may be associated with each of the OLCIGIs. Another verify message is used to list the terminating office codes in each of these areas.

```
INPUT:                          VERIFY #14d

                        VER:CAMASCRN:OLCIGI a!(EOT)


OUTPUT:                         VERIFY 4e

  VER:CAMASCRN;OPT(OLCIGI),_ _ _:

  OLCIGI          TNPA   TNPA   TNPA   TNPA

   ---,           ---,   ---,   ---,   ---,
   ---,           ---,   ---,   ---,   ---,
   ---,           ---,   ---,   ---,   ---,
   ---,           ---,   ---,   ---,   ---
```

ODA INPUT SOURCE - ESS 404A/B

RECENT CHANGE INPUT SOURCE-#400/401/402
RC:CAMASCRN;CHG;OPT(OOFCG/CCIBPAT/NEWTNPA),_ _ _:

VERIFY LOCAL CALL INTERCEPT PATTERN

SECTION 5 - OUTPUT VERIFY MESSAGES

ROUTING DATA BLOCKS

SECTION	MESSAGE	
5a	Output 5a	Verify INCHAIN Routing Data Blocks
5d	Output 5d	Verify International INCHAIN Routing Data Blocks
5e	Output 5e	Verify Unassigned Routing Data Blocks
5f	Output 5f	Verify RDBs containing a specified TSG
5g	Output 5g	Verify International RDBs containing a specified TSG
5h	Output 5h	Verify Terminating Toll Switch
5i	Output 5i	Verify Terminating Toll Switch Name
5j	Output 5j	Verify Terminating Toll Switches containing a specified RDB
5k	Output 5k	Verify ABC Prefix Digits, Final Handling Treatment, or Terminating Toll Switch Index
5l	Output 5l	Verify Number Services Routing Data Block
5m	Output 5m	Verify Number Services Routing Data Blocks which route to a specified RDB

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

VER:RDB,OPT(INCHAIN),---:

VERIFY OUTPUT #5a - INCHAIN ROUTING DATA BLOCK

1. GENERAL

1.01 This output message verifies INCHAIN Routing Data Blocks.

2. MESSAGE ENTRIES

2.01 VER:RDB,OPT(INCHAIN),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ADG** - Automatic Distribution Group
Entries: blank or 0 to 3.

2.03 **ANFHT** - ANI Failure Action Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.04 **DEL** - Delete
Entries: 0 to 15.

2.05 **DNHRTYPE** - Dynamic Non-Hierarchical Routing Type
Entries: blank, ED, EV, ID, or RT.

2.06 **PREFIX** - Prefix Digits
Entries: blank or 0 to 999999.

2.07 **RDBFHT** - RDB Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.08 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.09 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.10 **TTSI** - Terminating Toll Switch Index
Entries: blank or 1 to 31.

```
INPUT:                    VERIFY 15a

                      VER:RDB:RDBI a!(EOT)


OUTPUT:                   VERIFY 5a

VER:RDB,OPT(INCHAIN),---:                                        RDBI ----,

TTSI ---, RDBFHT ---, ADG -, ANFHT ---,

BTFN TOWN ST BL FBS NBS       DEL      PREFIX    DNHRTYPE

---- ---- -- -- --- ---,      --,      ------,      --,
---- ---- -- -- --- ---,      --,      ------,      --,
---- ---- -- -- --- ---,      --,      ------,      --,
---- ---- -- -- --- ---,      --,      ------,      --,
---- ---- -- -- --- ---,      --,      ------,      --,
---- ---- -- -- --- ---,      --,      ------,      --,
---- ---- -- -- --- ---,      --,      ------,      --,
```

ODA INPUT SOURCE - ESS 405B

RECENT CHANGE INPUT SOURCE - FORM # 500

VER:RDB,OPT(INTL),---:

VERIFY OUTPUT #5d - INTERNATIONAL INCHAIN ROUTING DATA BLOCK

1. GENERAL

1.01 This output message verifies International INCHAIN Routing Data Blocks.

2. MESSAGE ENTRIES

2.01 VER:RDB,OPT(INTL),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ADG** - Automatic Distribution Group
Entries: blank or 0 to 3.

2.03 **ANFHT** - ANI Failure Action Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.04 **DEL** - Delete
Entries: 0 to 15.

2.05 **IDOM** - International Domain
Entries: blank, T, or O.

2.06 **KP** - Key Pulse
Entries: 1 or 2.

2.07 **PREFIX** - Prefix Digits
Entries: blank or 1 to 6 digits each having values 0 to 9, B, or C.

2.08 **RDBFHT** - RDB Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.09 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.10 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 15a

                      VER:RDB:RDBI a!(EOT)


OUTPUT:                   VERIFY 5d

VER:RDB,OPT(INTL),---:                                  RDBI ----, IDOM -,

RDBFHT ---, ADG -, ANFHT ---,

BTFN TOWN ST BL FBS NBS       DEL       PREFIX       KP
---- ---- -- -- --- ---,      --,       ------,      -,
---- ---- -- -- --- ---,      --,       ------,      -,
---- ---- -- -- --- ---,      --,       ------,      -,
---- ---- -- -- --- ---,      --,       ------,      -,
---- ---- -- -- --- ---,      --,       ------,      -,
---- ---- -- -- --- ---,      --,       ------,      -,
---- ---- -- -- --- ---,      --,       ------,      -,
```

ODA INPUT SOURCE - ESS 405E

RECENT CHANGE INPUT SOURCE - FORM # 517

VER:RDB,OPT(UNA):

VERIFY OUTPUT #5e - UNASSIGNED ROUTING DATA BLOCKS

1. GENERAL

1.01 This output message verifies Routing Data Blocks that are unassigned and thus available for use.

2. MESSAGE ENTRIES

2.01 VER:RDB,OPT(UNA):

2.02 **QTY** - Quantity
Entries: 1 to 128.

2.03 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.04 **SUBTST** - Subtranslator Status
Entries: blank or UNA.

```
INPUT:                    VERIFY 15a

                    VER:RDB:RDBI a,UNA!(EOT)


OUTPUT:                   VERIFY 5e

VER:RDB,OPT(UNA):

RDBI          QTY           SUBTST

----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
----,         ---,           ---,
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - NONE

VER:RDB;OPT(LIST):

VERIFY OUTPUT #5f - ROUTING DATA BLOCKS CONTAINING THE SPECIFIED TRUNK SUBGROUP

1. GENERAL

1.01 This output message verifies which Routing Data Blocks contain a specific Trunk Subgroup.

2. MESSAGE ENTRIES

2.01 VER:RDB;OPT(LIST):

2.02 **DEL** - Delete
Entries: 0 to 15.

2.03 **DNHRTYPE** - Dynamic Non-Hierarchical Routing Type
Entries: blank, ED, EV, ID, or RT.

2.04 **PREFIX** - Prefix Digits
Entries: blank or 0 to 999999.

2.05 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.06 **TG ORDER** - Trunk Subgroup Order
Entries: 1 to 48.

2.07 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 15b

                              ;(STD)
                   VER:RDBLIST;(ALL):TSG a!(EOT)


OUTPUT:                   VERIFY 5f

VER:RDB;OPT(LIST):                                    BTFN TOWN ST BL FBS NBS
                                                   TSG ---- ---- -- -- --- ---,

          TG                                                 TG
RDBI     ORDER    DEL     PREFIX   DNHRTYPE        RDBI     ORDER    DEL     PREFIX   DNHRTYPE

----,     --,     --,     ------,     --,          ----,     --,     --,     ------,     --,
----,     --,     --,     ------,     --,          ----,     --,     --,     ------,     --,
----,     --,     --,     ------,     --,          ----,     --,     --,     ------,     --,
----,     --,     --,     ------,     --,          ----,     --,     --,     ------,     --,
----,     --,     --,     ------,     --,          ----,     --,     --,     ------,     --,
----,     --,     --,     ------,     --,          ----,     --,     --,     ------,     --,
```

ODA INPUT SOURCE - ESS 405B/405E

RECENT CHANGE INPUT SOURCE - FORM # 500-510/517/519

VERIFY THE LIST OF RDBs CONTAINING THE SPECIFIED TRUNK SUBGROUP

VER:RDB;OPT(LIST):

VERIFY OUTPUT #5g - INTERNATIONAL ROUTING DATA BLOCKS CONTAINING THE SPECIFIED TRUNK SUBGROUP

1. GENERAL

1.01 This output message verifies which international Routing Data Blocks contain a specific Trunk Subgroup.

2. MESSAGE ENTRIES

2.01 VER:RDB;OPT(LIST):

2.02 **DEL** - Delete
Entries: 0 to 15.

2.03 **KP** - Key Pulse
Entries: 1 or 2.

2.04 **PREFIX** - Prefix Digits
Entries: blank or 0 to 999999.

2.05 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.06 **TG ORDER** - Trunk Subgroup Order
Entries: 1 to 48.

2.07 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 15b

                              ;(STD)
                   VER:RDBLIST;(ALL):TSG a!(EOT)


OUTPUT:                   VERIFY 5g

VER:RDB;OPT(LIST):                                    BTFN TOWN ST BL FBS NBS
                                                  TSG ---- ---- -- -- --- ---,

          TG                                                TG
RDBI    ORDER   DEL    PREFIX     KP          RDBI    ORDER   DEL    PREFIX     KP

----,    --,    --,    ------,    -,          ----,    --,    --,    ------,    -,
----,    --,    --,    ------,    -,          ----,    --,    --,    ------,    -,
----,    --,    --,    ------,    -,          ----,    --,    --,    ------,    -,
----,    --,    --,    ------,    -,          ----,    --,    --,    ------,    -,
----,    --,    --,    ------,    -,          ----,    --,    --,    ------,    -,
----,    --,    --,    ------,    -,          ----,    --,    --,    ------,    -,
```

ODA INPUT SOURCE - ESS 405E

RECENT CHANGE INPUT SOURCE - FORM # 517

VERIFY THE LIST OF INTERNATIONAL RDBs CONTAINING THE SPECIFIED TRUNK SUBGROUP

VER:TTS;OPT(TTSI):

VERIFY OUTPUT #5h - TERMINATING TOLL SWITCH

1. GENERAL

1.01 This output message verifies the translation data associated with a Terminating Toll Switch (TTS). The input is TTS index in the range of 1-255. The output includes the TTSI, the TTSNAME and the RDBIs for each Load Set Period (LSP) for both blocks.

2. MESSAGE ENTRIES

2.01 VER:TTS;OPT(TTSI):

2.02 **NSN** - Entries: blank.

2.03 **TTSI** - Terminating Toll Switch Index
Entries: 1 to 31 (4E18>).

2.04 **TTSNAME** - Terminating Toll Switch Name

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— TI = alphanumeric.

2.05 RDBI's FOR EACH FORECAST PERIOD
The text phrase, "ACTIVE", will appear adjacent to the RDBI currently in use (i.e., corresponding to the active LSP and to the active block).

2.06 **LSP** - Load Set Period
Entries: 0 to 15.

2.07 **BLOCK A** - RDBI list
Entries: 1 to 8191.

2.08 **BLOCK B** - RDBI list
Entries: 1 to 8191.

```
INPUT:                    VERIFY 15c

                      VER:TTS:TTSI a!(EOT)


OUTPUT:                   VERIFY 5h

VER:TTS;OPT(TTSI):                        TTSI ---

             TOWN ST BL FBS TI
TTSNAME      ---- -- -- --- -    NSN ---

       RDBIS FOR EACH FORECAST PERIOD
 LSP       BLOCK A       BLOCK B
  0         ----          ----
  1         ----          ----
  2         ----          ----
  3         ----          ----
  4         ----          ----
  5         ----          ----
  6         ----          ----
  7         ----          ----
  8         ----          ----
  9         ----          ----
 10         ----          ----
 11         ----          ----
 12         ----          ----
 13         ----          ----
 14         ----          ----
 15         ----          ----
```

ODA INPUT SOURCE - ESS 405G

RECENT CHANGE INPUT SOURCE - FORM # 521

VER:TTS;OPT(TTSNAME):

VERIFY OUTPUT #5i - VERIFY TERMINATING TOLL SWITCH NAME

1. GENERAL

1.01 This output message verifies all Terminating Toll Switches whose TTSNAMEs have the same Common Language Location Identifier (CLLI). The input is the TTSNAME. The output message lists the TTS Indexes in ascending order.

2. MESSAGE ENTRIES

2.01 VER:TTS;OPT(TTSNAME):

2.02 **TTSI** - Terminating Toll Switch Index
Entries: 1 to 31 (4E18>).

2.03 **TTSNAME** - Terminating Toll Switch Name

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

This field specifies the first four fields of the TTSNAME of the TTSIs being verified. These fields represent a CLLI that may be shared by more than one TTS.

```
INPUT:                    VERIFY 15d

                      VER:TTS:TTSNAME a!(EOT)


OUTPUT:                   VERIFY 5i

VER:TTS;OPT(TTSNAME):                        TOWN  ST  BL  FBS
                                    TTSNAME  ----  --  --  ---,

TTSI    TTSI    TTSI    TTSI    TTSI    TTSI    TTSI    TTSI

---,    ---,    ---,    ---,    ---,    ---,    ---,    ---,
---,    ---,    ---,    ---,    ---,    ---,    ---,    ---,
```

ODA INPUT SOURCE - ESS 405G

RECENT CHANGE INPUT SOURCE - FORM # 522

VER:TTSLIST;OPT(RDB):

VERIFY OUTPUT #5j - VERIFY A LIST OF TERMINATING TOLL SWITCHES ROUTING TO A SPECIFIED ROUTING DATA BLOCK

1. GENERAL

1.01 This output message verifies all Terminating Toll Switches which route to the same Routing Data Block (RDB). The input specifies the RDBI. The output message lists the TTS Indexes in ascending order.

2. MESSAGE ENTRIES

2.01 VER:TTSLIST;OPT(RDB):

2.02 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.03 **TTSI** - Terminating Toll Switch Index
Entries: 1 to 31 (4E18>).

```
INPUT:                    VERIFY 15e

                    VER:TTSLIST:RDBI a!(EOT)


OUTPUT:                   VERIFY 5j

VER:TTSLIST;OPT(RDB):                                RDBI ----,

TTSI    TTSI    TTSI    TTSI    TTSI    TTSI    TTSI    TTSI

---,    ---,    ---,    ---,    ---,    ---,    ---,    ---,
---,    ---,    ---,    ---,    ---,    ---,    ---,    ---,
```

ODA INPUT SOURCE - ESS 405G

RECENT CHANGE INPUT SOURCE - FORM # 521/522/523

VERIFY A LIST OF TERMINATING TOLL SWITCHES
ROUTING TO A SPECIFIED ROUTING DATA BLOCK

VER:RDBLIST;OPT(ABC): (4E21R3>)
VER:RDBLIST;OPT(FHT): (4E21R3>)
VER:RDBLIST;OPT(TTSI):

VERIFY OUTPUT #5k - VERIFY ABC PREFIX DIGITS, FINAL HANDLING TREATMENT, OR TERMINATING TOLL SWITCH INDEX

1. GENERAL

1.01 This output message verifies all the Routing Data Blocks that contain specific ABC Prefix Digits, Final Handling Treatment, or Terminating Toll Switch Index routing data word.

2. MESSAGE ENTRIES

2.01 VER:RDBLIST;OPT(----):
Etries: ABC (4E21R3>), FHT (4E21R3>), TTSI

2.02 **ABC** - First 3 Prefix Digits (4E21R3>)
Entries: 000 to 999.

2.03 **FHT** - Final Handling Treatment (4E21R3>)
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.04 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

2.05 **TTSI** - Terminating Toll Switch Index
Entries: 1 to 31 (4E18>).

(<4E21R3)

```
INPUT:                    VERIFY 15f

                      VER:RDBLIST:TTSI a!(EOT)


OUTPUT:                   VERIFY 5k

VER:RDBLIST;OPT(TTSI):                                TTSI ---,

RDBI   RDBI   RDBI   RDBI

----   ----   ----   ----
----   ----   ----   ----
----   ----   ----   ----
----   ----   ----   ----
```

ODA INPUT SOURCE - ESS 405B

RECENT CHANGE INPUT SOURCE - FORM # 500/503

VERIFY A LIST OF ROUTING DATA BLOCKS
THAT CONTAIN A SPECIFIED TERMINATING TOLL SWITCH

(4E21R3>)

```
INPUT:                    VERIFY 15f

                 VER:RDBLIST:ABC a!(EOT) (4E21R3>)
                 VER:RDBLIST:FHT a!(EOT) (4E21R3>)
                 VER:RDBLIST:TTSI a!(EOT)



OUTPUT:                   VERIFY 5k

VER:RDBLIST;OPT(---):                              ABC/FHT/TTSI ---,

RDBI   RDBI   RDBI   RDBI   RDBI   RDBI   RDBI   RDBI   RDBI   RDBI

----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,  ----,
```

ODA INPUT SOURCE - ESS 405B

RECENT CHANGE INPUT SOURCE - FORM # 500/503

VERIFY A LIST OF ROUTING DATA BLOCKS THAT CONTAIN SPECIFIC ABC PREFIX DIGITS, FINAL HANDLING TREATMENT, OR TERMINATING TOLL SWITCH INDEX

Future

VER:RDB,OPT(NDB):

VERIFY OUTPUT #5l NUMBER SERVICES ROUTING DATA BLOCK

1. GENERAL

1.01 This message verifies the contents of the requested Number Services Routing Data Blocks used for routing calls using the BOC SSP feature.

2. FORM ENTRIES

2.01 VER:RDB,OPT(NDB):

2.02 **ANI** - Automatic Number Identification
Entries: Y or N.

2.03 **CPN** - Calling Party Number
Entries: Y or N.

2.04 **FENCLASS** - Far End Network Class
Entries: ACCESA.

2.05 **FENID** - Far End Network ID
Entries: blank or 1 to 6 alphanumeric characters.

2.06 **FG** - Feature Group
Entries: C or D.

2.07 **INTL** - International Signaling Indicator
Entries: Y or N.

2.08 **NDB** - Number Services Routing Data Block
Entries: 1 to 1023.

2.09 **NNDB** - Next Number Services Routing Data Block
Entries: blank or 1 to 1023.

2.10 **NXZZ** - NX/ZZ for IC/INC Signaling
Entries: 00 to 99.

2.11 **PATH** - Signaling Path
Entries: "DIR", "ATD", or "ATI".

2.12 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

```
INPUT:                    VERIFY 15g

         INPUT-15g - VER:NDB:NDBI a!(EOT)


OUTPUT:                   VERIFY 5l

VER:RDB,OPT(NDB):

NDB      FENCLASS   FENID    RDBI   NXZZ   NNDB   FG  ANI  CPN  PATH  INTL

----,    ------,   ------,   ----,   --,   ----,  -,   -,   -,  ---,   -,
----,    ------,   ------,   ----,   --,   ----,  -,   -,   -,  ---,   -,
----,    ------,   ------,   ----,   --,   ----,  -,   -,   -,  ---,   -,
----,    ------,   ------,   ----,   --,   ----,  -,   -,   -,  ---,   -,
----,    ------,   ------,   ----,   --,   ----,  -,   -,   -,  ---,   -,
----,    ------,   ------,   ----,   --,   ----,  -,   -,   -,  ---,   -,
----,    ------,   ------,   ----,   --,   ----,  -,   -,   -,  ---,   -,
----,    ------,   ------,   ----,   --,   ----,  -,   -,   -,  ---,   -,
----,    ------,   ------,   ----,   --,   ----,  -,   -,   -,  ---,   -,
```

ODA INPUT SOURCE - ESS 405H

RECENT CHANGE INPUT SOURCE - FORM #524/525

VER:RDB,OPT(NDBLIST):

VERIFY OUTPUT #5m LIST OF NUMBER SERVICES ROUTING DATA BLOCKS
WHICH ROUTE TO THE RDBI SPECIFIED ON INPUT

1. GENERAL

1.01 This message lists all of the Number Services Routing Data Blocks which route to the RDBI specified on input.

2. FORM ENTRIES

2.01 VER:RDB,OPT(NDBLIST):

2.02 **NDB** - Number Services Routing Data Block
Entries: 1 to 1023.

2.03 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

```
INPUT:                    VERIFY 15h

         INPUT-15h - VER:NDB:NDBLIST a!(EOT)


OUTPUT:                   VERIFY 5m

VER:RDB,OPT(NDBLIST):                    RDBI ----,

 NDB      NDB      NDB      NDB

----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
```

ODA INPUT SOURCE - ESS 405H

RECENT CHANGE INPUT SOURCE - FORM #524/525

VERIFY NUMBER SERVICES ROUTING DATA BLOCKS
WHICH ROUTE TO THE SPECIFIED RDBI

SECTION 6 - OUTPUT VERIFY MESSAGES

MISCELLANEOUS

SECTION	MESSAGE	
6a	Output 6a	Verify a Dial Up Port Client Characteristics
6b	Output 6b	Verify spare 1024 word blocks of memory
6c	Output 6c	List used and available switch resources
6d	Output 6d	Verify Miscellaneous Scanner Number (MSN) or Miscellaneous Distributor Number (MDN) translator
6e	Output 6e	Verify list of PAS announcements
6f	Output 6f	Verify a specific PAS announcement
6g	Output 6g	Verify PAS with Cut-Through application
6h	Output 6h	Verify PAS with TELEVOTE Slave application
6i	Output 6i	Verify PAS with TELEVOTE Master application
6j	Output 6j	Verify TASI-E Translator
6k	Output 6k	Verify DNHR Parameters
6l	Output 6l	Verify Incoming and Destination Separations Matrix (IDAM)
6m	Output 6m	Verify Cell Grouping Incoming and Destination Separations
6n	Output 6n	Verify Incoming Separation Class List
6o	Output 6o	Verify 3 Digit Destination Separation Class
6p	Output 6p	Verify 4, 5, 6 Digit Destination Separation Class
6q	Output 6q	Verify 7, 8, 9 Digit Destination Separation Class
6r	Output 6r	Verify 10, 11, 12 Digit Destination Separation Class
6s	Output 6s	Verify Far End Network Characteristics
6t	Output 6t	Verify Office Name (CLLI) and Current Generic Program
6u	Output 6u	Verify Backup Band Assignments
6w	Output 6w	Verify Customer Routing Blocks
6x	Output 6x	Verify Customer Routing Blocks Containing a Specified TAN

6y	Output 6y	Verify Customer Data Blocks
6z	Output 6z	Verify Customer Routing Blocks Containing a Specified CDBI
6aa	Output 6aa	Verify Announcement Index to Treatment Mapping
6ab	Output 6ab	Verify AMA Call Code to Structure Code Mapping
6ac	Output 6ac	Verify BOC SSP Type of Service Information
6ae	Output 6ae	Verify LATA/State Screening Areas
6af	Output 6af	Verify LATA/State Screening Matrix
6ag	Output 6ag	Verify Service Parameters
6ah	Output 6ah	Verify NPA to Destination Point Code
6ai	Output 6ai	Verify Carrier Code to TNS Type
6aj	Output 6aj	Verify Service Circuit System - Expanded Announcement
6bd	Output 6bd	Verify SCP Announcement to SCS Announcement Mapping
6bm	Output 6bm	Verify XTSI DS3 Unit Rel 2 DS1 Performance Monitoring Thresholds
6br	Output 6br	Verify Advance Intelligent Network Items
6bu	Output 6bu	Verify Request Verification of the 6-Digit NPA-NXX AIN/LNP Assignment Translator
6dg	Output 6dg	Verify 10-Digit AIN Triggers

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

VER:DIALUP;---:

VERIFY OUTPUT #6a - DIAL UP PORT CLIENT CHARACTERISTICS

1. GENERAL

1.01 This message lists the characteristics of a Dial Up Port client. If the CTYPE and DUPID of a Dial Up Port client is not specified in the input message, the output will list up to 16 lines of dial up clients. If there are more than 16 dial up clients, then additional output messages will be written.

2. FORM ENTRIES

2.01 VER:DIALUP;---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **CTYPE** - Client Type
Entries: TDAS or TVSP.

2.03 **DUPCBN** - Dial Up Port Call Back Number
Entries: 0 to 99999999999.

2.04 **DUPID** - Dial Up Port Identification
Entries: Two alphanumeric characters

2.05 **PTCL** - Protocol
Entries: A.

```
INPUT:                    VERIFY 16a

                VER:DIALUP[;a][:CTYPE b][,DUPID c]!(EOT)


OUTPUT:                   VERIFY 6a

VER:DIALUP;---:

CTYPE       DUPID         PTCL            DUPCBN

----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
----,       ----,          -,          -----------,
```

ODA INPUT SOURCE - ESS 406E

RECENT CHANGE INPUT SOURCE - FORM # 601/602

VERIFY DIAL UP PORT CLIENT

VER:SPARE_MEMORY,OPT(CORE/DISK):

VERIFY OUTPUT #6b - SPARE 1024 WORD BLOCKS

1. GENERAL

1.01 This message verifies the quantity of available spare memory (in 1024 word blocks). Spare memory may be located in either the core or File Store translation area. The input request for verification specifies core or File Store. Output data lists the starting address and number of 1024 word blocks in a contiguous section of memory.

(4E21>) Extended Call Store (Ext_CS) memory is included in the verification. Ext_CS memory is optional memory provided via the 4E21 eXtended Store (XS) feature.

2. FORM ENTRIES

2.01 VER:SPARE_MEMORY,OPT(CORE/DISK):
This header information identifies this particular verify message. The field appended to this header indicates the location of the data. An entry of "CORE" indicates that the spare words are located in the core memory area. An entry of DISK is used to indicate the spare words are located in File Store.

2.02 **ADDRESS(<4E20),---ADDRESS(4E21>)**
This field specifies the actual starting address of a contiguous section of spare memory. All available spare blocks of memory (for File Store or core) are defined in this message.

(4E21>)Entries: CS_, XS_, DSK_

2.03 **SEG** - Memory Segment (4E21>)
Entries: 0-3

2.04 **SIZE**
The size field defines the quantity of 1024 word blocks in a contiguous section of spare memory (beginning at the specified starting address).

2.05 **TYPE** - Type of translations memory (4E21>)
Entries: MAIN_CS, EXT_CS, DO_TRAN, ACI_TRAN

```
INPUT:                    VERIFY 16b

                      VER:MEMORY:a!(EOT)


OUTPUT:                   VERIFY 6b

VER:SPARE_MEMORY,OPT(----):

 ADDRESS     SIZE
 -------      --
 -------      --
 -------      --
 -------      --
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - NONE

```
INPUT:                    VERIFY 16b

                       VER:MEMORY:a!(EOT)


OUTPUT:                   VERIFY 6b

VER:SPARE_MEMORY,OPT(----): TYPE: --------, SEG -,


--- ADDRESS     SIZE


----------      ----
----------      ----
----------      ----
----------      ----
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - NONE

Future

VER:MEMORY:OPT(EM):

VERIFY OUTOUT #6c - LIST USED AND AVAILABLE SWITCH RESOURCES

1. GENERAL

1.01 This message lists the assigned and spare memory resources of the switch.

2. FORM ENTRIES

2.01 VER:MEMORY:OPT(EM):

2.02 GENERIC
Current Generic program.

2.03 TOWN ST BL NBS (<4E23R2)
This field identifies the CLLI associated with the office.

2.04 ENGINEERED ITEM
NUMBER SPARE NUMBER USED
This section of output lists the engineered item (index, memory block, etc.) and gives the number of spare and used units for the associated engineered item.

AIN TRIGGERS - Advanced Intelligent Network Triggers (4E18>)

AUX RDBI - Auxiliary Routing Data Block Indexes

CDBI - Customer Data Block Indexes

CLIP - Customer List Index Pointer (access trigger table)

CRBI - Customer Routing Block Indexes

DCLIP - Destination Customer List Index Pointer (destination trigger table)

DIGSUPP INDEXES - Call type word index for retrieving two-word call types from the supplementary digit translator.

FENN BLOCKS - Far End Network Class (FENCLASS) and Identifier (FENID)

MCTI - Multiple Carrier Treatment Index

MRTI - Multiple Routing Treatment Index

NDBI - Number Data Block Indexes

PCPI - Internal PCP collision table indices (<4E18)

PCP-ABCID - ABC digits internal identifier for PCP

PRTI - Proportional Routing Block Indexes

RDBI - Routing Data Block Indexes

TRUNK BLOCKS - Assigned Trunk Blocks

TSG BLOCKS - Assigned TSG Blocks

TTSI - Terminating Toll Switch Indexes

1-DIG BLOCKS - Assigned 1-digit blocks

AUTO SDX INDEXES - Automatic Subsequent Digit Indexes

MAN SDX INDEXES - Manually assigned Subsequent Digit Indexes

CS (<4E20), MAIN_CS (4E21>) BLOCKS - Blocks of core memory in segment 0 (1024 words each)

FS (<4E20), DO_TRAN (4E21>) BLOCKS - Blocks of file store memory in segment 0 (1024 words each)

DLN (<4E20), ACI_TRAN (4E21>) BLOCKS - Blocks of file store memory in segment 0 (1024 words each) for CCS7 and Direct Connect out-of-band signaling translations for the Direct Link Node (DLN)

EXT_CS1 BLOCKS - Blocks of extended core memory in segment 1 (1024 words each) (4E21>)

EXT_CS2 BLOCKS - Blocks of extended core memory in segment 2 (1024 words each) (4E21>)

EXT_CS3 BLOCKS - Blocks of extended core memory in segment 3 (1024 words each) (4E21>)

TSGHC TBS WORDS - Trunk Subgroup Head Cell Trunk Block Status

2.05 LARGEST GROUP IN ADJUNCT ACCESS TABLE (<4E18)
This number represents the largest grouping of entries in the access trigger table where customers all have the same line number.

2.06 FILE SEG2 DISK ONLY MIN/NUM/MAX ASSIGNED
The count represents the total number of 1024 word blocks assigned to disk only min/num/max translators in file segment 2. (4E24R1>).

2.07 LARGEST GROUP IN ADJUNCT DESTINATION TABLE
This number represents the largest grouping of entries in the destination trigger table where the last four digits of the destination number are the same.

2.08 NUMBER OF PAIRS OF NAILED-UP TRUNKS
This count represents the total number of pairs of trunks that are nailed up to each other in the office.

2.09 NUMBER OF LACIDs ASSIGNED

This count represents the total number of LACID values that are assigned in the office.

2.10 HOME NPA

This field identifies the NPA where the 4 ESS Switch is located.

2.11 ASSIGNED SERVED NPAS

This field identifies the NPAs served directly by the 4 ESS Switch.

(4E22>) - If an office is using SNPA 10-Digit Routing, a maximum of 31 Served NPAs can be assigned. Otherwise, a maximum of 7 Served NPAs can be assigned.

2.12 (<4E20) NUMBER OF TRANSLATORS ASSIGNED BY SPACE ADMINISTRATION
USE
USE TRANSLATOR COUNT

(4E21>) NUMBER OF TRANSLATORS ASSIGNED BY SPACE ADMIN
USE COUNT TYPE SEG

This section of output lists the number of 1024 word blocks allocated by **USE** in the space administration translator.

(4E21>) The type of memory used for the translator and the memory segment where it resides is also given.

2.13 ASSIGNED ROUTING DOMAINS

This field lists the assigned domains in the 3-digit translator.

4E18/4E19

INPUT: VERIFY 16b

VER:MEMORY:EM!(EOT)

OUTPUT: VERIFY 6c

VER:MEMORY:OPT(EM): GENERIC TOWN ST BL NBS

---------- ---- -- -- ---,

TRANSLATOR INDEX	NUMBER SPARE	NUMBER USED
AIN TRIGGERS	-----,	-----,
AUX RDBI	-----,	-----,
CDBI	-----,	-----,
CRBI	-----,	-----,
DIGSUPP INDEXES	-----,	-----,
FENN BLOCKS	-----,	-----,
MCTI	-----,	-----,
MRTI	-----,	-----,
NDBI	-----,	-----,
PRTI	-----,	-----,
RDBI	-----,	-----,
TRUNK BLOCKS	-----,	-----,
TSG BLOCKS	-----,	-----,
TTSI	-----,	-----,
1-DIG BLOCKS	-----,	-----,
PCPI	-----,	-----,
PCP-ABCID	-----,	-----,
AUTO SDX INDEXES	-----,	-----,
MAN SDX INDEXES	-----,	-----,
CS BLOCKS	-----,	-----,
FS BLOCKS	-----,	-----,
DLN BLOCKS	-----,	-----,
TSGHC TBS WORDS	-----,	-----,
CLIP	-----,	-----,
DCLIP	-----,	-----,

LARGEST GROUP IN ADJUNCT ACCESS TABLE -----,

LARGEST GROUP IN ADJUNCT DESTINATION TABLE -----,

NUMBER OF PAIRS OF NAILED-UP TRUNKS -----,

NUMBER OF LACIDs ASSIGNED -----,

HOME NPA ASSIGNED SERVED NPAS

---, ---, ---, ---, ---, ---, ---, ---,

```
VER:MEMORY:OPT(EM):                              GENERIC        TOWN ST BL NBS

                                                 ------------   ---- -- -- ---,
```

NUMBER OF TRANSLATORS ASSIGNED
BY SPACE ADMINISTRATION USE

USE	TRANSLATOR COUNT
--,	---,
--,	---,
--,	---,
--,	---,
--,	---,
--,	---,
--,	---,
--,	---,
--,	---,
--,	---,
--,	---,
--,	---,
--,	---,
--,	---,
--,	---,

ASSIGNED ROUTING DOMAINS

```
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
```

```
4E20
INPUT:                    VERIFY 16b

                      VER:MEMORY:EM!(EOT)


OUTPUT:                   VERIFY 6c

VER:MEMORY:OPT(EM):                          GENERIC        TOWN ST BL NBS

                                             ------------   ---- -- -- ---,


TRANSLATOR          NUMBER      NUMBER
  INDEX             SPARE        USED

AIN TRIGGERS        -----,      -----,
AUX RDBI            -----,      -----,
CDBI                -----,      -----,
CRBI                -----,      -----,
DIGSUPP INDEXES     -----,      -----,
FENN BLOCKS         -----,      -----,
MCTI                -----,      -----,
MRTI                -----,      -----,
NDBI                -----,      -----,
PRTI                -----,      -----,
RDBI                -----,      -----,
TRUNK BLOCKS        -----,      -----,
TSG BLOCKS          -----,      -----,
TTSI                -----,      -----,
1-DIG BLOCKS        -----,      -----,
PCP-ABCID           -----,      -----,
AUTO SDX INDEXES    -----,      -----,
MAN SDX INDEXES     -----,      -----,
CS BLOCKS           -----,      -----,
FS BLOCKS           -----,      -----,
DLN BLOCKS          -----,      -----,
TSGHC TBS WORDS     -----,      -----,
DCLIP               -----,      -----,


LARGEST GROUP IN ADJUNCT DESTINATION TABLE  -----,

NUMBER OF PAIRS OF NAILED-UP TRUNKS     -----,

NUMBER OF LACIDs ASSIGNED               -----,

HOME NPA       ASSIGNED SERVED NPAS

  ---,         ---, ---, ---, ---, ---, ---, ---,
```

SHEET 1 OF 2

```
VER:MEMORY:OPT(EM):                                GENERIC        TOWN ST BL NBS

                                                   ------------   ---- -- -- ---,

NUMBER OF TRANSLATORS ASSIGNED
BY SPACE ADMINISTRATION USE

                TRANSLATOR
USE               COUNT

--,             ---,
--,             ---,
--,             ---,
--,             ---,
--,             ---,
--,             ---,
--,             ---,
--,             ---,
--,             ---,
--,             ---,
--,             ---,
--,             ---,
--,             ---,
--,             ---,
--,             ---,
--,             ---,

ASSIGNED ROUTING DOMAINS

---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
---, ---, ---, ---, ---, ---, ---, ---, ---, ---,
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```

SHEET 2 OF 2

```
4E21
INPUT:                    VERIFY 16b

                       VER:MEMORY:EM!(EOT)

OUTPUT:                   VERIFY 6c

VER:MEMORY:OPT(EM):                              GENERIC        TOWN ST BL NBS

                                                 ------------   ---- -- -- ---,

ENGINEERED          NUMBER      NUMBER
  ITEM              SPARE        USED

AIN TRIGGERS        -----,      -----,
AUX RDBI            -----,      -----,
CDBI                -----,      -----,
CRBI                -----,      -----,
DIGSUPP INDEXES     -----,      -----,
FENN BLOCKS         -----,      -----,
MCTI                -----,      -----,
MRTI                -----,      -----,
NDBI                -----,      -----,
PRTI                -----,      -----,
RDBI                -----,      -----,
TRUNK BLOCKS        -----,      -----,
TSG BLOCKS          -----,      -----,
TTSI                -----,      -----,
1-DIG BLOCKS        -----,      -----,
PCP-ABCID           -----,      -----,
AUTO SDX INDEXES    -----,      -----,
MAN SDX INDEXES     -----,      -----,
MAIN_CS BLOCKS      -----,      -----,
DO_TRAN BLOCKS      -----,      -----,
ACI_TRAN BLOCKS     -----,      -----,
EXT_CS1 BLOCKS      -----,      -----,
EXT_CS2 BLOCKS      -----,      -----,
EXT_CS3 BLOCKS      -----,      -----,
TSGHC TBS WORDS     -----,      -----,
DCLIP               -----,      -----,

LARGEST GROUP IN ADJUNCT DESTINATION TABLE  -----,

NUMBER OF PAIRS OF NAILED-UP TRUNKS     -----,

NUMBER OF LACIDs ASSIGNED               -----,

HOME NPA       ASSIGNED SERVED NPAS

  ---,         ---, ---, ---, ---, ---, ---, ---,
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```
VER:MEMORY:OPT(EM):                                GENERIC        TOWN ST BL NBS

                                                   ------------   ---- -- -- ---,

NUMBER OF TRANSLATORS ASSIGNED BY SPACE ADMIN


USE            COUNT          TYPE         SEG

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ASSIGNED ROUTING DOMAINS

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```

SHEET 2 OF 2

```
4E22-4E23R2
INPUT:                    VERIFY 16b
                       VER:MEMORY:EM!(EOT)
OUTPUT:                   VERIFY 6c

VER:MEMORY:OPT(EM):      GENERIC      TOWN ST BL NBS

                          ------------   ---- -- -- ---,

ENGINEERED          NUMBER      NUMBER
  ITEM              SPARE        USED

AIN TRIGGERS        -----,      -----,
AUX RDBI            -----,      -----,
CDBI                -----,      -----,
CRBI                -----,      -----,
DIGSUPP INDEXES     -----,      -----,
FENN BLOCKS         -----,      -----,
MCTI                -----,      -----,
MRTI                -----,      -----,
NDBI                -----,      -----,
PRTI                -----,      -----,
RDBI                -----,      -----,
TRUNK BLOCKS        -----,      -----,
TSG BLOCKS          -----,      -----,
TTSI                -----,      -----,
1-DIG BLOCKS        -----,      -----,
PCP-ABCID           -----,      -----,
AUTO SDX INDEXES    -----,      -----,
MAN SDX INDEXES     -----,      -----,
MAN_CS BLOCKS       -----,      -----,
DO_TRAN BLOCKS      -----,      -----,
ACI_TRAN BLOCKS     -----,      -----,
EXT_CS1 BLOCKS      -----,      -----,
EXT_CS2 BLOCKS      -----,      -----,
EXT_CS3 BLOCKS      -----,      -----,
TSGHC TBS WORDS     -----,      -----,
DCLIP               -----,      -----,

LARGEST GROUP IN ADJUNCT DESTINATION TABLE  -----,
NUMBER OF AIN DNTS ASSIGNED                 -------,
NUMBER OF PAIRS OF NAILED-UP TRUNKS           -----,
NUMBER OF LACIDs ASSIGNED                     -----,

HOME NPA       ASSIGNED SERVED NPAS

  ---,         ---, ---, ---, ---, ---, ---, ---,
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```

```
VER:MEMORY:OPT(EM):      GENERIC      TOWN ST BL NBS

                        ------------   ---- -- -- ---,
```

NUMBER OF TRANSLATORS ASSIGNED BY SPACE ADMIN

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USE           COUNT          TYPE         SEG

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ASSIGNED ROUTING DOMAINS

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```

```
4E23R3>
INPUT:                    VERIFY 16b
                      VER:MEMORY:EM!(EOT)
OUTPUT:                   VERIFY 6c

                                        TOLL CIN        LOCAL CIN
VER:MEMORY:OPT(EM):      GENERIC      TOWN ST BL NBS   TOWN ST BL NBS

                        ------------   ---- -- -- ---   ---- -- -- ---,

ENGINEERED          NUMBER      NUMBER
  ITEM              SPARE        USED

AIN TRIGGERS        -----,      -----,
AUX RDBI            -----,      -----,
CDBI                -----,      -----,
CRBI                -----,      -----,
DIGSUPP INDEXES     -----,      -----,
FENN BLOCKS         -----,      -----,
MCTI                -----,      -----,
MRTI                -----,      -----,
NDBI                -----,      -----,
PRTI                -----,      -----,
RDBI                -----,      -----,
TRUNK BLOCKS        -----,      -----,
TSG BLOCKS          -----,      -----,
TTSI                -----,      -----,
1-DIG BLOCKS        -----,      -----,
PCP-ABCID           -----,      -----,
AUTO SDX INDEXES    -----,      -----,
MAN SDX INDEXES     -----,      -----,
MAIN_CS BLOCKS      -----,      -----,
DO_TRAN BLOCKS      -----,      -----,
ACI_TRAN BLOCKS     -----,      -----,
EXT_CS1 BLOCKS      -----,      -----,
EXT_CS2 BLOCKS      -----,      -----,
EXT_CS3 BLOCKS      -----,      -----,
TSGHC TBS WORDS     -----,      -----,
DCLIP               -----,      -----,

LARGEST GROUP IN ADJUNCT DESTINATION TABLE  -----,
NUMBER OF PCP2 ANIS ASSIGNED          -------,
NUMBER OF CPA ANIS ASSIGNED           -------,
NUMBER OF SPARE PCP ANIS              -------,
NUMBER OF AIN DNTS ASSIGNED           -------,
NUMBER OF PAIRS OF NAILED-UP TRUNKS     -----,
NUMBER OF LACIDs ASSIGNED               -----,

HOME NPA       ASSIGNED SERVED NPAS

  ---,         ---, ---, ---, ---, ---, ---, ---,
               ---, ---, ---, ---, ---, ---, ---,
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```

SHEET 1 OF 2

```
                                        TOLL CIN        LOCAL CIN
VER:MEMORY:OPT(EM):      GENERIC      TOWN ST BL NBS   TOWN ST BL NBS

                        ------------   ---- -- -- ---   ---- -- -- ---,
```

NUMBER OF TRANSLATORS ASSIGNED BY SPACE ADMIN

```
USE            COUNT          TYPE         SEG

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ASSIGNED ROUTING DOMAINS

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```

```
4E24R1>
INPUT:                    VERIFY 16b
                       VER:MEMORY:EM!(EOT)
OUTPUT:                   VERIFY 6c
                                        TOLL CIN        LOCAL CIN
VER:MEMORY:OPT(EM):      GENERIC      TOWN ST BL NBS   TOWN ST BL NBS

                        ------------   ---- -- -- ---   ---- -- -- ---,

ENGINEERED         NUMBER      NUMBER
  ITEM             SPARE        USED

AIN TRIGGERS       -----,      -----,
AUX RDBI           -----,      -----,
CDBI               -----,      -----,
CRBI               -----,      -----,
DIGSUPP INDEXES    -----,      -----,
FENN BLOCKS        -----,      -----,
MCTI               -----,      -----,
MRTI               -----,      -----,
NDBI               -----,      -----,
PRTI               -----,      -----,
RDBI               -----,      -----,
TRUNK BLOCKS       -----,      -----,
TSG BLOCKS         -----,      -----,
TTSI               -----,      -----,
1-DIG BLOCKS       -----,      -----,
PCP-ABCID          -----,      -----,
AUTO SDX INDEXES   -----,      -----,
MAN SDX INDEXES    -----,      -----,
MAIN_CS BLOCKS     -----,      -----,
DO_TRAN BLOCKS     -----,      -----,
ACI_TRAN BLOCKS    -----,      -----,
EXT_CS1 BLOCKS     -----,      -----,
EXT_CS2 BLOCKS     -----,      -----,
EXT_CS3 BLOCKS     -----,      -----,
TSGHC TBS WORDS    -----,      -----,
DCLIP              -----,      -----,

FILE SEG2 DISK ONLY MIN/NUM/MAX ASSIGNED    -----, <==================== NEW OUTPUT LINE
LARGEST GROUP IN ADJUNCT DESTINATION TABLE  -----,
NUMBER OF PCP2 ANIS ASSIGNED          -------,
NUMBER OF CPA ANIS ASSIGNED           -------,
NUMBER OF SPARE PCP ANIS              -------,
NUMBER OF AIN DNTS ASSIGNED           -------,
NUMBER OF PAIRS OF NAILED-UP TRUNKS     -----,
NUMBER OF LACIDs ASSIGNED               -----,

HOME NPA       ASSIGNED SERVED NPAS

  ---,         ---, ---, ---, ---, ---, ---, ---,
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```

SHEET 1 OF 2

```
                                        TOLL CIN        LOCAL CIN
VER:MEMORY:OPT(EM):      GENERIC      TOWN ST BL NBS   TOWN ST BL NBS

                        ------------   ---- -- -- ---   ---- -- -- ---,
```

NUMBER OF TRANSLATORS ASSIGNED BY SPACE ADMIN

```
USE           COUNT          TYPE         SEG

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ASSIGNED ROUTING DOMAINS

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```

VER:MSN/MDN;---:

VERIFY OUTPUT #6d - MISCELLANEOUS SCANNER NUMBER OR MISCELLANEOUS DISTRIBUTOR NUMBER TRANSLATOR

1. GENERAL

1.01 This message is printed in response to an input message requesting verification of data in the Miscellaneous Scanner Number (MSN) or Miscellaneous Distributor Number (MDN) translator.

1.02 The Signal Processor (SP) contains miscellaneous scan and Signal Distributor points which are identified by MSNs and MDNs, respectively. The MSN translator stores one word of data per MSN, which is primarily used when an MSN report is received from a SP to decide what action should be taken. The MDN translator is used to store data which identifies the user of MDNs and initialization states on a distributor point basis. This translator is primarily used by the program to initialize points to their proper state.

1.03 There are two basic types of data in the MSN and MDN translator. These are trunk related and nontrunk related. If the MSN or MDN is trunk related, translation data will include a Trunk Program Index (TPI) and a Trunk Scanner Number (TSN). The TPI will be used to transfer control to the appropriate program for action. The TSN identifies the trunk or trunks associated with the MSN or MDN. For MSNs or MDNs that are not related to a trunk, the translation data includes an NTPI (Non-Trunk Program Index) and a Unit Type and member number identification. A third type of data exists for an MSN that is not associated with a trunk or a Unit Type. In this case the MSN translation data will include a Miscellaneous Program Index (MPI) and specific data for miscellaneous applications. MPI's do not apply to MDN's. The NTPI is used in a way that is similar to the TPI. These indicators specify the disposition of the scan point report.

Table A lists the NTPI values associated with an MSN. Table B lists the NTPI values associated with an MDN. Table C lists the TPI values associated with an MSN. Table D lists the TPI values associated with an MDN. Table E lists the MPI values associated with an MSN. Table F lists the unit types. Table G lists the member numbers for each unit type.

2. FORM ENTRIES

2.01 VER:---;
This field identifies the translator being verified. Valid entries are MSN for the Miscellaneous Scanner Number translator or MDN for the Miscellaneous Distributor Number translator.

2.02 VER:MSN/MDN;---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.03 **COL** - Column
Entries: 0 to 15.

2.04 **DATA** - Miscellaneous Data
Specific output data is associated with each unique MPI application. Data descriptions are given in Table E.

2.05 **MEMN** - Member Number
Entries: 0 to 127.

2.06 **MML** - Matrix
Entries: 0 or 1.

2.07 **MPI** - Miscellaneous Program Index
Entries: 0 to 63.

2.08 **NTPI** - Non-Trunk Program Index
Entries: 0 to 63.

2.09 **ROW** - Row
Entries: 0 to 63.

2.10 **SP** - Signal Processor
Entries: 0 to 31.

2.11 **TPI** - Trunk Program Index
Entries: 0 to 63.

2.12 **TSN** - Trunk Scanner Number

— SP = 0 to 31.

— MML = 0 to 1.

— ROW = 0 to 63.

— COL = 0 to 15.

2.13 **UTYP** - Unit Type
Entries: 0 to 127.

TABLE A

MSN NTPIs

NTPI	DESCRIPTION
0	Unassigned
1	Bus Power
2	Unit Power
3	SP-Pulse Point Power Left Matrix
4	SP-Pulse Point Power Right Matrix
5	SP-Matrix Inhibit Request
6	SP-Overall Matrix and Applique Power Left
7	SP-Overall Matrix and Applique Power Right
8	SP-Converter Monitor Left
9	SP-Converter Monitor Right
10	TSI-TMS Bus Power
11	TSI-Verify Link 0
12	TSI-Verify Link 1
13	TAC-Terminal Power
14	TAC-Central Control Alert
15	TMS-Bus Power
16	NC-Clock Power
17	Alarm Grid
18	Alarm Retire
19	External Alarm
20	PDF Fuse Alarm
21	51A Test Position
22	Ringing & Tone Plant
23	Recorded Announcement Machine
24	MF Signal Frame
25	Digroup Terminal Start Word
26	Digroup Terminal Power Switch
27	Peripheral Unit Report Ignore
28	620/625 Terminal Start Word
29	Miscellaneous Frame Control Switch
30	AC Power Distribution
31	DOC Receiver Power Switch (<4E17)
32	DOC Transmitter Power Switch
33	Network Management Dynamic Overload Control Receive Function (<4E17)
34	NMGT Transmit ACK (<4E17)
35	Unit Diagnostic Request Key
36	Continuity Check Transceiver Power Switch
37	Fan power alarm
38	IOC Base Point
39	IOC Non-Base Point
40	Office Alarm Caused by MSN Closure
41	Office Alarm Caused by MSN Open
42	Unassigned
43	Network Clock Sync Unit Power Switch Req
44	Sub-Unit Power Switch Requested
45	CCDS Frame Power and Fan Alarm

46	Export
47-63	Unassigned

TABLE B

STATES FOR MDN NTPIs

NTPI	DESCRIPTION
0	Unassigned
1	This point should be set during initialization
2	This point should be reset during initialization
3	It is not necessary to set or reset this point during initialization.
4-63	Unassigned

TABLE C

MSN TPIs

TPI	CIRCUIT DESCRIPTION
0	Unassigned
1	MF Receiver
2	MF Transmitter
3	CCIS Transceiver
4	Carrier Group Alarm for Digital Trunks
5	Carrier Group Alarm for 12 Analog Trunks
6	51A Test Position
7	ATMS Responder - 105 Test Check Fail
8	Remote Office Test Line
9	Tone Detector
10	MF Receiver Test
11	MF Transmitter Test
12	CCIS Transceiver Test Circuit
13	MF Receiver Tone Point
14	Unassigned
15	MF Transmitter Test Circuit - Twist A, Twist B
16	2-Way Operator
17	ATME-2 Director A
18	ATME-2 Responder A
19	CCITT5 Trunk Combine Frequency Detection
20-23	Export
24	Dual-Tone Multifrequency Receiver
25	Dual-Tone Multifrequency Transmitter
26	Dual-Tone MF Receiver Tone Point
27-63	Unassigned

TABLE D

STATES FOR MDN TPIs

TPI	DESCRIPTION
0	Unassigned
1	This point should be set during initialiazation
2	This point should be reset during initialization
3	It is not necessary to set or reset this point during initialization.
4-63	Unassigned

TABLE E

MSN MPI

MPI	APPLICATION	DATA DESCRIPTION
0	Not Valid	None (All zeros)
1	TASI-E DLC	Right most digit is TASI-E Clique Number (0-4), remaining digits give the "Octal" value of TASI-E Frame Number
2-63	Unassigned	

TABLE F

UNIT TYPE

VALUE	UNIT	DESCRIPTION
14	ABCNT	Area Bus Center
114	AUB	Auxiliary Unit Bus
15	BDFB	Battery Distribution Fuse Board
125	CC	Central Control
31	CCDS	CCIS Dataset Frame
123	CS	Call Store
115	CSB	Call Store Bus
38	DOCR	Dynamic Overload Control Receiver (<4E17)
37	DOCT	Dynamic Overload Control Transmitter (<4E17)
12	DT	Digroup Terminal
120	DUS	Data Unit Selector
7	EST	Digital Echo Suppressor
122	FS	File Store
1	GRID	Alarm Grid
117	IOUS	Input/Output Unit Selector
18	MA	Miscellaneous Frame A
27	MB	Miscellaneous Frame B
45	MC	Miscellaneous Frame C
39	MFS	Multifrequency Signaling Frame
3	NCLK	Network Clock
28	NMDC	Network Management Display Control
111	PCD	Power Control Distribution
16	PP620	620 Series Power Plant
17	PP625	625 Series Power Plant
121	PPI	Processor-Peripheral Interface
124	PS	Program Store
116	PSB	Program Store Bus
112	PUB	Peripheral Unit Bus
9	PUBB	Peripheral Unit Bus Branching Frame
33	RA	Recorded Announcement Machine
34	RMDC	Network Management Remote and Distribution Circuit
36	RT	Ringing and Tone Plant
13	SCLK	System Clock
40	SCS	Service Circuit System
2	SP	Signal Processor
6	TGR	CCIS Terminal Group
4	TMSP	Time Multiplexed Switching Frame
32	TPOS	Test Position
5	TSI	Time Slot Interchange Frame
19-26	TTF0-7	Toll Terminal Frame 0-7
119	TUC	Tape Unit Controller
11	VIF	Voiceband Interface Frame

TABLE G

MEMBER NUMBER

UNIT	VALUE
ABCNT	0-31
AUB	0-1
BDFB	0-31
CC	0-1
CCDS	0-15
CS	0-63
CSB	0-1
DOCR	0 (<4E17)
DOCT	0 (<4E17)
DT	0-127
DUS	0-3
EST	0-31
FS	0-3
GRID	0-15
IOUS	0-15
MA	0
MB	0-6
MC	0
MFS	0-31
NCLK	0
NMDC	0
PCD	0
PP620	0-15
PP625	0-6
PPI	0
PS	0-32
PSB	0-1
PUB	0-1
PUBB	0-4
RA	0-5
RMDC	0
RT	0
SCLK	0
SCS	0-7
SP	0-31
TGR	0-15
TMSP	0-3
TPOS	0-99
TSI	0-63
TFFO-TTF7	0-127
TUC	0-31
VIF	0-127

```
INPUT:                    VERIFY 16c

              VER:a[;b]:SP c,MML d,ROW e,COL f!(EOT)

                  a = MSN or MDN


OUTPUT:                   VERIFY 6d

VER:MSN/MDN;---:    SP --, MML -, ROW --


COL     NTPI     UTYP      MEMN
--       --      ---       ---
--       --      ---       ---

                         TSN

COL     TPI     SP    MML   ROW   COL
--      --      --     -     --    --
--      --      --     -     --    --


COL      MPI       DATA
--       --       ------
--       --       ------
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM # 801

Future

VER:PASANN(OPT,LIST);- - -:

VERIFY OUTPUT #6e - LIST PAS ANNOUNCEMENTS CURRENTLY IN TRANSLATIONS

1. GENERAL

1.01 This message verifies all PAS announcements currently defined in the office. The announcements will be listed in the following order: Barge-in by Announcement Number (ANNUM) and non Barge-in by Announcement Number (ANNUM).

2. FORM ENTRIES

2.01 VER:PASANN(OPT,LIST);- - -:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ANNUM** - Announcement Number
Entries: 1 to 511.

2.03 **ANSEP** - Announcement Separation Class
Entries: 0 to 31.

2.04 **SID** - Service Identity
Entries:
SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

2.05 **VSSID** - Voice Storage System Identity
Entries: 0.

```
INPUT:                    VERIFY 16d

                        VER:PASANN!(EOT)


OUTPUT:                   VERIFY 6e

VER:PASANN(OPT,LIST);---:

ANNUM  VSSID     SID     ANSEP

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 ---,  -----,  -------,  ---,
 ---,  -----,  -------,  ---,
 ---,  -----,  -------,  ---,
 ---,  -----,  -------,  ---,
```

ODA INPUT SOURCE - ESS 408C

RECENT CHANGE INPUT SOURCE - FORM # 604/605

VERIFY LIST OF PAS ANNOUNCEMENTS

VER:PASANN(OPT,ANN);- - -:

VERIFY OUTPUT #6f - DETAIL INFORMATION ABOUT A PAS ANNOUNCEMENT

1. GENERAL

1.01 This message will display detailed information about one PAS announcement. If a range of announcements is specified, announcements within the range, but not defined, are not listed.

2. FORM ENTRIES

2.01 VER:PASANN(OPT,ANN);- - -:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ADFHT** - Entries: Blank.

2.03 **ADSI** - Entries: See Blank.

2.04 **ANNUM** - Announcement Number
Entries: 1 to 511.

2.05 **ANSEP** - Announcement Separation Class
Entries: 0 to 31.

2.06 **ANSWR** - Answer Supervision
Entries: Y or N.

2.07 **ASTOPD** - Active Stop Day
Entries: blank or 0 to 31.

2.08 **ASTOPM** - Active Stop Month
Entries: blank or 1 to 12.

2.09 **ASTOPY** - Active Stop Year
Entries: blank or 00 to 99.

2.10 **CAPPN** - Cut-thru Application Number
Entries: 0 to 63.

2.11 **CAREA** - Control Area
Entries: 0 to 9.

2.12 **CPOS** - Control Position
Entries: 0 to 9.

2.13 **LENGTH** - Length of announcement
Entries: 5 to 300 seconds.

2.14 **PLAYS** - Number of announcement playbacks
Entries: 1 to 15 or U.

2.15 **SAN** - Service Circuit System Announcement Number
Entries: blank or 1 to 4095.

2.16 **SID** - Service Identity
Entries:
SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

2.17 **SSI** - Service Circuit System TSG ID
Entries: blank, FHA, or FHB.

2.18 **STOPD** - Stop Day
Entries: 0 to 31.

2.19 **STOPM** - Stop Month
Entries: 1 to 12.

2.20 **STOPT** - Stop Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute).

2.21 **STOPY** - Stop Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.22 **STRTD** - Start Day
Entries: 0 to 31.

2.23 **STRTM** - Start Month
Entries: 1 to 12.

2.24 **STRTT** - Start Time
Entries: 00 to 23 (hour) and 00 to 59 (minute).

2.25 **STRTY** - Start Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.26 **TYPE** - Announcement Type
Entries: BI or SCS.

2.27 **UFH** - Use Final Handling
Entries: blank, Y, or N.

2.28 **VSSID** - Voice Storage System Identity
Entries: 0.

```
INPUT:                    VERIFY 16d

             VER:PASANN[;a]:[VSSID b,][SID c,][ANNUM d]!(EOT)


OUTPUT:                   VERIFY 6f

VER:PASANN(OPT,ANN);---:

 TYPE ---, UFH -, VSSID -----, SID -------,

 STRTT --:--, STRTM --, STRTD --, STRTY --,
 STOPT --:--,

LENGTH ---, PLAYS --, ANSEP ---,

ANSWR -, ANNUM ---,

CAREA -, CPOS -,

CAPPN --,

SSI ----, SAN ----,

      SPECIAL HANDLING

ADSI --,  ADFHT ---,  ANNUM ---,
```

ODA INPUT SOURCE - ESS 408C

RECENT CHANGE INPUT SOURCE - FORM # 604/605

VERIFY A SPECIFIC PAS ANNOUNCEMENT

VER:PASCTHRU;---:

VERIFY OUTPUT #6g - PUBLIC ANNOUNCEMENT SERVICE (PAS) WITH CUT THROUGH APPLICATION

1. GENERAL

1.01 This message lists the data stored in translation that applies to a particular PAS with Cut Through as indexed by its Cut Through application number.

2. FORM ENTRIES

2.01 VER:PASCTHRU;---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ANNUM** - Announcement Number
Entries: 1 to 511.

2.03 **CAPPN** - Cut-thru Application Number
Entries: 0 to 63.

2.04 **CTN** - Cut-Through Number
Entries: blank or 10-digit number.

2.05 **CTTYPE** - Cut-Through Type
Entries: 1 or 2.

2.06 **GAPI** - Gap Index
Entries: 0 to 15.

2.07 **MAN** - Mass Announcement Number
Entries: 4 or 10 digit number.

2.08 **SID** - Service Identity
Entries:
SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

2.09 **START DATE** - Start Date
Entries: Fields STRTD, STRTM, and STRTY.

2.10 **STOPD** - Stop Day
Entries: 0 to 31.

2.11 **STOP DATE** - Stop Date
Entries: Fields STOPD, STOPM, and STOPY.

2.12 **STOPM** - Stop Month
Entries: 1 to 12.

2.13 **STOPT** - Stop Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute).

2.14 **STOPY** - Stop Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.15 **STRTD** - Start Day
Entries: 0 to 31.

2.16 **STRTM** - Start Month
Entries: 1 to 12.

2.17 **STRTT** - Start Time
Entries: 00 to 23 (hour) and 00 to 59 (minute).

2.18 **STRTY** - Start Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.19 **VSSID** - Voice Storage System Identity
Entries: 0.

```
INPUT:                    VERIFY 16e

                 VER:PASCTHRU[;a]:CAPPN b!(EOT)


OUTPUT:                   VERIFY 6g

VER:PASCTHRU;---:     CAPPN --,    CTTYPE -,

VSSID -----, SID -------,

START DATE
  STRTM --, STRTD --, STRTY --,

STOP DATE
  STOPM --, STOPD --, STOPY --,

STRTT --:--, STOPT --:--,

MAN ----------, CTN ----------, GAPI --,

ANNUM ---,
```

ODA INPUT SOURCE - ESS 408D

RECENT CHANGE INPUT SOURCE - FORM # 610/611

VERIFY PAS WITH CUT-THROUGH APPLICATION

VER:PASTVOTE,OPT(SLAVE);---:

VERIFY OUTPUT #6h - PAS WITH TELEVOTE - SLAVE APPLICATION

1. GENERAL

1.01 This message lists the characteristics of a slave office with Public Announcement Service TELEVOTE application.

2. FORM ENTRIES

2.01 VER:PASTVOTE,OPT(SLAVE);---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ANNUM** - Announcement Number
Entries: 1 to 511.

2.03 **DSFUN** - CCIS Direct Signaling Function Number
Entries: blank or 1 to 32767.

2.04 **MAN** - Mass Announcement Number
Entries: 4 or 10 digit number.

2.05 **MAPN** - Master Application Number
Entries: 0 to 63.

2.06 **MSI** - Master Slave Indicator
Entries: M, S, or B.

2.07 **SAPN** - Slave Application Number
Entries: blank or 0 to 63.

2.08 **SID** - Service Identity
Entries:
SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

2.09 **SKEW** - Skew offset
Entries: blank or 0 to 300.

2.10 **START DATE** - Start Date
Entries: Fields STRTD, STRTM, and STRTY.

2.11 **STOPD** - Stop Day
Entries: 0 to 31.

2.12 **STOP DATE** - Stop Date
Entries: Fields STOPD, STOPM, and STOPY.

2.13 **STOPM** - Stop Month
Entries: 1 to 12.

2.14 **STOPT** - Stop Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute).

2.15 **STOPY** - Stop Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.16 **STRTD** - Start Day
Entries: 0 to 31.

2.17 **STRTM** - Start Month
Entries: 1 to 12.

2.18 **STRTT** - Start Time
Entries: 00 to 23 (hour) and 00 to 59 (minute).

2.19 **STRTY** - Start Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.20 **TCNTR** - TELEVOTE Counter Index
Entries: blank or 0 to 127.

2.21 **VSSID** - Voice Storage System Identity
Entries: 0.

```
INPUT:                    VERIFY 16f

                  VER:PASTVOTE[;a]:SAPN b!(EOT)


OUTPUT:                   VERIFY 6h

VER:PASTVOTE,OPT(SLAVE);---: MSI --, SAPN --, MAPN --,

START DATE
  STRTM --, STRTD --, STRTY --,

STOP DATE
  STOPM --, STOPD --, STOPY --,

STRTT --:--, STOPT --:--,

DSFUN -----, SKEW ---,

    MAN     VSSID      SID    TCNTR  ANNUM

----------, -----, -------,    ---,   ---,
----------, -----, -------,    ---,   ---,
----------, -----, -------,    ---,   ---,
----------, -----, -------,    ---,   ---,

----------, -----, -------,    ---,   ---,
----------, -----, -------,    ---,   ---,
----------, -----, -------,    ---,   ---,
----------, -----, -------,    ---,   ---,
```

ODA INPUT SOURCE - ESS 408E/408E-1

RECENT CHANGE INPUT SOURCE - FORM # 607/608/609

VER:PASTVOTE,OPT(MASTER);---:

VERIFY OUTPUT #6i - VERIFY PAS WITH MASTER TELEVOTE APPLICATION

1. GENERAL

1.01 This message verifies the PAS announcement with TELEVOTE application at the master office. The input identifies the Master Application Number. The output data lists the Start Date and time, Stop Date and time, Dial Up Port Index as well as the Mass Announcement Number and Accumulating Counter Index.

2. FORM ENTRIES

2.01 VER:PASTVOTE,OPT(MASTER);---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ACNTR** - Accumulating Counter Index
Entries: blank or 0 to 127.

2.03 **DUPID** - Dial Up Port Identification
Entries: blank or two alphanumeric characters.

2.04 **MAN** - Mass Announcement Number
Entries: 4 digit number.

2.05 **MAPN** - Master Application Number
Entries: 0 to 63.

2.06 **MSI** - Master Slave Indicator
Entries: M, S, or B.

2.07 **START DATE** - Start Date
Entries: Fields STRTD, STRTM, and STRTY.

2.08 **STOPD** - Stop Day
Entries: 0 to 31.

2.09 **STOP DATE** - Stop Date
Entries: Fields STOPD, STOPM, and STOPY.

2.10 **STOPM** - Stop Month
Entries: 1 to 12.

2.11 **STOPT** - Stop Time
Entries: blank or 00 to 23 (hour) and 00 to 59 (minute).

2.12 **STOPY** - Stop Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.13 **STRTD** - Start Day
Entries: 0 to 31.

2.14 **STRTM** - Start Month
Entries: 1 to 12.

2.15 **STRTT** - Start Time
Entries: 00 to 23 (hour) and 00 to 59 (minute).

2.16 **STRTY** - Start Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

```
INPUT:                    VERIFY 16f

                  VER:PASTVOTE[;a]:MAPN a!(EOT)


OUTPUT:                   VERIFY 6i

                  VER:PASTVOTE,OPT(MASTER);---: MSI -, MAPN --,

                  START DATE
                    STRTM --, STRTD --, STRTY --,

                  STOP DATE
                    STOPM --, STOPD --, STOPY --,

                  STRTT --:--, STOPT --:--,

                  DUPID --,

                  MAN       ACNTR

                  ----,      ---,
                  ----,      ---,
                  ----,      ---,
                  ----,      ---,
                  ----,      ---,

                  ----,      ---,
                  ----,      ---,
                  ----,      ---,
                  ----,      ---,
                  ----,      ---,
```

ODA INPUT SOURCE - ESS 408E/408E-1

RECENT CHANGE INPUT SOURCE - FORM # 607/608/609

VERIFY PAS WITH TEVEVOTE

VER:TASI:

VERIFY OUTPUT #6j - VERIFY TASI-E DYNAMIC LOAD CONTROL TRANSLATOR

1. GENERAL

1.01 This message is used to verify translation data associated with a TASI-E frame. The verify input message specifies a single frame number, a list of frame numbers or a range of TASI-E frames. The output includes miscellaneous point, clique number and the Trunk Sub-Groups associated with each clique for a TASI-E frame.

2. FORM ENTRIES

2.01 VER:TASI:

2.02 **CLIQUE** - Clique
Entries: 0 to 4.

2.03 **FRAME** - Time Assignment Speech Interpolation Frame
Entries: 0 to 255.

2.04 **MSN** - Miscellaneous Scan Point

— SP = 0 to 31.

— MML = 0 to 1.

— ROW = 0 to 63.

— COL = 0 to 15.

2.05 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.06 **USE** - See PTG-4

```
INPUT:                    VERIFY 16g

                   VER:TASI:FRAME a!(EOT)


OUTPUT:                   VERIFY 6j


VER:TASI:          USE ----,      FRAME ---,

CLIQUE -,               MSN -- - -- --,

    BTFN TOWN ST BL FBS NBS

    ---- ---- -- -- --- ---
    ---- ---- -- -- --- ---
    ---- ---- -- -- --- ---
    ---- ---- -- -- --- ---
    ---- ---- -- -- --- ---
```

ODA INPUT SOURCE - ESS 406I

RECENT CHANGE INPUT SOURCE - FORM # 613/614

VER:DNHRMISC:

VERIFY OUTPUT #6k - DYNAMIC NON-HIERARCHICAL ROUTING PARAMETERS

1. GENERAL

1.01 This message lists the various parameters imposed by the Dynamic Non-Hierarchical Routing (DNHR) network. The output lists the Forecast Periods date and time and the Load Set Period hours by day of the week.

2. FORM ENTRIES

2.01 VER:DNHRMISC:

2.02 **CFPBLOCK** - Change Forecast Period Block
Entries: A or B.

2.03 **CFPDATE** - Change Forecast Period Date
Entries: Fields CFPDAY, CFPMONTH, and CFPYEAR.

2.04 **CFPDAY** - Change Forecast Period Day
Entries: 1 to 31.

2.05 **CFPHOUR** - Change Forecast Period Hour
Entries: 00 to 23.

2.06 **CFPMONTH** - Change Forecast Period Month
Entries: 1 to 12.

2.07 **CFPYEAR** - Change Forecast Period Year
Entries: 00 to 99. For 4E23R3 and later generics, values 00 to 69 signify years 2000 to 2069, respectively and values 70 to 99 signify years 1970 to 1999, respectively.

2.08 **LSPDAY** - Load Set Period Day
Entries: SUN, MON, TUE, WED, THU, FRI, SAT.

2.09 **LSPHOUR** - Load Set Period Hour
Entries: 1 to 15.

```
INPUT:                    VERIFY 16h

                      VER:DNHRMISC!(EOT)


OUTPUT:                   VERIFY 6k


VER:DNHRMISC:                                          CFPBLOCK -


CFPDATE                                          CFPTIME
   CFPMONTH --, CFPDAY --, CFPYEAR --,             CFPHOUR --,


                             LSPHOUR
     00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
LSPDAY
SUN  --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--
MON  --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--
TUE  --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--
WED  --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--
THU  --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--
FRI  --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--
SAT  --,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--,--
```

ODA INPUT SOURCE - ESS 406K

RECENT CHANGE INPUT SOURCE - FORM # 615

VER:IDAM

VERIFY OUTPUT #6l - INCOMING AND DESTINATION SEPARATIONS MATRIX

1. GENERAL

1.01 This message lists the Incoming and Destination Separations and Cell Group for the Incoming and Destination Separations Classes requested.

2. FORM ENTRIES

2.01 VER:IDAM

2.02 **CELL GROUP** - Cell Grouping Index
Entries: 1 to 1022.

For any INSEP/DESEP combination assigned to Cell Group 1023 (the ODA populated default for unassigned), the output response will be processing complete - Code 5.

2.03 **DESEP** - Destination Separation
Entries: 1 to 255.

2.04 **INSEP** - Incoming Traffic Separation Class
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

```
INPUT:                    VERIFY 16i

                VER:IDAM:INSEP a,DESEPR b!EOT
                VER:IDAM:DESEP a,INSEPR b!EOT


OUTPUT:                   VERIFY 6l


          VER:IDAM

          INSEP            DESEP            CELLGRP

          ---,             ---,              ----,
          ---,             ---,              ----,
          ---,             ---,              ----,
          ---,             ---,              ----,
          ---,             ---,              ----,
          ---,             ---,              ----,
          ---,             ---,              ----,
          ---,             ---,              ----,
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM # 616

VER:IDAMLIST

VERIFY OUTPUT #6m - CELL GROUPING INCOMING AND DESTINATION SEPARATIONS

1. GENERAL

1.01 This message lists the Incoming and Destination Separations Classes for the Cell Group requested.

2. FORM ENTRIES

2.01 VER:IDAMLIST:

2.02 **CELLGRP** - Cell Grouping Index
Entries: 0 to 1023.

2.03 **DESEP** - Destination Separation
Entries: 1 to 255.

2.04 **INSEP** - Incoming Traffic Separation Class
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

```
INPUT:                    VERIFY 16j

                  VER:IDAMLIST:CELLGRP a!EOT


OUTPUT:                   VERIFY 6m


                  VER:IDAMLIST:          CELLGRP ----,

                  INSEP      DESEP

                   ---,       ---,

                   ---,       ---,

                   ---,       ---,

                   ---,       ---,

                   ---,       ---,

                   ---,       ---,

                   ---,       ---,

                   ---,       ---,

                   ---,       ---,

                   ---,       ---,

                   ---,       ---,

                   ---,       ---,
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM # 616

CELL GROUPING INCOMING AND DESTINATION SEPARATIONS

VER:INSPLIST(OPT,TSG):

VERIFY OUTPUT #6n - INCOMING SEPARATION CLASS LIST

1. GENERAL

1.01 This message lists the Trunk Subgroup Customer Identification for the Incoming Separation Class requested.

2. FORM ENTRIES

2.01 VER:INSPLIST(OPT,TSG):

2.02 **INSEP** - Incoming Traffic Separation Class
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

2.03 **TSG** - Trunk Subgroup

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 16k

                    VER:INSPLIST:INSEPR a!EOT


OUTPUT:                   VERIFY 6n

               VER:INSPLIST(OPT,TSG):                  INSEP ---,

               BFTN TOWN ST BL FBS NBS

               ---- ---- -- -- --- ---
               ---- ---- -- -- --- ---
               ---- ---- -- -- --- ---
               ---- ---- -- -- --- ---
               ---- ---- -- -- --- ---
               ---- ---- -- -- --- ---
               ---- ---- -- -- --- ---
               ---- ---- -- -- --- ---
```

ODA INPUT SOURCE - ESS 401A/401B

RECENT CHANGE INPUT SOURCE - FORM # 100/101/107/108

VER:DESPLIST;OPT(DIG3):

VERIFY OUTPUT #6o - DESTINATION SEPARATION CLASS LIST

1. GENERAL

1.01 This message lists the 3 digit (ABC) codegroups associated with the Domain being verified.

2. FORM ENTRIES

2.01 VER:DESPLIST;OPT(DIG3):

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank.

2.04 **DESEP** - Destination Separation
Entries: 1 to 255.

2.05 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.06 **NTD** - Number of Translatable Digits
Entries: 3.

```
INPUT:                    VERIFY 16l

                  VER:DESPLIST:DESEPR a!EOT


OUTPUT:                   VERIFY 6o

          VER:DESPLIST;OPT(DIG3): DOM ----,

          DESEP ---, AC -, NTD -,

          ABC   ABC   ABC   ABC   ABC   ABC   ABC   ABC
          ---   ---   ---   ---   ---   ---   ---   ---
          ---   ---   ---   ---   ---   ---   ---   ---
          ---   ---   ---   ---   ---   ---   ---   ---
          ---   ---   ---   ---   ---   ---   ---   ---
```

ODA INPUT SOURCE - ESS 403D

RECENT CHANGE INPUT SOURCE - FORM # 300/327

VER:DESPLIST;OPT(DIG6):

VERIFY OUTPUT #6p - DESTINATION SEPARATION CLASS LIST

1. GENERAL

1.01 This message lists the 4, 5, or 6 digits (DEF) that complete the code groups associated with the Domain being verified.

2. FORM ENTRIES

2.01 VER:DESPLIST;OPT(DIG6):

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank.

2.04 **DEF** - DEF Digits
Entries: blank, 0 to 999.

2.05 **DESEP** - Destination Separation
Entries: 1 to 255.

2.06 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.07 **NTD** - Number of Translatable Digits
Entries: 4, 5, or 6.

```
INPUT:                    VERIFY 16l

                   VER:DESPLIST:DESEPR a!EOT


OUTPUT:                   VERIFY 6p


          VER:DESPLIST;OPT(DIG6): DOM ----,
                                  ABC ---,

          DESEP ---, AC -, NTD -,

          DEF   DEF   DEF   DEF   DEF   DEF   DEF   DEF
          ---   ---   ---   ---   ---   ---   ---   ---
          ---   ---   ---   ---   ---   ---   ---   ---
          ---   ---   ---   ---   ---   ---   ---   ---
          ---   ---   ---   ---   ---   ---   ---   ---
```

ODA INPUT SOURCE - ESS 403E

RECENT CHANGE INPUT SOURCE - FORM # 301/328

VER:DESPLIST;OPT(DIG9):

VERIFY OUTPUT #6q - DESTINATION SEPARATION CLASS LIST

1. GENERAL

1.01 This message lists the 7, 8, or 9 digits (GHI) that complete the code groups associated with the Domain being verified.

2. FORM ENTRIES

2.01 VER:DESPLIST;OPT(DIG9):

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank.

2.04 **DEF** - DEF Digits
Entries: 000 to 999.

2.05 **DESEP** - Destination Separation
Entries: 1 to 255.

2.06 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.07 **GHI** - GHI Digits
Entries: blank, 0 to 999.

2.08 **NTD** - Number of Translatable Digits
Entries: 7, 8, or 9.

```
INPUT:                    VERIFY 16l

                   VER:DESPLIST:DESEPR a!EOT


OUTPUT:                   VERIFY 6q


          VER:DESPLIST;OPT(DIG9): DOM ----,
                                  ABC ---, DEF ---,

          DESEP ---, AC -, NTD -,

          GHI   GHI   GHI   GHI   GHI   GHI   GHI   GHI
          ---   ---   ---   ---   ---   ---   ---   ---
          ---   ---   ---   ---   ---   ---   ---   ---
          ---   ---   ---   ---   ---   ---   ---   ---
          ---   ---   ---   ---   ---   ---   ---   ---
```

ODA INPUT SOURCE - ESS 403F

RECENT CHANGE INPUT SOURCE - FORM # 302/329

VER:DESPLIST;OPT(DIG12):

VERIFY OUTPUT #6r - DESTINATION SEPARATION CLASS LIST

1. GENERAL

1.01 This message lists the 10, 11, or 12 digits (JKL) that complete the code groups associated with the Domain being verified.

2. FORM ENTRIES

2.01 VER:DESPLIST;OPT(DIG12):

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

2.03 **AC** - Area Code
Entries: Y, N, or blank.

2.04 **DEF** - DEF Digits
Entries: 000 to 999.

2.05 **DESEP** - Destination Separation
Entries: 1 to 255.

2.06 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.07 **GHI** - GHI Digits
Entries: 000 to 999.

2.08 **JKL** - JKL Digits
Entries: blank, 0 to 999.

2.09 **NTD** - Number of Translatable Digits
Entries: 10, 11, or 12.

```
INPUT:                    VERIFY 16l

                   VER:DESPLIST:DESEPR a!EOT


OUTPUT:                   VERIFY 6r


          VER:DESPLIST;OPT(DIG12): DOM ----,
                                   ABC ---, DEF ---, GHI ---,

          DESEP ---, AC -, NTD --,

          JKL   JKL   JKL   JKL   JKL   JKL   JKL   JKL
          ---   ---   ---   ---   ---   ---   ---   ---
          ---   ---   ---   ---   ---   ---   ---   ---
          ---   ---   ---   ---   ---   ---   ---   ---
          ---   ---   ---   ---   ---   ---   ---   ---
```

ODA INPUT SOURCE - ESS 403V

RECENT CHANGE INPUT SOURCE - FORM # 303/330

VERIFY DESTINATION SEPARATION CLASS LIST FOR 10-12 DIGIT CODEGROUPING

VER:FEN:

VERIFY OUTPUT #6s - FAR END NETWORK CHARACTERISTICS

1. GENERAL

1.01 This message is used to verify the characteristics of a Far End Network (FEN).

2. FORM ENTRIES

2.01 VER:FEN:

2.02 **AFA** - ANI Failure Action
Entries: blank, RR, KA, or KW.

2.03 **ALAP** - Alaskan POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.04 **ATAP** - Access Tandem Area POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.05 **CANP** - Canadian POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.06 **CARP** - Caribbean, Non-US Territories, POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.07 **CLASS** - Far End Network Classification
Entries: ACCESA, ACCESI, ACCESO, CAMA, CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.08 **CUSP** - Continental United States POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.09 **CUTP** - Caribbean, US Territories, POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.10 **DA** - Directory Assistance
Entries: N, B, D, Q, R, I, M, C, A.

2.11 **DEF1** - DEF Digits 1
Entries: blank, Y, or N.

2.12 **DEF2** - DEF Digits 2
Entries: blank, Y, or N.

2.13 **DEF3** - DEF Digits 3
Entries: blank, Y, or N.

2.14 **DEF4** - DEF Digits 4
Entries: blank, Y, or N.

2.15 **DFHT** - Denied Call Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.16 **DLT** - Dial-It
Entries: N, B, D, Q, R, I, M, C, A.

2.17 **DSD** - Direct Services Dialing
Entries: N, B, D, Q, R, I, M, C, A.

2.18 **EASC** - Exchange Access Signaling Code
Entries: N, B, D, Q, R, I, M, C, A.

2.19 **FID** - Far End Network Identification
Entries: blank or 1 to 6 alphanumeric characters.

2.20 **HAWP** - Hawaiian POTS
Entries: N, B, D, Q, R, I, M, C, A.

2.21 **ICIN** - Inter-LATA Carrier switch's International Carrier
Entries: N, B, D, Q, R, I, M, C, A.

2.22 **INCN** - International Carrier, non-IC owner's INC
Entries: N, B, D, Q, R, I, M, C, A.

2.23 **INCO** - International Carrier
Entries: N, B, D, Q, R, I, M, C, A.

2.24 **INET** - Interim Nationwide Emergency Telecommunications System
Entries: N, B, D, Q, R, I, M, C, A.

2.25 **INW** - Inward WATS
Entries: N, B, D, Q, R, I, M, C, A.

2.26 **IOP** - Inward Operator
Entries: N, B, D, Q, R, I, M, C, A.

2.27 **LDA** - Local Directory Assistance
Entries: N, B, D, Q, R, I, M, C, A.

2.28 **MCPP** - Multiquest Calling Party-Paid
Entries: N, B, D, Q, R, I, M, C, A.

2.29 **MSC1** - Miscellaneous 1
Entries: N, B, D, Q, R, I, M, C, A.

2.30 **MSC2** - Miscellaneous 2
Entries: N, B, D, Q, R, I, M, C, A.

2.31 **MSC3** - Miscellaneous 3
Entries: N, B, D, Q, R, I, M, C, A.

2.32 **MSC4** - Miscellaneous 4
Entries: N, B, D, Q, R, I, M, C, A.

2.33 **MULT** - Multiquest
Entries: N, B, D, Q, R, I, M, C, A.

2.34 **NWZ1** - Non-World Zone 1
Entries: N, B, D, Q, R, I, M, C, A.

2.35 **QTM** - Entries: N

2.36 **RSYS** - Restricted System Codes
Entries: N, B, D, Q, R, I, M, C, A.

2.37 **SC1-SC36** - Spare Category 1 to 36
Entries: N, B, D, Q, R, I, M, C, A.

2.38 **SDN** - Software Defined Network
Entries: N, B, D, Q, R, I, M, C, A.

2.39 **SDND** - SDN Data
Entries: N, B, D, Q, R, I, M, C, A.

2.40 **SPDI** - Sponsor-Paid Dial-It
Entries: N, B, D, Q, R, I, M, C, A.

2.41 **SSP** - Service Switching Point
Entries: N, B, D, Q, R, I, M, C, A.

2.42 **TC** - Teleconferencing
Entries: N, B, D, Q, R, I, M, C, A.

2.43 **TST** - Test Line
Entries: N, B, D, Q, R, I, M, C, A.

2.44 **UNSP** - Unspecified
Entries: N, B, D, Q, R, I, M, C, A.

```
INPUT:                              VERIFY #16m

VER:FEN:CLASS a[,FID b]!(EOT)



OUTPUT:                              VERIFY 6s

VER:FEN:                              CLASS ------,       FID ------,

AFA --,

RECORDING SCREENING AND QUERY TREATMENT

UNSP -,   ATAP -,   CUSP -,   CARP -,   CANP -,   HAWP -,   NWZ1 -,   INW -,

DSD -,    DLT -,    TC -,     DA -,     IOP -,    TST -,    RSYS -,   MSC1 -,

MSC2 -,   MSC3 -,   MSC4 -,   INCN -,   ALAP -,   CUTP -,   INCO -,   EASC -,

ICIN -,   SC1 -,    SC2 -,    SC3 -,    SC4 -,    SC5 -,    SC6 -,    SC7 -,

SC8 -,    SC9 -,    SC10 -,   SC11 -,   SC12 -,   SC13 -,   SC14 -,   SC15 -,

SC16 -,   SC17 -,   SC18 -,   SC19 -,   SC20 -,   SC21 -,   SC22 -,   SC23 -,

SC24 -,   SC25 -,   SC26 -,   SC27 -,   SC28 -,   SC29 -,   SC30 -,   SC31 -,

SC32 -,   SC33 -,   SC34 -,   SC35 -,   SC36 -,   SDN -,    LDA -,    SSP -,

SPDI -,   MULT -,   MCPP -,   INET -,   SDND -,   QTM -,

SCREENING TREATMENT

DEF1 -,   DEF2 -,   DEF3 -,   DEF4 -,                       DFHT ---,
```

ODA INPUT SOURCE - FORM ESS 406L

RECENT CHANGE INPUT SOURCE - FORM # 617/618

VERIFY FEN CLASS

Future

VER:OFFICE:

VERIFY OUTPUT #6t - CURRENT GENERIC AND OFFICE NAME

1. GENERAL

1.01 This message verifies the CLLI, OPC, NSN, and current Generic Program for a particular 4 ESS office.

2. FORM ENTRIES

2.01 VER:OFFICE:

2.02 **CLLI** - Common Language Circuit Identifier (<4E23R2)

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— NBS = alphanumeric.

2.03 **GENERIC INFO** - Generic Program Information
The current generic program, load, merge, and release.

For Example,

4E<16>4A.08 R2 designates:

Generic - 4E<16>
Load - 4A
Merge - 08
Release - 2

2.04 **OFFNSN** - Entries: blank.

2.05 **OPC** - Origination Point Code
If PCF equals ATT, then DPC is composed of:

— NET = 000 to 255.
— CR = 00 to 31.
— CT = 0 to 7.
— MEM = 000 to 255.

If PCF equals ANSI, then DPC is composed of:

— NET = 000 to 255.
— CLU = 000 to 255.
— MEM = 000 to 255.

2.06 **PCF** - Point Code Format
Entries: ATT or ANSI.

```
INPUT:                    VERIFY 16n
<4E23R2
                       VER:OFFICE!(EOT)


OUTPUT:                   VERIFY 6t


VER:OFFICE:

    GENERIC INFO        TOWN ST BL NBS       PCF       OPC        NSN
         a                    b               c         d          e
```

a - Current Generic Program, load, merge, and release
b - CLLI
c - Point Code Format
d - Origination Point Code
e - Network Switch Number

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - NONE

VERIFY OFFICE NAME AND GENERIC

VER:BKBAND:

VERIFY OUTPUT #6u - BACKUP BAND ASSIGNMENTS

1. GENERAL

1.01 This message allows the determination of the backup band assignments relating to any given SLC Index.

2. FORM ENTRIES

2.01 VER:BKBAND:

2.02 **BAND** - Band Number
Entries: 0 to 127.

2.03 **SLC** - Signaling Link Complement Index
Entries: 0 to 255.

2.04 **SLCINDX** - Signaling Link Complement Index
Entries: 0 to 255.

```
INPUT:                    VERIFY 16o

                  VER:BKBAND:SLCINDX a!EOT


Output:                   VERIFY 6u

          VER:BKBAND:                    SLCINDX ---,

                                           BACKUP
            BAND                         SLC     BAND

            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
            ---,                         ---,    ---,
```

ODA INPUT SOURCE - ESS 406G

RECENT CHANGE INPUT SOURCE - FORM # 805/806

VERIFY BACKUP BAND ASSIGNMENT

VER:CRB:

VERIFY OUTPUT #6w - CUSTOMER ROUTING BLOCK

1. GENERAL

1.01 This message verifies a Customer Routing Block. The input is the Customer Routing Block Index (CRBI) that points to the CRB which requires verification. The output specifies the traffic number and the next CRBI (if any) and the customer data block index for this CRB.

2. FORM ENTRIES

2.01 VER:CRB:

2.02 **CDBI** - Customer Data Block Index
Entries: 1 to 4095.

2.03 **CRBI** - Customer Routing Block Index
Entries: 1 to 32767.

2.04 **NCRBI** - Next Customer Routing Block Index
Entries: blank or 1 to 32767.

2.05 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

```
INPUT:                    VERIFY 16p

                       VER:CRB:CRBI a!EOT


OUTPUT:                   VERIFY 6w


VER:CRB:

                              TAN
CRBI                  TSI SPC LVL FTS      NCRBI     CDBI

-----,                --,  -,  -, ---,     -----,    ----,
-----,                --.  -,  -, ---,     -----,    ----,
-----,                --,  -,  -, ---,     -----,    ----,
-----,                --,  -,  -, ---,     -----,    ----,
-----,                --   -,  -, ---,     -----,    ----,
```

ODA INPUT SOURCE - ESS 406N

RECENT CHANGE INPUT SOURCE - FORM # 620

VER:CRB;OPT(LIST):

VERIFY OUTPUT #6x - CUSTOMER ROUTING BLOCKS CONTAINING THE SPECIFIED TAN

1. GENERAL

1.01 This message verifies the Customer Routing Blocks (CRBs) that contain a specific TAN. The output data lists the Customer Routing Block Index, the Next Customer Routing Block Index (if any), and the Customer Data Block Index.

2. FORM ENTRIES

2.01 VER:CRB;OPT(LIST):

2.02 **CDBI** - Customer Data Block Index
Entries: 1 to 4095.

2.03 **CRBI** - Customer Routing Block Index
Entries: 1 to 32767.

2.04 **NCRBI** - Next Customer Routing Block Index
Entries: blank or 1 to 32767.

2.05 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

```
INPUT:                    VERIFY 16q

                      VER:CRBLIST:TAN a!EOT


OUTPUT:                   VERIFY 6x

               VER:CRB;OPT(LIST):                      TAN
                                                  TSI SPC LVL FTS
                                                  --,  -,  -, ---,

                CRBI      NCRBI      CDBI

               -----,     -----,     ----,
               -----,     -----,     ----,
               -----,     -----,     ----,
               -----,     -----,     ----,
               -----,     -----,     ----,
```

ODA INPUT SOURCE - ESS 406N

RECENT CHANGE INPUT SOURCE - FORM # 620

VERIFY OUTPUT CUSTOMER ROUTING BLOCKS
CONTAINING THE SPECIFIED TAN

VER:CDB:

VERIFY OUTPUT #6y - CUSTOMER DATA BLOCK

1. GENERAL

1.01 This message verifies a Customer Data Block. The input is the Customer Data Block Index (CDBI) that points to the CDB which requires verification. The output specifies the billing number, the number of digits to delete, and the acceptable digit count.

2. FORM ENTRIES

2.01 VER:CDB:

2.02 **BN** - Billing Number
Entries: 10 digit number.

2.03 **BNPT** - Entries: blank.

2.04 **CDBI** - Customer Data Block Index
Entries: 1 to 4095.

2.05 **DEL** - Delete Digits
Entries: 0 to 15.

```
INPUT:                    VERIFY 16r

                      VER:CDB:CDBI a!EOT


OUTPUT:                   VERIFY 6y

VER:CDB:                                          CDBI ----,

BN ----------,     BNPT ----,     DEL --,
```

ODA INPUT SOURCE - ESS 406O

RECENT CHANGE INPUT SOURCE - FORM # 622

VER:CRB;OPT(CDBI):

VERIFY OUTPUT #6z - CUSTOMER ROUTING BLOCKS CONTAINING THE SPECIFIED CDBI

1. GENERAL

1.01 This message verifies the Customer Routing Blocks (CRBs) that contain a specific Customer Data Block Index (CDBI).

2. FORM ENTRIES

2.01 VER:CRB;OPT(CDBI):

2.02 **CDBI** - Customer Data Block Index
Entries: 1 to 4095.

2.03 **CRBI** - Customer Routing Block Index
Entries: 1 to 32767.

```
INPUT:                    VERIFY 16s

                     VER:CRBLIST:CDBI a!EOT


OUTPUT:                   VERIFY 6z

VER:CRB;OPT(CDBI):                                CDBI ----,

 CRBI      CRBI      CRBI      CRBI

-----,    -----,    -----,    -----,
-----,    -----,    -----,    -----,
-----,    -----,    -----,    -----,
-----,    -----,    -----,    -----,
```

ODA INPUT SOURCE - ESS 406N

RECENT CHANGE INPUT SOURCE - FORM # 620

VERIFY CUSTOMER ROUTING BLOCKS
CONTAINING THE SPECIFIED CDBI

VER:MISC,OPT(ANN):

VERIFY OUTPUT #6aa - ANNOUNCEMENT INDEX TO TREATMENT MAPPING

1. GENERAL

1.01 This message verifies the requested announcement index range to identify the announcement treatment associated with each index.

2. FORM ENTRIES

2.01 VER:MISC,OPT(ANN):

2.02 **ANINDEX** - Announcement Index
Entries: 0 to 255.

2.03 **ANN** - Announcement
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

```
INPUT:                    VERIFY 16t

                      VER:ANINDEX a!(EOT)


OUTPUT:                   VERIFY 6aa

VER:MISC,OPT(ANN):

   ANINDEX      ANN

    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
    ---,        ---,
```

ODA INPUT SOURCE - ESS 406P

RECENT CHANGE INPUT SOURCE - FORM # 624

VERIFY ANNOUNCEMENT INDEX TO TREATMENT MAPPING

VER:MISC,OPT(AMA):

VERIFY OUTPUT #6ab - AMA CALL CODE TO STRUCTURE CODE MAPPING

1. GENERAL

1.01 This message verifies the requested AMA call code range to identify the AMA structure code set associated with each call code.

2. FORM ENTRIES

2.01 VER:MISC,OPT(AMA):

2.02 **CALL CODE**
Entries: 0 to 999.

2.03 **CODE SET**
Entries: NONE, SET1, or SET2.

```
INPUT:                              VERIFY 16u

                                VER:AMACODE a!(EOT)


OUTPUT:                             VERIFY 6ab


VER:MISC,OPT(AMA):

    CALL      STRUCTURE
    CODE      CODE SET

    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
    ---,        ----,
```

ODA INPUT SOURCE - ESS 406Q

RECENT CHANGE INPUT SOURCE - FORM # 625

VER:MISC,OPT(TOS):

VERIFY OUTPUT #6ac - BOC SSP TYPE OF SERVICE INFORMATION

1. GENERAL

1.01 This message verifies the requested BOC SSP Type of Service information.

Note: For Advanced Intelligent Network (AIN), TOS to SSN/TT mapping will be used to determine TT value but SSN value will be ignored.

2. FORM ENTRIES

2.01 VER:MISC,OPT(TOS):

2.02 **AIN TFREE** - Advanced Intelligent Network (AIN) 800/Tollfree Indicator (4E21R3>).

Entries: Y, N, or blank. Note: this field will be blank if the feature has not been purchased).

2.03 **CODE**
Entries: 000 to 999.

2.04 **SSN** - Subsystem Number
Entries: 232 to 255.

For Advanced Intelligent Network (AIN), SSN field on this form will be ignored. AIN SSN is assigned one per office with RC form 810.

2.05 **TOS** - Type of Service
Entries: 0 to 31.

2.06 **TT** - Translation Type
Entries: 0 to 255.

```
INPUT:                              VERIFY 16v

                                  VER:TOS a!(EOT)


OUTPUT:                             VERIFY 6ac


VER:MISC,OPT(TOS):

TOS      TT     SSN    CODE
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
--,     ---,    ---,   ---,
```

ODA INPUT SOURCE - ESS 406R

RECENT CHANGE INPUT SOURCE - FORM # 626

```
INPUT:                              VERIFY 16v

                                  VER:TOS a!(EOT)


OUTPUT:                             VERIFY 6ac


VER:MISC,OPT(TOS):

TOS     TT    SSN    CODE   AIN TFREE
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
--,    ---,   ---,   ---,       _,
```

ODA INPUT SOURCE - ESS 406R

RECENT CHANGE INPUT SOURCE - FORM # 626

Future

VER:LATASTAT;OPT(AREAS):

VERIFY OUTPUT #6ae - LATA/STATE SCREENING AREAS

1. GENERAL

1.01 Verify message 6ae is used to output LATA/state screening areas.

2. FORM ENTRIES

2.01 VER:LATASTAT;OPT(AREAS):

2.02 **LATA** - Local Access Transport Area
Entries: 000 to 999.

2.03 **STATE** - State
Entries: Two alphabetic characters.

```
INPUT:                    VERIFY 16x

                  VER:LATASTAT:AREAS!(EOT)


OUTPUT:                   VERIFY 6ae

                  VER:LATASTAT;OPT(AREAS):

                    LATA    STATE

                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
                    ---,     --,
```

ODA INPUT SOURCE - ESS 406T

RECENT CHANGE INPUT SOURCE - FORM # 629

VER:LATASTAT;OPT(MATRIX):

VERIFY OUTPUT #6af - LATA/STATE SCREENING MATRIX

1. GENERAL

1.01 Verify message 6af is used to output LATA/state screening matrixes.

2. FORM ENTRIES

2.01 VER:LATASTAT;OPT(MATRIX):

2.02 **LATA** - Local Access Transport Area
Entries: 000 to 999.

2.03 **MATRIX** - LATA/state Screening Matrix
Entries: 1 to 7.

2.04 **STATE** - State
Entries: Two alphabetic characters.

2.05 Matrix entries - Entries populated with a Y identify an originating LATA/state area (row) and terminating LATA/state area (column) combination that is subject to screening. Combinations where no screening occurs are blank.

```
INPUT:                    VERIFY 16y

                  VER:LATASTAT:MATRIX a!(EOT)


OUTPUT:                         VERIFY 6af

VER:LATASTAT;OPT(MATRIX):                        MATRIX _,

ORIGINATING AREA IS DOWN THE PAGE - TERMINATING IS ACROSS

LATA   --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
    ST  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
--- --  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,  -,
```

ODA INPUT SOURCE - ESS 406U
RECENT CHANGE INPUT SOURCE - FORM # 630

VERIFY LATA/STATE SCREENING MATRIX
4E21 AND EARLIER GENERIC PROGRAMS

VER:SERVICE;OPT(PARAMS):

VERIFY OUTPUT #6ag - SERVICE PARAMETERS

1. GENERAL

1.01 Verify message 6ag is used to output service parameters.

2. FORM ENTRIES

2.01 VER:SERVICE;OPT(PARAMS):

2.02 **LSFHT** - LATA/state Screening Final Handling Treatment (<4E21)
Entries: blank, AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.03 **LSMTX** - LATA/state Screening Matrix (<4E21)
Entries: blank or 1 to 7.

2.04 **NUMPL** - Numbering Plan (<4E21)
Entries: APN, INTL, or NANP.

2.05 **RSFHT** - Route Selection Final Handling Treatment
Entries: blank, AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.06 **RSI** - Route Selection Index
Entries: 0 to 126.

2.07 **RSIDF** - Route Selection Index Default
Entries: A or D.

2.08 **RTDOM** - Routing Domain
Entries: blank, HNPA (4E22> - for LEC offices only), IT, 20-83, INTO, INTT, SDNA, DEV, DED, SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), INCD, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

2.09 **SRVC** - Service
Entries: MEGC, NCAT, INTV, INTD, 20-83, INTO, INTT, SDNA, DEV, DED, INCD, IO56, IO64, ITD, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

```
INPUT:                    VERIFY 16z

                  VER:SERVICE:SRVC a!(EOT)


OUTPUT:                         VERIFY 6ag

VER:SERVICE;OPT(PARAMS):                                  SRVC ----,

NUMPL ----,    RTDOM ----,    RSI ---,    RSIDF -,    RSFHT ---,

LSMTX -,   LSFHT ---,
```

ODA INPUT SOURCE - ESS 406V
RECENT CHANGE INPUT SOURCE - FORM # 631
4E21 AND EARLIER GENERIC PROGRAMS

VERIFY SERVICE PARAMETERS

```
INPUT:                    VERIFY 16z

                  VER:SERVICE:SRVC a!(EOT)


OUTPUT:                         VERIFY 6ag

VER:SERVICE;OPT(PARAMS):                                SRVC ----,

RTDOM ----,    RSI ---,    RSIDF -,    RSFHT ---,
```

ODA INPUT SOURCE - ESS 406V
RECENT CHANGE INPUT SOURCE - FORM # 631
4E22 AND LATER GENERIC PROGRAMS

Future

VER:NPADPC;OPT(NPA):

VERIFY OUTPUT #6ah - NPA TO DESTINATION POINT CODE

1. GENERAL

1.01 Verify message 6ah is used to output the Destination Point Code and Subsystem Number used for routing Network Call Denial (NCD) queries directly to the NCD Network Control Point.

2. FORM ENTRIES

2.01 VER:NPADPC;OPT(NPA):

2.02 **DPC** - Destination Point Code

— NET = 0 to 255

— CR = 0 to 31.

— CT = 0 to 7.

— MEM = 0 to 255.

2.03 **NPA** - Numbering Plan Area
Entries: 200-999.

2.04 **SSN** - Subsystem Number
Entries: 232 to 255.

```
INPUT:                    VERIFY 16aa

                     VER:NPADPC:NPA a!(EOT)


OUTPUT:                        VERIFY 6ah

VER:NPADPC;OPT(NPA):                              NPA ---,

                     NET CR CT MEM

SSN ---,         DPC ---,--,-, ---,
```

ODA INPUT SOURCE - NONE
RECENT CHANGE INPUT SOURCE - FORM # 632

VERIFY NPA TO DPC TABLE

VER:EA;OPT(CID):

VERIFY OUTPUT #6ai - CARRIER CODE TO TNS TYPE

1. GENERAL

1.01 Verify message 6ai is used to output the TNS types for a specified Carrier Code.

2. FORM ENTRIES

2.01 VER:EA;OPT(CID):

2.02 **CID** - Carrier ID
Entries: 0 to 999 (0000 to 9999 for 4E18>).

2.03 **TNSI** - Access Tandem Transit Network Selection Index
Entries: 0 to 15.

2.04 **TNSTYP** - TNS Type
Entries: INV, IOT, or GSDN.

```
INPUT:                    VERIFY 16ab

                      VER:EA:CID a!(EOT)


OUTPUT:                         VERIFY 6ai

VER:EA;OPT(CID):                              CID ---,

TNSI       TNSTYP

 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
 --,        ----,
```

ODA INPUT SOURCE - ESS 406X
RECENT CHANGE INPUT SOURCE - FORM # 633

VERIFY CARRIER ID CODE TO TNS TYPE

VER:SCS;OPT(FHT):
VERIFY OUTPUT #6aj - SERVICE CIRCUIT SYSTEM - EXPANDED ANNOUNCEMENT

1. GENERAL

1.01 Verify message 6aj, for 4E17 and later Generic Programs, is used to output the per-announcement data.

2. FORM ENTRIES

2.01 VER:SCS;OPT(FHT):

2.02 **AIR** - AT&T ISUP Releasability (AIR)
Entries: Y or N.

2.03 **AN4R** - AT&T Non-4 ESS Releasability
Entries: PA (Play announcement) or REL (Release).

2.04 **ANIR** - AT&T Network Interconnect Releasability
Entries: PA (Play announcement) or REL (Release).

2.05 **CAUSE** - Cause Value
Entries: blank or 0 to 127.

2.06 **CIVO** - Common Channel Signal (ISUP and INUP) Voice Calls and Old Announcements
Entries: PA (Play announcement) or REL (Release).

2.07 **FEALN** - Far End AT&T Local Network
Entries: PA (Play announcement) or REL (Release).

2.08 **LOC** - Location
Entries: 0 to 15.

2.09 **MT** - Main Transition
Entries: OLD or NEW.

2.10 **NPLY** - Number of Plays
Entries: 1 to 4.

2.11 **OFHT** - Old Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA.

2.12 **SAN** - Service Circuit System Announcement Number
Entries: blank or 1 to 511.

2.13 **SCSFHT** - Service Circuit System Final Handling Treatment
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.14 **SSI** - Service Circuit System TSG ID
Entries: blank, FHA, or FHB.

2.15 **TUBM** - TUP Unsuccessful Backwards Release
Entries: blank, SEL, CGC, ADI, CFL, SSB, UNN, SP1, SP2.

```
INPUT:                    VERIFY 16ac

                      VER:SCS:FHT a!(EOT)


OUTPUT:                   VERIFY 6aj

VER:SCS;OPT(FHT):             SCSFHT ---,    MT ---,

AIR -,  ANIR ---, AN4R ---, CIVO ---, CAUSE ---, FEALN ---,                    |

LOC ---, NPLY -,   OFHT ---,  SAN ----, SSI ---,  TUBM ---,
```

ODA INPUT SOURCE - ESS 406W
RECENT CHANGE INPUT SOURCE - FORM # 634

VERIFY NETWORK ANNOUNCEMENT TABLE

VER:MISC,OPT(XTSIPM):

VERIFY OUTPUT #6bm - XTSI DS3 UNIT RELEASE 2 DS1 PERFORMANCE MONITORING THRESHOLDS

1. GENERAL

1.01 Verify message 6bm, available with 4E22 Release 1 and later Generic Programs, is used to output the XTSI DS3 UNIT DS1 Performance Monitoring Thresholds.

2. FORM ENTRIES

2.01 VER:MISC,OPT(XTSIPM)

2.02 **AISS P** - Alarm Indication Signal Seconds Path
Entries: 0 to 63.

2.03 **BIN** - Bin
Entries: Pre-populated with **`B15 MINUTE`** (for the 15 minute bin) or **`B24 HOUR`** (for the 24 hour bin).

2.04 **CSS P** - Controlled Slip Seconds Path
Entries: 0 to 63.

2.05 **CV P** - Coding Violations Path
Entries: 0 to 65535.

2.06 **ES P** - Errored Seconds Path
Entries: 0 to 900.

2.07 **SAS P** - SES/AIS Seconds Path
Entries: 0 to 63.

2.08 **SES P** - Severely Errored Seconds Path
Entries: 0 to 63.

2.09 **UAS P** - Unavailable Seconds Path
Entries: 0 to 63.

```
INPUT:                    VERIFY 16ba

               VER:VFUNC XTSIPM!EOT


OUTPUT:                   VERIFY 6bm
  4E22>


VER:MISC,OPT(XTSIPM)



    BIN      CV P    ES P   SES P   SAS P   AISS P   CSS P   UAS P

B15 MINUTE  -----,   ---,    --,     --,     --,      --,     --,
B24 HOUR    -----,   ---,    --,     --,     --,      --,     --,
```

RECENT CHANGE INPUT SOURCE - FORM # 664

VER:MISC,OPT(AINITM):

VERIFY OUTPUT #6br - ADVANCE INTELLIGENT NETWORK ITEMS

1. GENERAL

1.01 This message verifies the Advance Intelligent Network (AIN) related Item(s).

2. FORM ENTRIES

2.01 VER:MISC,OPT(AINITM):

2.02 **ATOSI** - AIN Type of Service (TOS) Index parameter.
If a blank is displayed, this means ATOSI is not populated.

Entries: blank and 0 to 31.

2.03 **A6TOS** - Six Digit AIN Type of Service (TOS) Index parameter. If a blank is displayed, this means A6TOS is not populated.
Entries: blank and 0 to 31.

2.04 **L6TOS** - Six Digit LNP Type of Service (TOS) Index parameter. If a blank is displayed, this means L6TOS is not populated.
Entries: blank and 0 to 31.

```
INPUT:                                VERIFY 16az
4E22>

                                  VER:MISC AINITM!(EOT)



OUTPUT:                               VERIFY 6br
4E22


VER:MISC,OPT(AINITM):

ATOSI

 --,



OUTPUT:                               VERIFY 6br
4E23R3>


VER:MISC,OPT(AINITM):

ATOSI   A6TOS   L6TOS

 --,     --,     --,


                    RECENT CHANGE INPUT SOURCE - FORM # 810
```

VER:MISC,OPT(TRGASN)

VERIFY INPUT #6bu - REQUEST VERIFICATION OF THE 6-DIGIT NPA-NXX AIN/LNP ASSIGNMENT TRANSLATOR

1. GENERAL

1.01 (4E23R3>) This output message provides the ability to verify the assigned 6-digit, NPA-NXX, to AIN/LNP Called Number Triggers (CNT). One of four different CNT assignments are possible for a 6-digit code: NONE or blank - No 6-digit AIN/LNP trigger assigned (default), AIN - a 6-digit AIN trigger assigned, LNP - a 6-digit LNP trigger assigned, and BOTH - a 6-digit AIN & LNP trigger are both assigned.

2. FORM ENTRIES

2.01 VER:MISC,OPT(TRGASN):

2.02 This verify output form will only specify the assignment and NPA-NXX codes that are 6-digit AIN/LNP CNT assigned. For 6-digit codes that are not assigned as a 6-digit AIN/LNP CNT no output information will be printed for those codes. The output form has the following three columns of information:

— **CNT** - Assignment for the 6-digit AIN/LNP Called Number Trigger where: "AIN" - means a 6-digit AIN trigger assigned, "LNP" - means a 6-digit LNP trigger assigned, and "BOTH" - means that both a 6-digit AIN & LNP trigger are assigned.
Entries: AIN, LNP or BOTH.

— **NPA** - 3 Digit (NPA) Codes
Entries: 200 to 999.

— **NXX** - 3 Digit (NXX) Codes
Entries: 200 to 999.

```
INPUT:                              VERIFY #16bu

VER:MISC,OPT(TRGASN):NPANXX a!(EOT)



OUTPUT:                              VERIFY 6bu

      VER:MISC,OPT(TRGASN):

           NPA     NXX      CNT

           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
           ---,    ---,    ----
```

RECENT CHANGE INPUT SOURCE - #667 RC:TRGASIGN;CHG;___:

VER:MISC:FHT AINTRIG:

VERIFY OUTPUT #6dg - 10-DIGIT AIN TRIGGERS

1. GENERAL

1.01 This output message provides the ability to verify a list of triggers with the same 3, 6, or 10 digit trigger number.

Since all triggers will be displayed, the length and time of the output may be significant when a large number of matches are found in the trigger table. The output will result in more than on message being sent.

If there are no triggers that match the digits entered, the standard "NO DATA FOUND" output message will be issued.

2. FORM ENTRIES

2.01 VER:MISC:FHT AINTRIG:

2.02 **ABC DEF GHIJ** - ABC DEF GHIJ Digits
Entries: Any digits (0 to 9). These numbers comprise an AIN 10-digit trigger that was found using the input criteria.

2.03 **TOS** - Type of Service
Entries: 00 to 31.

VERIFY 10-DIGIT AIN TRIGGERS

```
INPUT:                              VERIFY #16dg

VER:MISC:FHT AINTRIG,DIG a!(EOT)
```

```
OUTPUT:                              VERIFY 6dg

VER:MISC:FHT AINTRIG:

 ABC  DEF  GHIJ      TOS

 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
 ---, ---, ----,     --,
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - #6dg RC:MISC;FHT,FTA:AINTRIGnn,a,b,c,d!

VERIFY 10-DIGIT AIN TRIGGERS
IN 4E19R4 AND LATER GENERICS

VER:RCMEASCT:

VERIFY OUTPUT #6dm - VERIFICATION OF THE RC METRIC COUNTERS

1. GENERAL

1.01 This output message provides the ability to verify the number of times all RC forms/messages were successfully activated, the longest successful activation times and the cumulative processing times for those forms/messages.

Since all forms/messages may be displayed, the length and time of the output may be significant. The output will be presented in 15 line segments.

When all counters for all RC forms/messages are empty, the standard "NO DATA FOUND" output message will be printed. If any of the counters for any RC forms/messages have data, those counters will be printed while empty counters will not be printed.

2. FORM ENTRIES

2.01 VER:RCMEASCT:

2.02 RC ID - Recent Change Form/Message identifier.

Entries: Any three digits (100 to 999) or the letters FHT, FHB or ERR comprising an RC Form/Message identification. ERR is printed if there is data in the activation counter but the name of the RC Form/Message is undefined.

2.03 ACTIVATIONS - Number of times the RC Form/Message has been activated since the counter was reset by ODA.

Entries: Any eight decimal digits (1 to 16777215). The RC form/message information will not be printed if the number of activations is zero.

2.04 LONGEST - The longest time in centiseconds (10 milliseconds) for a successful activation of the RC Form since the counter was reset by ODA.

Entries: Any eight decimal digits (1 to 16777215). The largest value is 46.6 hours in centiseconds. Zero is considered a data error.

2.05 CUMULATIVE - The cumulative time in centiseconds (10 milliseconds) for all successful activations of the RC Form/Message since the counter was reset by ODA. Zero is considered a data error.

Entries: Any fourteen decimal digits (1 to 16777215999999).

```
INPUT:                              VERIFY #16cm

VER:VFUNC RCMEASCT!(EOT)



OUTPUT:                              VERIFY 6dm

VER:RCMEASCT:

RC ID      ACTIVATIONS        LONGEST          CUMULATIVE

 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
 ---,        --------,      --------,     --------------,
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - #6dm NONE

VERIFICATION OF THE RC METRIC COUNTERS

VER:MISC;OPT(a,UNA):

VERIFY OUTPUT #6dp - VERIFY DELETED STRUCTURE INDICIES

1. GENERAL

1.01 This output message is used to display the index of an entry that has been deleted for the input structure since the specified TIME and DATE. Four structures are currently supported by this output message. The structure ID is identified in the output message header:

VER:MISC;OPT(a,UNA):

where a is:

CHGSDX: Subsequent Digit Structure

CHGTSG: Trunk Subgroup Structure

2. MESSAGE ENTRIES

2.01 VER:MISC;OPT(a,UNA):
a: CHGSDX, CHGTSG

2.02 **SDINDEX** - Subsequent Digit Routing Index This field name and associated index is output when requesting Structure Changes for Manual Subsequent Digit Screening Blocks (CHGSDX).

Entries: 0 to 16383.

2.03 **TSGN** - Trunk Subgroup Number This field name and associated index is output when requesting Structure Changes for Trunk SubGroups (CHGTSG).

Entries: 0 to 4095.

```
INPUT:                          VERIFY #16az

VER:MISC CHGSDX:DATE 011599,TIME 130100! (EOT)



OUTPUT                          VERIFY #6dp

VER:MISC;OPT(CHGSDX,UNA):                       SDINDEX _____,
```

VER:MISC CHGTSG:DATE 011599,TIME 130100! (EOT)

OUTPUT VERIFY #6dp

VER:MISC;OPT(CHGTSG,UNA): TSGN ____,

SECTION 7 - OUTPUT VERIFY MESSAGES

UNIT TYPE

SECTION	MESSAGE	
7a	Output 7a	Verify Unit Type Member Equipage
7b	Output 7b	Verify Unit Type Submember Equipage
7c	Output 7c	Verify Unit Type Entries
7d	Output 7d	Verify Signal Processor 2 and port associated with a Digroup Terminal or the Digroup Terminal associated with a Signal Processor 2 and port.
7g	Output 7g	Verify DS3 Unit Type Equipment Information Data
7h	Output 7h	Verify Sub-Unit XTSI Type Data
7k	Output 7k	Verify SCS Sub-Unit Data
7l	Output 7l	Verify SPP Node Equipage and Type Data
7m	Output 7m	Verify XTSI IBU Sub-Unit Type Data

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

VER:UTMN;OPT(ME),---:

VERIFY OUTPUT #7a - UNIT TYPE MEMBER EQUIPAGE

1. GENERAL

1.01 This message verifies the Member Equipage for a Unit Type translator. Another message is used to verify the submember equipage. The input data specifies a Unit Type, Unit Type Member Number, and the Member Equipage (ME) identifier. Output data includes the Member Equipage for the specified unit.

2. FORM ENTRIES

2.01 VER:UTMN;OPT(ME),---:

The field appended to this verify message specifies the status of translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 FLN -----.--,

Floor Location Number - This field identifies the equipment location of the specified unit type. The first two digits identify the floor location, the next three digits specify the equipment line or aisle, and the last two digits after the period identify the frame. Table A specifies the Unit Types that can have an FLN.

2.03 ME ----,

Member Equipage - This field indicates the equipage state for the unit. Valid entries are:

UNEQ - Unequipped
GROW - First stage of growth
SGRO - Special growth
OPER - Operational

The states must be activated in succession. For example, if a frame is unequipped (UNEQ), the next state must be GROW; then SGRO and finally OPER. When removing the unit from service, the order must be reversed.

2.04 MEMN ---,

Member Number - The MEMN field specifies the Member Number of a particular unit. The range of entries for each unit is specified on Table A. The valid range for this field is 0 to 127.

2.05 UTYN --------,

This field specifies the type of equipment whose growth is to be defined. The valid acronyms for this field are listed in alphabetical order on Table A.

TABLE A

VALID UTYN ENTRIES AND RANGES

FLN	UTYN	RANGE	DESCRIPTION
YES	ABCNT	0-31	area bus center
	AUB	0-1	auxiliary unit bus
	BDFB	0-31	battery distribution fuse board
	CC	0-1	central control
YES	CCDS	0-15	CCIS dataset frame
	CS	0-63	call store
	CSB	0-1	call store bus
YES	DIF	2-31	digital interface
YES	DT	0-127	digroup terminal
	DUS	0-3	data unit selector
	EST	0-31	digital echo suppressor terminal
YES	GRID	1-15	alarm grid
YES	IOUS	0-15	input/output unit selector
YES	MA	0	miscellaneous frame A
YES	MB	0-6	miscellaneous frame B
YES	MC	0	miscellaneous frame C
	MCC	0-1	maintenance control console
YES	MFS	0-31	MF signal frame
YES	NCLK		network clock
	PCD	0	power control distribution
	PP620	0-15	620 series power plant
	PP625	0-6	625 series power plant
	PS	0-32	program store
	PSB	0-1	program store bus
	PUB	0-1	peripheral unit bus
YES	PUBB	0	peripheral unit bus branching frame
YES	RA	0-5	recorded announcement
YES	RMDC	0	network management remote and distribution circuit
YES	RTPLANT	0	ringing and tone plant
YES	SCLK	0	system clock
YES	SCS	0-7	service circuit system frame
YES	SP	0-31	signal processor
YES	TGR	0-15	CCIS terminal group
YES	TMSP	0-3	time multiplex switch pair
YES	TPOS	0-99	test position
YES	TSI	0-63	time slot interchange
YES	TUC	0-31	tape unit controller
YES	VIF	0-127	voiceband interface frame
YES	XTSI	0-63	expanded time slot interchange

INPUT: VERIFY #17a

```
 VER:UTYPE;a:bc,ME!(EOT)

a = CUR  - current translation
b = Unit Type as Listed on Table A
c = Member Number as listed on Table A
```

OUTPUT: VERIFY #7a

```
  VER:UTMN;OPT(ME),---:         FLN -----.--,    UTYN--------,

  MEMN ---,    ME ----,
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - #700/701 RC:UTYPE;CHG;OPT(EQP,GROW/DEGROW),TST:

VER:UTMN;OPT(SME)

VERIFY OUTPUT #7b - UNIT TYPE SUBMEMBER EQUIPAGE

1. GENERAL

1.01 This message verifies the Sub-Member Equipage for a unit type translator. The input request specifies a Unit Type, Unit Type Member Number, the Sub-Member Equipage (SME) identifier, and a SME index number. Output data lists the Sub-Member Equipage for that unit.

2. FORM ENTRIES

2.01 VER:UTMN;OPT(SME),---:
The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 **ADR** - Address
Entries: This field contains the starting address of the translator data.

2.03 **FLN** - Floor Line Number
Entries: two digit floor location, three digit equipment line or isle, and two digit frame following the period. Table A specifies the unit types that can have an FLN.

2.04 **MATE USE** - Usage of Submember Mate Terminal
Entries: DOM or INTL.

2.05 **ME** - Member Equipage
Entries: UNEQ, GROW, SGRO, or OPER.

2.06 **MEMN** - Member Number
Entries: 0 to 127.

This field specifies the member number of a particular unit. The range of entries for each unit is specified on Table A.

2.07 **SLC DATA** - SLC Translator Data
Entries: The octal data from the SLC translator that is associated with the terminals of this submember.

2.08 **SME** - Sub-Member Equipage
Entries: UNEQ, GROW, SGRO, or OPER.

2.09 **SMTYPE** - Sub-Member Type
Entries: blank or 0 to 48.

SMTYPE values are displayed for the equipment specified in Table C. Note: SME TYPE of DIU is valid for generics <4E20; for generics 4E21>, this field will be blank when the SME TYPE is DIU.

2.10 **SUBMEM** - Submember
Entries: 1 to 224.

A list of all submember names and associated index number is shown on Table B.

2.11 **TDG DIGROUP1 - DIGROUP5** - Type of DiGroup
Entries: blank or

```
1 for SF+ZCS (SM1B equivalent)
2 for SF+B8ZS (RB or 64CC as determined by TSG
  signaling char.)
3 for SF+ZCS  (International CCITT5)
4 for ESF+B8ZS (International CCITT5)
5 for ESF+ZCS (64kb restricted)
6 for ESF+B8ZS (RB or 64CC as determined by TSG
  signaling char.)
7 for ESF+B8ZS (64CC only - not RB)
8 for ESF+B8ZS (64CC only, with PCC)
```

2.12 **TERM** - TGR Frame Terminal Number
Entries: 00 to 15.

2.13 **TERM NUM** - Mate Terminal Number
Entries: 00 to 15.

2.14 **TERM USE** - Usage of Submember Terminal
Entries: DOM or INTL.

2.15 **TGR** - TGR Number of Mate Terminal
Entries: 0 to 15.

2.16 **THW** - Type of Hardware
Entries: blank, 1 (SM1B), 6 (SM6), 7 (SM7), 9 (SM9), or 10 (SM10).

2.17 **THW5** - Type of Hardware for DI-Group 5
Entries: blank, 1 (SM1B), 9 (SM9), 10 (SM10).

2.18 **UTYN**
Entries: This field specifies the unit type equipment. The valid acronyms for this field are listed in alphabetical order on Table A.

2.19 **UTYPE DATA**
Entries: The octal data from the TGR translator associated with this submember.

TABLE A

VALID UTYN ENTRIES AND RANGES

FLN	UTYN	RANGE	DESCRIPTION
YES	ABCNT	0-31	area bus center
	AUB	0-1	auxiliary unit bus
	BDFB	0-31	battery distribution fuse board
	CC	0-1	central control
YES	CCDS	0-15	CCIS dataset frame
	CS	0-63	call store
	CSB	0-1	call store bus
YES	DIF	2-31	digital interface
YES	DT	0-127	digroup terminal
	DUS	0-3	data unit selector
	EST	0-31	digital echo suppressor terminal
YES	GRID	1-15	alarm grid
YES	IOUS	0-15	input/output unit selector
YES	MA	0	miscellaneous frame A
YES	MB	0-6	miscellaneous frame B
YES	MC	0	miscellaneous frame C
	MCC	0-1	maintenance control console
YES	MFS	0-31	MF signal frame
YES	NCLK		network clock
	PCD	0	power control distribution
	PP620	0-15	620 series power plant
	PP625	0-6	625 series power plant
	PS	0-32	program store
	PSB	0-1	program store bus
	PUB	0-1	peripheral unit bus
YES	PUBB	0	peripheral unit bus branching frame
YES	RA	0-5	recorded announcement
YES	RMDC	0	network management remote and distribution circuit
YES	RTPLANT	0	ringing and tone plant
YES	SCLK	0	system clock
YES	SCS	0-7	service circuit system frame
YES	SP	0-31	signal processor
YES	TGR	0-15	CCIS terminal group
YES	TMSP	0-3	time multiplex switch pair
YES	TPOS	0-99	test position
YES	TSI	0-63	time slot interchange
YES	TUC	0-31	tape unit controller
YES	VIF	0-127	voiceband interface frame
YES	XTSI	0-63	expanded time slot interchange

TABLE B

UNIT TYPE SUBMEMBER EQUIPAGE BITS

SME NAME	INDEX NUMBER	DESCRIPTION
XL4UVIUEQ0	9	# VIU0 equipage
XL4UVIUEQ1	10	# VIU1 equipage
XL4UVIUEQ2	11	# VIU2 equipage
XL4UVIUEQ3	12	# VIU3 equipage
XL4UVIUEQ4	13	# VIU4 equipage
XL4UVIUEQ5	14	# VIU5 equipage
XL4UVIUEQ6	15	# VIU6 equipage
XL4UTSNBLK0	16	# Sp scan pt. equipage block 0
XL4UTSNBLK1	17	# Sp scan pt. equipage block 1
XL4UTSNBLK2	18	# Sp scan pt. equipage block 2
XL4UTSNBLK3	19	# Sp scan pt. equipage block 3
XL4UTDNBLK0	20	# Sp SD pt. equipage block 0
XL4UTDNBLK1	21	# Sp SD pt. equipage block 1
XL4UTDNBLK2	22	# Sp SD pt. equipage block 2
XL4UTDNBLK3	23	# Sp SD pt. equipage block 3
XL4UMSNBLK0	24	# Sp misc. scan pt. equipage block 0
XL4UMSNBLK1	25	# Sp misc. scan pt. equipage block 1
XL4UMDNBLK0	26	# Sp misc. SD pt. equipage block 0
XL4UMDNBLK1	27	# Sp misc. SD pt. equipage block 1
XL4UBFE	28	# Sp Left frame equipage
XL4UCFE	29	# Sp Right frame equipage
XL4UTMGRP0	32	# TGR terminal 0 equipage
XL4UTMGRP1	33	# TGR terminal 1 equipage
XL4UTMGRP2	34	# TGR terminal 2 equipage
XL4UTMGRP3	35	# TGR terminal 3 equipage
XL4UTMGRP4	36	# TGR terminal 4 equipage
XL4UTMGRP5	37	# TGR terminal 5 equipage
XL4UTMGRP6	38	# TGR terminal 6 equipage
XL4UTMGRP7	39	# TGR terminal 7 equipage
XL4UTMGRP8	40	# TGR terminal 8 equipage
XL4UTMGRP9	41	# TGR terminal 9 equipage
XL4UTMGRP10	42	# TGR terminal 10 equipage
XL4UTMGRP11	43	# TGR terminal 11 equipage
XL4UTMGRP12	44	# TGR terminal 12 equipage
XL4UTMGRP13	45	# TGR terminal 13 equipage
XL4UTMGRP14	46	# TGR terminal 14 equipage
XL4UTMGRP15	47	# TGR terminal 15 equipage
XL4UC0MBLK0	48	# TMS controller 0 memory block 0 equipage
XL4UC0MBLK1	49	# TMS controller 0 memory block 1 equipage
XL4UC0MBLK2	50	# TMS controller 0 memory block 2 equipage
XL4UC0MBLK3	51	# TMS controller 0 memory block 3 equipage
XL4UC1MBLK0	52	# TMS controller 1 memory block 0 equipage
XL4UC1MBLK1	53	# TMS controller 1 memory block 1 equipage
XL4UC1MBLK2	54	# TMS controller 1 memory block 2 equipage
XL4UC1MBLK3	55	# TMS controller 1 memory block 3 equipage

TABLE B (CONT)

UNIT TYPE SUBMEMBER EQUIPAGE BITS

SME NAME	INDEX NUMBER	DESCRIPTION
XL4U0PRTEQ0	56	# TSI port 0 equipage SPC0
XL4U0PRTEQ1	57	# TSI port 1 equipage SPC0
XL4U0PRTEQ2	58	# TSI port 2 equipage SPC0
XL4U0PRTEQ3	59	# TSI port 3 equipage SPC0
XL4U0PRTEQ4	60	# TSI port 4 equipage SPC0
XL4U0PRTEQ5	61	# TSI port 5 equipage SPC0
XL4U0PRTEQ6	62	# TSI port 6 equipage SPC0
XL4U1PRTEQ0	63	# TSI port 0 equipage SPC1
XL4U1PRTEQ1	64	# TSI port 1 equipage SPC1
XL4U1PRTEQ2	65	# TSI port 2 equipage SPC1
XL4U1PRTEQ3	66	# TSI port 3 equipage SPC1
XL4U1PRTEQ4	67	# TSI port 4 equipage SPC1
XL4U1PRTEQ5	68	# TSI port 5 equipage SPC1
XL4U1PRTEQ6	69	# TSI port 6 equipage SPC1
XL4UCKHEQ00	70	# FOFI ckt half equipage 00
XL4UCKHEQ01	71	# FOFI ckt half equipage 01
XL4UCKHEQ10	72	# FOFI ckt half equipage 10
XL4UCKHEQ11	73	# FOFI ckt half equipage 11
XL4UCKHEQ20	74	# FOFI ckt half equipage 20
XL4UCKHEQ21	75	# FOFI ckt half equipage 21
XL4UCKHEQ30	76	# FOFI ckt half equipage 30
XL4UCKHEQ31	77	# FOFI ckt half equipage 31
XL1IOEQPE0	78	# IOUC 0 port equipage
XL1IOEQPE1	79	# IOUC 0 port equipage
XL1IOEQPE2	80	# IOUC 0 port equipage
XL1IOEQPE0	81	# IOUC 1 port equipage
XL1IOEQPE1	82	# IOUC 1 port equipage
XL1IOEQPE2	83	# IOUC 1 port equipage
XL1IOEQPE0	84	# IOUC 2 port equipage
XL1IOEQPE1	85	# IOUC 2 port equipage
XL1IOEQPE2	86	# IOUC 2 port equipage
XL1IOEQPE0	87	# IOUC 3 port equipage
XL1IOEQPE1	88	# IOUC 3 port equipage
XL1IOEQPE2	89	# IOUC 3 port equipage
XL1IOEQPE0	90	# IOUC 4 port equipage
XL1IOEQPE1	91	# IOUC 4 port equipage
XL1IOEQPE2	92	# IOUC 4 port equipage
XL1IOEQPE0	93	# IOUC 5 port equipage
XL1IOEQPE1	94	# IOUC 5 port equipage
XL1IOEQPE2	95	# IOUC 5 port equipage
XL1IOEQPE0	96	# IOUC 6 port equipage
XL1IOEQPE1	97	# IOUC 6 port equipage
XL1IOEQPE2	98	# IOUC 6 port equipage
XL1IOEQPE0	99	# IOUC 7 port equipage
XL1IOEQPE1	100	# IOUC 7 port equipage
XL1IOEQPE2	101	# IOUC 7 port equipage

TABLE B (CONT)

UNIT TYPE SUBMEMBER EQUIPAGE BITS

SME NAME	INDEX NUMBER	DESCRIPTION
XL1IOEQSME0	102	# IOUC 0 equipage
XL1IOEQSME1	103	# IOUC 1 equipage
XL1IOEQSME2	104	# IOUC 2 equipage
XL1IOEQSME3	105	# IOUC 3 equipage
XL1IOEQSME4	106	# IOUC 4 equipage
XL1IOEQSME5	107	# IOUC 5 equipage
XL1IOEQSME6	108	# IOUC 6 equipage
XL1IOEQSME7	109	# IOUC 7 equipage
XL4UDTEQ0	110	# DTU 0 equipage
XL4UDTEQ1	111	# DTU 1 equipage
XL4UDTEQ2	112	# DTU 2 equipage
XL4UDTEQ3	113	# DTU 3 equipage
XL4UDTEQ4	114	# DTU 4 equipage
XL4UDTEQ5	115	# DTU 5 equipage
XL4UDTEQ6	116	# DTU 5 equipage
XL4UDTEQ7	117	# DTU 7 equipage
XL4UC0GRWTH	118	# TMS controller 0 equipage
XL4UC1GRWTH	119	# TMS controller 1 equipage
XL4USP2EQ0	120	# SP2 subtype 0 equipage
XL4USP2EQ1	121	# SP2 subtype 1 equipage
XL4USP2EQ2	122	# SP2 subtype 2 equipage
XL4USP2EQ3	123	# SP2 subtype 3 equipage
XL1FSEQSME0	124	# DISK 0 equipage
XL1FSEQSME1	125	# DISK 1 equipage
XL1FSEQSME2	126	# DISK 2 equipage
XL1FSEQSME3	127	# DISK 3 equipage
XL4UESEQ0	128	# ESU 0 equipage
XL4UESEQ1	129	# ESU 1 equipage
XL4UESEQ2	130	# ESU 2 equipage
XL4UESEQ3	131	# ESU 3 equipage
XL4UESEQ4	132	# ESU 4 equipage
XL4UESEQ5	133	# ESU 5 equipage
XL4UESEQ6	134	# ESU 6 equipage
XL4UESEQ7	135	# ESU 7 equipage
XL4UESEQ8	136	# ESU 8 equipage
XL4UESEQ9	137	# ESU 9 equipage
XL4UESEQ10	138	# ESU 10 equipage
XL4UESEQ11	139	# ESU 11 equipage
XL4UESEQ12	140	# ESU 12 equipage
XL4UESEQ13	141	# ESU 13 equipage
XL4UESEQ14	142	# ESU 14 equipage

TABLE B (CONT)

UNIT TYPE SUBMEMBER EQUIPAGE BITS

SME NAME	INDEX NUMBER	DESCRIPTION
XL4DIUEQ0	143	# DIU 0 equipage
XL4DIUEQ1	144	# DIU 1 equipage
XL4DIUEQ2	145	# DIU 2 equipage
XL4DIUEQ3	146	# DIU 3 equipage
XL4DIUEQ4	147	# DIU 4 equipage
XL4DIUEQ5	148	# DIU 5 equipage
XL4DIUEQ6	149	# DIU 6 equipage
XL4DIUEQ7	150	# DIU 7 equipage
XL4DIUEQ8	151	# DIU 8 equipage
XL4DIUEQ9	152	# DIU 9 equipage
XL4DIUEQ10	153	# DIU 10 equipage
XL4DIUEQ11	154	# DIU 11 equipage
XL4DIUEQ12	155	# DIU 12 equipage
XL4DIUEQ13	156	# DIU 13 equipage
XL4DIUEQ14	157	# DIU 14 equipage
XL4DIUEQ15	158	# DIU 15 equipage
XL4DIUEQ16	159	# DIU 16 equipage
XL4DIUEQ17	160	# DIU 17 equipage
XL4DIUEQ18	161	# DIU 18 equipage
XL4DIUEQ19	162	# DIU 19 equipage
XL4DIUEQ20	163	# DIU 20 equipage
XL4DIUEQ21	164	# DIU 21 equipage
XL4DIUEQ22	165	# DIU 22 equipage
XL4DIUEQ23	166	# DIU 23 equipage
XL4DIUEQ24	167	# DIU 24 equipage
XL4DIUEQ25	168	# DIU 25 equipage
XL4DIUEQ26	169	# DIU 26 equipage
XL4DIUEQ27	170	# DIU 27 equipage
XL4DIUEQ28	171	# DIU 28 equipage
XL4DIUEQ29	172	# DIU 29 equipage
XL4DIUEQ30	173	# DIU 30 equipage
XL4DIUEQ31	174	# DIU 31 equipage
XL4DIUSPQA	175	# DIU SPA equipage (SPARE A DIU)
XL4DIUSPQB	176	# DIU SPB equipage (SPARE B DIU)
XL4USCUEQ0	177	# SCU 0 equipage
XL4USCUEQ1	178	# SCU 1 equipage
XL4USCUEQ2	179	# SCU 2 equipage
XL4USCUEQ3	180	# SCU 3 equipage
XL4USCUEQ4	181	# SCU 4 equipage
XL4USCUEQ5	182	# SCU 5 equipage
XL4USCUEQ6	183	# SCU 6 equipage
XL4USCUEQ7	184	# SCU 7 equipage
XL4USCUEQ8	185	# SCU 8 equipage
XL4USCUEQ9	186	# SCU 9 equipage
XL4USCUEQ10	187	# SCU 10 equipage
XL4USCUEQ11	188	# SCU 11 equipage

TABLE B (CONT)

UNIT TYPE SUBMEMBER EQUIPAGE BITS

SME NAME	INDEX NUMBER	DESCRIPTION
XL4USCUEQ12	189	# SCU 12 equipage
XL4USCUEQ13	190	# SCU 13 equipage
XL4USCUEQ14	191	# SCU 14 equipage
XL4USCUEQ15	192	# SCU 15 equipage
XL1IOEQPE0	193	# IOUC 8 port equipage
XL1IOEQPE1	194	# IOUC 8 port equipage
XL1IOEQPE2	195	# IOUC 8 port equipage
XL1IOEQPE0	196	# IOUC 9 port equipage
XL1IOEQPE1	197	# IOUC 9 port equipage
XL1IOEQPE2	198	# IOUC 9 port equipage
XL1IOEQPE0	199	# IOUC 10 port equipage
XL1IOEQPE1	200	# IOUC 10 port equipage
XL1IOEQPE2	201	# IOUC 10 port equipage
XL1IOEQPE0	202	# IOUC 11 port equipage
XL1IOEQPE1	203	# IOUC 11 port equipage
XL1IOEQPE2	204	# IOUC 11 port equipage
XL1IOEQPE0	205	# IOUC 12 port equipage
XL1IOEQPE1	206	# IOUC 12 port equipage
XL1IOEQPE2	207	# IOUC 12 port equipage
XL1IOEQPE0	208	# IOUC 13 port equipage
XL1IOEQPE1	209	# IOUC 13 port equipage
XL1IOEQPE2	210	# IOUC 13 port equipage
XL1IOEQPE0	211	# IOUC 14 port equipage
XL1IOEQPE1	212	# IOUC 14 port equipage
XL1IOEQPE2	213	# IOUC 14 port equipage
XL1IOEQPE0	214	# IOUC 15 port equipage
XL1IOEQPE1	215	# IOUC 15 port equipage
XL1IOEQPE2	216	# IOUC 15 port equipage
XL4UD3UEQ0	217	# XTSI Even Member Number D3U 0 equipage
XL4UD3UEQ1	218	# XTSI Even Member Number D3U 1 equipage
XL4UD3UEQ2	219	# XTSI Even Member Number D3U 2 equipage
XL4UD3UEQ3	220	# XTSI Odd Member Number D3U 3 equipage
XL4UD3UEQ4	221	# XTSI Odd Member Number D3U 4 equipage
XL4UD3UEQ5	222	# XTSI Odd Member Number D3U 5 equipage
XL4UD3UE	223	# XTSI Even Member Number Spare D3U equipage
XL4UD3UE	224	# XTSI Odd Member Number Spare D3U equipage

TABLE C

UNIT TYPE SUBMEMBER EQUIPAGE TYPE

SME TYPE	INDEX NUMBERS	DESCRIPTION
DIU	0 - 4XLUNODIUEQ	Unequipped
DIU	1 - 4XLUVOICEDI	Standard DIU - SM1B (SF+ZCS)
DIU	2 - 4XLUMFDI	MF Service Circuits
DIU	3 - 4XLUDTMFDI	DTMF Service Circuits
DIU	4 - 4XLUFOURSDI	4 State - SM8 (SF+ZCS)
DIU	5 - 4XLUCSDCDI	CSDC - SM8 (SF+ZCS)
DIU	6 - 4XLUPIUDI	Pseudo DIU
DIU	7 - 4XLUIADDI	IAD - SM8 (SF+ZCS)
DIU	8 - 4XLUS9ADI	4 State - SM9 (SF+ZCS)
DIU	9 - 4XLUS9BDI	CSDC - SM9 (SF+ZCS)
DIU	10 - 4XLUS9CDI	IAD - SM9 (SF+ZCS)
DIU	11 - 4XLUS9DDI	Clear 64 - SM9 (ESF+B8ZS)
DIU	12 - 4XLUS9EDI	N/DMI - SM9 (SF+ZCS)
DIU	13 - 4XLUS9FDI	N/DMI - SM9 (ESF+B8ZS)
DIU	14 - 4XLUS9GDI	Standard - SM9 (SF+ZCS)
DIU	15 - 4XLUS9HDI	Standard - SM9 (ESF+ZCS)
DIU	16 - 4XLUS9IDI	IAD - SM9 (ESF+ZCS)
DIU	17 - 4XLUS9JDI	IAD - SM9 (ESF+B8ZS)
DIU	18 - 4XLUS9KDI	Standard - SM9 (SF,no ZCS)
DIU	19 - 4XLUS9LDI	Standard - SM9 (SF+B8ZS)
DIU	20 - 4XLUS9MDI	IAD - SM9 (SF+B8ZS)
DIU	21 - 4XLUS9NDI	N/DMI - SM9 (ESF+ZCS)
DIU	22 - 4XLUS9ODI	4 State - SM9 (SF+B8ZS)
DIU	23 - 4XLUS9PDI	4 State - SM9 (ESF+B8ZS)
DIU	24 - 4XLUS9QDI	Standard - SM9 (ESF+B8ZS)
DIU	25 - 4XLUS9RDI	CSDC - SM9 (ESF+ZCS)
DIU	26 - 4XLUS9SDI	CSDC - SM9 (ESF+B8ZS)
DIU	27 - 4XLUS9TDI	CSDC - SM9 (SF+B8ZS)
DIU	28 - 4XLUS10ADI	4 State - SM10 (SF+ZCS)
DIU	29 - 4XLUS10BDI	CSDC - SM10 (SF+ZCS)
DIU	30 - 4XLUS10CDI	IAD - SM10 (SF+ZCS)
DIU	31 - 4XLUS10DDI	Clear 64 - SM10 (ESF+B8ZS)
DIU	32 - 4XLUS10EDI	N/DMI - SM10 (SF+ZCS)
DIU	33 - 4XLUS10FDI	N/DMI - SM10 (ESF+B8ZS)
DIU	34 - 4XLUS10GDI	Standard - SM10 (SF+ZCS)
DIU	35 - 4XLUS10HDI	Standard - SM10 (ESF+ZCS)
DIU	36 - 4XLUS10IDI	IAD - SM10 (ESF+ZCS)
DIU	37 - 4XLUS10JDI	IAD - SM10 (ESF+B8ZS)
DIU	38 - 4XLUS10KDI	Standard - SM10 (SF,no ZCS)
DIU	39 - 4XLUS10LDI	Standard - SM10 (SF+B8ZS)
DIU	40 - 4XLUS10MDI	IAD - SM10 (SF+B8ZS)
DIU	41 - 4XLUS10NDI	N/DMI - SM10 (ESF+ZCS)
DIU	42 - 4XLUS10ODI	4 State - SM10 (SF+B8ZS)
DIU	43 - 4XLUS10PDI	4 State - SM10 (ESF+B8ZS)
DIU	44 - 4XLUS10QDI	Standard - SM10 (ESF+B8ZS)
DIU	45 - 4XLUS10RDI	CSDC - SM10 (ESF+ZCS)

TABLE C (CONT)

UNIT TYPE SUBMEMBER EQUIPAGE TYPE

SME TYPE	INDEX NUMBERS	DESCRIPTION
DIU	46 - 4XLUS10SDI	CSDC - SM10 (ESF+B8ZS)
DIU	47 - 4XLUS10TDI	CSDC - SM10 (SF+B8ZS)
DIU	48 - 4XLUS10UDI	Clear 64,PCC - SM10 (SF+B8ZS)
TSI/SPC	0 - 4XLUNOWB	SPC port Not Wideband Equipped
TSI/SPC	1 - 4XLUWB	SPC port Wideband Equipped
OTHER		field will be blank

INPUT: VERIFY 17a

VER:UTYPE[;a]:b c,SME d!(EOT)

a = CUR - current translation
b = Unit Type as listed on Table A
c = Member number as listed on Table A
d = Unit type submember number as listed on Table B

OUTPUT: VERIFY 7b

```
VER:UTMN;OPT(SME),---:    FLN -----.--,                          UTYN -------,

MEMN ---,     ME ----,

SUBMEM ---,  SME ----,   SMTYPE --,
TERM --,
ADR                   UTYPE DATA
--------     --------  --------  --------  --------

TERM USE ----,
MATE USE ----,    TERM NUM --,  TGR --

SLC TRANS DATA

ADR                   SLC DATA
--------     --------  --------  --------  --------
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM # 700/701

INPUT: VERIFY 17a

VER:UTYPE[;a]:b c,SME d!(EOT)

a = CUR - current translation
b = Unit Type as listed on Table A
c = Member number as listed on Table A
d = Unit type submember number as listed on Table B

OUTPUT: VERIFY 7b
<4E20

VER:UTMN;OPT(SME),---: FLN -----.--, UTYN -------,

MEMN ---, ME ----,

SUBMEM ---, SME ----, SMTYPE --,

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM # 700/701/702

INPUT: VERIFY 17a

VER:UTYPE[;a]:b c,SME d!(EOT)

a = CUR - current translation
b = Member number as listed on Table A
d = Unit type submember number as listed on Table B

OUTPUT: VERIFY 7b
4E21>

VER:UTMN;OPT(SME),---: FLN -----.--, UTYN -------,

MEMN ---, ME ----,

SUBMEM ---, SME ----, SMTYPE --,

DIGROUP1 DIGROUP2 DIGROUP3 DIGROUP4 DIGROUP5
THW __, THW5 __, TDG __, __, __, __, __,

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM # 700/701/702

VER:UTMN;OPT(ENTRY),---:

VERIFY OUTPUT #7c - UNIT TYPE ENTRY

1. GENERAL

1.01 This message verifies the ENTRY for a specified unit type and member number. The input data specifies a unit type, unit type member number, and the ENTRY identifier. The output will contain a series of octal words identifying the complete unit type ENTRY.

1.02 If this output message is requested when verifying a Time Multiplex Switching Pair (TMSP) unit type, then the current office TMSP configuration will be included in this output format.

If this output message is requested when verifying a Signal Processor 2 (SP2) or Digroup Terminal (DT), then a separate output message (Section 7d of this Division) will print out the associated DT member number or associated SP 2 member number and port, respectively.

2. FORM ENTRIES

2.01 VER:UTMN;OPT(ENTRY),---:

The field appended to this verify message specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.02 FLN -----.--,

Floor Location Number - This field identifies the equipment location of the specified unit type. The first two digits identify the floor location, the next three digits specify the equipment line or aisle, and the last two digits after the period identify the frame. Table A specifies the unit type that can have an FLN.

2.03 ME ----,

Member Equipage - This field indicates the equipage state for the unit. Valid entries are:

UNEQ - Unequipped
GROW - First stage of growth
SGRO - Special growth
OPER - Operational

The states must be activated in succession. For example, if a frame is unequipped (UNEQ), the next state must be GROW; then SGRO and finally OPER. When removing the unit from service, the order must be reversed.

2.04 MEMN ---,

Member Number - The MEMN field specifies the Member Number of a particular unit. The range of entries for each unit is specified on Table A. The valid range for this field is 0 to 127.

2.05 ENTRY ADDRESS --------,

This field specifies the starting octal address for the unit type entry. It may be any valid call store address.

2.06 ENTRY SIZE ---,

The octal size of the unit type entry will appear in this field. The number specified here may range up to 120 octal (80 decimal) words.

2.07 ---

This field specifies the status of the translation data that follows.

"CUR" indicates the data is that which currently resides in the translation area.

2.08 WORD 0

WORD 10
.....
WORD 120

This field contains the current or inactive octal data entries for the specified unit type member. The relative position of every tenth octal (eighth decimal) word is indicated by WORD 0, WORD 10, WORD 20, etc. The information in each of the words may be identified by referring to document PA-4A000. This document is issued and controlled by AT&T Network Systems. It contains a pictoral representation and description for every translator used in the office dependent memory configuration for 4 ESS. The structure and description of the unit type translator is found in the appropriate section of the PA-4A000.

2.09 TMSP CONFIGURATION -

Time Multiplex Switching Pair Configuration - This field will only appear in the output format when verifying a TMSP unit type entry. Output data will display the current office TMSP configuration. Valid entries are 1, 2, or 4.

2.10 UTYN --------,

This field specifies the type of equipment whose growth is to be defined. The valid acronyms for this field are listed in alphabetical order on Table A.

TABLE A

VALID UTYN ENTRIES AND RANGES

FLN	UTYN	RANGE	DESCRIPTION
YES	ABCNT	0-31	area bus center
	AUB	0-1	auxiliary unit bus
	BDFB	0-31	battery distribution fuse board
	CC	0-1	central control
YES	CCDS	0-15	CCIS dataset frame
	CS	0-63	call store
	CSB	0-1	call store bus
YES	DIF	2-31	digital interface
YES	DT	0-127	digroup terminal
	DUS	0-3	data unit selector
	EST	0-31	digital echo suppressor terminal
YES	GRID	1-15	alarm grid
YES	IOUS	0-15	input/output unit selector
YES	MA	0	miscellaneous frame A
YES	MB	0-6	miscellaneous frame B
YES	MC	0	miscellaneous frame C
	MCC	0-1	maintenance control console
YES	MFS	0-31	MF signal frame
YES	NCLK		network clock
	PCD	0	power control distribution
	PP620	0-15	620 series power plant
	PP625	0-6	625 series power plant
	PS	0-32	program store
	PSB	0-1	program store bus
	PUB	0-1	peripheral unit bus
YES	PUBB	0	peripheral unit bus branching frame
YES	RA	0-5	recorded announcement
YES	RMDC	0	network management remote and distribution circuit
YES	RTPLANT	0	ringing and tone plant
YES	SCLK	0	system clock
YES	SCS	0-7	service circuit system frame
YES	SP	0-31	signal processor
YES	TGR	0-15	CCIS terminal group
YES	TMSP	0-3	time multiplex switch pair
YES	TPOS	0-99	test position
YES	TSI	0-63	time slot interchange
YES	TUC	0-31	tape unit controller
YES	VIF	0-127	voiceband interface frame
YES	XTSI	0-63	expanded time slot interchange

INPUT: VERIFY #17a

VER:UTYPE;a:bc,ENTRY!(EOT)

a = CUR - current translation
b = Unit Type as listed on Table A.
c = Member Number as listed on Table A.

OUTPUT: VERIFY #7c

```
VER:UTMN;OPT(ENTRY),---:        FLN -----.--,              UTYN --------,

MEMN ---,    ME ----,

ENTRY ADDRESS --------,              ENTRY SIZE ---,

CUR
WORD 0  --------  -------     -------  -------
        --------  -------     -------  -------
WORD 10 --------  -------     -------  -------
        --------  -------     -------  -------

TMSP CONFIGURATION -
```

NOTE: This message will be accompanied by a separate output message (see Section 7d of this Division) when verifying the entry for a Signal Processor 2 or Digroup terminal.

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - #700/701 RC:UTYPE;CHG;OPT(EQP,GROW/DEGROW),TST:

VER:UTMN;OPT(MISC),CUR:

VERIFY OUTPUT #7d
VERIFY THE SIGNAL PROCESSOR 2 MEMBER AND PORT ASSOCIATED
WITH A DIGROUP TERMINAL OR THE DIGROUP TERMINAL MEMBER
NUMBER ASSOCIATED WITH A SIGNAL PROCESSOR 2 MEMBER NUMBER AND PORT

1. GENERAL

1.01 This message is printed as the second message when verifying Unit Type entry data associated with a Digroup Terminal (DT) or Signal Processor 2 (SP2). It will contain the associated SP2 member number and port for a DT or the associated DT member numbers for a SP2. This format automatically follows the message (Section 7c of this Division) which displays the contents of each entry word associated with the above Unit Types.

2. FORM ENTRIES

2.01 VER:UTMN;OPT(MISC),CUR:

The field appended to this verify message (CUR) indicates the data is that which currently resides in the translation area.

2.02 MEMN ---,

Member Number - The MEMN field specifies the member number of the SP2 or DT being verified. Valid entries range from 0 to 31 for a SP2, and from 0 to 127 for a DT.

2.03 SP PORT
-- --

Signal Processor and Port - This field will only appear in the output format when verifying a DT. It will contain the current SP2 member number and port associated with the DT being verified. A SP2 member number may range from 0 to 31, and the Port may range from 0 to 15.

2.04 SP PORT DIGROUP TERMINAL
-- ---,

Signal Processor 2 Port and Digroup Terminal - This field will only appear in the output format when verifying a SP2. It will contain the current DT member numbers associated with each SP2 Port on the SP2 being verified. SP2 Port numbers may range from 0 to 15. DT member numbers may range from 0 to 127. An asterisk will indicate the SP2 Port is not assigned.

2.05 UTYN --,

This field specifies the Unit Type being verified. The valid acronym for this field are SP, identifying a Signal Processor 2 or DT, identifying a Digroup Terminal.

```
INPUT:                              VERIFY #17a

                        VER:UTYPE;a:bc,ENTRY!(EOT)

                    a = CUR - current translations

                    b = Acronym specifying a Digroup Terminal unit type

                    c = Valid member number for a Digroup Terminal




OUTPUT:                            VERIFY #7d


                        VER:UTMN;OPT(MISC),CUR:            UTYN DT,

                    MEMN ---,
                                    SP      PORT
                                    --        --




                                ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - #700/701 RC:UTYPE;CHG;OPT(EQP,GROW/DEGROW),TST:
```

FIGURE 1

VERIFY SIGNAL PROCESSOR 2 MEMBER NUMBER AND PORT
ASSOCIATED WITH A DIGROUP TERMINAL

```
INPUT:                              VERIFY #17a

                        VER:UTYPE;a:bc,ENTRY!(EOT)

                    a = CUR - current translations

                    b = Acronym specifying a Signal Processor 2 unit type

                    c = Valid member number for a Signal Processor 2




OUTPUT:                             VERIFY #7d

                   VER:UTMN;OPT(MISC),CUR:                        UTYN SP,

                     MEMN --,

                              SP PORT    DIGROUP TERMINAL

                                 0            --- ,
                                 1            --- ,
                                 2            --- ,
                                 3            --- ,
                                 4            --- ,
                                 5            --- ,
                                 6            --- ,
                                 7            --- ,
                                 8            --- ,
                                 9            --- ,
                                 10           --- ,
                                 11           --- ,
                                 12           --- ,
                                 13           --- ,
                                 14           --- ,
                                 15           ---


                                ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - #700/701 RC:UTYPE;CHG;OPT(EQP,GROW/DEGROW),TST:
```

FIGURE 2

VERIFY DIGROUP TERMINAL MEMBER NUMBER ASSOCIATED WITH
A SIGNAL PROCESSOR 2 MEMBER NUMBER AND PORT

Future

VER:MISC;OPT(XTSID3U):

VERIFY OUTPUT #7g - DS3 UNIT TYPE EQUIPMENT INFORMATION DATA

1. GENERAL

1.01 Verify message 7g, available with 4E21 Release 1 and later Generic Programs, is used to output the DS3 informational data for the DS3 and the DS1 information for the requested DS3.

2. FORM ENTRIES

2.01 VER:MISC;OPT(XTSID3U)

2.02 **D3UN** - D3U Number
Entries: 0 to 5.

2.03 **DS1** - DS1 Number (4E24>)
Entries: Pre-printed with 1 through 28.

2.04 **DS3 APPL** - DS3 Application
Entries: CBP or M23.

2.05 **EQP01 through EQP28** - Equipage for the 1st through the 28th DS1 for this D3U. (<4E23)
Entries: F (for Future), or P (for present/provisioned).

2.06 **EQUIPAGE** - Equipage for the 1st through the 28th DS1 for this D3U. (4E24>)
Entries: F (for Future), or P (for present/provisioned).

2.07 **FRAME FORMAT** - Frame Format for the 1st through the 28th DS1 for this D3U. (4E24>)
Entries: E (for Extended Superframe), or S (for Superframe).

2.08 **FRMF01 through FRMF28** - Frame Format for the 1st through the 28th DS1 for this D3U. (<4E23)

Entries: E (for Extended Superframe), or S (for Superframe).

2.09 **INBAND D3U** - In-band signaling state enabled for the D3U. (4E24>)
Entries: N (for In-band disabled), or Y (for In-band enabled).

2.10 **INBAND DS1** - In-band signaling state enabled for the DS1. (4E24>)
Entries: N (for In-band disabled), or Y (for In-band enabled).

2.11 **MAX LBO** - Maximum Line Build Out for cable length.
Entries: 225 (for 0 to 225), or 450 (for 225 to 450).

2.12 **REM ALARM** - Remote Alarm Indication.
Entries: STD (for Standard), INV (for Inverted), or IGN (for Ignore).

2.13 **STATIC A/B** - Static A/B enabled for this DS1 (4E24>).
Entries: Y (for Static A/B - 56R), or N (for 64 clear channel).

2.14 **TSI MEMN** - TSI Member Number (4E21 only)
Entries: 2 to 62 - even numbers only.

2.15 **XTSI MEMN** - TSI Member Number of an Expanded Time Slot Interchange (XTSI) (4E22>)

Entries: 2 to 62 - even numbers only.

```
INPUT:                    VERIFY 16ba

              VER:VFUNC XTSID3U:FD1 a,DT1 b,FD2 c,DT2 d!EOT


OUTPUT:                   VERIFY 7g
4E21


VER:MISC;OPT(XTSID3U):          TSI MEMN --, D3UN -,


REM ALARM ---, MAX LBO ---, DS3 APPL ---,



                  DS1 INFO

EQP01 -, FRMF01 -,            EQP02 -, FRMF02 -,
EQP03 -, FRMF03 -,            EQP04 -, FRMF04 -,
EQP05 -, FRMF05 -,            EQP06 -, FRMF06 -,
EQP07 -, FRMF07 -,            EQP08 -, FRMF08 -,
EQP09 -, FRMF09 -,            EQP10 -, FRMF10 -,
EQP11 -, FRMF11 -,            EQP12 -, FRMF12 -,
EQP13 -, FRMF13 -,            EQP14 -, FRMF14 -,
EQP15 -, FRMF15 -,            EQP16 -, FRMF16 -,
EQP17 -, FRMF17 -,            EQP18 -, FRMF18 -,
EQP19 -, FRMF19 -,            EQP20 -, FRMF20 -,
EQP21 -, FRMF21 -,            EQP22 -, FRMF22 -,
EQP23 -, FRMF23 -,            EQP24 -, FRMF24 -,
EQP25 -, FRMF25 -,            EQP26 -, FRMF26 -,
EQP27 -, FRMF27 -,            EQP28 -, FRMF28 -,
```

ODA INPUT SOURCE - ESS 407Z
RECENT CHANGE INPUT SOURCE - FORM # 704

```
INPUT:                    VERIFY 16ba

               VER:VFUNC XTSID3U:FD1 a,DT1 b,FD2 c,DT2 d!EOT


OUTPUT:                   VERIFY 7g
  4E22-4E23


VER:MISC;OPT(XTSID3U):          XTSI MEMN --, D3UN -,


REM ALARM ---, MAX LBO ---, DS3 APPL ---,



                    DS1 INFO

EQP01 -, FRMF01 -,              EQP02 -, FRMF02 -,
EQP03 -, FRMF03 -,              EQP04 -, FRMF04 -,
EQP05 -, FRMF05 -,              EQP06 -, FRMF06 -,
EQP07 -, FRMF07 -,              EQP08 -, FRMF08 -,
EQP09 -, FRMF09 -,              EQP10 -, FRMF10 -,
EQP11 -, FRMF11 -,              EQP12 -, FRMF12 -,
EQP13 -, FRMF13 -,              EQP14 -, FRMF14 -,
EQP15 -, FRMF15 -,              EQP16 -, FRMF16 -,
EQP17 -, FRMF17 -,              EQP18 -, FRMF18 -,
EQP19 -, FRMF19 -,              EQP20 -, FRMF20 -,
EQP21 -, FRMF21 -,              EQP22 -, FRMF22 -,
EQP23 -, FRMF23 -,              EQP24 -, FRMF24 -,
EQP25 -, FRMF25 -,              EQP26 -, FRMF26 -,
EQP27 -, FRMF27 -,              EQP28 -, FRMF28 -,
```

ODA INPUT SOURCE - ESS 407Z
RECENT CHANGE INPUT SOURCE - FORM # 704

```
INPUT:                    VERIFY 16ba

               VER:VFUNC XTSID3U:FD1 a,DT1 b,FD2 c,DT2 d!EOT


OUTPUT:                   VERIFY 7g
  4E24>


VER:MISC;OPT(XTSID3U):          XTSI MEMN --, D3UN -,


REM ALARM ---, MAX LBO ---, DS3 APPL ---, INBAND D3U -,



                    DS1 INFO

DS1 NUMBER    1  2  3  4  5  6  7  8  9 10 11 12 13 14,
EQUIPAGE      -, -, -, -, -, -, -, -, -, -, -, -, -, -,
FRAME FORMAT  -, -, -, -, -, -, -, -, -, -, -, -, -, -,
STATIC A/B    -, -, -, -, -, -, -, -, -, -, -, -, -, -,
INBAND DS1    -, -, -, -, -, -, -, -, -, -, -, -, -, -,


DS1 NUMBER   15 16 17 18 19 20 21 22 23 24 25 26 27 28,
EQUIPAGE      -, -, -, -, -, -, -, -, -, -, -, -, -, -,
FRAME FORMAT  -, -, -, -, -, -, -, -, -, -, -, -, -, -,
STATIC A/B    -, -, -, -, -, -, -, -, -, -, -, -, -, -,
INBAND DS1    -, -, -, -, -, -, -, -, -, -, -, -, -, -,
```

RECENT CHANGE INPUT SOURCE - FORM # 704

VERIFY DS3 UNIT TYPE EQUIPMENT INFORMATION DATA
4E24 RELEASE 1 AND LATER GENERIC PROGRAMS

VER:MISC;OPT(SUXTSI):

VERIFY OUTPUT #7h - SUB-UNIT XTSI TYPE DATA

1. GENERAL

1.01 Verify message 7h, available with 4E21 and later Generic Programs, is used to output the SUB-UNIT XTSI Type data for the requested XTSI.

2. FORM ENTRIES

2.01 VER:MISC;OPT(SUXTSI)

2.02 **ALF** - Hardware version of the ALF pack for XTSI controller 0 or 1. (4E24>)
Entries: 0 (for initial 4WB6 ALF pack), or 1-3 (unassigned).

2.03 **CIA** - Hardware version of the CIA pack for XTSI controller 0 or 1. (4E24>)
Entries: blank, 0 (for initial UN547 CIA pack), 1 (for UN650 CIA pack), or 2-3 (unassigned).

2.04 **CSP** - Hardware version of the CSP pack for XTSI controller 0 or 1. (4E24>)
Entries: 0 (for no CSP pack present), 1 (for initial 4WB9 CSP pack - needed for in-band), or 2-3 (unassigned).

2.05 **D3UEQ** - D3U Unit Equipage (4E22>)
Entries: U (Unequipped), G (Grow), S (Special Grow), or O (Operational).

2.06 **D3UHV** - D3U Hardware Version (4E22>)
Entries: 0 (for initial 4WB3 version), 1 (for 4WB11 in-band capable version), or 2-7 (unassigned).

2.07 **D3UN** - D3U Number (4E22>)
Entries: Pre-printed with 0 to 7. 6 is the Spare D3U Number for D3U Numbers 0, 1 and 2. 7 is the Spare D3U Number for D3U Numbers 3, 4 and 5.

2.08 **D3USV** - D3U Software Version
Entries: 0 to 7.

2.09 **DS3UN** - D3U Number (4E21)
Entries: Pre-printed with 0 to 7. 6 is the Spare D3U Number for D3U Numbers 0, 1 and 2. 7 is the Spare D3U Number for D3U Numbers 3, 4 and 5.

2.10 **EXEC** - Hardware version of the EXEC pack for XTSI controller 0 or 1. (4E24>)
Entries: 0 (for initial UN548 EXEC pack), 1 (for UN549 EXEC pack - needed for in-band), or 2-15 (unassigned).

2.11 **GRAM** - Hardware version of the GRAM pack for XTSI controller 0 or 1. (4E24>)
Entries: 0 (for initial UN557 GRAM pack), or 1-3 (unassigned).

2.12 **IBUEQ** - IBU Equipage (4E24>)
Entries: U (Unequipped), G (Grow), S (Special Grow), or O (Operational).

2.13 **IBUHV** - IBU hardware version. (4E24>)
Entries: 0 (initial hardware version), or 1-7 (unassigned).

2.14 **IBUSV** - IBU software version. (4E24>)
Entries: 0 to 7.

2.15 **PUBI** - Hardware version of the PUBI pack for XTSI controller 0 or 1. (4E24>)
Entries: 0 (for initial KBN16 PUBI pack), 1 (for KBN23 PUBI pack - needed for in-band), or 2-3 (unassigned).

2.16 **SPUEQ** - Entries: blank.

2.17 **SPUHV** - Entries: blank.

2.18 **SPUN** - Entries: blank.

2.19 **SPUSV** - Entries: blank.

2.20 **TSI MEMN** - TSI Member Number (4E21 only)
Entries: 2 to 62 - even numbers only.

2.21 **XTCHV** - XTSI Controller Hardware Version (4E22>)
Entries: 0 to 7.

2.22 **XTCN** - XTSI Controller Number (4E22>)
Entries: Pre-printed with 0 to 1.

2.23 **XTCSV** - XTSI Controller Software Version (4E22>)
Entries: 0 to 7.

2.24 **XTSI FRAME INBAND ENABLED** - Hardware generation for the XTSI. (4E24>)
Entries: N (for XTSI without in-band signaling), or Y (for XTSI with in-band signaling enabled).

2.25 **XTSI MEMN** - TSI Member Number of an Expanded Time Slot Interchange (XTSI) (4E22>)
Entries: 2 to 62 - even numbers only.

```
INPUT:                   VERIFY 16ba

              VER:VFUNC SUXTSI: FD1 a, DT1 b!EOT


OUTPUT:                  VERIFY 7h


VER:MISC;OPT(SUXTSI):          TSI MEMN --,


DS3UN  0 1 2 3 4 5 6 7
D3USV  _,_,_,_,_,_,_,_,
```

RECENT CHANGE INPUT SOURCE - FORM # 705

VERIFY SUB-UNIT TYPE INFORMATION DATA FOR XTSI
4E21 RELEASE 1 THROUGH RELEASE 4 GENERIC PROGRAMS

```
INPUT:                  VERIFY 16ba

             VER:VFUNC SUXTSI: FD1 a, DT1 b!EOT


OUTPUT:                 VERIFY 7h
  4E22,4E23                                                          |


VER:MISC;OPT(SUXTSI):         XTSI MEMN --,


XTCN   0,1
XTCHV  -,-
XTCSV  -,-


D3UN   0 1 2 3 4 5   6 7
D3UEQ  -,-,-,-,-,-,  -,-,
D3UHV  -,-,-,-,-,-,  -,-,
D3USV  -,-,-,-,-,-,  -,-,


SPUN   0 1 2 3 4 5 6 7 8 9   10 11
SPUEQ  -,-,-,-,-,-,-,-,-,-,  -, -,
SPUHV  -,-,-,-,-,-,-,-,-,-,  -, -,
SPUSV  -,-,-,-,-,-,-,-,-,-,  -, -,
```

RECENT CHANGE INPUT SOURCE - FORM # 705

VERIFY SUB-UNIT TYPE INFORMATION DATA FOR XTSI
4E22 AND 4E23 GENERIC PROGRAMS

```
INPUT:                   VERIFY 16ba

              VER:VFUNC SUXTSI: FD1 a, DT1 b!EOT



OUTPUT:                  VERIFY 7h
  4E24>


VER:MISC;OPT(SUXTSI):         XTSI MEMN --,


XTCN   0 1                                                                    |
XTCHV  -,-,                                                                   |
XTCSV  -,-,                                                                   |

           CSP,PUBI,GRAM,CIA,ALF,EXEC,
XTC0 PACKS   -,   -,   -,  -,  -,  --,
XTC1 PACKS   -,   -,   -,  -,  -,  --,

XTSI FRAME INBAND ENABLED -,

IBUEQ -,
IBUHV -,
IBUSV -,

D3UN   0 1 2 3 4 5   6 7
D3UEQ  -,-,-,-,-,-,  -,-,
D3UHV  -,-,-,-,-,-,  -,-,
D3USV  -,-,-,-,-,-,  -,-,


SPUN   0 1 2 3 4 5 6 7 8 9   10 11
SPUEQ  -,-,-,-,-,-,-,-,-,-,  -, -,
SPUHV  -,-,-,-,-,-,-,-,-,-,  -, -,
SPUSV  -,-,-,-,-,-,-,-,-,-,  -, -,
```

RECENT CHANGE INPUT SOURCE - FORM # 705

VER:UTYPE;OPT(SCSDATA):

VERIFY OUTPUT #7k - SCS SUB-UNIT DATA

1. GENERAL

1.01 Verify message 7k, available with 4E22 Release 4 and later Generic Programs, is used to output Service Circuit System Sub-Unit Data for the requested SCS Member Number.

2. FORM ENTRIES

2.01 VER:UTYPE;OPT(SCSDATA)

2.02 **ASRAPP** - Automatic Speech Recognition Application
Entries: 0 to 7.

2.03 **SCS MEMN** - Service Circuit System Member Number
Entries: 0 to 7.

2.04 **SCSCN** - Service Circuit System Controller Number
Entries: Pre-populated with 0 and 1.

2.05 **SCSFV** - Service Circuit System Controller Firmware Version
Entries: 0 to 7.

2.06 **SCSHV** - Service Circuit System Controller Hardware Version
Entries: 0 to 7.

2.07 **SCUEQ** - Service Circuit Unit Equipage
Entries: U (Unequipped), G (Grow), S (Special Grow), or O (Operational).

2.08 **SCUFV** - Service Circuit Unit Firmware Version
Entries: 0 to 3.

2.09 **SCUHV** - Service Circuit Unit Hardware Version
Entries: 0 to 7.

2.10 **SCUN** - Service Circuit Unit Number
Entries: Pre-populated with 0 through 15.

2.11 **SVCT** - Service Type
Entries: 0 to 7.

```
INPUT:                    VERIFY 16ba

               VER:VFUNC SCSDATA:FD1 SCSMEMN,DT1 a!


OUTPUT:                   VERIFY 7k
4E22 Release 4>


VER:UTYPE;OPT(SCSDATA):                   SCS MEMN -,


SCSCN  0 1
SCSHV  -,-,
SCSFV  -,-,


SCUN   0  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15
SCUEQ  -, -, -, -, -, -, -, -, -, -, -, -, -, -, -, -,
SCUHV  -, -, -, -, -, -, -, -, -, -, -, -, -, -, -, -,
SCUFV  -, -, -, -, -, -, -, -, -, -, -, -, -, -, -, -,
SVCT   -, -, -, -, -, -, -, -, -, -, -, -, -, -, -, -,
ASRAPP -, -, -, -, -, -, -, -, -, -, -, -, -, -, -, -,
```

RECENT CHANGE INPUT SOURCE - FORM # 703

VER:MISC;OPT(SPPNODE):

VERIFY OUTPUT #7l SPP NODE EQUIPAGE AND TYPE DATA

1. GENERAL

1.01 Verify message 7l, available with 4E24 Release 1 and later Generic Programs, is used to output the SPP Node equipage and node type information for the requested SPP Node.

2. FORM ENTRIES

2.01 VER:MISC;OPT(SPPNODE)

2.02 **NODEEQ** - SPP Node Equipage
Entries: UNEQ or OPER.

2.03 **NODETYPE** - SPP Node Type
Entries: NSFI or NAP.

2.04 **SPPNODE** - SPP Node Number
Entries: 0 to 255.

```
INPUT:                    VERIFY 16ba

               VER:VFUNC SPPNODE[:FD1 a,DT1 b]


OUTPUT:                   VERIFY 7l
  4E24>


VER:MISC;OPT(SPPNODE):

SPPNODE    NODEEQ    NODETYPE
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
  ---,       ----,      ----,
```

ODA INPUT SOURCE - none
RECENT CHANGE INPUT SOURCE - FORM # 709

VER:SUBUTP;OPT(SUXTSI):

VERIFY OUTPUT #7m - XTSI IBU SUB-UNIT TYPE DATA

1. GENERAL

1.01 Verify message 7m, available with 4E24 and later Generic Programs, is used to output the IBU configuration data for the requested Expanded Time Slot Interchange (XTSI) IBU.

2. FORM ENTRIES

2.01 VER:SUBUTP;OPT(XTSIIBU)

2.02 **MF OR DTMF** - Type of signaling (receivers/transmitters) supported by the IBU.
Entries: MF or DTMF

2.03 **TANS RESERVED** - Indicates whether the TANs associated with the IBU should be reserved.

Entries: N or Y.

2.04 **XCVR CONFIG** - Type of miscellaneous service circuits the IBU supports. There are two possible types: 1) 16 Continuity Check Transceivers (CCT), or 2) 12 CCTs plus 4 miscellaneous service circuits (i.e., digital Milliwatt, digital Milliwatt-10, Common Systems Tone Detector, and CCT test).

Entries: blank, CCT (for 16 CCTs), or MISC (for 12 CCTs and miscellaneous circuits)

2.05 **XTSI MEMN** - TSI Member Number of an Expanded Time Slot Interchange (XTSI)
Entries: 2 to 62 - even numbers only.

```
INPUT:                  VERIFY 16ba

             VER:VFUNC XTSIIBU, FD1 a, DT1 b!EOT


OUTPUT:                 VERIFY 7m

VER:SUBUTP;OPT(XTSIIBU):          XTSI MEMN --,

TANS RESERVED -,

MF OR DTMF ----,

XCVR CONFIG  -----,
```

RECENT CHANGE INPUT SOURCE - FORM # 708

SECTION 8 - OUTPUT VERIFY MESSAGES

SPECIAL

SECTION	MESSAGE	
8a	Output 8a	Verify the contents of a translation word stored in core, file store, or (4E21>) extended store memory
8b	Output 8b	One-way Link Data for domestic CCIS terminals
8j	Output 8j	Verify Feature Bit Status

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

(4E21>) VER:ABSOLUTE,OPT(CORE/FS,XS):

(<4E21) VER:ABSOLUTE,OPT(CORE/FS,CUR):

VERIFY OUTPUT #8a

DISPLAY CONTENTS OF A TRANSLATION WORD STORED IN CORE, FILE STORE, OR (4E21>) EXTENDED STORE MEMORY.

1. GENERAL

1.01 This message verifies the contents of any translation word stored in core, file store, or (4E21>) extended store memory. The absolute address must be within the translation data address range.

2. FORM ENTRIES

2.01 VER:ABSOLUTE,OPT(CORE/FS,CUR): or (4E21>) VER:ABSOLUTE,OPT(CORE/FS/XS):

This field appended to this verify message specifies the status of the translation data that follows.

(<4E21) "CUR" indicates the data is that which currently resides in the translation area.

2.02 ADDRESS

This field contains the address of the input message.

2.03 CONTENTS

This field contains the octal contents of the translation word located at the address specified in ADDRESS.

```
INPUT:                                          VERIFY # 18a

    VER:ABSOLUTE:ADR a,b!(EOT)

(4E21>) VER:ABSOLUTE:ADR a,b, L c!(EOT)

  a = ADR  - Address or range of addresses to be displayed

  b = Data may be located in either Core, File, Store, or (4E21>) Extended store

  c = ADR  - Number of consecutive addresses to display



  OUTPUT:                                       VERIFY #8a

    VER:ABSOLUTE,OPT(CORE/FS,CUR):

    (4E21>) VER:ABSOLUTE,OPT(CORE/FS/XS):

         ADDRESS     CONTENTS
         --------    --------
         --------    --------
         --------    --------
                  .
                  .
                  .
         --------    --------



                          ODA INPUT SOURCE - NONE

  RECENT CHANGE INPUT SOURCE - #800 RC:FUNC;CHG;OPT(ABSOLUTE),---:
```

FIGURE 1

VERIFY CONTENTS OF A TRANSLATION WORD AT AN ABSOLUTE ADDRESS

VER:TERMLIST:

VERIFY OUTPUT #8b - ONE-WAY LINK DATA
FOR DOMESTIC CCIS TERMINALS

1. GENERAL

1.01 This message verifies domestic CCIS terminals that have one-way links. A one-way link exists when a terminal label points to a TSN, but the TSN does not point back to the terminal label (or its mate). For each one-way link found, this message prints the one-way link and associated data. The associated data consists of the TSG that the TSN is in and the two-way link that exists for the TSN. A two-way link exists when a terminal label points to a TSN and the TSN points back to the terminal label (or its mate).

2. FORM ENTRIES

2.01 VER:TERMLIST:

This heading identifies this particular verify message.

2.02 PTERM1
---,

This field identifies the primary terminal which has only a one-way link with a TSN in translations. The terminal is assigned the TSN, but the TSN does not point back to this terminal or to its mate. The valid entries range from 0 to 255.

2.03 STERM1
---,

This field identifies the secondary terminal associated with the primary terminal which has only a one-way link with a TSN in translations. The terminal is assigned the TSN, but the TSN does not point back to this terminal or to its mate. The valid entries range from 0 to 255.

2.04 BAND1
---,

This field identifies the band associated with the primary and secondary terminals which have a one-way link with a TSN in translations. The valid entries range from 0 to 511.

2.05 TSG
BTFN TOWN ST BL FBS NBS
---- ---- -- -- --- ---,

This series of codes identifies the Trunk Sub-Group for the TSN that forms the two-way link with the domestic CCIS terminal and band. The town, state, building and building subdivisions for the distant end of the trunk, plus the near end building subdivision, make up the Trunk Group designation. This Common Language Location Identification (CLLI) code is used in the Long Lines Routing Guide. Rules for establishing these codes are covered in BSP 795-100-100.

BTFN - Base Traffic Number - The Base Traffic Number is a number in the range of 0 to 9976 that is part of the Trunk Sub-Group designation (which consists of the BTFN, TOWN, ST, BL, FBS and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a Trunk Sub-Group. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG but the BTFN remains as defined above.

TOWN - Town - This code is a four character alphabetic combination representing the town, city or location for the far end of the Trunk Sub-Group.

ST - State - The state is a two character alphabetic code for the far end state, province or foreign country.

BL - Building - This field contains the office identity for the far end of the Trunk Sub-Group. The code may be either two alphabetic or two numeric characters. Independent Telephone Company locations are always designated by an "X" plus some alpha character in this field. If the Trunk Sub-Group terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

FBS - Far Building Subdivision - The far building subdivision code is a three character alphanumeric for internal building identification.

NBS - Near Building Subdivision - This code identifies the internal building subdivision for the near end of the Trunk Sub-Group. It is a three character alphanumeric combination.

INPUT: VERIFY #18e

VER:TERMLIST! (EOT)

OUTPUT: VERIFY #8b

VER:TERMLIST:

ONE-WAY LINK			TSG						TWO-WAY LINK		
PTERM1	STERM1	BAND1	BTFN	TOWN	ST	BL	FBS	NBS	PTERM2	STERM2	BAND2
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,
---,	---,	---,	----	----	--	--	---	---,	---,	---,	---,

ODA INPUT SOURCE - NONE
RECENT CHANGE INPUT SOURCE - FORM #807

FIGURE 1

VERIFY ONE-WAY LINK DATA FOR DOMESTIC CCIS TERMINALS

VER:MISC;OPT(ONOFF):

VERIFY OUTPUT #8j - FEATURE BIT STATUS

1. GENERAL

1.01 Verify message 8j is used to output the status of the following feature bits: AASE, AINON, AINRDFLT, ASM, CPESR, F1-F72, ITRA, LSDS and SUA.

1. FORM ENTRIES

2.01 VER:MISC;OPT(ONOFF):

2.02 **AASE** - Announcement Administration System Equipment Office parameter. Valid entries are: Y or N.

2.03 **AINON** - Advanced Intelligent Network On/Off Switch.
Valid entries are: Y or N.

2.04 **AINRDFLT** - AIN Route Using Default. Valid entries are: Y or N.

2.05 **ASM** - SCS Update System Type-ASM/AAP. Valid entries are: Y or N.

2.06 **CPESR** - Call Prompter with Enhanced Speech Recognition.
Valid entries are: Y or N.

2.07 **FEATURE BITS** - Non-Proprietary Activation Bits (F) that are turned On.

1 - Network Access Interrupt On/Off indicator.
2 - Spare - reserved for future use.
3 - Multiple 4ESS Network Announcements indicator.
4 - I800 Overseas 10D GTT indicator.
5 - Spare - reserved for future use.
6 - Information Transfer Capability (ITC) in the outgoing IAM indicator.
7,8 - Spare - reserved for future use.
9 - Perform basic rather than improved processing of non-idle Q.931 trunks indicator.
10 - Transition to XTSI Release 2 Performance Monitoring - **once enabled, cannot be disabled.**
11 - Terminating Bandwidth Screening.
12 - Committed for internal use only.
13 - 15 Digit International Numbering Plan Feature Active.
14 - Message Header Reduction for API Capacity/API Capacity Improvement Features.
15 - CVU Echo-back Interface Feature Enabled.
16 - Extend ACM Timer for CCS7 Feature.
17 - NAI for Direct Connect Calls Feature.
18 - Ignore AIN Called Number Triggers on Location Routing Numbers - 4E22R4>.
19 - Analyze Ported Number GAP for AIN CNTs feature - 4E23R3>.
20 - Domain Check capability for AIN 10-Digit Triggers - 4E23R3>.
21 - LEC LNP/AIN Domain Option (#534) feature - 4E22>.
22 - LEC Originating LNP Module AMA Enhancements - 4E23R4> Feature 537.
23 - Tandem Flexible ANI/II Digit Restriction - 4E24R1>.
24 - CNAR Trunk Subgroup Billing Number Option (#547) feature - 4E24R2>.
25 - LEC Non-GETS IAM/CRM message priority setting indicator feature (#555) - 4E24R3>.
26 - LEC Flexible ANI/II 800 to POTS (#567) - 4E24R3>.
27 - AIN 3-Digit Number Trigger Criteria Type (#569) - 4E24R3>.
28 - LEC SSP/800 support for SACs 866 through 822 - 4E24R3>.
29,72 - Spare - reserved for future use.

2.08 **ITRA** - Intra-LATA Competition Parameter. Valid entries are: Y or N.

2.09 **LSDS** - LEC Switch Digital Services Phase 2 On/Off Parameter. Valid entries are: Y or N.

2.10 **SUA** - Software Update Automation. Valid entries are: Y or N.

```
INPUT:                    VERIFY 16az

                      VER:MISC ONOFF!(EOT)


OUTPUT:                         VERIFY 8j
<4E21R1

      VER:MISC;OPT(ONOFF):

      FEAT ITEM:  ATP, SCSFH, CPESR, I800P1, I800P2, ITRA, LSDS, GETS, SUA,
      FEAT ON:      -,     -,     -,      -,      -,    -,    -,    -,   -,

      FEAT ITEM:  CSCRACT, PCPNCP, ASM, AASE, AINON, AINRDFLT,
      FEAT ON:          -,      -,   -,    -,     -,        -,

      FEAT ITEM:  F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12,
      FEAT ON:     -,  -,  -,  -,  -,  -,  -,  -,  -,   -,   -,   -,

      FEAT ITEM:  F13, F14, F15, F16, F17, F18, F19, F20, F21, F22, F23, F24,
      FEAT ON:      -,   -,   -,   -,   -,   -,   -,   -,   -,   -,   -,   -,

      FEAT ITEM:  PF1, PF2, PF3, PF4, PF5, PF6, PF7, PF8, PF9, PF10, PF11, PF12,
      FEAT ON:      -,   -,   -,   -,   -,   -,   -,   -,   -,    -,    -,    -,

      FEAT ITEM:  PF13, PF14, PF15, PF16, PF17, PF18, PF19, PF20, PF21, PF22,
      FEAT ON:       -,    -,    -,    -,    -,    -,    -,    -,    -,    -,

      FEAT ITEM:  PF23, PF24,
      FEAT ON:       -,    -,
```

ODA INPUT SOURCE - None.
RECENT CHANGE INPUT SOURCE - FORM # 809

```
INPUT:                    VERIFY 16az

                     VER:MISC ONOFF!(EOT)


OUTPUT:                         VERIFY 8j
4E21R2>

      VER:MISC;OPT(ONOFF):


      ATP, SCSFH, CPESR, I800P1, I800P2, ITRA, LSDS, GETS, SUA,
        -,     -,     -,      -,      -,    -,    -,    -,   -,

      CSCRACT, PCPNCP, ASM, AASE, AINON, AINRDFLT,
            -,      -,   -,    -,     -,        -,


      FEATURE BITS


      --, --, --, --, --, --, --, --, --, --, --, --, --, --, --, --,

      --, --, --, --, --, --, --, --, --, --, --, --, --, --, --, --,

      --, --, --, --, --, --, --, --, --, --, --, --, --, --, --, --,

      --, --, --, --, --, --, --, --, --, --, --, --, --, --, --, --,

      --, --, --, --, --, --, --, --, --, --, --, --, --, --, --, --,


      PROPRIETARY FEATURE BITS


      --, --, --, --, --, --, --, --, --, --, --, --, --, --, --, --,

      --, --, --, --, --, --, --, --, --, --, --, --, --, --, --, --,

      --, --, --, --, --, --, --, --, --, --, --, --, --, --, --, --,

      --, --, --, --, --, --, --, --, --, --, --, --, --, --, --, --,

      --, --, --, --, --, --, --, --, --, --, --, --, --, --, --, --,

      --, --, --, --, --, --, --, --, --, --, --, --, --, --, --, --,
```

ODA INPUT SOURCE - None.
RECENT CHANGE INPUT SOURCE - FORM # 809

SECTION 11 - INPUT VERIFY MESSAGES

TRUNK SUBGROUP CHARACTERISTICS

SECTION	MESSAGE	
11a	Input 11a	Request verification of the characteristics for a message Trunk Subgroup by specifying the Circuit Identification Name.
11b	Input 11b	Request verification of the characteristics for a nonmessage Trunk Subgroup by specifying the Circuit Identification Name.
11c	Input 11c	Request verification of the characteristics for a message or nonmessage Trunk Subgroup by specifying the Trunk Subgroup number.
11d	Input 11d	Request verification of Trunk Subgroups with one or more of the same specified characteristics.
11e	Input 11e	Request verification of the listing of Traffic Number Blocks associated with each TSG in the TG.

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

VER:TSG:CIN a[,b]!(EOT)

VERIFY INPUT #11a - REQUEST VERIFICATION OF THE CHARACTERISTICS FOR A MESSAGE TRUNK SUBGROUP BY SPECIFYING THE CIRCUIT IDENTIFICATION NAME

1. GENERAL

1.01 This message requests the verification of information relating to message Trunk Subgroup translations. For a given Trunk Subgroup, two messages will be printed. The first output message will describe the characteristics of the Trunk Subgroup being verified. The second message is a list of trunks within the Trunk Subgroup.

2. MESSAGE ENTRIES

2.01 VER:TSG:CIN a[,b]!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **CIN** a!(EOT) - Circuit Identification Name

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

2.03 Optional Fields

b

This field is used if the far-end of the Trunk Subgroup has D1D or D2 channel banks assigned, then keywords D1 or D2 may be input following the CIN. If D1 or D2 is specified, then each line of the resulting output message may represent up to 24 trunks with consecutive traffic numbers and consecutive far-end channels.

```
INPUT:                    VERIFY 11a

     ex. 1    VER:TSG:CIN 201KSCYMO0914T!(EOT)

     ex. 2    VER:TSG:CIN 201KSCYMO0914T:D1!(EOT)

                        (abbreviated CIN)

     ex. 3    VER:TSG:CIN 201KSCY09!(EOT)

     ex. 4    VER:TSG:CIN 201KSCY09:D2!(EOT)

OUTPUT:                   VERIFY 1a/1b/1c/1f/1g and 1d

              VER:TSG,OPT(TWOWAY/IN1WAY/OUT1WAY/NONMSG/VFL):

              VER:TSG,OPT(TRUNKS):
```

ODA INPUT SOURCE - ESS 401A/401B/401C/401F

RECENT CHANGE INPUT SOURCE - FORM # 100/101/102/103/107/108/109

SAMPLE MESSAGES

VER:TSG:CIN a!(EOT)

VERIFY INPUT #11b - REQUEST VERIFICATION OF THE CHARACTERISTICS FOR A NONMESSAGE TRUNK SUBGROUP BY SPECIFYING THE CIRCUIT IDENTIFICATION NAME

1. GENERAL

1.01 This message requests the verification of information relating to nonmessage Trunk Subgroup translations. For a given Trunk Subgroup, two messages will be printed. The first output message will describe the characteristics of the Trunk Subgroup being verified. The second message is a list of trunks within the Trunk Subgroup.

2. MESSAGE ENTRIES

2.01 VER:TSG:CIN a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **CIN** a!(EOT) - Circuit Identification Name

— BTFN = 0 to 9976.

— MC - Major Category.
Entries: ACI*, ATM*, CLN*, INT*, MAS*, MIS*, SVC*, or TAS*.

— SC - Sub-Category.
Entries:

ACI*: DCHN.

ATM*: RT0T, RT1T, RT0A, RT1A, RPCU.

CLN*: DLPC, DTAT, TAT*, 104*, 104D, 105*, 105D, 109*, TND*, RESD, RESV.

INT*: CCS7.

MAS*: BIPB.

MIS*: AART, CKEY, CTLK, CCWS, TERM, OBS0, OBS1.

SVC*: AIN* (4E18>), DMRV, DMXM, MFR*, MFX*, XCVR, XCVT, MFRT, MFXT, SCAN, SCBN, SCNS.

TAS*: ANN*, TONE, MWAT, MW10.

— FBS - Far Building Subdivision
For 4E19 and earlier: ***.

Entries for 4E20 and later depend on MC and SC:

SVC* AIN*: j** - where j is 0 through 7 and represents the ASR application (when j is 0, no ASR capabilities apply).

SVC* SCNS: j** - where j is 0 through 7 and represents the ASR application (when j is 0, no ASR capabilites apply).

all others: ***.

— NBS = blank or alphanumeric.

INPUT: VERIFY 11b

ex. 1 VER:TSG:CIN 0SVC*XCVR!(EOT)
OUTPUT: VERIFY 1f and 1d

VER:TSG;OPT(NONMSG):

VER:TSG,OPT(TRUNKS):

ODA INPUT SOURCE - ESS 401E

RECENT CHANGE INPUT SOURCE - NONE

SAMPLE MESSAGES

VER:TSG:TSGN a!(EOT)

VERIFY INPUT #11c - REQUEST VERIFICATION OF THE CHARACTERISTICS FOR A MESSAGE OR NONMESSAGE TRUNK SUBGROUP BY SPECIFYING THE TRUNK SUBGROUP NUMBER

1. GENERAL

1.01 This message requests the verification of information relating to message or nonmessage Trunk Subgroup translations. For a given Trunk Subgroup, two messages will be printed. The first output message will describe the characteristics of the Trunk Subgroup being verified. The second message is a list of trunks within the Trunk Subgroup.

2. MESSAGE ENTRIES

2.01 VER:TSG:TSGN a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **TSGN** - Trunk Subgroup Number
Entries: 1 to 4095.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 11c

     ex. 1    VER:TSG:TSGN 5!(EOT)

     ex. 2    VER:TSG:TSGN 1-4094!(EOT)

     ex. 3    VER:TSG:TSGN 120-126!(EOT)

     ex. 4    VER:TSG:TSGN (6,12,72)!(EOT)

     ex. 5    VER:TSG:TSGN (15,21,25-27,35,44)!(EOT)

     ex. 6    VER:TSG:TSGN (1-24,36-42,340-721,1001-4095)!(EOT)

OUTPUT:                   VERIFY 1a/1b/1c/1g/1f and 1d

              VER:TSG,OPT(TWOWAY/IN1WAY/OUT1WAY/VFL):
              VER:TSG;OPT(NONMSG):

              VER:TSG,OPT(TRUNKS):
```

ODA INPUT SOURCE - ESS 401A/401B/401C/401E/401F

RECENT CHANGE INPUT SOURCE - FORM # 100/101/102/103/107/108/109

SAMPLE MESSAGES

VER:TSGLIST:[FD1 a,DT1 b],[FD2 a,DT2 b],[FD3 a,DT3 b],[FD4 a,DT4 b]!(EOT)

VERIFY INPUT #11d - REQUEST VERIFICATION OF TRUNK SUBGROUPS WITH ONE OR MORE OF THE SAME SPECIFIED CHARACTERISTICS

1. GENERAL

1.01 This message requests the verification of all Trunk Subgroups having one or more of the same specified characteristics or, if no characteristics are specified, will list all Trunk Subgroups in the office. The input message has a variable field to specify the type and format of the output message and the characteristics, if any, that requires verification.

2. MESSAGE ENTRIES

2.01 VER:TSGLIST:[FD1 a,DT1 b]...

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 Optional Fields

FD1 to FD4 a and DT1 to DT4 b -

These fields are used to specify the characteristics and data, if any, for which verification is required. FD1 to FD4 (Field) specifies the identifier and DT1 to DT4 (Data) specifies the argument(s). Up to four identifiers (FD/DT pairs) may be requested on a message. If more than one identifier is specified, each identifier may have only one argument (eg. INSEP 1, TOT PBX). If more than one argument is specified (eg. INSEP 1 2 3 4), only one identifier may be used. A maximum of four arguments may be specified for an identifier.

2.03 The data argument must be used with the corresponding field identifier (e.g., DT1 is used with FD1). An asterisk may be entered for specified fields to indicate that all TSGs with any valid entry for the field should be output.

There are some cases where verify will print only a subset of all the TSGs for a given request. For example, if CHNEG is requested with a value of N, verify will only output TSGs containing a value of N for TSGs with Q931 signaling since CHNEG only applies to Q931 trunks.

2.04 **ACD** - Automatic Call Distributor - Y, N, or T.

2.05 **ADIG** - 'A' Digit Reconstruction - 0, 2 to 9 or *.

2.06 **ANISID** - ANI/SID Request - NONE, ANI, PANI, PSID, REQ, SID, *.

2.07 **AOPC** - Alias Origination Point Code - *.

2.08 **APS** - Accunet® Packet Service - Y or N.

2.09 **ASRAPP** (4E20R3>) - Automatic Speech Recognition Application - 0 to 7.

2.10 **ATRIG** - AIN TSG Trigger - Y or N.

2.11 **BFTIS** - Backward Failure Treatment all ISUP - ANN or REL. This field and the LSST field cannot be requested on the same message.

2.12 **BFTNI** - Backward Failure Treatment not all ISUP - ANN or REL. This field and the LSST field cannot be requested on the same message.

2.13 **BN** - Billing Number - 3, 4, or 10 digit number or *.

2.14 **BRL** - Billing Record Length - L or S.

2.15 **CAREA** - Control Area - 0 to 9.

2.16 **CBN** - Connecting Network Access Billing Number option (4E22R2>) - N or L.

2.17 **CBN DIGS** - Incoming Trunk Connecting Network Access Billing Number (4E22R2>) - 10 digit number or *.

2.18 **CBNPR** - Calling Party Number/Billing Number Presentation Restricted - PA or PR.

2.19 **CCIS2WRE** - Common Channel Interoffice Signaling 2Wire - Y or N. This field and the MFSPEED or DPSTOP fields cannot be requested on the same message.

2.20 **CCODE** - Call Code Value - CCNO, CCACI, CCACO, CCACU (4E24R2>), CCAM2, CCAMA, CCCMC, CCCPA, CCFGB, CCFGD, CCICR, CCINT, CCMEG, CCMGC, CCOEO, CCOWC, CCOWT, CCPBX, CCPLC, CCPOT, CCSDN.

2.21 **CHNEG** - Channel Negotiation - Y or N. This field and the DADC field cannot be requested on the same message.

2.22 **CID** - Carrier ID (4E20>) - 0000 to 9999.

2.23 **CMTYP** - CAMA Type - 1 or 2.

2.24 **CODSC** - CPE Outgoing Disconnect (<4E20) or CPE Outgoing Disconnect/Reset SS7 TSG PCIS Bits (4E21>) - Y or N.

2.25 **CPOS** - Control Position - 0 to 9.

2.26 **DATA** - Data Services - Y or N.

2.27 **DELAY** - Delay Interval - 20, 80, 220, or 70, 140, 210, 280. This field and the XCPA field cannot be requested on the same message.

2.28 **DNHR** - Dynamic Non-Hierarchical Routing - Y or N.

2.29 **DNP** - Dialed Number Preferred - Y or N.

2.30 **DOFP** - Disable Outgoing Fraud Prevention - Y or N.

2.31 **DOM** - Domain - POTS, HNPA(Non AT&T only), HNPANAC(Non AT&T only), AC, IT, ITNAC (Non AT&T Only), SNPA1, SNPA1NAC, SNPA2, SNPA2NAC, SNPA3, SNPA3NAC, SNPA4, SNPA4NAC, SNPA5, SNPA5NAC, SNPA6, SNPA6NAC, SNPA7, SNPA7NAC, 1-83, NHOC, NH1C, IVT, INTL, INTLO, INTT, VRFY, SDNA, DEV, DED, DEC6, DER6, NSR, INCD, IO56, IO64, ITD, ATNS, GSDN, DAVT, N64C, N64R, I64C, I56D, APN.

2.32 **DPC** - Destination Point Code - To request verification of a DPC one or more of the following keywords must be specified. The keywords are grouped by format: AT&T, ANSI, and international point code.
NET - 0 to 255.
CREG - 0 to 31.
CTYP - 0 to 7.
MEMBER - 0 to 255.

NET - 0 to 255.
CLU - 0 to 255.
MEMBER - 0 to 255.

WGZ - 1 to 7.
ANI - 0 to 255.
SPID - 0 to 7.

2.33 **DPSTOP** - Dial Pulse Stop - Y or N. This field and the MFSPEED or CCIS2WRE fields cannot be requested on the same message.

2.34 **EAS** - Equal Access Signaling - E, A, D, R, or N.

2.35 **FAR4E** - Far End 4E - Y or N.

2.36 **FELATA** - Far End Local Access and Transport Area - 000 to 999.

2.37 **FENCLASS** - Far End Network Class - ACCESA, ACCESI, ACCESO, ACU (4E24R2>), CAMA, CMC, INTL, ITS, OEO, OWATS, PBX, POTS, or *.

2.38 **FENID** - Far End Network Identification. Input is 1 to 6 alphanumeric characters.

2.39 **FENPA** - Far End Numbering Plan Area - 2 to 9, 20 to 99, or 200 to 999.

2.40 **FEOFC** - Far End Office - 000 to 999.

2.41 **FESC6** - Far End 6-Digit Screening - Y or N.

2.42 **GEOSEP** - Geographical Traffic Separation Class - 0 to 31.

2.43 **GLARE** - Glare Control - A, E, O, or N.

2.44 **GNSC** - Go/No Go Screening Classes - 0 to 3.

2.45 **INCID** (4E18>) - Number of Carrier ID digits to be received - 3, 4, or B.

2.46 **INSEP** - Incoming Traffic Separation Class - 0 to 255.

2.47 **ISC** - Incoming Signaling Characteristics - 1WAYOUT, CAMACW, CAMAKEY, CCITT5, CCITT6, DCHAN, DOMCCIS, DPDDSD, DPIMADG, DPIMMED, DPIMPSW, DPPLS, DTMFWK, DTS, ICCS, INUP, ISUP, MFCCLS, MFDDSD, MFOPWK. MFWINK, MIOPNOP, Q931, RPACS, RPACU, TESTATP, TOLLMFD, TSPSMFD, TSPSMFW, TUP.

2.48 **IT** - Intertoll Treatment - Y or N.

2.49 **ITC** - Incoming Trunk Subgroup Class - 0 to 3. This field and the LSST field cannot be requested on the same message.

2.50 **ITCENC** (4E21>)- Information Transfer Capability - Y or N.

2.51 **IWZ1** - International World Zone 1 - Y or N.

2.52 **LRN** - Location Routing Number (4E22R2>) - 10 digit number or *.

2.53 **MEM** - Trunk Hunt with Memory - Y or N.

2.54 **MFSPEED** - Multi-Frequency Speed - 7 or 10. This field and the CCIS2WRE or DPSTOP fields cannot be requested on the same message.

2.55 **MTSC** - Multiple Treatment Screening Classes - 0 to 63.

2.56 **MULAW** - A-law/Mu-law Encoding - Y or N.

2.57 **NEOTR** - Near Operational Test Responsibility - Y or N.

2.58 **NPARINH** - Inhibit NPA Reconstruction - Y or N.

2.59 **ONCID** (4E18>) - Number of Carrier ID digits to send - 3 or 4.

2.60 **OSC** - Outgoing Signaling Characteristics - 104D, 104T, 105D, 105T, 109T, 1WAYIN, AART, ANN, CAMACW, CAMAKEY, CAMATLK, CCITT5, CCITT6, DATALPC, DATATAT, DCHAN, DOMCCIS, DPDDSD, DPIMMED, DPPLS, DPWINK, DTMFRCR, DTMFWK, DTMFXMR, EMFCIXC, EMFCOXC, ICCS, ICOPNOP, INUP, ISUP, MASBIPB, MFDDSD, MFRCVR, MFRCVRT, MFWINK, MFXMTR, MFXMTRT, MIOPNOP, MSFH, MWATT, MWDWN10, NSCX, Q931, RESD, RESV, ROTLCA0, ROTLCA1, ROTLTA0, ROTLTA1, SIOPMFW, SIOPNOP, SOA, SOB, TERM, TESTATP, TONE, TONEDT, TUP, TWOPDPD, TWOPDPI, TWOPDPW, TWOPMFW, VFL, XCVR, XCVRT.

2.61 **OTMTN** - Operational Terminating Test Number - 000 to 9999999.

2.62 **OTMTT** - Operational Terminating Test Type - N, ATMC, CTX2, CTX3, SXS, SYNC, T103, or *.

2.63 **OTSTN** - Operational Thru Switch Test Number - 000 to 9999999.

2.64 **OTSTT** - Operational Thru Switch Test Type - N, ATMB, CTX2, CTX3, SXS, SYNC, T103, or *.

2.65 **OVLP** - Overlap Signaling - Y or N.

2.66 **PBXAW** - PBX Answer Withheld - Y or N.

2.67 **PBXESGD** - PBX Expect Station Group Designation - Y or N.

2.68 **PBXNWW** - PBX No Wait for Wink - Y or N.

2.69 **PCF** - Point Code Format - ANSI, ATT, ISPC.

2.70 **PSATP** - Prohibit Sending Access Transport Parameters - Y or N.

2.71 **PSBN** - Prohibit Sending Billing Number - (4E18>) PNNA, PALL, SALL.

2.72 **PSCPN** - Prohibit Sending Calling Party Number - Y or N.

2.73 **PSES** - Prohibit Service Evaluation - Y or N.

2.74 **PSOLI** - Prohibit Sending Originating Line Identifier - Y or N.

2.75 **PSUUI** - Prohibit Sending User to User Information - Y or N.

2.76

2.77 **REV** - Reverse Traffic Numbers - Y or N.

2.78 **RFA** - Ring Forward Allowed - Y or N.

2.79 **RFMP** - Ring Forward Miscellaneous Distributor Point - Y or N.

2.80 **SAT** - Satellite - Y or N.

2.81 **SCFN** - Send Confusion Messages - Y or N.

2.82 **SINDEX** - Access Charge Verification Sampling Rate Index - 0, 1, 2, 4, 8, 16, 32, 64.

2.83 **TD** - Trunk Directionality - IN1WAY, OUT1WAY, TWOWAY, NONMSG.

2.84 **TFG** - Type of Feature Group - B, C, D.

2.85 **TOT** - Type Of Trunk - CAMAA, CAMAO, ETC, INTL, INTLO, ITAND, ITOLL, ITOP, ITOPA, ITOPB, ITS, LCC, MISC, NSDSD, OCC, PBX, SECIT, STC, TAND, TOLLC, TSPS.

2.86 **TSGBBC** - TSG Broadband Capability - 0 to 6.

2.87 **TTA** - Entries: blank.

2.88 **WANISID** - WATS Service ANI/SID Request - NONE, ANI, PANI, PSID, REQ, SID, or *.

2.89 **WATSBN** - WATS Billing Number - 10 digit number or *.

2.90 **XCPA** - Transceiver (XC) Pad Adjustment - 0 to 3. This field and the DELAY field cannot be requested on the same message.

2.91 **XTMTN** - Transmission Terminating Test Number - 000 to 9999999.

2.92 **XTMTT** - Transmission Terminating Test Type - N, T100, T102, T105, or *.

2.93 **XTSTN** - Transmission Thru Switch Test Number - 000 to 9999999.

2.94 **XTSTT** - Transmission Thru Switch Test Type - N, ATMA, T100, T102, T105, or *.

```
INPUT:                    VERIFY 11d

    ex.  1    VER:TSGLIST!(EOT)

    ex.  2    VER:TSGLIST:FD1 DOM,DT1 POTS!(EOT)

    ex.  3    VER:TSGLIST:FD1 BN,DT1 *!(EOT)

    ex.  4    VER:TSGLIST:FD1 INSEP,DT1 0,DT2 4,DT3 56,DT4 10!(EOT)

    ex.  5    VER:TSGLIST:FD1 FENCLASS,DT1 ACCESA,FD2 FENID,DT2 AR21!(EOT)

    ex.  6    VER:TSGLIST:FD1 LSST,DT1 *,FD2 FELATA,DT2 201!(EOT)

    ex.  7    VER:TSGLIST:FD1 TOT,DT1 PBX,FD2 OSC,DT2 Q931,FD3 CHNEG,DT3 Y!(EOT)

    ex.  8    VER:TSGLIST:FD1 NET,DT1 128,FD2 CLU,DT2 79,FD3 MEMBER,DT3 2!(EOT)

    ex.  9    VER:TSGLIST:FD1 WGZ,DT1 3!(EOT)


OUTPUT:                   VERIFY 1e

              VER:TSG;OPT(LIST): Common Keywords
```

ODA INPUT SOURCE - ESS 401A/401B/401C

RECENT CHANGE INPUT SOURCE - FORM # 100/101/102

VER:TFNB:TG a!(EOT)

VERIFY INPUT #11e - REQUESTS TRAFFIC NUMBERS OF TRUNK SUBGROUPS IN A TRUNK GROUP

1. GENERAL

1.01 This message requests the listing of the traffic number blocks associated with each Trunk Subgroup in the Trunk Group. The input defines the Trunk Group by the Circuit Identification Name (CIN). The output information lists the Trunk Subgroup characteristics, First Traffic Number, and Quantity of Trunks of each subgroup in the Trunk Group.

2. MESSAGE ENTRIES

2.01 VER:TFNB:TG a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **TG** a!(EOT) - Trunk Group

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

```
INPUT:                    VERIFY 11e

     ex. 1    VER:TFNB:TG STLSMO0914T57T!(EOT)


OUTPUT:                   VERIFY 1h

                          VER:TFNB:
```

ODA INPUT SOURCE - ESS 401D

RECENT CHANGE INPUT SOURCE - FORM # 104/105

VERIFY THE LIST OF TRAFFIC NUMBER BLOCKS OF EACH TRUNK SUBGROUP IN A TRUNK GROUP

SECTION 12 - INPUT VERIFY REQUESTS

TRUNK ASSIGNMENT

SECTION	MESSAGE	
12a	Input 12a	Request verification of individual trunk translation
12b	Input 12b	Request verification of B-channel to D-channel assignment
12c	Input 12c	Request verification of trunk appearance number translation
12d	Input 12d	Request verification of TAN Nailups
12e	Input 12e	Request verification of D-Channel to B-channel and LACID assignments
12f	Input 12f	Request verification of ISDN service data

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

VER:TRK: a[,FCHAN b][,OPT c]!(EOT)

VERIFY INPUT #12a - REQUEST VERIFICATION OF INDIVIDUAL TRUNK TRANSLATION

1. GENERAL

1.01 This message requests the verification of translation information associated with an individual trunk. The fields in the input message have variable entries to specify the desired output. Trunk identity may be established by any of the unique attributes associated with a specific trunk translation, i.e., TAN, TSN, CIN, CCIS, or CCS, terminal and label. In addition, the FCHAN and OPT keywords may also be specified at the end of this message. If these keywords are used, then CCIS/CCS terminal and label and miscellaneous distributor point information will not be output. For this input message, the resulting output message may be arranged in one of 16 different formats. Separate output formats will result depending on whether the trunk being verified is CCIS/CCS or ˆnon-CCIS/non-CCS and whether miscellaneous distributor points are assigned. Different formats are also output for the TSN, SCGA, D1, D2, COOB, or BBC OPT keyword arguments.

For a Digital Interface Frame (DIF), the Base TANs of a Digital Interface Unit (DIU) are easily determined because the 5 DS1s in a DIU always have a Base TAN in which the FTS is either 1, 25, 49, 73, or 97. For XTSI D3Us, the Base TAN depends on the D3U & DS1 number and TABLE A must be used to determine the SPC, LVL, and FTS of the Base TAN.

2. MESSAGE ENTRIES

2.01 VER:TRK: a[,FCHAN b][,OPT c]!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02

VER:TRK: a

(CIN)

- BTFN = 0 to 9976.
- TOWN = alphabetic.
- ST = alphabetic.
- BL = alphabetic or numeric.
- FBS = alphanumeric.
- NBS = alphanumeric.

(TAN)

- TSI = 0 to 63.
- SPC = 0 to 1.
- LVL = 0 to 6.
- FTS = 1 to 120.

(TAN) for D3U Applications (4E21>):

- TSI = 0 to 63.
- SPC = 0 to 1.
- LVL = 0 to 7.
- FTS = 1 to 127 (LVL 0)
  0 to 127 (LVL 1 to 6)
  0 to 112 (LVL 7)

(TSN)

- SP = 0 to 31.
- ROW = 0 to 127.
- COL = 0 to 15.

(CCIS/CCITT6) CCISTERMa,FBANDa,FMEMNa
(CCS) CCSTERMa,FBANDa,FMEMNa

- CCISTERM or CCSTERM = 0 to 255.
- FBAND = 0 to 511 for CCIS.
  0 to 127 for CCITT6.
- FMEMN = 0 to 15.

2.03 Optional Fields

FCHAN b

This field may be inputted following the TAN when the trunk being verified is assigned to a digroup terminal at the 4 ESS and to a ˆfar-end D1D or D2 channel bank. The First Time Slot (FTS) of the specified TAN is restricted to an entry of 1, 25, 49, 73, or 97 in order to identify the beginning of a digroup of 24 trunks on a digroup terminal. FCHAN specifies the first ˆfar-end D1D or D2 channel to be verified. Channels are numbered 1 to 24. The OPT keyword with the argument D1 or D2 must also be entered following the TAN and FCHAN.

OPT c

This field may contain one of the following arguments TSN, SCGA, BBC, COOB, D1, or D2. Each argument

is defined below.

TSN - If the TAN to TSN relationship is desired, then the TSN keyword may be input following the CIN, TAN, TSN, or CCIS terminal and label. The TSN keyword may not be used in conjunction with the FCHAN D1, FCHAN D2, or SCGA keywords.

If TSN option is used, the ESN assignments on Echo Suppressor trunks will be replaced by the TSN locations for ˆnon-CCIS trunks. In the case of CCIS/CCS trunks with Echo Suppressor equipage, both the terminal label and ESN locations will be replaced by the TSN information. CCITT5 trunks will display both TSN locations when TSN is specified.

SCGA - If the Software Carrier Group Alarm (SCGA) status of the trunks is desired, then the SCGA keyword may be input following the CIN, TAN, TSN, or CCIS/CCS terminal label. The SCGA keyword may not be used in conjunction with the FCHAND1, FCHAND2, or TSN keywords.

NOTE: A block or series of numbers may be specified in the least significant fields of the last three trunk identifiers. A block is specified by inserting a dash between the low and high numbers to show the range. For example, verification of trunks having twelve consecutive TANs could be requested with a message similar to VER:TRK:TSI 12, SPC 1, LVL 5, FTS 1-12!(EOT). A whole series of individual numbers and blocks of numbers may be entered by enclosing the series with parentheses. To verify the trunks associated with several TSNs, the input message might be similar to VER:TRK:SP 12, ROW 26, COL (1, 2-6, 8-12, 14, 16). This feature only applies to the least significant field (FTS for the TAN, COL for the TSN, FMEMN for CCIS/CCS and FCHAN for FCHAN D1 or FCHAN D2).

BBC - The Broadband Capability argument may be input following a CIN, TAN, TSN, or CCS. This option requests the BBC value of the assigned trunks.

COOB - The Customer Out Of Band argument may be input following the CIN, TAN, or TSN. This option requests the trunks assigned to a Special Access Data Channel (SADC) or D-channel circuit. With the 4E13 and later Generic Programs, verify input message VER:TRK:PTAN (12e) must be used when requesting verification of trunks associated with a D-Channel.

D1, D2 - The D1, D2 arguments are used in conjunction with the FCHAN keyword to specify a ˆfar-end D1D or D2 channel to be verified.

TABLE A - XTSI D3U BASE TANS FOR EVEN MEMBER NUMBERED XTSI's

Even TSI Member number.

XTSI		TAN			XTSI		TAN		
D3U	DS1	SPC	LVL	FTS	D3U	DS1	SPC	LVL	FTS
0	1	0	0	001	0	15	1	0	001
0	2	0	0	025	0	16	1	0	025
0	3	0	0	049	0	17	1	0	049
0	4	0	0	073	0	18	1	0	073
0	5	0	0	097	0	19	1	0	097
0	6	0	0	121	0	20	1	0	121
0	7	0	1	017	0	21	1	1	017
0	8	0	1	041	0	22	1	1	041
0	9	0	1	065	0	23	1	1	065
0	10	0	1	089	0	24	1	1	089
0	11	0	1	113	0	25	1	1	113
0	12	0	2	009	0	26	1	2	009
0	13	0	2	033	0	27	1	2	033
0	14	0	2	057	0	28	1	2	057
1	1	0	2	081	1	15	1	2	081
1	2	0	2	105	1	16	1	2	105
1	3	0	3	001	1	17	1	3	001
1	4	0	3	025	1	18	1	3	025
1	5	0	3	049	1	19	1	3	049
1	6	0	3	073	1	20	1	3	073
1	7	0	3	097	1	21	1	3	097
1	8	0	3	121	1	22	1	3	121
1	9	0	4	017	1	23	1	4	017
1	10	0	4	041	1	24	1	4	041
1	11	0	4	065	1	25	1	4	065
1	12	0	4	089	1	26	1	4	089
1	13	0	4	113	1	27	1	4	113
1	14	0	5	009	1	28	1	5	009
2	1	0	5	033	2	15	1	5	033
2	2	0	5	057	2	16	1	5	057
2	3	0	5	081	2	17	1	5	081
2	4	0	5	105	2	18	1	5	105
2	5	0	6	001	2	19	1	6	001
2	6	0	6	025	2	20	1	6	025
2	7	0	6	049	2	21	1	6	049
2	8	0	6	073	2	22	1	6	073
2	9	0	6	097	2	23	1	6	097
2	10	0	6	121	2	24	1	6	121
2	11	0	7	017	2	25	1	7	017
2	12	0	7	041	2	26	1	7	041
2	13	0	7	065	2	27	1	7	065
2	14	0	7	089	2	28	1	7	089

Maintenance channels are defined as TANs when LVL & FTS are 0 and when LVL is 7 & FTS is 113 through 127. Maintenance Channels cannot be assigned.

TABLE A (cont) - XTSI D3U BASE TANS FOR ODD MEMBER NUMBERED XTSI's

Odd TSI Member number.

XTSI		TAN			XTSI		TAN		
D3U	DS1	SPC	LVL	FTS	D3U	DS1	SPC	LVL	FTS
3	1	0	0	001	3	15	1	0	001
3	2	0	0	025	3	16	1	0	025
3	3	0	0	049	3	17	1	0	049
3	4	0	0	073	3	18	1	0	073
3	5	0	0	097	3	19	1	0	097
3	6	0	0	121	3	20	1	0	121
3	7	0	1	017	3	21	1	1	017
3	8	0	1	041	3	22	1	1	041
3	9	0	1	065	3	23	1	1	065
3	10	0	1	089	3	24	1	1	089
3	11	0	1	113	3	25	1	1	113
3	12	0	2	009	3	26	1	2	009
3	13	0	2	033	3	27	1	2	033
3	14	0	2	057	3	28	1	2	057
4	1	0	2	081	4	15	1	2	081
4	2	0	2	105	4	16	1	2	105
4	3	0	3	001	4	17	1	3	001
4	4	0	3	025	4	18	1	3	025
4	5	0	3	049	4	19	1	3	049
4	6	0	3	073	4	20	1	3	073
4	7	0	3	097	4	21	1	3	097
4	8	0	3	121	4	22	1	3	121
4	9	0	4	017	4	23	1	4	017
4	10	0	4	041	4	24	1	4	041
4	11	0	4	065	4	25	1	4	065
4	12	0	4	089	4	26	1	4	089
4	13	0	4	113	4	27	1	4	113
4	14	0	5	009	4	28	1	5	009
5	1	0	5	033	5	15	1	5	033
5	2	0	5	057	5	16	1	5	057
5	3	0	5	081	5	17	1	5	081
5	4	0	5	105	5	18	1	5	105
5	5	0	6	001	5	19	1	6	001
5	6	0	6	025	5	20	1	6	025
5	7	0	6	049	5	21	1	6	049
5	8	0	6	073	5	22	1	6	073
5	9	0	6	097	5	23	1	6	097
5	10	0	6	121	5	24	1	6	121
5	11	0	7	017	5	25	1	7	017
5	12	0	7	041	5	26	1	7	041
5	13	0	7	065	5	27	1	7	065
5	14	0	7	089	5	28	1	7	089

Maintenance channels are defined as TANs when LVL & FTS are 0 and when LVL is 7 & FTS is 113 through 127. Maintenance Channels cannot be assigned.

```
INPUT:                    VERIFY 12a

     (CIN)  ex. 1    VER:TRK:CIN 1015STLSMO0914T!(EOT)
                     VER:TRK:CIN 16STLSMO0914T,OPT(SCGA)!(EOT)

 (abb CIN)  ex. 1a   VER:TRK:CIN 1015STLS09!(EOT)
                     VER:TRK:CIN 16STLS09!(EOT)

     (TAN)  ex. 2    VER:TRK:TSI 11,SPC 1,LVL 2,FTS 114!(EOT)
                     VER:TRK:TSI 24,SPC 0,LVL 6,FTS (1,13-24,32-48,64)!(EOT)

(FCHAN D1)  ex. 3    VER:TRK:TSI 1,SPC 0,LVL 6,FTS 49,FCHAN 1,OPT D1!(EOT)
(FCHAN D2)           VER:TRK:TSI 1,SPC 0,LVL 6,FTS 97,FCHAN 1-24,OPT D2!(EOT)

     (TSN)  ex. 4    VER:TRK:SP 14,ROW 26,COL 11!(EOT)
                     VER:TRK:SP 6,ROW 5,COL 6-15!(EOT)

     (CCS)  ex. 5    VER:TRK:CCSTERM 002,FBAND 226,FMEMN 12,OPT TSN!(EOT)
                     VER:TRK:CCSTERM 26,FBAND 12,FMEMN (1,3,6-8)!(EOT)

    (COOB)  ex. 6    VER:TRK:CIN 16STLSMO0914T57T,OPT COOB!(EOT)

     (CIN)  ex. 7    VER:TRK:CIN 16STLSMO0914T57T,OPT BBC!(EOT)

OUTPUT:                    VERIFY 2a/2b/2c/2d/2e/2f/2g/2h/2i/2j/2k/2l/2m/2o

              2a.  VER:TRK:
              2b.  VER:TRK;OPT(CCS):
              2c.  VER:TRK;OPT(MISC):
              2d.  VER:TRK;OPT(TSN):
              2e.  VER:TRK;OPT(SCGA):
              2f.  VER:TRK;OPT(CCIS/CCITT6,MISC):
              2g.  VER:TRK;OPT(D1/D2):
              2h.  VER:TRK;OPT(INTL TSN):
              2i.  VER:TRK;OPT(MISC):
              2j.  VER:TRK;OPT(ISTP):
              2k.  VER:TRK;OPT(CCITT5):
              2l.  VER:TRK;OPT(CCITT5,MISC):
              2m.  VER:TRK;OPT(CUS_OOB):
              2o.  VER:TRK:OPT(BBC):
```

ODA INPUT SOURCE - ESS 402A/402C/402E

RECENT CHANGE INPUT SOURCE - FORM # 200/203/803

SAMPLE MESSAGES

Future

VER:TRK:LACID a!(EOT)

VERIFY INPUT #12b - REQUEST VERIFICATION OF B-CHANNEL TO D-CHANNEL OR SADC LINK ASSIGNMENTS

1. GENERAL

1.01 This message is used to request the system to verify the B-Channel circuits or SADC links for the specified LACID.

2. MESSAGE ENTRIES

2.01 VER:TRK:LACID a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **LACID** - Link Access Identifier
Entries: 0 to 2047.

```
INPUT:                  VERIFY 12b

                VER:TRK:LACID 37!(EOT)


OUTPUT:                 VERIFY 2p

                VER:TRK:OPT(D_CHANNEL):
```

ODA INPUT SOURCE - 402A

RECENT CHANGE INPUT SOURCE - FORM # 200

SAMPLE MESSAGES

VER:TRK:TAN a!(EOT)

VERIFY INPUT #12c - REQUEST VERIFICATION OF TRUNK APPEARANCE NUMBER (TAN) TRANSLATION

1. GENERAL

1.01 This message is used to request the system to verify translations associated with one or more Trunk Appearance Numbers (TANs).

For a Digital Interface Frame (DIF), the Base TANs of a Digital Interface Unit (DIU) are easily determined because the 5 DS1s in a DIU always have a Base TAN in which the FTS is either 1, 25, 49, 73, or 97. For XTSI D3Us, the Base TAN depends on the D3U & DS1 number and TABLE A must be used to determine the SPC, LVL, and FTS of the Base TAN.

2. MESSAGE ENTRIES

2.01 VER:TRK:TAN a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **TAN** a

— TSI = 00 to 63.

— SPC = 0 to 1.

— LVL = 0 to 6.

— FTS = 000 to 120.

For D3U Applications (4E21>):

— TSI = 00 to 63.

— SPC = 0 to 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

TABLE A - XTSI D3U BASE TANS FOR EVEN MEMBER NUMBERED XTSI's

Even TSI Member number.

XTSI		TAN			XTSI		TAN		
D3U	DS1	SPC	LVL	FTS	D3U	DS1	SPC	LVL	FTS
0	1	0	0	001	0	15	1	0	001
0	2	0	0	025	0	16	1	0	025
0	3	0	0	049	0	17	1	0	049
0	4	0	0	073	0	18	1	0	073
0	5	0	0	097	0	19	1	0	097
0	6	0	0	121	0	20	1	0	121
0	7	0	1	017	0	21	1	1	017
0	8	0	1	041	0	22	1	1	041
0	9	0	1	065	0	23	1	1	065
0	10	0	1	089	0	24	1	1	089
0	11	0	1	113	0	25	1	1	113
0	12	0	2	009	0	26	1	2	009
0	13	0	2	033	0	27	1	2	033
0	14	0	2	057	0	28	1	2	057
1	1	0	2	081	1	15	1	2	081
1	2	0	2	105	1	16	1	2	105
1	3	0	3	001	1	17	1	3	001
1	4	0	3	025	1	18	1	3	025
1	5	0	3	049	1	19	1	3	049
1	6	0	3	073	1	20	1	3	073
1	7	0	3	097	1	21	1	3	097
1	8	0	3	121	1	22	1	3	121
1	9	0	4	017	1	23	1	4	017
1	10	0	4	041	1	24	1	4	041
1	11	0	4	065	1	25	1	4	065
1	12	0	4	089	1	26	1	4	089
1	13	0	4	113	1	27	1	4	113
1	14	0	5	009	1	28	1	5	009
2	1	0	5	033	2	15	1	5	033
2	2	0	5	057	2	16	1	5	057
2	3	0	5	081	2	17	1	5	081
2	4	0	5	105	2	18	1	5	105
2	5	0	6	001	2	19	1	6	001
2	6	0	6	025	2	20	1	6	025
2	7	0	6	049	2	21	1	6	049
2	8	0	6	073	2	22	1	6	073
2	9	0	6	097	2	23	1	6	097
2	10	0	6	121	2	24	1	6	121
2	11	0	7	017	2	25	1	7	017
2	12	0	7	041	2	26	1	7	041
2	13	0	7	065	2	27	1	7	065
2	14	0	7	089	2	28	1	7	089

Maintenance channels are defined as TANs when LVL & FTS are 0 and when LVL is 7 & FTS is 113 through 127. Maintenance Channels cannot be assigned.

TABLE A (cont) - XTSI D3U BASE TANS FOR ODD MEMBER NUMBERED XTSI's

Odd TSI Member number.

XTSI		TAN			XTSI		TAN		
D3U	DS1	SPC	LVL	FTS	D3U	DS1	SPC	LVL	FTS
3	1	0	0	001	3	15	1	0	001
3	2	0	0	025	3	16	1	0	025
3	3	0	0	049	3	17	1	0	049
3	4	0	0	073	3	18	1	0	073
3	5	0	0	097	3	19	1	0	097
3	6	0	0	121	3	20	1	0	121
3	7	0	1	017	3	21	1	1	017
3	8	0	1	041	3	22	1	1	041
3	9	0	1	065	3	23	1	1	065
3	10	0	1	089	3	24	1	1	089
3	11	0	1	113	3	25	1	1	113
3	12	0	2	009	3	26	1	2	009
3	13	0	2	033	3	27	1	2	033
3	14	0	2	057	3	28	1	2	057
4	1	0	2	081	4	15	1	2	081
4	2	0	2	105	4	16	1	2	105
4	3	0	3	001	4	17	1	3	001
4	4	0	3	025	4	18	1	3	025
4	5	0	3	049	4	19	1	3	049
4	6	0	3	073	4	20	1	3	073
4	7	0	3	097	4	21	1	3	097
4	8	0	3	121	4	22	1	3	121
4	9	0	4	017	4	23	1	4	017
4	10	0	4	041	4	24	1	4	041
4	11	0	4	065	4	25	1	4	065
4	12	0	4	089	4	26	1	4	089
4	13	0	4	113	4	27	1	4	113
4	14	0	5	009	4	28	1	5	009
5	1	0	5	033	5	15	1	5	033
5	2	0	5	057	5	16	1	5	057
5	3	0	5	081	5	17	1	5	081
5	4	0	5	105	5	18	1	5	105
5	5	0	6	001	5	19	1	6	001
5	6	0	6	025	5	20	1	6	025
5	7	0	6	049	5	21	1	6	049
5	8	0	6	073	5	22	1	6	073
5	9	0	6	097	5	23	1	6	097
5	10	0	6	121	5	24	1	6	121
5	11	0	7	017	5	25	1	7	017
5	12	0	7	041	5	26	1	7	041
5	13	0	7	065	5	27	1	7	065
5	14	0	7	089	5	28	1	7	089

Maintenance channels are defined as TANs when LVL & FTS are 0 and when LVL is 7 & FTS is 113 through 127. Maintenance Channels cannot be assigned.

```
INPUT:                    VERIFY 12c

     ex. 1    VER:TRK:TAN 0101120-1516120!(EOT)

     ex. 2    VER:TRK:TAN 1414006!(EOT)

     ex. 3    VER:TRK:TAN (1516015,1516017,1516120,1600025)!(EOT)

     ex. 4    VER:TRK:TAN (0316120,0405010,0815115-0815120)!(EOT)

     ex. 5    VER:TRK:TAN (0402120-0503115,0712005-1303010)!(EOT)


OUTPUT:                   VERIFY 2a/2b/2c/2f

                            VER:TRK:

                            VER:TRK;OPT(CCIS):

                            VER:TRK;OPT(CCS):

                            VER:TRK;OPT(MISC):

                            VER:TRK;OPT(CCIS,MISC):
```

ODA INPUT SOURCE - ESS 402A/402C/402D

RECENT CHANGE INPUT SOURCE - FORM # 200/203/204

SAMPLE MESSAGES

VER:NAILUP:TAN a!(EOT)
VER:NAILUP;ALL!(EOT)

VERIFY INPUT #12d - REQUEST VERIFICATION OF TAN NAILUPS

1. GENERAL

1.01 This message is used to request the system to verify translations data for a single TAN or a list of TANs that are nailed up.

2. MESSAGE ENTRIES

2.01 VER:NAILUP:TAN a!(EOT)
or VER:NAILUP;ALL!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **TAN** a

— TSI = 00 to 63.

— SPC = 0 to 1.

— LVL = 0 to 6.

— FTS = 001 to 120.

For D3U Applications (4E21>):

— TSI = 00 to 63.

— SPC = 0 to 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

2.03 **ALL**

All TANs that are nailed up can be specified by using the keyword ALL. When the ALL option is used, each TAN that is nailed up will appear only once in the output.

```
INPUT:                    VERIFY 12d

      ex. 1    VER:NAILUP:TAN 0201024!(EOT)

      ex. 2    VER:NAILUP:TAN 2114016-2114039!(EOT)

      ex. 3    VER:NAILUP:TAN (1401114,1401120,1401001-1401024)!(EOT)

      ex. 4    VER:NAILUP;ALL!(EOT)


OUTPUT:                   VERIFY 2n

                         VER:NAILUP
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM # 205

SAMPLE MESSAGES

VER:TRK:PTAN a!(EOT)

VERIFY INPUT #12e - REQUEST VERIFICATION OF D-CHANNEL TO B-CHANNEL AND LACID ASSIGNMENTS

1. GENERAL

1.01 This message, available with 4E13 and later Generic Programs, is used to request the system to verify the Link Access Identifier (LACID) and B-Channel circuits associated with the specified D-Channel.

2. MESSAGE ENTRIES

2.01 VER:TRK:PTAN a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **PTAN** - Port Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

```
INPUT:                    VERIFY 12e

                  VER:TRK:PTAN 0114012!(EOT)


OUTPUT:                   VERIFY 2p

                  VER:TRK:OPT(D_CHANNEL):
```

ODA INPUT SOURCE - 402A

RECENT CHANGE INPUT SOURCE - FORM # 200

SAMPLE MESSAGES

VER:TRK:LACID a,SRVC b!

VERIFY INPUT #12f - ISDN SERVICE DATA

1. GENERAL

1.01 This message, available with the 4E15 Generic Program, is used to request the output of ISDN service data for a specified LACID.

2. MESSAGE ENTRIES

2.01 VER:TRK:LACID a,SRVC b!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **LACID** - Link Access Identifier
Entries: 0 to 2047.

2.03 **SRVC** - ISDN Service

Entries: SDN, SDS, ILDS, MEGC, M800, NOVA, I800. ALL may be entered to request the data for all of the services.

```
INPUT:                    VERIFY 12f

                  VER:TRK:LACID a,SRVC b!(EOT)


OUTPUT:                   VERIFY 2q

                    VER:TRK;OPT(ISDN):
```

ODA INPUT SOURCE - 402F

RECENT CHANGE INPUT SOURCE - FORM # 209

SECTION 13 - INPUT VERIFY MESSAGES

CODE GROUPING

SECTION	MESSAGE	
13a	Input 13a	Request verification of international routing.
13b	Input 13b	Request verification of a routing treatment.
13c	Input 13c	Request verification of subsequent digit routing
13d	Input 13d	Request verification of the 3-digit-type translator.
13e	Input 13e	Request verification of Country Code translator.
13f	Input 13f	Request verification of codes that point to a specific call type.
13g	Input 13g	Request verification of International codes which point to a specific routing treatment.
13j	Input 13j	Request verification of Overlap Signaling Acceptable Digit Count.
13k	Input 13k	Request verification of the 00Y digit translator.
13l	Input 13l	Request verification of a proportional routing block.
13m	Input 13m	Request verification of subsequent digit indexes containing a specified treatment.
13n	Input 13n	Request verification of II Digit or OLI Translator.
13o	Input 13o	Request verification of the NX or ZZ to TNS Translator.
13p	Input 13p	Request verification of the II to OLI or OLI to II Translator.
13q	Input 13q	Request verification of SII related information.
13r	Input 13r	Request verification of the Emergency Alternate Routing Database
13s	Input 13s	Request verification of Domain Type information
13t	Input 13t	Request verification of AIN Triggers
13w	Input 13w	Routing table list input message

SECTION	MESSAGE	
13ba	Input 13ba	Request verification of Forwarding II Defaults
13bb	Input 13bb	Request verification of the Forwarding OLI Defaults
13bf	Input 13bf	Request verification of II PayPhone Designations
13bg	Input 13bg	Request verification of OLI PayPhone Designations

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

VER:CODEGRP:[DOM a,]CCD b[[,LD c],NN1 d[,NN2 e]][,DCNT f]
[,ST1 g,IDX1 h][,ST2 g,IDX2 h]!(EOT)

VERIFY INPUT #13a - REQUEST VERIFICATION OF INTERNATIONAL ROUTING

1. GENERAL

1.01 This codegroup verify message allows verification of international routing of codes in the originating and transit domains. This message uses the 1-digit translator and digits specified on the input message to determine the routing.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP...

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

Valid ST1/IDX1 and ST2/IDX2 combinations are:

Input	Value
CSRT	0 to 1022
FAI	0 to 1022
FPR	0 to 1022
GSDN	0 to 1
IPR	0 to 1022
MTS	0 to 63
RSI	0 to 126
TPC	0 to 1022

2.02 **CCD** - Country Code
Entries: 0 to 999.

2.03 **DOM** - Domain
Entries: INTO or INTT.

If DOM is not specified it will default to "INTO".

2.04 **DCNT** - Digit Count
Entries: 0 to 14.

This field is used to process digits when a nondefault digit count case is involved. A message will default to a Digit Count when codes are in conflict between operator and subscriber codes.

2.05 **IDX1** - SD-Index 1
Entries: 0 to 1022.

2.06 **IDX2** - SD-Index 2
Entries: 0 to 1022.

2.07 **LD** - Language Digit
Entries: blank or 0 to 9.

2.08 **NN1** - National Number Part 1
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.09 **NN2** - National Number Part 2
Entries: 1 to 6 digits each having values 0 to 9, B, or C.

2.10 **ST1** - SD-Type 1
Entries: CSRT, FAI, FPR, GSDN, IPR, MTS, RSI, TPC, V31K.

2.11 **ST2** - SD-Type 2
Entries: CSRT, FAI, FPR, GSDN, IPR, MTS, RSI, TPC, V31K.

2.12 A range of digits is allowed on the keywords CCD, LD, NN1, and NN2 if the keyword containing the range is the only keyword specifying a range and is the last keyword. B and C digits are not valid entries when NN1 or NN2 specifies a range.

INPUT: VERIFY 13a

ex. 1 VER:CODEGRP:CCD 044-049!(EOT)

ex. 2 VER:CODEGRP:CCD 044,LD 0-9!(EOT)

ex. 3 VER:CODEGRP:DOM INTO,DCNT 3,CCD 045!(EOT)

ex. 4 VER:CODEGRP:DOM INTT,CCD 046,NN1 121,NN2 0-9!(EOT)

ex. 5 VER:CODEGRP:CCD 312,LD 1,ST1 MTS,IDX1 4!(EOT)

OUTPUT: VERIFY 3i/3j/3k/3l

VER:CODEGRP;OPT(CCD/LD/NN1/NN2)

ODA INPUT SOURCE - ESS 403J/403K/403L/403M/403N

RECENT CHANGE INPUT SOURCE - FORM # 313/314/315/316

VER:CODEGRP[;ALL]:[DOM a,][AC b,]ABC c[,DEF d][,GHI e][,JKL f]
[,RDB][,ST1 g,IDX1 h][,ST2 g,IDX2 h]!(EOT)

VERIFY INPUT #13b - REQUEST VERIFICATION OF A ROUTING TREATMENT

1. GENERAL

1.01 This codegroup verify message allows verification of the translation data associated with a 3-digit and subsequent digit translation. If multiple treatment screening is applied to the digits, the class of the originating traffic (MTSC) must be entered if the treatment in the screening translator is desired. Otherwise, the multiple treatment screening index is displayed. The ability to verify the translation data associated with a served NPA (i.e., an NPA served on a 7-digit intra-NPA basis) is included. The translation data associated with a served NPA is verified by specifying the served NPA as the ABC digits and the office codes (NXX) in the served NPA as the DEF digits.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP . . .

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

Valid ST1/IDX1 and ST2/IDX2 combinations are:

Input	Value
CSRT	0 to 1022
DC	0 to 15
DRTC	0 to 15
FAI	0 to 1022
FPR	0 to 1022
GSDN	0 to 1
IPR	0 to 1022
MTS	0 to 63
RSI	0 to 126
SDN	0 to 1022
TPC	0 to 1022

2.02 ALL option

This keyword is used to request all translations. This code gives the current translations, as well as, a list of codes routing to VCA FHT.

2.03 **ABC** - ABC Digits
Entries: 000 to 999.

2.04 **AC** - Area Code
Entries: Y, N, or blank. (4E22>) - AC=N is only allowed for Universal Treatment Codes in offices using SNPA 10-Digit Routing.

This field is valid only for the POTS domain. If this field is omitted when DOM is POTS, it will default to an entry of "Y".

2.05 **DEF** - DEF Digits
Entries: blank, 0 to 999.

2.06 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.07 **GHI** - GHI Digits
Entries: blank, 0 to 999.

2.08 **IDX1** - SD-Index 1
Entries: 0 to 1022.

2.09 **IDX2** - SD-Index 2
Entries: 0 to 1022.

2.10 **JKL** - JKL Digits
Entries: blank, 0 to 999.

2.11 **RDB** - Routing Data Block
Entries: RDB. "RDB" may be appended to the message. This code requests the verify program to define RDBs that are a result of routing translation. It may specified for the CUR set of data only, and only if one code group has been specified. The output includes the list of routes (Trunk Subgroups) and the delete/prefix information.

2.12 **ST1** - SD-Type 1
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

2.13 **ST2** - SD-Type 2
Entries: CSRT, DC, DRTC, FAI, FPR, GSDN, IPR, MTS, RSI, SDN, TPC, V31K.

For the ABC, DEF, GHI, or JKL fields a range and/or list may be verified for the last group of digits. A range is specified by inserting a dash between the lowest and highest numbered code in the range, e.g., VER:CODEGRP:ABC 904, DEF 721-730!(EOT). A list can be entered by separating each code and/or range of codes with a comma and enclosing the entire group in parenthesis, e.g., VER:CODEGRP:ABC 214, DEF 654, GHI(76, 80-90)!(EOT).

INPUT: VERIFY 13b

ex. 1 VER:CODEGRP;ALL:ABC 913,DEF 200-999!(EOT)

ex. 2 VER:CODEGRP:ABC 404,DEF (721,724,823,921)!(EOT)

ex. 3 VER:CODEGRP:ABC 713,DEF (824-827,921-929,933)!(EOT)

ex. 4 VER:CODEGRP:AC N,ABC (723,729,823)!(EOT)

ex. 5 VER:CODEGRP:ABC 512,DEF 006,RDB!(EOT)

ex. 6 VER:CODEGRP:ABC 800,DEF 531,GHI (489,521)!(EOT)

ex. 7 VER:CODEGRP:DOM VRFY,ABC 999!(EOT)

ex. 8 VER:CODEGRP:ABC 212,DEF 565,GHI 375,JKL (2,6)!(EOT)

ex. 9 VER:CODEGRP;ALL:AC Y,ABC 312,DEF 979,ST1 MTS,IDX1 4!(EOT)

OUTPUT: VERIFY 3a/3c/3e/3v

VER:CODEGRP;OPT(DIG3/DIG6/DIG9/DIG12)

ODA INPUT SOURCE - ESS 403D/403E/403F/403V

RECENT CHANGE INPUT SOURCE - FORM # 300/301/302/303/311

SAMPLE MESSAGES

VER:CODEGRP[;a]:SDINDEX a[,INDEX b][,UNA][,MAN]!(EOT)

VERIFY INPUT #13c - REQUEST VERIFICATION OF SUBSEQUENT DIGIT ROUTING

1. GENERAL

1.01 This message is used to request the verification of a subsequent digit entry.

The UNA keyword is used to request a list of unassigned subsequent digit entries.

The MAN keyword is used to request only the list of manually assigned subsequent digit entries.

The INDEX, UNA, and MAN keywords should never be used together on the same input message.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP[;a]:SDINDEX a[,INDEX b] [,UNA][,MAN]!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 a
Entries: ALL.

All translations. This code gives the current translations, as well as, a list of codes routing to VCA FHT.

2.03 **INDEX** - Subsequent Digit Entry
Entries: 0 to 1022.

SIZE	INDEX
1	0 to 14
2	0 to 126
3	0 to 1022.

2.04 **SDINDEX** - Subsequent Digit Routing Index
Entries: 0 to 16383.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 13c

     ex. 1    VER:CODEGRP;ALL:SDINDEX 1026,INDEX 15!(EOT)

     ex. 2    VER:CODEGRP;ALL:SDINDEX 4096,MAN!(EOT)


OUTPUT:                   VERIFY 3g

                    VER:CODEGRP;OPT(SDX)


INPUT:                    VERIFY 13c

     ex. 1    VER:CODEGRP:SDINDEX 0-1023,UNA!(EOT)

OUTPUT:                   VERIFY 3aa

                    VER:CODEGRP;OPT(SDX,UNA)
```

ODA INPUT SOURCE - ESS 403G

RECENT CHANGE INPUT SOURCE - FORM # 304

SAMPLE MESSAGES

VER:CODEGRP:DIGTYP a!(EOT)

VERIFY INPUT #13d - REQUEST VERIFICATION OF THE 3-DIGIT TYPE TRANSLATOR

1. GENERAL

1.01 This message requests the verification of the 3-digit type translator. The 3-digit type translator is used to determine if a code is in a particular translation category.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP:DIGTYP a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **DIGTYP** - Three Digit Type

Entries: BNPA, DEF1, DEF2, DEF3, DEF4, DNHR, DP3, DP6, DT1-DT16 (4E20R2>), FCID (4E18>), I809, IIA, IIC, INO, INT, IRS, ITS, IWZ1, NRA, NRN, NRNX, UTC, WZ1A.

2.03 **RDIG** - 01R Digit

Entries: blank or 0 to 9.

For a DIGTYP entry of WZ1A an RDIG entry must be specified. RDIG can be a list and/or range.

```
INPUT:                    VERIFY 13d

     ex. 1    VER:CODEGRP:DIGTYP DP3!(EOT)

     ex. 2    VER:CODEGRP:DIGTYP NRA!(EOT)

     ex. 3    VER:CODEGRP:DIGTYP UTC!(EOT)

     ex. 4    VER:CODEGRP:DIGTYP WZ1A,RDIG 0-2!(EOT)
```

```
OUTPUT:                   VERIFY 3h

                    VER:CODEGRP;OPT(DIGTYP)
```

ODA INPUT SOURCE - ESS 403I

RECENT CHANGE INPUT SOURCE - FORM #319

SAMPLE MESSAGES

VER:CCDCONV:ABC a!(EOT)

VERIFY INPUT #13e - REQUEST VERIFICATION OF COUNTRY CODE OR PSEUDO COUNTRY CODE

1. GENERAL

1.01 This message requests the verification of Country Code or Pseudo Country Code.

1.02 The use of this form is allowed at all domestic offices. Its use is necessary at all AT&T-C domestic switches so that international calls destined for AT&T-C ISCs can be transported across the AT&T-C network in a single stage via CCIS.

2. MESSAGE ENTRIES

2.01 VER:CCDCONV:ABC a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **ABC** - ABC Digits
Entries: 000 to 999.

These digits are either Country Codes or Pseudo Country Codes associated with a CCD. A range and/or list is allowed on this input message.

```
INPUT:                    VERIFY 13e

     ex. 1    VER:CCDCONV:ABC 185!(EOT)

     ex. 2    VER:CCDCONV:ABC 400-499!(EOT)

     ex. 3    VER:CCDCONV:ABC (182-189,254,449,500-599)!(EOT)

OUTPUT:                   VERIFY 3m

                       VER:CODEGRP;OPT(CCDCONV)
```

ODA INPUT SOURCE - ESS 403J

RECENT CHANGE INPUT SOURCE - FORM # 317/318

SAMPLE MESSAGES

VER:CODELIST[;a][,OPT]:[DOMb,]CALLTYPc[,CALLDATAd][,AD1e][,AD2f][,AD3g][,SCh][,CHIi][,DESEPj][,DNSTk]!(EOT)

VERIFY INPUT #13f - REQUEST VERIFICATION OF THE DIGIT COMBINATIONS THAT TRANSLATE TO A GIVEN CALL TYPE

1. GENERAL

1.01 This message requests the verification of the list of codes that point to a particular call type.

2. MESSAGE ENTRIES

2.01 VER:CODELIST . . .

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 a

Entries: STD, ALL, or STDP.

To search for all data using an input RDBI, the STDP option must be specified along with the "OPT ALLRDB option". See OPT description.

STD - Standard - the standard output form will be used to list only those codes that point directly to the specified treatment. This is the default.

STDP - Standard Plus - the standard plus output form will be used to list all the codes and other indexes that can yield the specified treatment (e.g. treatments within a PRT, block). If the CHI, SC, DESEP, DNST or AD3 is to be used for locating a CALLTYP populated in a PRT block, specify the CHI, SC, DESEP, DNST or AD3 populated for the PRT calltype at the codegrouping level.

ALL - the alternative output form will be used to list all the codes and other indexes that can yield the specified treatment (e.g. treatments within a PRT, block). If the CHI, SC, DESEP, DNST or AD3 is to be used for locating a CALLTYP populated in a PRT block, specify the CHI, SC, DESEP, DNST or AD3 populated for the PRT calltype at the codegrouping level.

2.03 **AD1** - Additional Data 1

Entries: blank, NONE,
Go/NoGo (G,N),
LATA (000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN, TPC,SDN,IPR,CSRT,FPR, V31K),
DOM1 - (HNPA,IT,20-83,DED,DEV, INCD,IVT,APN,NH0C,NH1C),
DOM2 - (INTO,IO56,IO64,IOH0),
DOM3 - (HNPA,IT,20-83,DED,DEV, INCD,I56D,I64C,IVT,APN, N64C,N64R,NH0C,NH1C),

2.04 **AD2** - Additional Data 2

Entries: blank, CID 0000 to 9999 (4E18>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.05 **AD3** - blank.

2.06 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) APN or NANP).

MMT -RDBI.

NVD - National Vendor ID (0 to 127).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E23>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.07 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI (<4E21), MMT, NVD, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>), SSP, TEL, TST, TTS.

2.08 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, NONE, WACK, WAC2, WSNO.

2.09 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.10 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.11 **DOM** - Domain
Entries: POTS, 20 to 83, INTL, VRFY, SDNA, DED, DEV, NSR, INCD, LSI (<4E21), SF00-SF06 (4E22R4>), SF07-SF39 (4E23R1>), ATNS, DAVT, GSDN, IVT, I56D, I64C, N64C, N64R, STCD (4E22R4>), APN, NH0C, NH1C.

2.12 **OPT**
Entries: ALLRDB, RECSCH.

RECSCH: used to search recursively for all codes pointed to all embedded calltypes. When RECSCH is specified, the STDP, CALLTYP and CALLDATA keywords must be set. The DOM keyword is optional. SDX, MCT, MRT and PRT is the only valid input for CALLTYP. CALLDATA cannot be ranged.

```
VER:CODELIST;STDP,OPT RECSCH:CALLTYP SDX,
    CALLDATA 123!
```

ALLRDB: used to search for all data using input RDBI. When ALLRDB is specified, the STDP, CALLTYP and CALLDATA keywords must be set. RDB is the only valid input for CALLTYP. CALLDATA cannot be ranged.

```
VER:CODELIST;STDP,OPT ALLRDB:CALLTYP RDB,
    CALLDATA 123!
```

2.13 **SC** - Service Category
Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST, UNSP.

SAMPLE MESSAGES

```
INPUT:                    VERIFY 13f

     ex. 1    VER:CODELIST;ALL:CALLTYP RNR!(EOT)

     ex. 2    VER:CODELIST:CALLTYP FHT,CALLDATA VCA!(EOT)

     ex. 3    VER:CODELIST:CALLTYP RDB,CALLDATA 6!(EOT)

     ex. 4    VER:CODELIST:CALLTYP GNS,CALLDATA 6!(EOT)

     ex. 5    VER:CODELIST:CALLTYP RDB,CALLDATA 6,DESEP 3!(EOT)

     ex. 6    VER:CODELIST:CALLTYP SSP,CALLDATA NDB!(EOT)

     ex. 7    VER:CODELIST:CALLTYP TTS,CALLDATA 25,AD1 G,AD2 3!(EOT)

     ex. 8    VER:CODELIST:DOM LSI,CALLTYP LSI,CALLDATA NANP,AD1 22,AD2 IL!(EOT)

     ex. 9    VER:CODELIST:CALLTYP DSN,CALLDATA 25,DNST INWATS!(EOT)

     ex. 10   VER:CODELIST:CALLTYP SD3,CALLDATA 30,AD1 TPC!(EOT)


OUTPUT:                   VERIFY 3b/3d/3f/3w/3ab
                          VERIFY 3bd/3be                                    |
               VER:CODEGRP;LIST;OPT(DIG3/DIG6/DIG9/DIG12/ALL):
               VER:CODELIST;STDP,OPT(RECSCH/RECSCH-PLU):                    |
```

ODA INPUT SOURCE - ESS 403D/403E/403F/403G/403V
RECENT CHANGE INPUT SOURCE - FORM # 300/301/302/303/304/305

VER:INTLCODE[;a]:[OPT k,][DOMb,]CALLTYPc[,CALLDATAd][,AD1e][,AD2f][,AD3g][,SCh][,CHIi][,DESEPj]!(EOT)

VERIFY INPUT #13g - REQUEST VERIFICATION OF INTERNATIONAL CODES WHICH POINT TO A SPECIFIC ROUTING TREATMENT

1. GENERAL

1.01 This message requests a list of all International Codes that point to a specific routing treatment.

2. MESSAGE ENTRIES

2.01 VER:INTLCODE . . .

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 a

Entries: STD, ALL, or STDP.

STD - Standard - the output will list all codes and other indexes that point directly to the specified treatment. This is the default.

ALL - the output will list all codes and other indexes that can yield the specified treatment (e.g. treatments within a PRT, block). If the CHI, SC, DESEP, DNST or AD3 is to be used for locating a CALLTYP populated in a PRT block, specify the CHI, SC, DESEP, DNST or AD3 populated for the PRT calltype at the codegrouping level (4E23R4>).

STDP - the output will list all codes that can yield the specified treatment (e.g. treatments within a PRT, block). If the CHI, SC, DESEP, DNST or AD3 is to be used for locating a CALLTYP populated in an PRT block, specify the CHI, SC, DESEP, DNST or AD3 populated for the PRT calltype at the codegrouping level (4E23R4>).

2.03 **AD1** - Additional Data 1

Entries: blank, NONE,
Go/NoGo (G,N),
LATA (000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,GSDN,IPR,TPC, CSRT,FPR, V31K),
DOM1 - (HNPA,IT,20-83,DED,DEV,INCD),
DOM2 - (INTO,IO56,IO64),
DOM3 - (HNPA,IT,20-83,DED,DEV,INCD),
SD1/SD2/SD3 - (SDIG,RSI,MTS,DC,GSDN,IPR,TPC, CSRT,FPR, V31K).

2.04 **AD2** - Additional Data 2

Entries: blank, CID 0000 to 9999 (4E18>), RIO N or Y (4E24>), GNSC (0 to 3), STATE ((<4E21) two alphabetic characters).

2.05 **AD3** - blank.

2.06 **CALLDATA** - Call Data

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

SD1/SD2/SD3 - Subsequent Digit (1 to 16383).

SDX - 1 to 16383 (4E23>).

1DX - 1 to 4095.

2.07 **CALLTYP** - Call Type

Entries: DSN, FHT, GNS, PRT, RDB, SDX (4E23>), 1DX.

2.08 **CHI** - Call Handling Instruction

Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, WACK, WAC2, WSNO.

2.09 **DESEP** - Destination Separation

Entries: blank or 1 to 255.

2.10 **DOM** - Domain

Entries: INTO or INTT.

If DOM is not specified, two output messages are initiated, one listing codes in the INTO domain, and one listing codes in the INTT domain.

2.11 **SC** - Service Category

Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST, UNSP.

2.12 **OPT** - Option

Entries: blank, RECSCHR

RECSCH: used to search recursively for all codes pointed to all embedded calltypes. When RECSCH is specified, the STDP, CALLTYP and CALLDATA keywords must be set. The DOM keyword is otional. SDX, and PRT are the only valid inputs for CALLTYPE. CALLDATA cannot be ranged (4E24R1>).

VER:CODELIST;STDP,OPT RECSCH:CALLTYP SDX, CALLDATA 123!

SAMPLE MESSAGES

```
INPUT:                    VERIFY 13g

     ex. 1    VER:INTLCODE;ALL:DOM INTO,CALLTYP RDB,CALLDATA 1525,DESEP 15!(EOT)

     ex. 2    VER:INTLCODE:CALLTYP 1DX,CALLDATA 175!(EOT)

     ex. 3    VER:INTLCODE:DOM INTT,CALLTYP GNS!(EOT)


OUTPUT:                   VERIFY 3n
                          VERIFY 3ay                                          *
                          VERIFY 3bc                                          |

                     VER:CODEGRP;LIST(OPT,INTL)
                     VER:CODEGRP;LIST;OPT(STDP)                               |
                     VER:CODEGRP;LIST;OPT(INTL-RECSCH)                        |
```

ODA INPUT SOURCE - ESS 403G/403K/403L/403M/403N

RECENT CHANGE INPUT SOURCE - VARIOUS RC:CODEGRP

VER:CCDADC:CCD a!(EOT)

VERIFY INPUT #13j - REQUEST VERIFICATION OF OVERLAP SIGNALING ACCEPTABLE DIGIT COUNT

1. GENERAL

1.01 This verify message allows verification of the acceptable digit count used by CCITT7 Overlap Signaling for a given input country code.

2. MESSAGE ENTRIES

2.01 VER:CCDADC:CCD a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **CCD** - Country Code
Entries: 0 to 999.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                          VERIFY 13j

     ex. 1    VER:CCDADC:CCD 0!(EOT)

     ex. 2    VER:CCDADC:CCD 50-55!(EOT)

     ex. 3    VER:CCDADC:CCD (20,99,990-999)!(EOT)



OUTPUT                          VERIFY 3p

                          VER:CODEGRP;OPT(CCDADC)
```

ODA INPUT SOURCE - ESS 403Q

RECENT CHANGE INPUT SOURCE - FORM #312

SAMPLE MESSAGES

VER:CODEGRP:YCODE!(EOT)

VERIFY INPUT #13k - REQUEST VERIFICATION OF OOY DIGIT TRANSLATOR

1. GENERAL

1.01 This codegroup verify message requests the verification of the treatment given to the OOY digits.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP:YCODE!(EOT)
No further input is required.

```
INPUT:                    VERIFY 13k

                  VER:CODEGRP:YCODE!(EOT)
```

```
OUTPUT:                   VERIFY 3x

                  VER:CODEGRP;OPT(YCODE)
```

ODA INPUT SOURCE - ESS 403X

RECENT CHANGE INPUT SOURCE - FORM # 331

SAMPLE MESSAGES

VER:CODEGRP:PRTI a!(EOT)

VERIFY INPUT #13l - REQUEST VERIFICATION OF PROPORTIONAL ROUTING

1. GENERAL

1.01 This codegroup verify message requests the verification of a proportional routing block.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP:PRTI a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **PRTI** - Proportional Routing Index
Entries: 0 to 127.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 13l

                  VER:CODEGRP:PRTI a!(EOT)


OUTPUT:                   VERIFY 3y

                  VER:CODEGRP;OPT(PRT)
```

ODA INPUT SOURCE - ESS 403H

RECENT CHANGE INPUT SOURCE - FORM #332

SAMPLE MESSAGES

VER:SDLIST:CALLTYPa[,CALLDATAb][,AD1c][,AD2d][,AD3e][,SCf][,CHIg][,DESEPh][,DNSTi]!(EOT)
VERIFY INPUT #13m - SUBSEQUENT DIGIT ROUTING LIST MESSAGE

1. GENERAL

1.01 This message is used to request the output of subsequent digit indexes that contain a specified treatment.

2. MESSAGE ENTRIES

2.01 VER:SDLIST . . .

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **AD1** - Additional Data 1
Entries: blank, NONE,
Go/NoGo (G,N),
LATA (000 to 999),
NDBI (1 to 1023),
SAPN (0 to 63),
SFAI (0,...6(39,4E23>),
TOS (0 to 31),
SDTYPE (RSI,MTS,DC,DRTC,GSDN,
TPC,SDN,IPR,CSRT,FPR,
V31K),
DOM1 - (HNPA,IT,20-83,DED,DEV,
INCD,IVT,APN,NH0C,NH1C),
DOM2 - (INTO,IO56,IO64,IOH0),
DOM3 - (HNPA,IT,20-83,DED,DEV,
INCD,I56D,I64C,IVT,APN,
N64C,N64R,NH0C,NH1C),

2.03 **AD2** - Additional Data 2
Entries: blank, CID 0000 to 9999 (4E18>), CTR (4E24R2>), GNSC (0 to 3), RIO N or Y (4E24>), STATE ((<4E21) two alphabetic characters).

2.04 **AD3** - blank.

2.05 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167,

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 000 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E223>).

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND, SFA (4E22R4>).

TEL - 12 digit value.

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.06 **CALLTYP** - Call Type
Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>), SSP, TEL, TST, TTS.

2.07 **CHI** - Call Handling Instruction
Entries: blank, AAT2, ABBB, ABLK, ACD, EAAR, EGRH, ESD2, ESSD, FGB, IBBB, IBLK, ICDR, IEA, MSC1, MSC2, ND, NDB, NDBB, NONE, WACK, WAC2, WSNO.

2.08 **DESEP** - Destination Separation
Entries: blank or 1 to 255.

2.09 **DNST** - Dialed Number Service Type
Entries: blank, UNAS, D900, DSD800, HC800, I800, INWATS, MQ, NETS, TC, SP1-SP7 (<4E19), SP8-SP23 (4E18 and 4E19), DNST1-DNST23 (4E20>), and DNST24-DNST55 (4E22>).

2.10 **SC** - Service Category

Entries: blank, ALAP, ATAP, CANP, CARP, CUSP, CUTP, DA, DLT, DSD, EASC, HAWP, ICIN, INCN, INCO, INET, INW, IOP, LDA, MCPP, MSC1...MSC4, MULT, NWZ1, RSYS, SC1...SC36, SDN, SDND, SPDI, SSP, TC, TST, UNSP.

```
INPUT:                    VERIFY 13m

     ex. 1    VER:SDLIST:CALLTYP PRT!(EOT)

     ex. 2    VER:SDLIST:CALLTYP RDB,CALLDATA 40!(EOT)

     ex. 3    VER:SDLIST:CALLTYP SDX,CALLDATA 2!(EOT)

     ex. 4    VER:SDLIST:CALLTYP GNS,CALLDATA 7,AD1 G,AD2 3!(EOT)

     ex. 5    VER:SDLIST:CALLTYP SDX,CALLDATA 8000,AD1 TPC!(EOT)


OUTPUT:                   VERIFY 3z

              VER:CODEGRP;LIST;OPT(SDX):
```

ODA INPUT SOURCE - ESS 403G

RECENT CHANGE INPUT SOURCE - FORM # 304/305

VER:EA;FUNC:IIDIGITS a!(EOT)
VER:EA;FUNC:OLI a!(EOT)

VERIFY INPUT #13n - REQUEST VERIFICATION OF II DIGIT OR OLI TRANSLATOR

1. GENERAL

1.01 This codegroup verify message, available with 4E14 and later Generic Programs, requests the verification of the equal access II digits translator or the OLI translator.

2. MESSAGE ENTRIES

2.01 VER:EA;FUNC:IIDIGITS a!(EOT)
VER:EA;FUNC:OLI a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **IIDIGITS** - II Digits
Entries: 00 to 99.

2.03 **OLIVALUE** - OLI Value
Entries: 0 to 255.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 13n

                  VER:EA;FUNC:IIDIGITS a!(EOT)


OUTPUT:                   VERIFY 3af

                  VER:EA;OPT(FUNC,IIDIGITS)



INPUT:                    VERIFY 13n

                   VER:EA;FUNC:OLI a!(EOT)


OUTPUT:                   VERIFY 3ag

                    VER:EA;OPT(FUNC,OLI)
```

ODA INPUT SOURCE - ESS 403T

RECENT CHANGE INPUT SOURCE - FORM #334

VER:EA:NX a!(EOT)
VER:EA:ZZ a!(EOT)

VERIFY INPUT #13o - REQUEST VERIFICATION OF NX OR ZZ TO TNS TRANSLATOR

1. GENERAL

1.01 This codegroup verify message requests the verification of the MF equal access NX or ZZ digits to the TNS index for ISUP.

2. MESSAGE ENTRIES

2.01 VER:EA:NX a!(EOT)
VER:EA:ZZ a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **NX** - NX Equal Access Digits
Entries: 00 to 99.

2.03 **ZZ** - ZZ Equal Access Digits
Entries: 00 to 99.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 13o

                      VER:EA:NX a!(EOT)
                      VER:EA:ZZ a!(EOT)


OUTPUT:                   VERIFY 3ad

                     VER:EA;OPT(NX)
                     VER:EA;OPT(ZZ)
```

ODA INPUT SOURCE - ESS 403Y

RECENT CHANGE INPUT SOURCE - FORM #335

VER:EA;CONV:IIDIGITS a!(EOT)
VER:EA;CONV:OLI a!(EOT)

VERIFY INPUT #13p - REQUEST VERIFICATION OF II OR OLI

1. GENERAL

1.01 This codegroup verify message requests the verification of the II and OLI conversion translator information.

2. MESSAGE ENTRIES

2.01 VER:EA;CONV:IIDIGITS a!(EOT)
VER:EA;CONV:OLI a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **II** - II Digits
Entries: 00 to 99.

2.03 **OLI** - Originating Line Identifier
Entries: 0 to 255.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 13p

                  VER:EA;CONV:IIDIGITS a!(EOT)
                  VER:EA;CONV:OLI a!(EOT)


OUTPUT:                   VERIFY 3ae

                      VER:EA;OPT(CONV)
```

ODA INPUT SOURCE - ESS 403Z

RECENT CHANGE INPUT SOURCE - FORM #336

VER:EA:SII a!(EOT)

VERIFY INPUT #13q - REQUEST VERIFICATION OF SII RELATED INFORMATION

1. GENERAL

1.01 This verify input message requests the verification of the Service Identity Index information used when the switch is serving as the terminating toll switch. The output information consists of the OLI value, if any, the billing number and calling party number handling, and SID/ANI increment message handling.

2. MESSAGE ENTRIES

2.01 VER:EA:SII a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **SII** - Service Identity Index
Entries: 0 to 255.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 13q

                        VER:EA:SII a!(EOT)


OUTPUT:                   VERIFY 3ah

                         VER:EA;OPT(SII)
```

ODA INPUT SOURCE - ESS 403R

RECENT CHANGE INPUT SOURCE - FORM #338

VER:CODEGRP:LISTEAR! (EOT)
VER:CODEGRP:EAR a! (EOT)

VERIFY INPUT #13r - REQUEST VERIFICATION OF THE EMERGENCY ALTERNATE ROUTING DATABASE

1. GENERAL

1.01 This message, available with 4E17 and later Generic Programs, is used to request either all customers with the seven or ten digit primary number inputed and its status (active or inactive) or list all customers and their status (active or inactive).

2. MESSAGE ENTRIES

2.01 VER:CODEGRP:LISTEAR!(EOT)
VER:CODEGRP:EAR a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **EAR** - Emergency Alternate Reroute
Entries: 7 or 10 digits.

```
INPUT:                    VERIFY 13r

        Ex. 1     VER:CODEGRP:EAR 3018472291!(EOT)

        Ex. 2     VER:CODEGRP:EAR 3018472!(EOT)

        Ex. 3     VER:CODEGRP:LISTEAR!(EOT)


OUTPUT:                   VERIFY 3q

                     VER:CODEGRP:OPT(EAR)
```

ODA INPUT SOURCE - ESS 4031

RECENT CHANGE INPUT SOURCE - FORM # 341/342

VER:CODEGRP:TYPE a!(EOT)

VERIFY INPUT #13s - REQUEST VERIFICATION DOMAIN TYPE INFORMATION

1. GENERAL

1.01 This message requests the verification of the domain type information.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP:TYPE a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **DOMTYP** - Domain Type
Entries: FCID, SDAC or TDAC.

```
INPUT:                    VERIFY 13s

          ex. 1    VER:CODEGRP:TYPE FCID!(EOT)


OUTPUT:                   VERIFY 3ai

                   VER:CODEGRP;OPT(TYPE)
```

ODA INPUT SOURCE - ESS 4030

RECENT CHANGE INPUT SOURCE - FORM #344

VER:AIN:LIST a! (EOT)

VERIFY INPUT #13t - REQUEST VERIFICATION OF AIN TRIGGERS

1. GENERAL

1.01 This codegroup verify message allows verification of the translation data associated with an Advanced Intelligent Network (AIN) Triggers.

2. MESSAGE ENTRIES

2.01 VER:AIN . . .

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **LIST** - AIN Trigger Numbers

Entries: 1 to 8191. For the LIST field a range and/or list may be verified. A range is specified by inserting a dash between the lowest and highest numbered code in the range, e.g., VER:AIN:LIST 721-730!(EOT). A list can be entered by separating each trigger and/or range of triggers with a comma and enclosing the entire group in parenthesis, e.g., VER:AIN:LIST (76,80-90)!(EOT).

```
INPUT:                    VERIFY 13t

     ex. 1    VER:AIN:LIST 200-999!(EOT)

     ex. 2    VER:AIN:LIST (721,724,823,921)!(EOT)

     ex. 3    VER:AIN:LIST (824-827,933)!(EOT)

     ex. 4    VER:AIN:LIST 823!(EOT)

OUTPUT:                   VERIFY 3aj

                        VER:AIN;OPT(LIST)
```

ODA INPUT SOURCE - ESS 4033

RECENT CHANGE INPUT SOURCE - FORM # 345

VER:RTGLIST;STDP,OPT a:CALLTYP b[,CALLDATA c]!(EOT)

VERIFY INPUT #13w - ROUTING TABLE LIST INPUT MESSAGE

1. GENERAL

1.01 This message is used to request Verify to list the indexes of a given type of routing table (MCT, MRT, or PRT) that contain specific Calltype and Calldata (optional) information.

2. MESSAGE ENTRIES

2.01 VER:RTGLIST. . .

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. Items enclosed in brackets [] are optional. Items not enclosed in brackets are required input. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items. The items are listed in alphabetical order.

2.02 **CALLDATA** - Call Data

CRB - 1 to 32767.

DSD - ARA, DSD1-DSD10, IN10, IQ10, RDOM, SDN7, SD10, SQ7, SQ10.

DSN - 1 to 167.

DUP - 12 digit value.

EAR - RDBI.

FHT - AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

GNS - RDBI.

INW - blank or 0 to 999.

IRA - EASXP, EASIN, TRDIN, TRD81, RTRIN, D2RIN, RTRDOM, D3RDOM.

LSI - ((<4E21) APN or NANP).

MCT - Multiple Carrier Index (1 to 255, 1 to 1023 (4E23>)).

MMT -RDBI.

MRT - Multiple Routing Index (1 to 8191).

NVD - National Vendor ID (0 to 127).

PAS - 12 digit value.

PRT - Proportional Routing Index (1 to 127).

RDB - 1 to 8191.

RNR - RDBI.

SD1/SD2/SD3 - 1 to 16383.

SDX - 1 to 16383 (4E23>)

SSP - ACPN (4E18>), AIIO (4E18>), DB, DB7, DB00Y, DBCOIN, EASDNA, EASEQ, NCP12, NDB, RT, RT00Y, RTCOIN, RTP, SIAQ (4E18>), SICQ (4E18>), TNSND.

TEL - 12 digit value

TST - 100, 101, 102, 103, 104, 105, 108, 109, DLC, SYN.

TTS - Terminating Toll Switch Index.

2.03 **CALLTYP** - Call Type

Entries: CRB, DSD, DSN, EAR, FHT, GNS, INW, IRA, LSI, MCT, MMT, MRT, NVD, PAS, PRT, RDB, RNR, SD1, SD2, SD3, SDX (4E23>), SSP, TEL, TST, TTS.

2.04 **OPT** - Option

Entries: MCT, MRT, PRT.

INPUT: VERIFY 13w

EX. 1: VER:RTGLIST;STDP,OPT PRT:CALLTYP RDB!(EOT)

EX. 2: VER:RTGLIST;STDP,OPT PRT:CALLTYP RDB,CALLDATA 123!(EOT)

EX. 3: VER:RTGLIST;STDP,OPT MRT:CALLTYP RDB!(EOT)

EX. 4: VER:RTGLIST;STDP,OPT MRT:CALLTYP PRT,CALLDATA 25!(EOT)

EX. 5: VER:RTGLIST;STDP,OPT MCT:CALLTYP DSN!(EOT)

EX. 6: VER:RTGLIST;STDP,OPT MCT:CALLTYP MRT,CALLDATA 6042!(EOT)

OUTPUT: VERIFY 3an

VER:RTGLIST;OPT(MCT/MRT/PRT):

ODA INPUT SOURCE - 403H
RECENT CHANGE INPUT SOURCE - 321,322,332,33,339,340

SAMPLE MESSAGES

VERIFY ROUTING TABLE LIST INPUT MESSAGE

VER:CODEGRP;OPT LNP:ABC a,DEF b!(EOT)

VERIFY INPUT #13av - REQUEST VERIFICATION OF THE LNP 6-DIGIT TYPE TRANSLATOR

1. GENERAL

1.01 This message requests the verification of the Local Number Portability (LNP) 6-digit type translator. The LNP 6-digit type translator is used to determine if a code is open to Local Number Portability.

2. MESSAGE ENTRIES

2.01 VER:CODEGRP;OPT LNP:ABC a,DEF b!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **ABC** - 3 Digit (NPA) codes
Entries: 200 to 999.

2.03 **DEF** - Three Digits
Entries: 000 to 999.

For the DEF field a range and/or list may be verified for the second group of digits. A range is specified by inserting a dash between the lowest and highest numbered code in the range, e.g., VER:CODEGRP;OPT LNP:ABC 904, DEF 721-730!(EOT). A list can be entered by separating each code and/or range of codes with a comma and enclosing the entire group in parenthesis, e.g., VER:CODEGRP;OPT LNP:ABC 214, DEF (760, 800-900)!(EOT).

```
INPUT:                    VERIFY 13av

     ex. 1    VER:CODEGRP;OPT LNP:ABC 708,DEF 979!(EOT)

     ex. 2    VER:CODEGRP;OPT LNP:ABC 708,DEF (355,979)!(EOT)

     ex. 3    VER:CODEGRP;OPT LNP:ABC 708,DEF 355-979!(EOT)

     ex. 4    VER:CODEGRP;OPT LNP:ABC 312,DEF (302,335,355-979)!(EOT)

     ex. 5    VER:CODEGRP;OPT LNP:ABC 312,DEF 000-999!(EOT)



OUTPUT:                   VERIFY 3av

                       VER:CODEGRP;OPT(LNP)

                RECENT CHANGE INPUT SOURCE - FORM #347
```

VER:EA:OPT DFI!(EOT)

VERIFY INPUT #13ba - REQUEST VERIFICATION OF FORWARDING II DEFAULTS

1. GENERAL

1.01 This codegroup verify message, available with 4E24R1 and later Generic Programs, requests the verification of the default II digits that are to be forwarded to an IXC if Flexible ANI/II restrictions apply. The II digits are two information digits which precede the ANI (if the ANI option is chosen).

Note: the II defaults can only be provisioned or verified if the Tandem Flexible ANI/II Digit Restriction feature has been purchased.

2. MESSAGE ENTRIES

2.01 VER:EA:OPT DFI!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **DFI -** Displays all Default II Digits

```
INPUT:                    VERIFY 13ba

                        VER:EA:OPT DFI!(EOT)


OUTPUT:                   VERIFY 3ba

                         VER:EA;OPT(DFI)
```

RECENT CHANGE INPUT SOURCE - FORM #349 & FORM #811

VER:EA:OPT DFO!(EOT)

VERIFY INPUT #13bb - REQUEST VERIFICATION OF THE FORWARDING OLI DEFAULTS

1. GENERAL

1.01 This codegroup verify message, available with 4E24R1 and later Generic Programs, requests the verification of the default OLI values that are to be forwarded to an IXC if Flexible ANI/II restrictions apply. The OLI parameter is part of the ISUP signaling message.

Note: the OLI defaults can only be provisioned or verified if the Tandem Flexible ANI/II Digit Restriction feature has been purchased.

2. MESSAGE ENTRIES

VER:EA:OPT DFO!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.01 **DFO** - Displays all Default OLI Values

```
INPUT:                    VERIFY 13bb

                        VER:EA:OPT DFO!(EOT)


OUTPUT:                   VERIFY 3bb

                         VER:EA;OPT(DFO)
```

RECENT CHANGE INPUT SOURCE - FORM #349 & FORM #811

VER:EA;OPT IPPD!(EOT)

VERIFY INPUT #13bf - REQUEST VERIFICATION OF II PAYPHONE DESIGNATIONS

1. GENERAL

1.01 This codegroup verify message, available with 4E24R3 and later Generic Programs, requests the verification of the PayPhone Designation per II digits. The II digits are two information digits which precede the ANI (if the ANI option is chosen).

Note: the II PayPhone Designations can only be provisioned or verified if the LEC Flexible ANI/II 800 to POTS feature has been purchased.

2. MESSAGE ENTRIES

2.01 VER:EA;OPT IPPD!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **IPPD** - Displays all II PayPhone Designations

```
INPUT:                    VERIFY 13bf

                      VER:EA;OPT IPPD!(EOT)


OUTPUT:                   VERIFY 3bf

                      VER:EA;OPT(IPPD)
```

RECENT CHANGE INPUT SOURCE - FORM #811

VER:EA;OPT OPPD!(EOT)

VERIFY INPUT #13bg - REQUEST VERIFICATION OF OLI PAYPHONE DESIGNATIONS

1. GENERAL

1.01 This codegroup verify message, available with 4E24R3 and later Generic Programs, requests the verification of the OLI PayPhone Designations. The OLI parameter is part of the ISUP signaling message.

Note: the OLI PayPhone Designations can only be provisioned or verified if the LEC Flexible ANI/II 800 to POTS feature has been purchased.

2. MESSAGE ENTRIES

2.01 VER:EA;OPT OPPD!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **OPPD** - Displays all OLI PayPhone Designations

```
INPUT:                    VERIFY 13bg

                        VER:EA;OPT OPPD!(EOT)


OUTPUT:                   VERIFY 3bg

                        VER:EA;OPT(OPPD)
```

RECENT CHANGE INPUT SOURCE - FORM #811

SECTION 14 - INPUT VERIFY REQUESTS

CENTRALIZED AUTOMATIC MESSAGE ACCOUNTING SCREENING

SECTION	MESSAGES	
14a	Input 14a	Request verification of CAMA office codes allowed to originate on the specified trunk group.
14b	Input 14b	Request verification of the termination office code portion of the local call intercept blocking pattern.
14c	Input 14c	Request verification of all area codes or terminating office codes that are unauthorized for CAMA.
14d	Input 14d	Request verification of the terminating NPAs associated with a particular CAMA profile (OLCIGI).

VER:CAMASCRN:TG a! (EOT)

VERIFY INPUT #14a
REQUEST VERIFICATION OF CAMA OFFICE CODES
ALLOWED TO ORIGINATE ON THE SPECIFIED TRUNK GROUP

1. GENERAL

1.01 This message requests the verification of all valid CAMA originating office codes that may be received via the specified Trunk Group. The fields in the input message have variable entries to specify the desired output. The CIN of the Trunk Group on which verification is desired is entered in the TG field. The output message lists all valid CAMA office codes.

2. MESSAGE ENTRIES

2.01 VER:CAMASCRN:TG a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 TG a - This field contains the Circuit Identification Name (CIN) of the Trunk Group for which verification is requested. The following identifiers specify the information required:

TOWN - This designation if a four character alphabetic combination that identifies the town or city for the far end of the Trunk Group and it must be present in the input message.

ST - The ST field is a two character alphabetic combination that identifies the state for the far end of the Trunk Group. The state is not required on the input message if the CIN is unique without it.

BL - Building - This a two character alphanumeric building designation for the far end of the Trunk Group and it must always be present in the input message.

FBS - Far building subdivision - This field requires a three character alphanumeric code for the far end building subdivision. This entry is not required if the CIN is unique without it. However, if NBS is required this field must be completed.

NBS - Near building subdivision - This field is optional. NBS is a three digit alphanumeric code for the near building subdivision. The NBS is not required if the CIN is unique without it.

```
INPUT:                    VERIFY 14a

          ex. 1   VER:CAMASCRN:TG STLSMO0914T57T!(EOT)

          ex. 2   VER:CAMASCRN:TG KSCYMO0914T57T!(EOT)

          ex. 3   VER:CAMASCRN:TG ANHMCA0128T!(EOT)
                  (Abbreviated)

          ex. 4   VER:CAMASCRN:TG ANHM01!(EOT)


OUTPUT:                   VERIFY 4a

                  VER:CAMASCRN;OPT(00FCG),---.
```

ODA INPUT SOURCE - FORM ESS 404A

RECENT CHANGE INPUT SOURCE - FORM #400

VER:CAMASCRN:OLCIGI a,TNPA b!(EOT)

VERIFY INPUT #14b
REQUEST VERIFICATION OF THE TERMINATING OFFICE CODE PORTION OF THE LOCAL CALL INTERCEPT BLOCKING PATTERN

1. GENERAL

1.01 This message requests the verification of all of the terminating office codes in the specified Terminating Numbering Plan Area (TNPA) that are blocked by the local call intercept (LCI) blocking pattern for CAMA calls. These blocked codes prevent local calls from being processed over the toll network via CAMA trunks (ANI or ONI).

2. MESSAGE ENTRIES

2.01 VER:CAMASCRN:OLCIGI a,TNPA b!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 OLCIGI a, - The originating local call intercept group index is entered in this field. It is a number from 2 to 255. This index points to a group of terminating office codes for a Local Call Intercept (LCI) blocking pattern.

2.03 TNPA b - This field identifies the area code associated with the terminating office codes listed on this form.

INPUT: VERIFY 14b

ex. 1 VER:CAMASCRN:OLCIGI 110,TNPA 312!(EOT)

ex. 2 VER:CAMASCRN:OLCIGI 5,TNPA 312!(EOT)

OUTPUT: VERIFY 4b

VER:CAMASCRN;OPT(LCIBPAT),_ _ _:

ODA INPUT SOURCE - FORM ESS 404B

RECENT CHANGE INPUT SOURCE - FORM #402

VER:CAMASCRN:a!(EOT)

VERIFY INPUT #14c
REQUEST VERIFICATION OF ALL AREA CODES
OR TERMINATING OFFICE CODES THAT ARE UNAUTHORIZED FOR CAMA

1. GENERAL

1.01 This message requests verification of the list of area codes (UNAREA) or the list of terminating office codes (UNAOFC) that are unauthorized for CAMA processing. The input message has variable entries to specify the desired output content and format. The output messages list either all unauthorized area codes or all unauthorized office codes for CAMA.

2. MESSAGE ENTRIES

2.01 VER:CAMASCRN:a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 a - This field contains the identifier which specifies the type of codes to be verified.

UNAREA - This identifier requests the verification of the list of area codes that are unauthorized for CAMA.

UNAOFC - This identifier requests verification of the list of office codes (Terminating) that are unauthorized for CAMA.

```
INPUT:                      VERIFY 14c

          ex. 1      VER:CAMASCRN:UNAREA!(EOT)

          ex. 2      VER:CAMASCRN:UNAOFC!(EOT)


OUTPUT:                     VERIFY 4c/4d

                VER:CAMASCRN;OPT(UNAREA/UNAOFC)_ _ _:
```

ODA INPUT SOURCE - FORM ESS 404C/404D

RECENT CHANGE INPUT SOURCE - FORM #403/404

VER:CAMASCRN:OLCIGI a!(EOT)

VERIFY INPUT #14d
REQUEST VERIFICATION OF THE TERMINATING NPAs ASSOCIATED WITH A PARTICULAR CAMA PROFILE (OLCIGI)

1. GENERAL

1.01 This message requests the verification of a list of all terminating NPAs that are associated with a particular Originating Local Call Intercept Group Index (OLCIGI). The local call intercept pattern for a CAMA trunk is commonly known as a CAMA profile. The fields in this input message have variable entries to specify the type and format of the output and the OLCIGI number. The output message lists the terminating NPAs for each OLCIGI specified on the input message.

2. MESSAGE ENTRIES

2.01 VER:CAMASCRN:OLCIGI a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 OLCIGI a!(EOT) - This field specifies the OLCIGI number or numbers. A block of entries or a series of entries may be made in this field. A block of indexes is specified by inserting a dash between the lowest and highest numbered index in the block. For example OLCIGI 16 through 27 is coded as ...OLCIGI (16-27)! (EOT). A series of indexes can be shown by separating the index or block of indexes by a comma and enclosing the entire group in parenthesis. A typical series of indexes might look like this ...OLCIGI(15, 25-30, 72, 110, 210-220)!(EOT). The OLCIGI range is from 1 to 255.

```
INPUT:                      VERIFY 14d

          ex. 1     VER:CAMASCRN:OLCIGI 121!(EOT)

          ex. 2     VER:CAMASCRN:OLCIGI (17-27)!(EOT)

          ex. 3     VER:CAMASCRN:OLCIGI (3,7,15)!(EOT)

          ex. 4     VER:CAMASCRN:OLCIGI (8,16,22-32,38)!(EOT)


OUTPUT:                     VERIFY 4e

                    VER:CAMASCRN;OPT(OLCIGI),_ _ _:
```

ODA INPUT SOURCE - FORM ESS 404A/B

RECENT CHANGE INPUT SOURCE - #400/401/402

SAMPLE MESSAGES

SECTION 15 - INPUT VERIFY REQUESTS

ROUTING DATA BLOCKS

SECTION	MESSAGE	
15a	Input 15a	Request verification of Routing Data Block translations
15b	Input 15b	Request verification of all RDBs which contain the specified TSG
15c	Input 15c	Request verification of a Terminating Toll Switch
15d	Input 15d	Request verification of a Terminating Toll Switch Name
15e	Input 15e	Request verification of all Terminating Toll Switches which route to a specified Routing Data Block
15f	Input 15f	Request verification of all Routing Data Blocks that point to a specific ABC Prefix Digits, Final Handling Treatment, or Terminating Toll Switch Index
15g	Input 15g	Request verification of Number Services Routing Data Blocks
15h	Input 15h	Request verification of all Number Services Routing Data Blocks which route to a specified RDB

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

VER:RDB:RDBI a[,UNA]!(EOT)

VERIFY INPUT #15a - REQUEST VERIFICATION OF ROUTING DATA BLOCK TRANSLATIONS

1. GENERAL

1.01 This message requests verification of Routing Data Block (RDB) translation information. The input specifies the index of the RDB being verified.

2. MESSAGE ENTRIES

2.01 VER:RDB:RDBI a[,UNA]!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

When the UNA option is used, the output message will list only the RDBs that are unassigned for the RDBs queried.

INPUT: VERIFY 15a

ex. 1 VER:RDB:RDBI 6!(EOT)

ex. 2 VER:RDB:RDBI 2-16!(EOT)

ex. 3 VER:RDB:RDBI (7,14,18-44,49)!(EOT)

ex. 4 VER:RDB:RDBI (20-256),UNA!(EOT)

OUTPUT: VERIFY 5a/5d/5e

VER:RDB,OPT(INCHAIN/INTL/UNA)

ODA INPUT SOURCE - ESS 405B/405E

RECENT CHANGE INPUT SOURCE - FORM # 500/503/505/508/510/513/514/517/519

SAMPLE MESSAGES

VER:RDBLIST[;a]:TSG b!(EOT)

VERIFY INPUT #15b - REQUEST VERIFICATION OF ALL RDBs WHICH CONTAIN THE SPECIFIED TSG

1. GENERAL

1.01 This message requests the verification of all Routing Data Blocks that contain the Trunk Subgroup specified in the input message.

2. MESSAGE ENTRIES

2.01 VER:RDBLIST[;a]:TSG b!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **a**

Entries: STD or ALL.

STD - Standard will list only those RDBs which contain the TSG as the first route.

ALL - Will list all RDBs which contain the TSG.

If neither is specified, the message will default to standard (STD).

2.03 **TSG b**

— BTFN = 0 to 9976.

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— NBS = alphanumeric.

INPUT: VERIFY 15b

ex. 1 VER:RDBLIST:TSG 301STLSMO0914T57T!(EOT)

ex. 2 VER:RDBLIST:TSG 20ALBQNMMA01T!(EOT)

ex. 3 VER:RDBLIST;ALL:TSG 301STLSMO0914T57T!(EOT)

ex. 4 VER:RDBLIST;STD:TSG 301STLSMO0914T57T!(EOT)

OUTPUT: VERIFY 5f

VER:RDB;OPT(LIST):

ODA INPUT SOURCE - ESS 405B

RECENT CHANGE INPUT SOURCE - FORM # 500-510

OUTPUT: VERIFY 5g

VER:RDB;OPT(LIST):

ODA INPUT SOURCE - ESS 405E

RECENT CHANGE INPUT SOURCE - FORM # 517/519

VER:TTS:TTSI a!(EOT)

VERIFY INPUT #15c - REQUEST VERIFICATION OF A TERMINATING TOLL SWITCH

1. GENERAL

1.01 This message requests verification of Terminating Toll Switch (TTS) translation information. The input specifies the TTS Index. Output data includes the TTSNAME of the TTS, and the RDBIs for every Load Set Period (LSP) in both forecast periods.

2. MESSAGE ENTRIES

2.01 VER:TTS:TTSI a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **TTSI** - Terminating Toll Switch Index
Entries: 1 to 31 (4E18>).

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

INPUT: VERIFY 15c

ex. 1 VER:TTS:TTSI 227!(EOT)

ex. 2 VER:TTS:TTSI 1-20!(EOT)

ex. 3 VER:TTS:TTSI (32,56,108)!(EOT)

ex. 4 VER:TTS:TTSI (114,116,201-255)!(EOT)

OUTPUT: VERIFY 5h

VER:TTS;OPT(TTSI):

ODA INPUT SOURCE - ESS 405G

RECENT CHANGE INPUT SOURCE - FORM # 521/522/523

SAMPLE MESSAGES

VER:TTS:TTSNAME a!(EOT)

VERIFY INPUT #15d - REQUEST VERIFICATION OF TTSNAME

1. GENERAL

1.01 This message requests verification of translation data of all Terminating Toll Switches whose TTSNAME all have the same Common Language Location Identifier (CLLI). The input specifies the Terminating Toll Switch Name. The output data includes the TTSNAME of the TTS and the indexes in ascending order.

2. MESSAGE ENTRIES

2.01 VER:TTS:TTSNAME a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **TTSNAME** - Terminating Toll Switch Name

— TOWN = alphabetic.

— ST = alphabetic.

— BL = alphabetic or numeric.

— FBS = alphanumeric.

— TI = alphanumeric.

INPUT: VERIFY 15d

ex. 1 VER:TTS:TTSNAME KSCYMO0914T!(EOT)

OUTPUT: VERIFY 5i

VER:TTS;OPT(TTSNAME):

ODA INPUT SOURCE - ESS 405G

RECENT CHANGE INPUT SOURCE - FORM # 521/522/523

SAMPLE MESSAGES

VER:TTSLIST:RDBI a!(EOT)

VERIFY INPUT #15e - REQUEST VERIFICATION OF ALL TERMINATING TOLL SWITCHES THAT ROUTE TO A SPECIFIC ROUTING DATA BLOCK

1. GENERAL

1.01 This message requests verification of information relating to a specific Routing Data Block Index used in the Dynamic Non-Hierarchical Routing (DNHR) network. All Terminating Toll Switches which route to the same Routing Data Block Index (RDBI) in either the active or standby forecast period are listed.

2. MESSAGE ENTRIES

2.01 VER:TTSLIST:RDBI a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **RDBI -** Routing Data Block Index
Entries: 1 to 8191.

INPUT: VERIFY 15e

ex. 1 VER:TTSLIST;RDBI 6!(EOT)

OUTPUT: VERIFY 5j

VER:TTSLIST;OPT(RDB):

ODA INPUT SOURCE - ESS 405G

RECENT CHANGE INPUT SOURCE - FORM # 521/522/523

SAMPLE MESSAGES

VER:RDBLIST:TTSI a!(EOT)
VER:RDBLIST:[ABC a][FHT b][TTSI c]!(EOT) (4E21R3>)

VERIFY INPUT #15f - REQUEST VERIFICATION OF ALL ROUTING DATA BLOCKS THAT POINT TO A SPECIFIC ABC PREFIX DIGITS, FINAL HANDLING TREATMENT, or TERMINATING TOLL SWITCH INDEX

1. GENERAL

1.01 This message requests verification of translation data of all Routing Data Blocks that contain a routing data word for specific ABC Prefix Digits, Final Handling Treatment, or Terminating Toll Switch Index.

2. MESSAGE ENTRIES

2.01 VER:RDBLIST:TTSI a!(EOT)
VER:RDBLIST:[ABC a][FHT b][TTSI c]!(EOT) (4E21R3>)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items. (4E21R3>) One, and only one of the optional keywords (ABC, FHT, or TSI) must be input.

2.02 **ABC** - First 3 Prefix Digits (4E21R3>)
Entries: 000 to 999.

2.03 **FHT** - Final Handling Treatment (4E21R3>)
Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

2.04 **TTSI** - Terminating Toll Switch Index
Entries: 1 to 31 (4E18>).

INPUT: VERIFY 15f

ex. 1 VER:RDBLIST:TTSI 12!(EOT)

ex. 2 VER:RDBLIST:ABC 406!(EOT) (4E21R3>)

ex. 3 VER:RDBLIST:FHT ROA!(EOT) (4E21R3>)

OUTPUT: VERIFY 5k

ex. 1 VER:RDBLIST;OPT(TTSI):

ex. 2 VER:RDBLIST;OPT(ABC): (4E21R3>)

ex. 3 VER:RDBLIST;OPT(FHT): (4E21R3>)

ODA INPUT SOURCE - ESS 405B

RECENT CHANGE INPUT SOURCE - FORM # 500/503

SAMPLE MESSAGES

VER:NDB:NDBI a!(EOT)

VERIFY INPUT #15g - REQUEST VERIFICATION OF NUMBER SERVICES ROUTING DATA BLOCKS

1. GENERAL

1.01 This message is used to request the system to verify Number Services routing Data Block information.

2. MESSAGE ENTRIES

2.01 VER:NDB:NDBI a!(EOT)

Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard.

2.02 **NDB** - Number Services Routing Data Block
Entries: 1 to 1023.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

INPUT: VERIFY 15g

ex. 1 VER:NDB:NDBI 5!(EOT)

ex. 2 VER:NDB:NDBI 1-4094!(EOT)

ex. 3 VER:NDB:NDBI 120-126!(EOT)

ex. 4 VER:NDB:NDBI (6,12,72)!(EOT)

ex. 5 VER:NDB:NDBI (15,21,25-27,35,44)!(EOT)

ex. 6 VER:NDB:NDBI (1-24,36-42,340-721,1001-4095)!(EOT)

OUTPUT: VERIFY 5l

VER:RDB,OPT(NDB):

ODA INPUT SOURCE - ESS 405H

RECENT CHANGE INPUT SOURCE - FORM # 524/525

SAMPLE MESSAGES

VER:NDB:NDBLIST a!(EOT)

VERIFY INPUT #15h - REQUEST VERIFICATION OF ALL NUMBER SERVICES ROUTING DATA BLOCKS WHICH ROUTE TO THE SPECIFIED RDBI

1. GENERAL

1.01 This message is used to request the system to verify a list of all Number Services routing Data Blocks that route to the specified RDBI.

2. MESSAGE ENTRIES

2.01 VER:NDB:NDBLIST a!(EOT)

2.02 **RDBI** - Routing Data Block Index
Entries: 1 to 8191.

INPUT: VERIFY 15h

VER:NDB:NDBLIST 5!(EOT)

OUTPUT: VERIFY 5m

```
VER:RDB,OPT(NDBLIST):                    RDBI ----,

 NDB      NDB      NDB      NDB

----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
----,    ----,    ----,    ----,
```

ODA INPUT SOURCE - ESS 405H

RECENT CHANGE INPUT SOURCE - FORM # 524/525

SECTION 16 - INPUT VERIFY MESSAGES

MISCELLANEOUS

SECTION	MESSAGE	
16a	Input 16a	Request verification of Dial Up Port Client Descriptors
16b	Input 16b	Request verification of spare memory
16c	Input 16c	Request verification Miscellaneous Scanner Number (MSN) or Miscellaneous Distributor Number (MDN) translator
16d	Input 16d	Verify PAS Announcement
16e	Input 16e	Request verification of PAS with Cut-Through Application
16f	Input 16f	Request verification of PAS with TELEVOTE Application
16g	Input 16g	Request verification of TASI-E Translation
16h	Input 16h	Request verification of DNHR Parameters
16i	Input 16i	Request verification of Incoming and Destination Separation Matrix (IDAM)
16j	Input 16j	Request verification of Cell Grouping Incoming and Destination Separations
16k	Input 16k	Request verification of Incoming Separation List
16l	Input 16l	Request verification of Destination Separation List
16m	Input 16m	Request verification of Far End Network
16n	Input 16n	Request verification of Office Name and Current Generic Program
16o	Input 16o	Request verification of Backup Band Assignments
16p	Input 16p	Request verification of Customer Routing Block Translations
16q	Input 16q	Request verification of all CRBs which contain the specified TAN
16r	Input 16r	Request verification of Customer Data Block
16s	Input 16s	Request verification of all CRBs which contain the specified CDBI
16t	Input 16t	Request verification of Announcement Index Mapping
16u	Input 16u	Request verification of Call Code to Structure Code Set
16v	Input 16v	Request verification of SSP Type of Service

16x	Input 16x	Request verification of LATA/State Screening Areas
16y	Input 16y	Request verification of LATA/State Screening Matrix
16z	Input 16z	Request verification of Service Parameters
16aa	Input 16aa	Request verification of NPA to DPC Table
16ab	Input 16ab	Request verification of Carrier ID to TNS Type
16ac	Input 16ac	Request verification of Network Announcement Table
16ay	Input 16ay	Request verification of SCP Announcement to SCS Announcement Mapping
16ba	Input 16ba	Request verification of Miscellaneous Data
16bu	Input 16bu	Request verification of the 6-Digit NPA-NXX AIN/LNP Assignment Transltor
16cm	Input 16cm	Request verification of the RC Metric Counters
16dg	Input 16dg	Request verification of 10-Digit AIN Triggers
16dp		Reserved for future use

1. General Information

This information applies to all sections within this division.

1.01 The characters > and < are used to indicate which Generic Programs will apply (Ex. 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only).

1.02 The field names of the form entries in each section are listed alphanumerically.

1.03 See Glossary Division 2, Section 6 for the complete description of the form entries.

VER:DIALUP[:CTYPE a][,DUPID b]!(EOT)

VERIFY INPUT #16a - REQUEST VERIFICATION OF DIAL UP PORT CLIENT DESCRIPTORS

1. GENERAL

1.01 This message requests the verification of a Dial Up Port client. The input can define a Client Type (CTYPE) and Dial Up Port identifier (DUPID) or, if not specified, a list of all Dial Up Port clients. The output defines the Dial Up Port clients descriptors.

2. MESSAGE ENTRIES

2.01 VER:DIALUP[:CTYPE a][,DUPID b]!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **CTYPE** - Client Type
Entries: TDAS or TVSP.

2.03 **DUPID** - Dial Up Port Identification
Entries: Two alphanumeric characters

```
INPUT:                    VERIFY 16a

     ex. 1    VER:DIALUP:CTYPE TVSP,DUPID W6!(EOT)

     ex. 2    VER:DIALUP!(EOT)


OUTPUT:                   VERIFY 6a

                       VER:DIALUP; - - -:
```

ODA INPUT SOURCE - ESS 406E

RECENT CHANGE INPUT SOURCE - FORM # 601/602

VER:MEMORY:a!(EOT)

VERIFY INPUT #16b - REQUEST VERIFICATION OF SPARE MEMORY

1. GENERAL

1.01 This message requests verification of the quantity of available spare words in the translations area of memory. Spare memory may be located in core, File Store (FS) or Engineered Memory (EM). One of these locations must be specified on the input message. For core or File Store, the output data lists the starting address and number of 1024 word blocks in a contiguous section of memory. For engineered memory, the output data lists spare and assigned translator indexes, assigned routing domains, available subtranslators, spare Trunk Sub-Group head cell trunk block status, assigned Served NPAs, and the number of nailed-up trunks.

(4E21>) Extended Call Store (Ext_CS) memory is included in the verification. Ext_CS memory is optional memory provided via the 4E21 eXtended Store (XS) feature.

2. MESSAGE ENTRIES

2.01 VER:MEMORY:a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 a

This field specifies the memory area in which the available spare memory is to be verified.

CORE - This identifier specifies the core memory area.

FS - File Store - This identifier specifies the File Store memory area.

EM - Engineered Memory - This identifier requests verification of spare and assigned translations memory items.

```
INPUT:                    VERIFY 16b

                    VER:MEMORY:CORE!(EOT)


OUTPUT:                   VERIFY 6b

                  VER:SPARE_MEMORY,OPT(CORE):



INPUT:                    VERIFY 16b

                     VER:MEMORY:FS!(EOT)


OUTPUT:                   VERIFY 6b

                  VER:SPARE_MEMORY,OPT(DISK):



INPUT:                    VERIFY 16b

                     VER:MEMORY:EM!(EOT)


OUTPUT:                   VERIFY 6c

                     VER:MEMORY:OPT(EM):
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - NONE

SAMPLE MESSAGES

VER:MSN/MDN:SP a,MML b,ROW c,COL d!(EOT)

VERIFY INPUT #16c - REQUEST VERIFICATION OF THE MISCELLANEOUS SCANNER NUMBER (MSN) OR MISCELLANEOUS DISTRIBUTOR NUMBER (MDN) TRANSLATOR

1. GENERAL

1.01 This message is used to request the verification of data in the Miscellaneous Scanner Number (MSN) or Miscellaneous Distributor Number (MDN) translator.

1.02 The Signal Processor (SP) contains miscellaneous scan and signal distributor points which are identified by MSNs and MDNs, respectively. The input for both the MSN and MDN are made up of SP number, Matrix (MML), Row (ROW), and Column (COL).

2. MESSAGE ENTRIES

2.01 VER:MSN/MDN:SP a,MML b,ROW c,
COL d!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **COL** - Column
Entries: 0 to 15.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

2.03 **MML** - Matrix
Entries: 0 or 1.

2.04 **ROW** - Row
Entries: 0 to 63.

2.05 **SP** - Signal Processor
Entries: 0 to 31.

```
INPUT:                    VERIFY 16c

        ex. 1    VER:MSN:SP 16,MML 0,ROW 12,COL 15!(EOT)

        ex. 2    VER:MDN:SP 22,MML 1,ROW 11,COL 0-15!(EOT)


OUTPUT:                   VERIFY 6d

                       VER:MSN/MDN;---:
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM # 801

SAMPLE MESSAGES

VER:PASANN[:VSSID a][,SID b][,MEMN c][,ANNUM d]!(EOT)

VERIFY INPUT #16d - REQUEST VERIFICATION OF PAS ANNOUNCEMENT

1. GENERAL

1.01 This message is used to request the verification of Public Announcement Service (PAS) announcements. The input can define the external identity (VSSID and SID), the internal identity (MEMN and ANNUM or only ANNUM if barge-in), or, if no options are specified, a list of all PAS announcements. The output defines the PAS announcements.

2. MESSAGE ENTRIES

2.01 VER:PASANN[:VSSID a][,SID b]
[,MEMN c][,ANNUM d]!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **ANNUM** - Announcement Number
Entries: 1 to 511.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

2.03 **MEMN** - Member Number (<4E16)
Entries: 0 to 7.

2.04 **SID** - Service Identity
Entries:

SCS - 0000000 to 9990000, 9999901, 9999902.
BI - 9999001 to 9999511, 9999901, 9999902.

2.05 **VSSID** - Voice Storage System Identity
Entries: 0.

2.06 When optional fields are not used, a summary report of all the PAS announcements currently defined in the office will be output. The announcements will be listed in the following order:

Barge-in (by ANNUM)
Non-barge-in (by MEMN and ANNUM).

```
INPUT:                    VERIFY 16d

        ex. 1    VER:PASANN:VSSID 00000,SID 0000022!(EOT)

        ex. 2    VER:PASANN:MEMN 0,ANNUM (3-6,8)!(EOT)

        ex. 3    VER:PASANN:ANNUM 23!(EOT)

        ex. 4    VER:PASANN!(EOT)


OUTPUT:                   VERIFY 6e

                  VER:PASANN(OPT,LIST);

OUTPUT:                   VERIFY 6f

                  VER:PASANN(OPT,ANN);
```

ODA INPUT SOURCE - ESS 408C

RECENT CHANGE INPUT SOURCE - FORM # 604/605

SAMPLE MESSAGES

VER:PASCTHRU:CAPPN a!(EOT)

VERIFY INPUT #16e - REQUEST VERIFICATION OF PAS WITH CUT-THROUGH APPLICATION

1. GENERAL

1.01 This message is used to request the verification of the Public Announcement Service (PAS) with the Cut-Through function. The input specifies the Cut-Through Application Number. Output data lists the Cut-Through Type, External Announcement Identification, Start and Stop Dates and time, Mass Announcement Number, Cut-Through Number, Gap Index, Member Number of the MAS frame and Announcement Number.

2. MESSAGE ENTRIES

2.01 VER:PASCTHRU:CAPPN a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **CAPPN** - Cut-thru Application Number
Entries: 0 to 63.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16e

        ex. 1    VER:PASCTHRU:CAPPN 5!(EOT)

        ex. 2    VER:PASCTHRU:CAPPN 0-7!(EOT)


OUTPUT:                   VERIFY 6g

                       VER:PASCTHRU;---:
```

ODA INPUT SOURCE - ESS 408D

RECENT CHANGE INPUT SOURCE - FORM # 610/611/612

VER:PASTVOTE:[SAPN a][MAPN a]!(EOT)

VERIFY INPUT #16f - REQUEST VERIFICATION OF PAS WITH TELEVOTE

1. GENERAL

1.01 This message is used to request the verification of a Public Announcement Service (PAS) with the TELEVOTE application. The input can define either a Slave Application Number, a Master Application Number, or a range of SAPN's or MAPN's. The output defines each TELEVOTE application for a slave or a master office as applicable. Only the SAPN or MAPN can be used as an input.

2. MESSAGE ENTRIES

2.01 VER:PASTVOTE:[SAPN a][MAPN a]!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **MAPN** - Master Application Number
Entries: 0 to 63.

2.03 **SAPN** - Slave Application Number
Entries: blank or 0 to 63.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16f

        ex. 1    VER:PASTVOTE:SAPN 5!(EOT)

        ex. 2    VER:PASTVOTE:SAPN 0-7!(EOT)


OUTPUT:                   VERIFY 6h

                  VER:PASTVOTE,OPT(SLAVE)


INPUT:                    VERIFY 16f

        ex. 1    VER:PASTVOTE:MAPN 60!(EOT)

        ex. 2    VER:PASTVOTE:MAPN 6-49!(EOT)


OUTPUT:                   VERIFY 6i

                 VER:PASTVOTE,OPT(MASTER)
```

ODA INPUT SOURCE - ESS 408E/408E-1

RECENT CHANGE INPUT SOURCE - FORM # 607/608/609

VER:TASI:FRAME a!(EOT)

VERIFY INPUT #16g - REQUEST VERIFICATION OF THE
TASI-E DYNAMIC LOAD CONTROL TRANSLATOR

1. GENERAL

1.01 This message is used to request the verification of information in the TASI-E Translator. The input message specifies the TASI-E Frame number. The output message includes the clique and associated miscellaneous scan points, and the TSGs assigned to the cliques of a TASI-E Frame.

2. MESSAGE ENTRIES

2.01 VER:TASI:FRAME a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **FRAME** - Time Assignment Speech Interpolation Frame
Entries: 0 to 255.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16g

        ex. 1    VER:TASI:FRAME 6!(EOT)

        ex. 2    VER:TASI:FRAME 20-24!(EOT)

        ex. 3    VER:TASI:FRAME (0,3,48,253)!(EOT)

        ex. 4    VER:TASI:FRAME 0-255!(EOT)


OUTPUT:                   VERIFY 6j

                          VER:TASI
```

ODA INPUT SOURCE - ESS 406I

RECENT CHANGE INPUT SOURCE - FORM # 613/614

SAMPLE MESSAGES

VER:DNHRMISC!(EOT)

VERIFY INPUT #16h - REQUEST VERIFICATION OF DNHR PARAMETERS

1. GENERAL

1.01 This message is used to request the verification of Dynamic Non-Hierarchical Routing Parameters. The output defines the Forecast Period change date and time as well as the Load Set Period assignments.

2. MESSAGE ENTRIES

2.01 VER:DNHRMISC!(EOT)

This message requests verification of DNHR translation parameters. No additional input is required.

```
INPUT:                    VERIFY 16h

                        VER:DNHRMISC!(EOT)


OUTPUT:                   VERIFY 6k

                       VER:DNHRMISC:
```

ODA INPUT SOURCE - ESS 406K

RECENT CHANGE INPUT SOURCE - FORM # 615

VER:IDAM:INSEP a,DESEPR b!(EOT)
VER:IDAM:DESEP a,INSEPR b!(EOT)

VERIFY INPUT #16i - REQUEST VERIFICATION OF INCOMING AND DESTINATION SEPARATION MATRIX

1. GENERAL

1.01 This message is used to request the verification of the Incoming and Destination Separations Matrix. The output defines the Incoming Separation, Destination Separation, and Cell Group.

2. MESSAGE ENTRIES

2.01 VER:IDAM:INSEP a,DESEPR b!(EOT)
VER:IDAM:DESEP a,INSEPR b!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **DESEP** - Destination Separation
Entries: 1 to 255.

2.03 **DESEPR** - Destination Separation Class
Entries: 1 to 255.

2.04 **INSEP** - Incoming Traffic Separation Class
Entries: 0 to 255 (non-AT&T offices) or 0 to 127 (AT&T offices).

2.05 **INSEPR** - Incoming Separation Class
Entries: 0 to 255.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                  VERIFY 16i

        ex. 1    VER:IDAM:INSEP 3,DESEPR 4-35!(EOT)

        ex. 2    VER:IDAM:DESEP 205,INSEPR (2,4,6-10,25-35,55,65)!(EOT)

        ex. 3    VER:IDAM:INSEP 5,DESEPR 7!(EOT)


OUTPUT:                 VERIFY 6l

                        VER:IDAM
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM # 616

SAMPLE MESSAGES

VER:IDAMLIST:CELLGRP a!(EOT)

VERIFY INPUT #16j - REQUEST VERIFICATION OF CELL GROUPING INCOMING AND DESTINATION SEPARATIONS

1. GENERAL

1.01 This message is used to request the verification of the Incoming and Destination Separations Classes for the Cell Group requested.

2. MESSAGE ENTRIES

2.01 VER:IDAMLIST:CELLGRP a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **CELLGRP** - Cell Grouping Index
Entries: 0 to 1023.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16j

        ex. 1    VER:IDAMLIST:CELLGRP 3-35!(EOT)

        ex. 2    VER:IDAMLIST:CELLGRP (1,4,7,9-30,35,37)!(EOT)


OUTPUT:                   VERIFY 6m

                        VER:IDAMLIST:
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM # 616

SAMPLE MESSAGES

VER:INSPLIST:INSEPR a!(EOT)

VERIFY INPUT #16k - REQUEST VERIFICATION OF INCOMING SEPARATION LIST

1. GENERAL

1.01 This message is used to request the verification of the Incoming Separations Class. The output defines the Trunk Subgroup Customer Identification number.

2. MESSAGE ENTRIES

2.01 VER:INSPLIST:INSEPR a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **INSEPR** - Incoming Separation Class
Entries: 0 to 255.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16k

        ex. 1    VER:INSPLIST:INSEPR 3-35!(EOT)

        ex. 2    VER:INSPLIST:INSEPR (1,4,7,9-30,35,37)!(EOT)


OUTPUT:                   VERIFY 6n

                    VER:INSPLIST(OPT,TSG):
```

ODA INPUT SOURCE - ESS 401A/401B

RECENT CHANGE INPUT SOURCE - FORM # 100/101/107/108

VER:DESPLIST:DESEPR a!(EOT)

VERIFY INPUT #16l - REQUEST VERIFICATION OF DESTINATION SEPARATIONS LIST

1. GENERAL

1.01 This message is used to request the verification of a Destination Separations Class.

2. MESSAGE ENTRIES

2.01 VER:DESPLIST:DESEPR a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **DESEPR** - Destination Separation Class
Entries: 1 to 255.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16l

        ex. 1    VER:DESPLIST:DESEPR 177!(EOT)

        ex. 2    VER:DESPLIST:DESEPR 1-28!(EOT)

        ex. 3    VER:DESPLIST:DESEPR (1,6,99,200,255)!(EOT)


OUTPUT:                   VERIFY 6o/6p/6q/6r

                     VER:DESPLIST;OPT(DIG3/6/9/12):
```

ODA INPUT SOURCE - ESS 403D/403E/403F/403V

RECENT CHANGE INPUT SOURCE - FORM # 300/301/302/303/327/328/329/330

VER:FEN:CLASS a[,FID b]!(EOT)

VERIFY INPUT #16m - REQUEST VERIFICATION OF INFORMATION RELATING TO FAR END NETWORKS

1. GENERAL

1.01 This message is used to request the verification of information relating to Far End Networks. For each CLASS-FID combination specified in the input, a separate output message is generated.

2. MESSAGE ENTRIES

2.01 VER:FEN:CLASS a[,FID b]!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **CLASS** - Far End Network Classification

Entries: ACCESA, ACCESI, ACCESO, CAMA, CMC, INTL, OEO (4E21>), OWATS, PBX, or POTS.

2.03 **FID** - Far End Network Identification

Entries: blank or 1 to 6 alphanumeric characters.

If this field is omitted, the characteristics of all FENs corresponding to the particular CLASS will be verified.

```
INPUT:                    VERIFY 16m

        ex. 1    VER:FEN:CLASS ACCESA!(EOT)

        ex. 2    VER:FEN:CLASS ACCESI,FID 018!(EOT)


OUTPUT:                   VERIFY 6s

                          VER:FEN:
```

ODA INPUT SOURCE - ESS 406L

RECENT CHANGE INPUT SOURCE - FORM # 617/618

VER:OFFICE!(EOT)

VERIFY INPUT #16n - REQUEST VERIFICATION OF CURRENT GENERIC PROGRAM AND OFFICE NAME

1. GENERAL

1.01 This message is used to request the verification of the 4 ESS office identity. This message will especially aid the centralized and national Operations Support Systems which may interconnect with many 4 ESS offices. It will allow for determining specifically which office they are dealing with and discern the current office Generic Program. The output message lists the unique CLLI associated with the 4 ESS office, the current Generic Program loaded in the office, and the Origination Point Code of the office.

2. MESSAGE ENTRIES

2.01 VER:OFFICE!(EOT)

The above format represents the entry required to complete this verification request. No additional input is required.

```
INPUT:                    VERIFY 16n

                        VER:OFFICE!(EOT)


OUTPUT:                   VERIFY 6t

                       VER:OFFICE:
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - NONE

SAMPLE MESSAGES

VER:BKBAND:SLCINDX a!(EOT)

VERIFY INPUT #16o - REQUEST VERIFICATION OF BACKUP BAND ASSIGNMENTS

1. GENERAL

1.01 This message is used to request the verification of the backup band assignments relating to any given SLC Index.

2. MESSAGE ENTRIES

2.01 VER:BKBAND:SLCINDX a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **SLCINDX** - Signaling Link Complement Index
Entries: 0 to 255.

```
INPUT:                    VERIFY 16o

        ex. 1    VER:BKBAND:SLCINDX 21!(EOT)


OUTPUT:                   VERIFY 6u

                         VER:BKBAND:
```

ODA INPUT SOURCE - ESS 406G

RECENT CHANGE INPUT SOURCE - FORM # 805/806

VER:CRB:CRBI a!(EOT)

VERIFY INPUT #16p - REQUEST VERIFICATION OF CUSTOMER ROUTING BLOCK TRANSLATIONS

1. GENERAL

1.01 This message is used to request the verification of Customer Routing Block (CRB) translation information.

2. MESSAGE ENTRIES

2.01 VER:CRB:CRBI a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **CRBI** - Customer Routing Block Index
Entries: 1 to 32767.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16p

      ex. 1    VER:CRB:CRBI 19!(EOT)

      ex. 2    VER:CRB:CRBI 99-110!(EOT)

      ex. 3    VER:CRB:CRBI (1-10,14,18,21-25,1000)!(EOT)


OUTPUT:                   VERIFY 6w

                          VER:CRB:
```

ODA INPUT SOURCE - ESS 406N

RECENT CHANGE INPUT SOURCE - FORM # 620

SAMPLE MESSAGES

VER:CRBLIST:TAN a!(EOT)

VERIFY INPUT #16q - REQUEST VERIFICATION OF ALL CRBs
WHICH CONTAIN THE SPECIFIED TAN

1. GENERAL

1.01 This message is used to request the verification of Customer Routing Blocks that contain the TAN specified in the input message.

2. MESSAGE ENTRIES

2.01 VER:CRBLIST:TAN a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **TAN** - Trunk Appearance Number

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 6.

— FTS = 1 to 120.

For D3U Applications (4E21>):

— TSI = 0 to 63.

— SPC = 0 or 1.

— LVL = 0 to 7.

— FTS = 1 to 127 (LVL 0)
0 to 127 (LVL 1 to 6)
0 to 112 (LVL 7)

```
INPUT:                    VERIFY 16q

       ex. 1    VER:CRBLIST:TAN 1106024!(EOT)


OUTPUT:                   VERIFY 6x

                        VER:CRB;OPT(LIST):
```

ODA INPUT SOURCE - ESS 406N

RECENT CHANGE INPUT SOURCE - FORM # 620

VER:CDB:CDBI a!(EOT)

VERIFY INPUT #16r - REQUEST VERIFICATION OF CUSTOMER DATA BLOCK

1. GENERAL

1.01 This message is used to request the verification of Customer Data Block (CDB) information for use with Customer Routing Block translations.

2. MESSAGE ENTRIES

2.01 VER:CDB:CDBI a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **CDBI** - Customer Data Block Index
Entries: 1 to 4095.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16r

      ex. 1    VER:CDB:CDBI 4!(EOT)

      ex. 2    VER:CDB:CDBI 99-100!(EOT)

      ex. 3    VER:CDB:CDBI (1-10,14,18,21-25,1000)!(EOT)

OUTPUT:                   VERIFY 6y

                          VER:CDB:
```

ODA INPUT SOURCE - ESS 406O

RECENT CHANGE INPUT SOURCE - FORM # 622

VER:CRBLIST:CDBI a!(EOT)

VERIFY INPUT #16s - REQUEST VERIFICATION OF ALL CRBs WHICH CONTAIN THE SPECIFIED CDBI

1. GENERAL

1.01 This message is used to request the verification of Customer Routing Blocks that contain the Customer Data Block Index specified in the input message.

2. MESSAGE ENTRIES

2.01 VER:CRBLIST:CDBI a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **CDBI** - Customer Data Block Index
Entries: 1 to 4095.

```
INPUT:                    VERIFY 16s

     ex. 1    VER:CRBLIST:CDBI 20!(EOT)


OUTPUT:                   VERIFY 6z

                        VER:CRB;OPT(CDBI):
```

ODA INPUT SOURCE - ESS 406N

RECENT CHANGE INPUT SOURCE - FORM # 620

VER:ANINDEX a!(EOT)

VERIFY INPUT #16t - REQUEST VERIFICATION OF ANNOUNCEMENT INDEX MAPPING

1. GENERAL

1.01 This message, available with 4E12 and later Generic Programs, is used to request the system to verify the announcement index to announcement treatment mapping.

2. MESSAGE ENTRIES

2.01 VER:ANINDEX a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **ANINDEX** - Announcement Index
Entries: 0 to 255.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16t

     ex. 1    VER:ANINDEX 5!(EOT)

     ex. 2    VER:ANINDEX 1-15!(EOT)

     ex. 3    VER:ANINDEX (6,12,72)!(EOT)

     ex. 4    VER:ANINDEX (15,21,25-27,35,44)!(EOT)


OUTPUT:                   VERIFY 6aa

                        VER:MISC,OPT(ANN):
```

ODA INPUT SOURCE - ESS 406P

RECENT CHANGE INPUT SOURCE - FORM # 624

VER:AMACODE a!(EOT)

VERIFY INPUT #16u - REQUEST VERIFICATION OF CALL CODE TO STRUCTURE CODE SET

1. GENERAL

1.01 This message, available with 4E12 and later Generic Programs, is used to request the system to verify the AMA call code to structure code set.

2. MESSAGE ENTRIES

2.01 VER:AMACODE a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 AMA - AMA Call Code

Entries: 0 to 999.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16u

     ex. 1    VER:AMACODE 5!(EOT)

     ex. 2    VER:AMACODE 1-15!(EOT)

     ex. 3    VER:AMACODE (6,12,72)!(EOT)

     ex. 4    VER:AMACODE (15,21,25-27,35,44)!(EOT)


OUTPUT:                    VERIFY 6ab

                         VER:MISC,OPT(AMA):
```

ODA INPUT SOURCE - ESS 406Q

RECENT CHANGE INPUT SOURCE - FORM # 625

SAMPLE MESSAGES

VER:TOS a!(EOT)

VERIFY INPUT #16v - REQUEST VERIFICATION OF SSP TYPE OF SERVICE

1. GENERAL

1.01 This message, available with 4E12 and later Generic Programs, is used to request the system to verify the BOC SSP Type of Service information.

2. MESSAGE ENTRIES

2.01 VER:TOS a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **TOS** - Type of Service
Entries: 0 to 31.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16v

     ex. 1    VER:TOS 5!(EOT)

     ex. 2    VER:TOS 1-15!(EOT)

     ex. 3    VER:TOS (6,12)!(EOT)

     ex. 4    VER:TOS (15,21,25-27)!(EOT)


OUTPUT:                    VERIFY 6ac

                         VER:MISC,OPT(TOS):
```

ODA INPUT SOURCE - ESS 406R

RECENT CHANGE INPUT SOURCE - FORM # 626

VER:LATASTAT:AREAS!(EOT)

VERIFY INPUT #16x - REQUEST VERIFICATION OF LATA/STATE SCREENING AREAS

1. GENERAL

1.01 This message, available with 4E13 and later Generic Programs, is used to request output of the LATA/state screening areas.

2. MESSAGE ENTRIES

2.01 VER:LATASTAT:AREAS!(EOT)

This message requests that all LATA/state screening areas be displayed. No additional input is required.

```
INPUT:                  VERIFY 16x

                  VER:LATASTAT:AREAS!(EOT)


OUTPUT:                 VERIFY 6ae

                  VER:LATASTAT;OPT(AREAS):
```

ODA INPUT SOURCE - ESS 406T

RECENT CHANGE INPUT SOURCE - FORM # 629

VER:LATASTAT:MATRIX a!(EOT)

VERIFY INPUT #16y - REQUEST VERIFICATION OF LATA/STATE SCREENING MATRIX

1. GENERAL

1.01 This message, available with 4E13 and later Generic Programs, is used to request output of a LATA/state screening matrix.

2. MESSAGE ENTRIES

2.01 VER:LATASTAT:MATRIX a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **MATRIX** - LATA/state Screening Matrix
Entries: 1 to 7.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16y

                  VER:LATASTAT:MATRIX a!(EOT)


OUTPUT:                   VERIFY 6af

                  VER:LATASTAT;OPT(MATRIX):
```

ODA INPUT SOURCE - ESS 406U

RECENT CHANGE INPUT SOURCE - FORM # 630

VER:SERVICE:SRVC a!(EOT)

VERIFY INPUT #16z - REQUEST VERIFICATION OF SERVICE PARAMETERS

1. GENERAL

1.01 This message is used to request the output of service parameters.

2. MESSAGE ENTRIES

2.01 VER:SERVICE:SRVC a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **SRVC** - Service

Entries: MEGC, NCAT, INTV, INTD, 20-83, INTO, INTT, SDNA, DEV, DED, INCD, IO56, IO64, ITD, IVT, I56D, I64C, N64C, N64R, APN, NH0C, NH1C.

```
INPUT:                    VERIFY 16z

          ex. 1    VER:SERVICE:SRVC IO56!(EOT)

          ex. 2    VER:SERVICE:SRVC 82!(EOT)


OUTPUT:                   VERIFY 6ag

                   VER:SERVICE;OPT(PARAMS):
```

ODA INPUT SOURCE - ESS 406V

RECENT CHANGE INPUT SOURCE - FORM # 631

VER:NPADPC:NPA a!(EOT)

VERIFY INPUT #16aa - REQUEST VERIFICATION OF NPA TO DPC TABLE

1. GENERAL

1.01 This message, available with 4E13 and later Generic Programs, is used to request output of the Destination Point Code and Subsystem Number used to route Network Call Denial (NCD) queries directly to the NCD Network Control Point.

2. MESSAGE ENTRIES

2.01 VER:NPADPC:NPA a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **NPA** - Numbering Plan Area
Entries: 200-999.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16aa

                      VER:NPADPC:NPA a!(EOT)
```

```
OUTPUT:                   VERIFY 6ah

                     VER:NPADPC;OPT(NPA):
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM # 632

SAMPLE MESSAGES

VER:EA:CID a!(EOT)

VERIFY INPUT #16ab - REQUEST VERIFICATION OF CARRIER ID TO TNS TYPE

1. GENERAL

1.01 This message is used to request output of the TNS types specified for a given Carrier Code.

2. MESSAGE ENTRIES

2.01 VER:EA:CID a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **CID** - Carrier ID
Entries: 0 to 999 (0000 to 9999 for 4E18>).

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16ab

                       VER:EA:CID a!(EOT)


OUTPUT:                   VERIFY 6ai

                        VER:EA;OPT(CID)
```

ODA INPUT SOURCE - ESS 406X

RECENT CHANGE INPUT SOURCE - FORM # 633

VER:SCS:FHT a!(EOT)
VERIFY INPUT #16ac - REQUEST VERIFICATION OF SERVICE CIRCUIT SYSTEM - EXPANDED ANNOUNCEMENT

1. GENERAL

1.01 This message, for 4E17 and later Generic Programs, is used to request output per-announcement data.

2. MESSAGE ENTRIES

2.01 VER:SCS:FHT a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **FHT** - Final Handling Treatment

Entries: AR, BT, EA1-EA7, HW, IFF, INC, IVC, MCA, NCA, NCC, NCD, NWC, OOB, ROA, SP1, SP2, T, VCA, DNN, DOO, E01-E20, I01-I30, INF, ISB, LDV, LOB, LSA, NCB, NWN, OOA, OTS, R01-R10, S01-S19, SNA, STO, TDN, UNN, VMA, WAT.

```
INPUT:                    VERIFY 16ac

                        VER:SCS:FHT a!(EOT)
```

```
OUTPUT:                   VERIFY 6aj

                         VER:SCS;OPT(FHT)
```

ODA INPUT SOURCE - ESS 406W

RECENT CHANGE INPUT SOURCE - FORM # 634

VER:AIN:ANNUM a! (EOT)

VERIFY INPUT #16ay - REQUEST VERIFICATION OF SCP ANNOUNCEMENT TO SCS ANNOUNCEMENT MAPPING

1. GENERAL

1.01 This codegroup verify message allows verification of the translation data associated SCP Announcements to SCS Announcement mapping.

2. MESSAGE ENTRIES

2.01 VER:AIN . . .

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **ANNUM** - SCS Announcement Number
Entries: 0 to 255.

A range and/or list can be specified with this message. A range is entered by inserting a dash between the lowest and highest number in the range. A list can be specified by separating the values and/or ranges of values with a comma and enclosing the entire group in parenthesis.

```
INPUT:                    VERIFY 16ay

     ex. 1    VER:AIN:ANNUM 10-20!(EOT)

     ex. 2    VER:AIN:ANNUM (10,20)!(EOT)

     ex. 3    VER:AIN:ANNUM (10-20,30)!(EOT)

     ex. 4    VER:AIN:ANNUM 30!(EOT)

OUTPUT:                   VERIFY 6bd

                       VER:AIN;OPT(ANNUM)
```

ODA INPUT SOURCE - ESS 406Y

RECENT CHANGE INPUT SOURCE - FORM # 660

SAMPLE MESSAGES

VER:MISC a [:CIN b] [:DATE c] [,TIME d]!(EOT)

VERIFY INPUT #16az - REQUEST VERIFICATION OF MISCELLANEOUS DATA

1. GENERAL

1.01 This message, available with 4E18R3 and later Generic Programs, is used to request miscellaneous verify messages.

2. MESSAGE ENTRIES

2.01 VER:MISC a [:CIN b] [:DATE c] [,TIME d] [[[:NSN e]!(EOT)

Input to the MISC keyword triggers a different verify request and output message. Valid inputs to the MISC keyword are: AINITM, CIP, ONOFF, **CHGSDX, CHGTSG, CHGMRT, CHGMCT**.

The following list displays all the valid keyword combinations for VER:MISC.

```
ex. 1 VER:MISC CIP:CIN b!                <==== VERIFY Carrier Identification
                                         Parameter  (4E18R4>)
ex. 2 VER:MISC ONOFF!                    <==== VERIFY Feature Bit Status (4E18R4>)
ex. 3 VER:MISC AINITM!                   <==== VERIFY Advance Intelligent Network
                                         Items (4E21>)
ex. 4 VER:MISC CHGSDX:DATE a, TIME b!    <==== VERIFY Changed Manual Subsequent Digit Indicies
ex. 5 VER:MISC CHGMCT:DATE a, TIME b!    <==== VERIFY Changed Multiple Carrier Treatment Indicies
ex. 6 VER:MISC CHGMRT:DATE a, TIME b!    <==== VERIFY Changed Multiple Routing Treatment Indicies
ex. 7 VER:MISC CHGTSG:DATE a, TIME b!    <==== VERIFY Changed Trunk Subgroup
```

2.02 b: The CIN is the trunk subgroup name.

2.03 c: Date. Valid format is: xxyyzz (xx=month, yy=day, zz=year).

This keyword is only valid when CHGSDX, CHGTSG, CHGMRT and CHGMCT is an input to the MISC keyword.

2.04 d: Time. Valid format is: xxyyzz (xx=hour, yy=minutes, zz=seconds).

This keyword is only valid when CHGSDX, CHGTSG, CHGMRT and CHGMCT is an input to the MISC keyword.

```
INPUT:                    VERIFY 16az

VER:MISC CIP 201KSCYMO0914T!(EOT)  (4E18R4>)

OUTPUT:                  VERIFY 1i  (4E18R4>)

                           VER:TSG;OPT(CICS):

             RECENT CHANGE INPUT SOURCE-FORM #113

VER:MISC ONOFF! (EOT)  (4E18R4>)

OUTPUT:                  VERIFY 8j  (4E18R4>)

                         VER:MISC;OPT(ONOFF):

VER:MISC AINITM! (EOT)  (4E21>)

OUTPUT:                  VERIFY 6br

                         VER:AINITM:

VER:MISC CHGSDX:DATE 011599,TIME 130100! (EOT)  (4E23R4>)

OUTPUT:                  VERIFY 3g,6dp

VER:MISC CHGMCT:DATE 011599,TIME 130100! (EOT)  (4E23R4>)

OUTPUT:                  VERIFY 3ac,6dp

VER:MISC CHGMRT:DATE 011599,TIME 130100! (EOT)  (4E23R4>)

OUTPUT:                  VERIFY 3o,6dp


VER:MISC CHGTSG:DATE 011599,TIME 130100! (EOT)  (4E23R4>)

OUTPUT:                  VERIFY 1a, 1b, 1c, 6dp
```

VER:VFUNC a[:FD1 b,DT1 c][,FD2 b,DT2 c][,FD3 b,DT3 c][,FD4 b,DT4 c]!(EOT)

VERIFY INPUT #16ba - REQUEST VERIFICATION OF MISCELLANEOUS DATA

1. GENERAL

1.01 This message requests the verification of miscellaneous data based on the input given. The input message has a variable field to specify the type and format of the output message and the characteristics, if any, that requires verification.

2. MESSAGE ENTRIES

2.01 VER:VFUNC a[:FD1 b,DT1 c]...

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 VFUNC - Verify Function. The values of this option determine the values of the optional keywords.
Valid entries:

1. **SCSDATA -** Service Circuit System Sub-Unit data. (4E22R4>)
2. **STATICAB -** Expanded Time Slot Interchange (XTSI) DS3 Unit Static A/B configuration. (4E21R9-4E23)
3. **SUXTSI -** Sub-Unit Expanded Time Slot Interchange (XTSI) Type data.
4. **XTSID3U -** Expanded Time Slot Interchange (XTSI) DS3 Unit application.
5. **XTSIIBU -** Expanded Time Slot Interchange (XTSI) IBU configuration data. (4E24>)
6. **XTSIPM -** Expanded Time Slot Interchange (XTSI) DS3 Unit Release 2 DS1 Performance Monitoring Thresholds.

2.03

FD1 to FD4 a and DT1 to DT4 b -

These fields are used to specify the characteristics and data, if any, for which verification is required. FD1 to FD4 (Field) specifies the identifier and DT1 to DT4 (Data) specifies the argument(s). Up to four identifiers (FD/DT pairs) may be requested on a message. If more than one identifier is specified, each identifier may have only one argument (eg. ONPACC 22, ONXX 555).

2.04 The data argument must be used with the corresponding field identifier (e.g., DT1 is used with FD1). An asterisk may be entered for specified fields to indicate that all entries with any valid entry for the field should be output.

There are some cases where verify will print only a subset of all the entries for a given request. For example, if ONXX is requested with a value of *, verify will only output entries for which ONXX was not left blank.

3. Optional Fields

Optional fields values are grouped according to the Verify Function performed and are only valid with the function specified.

4. Reserved

5. VERIFY FUNCTION SCSDATA

SCSMEMN must be input.

5.01 **SCSMEMN** - SCS Member Number - 0 to 7.

6. VERIFY FUNCTION STATICAB

XTSIMEMN must be input.

6.01 **D3UN** - DS3 Number - 0 to 5.

6.02 **XTSIMEMN** - TSI Member Number of an Expanded Time Slot Interchange (XTSI) - 2 to 62 - even numbers only.

7. VERIFY FUNCTION SUXTSI

TSIMEMN must be input for 4E21, XTSIMEMN must be input for 4E22.

7.01 **TSIMEMN** - TSI Member Number (4E21 only) - 2 to 62 - even numbers only.

7.02 **XTSIMEMN** - TSI Member Number of an Expanded Time Slot Interchange (XTSI) (4E22>) - 2 to 62 - even numbers only.

8. VERIFY FUNCTION XTSID3U

TSIMEMN must be input for 4E21, XTSIMEMN must be input for 4E22.

8.01 **TSIMEMN** - TSI Member Number (4E21 only) - 2 to 62 - even numbers only.

8.02 **D3UN** - DS3 Number - 0 to 5.

8.03 **XTSIMEMN** - TSI Member Number of an Expanded Time Slot Interchange (XTSI) (4E22>) - 2 to 62 - even numbers only.

9. VERIFY FUNCTION XTSIIBU (4E24>)

XTSIMEMN must be input.

9.01 **XTSIMEMN** - TSI Member Number of an Expanded Time Slot Interchange (XTSI) - 2 to 62 - even numbers only.

10. VERIFY FUNCTION XTSIPM

No optional keywords are allowed.

11. Reserved

12. Reserved

13. Reserved

14. Reserved

INPUT: VERIFY 16ba

ex. 1 VER:VFUNC XTSID3U:FD1 TSIMEMN,DT1 a,FD2 D3UN, DT2 b,! <==== DS3 data 4E21

ex. 2 VER:VFUNC XTSID3U:FD1 XTSIMEMN,DT1 a,FD2 D3UN, DT2 b,! <==== DS3 data 4E22

ex. 3 VER:VFUNC SUXTSI:FD1 TSIMEMN,DT1 a! <==== Sub-Unit XTSI data 4E21

ex. 4 VER:VFUNC SUXTSI:FD1 XTSIMEMN,DT1 a! <==== Sub-Unit XTSI data 4E22

ex. 5 VER:VFUNC XTSIPM! <==== XTSI Release 2 Performance Monitoring Thresholds.

ex. 6 VER:VFUNC STATICAB:FD1 XTSIMEMN,DT1 a,FD2 D3UN, DT2 b,! <==== Static A/B (4E21R9-4E23)

ex. 7 VER:VFUNC XTSIIBU:FD1 XTSIMEMN DT1 a! <==== IBU configuration data (4E24>)

ex. 8 VER:VFUNC SCSDATA:FD1 SCSMEMN,DT1 a! <==== Static A/B

OUTPUT:

VER:MISC;OPT(SUXTSI): Verify 7h
VER:MISC;OPT(XTSID3U): Verify 7g
VER:MISC,OPT(XTSIPM): Verify 6bm
VER:STATICAB,OPT(XTSIAB): Verify 7j
VER:UTYPE;OPT(SCSDATA): Verify 7k
VER:MISC,OPT(XTSIIBU): Verify 7m

RECENT CHANGE INPUT SOURCE - FORM 664
RECENT CHANGE INPUT SOURCE - FORM 704
RECENT CHANGE INPUT SOURCE - FORM 705
RECENT CHANGE INPUT SOURCE - FORM 707
RECENT CHANGE INPUT SOURCE - FORM 703
RECENT CHANGE INPUT SOURCE - FORM 708

Future

VER:MISC,OPT(TRGASN):NPANXX a!(EOT)

VERIFY INPUT #16bu - REQUEST VERIFICATION OF THE 6-DIGIT NPA-NXX AIN/LNP ASSIGNMENT TRANSLATOR

1. GENERAL

1.01 (4E23R3>) This message requests the verification of the assigned 6-digit, NPA-NXX, to AIN/LNP Called Number Triggers. One of four different CNT assignments are possible for a 6-digit code: NONE or blank - No 6-digit AIN/LNP trigger assigned (default), AIN - a 6-digit AIN trigger assigned, LNP - a 6-digit LNP trigger assigned, and BOTH - a 6-digit AIN & LNP trigger are both assigned.

2. MESSAGE ENTRIES

2.01 VER:MISC,OPT(TRGASN):NPANXX a!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 **NPANXX** - a 6 Digit (NPA-NXX) Code *(note: the only valid NPA and NXX codes that are allowed via Recent Change for a 6-digit AIN/LNP CNT are those in the range of 200-999)*.
Entries: 000000 to 999999.

For the NPANXX field a range and/or list may be verified. A range is specified by inserting a dash between the lowest and highest numbered code in the range, e.g., VER:MISC,OPT(TRGASN):NPANXX 200200-999999!(EOT). A list can be entered by separating each code and/or range of codes with a comma and enclosing the entire group in parenthesis, e.g., VER:MISC,OPT(TRGASN):NPANXX (630979, 312200-312999)!(EOT).

SAMPLE MESSAGES

INPUT: VERIFY 16bu

ex. 1 Verify a single NPA-NXX.

```
VER:MISC,OPT(TRGASN):NPANXX 630979!(EOT)
```

ex. 2 Verify a range - this will identify all the 6-digit AIN/LNP CNT assignments for an NPA.

```
VER:MISC,OPT(TRGASN):NPANXX (312200-312999)!(EOT)
```

ex. 3 Verify a single NPA-NXX and two different ranges.

```
VER:MISC,OPT(TRGASN):NPANXX (630979,312200-312999,773200-773999)!(EOT)
```

ex. 4 Verify a range - this will identify all possible NPA-NXX 6-digit AIN/LNP CNT assignments.

```
VER:MISC,OPT(TRGASN):NPANXX (200200-999999)!(EOT)
```

OUTPUT: VERIFY 6bu

```
VER:MISC,OPT(TRGASN)

RECENT CHANGE INPUT SOURCE - #667  RC:TRGASIGN;CHG;___:
```

VER:VFUNC RCMEASCT!(EOT)

VERIFY INPUT #16cm - REQUEST VERIFICATION OF THE RC METRIC COUNTERS

1. GENERAL

1.01 This message requests the verification of the number of times all RC forms/messages were successfully activated, the longest successful activation times and the cumulative processing times for those forms/messages.

2. MESSAGE ENTRIES

2.01 VER:VFUNC RCMEASCT!(EOT)

The above format represents the entries that comprise this input message. The format is fixed; there is no variable data. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard.

SAMPLE MESSAGES

```
INPUT:                    VERIFY 16cm

     ex. 1    VER:VFUNC RCMEASCT!(EOT)

OUTPUT:                   VERIFY 6dm

              VER:RCMEASCT:
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - NONE

REQUEST VERIFICATION OF THE RC METRIC COUNTERS

VER:MISC:FHT AINTRIG,DIG a!(EOT)

VERIFY INPUT #16dg - REQUEST VERIFICATION OF 10-DIGIT AIN TRIGGERS

1. GENERAL

1.01 This message, available in 4E19 4R and later Generic Programs, requests the verification of the 10-Digit AIN Triggers. This message will only work in LEC offices that have purchased the AIN Called Trigger Expansion - Phase 0 feature.

Since all triggers will be displayed, the length and time of the output may be significant when a large number of matches are found in the trigger table. The output will result in more than one message being sent.

2. MESSAGE ENTRIES

2.01 VER:MISC:FHT AINTRIG,DIG a!(EOT)

The above format represents the entries that comprise this input message. The format is fixed; the only variable part is that a 3, 6, or 10 digit number can be entered after the keyword DIG, which is used to match 10-digit AIN triggers. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard.

2.02 **DIG** - Digits to match 10-digit AIN triggers.

Entries: 3, 6 or 10 digits. **DIG** is a mandatory keyword and must be followed by a proper numeric entry.

SAMPLE MESSAGES

```
INPUT:                    VERIFY 16dg

     ex. 1    VER:MISC:FHT AINTRIG,DIG 708!(EOT)

     ex. 2    VER:MISC:FHT AINTRIG,DIG 708 555!(EOT)

     ex. 3    VER:MISC:FHT AINTRIG,DIG 708 555 1234!(EOT)


OUTPUT:                   VERIFY 6dg

                    VER:MISC:FHT AINTRIG
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - FORM #6dg

VERIFY 10-DIGIT AIN TRIGGERS
IN 4E20R4 AND LATER GENERICS

SECTION 17 - INPUT VERIFY REQUESTS

UNIT TYPE

SECTION	MESSAGE	
17a	Input 17a	Request verification of unit type member, submember, or entry equipage data.

VER:UTYPE;a:b c,d!(EOT)

VERIFY INPUT #17a
REQUEST VERIFICATION OF UNIT TYPE MEMBER, SUBMEMBER, OR ENTRY EQUIPAGE DATA

1. GENERAL

1.01 This message requests verification of the Unit Type member equipage, submember equipage, or ENTRY for a specified Unit Type and Member Number. The input specifies the Unit Type, Member Number, and type of output information required (member, submember or entry). Output data will list member equipage, submember equipage or member entries for the specified unit as determined by the input message.

1.02 An ENTRY of XL4UDTEQ1 type consists of a block of data (words) for each Unit Type member.

If the ENTRY identifier is used when verifying a Time Multiplex Switching Pair (TMSP) Unit Type, then the current office TMSP configuration will be included in the output format.

If the ENTRY identifier is used when verifying a Signal Processor 2 (SP2) or Digroup Terminal (DT), then a second output message will print out the associated DT member number or associated SP2 member number and port, respectively.

2. MESSAGE ENTRIES

2.01 VER:UTYPE;a:b c,d!(EOT) - The above format represents the entries that comprise this verify request input message. Lower case letters represent variable items in a given field. See Figure 1 for examples. The "(EOT)" following each message denotes the operation of the "End Of Transmission" control on the keyboard. Note that the first series of letters identify a particular message to the machine. The following paragraphs describe the possible entries for each of the variable items.

2.02 a - CUR - Current translations - this code causes the verify program to obtain the data from the working translations that are currently in use in the machine.

2.03 b - This field specifies the Unit Type for which verification is requested. The valid acronyms for this field are listed in alphabetical order on Table A.

2.04 c - This field specifies the member number of the Unit Type. The range of entries for each unit is shown on Table A. The valid range for this field is 0 to 127.

2.05 d - This field is used to specify the type of output data required. If this field is left blank, the program will default to the ENTRY identifier.

ME - This identifier requests verification of the Member Equipage for the unit.

SME - This identifier requests verification of the Sub-Member Equipage for the unit. Each Unit Type has a specific index number assigned for every associated pair of submember equipage bits. A list of all submember names and associated index number, with a short description of each one, is shown on Table B. Valid range of the index number is 1-224.

ENTRY - If this identifier is specified, the complete unit type ENTRY will be output as a series of octal words.

TABLE A

VALID UTYN ENTRIES AND RANGES

FLN	UTYN	RANGE	DESCRIPTION
YES	ABCNT	0-31	area bus center
	AUB	0-1	auxiliary unit bus
	BDFB	0-31	battery distribution fuse board
	CC	0-1	central control
YES	CCDS	0-15	CCIS dataset frame
	CS	0-63	call store
	CSB	0-1	call store bus
YES	DIF	2-31	digital interface
YES	DT	0-127	digroup terminal
	DUS	0-3	data unit selector
	EST	0-31	digital echo suppressor terminal
YES	GRID	1-15	alarm grid
YES	IOUS	0-15	input/output unit selector
YES	MA	0	miscellaneous frame A
YES	MB	0-6	miscellaneous frame B
YES	MC	0	miscellaneous frame C
	MCC	0-1	maintenance control console
YES	MFS	0-31	MF signal frame
YES	NCLK		network clock
	PCD	0	power control distribution
	PP620	0-15	620 series power plant
	PP625	0-6	625 series power plant
	PS	0-32	program store
	PSB	0-1	program store bus
	PUB	0-1	peripheral unit bus
YES	PUBB	0	peripheral unit bus branching frame
YES	RA	0-5	recorded announcement
YES	RMDC	0	network management remote and distribution circuit
YES	RTPLANT	0	ringing and tone plant
YES	SCLK	0	system clock
YES	SCS	0-7	service circuit system frame
YES	SP	0-31	signal processor
YES	TGR	0-15	CCIS terminal group
YES	TMSP	0-3	time multiplex switch pair
YES	TPOS	0-99	test position
YES	TSI	0-63	time slot interchange
YES	TUC	0-31	tape unit controller
YES	VIF	0-127	voiceband interface frame
YES	XTSI	0-63	expanded time slot interchange

TABLE B

UNIT TYPE SUBMEMBER EQUIPAGE BITS

SME NAME	INDEX NUMBER	DESCRIPTION
XL4UVIUEQ0	9	# VIU0 equipage
XL4UVIUEQ1	10	# VIU1 equipage
XL4UVIUEQ2	11	# VIU2 equipage
XL4UVIUEQ3	12	# VIU3 equipage
XL4UVIUEQ4	13	# VIU4 equipage
XL4UVIUEQ5	14	# VIU5 equipage
XL4UVIUEQ6	15	# VIU6 equipage
XL4UTSNBLK0	16	# Sp scan pt. equipage block 0
XL4UTSNBLK1	17	# Sp scan pt. equipage block 1
XL4UTSNBLK2	18	# Sp scan pt. equipage block 2
XL4UTSNBLK3	19	# Sp scan pt. equipage block 3
XL4UTDNBLK0	20	# Sp SD pt. equipage block 0
XL4UTDNBLK1	21	# Sp SD pt. equipage block 1
XL4UTDNBLK2	22	# Sp SD pt. equipage block 2
XL4UTDNBLK3	23	# Sp SD pt. equipage block 3
XL4UMSNBLK0	24	# Sp misc. scan pt. equipage block 0
XL4UMSNBLK1	25	# Sp misc. scan pt. equipage block 1
XL4UMDNBLK0	26	# Sp misc. SD pt. equipage block 0
XL4UMDNBLK1	27	# Sp misc. SD pt. equipage block 1
XL4UBFE	28	# Sp Left frame equipage
XL4UCFE	29	# Sp Right frame equipage
XL4UTMGRP0	32	# TGR terminal 0 equipage
XL4UTMGRP1	33	# TGR terminal 1 equipage
XL4UTMGRP2	34	# TGR terminal 2 equipage
XL4UTMGRP3	35	# TGR terminal 3 equipage
XL4UTMGRP4	36	# TGR terminal 4 equipage
XL4UTMGRP5	37	# TGR terminal 5 equipage
XL4UTMGRP6	38	# TGR terminal 6 equipage
XL4UTMGRP7	39	# TGR terminal 7 equipage
XL4UTMGRP8	40	# TGR terminal 8 equipage
XL4UTMGRP9	41	# TGR terminal 9 equipage
XL4UTMGRP10	42	# TGR terminal 10 equipage
XL4UTMGRP11	43	# TGR terminal 11 equipage
XL4UTMGRP12	44	# TGR terminal 12 equipage
XL4UTMGRP13	45	# TGR terminal 13 equipage
XL4UTMGRP14	46	# TGR terminal 14 equipage
XL4UTMGRP15	47	# TGR terminal 15 equipage
XL4UC0MBLK0	48	# TMS controller 0 memory block 0 equipage
XL4UC0MBLK1	49	# TMS controller 0 memory block 1 equipage
XL4UC0MBLK2	50	# TMS controller 0 memory block 2 equipage
XL4UC0MBLK3	51	# TMS controller 0 memory block 3 equipage
XL4UC1MBLK0	52	# TMS controller 1 memory block 0 equipage
XL4UC1MBLK1	53	# TMS controller 1 memory block 1 equipage
XL4UC1MBLK2	54	# TMS controller 1 memory block 2 equipage
XL4UC1MBLK3	55	# TMS controller 1 memory block 3 equipage

TABLE B (CONT)

UNIT TYPE SUBMEMBER EQUIPAGE BITS

SME NAME	INDEX NUMBER	DESCRIPTION
XL4U0PRTEQ0	56	# TSI port 0 equipage SPC0
XL4U0PRTEQ1	57	# TSI port 1 equipage SPC0
XL4U0PRTEQ2	58	# TSI port 2 equipage SPC0
XL4U0PRTEQ3	59	# TSI port 3 equipage SPC0
XL4U0PRTEQ4	60	# TSI port 4 equipage SPC0
XL4U0PRTEQ5	61	# TSI port 5 equipage SPC0
XL4U0PRTEQ6	62	# TSI port 6 equipage SPC0
XL4U1PRTEQ0	63	# TSI port 0 equipage SPC1
XL4U1PRTEQ1	64	# TSI port 1 equipage SPC1
XL4U1PRTEQ2	65	# TSI port 2 equipage SPC1
XL4U1PRTEQ3	66	# TSI port 3 equipage SPC1
XL4U1PRTEQ4	67	# TSI port 4 equipage SPC1
XL4U1PRTEQ5	68	# TSI port 5 equipage SPC1
XL4U1PRTEQ6	69	# TSI port 6 equipage SPC1
XL4UCKHEQ00	70	# FOFI ckt half equipage 00
XL4UCKHEQ01	71	# FOFI ckt half equipage 01
XL4UCKHEQ10	72	# FOFI ckt half equipage 10
XL4UCKHEQ11	73	# FOFI ckt half equipage 11
XL4UCKHEQ20	74	# FOFI ckt half equipage 20
XL4UCKHEQ21	75	# FOFI ckt half equipage 21
XL4UCKHEQ30	76	# FOFI ckt half equipage 30
XL4UCKHEQ31	77	# FOFI ckt half equipage 31
XL1IOEQPE0	78	# IOUC 0 port equipage
XL1IOEQPE1	79	# IOUC 0 port equipage
XL1IOEQPE2	80	# IOUC 0 port equipage
XL1IOEQPE0	81	# IOUC 1 port equipage
XL1IOEQPE1	82	# IOUC 1 port equipage
XL1IOEQPE2	83	# IOUC 1 port equipage
XL1IOEQPE0	84	# IOUC 2 port equipage
XL1IOEQPE1	85	# IOUC 2 port equipage
XL1IOEQPE2	86	# IOUC 2 port equipage
XL1IOEQPE0	87	# IOUC 3 port equipage
XL1IOEQPE1	88	# IOUC 3 port equipage
XL1IOEQPE2	89	# IOUC 3 port equipage
XL1IOEQPE0	90	# IOUC 4 port equipage
XL1IOEQPE1	91	# IOUC 4 port equipage
XL1IOEQPE2	92	# IOUC 4 port equipage
XL1IOEQPE0	93	# IOUC 5 port equipage
XL1IOEQPE1	94	# IOUC 5 port equipage
XL1IOEQPE2	95	# IOUC 5 port equipage
XL1IOEQPE0	96	# IOUC 6 port equipage
XL1IOEQPE1	97	# IOUC 6 port equipage
XL1IOEQPE2	98	# IOUC 6 port equipage
XL1IOEQPE0	99	# IOUC 7 port equipage
XL1IOEQPE1	100	# IOUC 7 port equipage
XL1IOEQPE2	101	# IOUC 7 port equipage

TABLE B (CONT)

UNIT TYPE SUBMEMBER EQUIPAGE BITS

SME NAME	INDEX NUMBER	DESCRIPTION
XL1IOEQSME0	102	# IOUC 0 equipage
XL1IOEQSME1	103	# IOUC 1 equipage
XL1IOEQSME2	104	# IOUC 2 equipage
XL1IOEQSME3	105	# IOUC 3 equipage
XL1IOEQSME4	106	# IOUC 4 equipage
XL1IOEQSME5	107	# IOUC 5 equipage
XL1IOEQSME6	108	# IOUC 6 equipage
XL1IOEQSME7	109	# IOUC 7 equipage
XL4UDTEQ0	110	# DTU 0 equipage
XL4UDTEQ1	111	# DTU 1 equipage
XL4UDTEQ2	112	# DTU 2 equipage
XL4UDTEQ3	113	# DTU 3 equipage
XL4UDTEQ4	114	# DTU 4 equipage
XL4UDTEQ5	115	# DTU 5 equipage
XL4UDTEQ6	116	# DTU 5 equipage
XL4UDTEQ7	117	# DTU 7 equipage
XL4UC0GRWTH	118	# TMS controller 0 equipage
XL4UC1GRWTH	119	# TMS controller 1 equipage
XL4USP2EQ0	120	# SP2 subtype 0 equipage
XL4USP2EQ1	121	# SP2 subtype 1 equipage
XL4USP2EQ2	122	# SP2 subtype 2 equipage
XL4USP2EQ3	123	# SP2 subtype 3 equipage
XL1FSEQSME0	124	# DISK 0 equipage
XL1FSEQSME1	125	# DISK 1 equipage
XL1FSEQSME2	126	# DISK 2 equipage
XL1FSEQSME3	127	# DISK 3 equipage
XL4UESEQ0	128	# ESU 0 equipage
XL4UESEQ1	129	# ESU 1 equipage
XL4UESEQ2	130	# ESU 2 equipage
XL4UESEQ3	131	# ESU 3 equipage
XL4UESEQ4	132	# ESU 4 equipage
XL4UESEQ5	133	# ESU 5 equipage
XL4UESEQ6	134	# ESU 6 equipage
XL4UESEQ7	135	# ESU 7 equipage
XL4UESEQ8	136	# ESU 8 equipage
XL4UESEQ9	137	# ESU 9 equipage
XL4UESEQ10	138	# ESU 10 equipage
XL4UESEQ11	139	# ESU 11 equipage
XL4UESEQ12	140	# ESU 12 equipage
XL4UESEQ13	141	# ESU 13 equipage
XL4UESEQ14	142	# ESU 14 equipage

TABLE B (CONT)

UNIT TYPE SUBMEMBER EQUIPAGE BITS

SME NAME	INDEX NUMBER	DESCRIPTION
XL4DIUEQ0	143	# DIU 0 equipage
XL4DIUEQ1	144	# DIU 1 equipage
XL4DIUEQ2	145	# DIU 2 equipage
XL4DIUEQ3	146	# DIU 3 equipage
XL4DIUEQ4	147	# DIU 4 equipage
XL4DIUEQ5	148	# DIU 5 equipage
XL4DIUEQ6	149	# DIU 6 equipage
XL4DIUEQ7	150	# DIU 7 equipage
XL4DIUEQ8	151	# DIU 8 equipage
XL4DIUEQ9	152	# DIU 9 equipage
XL4DIUEQ10	153	# DIU 10 equipage
XL4DIUEQ11	154	# DIU 11 equipage
XL4DIUEQ12	155	# DIU 12 equipage
XL4DIUEQ13	156	# DIU 13 equipage
XL4DIUEQ14	157	# DIU 14 equipage
XL4DIUEQ15	158	# DIU 15 equipage
XL4DIUEQ16	159	# DIU 16 equipage
XL4DIUEQ17	160	# DIU 17 equipage
XL4DIUEQ18	161	# DIU 18 equipage
XL4DIUEQ19	162	# DIU 19 equipage
XL4DIUEQ20	163	# DIU 20 equipage
XL4DIUEQ21	164	# DIU 21 equipage
XL4DIUEQ22	165	# DIU 22 equipage
XL4DIUEQ23	166	# DIU 23 equipage
XL4DIUEQ24	167	# DIU 24 equipage
XL4DIUEQ25	168	# DIU 25 equipage
XL4DIUEQ26	169	# DIU 26 equipage
XL4DIUEQ27	170	# DIU 27 equipage
XL4DIUEQ28	171	# DIU 28 equipage
XL4DIUEQ29	172	# DIU 29 equipage
XL4DIUEQ30	173	# DIU 30 equipage
XL4DIUEQ31	174	# DIU 31 equipage
XL4DIUSPQA	175	# DIU SPA equipage (SPARE A DIU)
XL4DIUSPQB	176	# DIU SPB equipage (SPARE B DIU)
XL4USCUEQ0	177	# SCU 0 equipage
XL4USCUEQ1	178	# SCU 1 equipage
XL4USCUEQ2	179	# SCU 2 equipage
XL4USCUEQ3	180	# SCU 3 equipage
XL4USCUEQ4	181	# SCU 4 equipage
XL4USCUEQ5	182	# SCU 5 equipage
XL4USCUEQ6	183	# SCU 6 equipage
XL4USCUEQ7	184	# SCU 7 equipage
XL4USCUEQ8	185	# SCU 8 equipage
XL4USCUEQ9	186	# SCU 9 equipage
XL4USCUEQ10	187	# SCU 10 equipage
XL4USCUEQ11	188	# SCU 11 equipage
XL4USCUEQ12	189	# SCU 12 equipage
XL4USCUEQ13	190	# SCU 13 equipage
XL4USCUEQ14	191	# SCU 14 equipage
XL4USCUEQ15	192	# SCU 15 equipage

TABLE B (CONT)

UNIT TYPE SUBMEMBER EQUIPAGE BITS

SME NAME	INDEX NUMBER	DESCRIPTION
XL1IOEQPE0	193	# IOUC 8 port equipage
XL1IOEQPE1	194	# IOUC 8 port equipage
XL1IOEQPE2	195	# IOUC 8 port equipage
XL1IOEQPE0	196	# IOUC 9 port equipage
XL1IOEQPE1	197	# IOUC 9 port equipage
XL1IOEQPE2	198	# IOUC 9 port equipage
XL1IOEQPE0	199	# IOUC 10 port equipage
XL1IOEQPE1	200	# IOUC 10 port equipage
XL1IOEQPE2	201	# IOUC 10 port equipage
XL1IOEQPE0	202	# IOUC 11 port equipage
XL1IOEQPE1	203	# IOUC 11 port equipage
XL1IOEQPE2	204	# IOUC 11 port equipage
XL1IOEQPE0	205	# IOUC 12 port equipage
XL1IOEQPE1	206	# IOUC 12 port equipage
XL1IOEQPE2	207	# IOUC 12 port equipage
XL1IOEQPE0	208	# IOUC 13 port equipage
XL1IOEQPE1	209	# IOUC 13 port equipage
XL1IOEQPE2	210	# IOUC 13 port equipage
XL1IOEQPE0	211	# IOUC 14 port equipage
XL1IOEQPE1	212	# IOUC 14 port equipage
XL1IOEQPE2	213	# IOUC 14 port equipage
XL1IOEQPE0	214	# IOUC 15 port equipage
XL1IOEQPE1	215	# IOUC 15 port equipage
XL1IOEQPE2	216	# IOUC 15 port equipage
XL4UD3UEQ0	217	# XTSI Even Member Number D3U 0 equipage
XL4UD3UEQ1	218	# XTSI Even Member Number D3U 1 equipage
XL4UD3UEQ2	219	# XTSI Even Member Number D3U 2 equipage
XL4UD3UEQ3	220	# XTSI Odd Member Number D3U 3 equipage
XL4UD3UEQ4	221	# XTSI Odd Member Number D3U 4 equipage
XL4UD3UEQ5	222	# XTSI Odd Member Number D3U 5 equipage
XL4UD3UE	223	# XTSI Even Member Number Spare D3U equipage
XL4UD3UE	224	# XTSI Odd Member Number Spare D3U equipage

```
INPUT:                              VERIFY 17a


ex. 1      VER:UTYPE;CUR:PS 12,ME!(EOT)

ex. 2      VER:UTYPE:TSI 4,SME 62!(EOT)

ex. 3      VER:UTYPE;CUR:VIF 9,SME 14!(EOT)

ex. 4      VER:UTYPE:CS 22,ENTRY!(EOT)

ex. 5      VER:UTYPE:TMSP 1,ENTRY!(EOT)

ex. 6      VER:UTYPE:TSI 1,SME 79!(EOT)

ex. 7      VER:UTYPE:SP 8!(EOT)

ex. 8      VER:UTYPE:TGRO,SME 32!(EOT)


OUTPUT:                             VERIFY #7a/7b/7c/d
           VER:UTMN;OPT(ME/SME/ENTRY),---:
          *VER:UTMN;OPT(MISC),CUR:

           ODA INPUT SOURCE-NONE

           RECENT CHANGE INPUT SOURCE-#700/701


          *This message will be printed out when a
           digroup terminal or a Signal Processor
           2 is being verified for ENTRY.
```

SECTION 18 - INPUT VERIFY REQUEST

SPECIAL

SECTION	MESSAGES	
18a	Input 18a	Request verification to display the contents of a translation word at an absolute address in core, file store, or (4E21>) extended store memory.
18b	Input 18b	Request verification to terminate processing of one or more messages.
18c	Input 18c	Request to inhibit verify data outputs and allow printing of error messages only.
18d	Input 18d	Request to allow output of verify messages previously inhibited by input 18c.
18e	Input 18e	Request verification all domestic CCIS terminals with one-way links.

(4E21>) VER:ABSOLUTE:ADR a, b,[,L c]!(EOT)

VER:ABSOLUTE:ADR a, b!(EOT)

VERIFY INPUT #18a
REQUEST VERIFICATION TO DISPLAY THE CONTENTS OF A TRANSLATION WORD STORED IN CORE, FILE STORE, or (4E21>) EXTENDED STORE MEMORY

1. GENERAL

1.01 This message is used to output the contents of any translations word stored in core, file store, or (4E21>) extended store memory.

2. MESSAGE ENTRIES

2.01 VER:ABSOLUTE:ADR a,b!(EOT) or (4E21>) VER:ABSOLUTE:ADR a,b[,L c]!(EOT)

The above format represents the entries that comprise this input message. Lower case letters represent variable items in a given field. A bracket [] designates an optional item. Items without the bracket are required as the minimum input for this message. The "EOT" following the message denotes operation of the "End of Transmission" control on the keyboard. The following paragraphs describe the possible entries for each of the variable items.

2.02 ADR a - Enter in this field the octal ADR (address) or range of addresses to be displayed. A range of addresses is specified by inserting a dash between the lowest and highest numbered address in the block, e.g., 11476234-11476241. An input address must be within the translation data address range. (4E21>) When L (list) is used, only a single address is allowed. When XS is used, the address must be the backup disk address in File Segment 1.

2.03 b - This field specifies the memory area containing the address to be displayed.

CORE - This identifier specifies the core memory area.

FS - This identifier specifies the File Store memory area.

XS(4E21>) - This identifier specifies the Extended Store memory area. (Address must be backup disk address in File Segment 1).

2.04 (4E21>) Lc - Enter the number of consecutive words of memory to be displayed. Valid inputs: 1 to 1024.

```
INPUT:                              VERIFY #18a

ex. 1 VER:ABSOLUTE:ADR 11476234,FS!(EOT)

ex. 2 VER:ABSOLUTE:ADR 7526234,CORE!(EOT)

ex. 3 VER:ABSOLUTE:ADR 11476234-11476237,FS!(EOT)

ex. 4 VER:ABSOLUTE:ADR 6660007,L 2,CORE!(EOT)

ex. 5 VER:ABSOLUTE:ADR 10042000,L 32,XS!(EOT)

OUTPUT:                             VERIFY #8a

      (<4E21) VER:ABSOLUTE,OPT(CORE/FS,CUR):

      (4E21>) VER:ABSOLUTE,OPT(CORE/FS,XS):
```

ODA INPUT SOURCE - NONE

RECENT CHANGE INPUT SOURCE - #800

SAMPLE MESSAGES

STOP:VERMSG[;ALL]!(EOT)

VERIFY INPUT #18b
REQUEST VERIFICATION TO TERMINATE PROCESSING OF ONE OR MORE MESSAGES

1. GENERAL

1.01 This message is used to terminate the processing of one or more verify messages.

2. MESSAGE ENTRIES

2.01 STOP:VERMSG[;ALL]!(EOT)

The above format represents the entries that comprise this input message The bracket [;ALL] designates an optional item. The items without the bracket are required as the minimum input for the message. See Figure 1 for examples. The "(EOT)" denotes the operation of the "End Of Transmission" control on the keyboard. The following paragraphs describe the possible messages.

2.02 STOP:VERMSG'(EOT)

The use of this message will prompt the verify system to stop processing the verify message it is currently working on. If other messages are in the input buffer they will not be disturbed.

2.03 STOP:VERMSG;ALL'(EOT)

The use of this message will prompt the verify system to cancel 2all verify messages in the input message buffer as well as the message currently being processed.

NOTE: Both messages only cancel verify messages from the channel on which the verify messages were inputted.

INPUT: Verify #18b

ex. 1 STOP:VERMSG’(EOT)
ex. 2 STOP:VERMSG;ALL’(EOT)

OUTPUT: System Responses

O.K. (Message will be canceled)
N.G. (No messages to cancel)

NOTE: N.G. is not received with ALL option.

FIGURE 1

SAMPLE MESSAGES

INH:VERMSG!(EOT)

VERIFY INPUT #18c
INHIBIT VERIFY DATA OUTPUTS AND
ALLOW PRINTING OF ERROR MESSAGES ONLY.

1. GENERAL

1.01 This message is used to inhibit verify message data outputs but allows output of error messages.

2. MESSAGE ENTRY

2.01 INH:VERMSG!(EOT)

The above entry is the only acceptable format for this message. This message has no other options. The (EOT) denotes the operation of the "End Of Transmission" control on the keyboard.

2.02 The use of this message will prompt the verification system to eliminate the output of all data messages associated with any verify message entered after the inhibit message. Error messages, however, will still be allowed to be printed. This message will inhibit data only on the channel on which the verify messages were inputted.

CAUTION: This message will remain in effect until canceled by the following message: ALW:VERMSG!(EOT) as described in Division 8, Section 18d.

2.03 The inhibit message should be used only as long as required in order to avoid any complications between users.

INPUT: Verify #18c

ex. INH:VERMSG!(EOT)

OUTPUT: SYSTEM RESPONSE

O.K. (Channel will be inhibited)
N.G. (Channel already inhibited)

FIGURE 1

SAMPLE MESSAGE

ALW:VERMSG!(EOT)

VERIFY INPUT #18d
ALLOW OUTPUT OF VERIFY
OUTPUT DATA PREVIOUSLY INHIBITED

1. GENERAL

1.01 This message is used to remove the inhibit verify message and allow normal use of verify process.

2. MESSAGE ENTRY

2.01 ALW:VERMSG!(EOT)

The above entry is the only acceptable format for this message. This message has no other options. The (EOT) denotes the operation of the "End Of Transmission" control on the keyboard. The use of this message will prompt the verification system to cancel the inhibit message previously input at the channel. This message will then allow the output of verify data output messages.

CAUTION: This message should always be used when the inhibiting of data messages is no longer required by the user. This will avoid complications between users.

INPUT: Verify #18d

ex. ALW:VERMSG!(EOT)

OUTPUT: System Response

O.K. (Channel previously inhibited is now
allowed to print output data messages.)

N.G. (Channel was not inhibited)

FIGURE 1

SAMPLE MESSAGES

VER:TERMLIST!(EOT)

VERIFY INPUT #18e
REQUEST VERIFICATION OF ALL DOMESTIC CCIS TERMINALS WITH ONE-WAY LINKS

1. GENERAL

1.01 This message requests verification of all domestic CCIS terminals and bands in the office that have only one-way links. A one-way link exists when a terminal label points to a TSN, but the TSN does not point back to the terminal label (or its mate). The normal relationship between a terminal label and TSN is a two-way link. A two-way link exists when a terminal label points to a TSN and the TSN points back to the terminal label (or its mate).

2. MESSAGE ENTRIES

2.01 VER:TERMLIST!(EOT) - The above format comprises the input for this verify message. Additional input not allowed.

```
INPUT:                          VERIFY #18e

ex.                             VER:TERMLIST! (EOT)



OUTPUT:                         VERIFY #8b

                                VER:TERMLIST:

                      ODA INPUT SOURCE - NONE
                  RECENT CHANGE INPUT SOURCE - FORM #807
```

Lucent Technologies
Bell Labs Innovations

Translation Guide
4ESS™ -2000 Switch
TG-4
Division 9 — Miscellaneous

234-010-100

TG-4 Table of Contents

DIVISION 9 **Miscellaneous**

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LUCENT TECHNOLOGIES PROPRIETARY
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Keyword Glossary

General

The glossary contains general descriptions for the fields that appear on the Office Data Assembler (ODA), Recent Change (RC) and Verify forms in the original Divisions 7 and 8 plus the new Divisions 3 and 6 being developed and partially included beginning with the July 1998 Update. The descriptions list the valid entries for a field, however, all entries may not be valid on all forms or in all generics. The individual forms must be consulted to determine which values are valid for the fields on that form and for which generics. For example, the entries for the CALLTYP field on the codegroup forms vary between the domestic and international codegrouping forms.

The characters > and < are used to indicate which Generic Programs will apply (Examples: 4E18> indicates 4E18 and later Generic Programs, <4E18 indicates 4E18 and earlier Generic Programs, 4E18 indicates the 4E18 Generic Program only, and >4E18 indicates all Generics up to, but not including, 4E18).

The field names of the form entries are listed alphanumerically with numbers preceding alphabetic characters.

A field name may be followed by a suffix to indicate the set of forms to which the field applies:

Suffix		Forms
cdg	-	codegroup forms
cos	-	class of service
fen	-	far end network
mas	-	mass announcement
misc	-	miscellaneous
ovp	-	overlap signaling
rdb	-	routing data block
trk	-	trunk
tsg	-	trunk subgroup
utp	-	unit type

Keyword Glossary, Continued

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LUCENT TECHNOLOGIES PROPRIETARY
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Keyword Glossary

00Y	The Y digit value of the 00Y signaling the (LATA) for an Legal values for **"Y"** are: **"0-9"**.
3BRECCAP	3B Recording Capacity Improvements - This field is used to specify if the 3B Recording Capacity Improvements feature is to be activated. An entry of **"Y"** indicates that the feature should be activated. Valid entries are **"Y"** or **"N"**.
A6TOS	Six-Digit Advanced Intelligent Network (AIN) Type-Of-Service (TOS) Index (4E23R3>) - This is an office wide parameter which is used instead of the Call Type TOS when querying an AIN database based on a 6-Digit AIN trigger. Valid values are: **"Blank"** or **"0-31"** (**"Blank"** means the parameter is NOT populated).
A800TT	Advanced 800 Translation Type - This field specifies the Signaling System 7 (SS7) Translation Type to be used by the Signal Transfer Point (STP) on global title address Advanced 800 queries to route the query to the appropriate Network Control Point (NCP) database. Valid input values are **"Blank"** or **"0-255"**.
AASE	Announcement Administration System Equipment Office Parameter - This office parameter specifies if the AASE (either Administration Processor [AAP] or the Announcement Systems Manager [ASM]) is equipped or not equipped. Valid entries are **"Blank"**, **"Y"**, **"N"**. **"Blank"** defaults to **"N"**. **"N"** specifies that the AASE is not equipped. **"Y"** specifies that the AASE is equipped.

Continued on next page

Keyword Glossary, Continued

ABC

The first three digits of a given set of digits (A, B, and C) - This field lists all of the 3-digit codes that make up a code group. If the Area Code (AC) field is marked **"Yes"**, this code group may consist of 3-digit combinations in the range of **"200-999"**. If this code group is not an Area Code grouping (AC = **No**), then any number combination from **"000-999"** is valid. When the AC field is **"Blank"**, ABC may be equal to **"000-999"**.

If DOM equals Plain Old Telephone Service (POTS), the 3-digit code corresponding to the Home Numbering Plan Area (HNPA) may be assigned as ABC digits if permissive dialing is allowed on the HNPA and AC = **"N"** (Offices using Traditional Routing only - (4E22>).

ABC.ccd

The first three digits of the called party number to derive the country code. Valid entries are **"000 - 999"**. Recommendation:

- For a one-digit country code, build all 100 combinations of B & C digits for the first A digit.
- For a two-digit country code, build all 10 combinations of C digits for the given A & B digit.
- For a three-digit country code, build only the one combination of ABC digits.

ABC-DEF-GHI

This keyword is used to identify the "Old Code Group" when using the RC Form 343 for Carrier Identification Code (CIC) Expansion. Only the values given for the "Old Code Group" column in Table 1 in Division 3, Section 3AR are allowed.

ABC-DEF-GHI-J

This field specifies the digits where an Advanced Intelligent Network (AIN) trigger is set or reset using the RC Form 345. Valid entries are any digits **"0-9"**.

Continued on next page

Use pursuant to Company Instructions

Keyword Glossary, Continued

AC	Area Code - A **"Y"** for Yes indicates that all of the 3-digit codes (ABC digits) on this form are Area Codes. If the ABC digits are office codes, test codes or other non-Area Codes, AC will be **"N"** for No. This field is left **"Blank"** when Domain (DOM) is not equal to Plain Old Telephone Service (POTS).
ACCDTA	Not Applicable - Entries: **"Blank"**
ACCID	Not Applicable - Entries: **"Blank"**
ACD	Automatic Call Distributor - This field is used to indicate if this Trunk Subgroup (TSG) is used to terminate Inward Wide Band Area Telephone Service (INWATS) traffic. Enter **"Y"** if this TSG will terminate INWATS traffic. Enter **"T"** if INWATS Time of Day (TOD) billing is required. Enter **"N"** or leave **"Blank"** if this TSG will not terminate INWATS traffic.
AC/DEAC	Activate/Deactivate - The Activate/Deactivate switch is used by Emergency Alternate Routing (EAR) Feature. This switch is used to Activate an alternate reroute in the case of a natural disaster, bomb threat, etc. or Deactivate the alternate reroute when the emergency passes. Valid entries are **"AC"** or **"DEAC"**.
ACI	Not Applicable - Entries: **"Blank"**

Continued on next page

Keyword Glossary, Continued

ACITRANS	AT&T Customer Interface (ACI) Translation space requirement. This field specifies the number of 1024-word blocks of disk-only memory required for the ACI-related translators. Valid values are **"Blank"** or **"100-511"**.
ACNTR	Accumulating Counter - Accumulating Counter Index is a number between **"0-127"** that is assigned to the master Televote application for a line number. Up to 64 entries can be specified using RC Form 608. This field is **"Blank"** if Market Segment Indicator (MSI) equals **S**.
ACT	Activate - see RCACTION.
ACTION	Action - Add, Change, or Delete. Enter **"A"** if the associated data on this form is being added. Enter **"C"** if the associated data on this form changes existing data. Enter **"D"** if the associated data on this form is being deleted.
ACVLIMIT	Access Charge Verification (ACV) Trunks. This field specifies the number of trunks in the office that may be subject to ACV processing. Valid inputs are **"Blank"** or **"0-99999"**.
AD	Add or Delete - Leave this field **"Blank"** for initial Office Data Assembler (ODA) input. For subsequent ODA input, enter an **"A"** to Add or **"D"** to Delete data associated with this form.

Continued on next page

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Keyword Glossary, Continued

AD1

Additional Data 1 - This field further defines the treatment given to a code group translation. AD1 is an extension of the Call Type (CALLTYP) and CALLDATA words. For a given CALLTYPE and CALLDATA, the AD1 will define the specific code group treatment. Valid entries for the appropriate services are:

- **"Blank"**
- **"GNS" (Go/No Go Screening)** - If GNS Call Type is used, the AD1 field is used to enter the Go/No Go value for the Call Type. The field may contain a Go **("G")** or No Go **("N")** condition for the list of codes that appear on this form. The indication is linked with a given GNS Class in the next field. All two-way and incoming Trunk Subgroups (TSGs) are assigned a GNS Class. By manipulating the Go/No Go conditions for a group of codes, incoming traffic can be denied (sent to vacant code) on one or more TSGs and allowed to complete on others.

Continued on next page

Keyword Glossary, Continued

AD1 (cont'd.)

- **"SDTYPE" (Subsequent Digit Index Type)** - The AD1 field for SDX Call Type is used to identify the type of index that must be used to index the subsequent digit entry. Valid entries are as follows:
  - **MTS** Multiple Treatment Screening class from an incoming trunk. Valid entries are **"Blank"** or **"0 - 63"**.
  - **DC** Digit Count of the incoming call. Valid entries are **"0 - 63"**.
  - **DRTC** Data Rate Transfer Capability for Integrated Services Digital Network user Part (ISUP) to Multifrequency (MF) interworking. Valid entries are **"0 - 7"**.
  - **IPR** ISUP Preference Routing. Valid entries are:
    "0" - ISUP Preferred. The outgoing trunks should be mostly ISUP.
    "1" - ISUP not required. The outgoing trunks should be mostly non-ISUP.
    "2" - ISUP Required. All outgoing trunks must be ISUP.
    "3" - Spare
  - **V31K** Voice or 3.1kHZ indicator. Valid entries are:
    "0" - 3.1kHZ
    "1" - Voice.
- **"SSP" (Service Switching Point)** Call Type - If SSP Call Type is used, the AD1 field is used to enter either the Type of Service (TOS) indicator value for the CALLDATA of NCP12, RT, RT00Y, RTCOIN, SICQ, DB, DB7, DB00Y, or DBCOIN or the Number Services Data Block (NDB) for the CALLDATA of NDB or TNSND, or the Subscribed Footprint Area Index (SFAI) for the CALLDATA of Subscribed Footprint Area (SFA).
  - **NDBI** - Number Services Data Block Index value defines which Interexchange Carrier or International Carrier routing control block will be used for the call. Valid input values are **"1-1023"**.

Continued on next page

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Keyword Glossary, Continued

AD1
(cont'd.)

- **SFAI** - Subscribed Footprint Area Index used to calculate a corresponding SFA domain. Valid input is **"0-6"** (**"0-39"** for 4E23>).
- **TOS** - Type of Service entry defines which number service will be identified with this Call Type entry. Valid input is a number between **"0"** and **"31"**.

- **"SAPN"** - This field is used to specify the Slave Application Number (SAPN) assigned when the Call Type is TEL. Valid range is **"0-63"**.

Continued on next page

Keyword Glossary, Continued

AD2

Additional Data 2 - This field further defines the treatment given to the group of codes listed on this form. AD2 is an extension of the Call Type (CALLTYP), CALLDATA, and AD1. For a given CALLTYPE, CALLDATA, and AD1, the AD2 will define the specific code group treatment. CALLTYPE/CALLDATA/AD1/AD2 correlation is shown below:

- **GNS (Go/No Go Screening)** Call Type - If GNS Call Type is used, the AD2 field is used to enter the Go/No Go Screening Class for the Call Type.
  - This field will have an entry when CALLTYP is GNS and AD1 is not **"Blank"**. The Go/No Go Screening Class specifies the Trunk Subgroup (TSG) class that will be allowed or denied completion to the regular routing. A range of **"0-3"** may appear in this field.
- **SSP (Service Switching Point)** Call Type - If SSP Call Type is used, the AD2 field is used to enter the Carrier IDentification (CID) indicator value for the CALLDATA of NCP12, RT, RT00Y, or RTCOIN.
  - CID - Carrier IDentification number defines which Interexchange Carrier or International Carrier will be used to route the call. Valid input is **"0000-9999"**.

If either:

- the DOM is Super Tandem Carrier ID (STCD) and the CALLDATA is Access Tandem Transit Network Selection Digits (TNSND) or
- the DOM is Number Service Routing (NSR) and CALLDATA is Number Services Data Block (NDB),

then the AD2 field specifies if the associated Carrier is allowed to receive all possible Information Digit/ Originating Line Information (II/OLI) values or is restricted only to certain values (Restrict II/OLI [RIO]). Allowed entries are:

- **"Blank"** or **"N"** (Restrict II/OLI forwarding [DEFAULT])
- **"Y"** (Allow II/OLI forwarding).

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Keyword Glossary, Continued

AD3 Not Applicable - Entries: **"Blank"**

ADC.cdg Acceptable Digit Count/Code Group - This field specifies the total number of incoming digits expected for a call routed to this Call Type. This field must be entered for the following Call Types: CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, TST, and TTS.

The legal values for this field are digit counts from **"3-15"** for domestic routing.

For the Call Types requiring that an ADC be input, at least one number must be specified. More than one number may be listed as valid. For example, if the Call Type points to an Routing Data Block (RDB), 6, 8 or 10 digits may be valid. Note that the number of incoming digits specified is the number of incoming digits actually received before modification by deletion or prefixing in the RDB but after A-digit reconstruction. When the Call Type treatment points to an international transit RDB (International Domain [IDOM] equals **"T"** on the RDB form) or an international originating RDB (IDOM equals **"O"**), the Language Digit (LD) is never counted in the number of digits that make up the ADC regardless of whether the LD is translated or not.

Dial Pulse (DP) and Dual Tone Multifrequency (DTMF) rely on collecting digits one-at-a-time. A range of **"3-15"** entry causes DP or DTMF critical digit timing (5 second recognize end of dialing) after each digit beyond the third digit since each digit is potentially the last. On any DP or DTMF call with less than 15 digits it causes a five second post dialing delay.

Continued on next page

Keyword Glossary, Continued

ADC.cdg (cont'd.)

MF, CCIS, CCITT5, ISUP, and Q931 are en-block (not-one-at-a-time) digit collectors. When the complete address is received on en-block digit collectors or when a 5-second timeout occurs on the one-at-a-time digit collectors, the number of digits received is compared with the various totals specified by the ADC in the Call Type word to which this call has been directed. If the number of digits received does not match one of the totals specified by ADC and this is an en-block call, the call will be given partial dial Final Handling Treatment (FHT). If the number of digits received does not match one of the totals specified by ADC and this is a one-at-a-time call, an additional 10 seconds (total of 15 seconds) will be allowed. If no additional digit is received during this interval, the call is given partial dial FHT (Partial Dial Timeout). If the number of digits on a one-at-a-time call does match one of the totals specified by ADC and no additional digit is received within a 5-second delay, the call will be routed on the number of digits received even if there are additional digits that have not been received yet. Therefore, the ADC should not be set any lower than the number of digits needed to correctly route the call for one-at-a-time digit collectors.

ADC.misc

Acceptable Digit Count/Miscellaneous - This field specifies the total number of incoming digits expected for a call directed to a Customer Routing Block (CRB) with this Customer Data Block Index (CDBI). The number of incoming digits specified is the number of incoming digits actually received before modification by deletion. Enter **"D"** for a domestic 7- or 10-digit ADC combination or enter a number from **"3-14"** corresponding to the number of digits expected.

ADC.ovp

Acceptable Digit Count/Overlap - This field specifies the acceptable digit count to be used by Consultative Committee for International Telephone & Telegraph 7 (CCITT7) Overlap Signaling for a given country code. The ADC combination can be either all **"Blanks"** or range from **"3-15"** for a given country code.

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Keyword Glossary, Continued

ADC.rdb

Acceptable Digit Count/Routing Data Block (RDB) - This field specifies the total number of incoming digits expected for a call directed to this RDB. At least one number must be specified. More than one total may be listed as valid. For example, for a particular RDB, 6, 8 or 10 digits may be valid. For a different RDB, 4 or 5 may be the number of incoming digits expected. Note that the number of incoming digits specified is the number of incoming digits actually received before modification by deletion or prefixing in this RDB but after A-digit reconstruction. The number of digits can range from **"3-14"** (**"2-14"** for international).

Dial Pulse (DP) and Dual Tone Multifrequency (DTMF) rely on collecting digits one-at-a-time. A 3-14 entry causes DP or DTMF critical digit timing (5-second recognize end of dialing) after each digit beyond the third digit since each digit is potentially the last. On any DP or DTMF call with less than 14 digits it causes a five second post dialing delay.

MF, CCIS, CCITT5, ISUP, and Q931 are en-block (not-one-at-a-time) digit collectors. When the complete address is received on en-block digit collectors or when a 5-second timeout occurs on the one-at-a-time digit collectors, the number of digits received is compared with the various totals specified by ADC in the RDB to which this call has been directed. If the number of digits received does not match one of the totals specified by ADC and this is an en-block call, the call will be given partial dial Final Handling Treatment (FHT). If the number of digits received does not match one of the totals specified by ADC and this is a one-at-a-time call, an additional 10 seconds (total of 15 seconds) will be allowed. If no additional digit is received during this interval, the call is given partial dial FHT (Partial Dial Timeout). If the number of digits on a one-at-a-time call does match one of the totals specified by ADC and no additional digit is received within a 5-second delay, the call will be routed on the number of digits received even if there are additional digits that have not been received yet. Therefore, the ADC should not be set any lower than the number of digits needed to correctly route the call for one-at-a-time digit collectors.

ADDA

Not Applicable - Entries: **"Blank"**

Continued on next page

Keyword Glossary, Continued

ADDRESS The following are the 3 types of addresses that can be indicated by this field:

1. CS_ - Core address in base 1B Processor Call Store (CS) memory range (MAIN_CS type of memory). Valid for Segment 0 only.

2. XS_ - Core address in Extended Store (XS) CS memory range (EXT_CS type of memory). Valid for Segments 1-3 only.

3. DSK_ - Disk address. (DO_TRAN or ACI_TRAN type of memory). Currently DO_TRAN and ACI_TRAN can only be in Segment 0.

ADEAMF Not Applicable - Entries: **"Blank"**

ADFHT Not Applicable - Entries: **"Blank"**

ADG Automatic Distribution Group - In an International Operating Center, several operator units may provide operator assistance on incoming calls. In non-International Switching Centers (ISCs), this feature can be used with multiple operator units to balance Plain Old Telephone Service (POTS) calls to Directory Assistance, inward operator, etc. Four ADGs can be accommodated with each ADG Routing Data Block (RDB) having up to 32 Trunk Subgroups (TSGs). Valid entries are **"0-3"** or **"Blank"** if not an ADG RDB.

ADIG "A" Digit - Reconstruction will be necessary when receiving digits from a machine that absorbs the first digit of a dialed address. Valid entries are **"0"** or **"2-9"** if International Switching Center (ISC) equals DPIMADG. This field is **"Blank"** for all other cases.

ADNISUP Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

ADR

This field is printed on the International Switching Centers Verify 7b Message for a Terminal Group Rack (TGR) unit-type in two places. The first occurrence of this field identifies the starting address in the TGR translator of the specified sub-members data. Each sub-member entry is four words long.

The second occurrence of this field on the output message identifies the starting address in the Signaling Link Complement (SLC) translator of the entry for the terminals associated with this sub-member. Each entry is four words long and contains information about international mated terminal pairs.

ADSI

Not Applicable - Entries: **"Blank"**

AFA

ANI Failure Action - This field is used to specify the actions that must be taken for Equal Access Signaling (EAS) calls for which Automatic Number Identification (ANI) is expected but not received. This field is only applicable for Inter-LATA Carrier switches which receive EAS calls. If EAS calls cannot be received from this particular Far End Network (FEN), then this field must be left **"Blank"**. If EAS calls can be received from this FEN, then enter one of the following:

- **RR** - Route the call normally and make a special Record of the call using existing data.
- **KA** - Kill the call and play the Reorder Announcement (ROA) to the caller.
- **KW** - Kill the call by sending an unexpected wink (long off-hook) while the ROA announcement is played. This is a particularly effective way to find out which End Office (EO) is not passing ANI for calls which are received from an Access Tandem (AT) (the ANI and called sequences of EAS calls are transparent to the AT). However, this should not be used indiscriminately, since it causes trouble reports to be generated.

AHRNA

Not Applicable - Entries: **"Blank"**

Continued on next page

Keyword Glossary, Continued

AINCFRTH AIN Call Forwarding Redirection Threshold - This field is used to specify the number of times an Advanced Intelligent Network (AIN) call can be redirected. If this threshold is exceeded, the call is given final treatment. Valid entries are **"Blank"** and **"1-32"**. **"Blank"** is also a valid entry. **"Blank"** is not allowed for Recent Change (RC).

AINCGFHT AIN Automatic Call Gap Final Handling Treatment - This field is used to specify the final handling treatment for Advanced Intelligent Network (AIN) calls blocked due to Automatic Call Gap (ACG) controls. For a numeric relationship to the Final Handling Treatment (FHT), refer to the Lucent User's Guide number 234-090-019.)

Office Data Assembler (ODA) 406Z: See the description for Routing Data Block Final Handling Treatment (RDBFHT) for a list of all valid entries. **"Blank"** is also a valid entry. The default value is "**ROA**".

RC 810: **"Blank"** is not allowed. Enter value from **"0-127"** for final treatment.

AINFHT AIN Final Handling Treatment - This field is used to specify the final treatment for Advanced Intelligent Network (AIN) calls which fail.

ODA 406Z: See the description for RDBFHT for a list of all valid entries. The default value is "**ROA**". **"Blank"** is also a valid entry.

RC 810: **"Blank"** is not allowed. Enter value from **"1-127"** for final treatment.

AININD1 AIN Indicator - This field is used to specify that the Information Digit/ Originating Line Information (II/OLI) value is an Advanced Intelligent Network (AIN) trigger.

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Keyword Glossary, Continued

AININD2	AIN Indicator - This field is used to specify that the Information Digit/ Originating Line Information (II/OLI) value is an Advanced Intelligent Network (AIN) trigger.
AINON	AIN On/Off Switch - This field is used to specify whether the Advanced Intelligent Network (AIN) feature is on or off. Valid Office Data Assembler (ODA) Form 406C entries are **"Y"**, **"N"**, **"Blank"**. Valid RC Form 809 entries are **"ON"** or **"OFF"**.
AINRDFLT	This indicator is NO longer being used. It was being used to specify whether to route using default when Service Switching Point (SSP) Send Information and Analyze Query (SIAQ) to Service Control Point (SCP) cannot be completed or final handle call when SSP SIAQ query to SCP cannot be completed (ODARDFLT).
AINRESP	AIN Response Timer - This field is used to specify the length of time the Service Switching Point (SSP) must wait for a response from the Service Control Point (SCP) for an Advanced Intelligent Network (AIN) query. Entries are specified in centiseconds. Valid RC Form 810 entries are **"100"** (100 centiseconds = 1 second) through **"500"** (500 centiseconds = 5 seconds). The default value is **300**. **"Blank"** is not allowed for RC.
AINSSN	AIN Subsystem Number - This field is used to specify the Advanced Intelligent Network (AIN) Subsystem Number (SSN). Valid entries can be **"Blank"** and **"0-255"** excluding **2**, **3**, and **5**. AINSSN is assigned on Office Data Assembler (ODA) Form 406Z/RC Form 810.

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Keyword Glossary, Continued

AIN TFREE AIN 800/Tollfree Indicator. Valid entries are **"Blank"**, **"Y"**, and **"B"**. This element indicates whether the Type of Service (TOS) has Tollfree (TFREE) designation. This field can only be entered on the form if the Advanced Intelligent Network (AIN) 800/Tollfree feature has been purchased.

- **Y** is for when the TOS has TFREE designation.
- **N** is for when the TOS does not have TFREE designation.
- **"Blank"** translates to **"N"**.

AINTRIG_IN_WCS AIN Triggers in Windowed Call Store - Advanced Intelligent Network (AIN) Triggers in Windowed Call Store (WCS) is used to indicate whether or not the AIN Called Number Trigger Expansion - Phase 0 tables are in WCS or 1B Main Memory. Enter **"Y"**' if these structures are in WCS. Enter **"N"**' if these structures are in 1B Main Memory. This is for 4E21>.

AINTRIG AIN Serial Trigger Max - This field is used to specify the maximum number of queries that can be sent to the Service Control Point (SCP) database for an Advanced Intelligent Network (AIN) call. Valid entries are **"1-6"** or **"Blank"**. **"Blank"** is not allowed for Recent Change (RC).

AIR Not Applicable - Entries: **"Blank"**

AISS P Alarm Indication Signal Seconds Path - This field is used when defining the Expanded Time Slot Interchange (XTSI) Digital Signal 3 (DS3) Unit DS1 (15 minute) and (24-hour) Performance Monitoring Thresholds with the RC Form 664. Valid entries: **"Blank"** or **"0-63"**.

ALA Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

ALAP

Alaskan Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the ALAP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is ALAP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

ALF

A-Link Formatter - Hardware version of the ALF pack for Expanded Time Slot Interchange (XTSI) Controller 0 or 1 - This keyword is used on the Recent Change (RC) Form 705 to set the XTSI Controller Hardware versions. Valid entries are **"Blank"** or **"0"** (for the initial 4WB6 ALF pack).

ALLRDB

ALLRDB is an input to the output (OPT) keyword of the VER:CODELIST input message.
VER:CODELIST;STDP,OPT ALLRDB: CALLTYP RDB, CALLDATA x (where x is this input Routing Data Block Index [RDBI]).

When receiving this message, verify will display all codes (including those embedded in PRT, MRT, MCT, PLU structures) which reference the RDBI. This includes (but not exclusive to) Call Types such as RDB, MMT, RNR, GNS, EAR whose CALLDATA is an RDBI. It also looks at TTS Call Types whose TTSI reference the input RDBI and Service Switching Point (SSP) Call Types which point to an NDB that references the input RDBI.

In addition, the message will display and ALA, ALA/OSN and ADG combinations that also reference the input RDBI.

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Keyword Glossary, Continued

ALTNUM The Alternate Number and Primary Domain (PRIMDOM) of a Customer would be used to route a call in the case of a natural disaster, bomb threat, etc. Valid entries: ten digit number from **"2xxxxxxxxx"** through **"9xxxxxxxxx"** (where x is any digit from 0 to 9) if PRIMDOM equals Plain Old Telephone Service (POTS). Valid entries: a seven digit number from **"2xxxxxx"** through **"9xxxxxx"** (where x is any digit from 0 to 9) OR a ten digit number from **"2xxxxxxxxx"** through **"9xxxxxxxxx"** if PRIMDOM is not equal to POTS.

AMABUFER This field is used to engineer the size of the buffer in the 1A Processor from which the Automatic Message Accounting (AMA) data is Direct Memory Accessed (DMAed) across the Attached Processor Interface (API) to the 3B Processor for further processing. The buffer size can be engineered from a minimum of 8 blocks to 24 blocks where the size of each block is 2048 words. Valid entries are **"8-24"**.

AN4R Not Applicable - Entries: **"Blank"**

ANCR Not Applicable - Entries: **"Blank"**

ANFHT ANI Failure Action Final Handling Treatment. This field is used to specify the FHT that should be given to Integrated Services Digital network User Part (ISUP) calls that use this Routing Data Block (RDB) and do not have Automatic Number Identification (ANI). This field may be left **"Blank"** or see RDBFHT for the allowable entries.

ANI ANI send indicator. This field identifies if the Interexchange Carrier (IC)/ International Exchange Carrier (INC) is expecting the callers Automatic Number Identification (ANI) to be delivered. This information is only used at an Service Switching Point (SSP) office. Valid inputs are: **"N"** - No, **"Y"** - Yes.

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ANI IN WCS Not Applicable - Entries: **"Blank"**

ANIACTN This field specifies the action to be taken when the first two digits of a call correspond to an Equal Access Signaling (EAS) Information Digit (II) + Automatic Number Identification (ANI) sequence or when an Integrated Services Digital network User Part (ISUP) message is received with a specified Originating Line Information (OLI) value. The following entries are allowed:

- **CANI** - Complete ANI. If the digit count for the call is equal to ANICOUNT, assume this is the ANI sequence and expect the next stage.
- **IAROA** - Incomplete ANI. If the digit count for the call is equal to ANICOUNT, kill the call and play the Reorder Announcement (ROA).
- **IAAFA** - Incomplete ANI. If the digit count for the call is equal to ANICOUNT, assume this is the ANI sequence and expect the next stage. Processing for the call will proceed according to the ANI Failure Action (AFA) field specified for the particular Far End Network (FEN) on the 406L Form.
- **NONEA** - Non Equal Access. This value is used only for II digits and specifies that the call is a traditional call, not equal access.

ANICOUNT The expected digit count (given that this is a Equal Access Signaling [EAS] Information Digit [II] + Automatic Number Identification [ANI] sequence or Originating Line Information [OLI] value) is specified in this field. The expected digit count is the total number of ANI digits. Valid entries are **"3-10"** for II and **"0"**, **"3"**, **"10"**, or **"X"** for OLI, where **X** means any digit count other than **0**, **3**, or **10**.

ANINDEX Announcement Index - This value represents the Service Control Point (SCP) returned treatment index values. These values will then be mapped to the desired local treatment processing. Valid input values: **"0-255"**.

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Keyword Glossary, Continued

ANIR Not Applicable - Entries: **"Blank"**

ANISID ANI/SID requester value: This field specifies the type of calling party information which should be transmitted to the customer. Valid entries are:

- **Blank** No information
- **NONE** No information
- **ANI** Automatic Number Identification (ANI) only
- **SID** Service Identity (SID) only
- **PANI** ANI or SID (prefer ANI)
- **PSID** ANI or SID (prefer SID)
- **REQ** Customer will use signaling to specify.

ANN Announcement - This value specifies the local 4ESS Switch announcement that is to be used for the identified index. Enter **"UNA"** for Unassigned or see RDBFHT description for the remaining allowable entries.

ANNIDNCP Not Applicable - Entries: **"Blank"**

ANNISDN Not Applicable - Entries: **"Blank"**

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ANNUM Announcement Number - This field is used to specify a unique internal 4ESS Switch/Mass Announcement System (MAS) ANNUM for each Public Announcement System (PAS) announcement.

Valid entries are **"1-511"** that is not used by any other announcement assigned to the same MAS frame.

Valid entries for Barge-In announcements are **"1-511"** that is not used by any other announcement.

ANSEP The Announcement Separation Class (ANSEP) ranges from **"0-31"** to indicate a traffic class for measurement purposes. For ANSEP classes greater than **0**, only one announcement may be assigned to any one class. ANSEP is used with the Geographical Traffic Separation Class (GEOSEP on the Trunk Subgroup [TSG] Forms) to peg geographical survey counts in Mass Announcement System (MAS) offices.

ANSWER Not Applicable - Entries: **"Blank"**

ANSWR Answer Supervision - This field is used to specify whether or not Answer Supervision is to be returned on the incoming trunk. A **"Y"** specifies return Answer supervision. An **"N"** specifies do not return Answer supervision. Valid entries are **"Y"** and **"N"**.

NOTE: The Public Announcement System (PAS) vacant code announcement and the PAS announcement inactive announcement should have an "N" entered.

AOPC Alias Origination Point Code - This field will provide a unique combination of a Local Exchange Carrier (LEC) Signal Transfer Point (STP) Point Code (PC) and an AT&T STP PC for each Local Access Transport Area (LATA) dedicated D-link set via a logical point code. AOPC, if entered, must be entered in the ATT format. See the Point Code Format (PCF) field for the format description. AOPC may only be entered when the PCF field is not **"Blank"**.

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Keyword Glossary, Continued

APS	Accunet® Packet Service - This field is used to indicate if Accunet packet service can be performed on this Trunk Subgroup (TSG). Enter **"Y"** if Accunet packet service is allowed. Enter **"N"** or leave **"Blank"** if Accunet packet service is not allowed.
AREA ERPISET	Not Applicable - Entries: **"Blank"**
AREA ESET_INDEX	Not Applicable - Entries: **"Blank"**
AREA INCON	Not Applicable - Entries: **"Blank"**
ASAI	Avoid SID/ANI Increment - Enter **"Y"** if a Service Identity/Automatic Number Identification (SID/ANI) increment message should not be sent back to the recording office when the Calling Party Number/Billing Number (CPN/BN) is successfully passed. Otherwise enter **"N"** or leave **"Blank"**.

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ASGHC Adjunct Trunk Subgroup Headcell - An ASGHC is a block of Call Store (CS) memory that is associated with a Trunk Subgroup (TSG) when special Network Management (NM) counts and controls are applied to it. These include Dynamic Overload Control (DOC), Selective Trunk Reservation (STR) and manual route controls. When any of the various functions are requested by NM, an idle ASGHC is seized from a pool and held as long as the function is in effect on the TSG. Note that if no idle ASGHCs remain in the pool, requests for special controls are rejected. Adjunct head cells should be engineered to satisfy the requirements for the maximum number of TSGs that might need special NM controls at the same time. The minimum number of ASGHCs for an office is 64. An office may have up to 1024 (2048 in 4E18>) head cells in increments of 4 specified in this field. The actual number of usable adjuncts is one less than the total number in the office. No significant system operation overhead results from excess ASGHCs. Under engineering may limit the number of TSGs on which controls and counts can be placed. Since this item directly affects their operation, NM should be consulted. The value entered on this form should agree with that on the CS worksheet.

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Keyword Glossary, Continued

ASRAPP

Automatic Speech Recognition Application - Entries: **"Blank"** or **"0-7"**. The current ASRAPP definitions are:

- **0** - No Automatic Speech Recognition Application
- **1** - ASR Application Type 1 which has the ability to capture isolated or connected digits, keywords and TDD.

See also NCDSU for interactions between ASRAPP and Number of Customer Data Service Units Installed (NCDSU).

ASTOPT

The active stop time is the time, within 23 hours of the activation of the Recent Change (RC), when an active announcement is to be terminated. The announcement must be active if this field is used. If this field is set to the default by entering one asterisk for an active announcement, the announcement will play continuously. If the announcement is not active, the field must be left blank. The field is composed of two sub-fields: the hour and minute sub-fields. The hour sub-field ranges from **"00-23"**. The minute sub-field ranges from **"00-59"**. Valid entries are 24 hour clock time, **"Blank"** or asterisk to remove the stop time.

If the time entered is the current time or less than 1 hour in the past, then the announcement is deactivated as soon as possible.

AT

Access Tandem (AT) office - Enter a **"Y"** for Yes or **"N"** for No. A **"Y"** in this field indicates the office is functioning as an AT office.

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ATAP

Access Tandem Area Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the ATAP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is ATAP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

ATOSI

AIN Type-Of-Service (TOS) Index (4E22>) - This is an office wide parameter which is used instead of the Call Type TOS when querying an Advanced Intelligent Network (AIN) database based on an AIN Trunk Subgroup (TSG) trigger. Valid values are: **"Blank"** or **"0-31"** (**"Blank"** means the parameter is NOT populated).

ATPSCU

Not Applicable - Entries: **"Blank"**

ATPSCUM

Not Applicable - Entries: **"Blank"**

ATRIG

AIN TSG Trigger (4E22>) - This Trunk Subgroup (TSG) parameter allows TSG circuits to trigger the Advanced Intelligent Network (AIN) processing. The parameter can have the values: **"Blank"**, **"N"** (Do NOT allow access), **"Y"** (Allow access). The default is **"N"**.

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Keyword Glossary, Continued

ATTCAMA This call category is associated with the "new" Centralized Automatic Message Accounting (CAMA) records. When the Interexchange Carrier (IC) and the Operating Company each are capable of handling their own billing records, this call category will be used to route IC's records. If the DUAL-RAO office configuration has been selected and the RAO substitution field is left **"Blank"**, it will default to **"IC"**. If the alternative RAO is required, input **"OC"**.

ATTERM This category is associated with Access Tandem (AT) Terminating Access records and Feature Group B (FGB) Terminating Access records. If the "DUAL RAO" office configuration has been selected and the RAO substitution field for this call category is left **"Blank"**, it will default to **"OC"**. If the alternative RAO is required, input **"IC"**.

BAND This field identifies the band number of the input message. Valid entries are **"0-127"**.

BAND1 First Band Number - This field identifies the band assigned to the Consultative Committee for International Telephone & Telegraph No. 6 (CCITT6) trunk's First Signaling Link Complement Index (SLCINDX1) complement. The band is conveyed between offices via the signaling channel with the supervisory or address information to a specific trunk. Valid range is **"0-127"**.

BAND2 Second Band Number - This field identifies the band assigned to the Consultative Committee for International Telephone & Telegraph No. 6 (CCITT6) trunk's Second Signaling Link Complement Index (SLCINDX2) complement. The band is conveyed between offices via the signaling channel with the supervisory or address information to a specific trunk. Valid range is **"0-127"**.

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BBC	Not Applicable - Entries: **"Blank"**
BBFPFHT	Blue Box Fraud Prevention Final Handling Treatment - This field specifies the FHT code to be used on detection of BBF. BBFPFHT may be left **"Blank"** or see RDBFHT for the allowable entries.
BBFPMFR	Blue Box Fraud Prevention Multifrequency (MF) Receiver Allocation - This field provides for a range of **"0-127"** for MF Receiver allocations in North American offices to prevent BBF. No entry in this field will be treated as a zero. Approximately one MF Receiver per 1000 trunks in an office could be used as an estimating guide. An overflow office counter will indicate possible under engineering of MF Receivers for Fraud prevention.

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Keyword Glossary, Continued

BFTIS

Backward Failure Treatment Integrated Services Digital Network User Part (ISUP) all the way. This field is used to specify whether an Announcement (ANN) should be played or a Release (REL) message should be sent when a call has gone ISUP all the way.

On the Trunk Subgroup (TSG) Forms, this field is only used when signaling is ISUP and the type of trunk is OCC. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"REL"** when it applies.

For Office Data Assembler (ODA) Form 406Z, this field is used for designating the action for intra-Local Access Transport Area (LATA) ISUP call failures occurring at the switch. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"REL"**.

BFTNI

Backward Failure Treatment not Integrated Services Digital Network User Part (ISUP) all the way. This field is used to specify whether an Announcement (ANN) should be played or a Release (REL) message should be sent when a call has not gone ISUP all the way.

On the Trunk Subgroup (TSG) Forms, this field is only used when signaling is ISUP and the type of trunk is OCC. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"ANN"** when it applies.

For Office Data Assembler (ODA) Form 406Z, this field is used for designating the action for intra- Local Access Transport Area (LATA) ISUP call failures occurring at the switch when a call has not gone ISUP all the way. Valid entries are **"Blank"**, **"ANN"**, or **"REL"**. If left **"Blank"**, this field will default to **"ANN"**.

BIN

Bin - Preprinted field denotes either the 15-minute or 24-hour bin used when defining the Performance Monitoring Thresholds for Expanded Time Slot Interchange (XTSI) applications.

BITFN

Barge-In Trunk Traffic Number. Valid entries are **"0-511"**.

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BL	Building - see TSG.
BLCNT	Billing count blocks. This field specifies the number of 20-word blocks of duplex call store required for Q.931 special services counts (e.g., Automatic Number Identification/Service Identity (ANI /SID aggregate counts, Message Associated User-to-User Information [UUI]). One block is needed for each Trunk Subgroup (TSG) where ISC is Q.931 or where ANI/SID or WANISID is not **"Blank"** and not **"NONE"**. Valid values are **"Blank"**, or a numeric value from **"1-512"**.
BLKBXPS	Black Box Fraud Prevention Switch - A **"Y"** in this field will activate Black Box Fraud control. An **"N"** or **"Blank"** will deactivate Black Box Fraud control.
BLOCK	The block field specifies whether or not the codes, listed on this form, are to be blocked (intercepted) or allowed to continue as a valid call. A **"Y"** for yes indicates that the code will be intercepted. An **"N"** for no indicates that the terminating code is valid as a Centralized Automatic Message Accounting (CAMA) call over the trunk group associated with the profile index (Recent Change [RC] Form 400).
BLOCK A	This field specifies the Routing Data Block Index (RDBI) to be in effect for the particular Load Set Period (LSP) when Block A is active. Valid entries are RDBIs, for LSP 1-15, in the range of **"1-8191"** defined on the RC 500 Form with Terminating Toll Switch Index (TTSI) set to **"N"**. (LSP 0 field is optional).
BLOCK B	This field specifies the RDBI to be in effect for the given LSP when Block B is active. The RC 500 Form specifies which block is to be active. The entry is an RDBI, for LSP 1-15, in the range of **"1-8191"** defined on the RC 615 Form with TTSI set to **"N"**. (LSP 0 field is optional).

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Keyword Glossary, Continued

BN.misc	Billing Number/Miscellaneous - A ten digit customer billing number must be entered.
BN.tsg	Billing Number/Trunk Subgroup- This field is used to specify a BN associated with the TSG. It may be left **"Blank"**, or a **"3-"**, **"4-"**, or **"10-digit"** number may be entered. If FENCLASS is ACCESA or ACCESI, BN must be a 4-digit number (4-digit number if Type of Feature Group [TFG] is "B") equal to the (X)XXX corresponding to the inter-Local Area Transport Access (LATA) or International Carrier at the far end of the TSG. If FENCLASS is CMC, OWATS, or PBX, BN must be a 10-digit number. If the Automatic Call Distributor (ACD) field is **"Y"**, then BN must be a 10-digit number specifying the billing number of the INWATS ACD customer. If the ACD field is **"T"**, then BN must be **"199"**.
BNA	Billing Number Action - This field is used at the terminating toll switch to specify that the Billing Number (BN) should be Passed (**P)**, dropped (**D)**, or that the Trunk Subgroup (TSG) (**T**) control field, Prohibit Sending Billing Number (PSBN), should specify the appropriate action to be taken. Valid entries are **"Blank"**, **"P"**, **"D",** and **"T"**. If left **"Blank"**, this field will default to the TSG control.
BNPT	Not Applicable - Entries: **"Blank"**
BOUNDUPA	Boundary Upper Protect Address: Valid entries are **"1-1336"**.

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Keyword Glossary, Continued

BRL	Billing Record Length - This field is used to specify whether long or short Automatic Message Accounting (AMA) records should be created for calls on this Trunk Subgroup (TSG). An "**S**" should be entered if Short AMA records are required or an "**L**" should be entered if Long AMA records are required. If "**L**" is entered, both answered and unanswered calls are recorded. If "**S**" is entered, only answered calls are recorded. If this field is left "**Blank**", short AMA records will be made (if necessary). **NOTE: There is only one record length for Private Branch Exchange (PBX) calls, so this field should be used to indicate whether both answered and unanswered.**
BTFN	Base Traffic Number - see TSG.
BUF	Buffer - see RCACTION.
C1WTO2W	Convert a One-way Trunk Subgroup(TSG) to a Two-way Trunk Subgroup - This specifies a one-way TSG (incoming or outgoing) is to be converted to a two-way TSG. Valid entries are "**Blank**", "**Y**", or "**N**".
C7NIDLY	Not Applicable - Entries: "**Blank**"
CAD	Change, Add or Delete - Leave this field "**Blank**" for initial Office Data Assembler (ODA) input. For subsequent ODA input, enter a "**C**" to Change, "**A**" to Add, or "**D**" to Delete data associated with this form.
CALL CODE	This field specifies the call code for which a structure code set is being defined. Valid input values are: "**0-999**".

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Keyword Glossary, Continued

CALLDATA This field further defines the treatment given to the group of codes listed on this form. CALLDATA is an extension of the Call Type (CALLTYP). For a given CALLTYP, the CALLDATA will define the specific code group treatment. CALLTYP/CALLDATA correlation is shown below.

- **Emergency Alternate Routing (EAR) Call Type** - The CALLDATA for EAR is an RDB index in the range of **"1-8191"**.

- **FHT Call Type** - The Final Handling Treatment (FHT) CALLTYP is used to point a group of codes directly to an announcement or tone. The CALLDATA field identifies that tone or announcement circuit. Valid entries are : **"AR"**, **"BT"**, **"EA1-EA7"**, **"HW"**, **"IFF"**, **"INC"**, **"IVC"**, **"MCA"**, **"NCA"**, **"NCC"**, **"NCD"**, **"NWC"**, **"OOB"**, **"ROA"**, **"SP1"**, **"SP2"**, **"T"**, **"VCA"**, **"DNN"**, **"DPP"**, **E01-E02"**, **"I01-I30"**, **"INF"**, **"ISB"**, **"LDV"**, **"LOB"**, **"LSA"**, **"NCB"**, **"NWN"**, **"OOA"**, **"OTS"**, **"R01-R10"**, **"S01-S19"**, **"SNA"**, **"STO"**, **"TDN"**, **"UNN"**, **"VMA"**, **"WAT"**. Consult Lucent Practices 781-031-100 for further definition of various tones and announcements. See the Routing Data Block Final Handling Treatment (RDBFHT) description for the identifiers that may be specified.

- **GNS Call Type** - If the GNS CALLTYP identifier is used, the CALLDATA field will contain a Routing Data Block Index (RDBI) from **"1-8191"**. This index will be used to direct the call if the Go/No Go Screening (GNSC) passes. The Go No Go (G/N) and GNSC fields specify the Go/No Go conditions. If the GNSC fails, the call is directed to the vacant code Final Handling Treatment (FHT).

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Keyword Glossary, Continued

CALLDATA (cont'd.)

- **PAS Call Type** - If Public Announcement System (PAS) Call Type is used, the CALLDATA field must contain a 12-digit announcement identifier. This identifier is made up of the 5-digit Voice Storage System Identity (VSSID) and 7-digit Service Identity (SID).
- **RDB Call Type** - For RDB, the CALLDATA field will contain a Routing Data Block Index (RDBI) from **"1-8191"**. This number will specifically identify a given set of routing parameters as listed in the RDB form with that same RDBI. The RDB entry is used to directly point a group of codes toward routing information.
- **SDX Call Type** - The CALLDATA for SDX is a Subsequent Digit Index (SDX) which identifies a particular subsequent digit entry. Valid values are **"1-16383"**.
- **SSP Call Type** - If Service Switching Point (SSP) Call Type is used, the CALLDATA field must contain one of the following identifiers:
  - **RT** - Retranslate Carrier ID (CID) and Type Of Service (TOS) plus Incoming Trunk Class (ITC) in the Number Services Routing (NSR) domain.
  - **RT00Y** - Retranslate CID TOS plus ITC in the NSR domain with a 00Y for Numbering Plan Area (NPA) lookup.
  - **RTCOIN** - Retranslate CID TOS plus ITC in the NSR domain for a 00X coin call.
  - **ACPN** - The 0ZZ-XXX[X] (or Transit Network Selection [TNS]) translation indicates Analyze the Called Party Number". For the Equal Access Multifrequency (EAMF), the switch will receive the second/third stages of digits and proceeds with digit translation looking for Called Number Triggers.

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Keyword Glossary, Continued

CALLDATA (cont'd.)

- **AIIO** - The 0ZZ-XXX[X] (or TNS) translation indicates "Analyze the Information Digit/Originating Line Information (II/OLI)". This causes the switch to intercept the second and third stages of digits in for EAMF, and to check II/OLI for the "Send Advanced Intelligent Network (AIN) Information Collected Query" (SIAQ) value.
- **DB** - TOS and Database query.
- **DB7** - TOS and Database query for a 7-digit dialed number.
- **DB00Y** - TOS and Database query with a 00Y or NPA lookup.
- **DBCOIN** - TOS and Database query for a 00X coin call.
- **EASDNA** - Receive the Equal Access (EA) sequence and retranslate the address sequence in the Software Defined Network (SDN) Access (SDNA) domain.
- **EASEQ** - Collect the 2nd and 3rd stage digits EA format.
- **NCP12** - 12- or 9-digit address returned from the SDN NCP, the first two digits of which are deleted by the 4ESS Switch before outpulsing, retranslate the CID, TOS, and ITC in the NSR domain.
- **NDB** - Interexchange Carrier/International Carrier (IC/INC) routing. Requires Call Handling Instruction (CHI) entry of Number Services Data Block (ND), Number Services/Inhibit Black Box (NDB) or Number Services/Inhibit Black Box and Blue Box (NDBB).
- **RTP** - Retranslate the routing digits in Plain Old Telephone Service (POTS).
- **SFA** - Subscribed Footprint Area (4E22R4>)
- **SIAQ** - Send Information and Analyze Query.
- **SICQ** - The 0ZZ-XXX[X] (or TNS) translation indicates "Send AIN Information Collected Query". This causes the switch to intercept the second and third stages of digits in the EAMF case and the indicated query is sent to the Service Control Point (SCP) without any analysis of the called number.

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Keyword Glossary, Continued

CALLDATA (cont'd.)

- **TNSND** - Access Tandem Transit Network Selection Digits -This identifier is used at an Access Tandem (AT) switch to handle incoming calls from equal access Integrated Services Digital Network User Part (ISUP) to outgoing equal access ISUP or MFWINK. This subtype is only used in the Access Tandem Transit Network Selection (ATNS) domain.

- **TEL** Call Type - If TEL Call Type is used, the CALLDATA field must contain a 12-digit announcement identifier. This identifier is made up of the 5-digit VSSID and 7-digit SID.

- **TST** Call Type - This identifier specifies that the group of codes on this form are test codes. The CALLDATA field will identify the test. The following combinations may be assigned.

  - **100** - Balance - provides a quiet termination.
  - **101** - Communication - provides a link to a test board or test position.
  - **102** - Milliwatt - source of 1000 hertz test tone.
  - **103** - Signal/Supervisory - This test provides a series of on-hook/off-hook transitions.
  - **105** - Automatic Transmission Measuring System (ATMS) - provides a connection to an ATMS responder.
  - **108** - Echo Suppressor - The 108 test is used to test Echo Suppressor operation.
  - **109** - This test is used to test Echo Canceller operation.
  - **DLC -** Data loopback/complement test trunk.
  - **SYN** - Synchronous - SYN specifies a signaling/supervision test similar to 103 but on an automatic timed basis.

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Keyword Glossary, Continued

CALLTYP The Call Type is used to define the major category for the disposition of the codes listed on this form. The valid Call Type categories are as follows:

- **EAR** - The Emergency Alternate Routing feature will be used to reroute calls. The EAR Call Type will be used for code groups which must be screened for this feature and will indicate that one or more destination numbers in the code group have this feature. This feature allows business customers to redirect calls from a primary location to an alternate location when the primary location is the victim of a natural disaster, a bomb threat, or other terrorist activity.

- **FHT** - Final Handling Treatment. This identifier specifies that the listed codes will be directed to a Final Handling Treatment (FHT) announcement or tone.

- **GNS** - Go/No Go Screening - GNS specifies that this group of codes will be given GNS before the routing is determined. If this call type is entered. GN and GNSC fields must be completed.

- **PAS** - Public Announcement System - This identifier specifies that the codes listed will terminate the customer to the announcement specified in the CALLDATA field.

- **RDB** - Routing Data Block - RDB is used to specify that the set of codes listed in this form will be routed directly to Trunk Subgroups (TSGs) defined by a Routing Data Block (RDB).

- **SDX** - Subsequent Digit Index - This Call Type is used to reference a subsequent digit entry which contains several alternative routing treatments that are selected on the basis of an index determined by the type value entered as AD1. In memory, the SDX call type contains data stating the grid table size: **"1"** meaning a size of 16 entries, **"2"** meaning 128, **"3"** meaning 1024. To obtain the number of SDs, use the VER:CODEGRP:SDINDEX message (4E23>).

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Keyword Glossary, Continued

CALLTYP (cont'd.)

- **SSP** - Service Switching Point - This identifier is used to designate the processing of a Numbered Services call.
- **TEL** - TELEVOTE with Public Announcement System - This identifier specifies that the codes listed will terminate the customer to the announcement specified in the CALLDATA field. TEL is only valid in the Plain Old Telephone Service (POTS) Domain.
- **TST** - Test - This identifier is used for the code line test combinations within a translation domain. Three digit codes under this call type would include 10X codes and the synchronous test.

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Keyword Glossary, Continued

CANP

Canadian Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the CANP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is CANP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

CAPACITY

<4E19 - This field is used to set the scale of the "Attempts Handled" display on the Master Control Console (MCC) system performance display panel. The capacity listed here will be the maximum attempt rate that can be displayed on the MCC indicator. This quantity is not used in any other function and will not affect the actual attempt capacity of the office. The entry in this field is by busy hour attempts. A range from 50,000-600,000 in 50,000 attempts per busy hour may be entered.

NOTE: A low value in this field may cause an off scale reading during heavy traffic while an excessively high value will cause a loss of indicator sensitivity.

CAPPN

The Cut-Through Application Number is a unique number from **"0-63"** which identifies a particular Cut-Through Application within the 4ESS Switch/Mass Announcement System (MAS) office.

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Keyword Glossary, Continued

CAREA Control Area - Valid input for this field is a single digit in the range of **"0-9"**. This number identifies the Control Area that is to be associated with this Trunk Subgroup (TSG) for trouble reporting. The number assignable in a given office is limited, however, to the highest control area assigned at Office Data Assembler (ODA) time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location.

Any test position can access every trunk assigned to the 4ESS Switch with the exception of international trunks. International trunks having Incoming Signaling Characteristic (ISC) or Outgoing Signaling Characteristic (OSC) equal to Consultative Committee for International Telephone & Telegraph 5 (CCITT5) must be assigned to a CAREA that is equipped with 51AL6 test positions. The 51AL6 test position can access any trunk assigned to the 4ESS Switch. However, the alarms, Teletype (TTY) printouts, and 101 calls associated with a particular TSG will only be transmitted to the CAREA and CPOS that is specified on the input form for a TSG. A single trouble receiving location could be specified for all TSGs in the office. Trouble tickets might be originated here and distributed to occupied test positions as necessary. Some other typical applications could be to assign the TSGs to testboard positions alphabetically, by direction, by ownership, or by Type of Trunk (TOT).

The only other restraint on assigning a TSG to a particular CAREA and CPOS is that all positions might not have the optional equipment required to satisfactorily test some Trunk Subgroups. The arrangement in a given office depends on the administrative decisions made for that office.

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Keyword Glossary, Continued

CAREA (cont'd.)

Position 00 (CAREA 0, CPOS 0) has been assigned to the Master Test and Control Channel (MTC) teletype in the Maintenance Operating Center (MOC). This position was established to receive trouble reports for certain non-message type TSGs. Lucent Technologies recommend that positions 01-09 not be assigned in an office at this time. The circuits that should be assigned to test position 00 are:

- ACI*DCHN - D-Channel circuits to the Common Network Interface (CNI) Ring
- CLN*DLPC - Loopback/complement Data Test
- MAS*BIPB - Mass Announcement System (MAS) Barge-in Playback Trunk
- MIS*AART - Auxiliary Audible Ring Trunk
- MIS*TERM - Common Channel Interoffice Signaling (CCIS) Terminals
- SVC*AIN* - Advanced Intelligent Network (AIN)
- SVC*DMRV - Dual-Tone Multifrequency (MF) Receivers (DTMFR)
- VC*DMXM - Dual-Tone Multifrequency Transmitters (DTMFT)
- SVC*MFR* - Multifrequency Receivers
- SVC*MFX* - Multifrequency Transmitters
- SVC*XCVR - CCIS Continuity Check Transceivers
- SVC*XCVT - CCIS Continuity Check Transceiver Test Circuit
- SVC*MFRT - Multifrequency Receiver Test Circuits
- SVC*MFXT - Multifrequency Transmitter Test Circuits
- SVC*SCAN - Service Circuit System Expanded Announcements
- SVC*SCBN - Service Circuit System Expanded Announcements
- SVC*SCNS - Network Services Complex Set S
- TAS*ANN* - Recorded announcements
- TAS*TONE - Tone Circuits
- TAS*MWAT - 1004 hz at 0 dBm
- TAS*MW10 - 1004 hz at 10 dBm

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Keyword Glossary, Continued

CAREA (cont'd.)

The balance of the non-message type TSG may be assigned to working testboard positions.

For RC Forms 604 and 605, this number identifies the Control Area that is to be associated with this announcement trouble report. The number assignable in a given office is limited, however, to the highest control area assigned at ODA time as defined by the highest Member Number for a test position. This is because of engineered memory allocated for plant measurement purposes. Each Control Area can have a maximum of 10 (0-9) associated Control Positions (CPOS). The Control Area number and the CPOS number combined make up the testboard position number. For example CAREA-2 and CPOS-5 would be testboard position 25. A maximum of 100 (0-99) testboard positions may be installed for a 4ESS Switch location. If CAREA 0, CPOS 0 is specified, all MAS messages will be sent to the MTC channel in the MOC.

CARP

Caribbean, Non-US Territories, Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the CARP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is CARP .

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

CARSON

Not Applicable – Entries: **"Blank"**

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Keyword Glossary, Continued

CAUSE	Cause value - A cause value is used to specify the information to be sent in a release message indicating the cause for a connection release. This field is used to override the existing cause value contained in the release message with the cause value that is specified. Valid entries are **"Blank"** for no translation change or **"0-127"**.
CBC	Not Applicable - Entries: **"Blank"**
CBN	Call Back Number - CBN is a seven or 10 digit telephone number associated with the Centralized Automatic Reporting On Trunks (CAROT) control location. It is used by the 4ESS Switch as part of the CAROT/ROTL interface.
CBN.tsg	Connecting network access Billing Number option. The following are the valid field entries: **"Blank"** - no special Automatic Message Accounting (AMA) recording options (the default), **"N"** - Non-Feature Group-D signaled calls, or **"L"** - Local Number Portability (LNP) Non-Feature Group-D signaled calls.
CBN DIGS	Not Applicable - Entries: **"Blank"**
CBN DIGS.tsg	(4E22R2>) Incoming Trunk TSG Connecting network access Billing Number Digits - a 10 digit TSG parameter. This field can only be populated if the CBN field is **"N"** - Non-Feature group-D signaled calls, or **"L"** - Local Number Portability (LNP) Non-Feature Group-D signaled calls. Entries: **"Blank"** or a **"10-Digit Number"**.

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Keyword Glossary, Continued

CBNPR Calling Party Number/Billing Number Default Presentation Restriction Indicator - This field indicates whether the received CPN/BN can be passed from the network at the egress point or not. Enter **"Y"** if the default condition for the presentation of CPN/BN should be to restrict it. Enter **"N"** or leave **"Blank"** if the default condition for the presentation of CPN/BN should be unrestricted. This field applies to incoming trunks for which CPN/BN is pre-stored or on which CPN/BN can be received. For Integrated Services Digital Network User Part (ISUP) Trunk Subgroups (TSGs) with Type of Trunk (TOT) or Local Exchange Carrier Connecting (LCC), this field should be populated with a **"Y"**.

For 4E17 and later generics: Enter **"PA"** or **"Blank"** if the default condition for the presentation of CPN/BN should be unrestricted. Enter **"PR"** if the default condition for the presentation of CPN/BN should be to restrict it.

CBONLY Cable Only indicator - Valid entries are **"Y"** for Yes, cable only routing, or **"N"** for No, unrestricted routing. A **"Y"** would be specified for certain Pseudo Country Codes which imply cable only facilities. A **"Y"** would also be entered for certain Country Codes where the office does not have direct circuits to that foreign country and the "via" country's offices could use satellite routing to complete calls to their destination.

CCD Country Code or Pseudo Country Code - Country Code can be one, two, or three digits with each digit having a value of **"0-9"**. These digits specify the country for which this call is destined. Valid entries are **"0-999"**. Pseudo Country Code will always be three digits.

CCDSM Common Channel Interoffice Signaling (CCIS) Data Set Frame Member Number - This number identifies the CCIS Data Set Frame Terminal Group Rack Terminal. Only terminals with an STYPE equal to 5 or 6 can be connected to a CCIS Data Set Frame. Valid entries are **"0-15"** if the STYPE field equals 5 or 6, otherwise leave the CCDSM field **"Blank"**.

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Keyword Glossary, Continued

CCDSS	Common Channel Interoffice Signaling (CCIS) Data Set Submember Number - This field is used to designate the sub-member in the CCIS Dataset Frame that a terminal is connected to. Only terminals with an STYPE equal to 5 or 6 can be connected to a CCIS Data Set Submember. Valid entries are **"0-15"** if the STYPE field equals **5** or **6**, otherwise leave the CCDSS field **"Blank"**.
CCID	Country Code ID. This field indicates whether the entry is a Country Code or a Pseudo Country Code. Valid entries are **"CCD"** or **"PCCD"**.
CCIF	Not Applicable - Entries: **"Blank"**
CCIS2WRE	Common Channel Interoffice Signaling (CCIS) 2-Wire - This field should be **"Blank"** for a non-Common Channel Signaling (CCS) Trunk Subgroup (TSG). If this is a CCIS or Integrated Services Digital Network User Part (ISUP) TSG, then it must be determined whether the far end office will terminate the trunks in this TSG on a 2-wire or 4-wire switching network in order to perform the continuity check test on CCIS or ISUP trunks. The CCS continuity check tests will be performed by using the transceiver in either a transceive mode for 4-wire CCS trunks or in a transpond mode for 2-wire CCS trunks. Enter a **"Y"** for Yes if the far end office has a 2-wire network, e.g., 1 ESS/1A ESS 2-wire. Enter an **"N"** for No if the far end office has a 4-wire network, e.g., 1 ESS/1A ESS HILO, 4ESS, 5ESS®, etc.

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Keyword Glossary, Continued

CCISOSO Common Channel Interoffice Signaling (CCIS) Inward Wide Band Area Telephone Service (INWATS) Originating Screening Office - An entry other than **"N"** in this field indicates that the office is functioning as a CCIS INWATS OSO. This means that a CCIS direct signaling message can be sent to an INWATS data base for originating INWATS calls (which encounter an Inward WATS (INW) Call Type word) for the purpose of screening. An entry of 1 Signal Transfer Point (1STP) or 2STP is used to designate whether the direct signaling messages will be sent to the INWATS database via the 1STP network or the 2STP network. An entry of **"DCIS"** is used to designate that the direct signaling message will be sent to the INWATS database via the 2STP network using a high-speed link. An entry of Transaction Capabilities Application Part (TCAP) is used to designate that the direct signaling message will be sent to the 2STP network using Common Channel Signaling 7 (CCS7) signaling format.

An **"N"** in this field indicates that the office is a NON-CCISOSO or is not handling originating INWATS screening.

CCISTERM This field identifies the Consultative Committee for International Telephone & Telegraph 6 (CCITT6) terminal of the input message. Valid entries are **"0-255"**.

CCNCT Country Code digit count. This field indicates the number of digits in the Country Code. Valid entries are **"1-3"**.

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Keyword Glossary, Continued

CCODE Call Code Value - This field indicates the Far End Network (FEN) recording call codes. The codes that may be entered are as follows:

- **CCNO** - No FEN call code (default)
- **CCACI** - 4ESS Switch is an Inter-exchange Carrier (IC) application and FEN is an International Carrier (INC).
- **CCACO** - 4ESS Switch is an IC application and FEN is an Operating Company.
- **CCAM2** - 4ESS Switch is supporting Centralized Automatic Message Accounting (CAMA) recording on the Trunk Subgroup (TSG) for Local Exchange Carrier (LEC) CAMA Access Station Paid.
- **CCAMA** - 4ESS Switch is supporting CAMA station paid recording on the TSG.
- **CCCMC** - 4ESS Switch is an Access Tandem (AT) application and FEN is a Cellular Mobile Carrier.
- **CCCPA** - 4ESS Switch is an IC application and FEN is a Common Platform Adjunct.
- **CCFGB** - 4ESS Switch is an AT application and FEN is either an IC or INC. The terminating access for this TSG is Feature Group B (FGB).
- **CCFGD** - 4ESS Switch is an AT application and Far-End Network is either an IC or INC. The terminating access for this TSG is FGD.
- **CCICR** - 4ESS Switch is supporting CAMA recording on the TSG for Carrier Identified CAMA recording
- **CCINT** - 4ESS Switch is a International Switching Center (ISC) and FEN is a foreign carrier, International Call Detail Recording is required on this TSG.
- **CCMEG** - TSG is dedicated to support MEGACOM service and FEN is a Private Branch Exchange (PBX).
- **CCMGC** - TSG supports call-by-call MEGACOM service and FEN is a PBX.

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Keyword Glossary, Continued

CCODE (cont'd.)

- **CCOEO** - TSG supports AT Toll Resale and connect an AT office to an Other End Office (OEO) meaning an Equal Access End Office (EAEO) owned by a different company.
- **CCOWC** - TSG supports call-by-call Direct-Connect Outward Wide Band Area Telephone Service (OUTWATS) service and FEN is a PBX.
- **CCOWT** - TSG is dedicated to support direct-connect OUTWATS service and FEN is a PBX.
- **CCPBX** - 4ESS Switch is an IC application and FEN is a PBX.
- **CCPLC** - PBX Local Exchange Carrier (LEC) per-call Carrier Selection Network Interconnect Data Call.
- **CCPOT** - TSG supports Plain Old Telephone Service (POTS).
- **CCSDN** - 4ESS Switch is an AT application where TSG is dedicated to Software Defined Network (SDN) calls and requires CAMA recording.

CCRF Not Applicable - Entries: **"Blank"**

CCTT Not Applicable - Entries: **"Blank"**

CDBI Customer Data Block Index - The Customer Data Block (CDB) contains billing and routing information pertaining to a particular customer. The CDBI field on RC 622 defines the customer information for the Customer Routing Block translations entered on RC 620 with the same CDBI. The range of CDBIs is **"1-4095"**.
For RC 620, multiple CRBIs defined for the same customer may have the same CDBI value.

CDSC FLOOR Custom Data Service Cabinet Floor Location (must correspond to an Office Alarm GRID) (4E21>) - Valid entries are: **"Blank"**, **"0-99"**.

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Keyword Glossary, Continued

CDSC FRAME NUM	Custom Data Service Cabinet Frame (or Bay) Number (4E21>) - Valid entries are: **"Blank"**, **"0-99"**.
CDSC GLF	Octal representation of the Custom Data Service Cabinet's GRID Unit Type Member Number, Line Number, and Frame/Bay Number. Valid entries are: **"Blank"** or eight octal digits.
CDSC GRID	Unit Type Member Number of the office GRID Alarm the Customer Data Service Cabinet is wired to (4E21>). Valid entries are: **"Blank"**, **"0"** to remove or **"1-15"**.
CDSC LINE NUM	Custom Data Service Cabinet Line Number (4E21>) - Valid entries are: **"Blank"**, **"0-999"**.
CDSC NUM	Customer Data Service Cabinet Number (4E21>) - Valid entries are: **"Blank"**, **"0-63"**.
CDSC UL	Customer Data Service Cabinet Upper/Lower Indicator for CDSC of HV of 2 (4E21>) - Valid entries are: **"Blank"**, **"U"** for upper half of CDSC, or **"L"** for lower half of the CDSC.
CDSRT	Not Applicable - Entries: **"Blank"**
CDSU HV	Custom Data Service Unit Hardware Version (4E21>) - Valid entries are: **"Blank"**, **"0"** to remove (Hardware Version Undefined), **"1"** for CDSU Vintage version, **"2"** for CDSU Version 2.

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CELL GROUP Cell Grouping Index associated with Incoming Separation Class (INSEP) and Destination Separation (DESEP) specified on input form. Valid range is **"1-1023"**. **"0"** is reserved for generic auditing purposes. All INSEP and DESEP values not assigned to a Cell Grouping will be set to index 1023 by the Office Data Assembler (ODA) system. Cell Grouping Index 1, which is used for test calls, is generically associated with INSEP-DESEP Pair 31-63 in all offices. This form may be used to associate all other INSEP-DESEP Pairs which include INSEP 31 to Cell Grouping Index 1.

CFPBLOCK Change Forecast Period Block - This field is used to change the Dynamic Non-Hierarchical Routing (DNHR) active block. When entered, the rest of the fields must be **"Blank"**. When changing the Local Service Provider (LSP) data (date or time), the forecast period block field must be **"Blank"**. Valid entries are **"BLOCKA"**, **"BLOCKB"**, or **"Blank"**.

CFPDATE Change Forecast Period Date - This is the date on which the forecast period will change, and comprises the month, day and year of the change. The CFPMONTH, CFPDAY, and CFPYEAR fields must all have an entry whenever any of the fields is entered.

CFPDAY The calendar day for the forecast change. Valid entries are in the range of **"1-31"**.

CFPHOUR Change Forecast Period Time as designated by an hour entry in the range of **"00-23"**.

CFPMONTH The calendar month when the forecast change will be made. Valid entries are in the range of **"1-12"**.

CFPYEAR The year for the forecast period change. Valid range of **"00-99"**.

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Keyword Glossary, Continued

CHI

Call Handling Instructions. This field is used to specify some call handling actions to override present Outgoing Signaling Characteristics (OSCs), recording, and/or fraud prevention controls. This field is needed because of the new call handling requirements for Interexchange Carrier (IC) and International Carrier (INC) Access. The CHI field only applies if the CALLTYP is CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, RDB, RNR, SSP, TEL, TST, or TTS.

NOTE: This field must be populated for some existing code groups, such as those used for 2-stage International calls and ADD-ON Teleconferencing calls. Failure to populate this field for these calls will result in failure to complete these calls.

Valid entries for CHI field are:

- **"Blank"** - If this field is **"Blank"**, no special call handling instructions are taken.
- **AAT2** - Access Tandem (AT) to IC Traditional Two-stage. This CHI value is used at the AT or Service Switching Point (SSP) to identify that a traditional two-stage international incoming call to the AT/SSP is being passed to the carrier via equal access using Integrated Services Digital Network User Part (ISUP) signaling.
- **ABBB** - Same as ACD, but in addition, disable Black Box and Blue Box fraud prevention.
- **ABLK** - Same as ACD, but in addition, disable Black Box Fraud prevention.
- **ACD** - Inward Wide Band Area Telephone Service (INWATS) ACD. Specifies that a terminating INWATS ACD record is to be made.
- **EAAR** - Expect Automatic Number identification (ANI) Assist Request. EAAR specifies actions at an intermediate toll switch for a call on which an ANI Assist Request is expected. For example, an ANI Assist Request is expected on a call to establish an ADD-ON Teleconference.

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CHI (cont'd.)

- **EGRH** - Egress Handling. Specifies actions at the egress switch for Direct Connect and Software Defined Network (SDN) calls. Usually, these calls will be directly terminating to a Private Branch Exchange (PBX). However, in some SDN cases, they will terminate to a local switch, either via a dedicated Trunk Subgroup (TSG) or via special NXX codes (unused office codes). EGRH can only be specified if DOM is APN, DED, or DEV. Note that it must be specified for all DED and DEV calls at the Egress switch (and not at intermediate switches) to allow the Direct Connect and/or the SDN (Offnet Egress Privilege) features.
- **ESD2** - Expect Second Start Dial 2. ESD2 specifies actions at an intermediate toll switch for a 3-stage Exchange Access call to an International Carrier (INC), including the Interexchange Carrier (IC) International Switching Center when it is able to receive Exchange Access calls.
- **ESSD** - Expect Second Start Dial. ESSD specifies actions at an intermediate toll switch for a 2-stage International call to an IC International Switching Center.
- **FGB** - Feature Group B. FGB specifies actions for calls to an IC or INC.
- **IBBB** - Same as ICDR, but in addition, disable Black Box and Blue Box fraud prevention.
- **IBLK** - Same as ICDR, but in addition, disable Black Box Fraud prevention.
- **ICDR** - International Call Detail Recording. Specifies that an ICDR record is to be made.
- **IEA** - Interim Exchange Access. IEA specifies actions for calls from an End Office (EO) unequipped to do Exchange Access signaling to an IC or INC able to handle Exchange Access signaling. (Initial plans call for these calls to have ABC digits of 950.)
- **MSC1, MSC2** - Miscellaneous 1 and 2. Two miscellaneous values are included. These can be assigned if an unforeseen set of calls require special call handling instructions.
- **ND** - Number Services Data Block information for outpulsing control.

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Keyword Glossary, Continued

CHI (cont'd.)

- **NDB** - Number Services Data Block information for outpulsing control, inhibit Black Box.
- **NDBB** - Number Services Data Block information for outpulsing control, inhibit Black Box and Blue Box.
- **NONE** - This entry is used for a verify input request of codes that contain no Call Handling Instruction.
- **WACK** - Wait For Acknowledgment. WACK specifies actions for calls to an INC for which a trunk is seized and digits outpulsed. The talking path is not cut through until an Acknowledgment signal is received from the INC. This entry only applies to a 4ESS Switch owned or operated by an Operating Company as an Access Tandem (AT).
- **WAC2** - Specifies the signaling actions to be performed by an AT when connecting an Equal Access End Office (EAEO) to an INC (possibly through an Intermediate Carrier).
- **WSNO** - Wink Start No Outpulse. WSNO specifies actions for calls for which a trunk to an IC or INC is to be seized but no digits outpulsed. This is one option allowed in Exchange Access signaling, and is chosen by the IC or INC.

CHNEG

Channel Negotiation - This field is used to indicate whether channel negotiation can be performed on this Trunk Subgroup (TSG) or not. Enter **"Y"** if channel negotiation is allowed. Enter **"N"** or leave **"Blank"** if channel negotiation is not allowed.

CIA

Control Bus and Image Administrator - Hardware version of the CIA pack for Expanded Time Slot Interchange (XTSI) Controller 0 or 1 (4E24>) - Entries are **"Blank"** or **"0"** (for initial UN547 CIA pack) and (4E24R2>) enter **"1"** (for UN650 CIA pack).

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CIC	Carrier Identification Code. The Carrier Identification Code provides the capability to consolidate trunk groups from Local Exchange Carrier (LEC) switching offices (end or tandem) to Interexchange Carrier (IC) switching offices by delivering carrier code information associated with individual calls to the IC. Up to 16 Carrier Identification Codes can be provisioned per Trunk Subgroup (TSG). If the TSG is provisioned for 3-digit CIC expansion (ONCID=3), then all CICs must be provisioned with a leading zero. Valid entries are: **"Blank"**, **"0000-9999"**.
CIC DA	Not Applicable - Entries: **"Blank"**
CID	Carrier ID. This field is populated with the pre-subscription carrier selected by the customer to handle inter-Local Access Transport Area (LATA) calls; and intra-LATA calls when intra-LATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. This field is only populated for ISC/OSC=Q.931.
CID.tsg	Carrier ID. This field is populated with the pre-subscription carrier selected by the customer to handle inter- Local Access Transport Area (LATA) calls; and intra-LATA calls when intra-LATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. This field is only populated for ISC/OSC=Q.931.

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Keyword Glossary, Continued

CIN

Circuit Identification Name - This is the method of naming Trunk Subgroups (TSGs). Typically the CIN is a reference to the location at the far end of the TSG from a specific switching entity. The BTFN is usually the first circuit number assigned to a TSG but is not a requirement for operation in the 4ESS-2000 Switch. The breakdown of the CIN is as follows:

- **BTFN** - Base Traffic Number - Valid entries: **"0-9976"**
- **TOWN** - Town - Valid entries: Four alphabetic characters
- **ST** - State - Valid entries: Two alphabetic characters
- **BL** - Building name - Valid entries: Two alphanumeric characters
- **FBS** -Far end Building Subdivision - Valid entries: Three alphanumeric characters
- **NBS** - Near end Building Subdivision - Valid entries: Three alphanumeric characters.

CIVO

Common Channel Signal (ISUP, INUP, and TUP) Voice Calls and Old Announcements is an indicator used to determine whether to send a backwards release or play announcement. Valid values are **"Blank"** for no translation change, **"PA"** for Play announcement or **"REL"** for Release.

NOTE: Intra IC ISUP trunks use both the CIVO and AIR fields to determine whether a voice call is to be released or an announcement is to be played. When CIVO=REL, a Release with cause (no announcement ID) will be sent to release the call. When CIVO=PA and AIR=Y, a Release with cause and announcement ID will be sent to release the call. Otherwise, the announcement will be played.

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CLASS This field specifies the classification of the Far End Network (FEN). Valid entries are:

- **ACCESA** - This identifier specifies that the FEN is an Interexchange Carrier (IC) or International Carrier (INC), and the 4ESS Switch is being used by a Local Exchange Carrier (LEC) as an Access Tandem (AT) to switch calls from this FEN.
- **ACCESI** - This identifier specifies that the FEN is an INC, and the 4ESS Switch is being used by an IEC (e.g., ATTIX) to switch calls from this FEN.
- **ACCESO** - This identifier specifies that the FEN is an Operating Company.
- **CAMA** - This identifier specifies that the Trunk Subgroup (TSG) is terminated on an office which delivers traffic on CAMA trunks.
- **CMC** - Cellular Mobile Carrier - This identifier specifies that the FEN is a CMC. The TSG connects an Access Tandem (AT) and a CMC.
- **INTL** - This identifier specifies that the FEN is outside World Zone 1, and the 4ESS Switch is being used as an International Switching Center (ISC).
- **ITS** - This identifier specifies that the TSG is a link to an Other Common Carrier or Direct Connect Customer who is delivering international traffic to the network.
- **OEO** - Other End Office connecting, meaning an Equal Access End Office (EAEO) owned by a different company. This identifier specifies that the FEN is an OEO. The TSG connects an AT and an OEO.
- **OWATS** - This identifier specifies that the FEN is a Private Branch Exchange (PBX) which only places Outward Wide Band Area Telephone Service (OWATS) calls.
- **PBX** - This identifier specifies that the FEN is a Private Branch Exchange (PBX).
- **POTS** - This identifier specifies that the FEN is either the Local Access Transport Area (LATA) of the LEC owning/sharing the 4ESS Switch, the Continental United States POTS (CUSP) network of the IC owning/ sharing the 4ESS Switch, or some other FEN to be treated similarly.

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Keyword Glossary, Continued

CLIQUE	A CLIQUE is the part of a Time Assignment Speech Interpolation frame (TASI-E) that is uniquely associated with a Miscellaneous Scan Point to provide Dynamic Load Control (DLC). Valid entries are **"0-4"**.
CMERGE	Not Applicable – Entries: **"Blank"**
CMTYP	Centralized Automatic Message Accounting (CAMA) Type - This field is used to specify the type of CAMA record made on this Trunk Subgroup (TSG). Enter **"1"** if the standard Operating Company CAMA record must be made on this TSG. Enter **"2"** if an Inter-Local Area Transport Access (LATA) Carrier CAMA record and an Operating Company access record must be made on this TSG. If TOT is not CAMAA or CAMAO, this field must be **"Blank"**. **NOTE: The entries correspond to the number of records which will be made.**
CN	Connected Number - This field specifies the network provided connected number for a direct connect customer. Separate numbers can be associated with individual Integrated Services Digital Network (ISDN) services. This number, if specified, can range from one to ten decimal digits.
CNIINBF	Common Network Interface (CNI) Ring Input Buffer Size - This field specifies the size (in words) of the CNI input buffer (1A to CNI message buffer). Valid values are: **"Blank"**, **"0"**, **"1000-32000"**.
CNIOPR	Common Network Interface (CNI) Operational Status - This field indicates whether the CNI ring will be present in the office and will be functionally operational at retrofit time. Enter **"Y"** if the CNI ring will be present and operational at retrofit time. Enter **"N"** or leave **"Blank"** if the CNI ring will not be present or will not be functionally operational at retrofit time.

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CNIOUTBF	Common Network Interface (CNI) Ring Output Buffer Size - This field specifies the size (in words) of the CNI output buffer (CNI to 1A message buffer). Valid values are: **"Blank"**, **"0"**, **"1000-32000"**.
CNPR	Connected Number Presentation Restricted - This field controls the presentation of the network provided connected number for a direct connect customer. Valid values are **"Y"** which indicates restriction, and **"N"** which indicates no restriction. Independent presentation restricted indicators are maintained for each Integrated Services Digital Network (ISDN) service.
CNS	Connected Number Subscription - This field specifies whether a direct connect customer has subscribed to receiving a connected number. Valid values are **"Y"** which indicates subscription, and **"N"** which indicates no subscription. Independent subscription indicators are maintained for each ISDN service.
CNT	Called Number Trigger - A blank represents a non-trigger or NONE. Valid entries are **"Blank"**, **"NONE"**, **"AIN"**, **"LNP"**, or **"BOTH"**.
CODE	This field specifies the three digit code which will be associated with the Type Of Service (TOS) index value. Valid inputs values are: **"000-999"**.
CODE SET	This field specifies which structure code set is to be assigned to the identified call code. Valid input values are: **"NONE"**, **"SET1"**, and **"SET2"**.
CODEGRP	For increasing the Number of Translatable Digits (NTD), this field contains the sequence of digits on which the existing (old) translation is being done. The number of digits in this field must equal the value of the OLD NTD field. For decreasing the NTD, this field contains the sequence of digits on which the new translations will be done. The number of digits in this field must equal the value of the NEW NTD field. Valid entries are **"000-999999999"**.

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Keyword Glossary, Continued

CODSC

Customer Premise Equipment (CPE) Outgoing Disconnect. An entry of **"Y"** in this field is used to specify (from the 4ESS Switch perspective) that a disconnect will be effected faster than normal when the called customer goes on-hook. This field is used only for TSGs with a type-of-trunk value of Private Branch Exchange (PBX) or Single Trunk Customer (STC) and with signaling other than Q.931. Valid entries are **"Blank"**, **"Y"**, or **"N"**.

(4E21>) - CPE Outgoing Disconnect or Signaling System 7 (SS7) Trunk Subgroup (TSG) Control of Per Channel Inhibit Signaling (PCIS) Bits. An entry of **"Y"** specifies that:

1. From the 4ESS Switch perspective, a disconnect will be effected faster than normal when the called customer goes on-hook. This application of CODSC is only for TSGs with a type-of-trunk value of PBX or STC and with signaling other than Q.931.

   or

2. The TSG is to have its PCIS bits reset to force a steady state AB bit indication. This application of CODSC is for non-AT&T offices where the TSG has type-of-trunk of Other Common Carrier (OCC) and outgoing signaling of Integrated Services Digital Network User Part (ISUP).

Valid entries are **"Blank"**, **"Y"**, or **"N"**.

COIN

This field specifies if the 00Y code will be used to indicate traffic delivered from coin stations. Valid entries are: **"N"** - no, **"Y"** - yes.

COL

Column - see MSN.

COM_CNT

Not Applicable - Entries: **"Blank"**

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COPTBLN 0-3 Centralized Automatic Message Accounting (CAMA) Operator Trouble Number - The digits specified are the ABC digits of a seven digit trouble number dialed by a CAMA operator. The operator uses a seven digit trouble number when there is a trouble condition, such as poor transmission to the customer. The trouble number is then part of the output message that describes the ineffective office attempt. In such a trouble condition, the customer receives reorder announcement. The trouble number, or the ABC digits, specified cannot be an office code working in the office and must be agreed to by the operating company responsible for CAMA operators. Only the ABC digits are used by the Office Data Assembler (ODA). The entire seven digit number is part of the output, and the line number portion can be used to identify the specific operator or trouble.

CPACR Not Applicable - Entries: **"Blank"**

CPN Calling Party Number - This field identifies if the Interexchange Carrier/ International Carrier (IC/INC) is expecting the calling party number to be delivered. This information is only used at an Service Switching Point (SSP) office. Valid entries are: **"N"** - No, **"Y"** - Yes.

CPNA Calling Party Number Action - This field is used at the terminating toll switch to specify the calling party number (CPN). Valid entries are

- **P** The CPN is passed.
- **D** The CPN is dropped.
- **T** The Trunk Subgroup (TSG) field of Prohibit Sending Calling Party Number (PSCPN) shall specify the CPN action.

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Keyword Glossary, Continued

CPOS

Control Position - Enter a number from **"0-9"** to specify the testboard position that is to be associated with the Trunk Subgroup (TSGs) and Control Area (CAREA) for test reporting purposes. This assignment together with the CAREA designation can be used to distribute the maintenance responsibility for Trunk Subgroups. This assignment does not prevent any test position from accessing a particular group of trunks. It is only for reporting purposes.

For RC Forms 604 and 605, enter a number from **"0-9"** to specify the testboard position that is to receive the announcement trouble reports. If CAREA is 0, only CPOS 0 is allowed. When the Message Announcement System (MAS) is administered by the Operations National Administration Center (ONAC), assign the CPOS that has been dedicated for its use.

CR

Call Register - The CR is a block of Call Store (CS) memory that is used to store all call related information for one call at a time. The CR is associated with a call from the time that digit analysis or collection begins to the time that the call is waiting for answer (outpulsing complete). When an origination occurs, an idle CR is seized from a pool of registers and held until outpulsing is complete. If no registers are available, originations will queue and be processed when a CR becomes available. When this condition occurs, Dynamic Overload Control (DOC) will be sent to adjacent offices. CRs may be assigned in the range of **"1-2048"**. The number entered in this field must be greater than the total of the entries for AHRNA, CPACR, QOB, RCVHL, and SVAST. An excessive amount of CRs will have no immediate consequences. However, there is a trade off between limiting call capacity by restricting CRs (causing delays in processing originations) and allowing call setup facilities such as Multifrequency (MF) transmitters to limit capacity (causing Final Handling Treatment [FHT] to be applied). This quantity should agree with the CS worksheet for the office.

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CRBI	Customer Routing Block Index - CRBI is a link from the digit translation to a customer traffic number (TAN). The TAN must have been assigned using the RC 200 Form. Multiple CRBIs defined for the same customer may have the same CDBI value. The range of CRBIs is from **"1-32767"**.
CSCSET	Not Applicable - Entries: **"Blank"**
CSCI	Not Applicable - Entries: **"Blank"**
CSN	Not Applicable - Entries: **"Blank"**
CSP	Controller Signal Processor - Hardware version of the CSP pack for Expanded Time Slot Interchange (XTSI) Controller 0 or 1 (4E24>) - Entries are **"Blank"**, **"0"** (for no CSP pack present), or **"1"** (for initial 4WB9 CSP pack - needed for in-band).
CTN	Cut-Through Number - The Cut-Through Number (CTN) specifies the Direct Distant Dialing (DDD) number for routing calls selected for Cut-Through. The CTN field must be a **ten-digit number** if specified. A **"Blank"** field will be accepted since the Cut-Through number may be specified later via a Voice Storage System (VSS) update when audio is sent of via Recent Change (RC) form. However, if Voice Storage System Identity (VSSID) is 0, the CTN must be specified. The CTN field must route to an RDB, INW, TTS, PAS, or TEL Call Type in the Plain Old Telephone Service (POTS) domain.

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Keyword Glossary, Continued

CTTYPE

Cut-Through Type - This field is used to indicate which type of Cut-Through is desired. With Type 1 Cut-Through, the system cuts calling parties through to another number (the Cut-Through Number) which has been specified on a Recent Change (RC) 610 Form, without receiving a Public Announcement System (PAS) announcement. The frequency of calls being Cut-Through is based on a call gapping interval index. Also for Type 1 Cut-Through, calls which are Cut-Through will register for Televote counts if Televote has been defined.

With Type 2 Cut-Through, the system cuts calling parties through to the Cut-Through Number, also based on the call gapping interval index, after the PAS announcement has played a specified number of times. Televote is registered for calls which have been Cut-Through if it has been defined. With Type 2 Cut-Through, the total announcement time (length-play) must not exceed 270 seconds due to Call Register (CR) maximum holding time limitation of 5 minutes.

Valid entries for CTTYPE are **"1"** or **"2"** corresponding to Type 1 and Type 2 Cut-Through.

CTWBACK_IN WCS

Call Type Backward Pointers in Windowed Call Store (CTWBACK_IN_WCS) - specifies whether the tables are in Windowed or Main Call Store. Enter **"Y"** for Windowed Call Store. Enter **"N"** or leave **"Blank"** for Main Call Store. If **"Y"** is used, then NWCSMP cannot be **"Blank"**or**"0"**.

CTYPE

Client Type - To indicate the use of the Dial Up Port, a client type must be assigned. Valid entries for this field are: **"TDAS"** - client has access to Traffic Data Acquisition System (TDAS) data, **"VSS"** - Voice Storage System client, and **"TVSP"** - Televote Sponsor.

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CUSP

Continental United States Plain Old Telephone Service (POTS) This field specifies the disposition of calls in the CUSP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is CUSP.

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

CUTP

Caribbean, United States Territories, Plain Old Telephone Service (POTS) This field specifies the disposition of calls in the CUTP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is CUTP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

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D1D2

This field is only used if the trunks being assigned are connected to a far-end D1D or D2 channel bank and to a digroup in the 4ESS Switch. Enter **"D1"** or **"D2"** in order to indicate a far-end D1D or D2 channel bank, respectively. When D1 or D2 is entered, then the FCHAN field must also contain an entry. For non-D1D or D2 far-end trunks, leave this field **"Blank"**.

An entry in this field will cause the software program to internally assign the time slot of the Trunk Appearance Number (TAN) to correspond to the time slot on the far-end D1D or D2 channel bank. This will internally correct the TAN to traffic number mismatch that occurs when a digroup is connected to a far-end D1D or D2 channel bank.

D3DBN

Not Applicable - Entries: **"Blank"**

D3UEQ

D3 Unit Equipage is used for setting equipage status of a D3U on an Extended Time Slot Interchange (XTSI) frame/member number. Valid entries are: **"Blank"**, **"U"** for Unequipped, **"G"** for Grow, **"S"** for Special Grow, or **"O"** for Operational.

D3UHV

D3U Hardware Version identifies the hardware version of the D3U assigned to an Extended Time Slot Interchange (XTSI) frame. Valid entries are: **"Blank"**, **"0"** for Initial 4WB3 Version, and **"1"** for 4WB11 In-Band Capable Version.

D3UN

D3U Number - This entry is used to identify the D3 Unit Number in Unit Type Recent Changes (RCs). Valid entries for the even numbered Time Slot Interchange Member Number (TSI MEMN) are **"0-2"**. Valid entries for the odd numbered TSI MEMN are **"3-5"**. For RC Form 705, the spare D3Us are also identified by entry **"6"** for the even numbered TSI MEMN and **"7"** for the odd numbered TSI MEMN.

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Keyword Glossary, Continued

D3USV	D3U Software Version is used to set the software version of each D3U assigned to an Extended Time Slot Interchange (XTSI) frame/member number. Valid entries are **"Blank"** or **"0-7"**.
DA	Directory Assistance - This field specifies the disposition of calls in the DA Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is DA. This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are: • **R** - Calls allowed, make AMA recording • **D** - Deny Calls in this SC • **N** - Calls allowed, no AMA recording.
DATA.tsg	Not Applicable - Entries: **"Blank"**
DATAF	Not Applicable - Entries: **"Blank"**
DC_0	This field displays the action to be taken for a Digit Count of Zero. The output in this field corresponds to the ANIACTN field on the Office Data Assembler (ODA) and Recent Change (RC) forms. Valid entries are: **"CANI"**, **"IAROA"**, **"IAAFA"**, and **"NONEA"**.
DC_3-DC_10	This field displays the action to be taken for the given Information Digits (IIs) and digit count. The output in these fields corresponds to the ANIACTN field on the Office Data Assembler (ODA) and Recent Change (RC) forms. Valid entries are: **"CANI"**, **"IAROA"**, **"IAAFA"**, and **"NONEA"**.

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DC_X	This field displays the action to be taken for an Originating Line Information (OLI) value with a digit count other than zero, three, or ten. The output in this field corresponds to the ANIACTN field on the Office Data Assembler (ODA) and Recent Change (RC) forms. Valid entries are: **"CANI"**, **"IAROA"**, **"IAAFA"**, and **"NONEA".**
DCNT	Digit Count - The digit count applicable to the code. Valid range is **"0-14"** digits.
DDD	Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

DEF

The fourth (D) fifth (E) and sixth (F) digits of a series. This field may contain one, two or three digits. It lists all of the four to six digits (including the three in the ABC field) combinations that belong to this Code Group. A single digit (D) specifies 4-digit translation, two digits (D and E) specifies 5-digit, and all three (DEF) requires 6-digit translation. A numeric or an **"X"** may be used to specify translation. The numeric will define a specific code while the **"X"** will represent all non-vacant numeric from **"0-9"**. Translation must be specified equal to the Number of Translated Digits (NTD). A numeric may not follow an **"X"**.

An **"X"** may be used for one, two, or three positions of the DEF field determined by NTD. If one **"X"** is used it must be in the F position if there are two numerics. If two "Xs" are used, they must be in the EF positions. All codes not listed will be routed to Final Handling Treatment-Vacant Code Analysis (FHT-VCA) by the Office Data Assembler (ODA) program.

If NPA + XXX is used with Area Code (AC) equal to yes, then codes 000-199 will be routed to Vacant Code. If it is necessary to route certain codes in the 000-199 range, they should be routed in the following manner.

Example:

- NPA + 0XX to a principal city for Numbering Plan Area (NPA)
- NPA + 1XX to a principal city for NPA
- NPA + XXX to city "A" in NPA.

If Domain (DOM) equals Plain Old Telephone Service (POTS), AC equals Yes, and the ABC digits equal the 3-digit code associated with a Served NPA, then the 3-digit codes corresponding to the Home NPA (Traditional Routing Only - (4E22>)) and the Served NPA must not be assigned as DEF digits.

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Keyword Glossary, Continued

DEF1	This field is used to deny calls in the DEF1 category, i.e., codes entered on the RC Form 319 with DIGTYP equal to DEF1. A **"Y"** is entered if calls in the DEF1 category must be denied. An **"N"** is entered if calls in the DEF1 category are allowed. If this field is left **"Blank"**, calls in the DEF1 category will not be denied.
DEF2	This field is used to deny calls in the DEF2 category, i.e., codes entered on the RC Form 319 with DIGTYP equal to DEF2. A **"Y"** is entered if calls in the DEF2 category must be denied. An **"N"** is entered if calls in the DEF2 category are allowed. If this field is left **"Blank"**, calls in the DEF2 category will not be denied.
DEF3	This field is used to deny calls in the DEF3 category, i.e., codes entered on the RC Form 319 with DIGTYP equal to DEF3. A **"Y"** is entered if calls in the DEF3 category must be denied. An **"N"** is entered if calls in the DEF3 category are allowed. If this field is left **"Blank"**, calls in the DEF3 category will not be denied.
DEF4	This field is used to deny calls in the DEF4 category, i.e., codes entered on the RC Form 319 with DIGTYP equal to DEF4. A **"Y"** is entered if calls in the DEF4 category must be denied. An **"N"** is entered if calls in the DEF4 category are allowed. If this field is left **"Blank"**, calls in the DEF4 category will not be denied.
DEF_ERPI_ DOM_IN	Not Applicable - Entries: **"Blank"**
DEF_ERPI_ DOM_OUT	Not Applicable - Entries: **"Blank"**
DEF_ERPI_ INT_IN	Not Applicable - Entries: **"Blank"**

Continued on next page

Keyword Glossary, Continued

DEF_ERPI_INT_OUT Not Applicable - Entries: **"Blank"**

DEL Delete - This field specifies the number of digits to be deleted from the dialed address before out-pulsing. Up to fifteen digits may be deleted. Enter a zero (**"0"**) in this field if no deleting is required. Digit deletion always begins with the first address digit in a sequence. For example, delete three would remove the ABC digits from a dialed address. When both deleting and prefixing is being done on a dialed address, digit deletion takes place first. For Routing Data Block (RDB) forms, each Trunk Subgroup (TSG) in the RDB may have its own delete/prefix definition. The requirement for manipulation is determined by the far-end office's ability to accept various digit combinations.

NOTE: Intrastate Inward Wide Band Area Telephone Service (INWATS) to a customer's Automatic Call Distributor (ACD) should delete all digits (7 or 10) when using an in-chain RDB.

DELAY Delay Interval - An entry must be made if the Outgoing Signaling Characteristic (OSC) is CCITT5, DTMFWK, MFWINK, MFDDSD, SIOPMFW, or TWOPMFW. Leave this field **"Blank"**, if any other OSC is specified. If OSC is MFWINK, MFDDSD, SIOPMFW, or TWOPMFW, enter **"20"**, **"80"**, or **"220"** to indicate the delay in milliseconds before outpulsing is started. This delay interval starts when the wink or start dial signal from the other office is recognized. Twenty milliseconds is basic for most offices. A delay of 20 may be associated with 7 or 10 multifrequency digits per second. When the OSC is Dual Tone Multifrequency Wink (DTMFWK), enter **"70"**, **"140"**, **"210"**, or **"280"** to indicate the delay in milliseconds before outpulsing. This delay interval starts when the wink from the Private Branch Exchange (PBX) is received. **"70"** milliseconds is the minimum required for PBXs.

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Keyword Glossary, Continued

DESEP Destination Separation is used to identify destinations for traffic flow purposes. Peg and usage counts are made as a function of the Trunk Sub-Group (TSG) incoming class (INSEP) and the outgoing destination class (DESEP). All outgoing or successfully terminated traffic is assigned a given destination class from **"1-255"**.

NOTE: DESEP class 63 is assigned generically for test calls. Any other assignment to class 63 should take this fact into consideration.

For code group forms, a DESEP class will be assigned only when the CALLTYP is equal to CRB, DSN, EAR, GNS, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, or TTS. This field is **"Blank"** for any other Call Type value.

DESV Dedicated Egress Service. This field is used at the terminating toll switch to identify the service when the call is routed to a dedicated egress (ISDN) customer. This allows the service from the Service Identity Index (SII) to be sent to the customer on egress Q.931 trunks. Valid entries are **"Blank"**, **"UNK"** (unknown), **"SDN"** (Software Defined Network), **"GSDN"** (Global SDN), **"M800"** (Megacom* 800), **"I800"** (International 800), **"MQ"** (Multiquest), **"SDS"** (Switched Digital Service), "SDI" (Switched Digital International), **"ILDS"** (International Long Distance Service).

*Megacom is a registered trademark of AT&T.

DFHT This field is used to specify Final Handling Treatment (FHT) for calls which are denied. Refer to Lucent Technologies Practice 781-031-100 for further information on tones and announcements. If this field is left **"Blank"**, the Final Handling Treatment given will be Revenue Accounting Office (ROA). See the RDBFHT description for the allowable entries.

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Keyword Glossary, Continued

DFRN	Specific Default Routing Number (DRN) - Valid input is either **"Blank"** or a 10 digit routing number. This element specifies the number that will be used to route the call. When the field is populated, it must contain 10 digits. **"Blank"** zeroes out the 10 routing digits. This field is required only when Default Routing Control Code (DRCC) is set to Route to Default Routing Number (DRN); otherwise, this field may either be populated or left **"Blank"**, with the exception that DFRN must be **"Blank"** when Advanced Intelligent Network (AIN) Fault Handling (FH) is set to Final Treatment (FT).
DIF MEMN	This field specifies the Digital Interface Frame (DIF) Member Number where the Digital Interface Unit (DIU) to be changed is located. Legal values are **"2-31"**.
DIG	The first, second and third digits of a set of digits. This field contains those 3-digit codes that are assigned under the category listed in the DIGTYP field. For the input verify message, VER:MISC:FHT AINTRIG, DIG is a mandatory keyword and must be followed with a 3, 6 or 10 digit entry that will be used to match 10-digit Advanced Intelligent Network (AIN) triggers when retrieving information from the AIN trigger table.

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Keyword Glossary, Continued

DIGTYP Three Digit Type - DIGTYP specifies one of the categories of 3-digit codes or an exclusion code. Valid three DIGIT TYPES are as follows:

- **BNPA** -Billing Number Automatic Number Identification-Numbering Plan Area (ANI NPA). This entry is used to identify that the codes listed are valid billing numbers or ANI NPAs for originating switched Equal Access Signaling (EAS) calls.
- **DEF1-4** - DEF1, DEF2, DEF3, DEF4 - DEF digit codes. These codes correspond to the Fourth [D] Fifth [E] Sixth [F] (DEF) digits of the incoming call. They will enable blocking of customer dialed calls, from specific Far End Networks (FENs), which attempt to access these codes. For example, a specific FEN might be blocked from accessing codes in the DEF1 category, but not in the DEF2 category. DEF1 might include DIGs of the Format N11, DEF2 might include DIG = 555, and DEF3 might include toll center codes. A given DIG code may be in at most one of these four categories.
- **DP3** - Dial Pulse/DTMF 3 Digit codes. This DIGTYP entry specifies that the 3-digit non-area codes listed on this form may be arriving via Dial Pulse(DP)/Dual Tone Multifrequency (DTMF) signaling. Only those 3-digit codes that may be the first three digits (ABC) of 3-, 4-, or 5-digit calls should be entered in this category. Valid entries range from **"200-999"**. All codes of the Form 0XX or 1XX and N11 will be generically set by the Office Data Assembler (ODA) programs.
- **DP6** - Dial Pulse/DTMF 6 Digit Codes - These codes correspond to the DEF digits of 6-digit codes that may arrive by DP/DTMF signaling. Only those non-area codes that total six digits should be entered. No entry is required if the ABC digits are listed under DP3D. Valid entries range from **"200-999"**. All codes of the Form 0XX or 1XX and N11 will be generically set by the ODA program.
- **DT14-DT17** -Spare digit type; reserved for future use.
- **FCID** -Feature Group D (FGD) Carrier Identification Codes (FCID) - Used to indicate if call is a carrier call.

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Keyword Glossary, Continued

DIGTYP (cont'd)

- **I809** - International World Zone 1 codes for the 809 Numbering Plan Area (NPA). The 809 NPA has certain areas that are "domestic" and others that are "international." This DIGTYP entry is used to specify those "international" NXX codes in the 809 NPA to which calls can be placed.
- **IWZ1** - International World Zone 1 codes - This DIGTYP entry is used to specify all international WZ1 area codes to which calls can be placed, except for the 809 NPA which has a separate DIGTYP entry.
- **NRA** - Non-re-routable Area Codes - The Numbering Plan Area Codes listed under this 3-digit type will not be rerouted by the Network Management program. The codes in this category can be derived from the Network Management and local routing practices. 0/1XX and 800 codes need not be entered. These codes are automatically marked as non-reroutable by the Office Data Assembler (ODA). Valid three digit entries range from **"200-999"**.
- **NRAEXC** - Non-reroutable Area Code/Excluded. This category allows codes in the 0/1XX and 800 series, normally marked as non-reroutable by ODA, to be rerouted. These codes would be specifically excluded from the NRA category by using NRAEXC.
- **NRN** - Non-reroutable Non-area Codes. This category includes 3-digit NXX codes in the home Numbering Plan Area (NPA) only. The codes listed in this category will not be rerouted by the Network Management program. 0/1XX and 800 codes will be automatically marked as non-reroutable by the Office Data Assembler (ODA). Three digit codes from **"200-999"** may be listed on the form associated with NRNAC DIGTYP.
- **NRNX** - I800 Network Routing Number Exhaust. This indicator gives the 4ESS Switch the capability to administratively turn off DEF screening for specific ABC digits indicating the use of the I800 NRNX feature.

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Keyword Glossary, Continued

DIGTYP (cont'd)

- **UTC** - Universal Treatment Non-area Codes - Three digit codes associated with this DIGTYP have a common system destination. These codes are not deleted from a call and appear as the ABC digits of a call. Examples of codes in this category are Toll Center Codes and Office Codes available to all Plain Old Telephone Service (POTS) domains. Another type would be associated with Gateway office operation, such as, overseas operator and Access Codes. Codes of this type may arrive from offices in the areas served directly by the 4ESS Switch. The universal type test codes that are assigned for 10X type test lines and code 011 for International Direct Distance Dialing (IDDD) access set by Office Data Assembler (ODA) should not be entered on this form. (A complete list of 10X type codes may be found in Division 2, Section 6.)
- **WZ1A** - World Zone 1 Area is entered to specify that an R digit is being defined for the 01R equal access signaling protocol. This identifier is needed at all Service Switching Point (SSP) offices. This identifier is also needed in all Access Tandem (AT) switches for Integrated Services Digital Network User Part/Multifrequency (ISUP/MF) inter-working.

DIU MEMN This field specifies the Digital Interface Unit (DIU) Member Number within the Digital Interface Frame (DIF). Legal values are **"0-31"**.

DLAN Duplexed Local Area Network Valid entries are **"Blank"**, **"Y"**, or **"No"**.

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Keyword Glossary, Continued

DLT

This field specifies the disposition of calls in the DLT Service Category, i.e., codes pointing to a Call Type (CT) for which the Service Category (SC) Item is DLT (Dial-It).

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

DNHR

Not Applicable - Entries: **"N"**

DNHRTYPE

This keyword field is used for Number Portability (NP) calls. The entry **"ID"** specifies delete/prefix digits ignored for NP calls routed on a Location Routing Number (LRN) where signaling is done on the ported numbers. Valid entries: **"Blank"** or **"ID"**.

DNP

Dialed Number Preferred - This field indicates whether the called user prefers to receive the original dialed number, if available, as delivered to the network rather than the routing number. Enter **"Y"** if the called user prefers receiving the original dialed number, otherwise, enter **"N"** or leave **"Blank"**. This field applies to outgoing Q.931 trunks only.

DNST

Not Applicable – Entries: **"Blank"**

DOFP

Disable Outgoing Fraud Prevention - **"Y"** indicates that Black Box and Blue Box fraud prevention controls are disabled on this Trunk Subgroup (TSG). **"N"** indicates that fraud prevention controls are enabled on this TSG.

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Keyword Glossary, Continued

DOM

DOMAIN - This field designates a community of interest that requires separate routing. The types of Domain are "Direct Distance Dialing (DDD), Verify (VRFY)" and a number ranging from **"20-83"** denoting a NON-Plain Old Telephone Service (POTS) domain. DDD is indicated by an entry of **"POTS"** in the DOM field. The Office Data Assembler (ODA) system will automatically build the DDD Domains (191 through 209). The **"VRFY"** Domain enables the Line-Busy Verification feature by operators over a dedicated network. When DOM equals VRFY, then Type of Trunk (TOT) must be MISC or CALLTYP must equal FHT, GNS, or TST. The NON-POTS Domains may be a Common Control Switching Arrangement (CCSA) Network, such as Federal Telecommunications System (FTS). These domains are entered as a number from **"20-69"**.

- The **NON-POTS domain of 78** is used to skip Network Management code controls for quality assurance testing, i.e., CASPER.
- The **NON-POTS domains 79 and 80** are reserved for specific International Switching Center (ISC) use.
- The **NON-POTS domain of 81**, also denoted by **"IVT"** for International Voice Transport, is reserved for call processing to transport international voice calls through the network to an ISC.
- The **NON-POTS domain of 82** is used as the translation domain for Data calls. The Data feature provides the capability for full rate data transmission via the 4ESS Switch over a dedicated network of digital trunks. These digital trunks terminate exclusively on Digital Interface Frames (DIF) at 4ESS Switch locations.
- **N64C** -This domain is used to route 64 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **N64R** -This domain is used to route 64 kbps restricted data calls using the 10-digit North American Numbering Plan.

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Keyword Glossary, Continued

DOM (cont'd)

The following translations domains are used for wideband transmission:

- **NH0C** -This domain is used to route 384 kbps clear data calls using the 10-digit North American Numbering Plan (NANP).
- **NH1C** - This domain is used to route 1536 kbps clear data calls using the 10-digit NANP.

The following domains are non-translations domains used for routing only:

- **SF00-SF06** - Subscribed Footprint Area 00 to 06 (4E22R4>)
- **SF07-SF39** - Subscribed Footprint Area 07 to 39 (4E23R1>)
- **STCD** - Super Tandem Carrier ID (4E22R4>)
- **ATNS** - Access Tandem Transit Network Selection - This domain is used to translate equal access Integrated Services Digital Network User Part (ISUP) parameters to obtain the routing information.
- **NSR** - Number Services Routing - This domain will be populated with entries to perform Service Switching Point (SSP) Interexchange Carrier (IC) and International Carrier (INC) routing.

DOM_CNT Not Applicable - Entries: **"Blank"**

DOM_STAT Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

DOMAIN.num This field lists the assigned domain. The following is a list of the valid value DOMAIN, in the verify memory output message and a description of the corresponding domain.

1 - POTS HOME NPA - (<4E21)

2 - POTS HNPA-NONAREA CODE - (<4E21)

3 - POTS-AREA CODE - (<4E21)

4 - POTS INTERTOLL - (<4E21)

5 - POTS INTERTOLL-NON AREA CODE - (<4E21)

6 - POTS SERVED NPA1 - (<4E21)

7 - POTS SERVED NPA1-NON AREA CODE - (<4E21)

8 - POTS SERVED NPA2 - (<4E21)

9 - POTS SERVED NPA2-NON AREA CODE - (<4E21)

10 - POTS SERVED NPA3 - (<4E21)

11 - POTS SERVED NPA3-NON AREA CODE - (<4E21)

12 - POTS SERVED NPA4 - (<4E21)

13 - POTS SERVED NPA4-NON AREA CODE - (<4E21)

14 - POTS SERVED NPA5 - (<4E21)

15 - POTS SERVED NPA5-NON AREA CODE - (<4E21)

16 - POTS SERVED NPA 6 - (<4E21)

17 - POTS SERVED NPA6-NON AREA CODE - (<4E21)

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Keyword Glossary, Continued

DOMAIN.num (cont'd)

18 - POTS SERVED NPA7 - (<4E21)

19 - POTS SERVED NPA7-NON AREA CODE - (<4E21)

78 - SKIP NETWORK MANAGEMENT

79 - LONG LINES OVERSEAS USE

80 - LONG LINES OVERSEAS USE

81 - NON-POTS DOMAIN USED FOR INTERNATIONAL OUTBOUND TO ISC

82 - NON-POTS DOMAIN USED FOR FRDATA

83 - DOMAIN 83 USED FOR TAIWAN NETWORK

84 - INTERNATIONAL TRAFFIC TSG

85 - INTERNATIONAL ORIGINATING

86 - INTERNATIONAL TRANSIT

87 - VERIFICATION NETWORK

88 - SOFTWARE DEFINED NETWORK

89 - DEDICATED EGRESS VOICE

90 - DEDICATED EGRESS DATA

98 - SUPER TANDEM CARRIER ID - (4E22>)

99 - NUMBER SERVICES ROUTING

100 - LATA/STATE SCREENING

101 - INTERNATIONAL INCOMING DATA

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Keyword Glossary, Continued

DOMAIN.num (cont'd)

102 - INTERNATIONAL OUTBOUND 56K DATA

103 - INTERNATIONAL OUTBOUND 64K CLEAR DATA

104 - INTERNATIONAL TRANSIT DATA

105 - ACCESS TANDEM TRANSIT NETWORK SELECTION

106 - CLEAR 64KBPS USING 10-DIGIT NANP

107 - RESTRICTED 64KBPS USING 10-DIGIT NANP

108 - INTERNATIONAL CLEAR 64K DATA DOMAIN

109 - INTERNATIONAL 56K DATA DOMAIN

110 - GLOBAL SOFTWARE DEFINED NETWORK

111 - DIAL-A-VIEW ATTENDANT

112 - ACTION POINT NUMBER

113 - NANP 384KBPS CLEAR

114 - NANP 1536KBPS CLEAR

117 - GSDN OUTBOUND INTERNATIONAL DOMAIN

118 - SPARE INTERNATIONAL DOMAIN

121 - Subscribed Footprint Area 00 - (4E22>)

122 - Subscribed Footprint Area 01 - (4E22>)

123 - Subscribed Footprint Area 02 - (4E22>)

124 - Subscribed Footprint Area 03 - (4E22>)

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Keyword Glossary, Continued

DOMAIN.num (cont'd)

125 - Subscribed Footprint Area 04 - (4E22>)

126 - Subscribed Footprint Area 05 - (4E22>)

127 - Subscribed Footprint Area 06 - (4E22>)

128 - Subscribed Footprint Area 07 - (4E23>)

129 - Subscribed Footprint Area 08 - (4E23>)

130 - Subscribed Footprint Area 09 - (4E23>)

131 - Subscribed Footprint Area 10 - (4E23>)

132 - Subscribed Footprint Area 11 - (4E23>)

133 - Subscribed Footprint Area 12 - (4E23>)

134 - Subscribed Footprint Area 13 - (4E23>)

135 - Subscribed Footprint Area 14 - (4E23>)

136 - Subscribed Footprint Area 15 - (4E23>)

137 - Subscribed Footprint Area 16 - (4E23>)

138 - Subscribed Footprint Area 17 - (4E23>)

139 - Subscribed Footprint Area 18 - (4E23>)

140 - Subscribed Footprint Area 19 - (4E23>)

141 - Subscribed Footprint Area 20 - (4E23>)

142 - Subscribed Footprint Area 21 - (4E23>)

143 - Subscribed Footprint Area 22 - (4E23>)

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Keyword Glossary, Continued

DOMAIN.num (cont'd)

144 - Subscribed Footprint Area 23 - (4E23>)

145 - Subscribed Footprint Area 24 - (4E23>)

146 - Subscribed Footprint Area 25 - (4E23>)

147 - Subscribed Footprint Area 26 - (4E23>)

148 - Subscribed Footprint Area 27 - (4E23>)

149 - Subscribed Footprint Area 28 - (4E23>)

150 - Subscribed Footprint Area 29 - (4E23>)

151 - Subscribed Footprint Area 30 - (4E23>)

152 - Subscribed Footprint Area 31 - (4E23>)

153 - Subscribed Footprint Area 32 - (4E23>)

154 - Subscribed Footprint Area 33 - (4E23>)

155 - Subscribed Footprint Area 34 - (4E23>)

156 - Subscribed Footprint Area 35 - (4E23>)

157 - Subscribed Footprint Area 36 - (4E23>)

158 - Subscribed Footprint Area 37 - (4E23>)

159 - Subscribed Footprint Area 38 - (4E23>)

160 - Subscribed Footprint Area 39 - (4E23>)

191 - POTS-AREA CODE - (4E22>)

192 - POTS INTERTOLL - (4E22>)

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Keyword Glossary, Continued

DOMAIN.num (cont'd)

193 - POTS INTERTOLL-NON AREA CODE - (4E22>)

194 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA1 - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS HOME NPA - (4E22>)

195 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA1-NONAREA CODE - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS HOME NPA-NONAREA CODE - (4E22>)

196 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA2 - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA1 - (4E22>)

197 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA2-NONAREA CODE - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA1-NONAREA CODE - (4E22>)

198 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA3 - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA2 - (4E22>)

199 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA3-NONAREA CODE - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA2-NONAREA CODE - (4E22>)

200 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA4 - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA3 - (4E22>)

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LUCENT TECHNOLOGIES PROPRIETARY
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Keyword Glossary, Continued

DOMAIN.num (cont'd)

201 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA4- NONAREA CODE - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA3-NONAREA CODE - (4E22>)

202 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA5 - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA4 - (4E22>)

203 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA5-NONAREA CODE - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA4-NONAREA CODE - (4E22>)

204 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA6 - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA5 - (4E22>)

205 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA6-NONAREA CODE - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA5-NONAREA CODE - (4E22>)

206 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA7 - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA6 - (4E22>)

207 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA7-NONAREA CODE - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA6-NONAREA CODE - (4E22>)

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Keyword Glossary, Continued

DOMAIN.num (cont'd)

208 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA8 - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA7 - (4E22>)

209 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA8-NONAREA CODE - (4E22>)
OFFICES USING TRADITIONAL ROUTING: POTS SERVED NPA7-NONAREA CODE - (4E22>)

210 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA9 - (4E22>)

211 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA9 - NONAREA CODE - (4E22>)

212 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA10 - (4E22>)

213 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA10-NONAREA CODE - (4E22>)

214 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA11 - (4E22>)

215 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA11-NONAREA CODE - (4E22>)

216 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA12 - (4E22>)

217 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA12-NONAREA CODE - (4E22>)

218 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA13 - (4E22>)

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Keyword Glossary, Continued

DOMAIN.num (cont'd)

219 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA13-NONAREA CODE - (4E22>)

220 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA14 - (4E22>)

221 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA14-NONAREA CODE - (4E22>)

222 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA15 - (4E22>)

223 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA15-NONAREA CODE - (4E22>)

224 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA16 - (4E22>)

225 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA16-NONAREA CODE - (4E22>)

226 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA17 - (4E22>)

227 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA17-NONAREA CODE - (4E22>)

228 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA18 - (4E22>)

229 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA18-NONAREA CODE - (4E22>)

230 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA19 - (4E22>)

231 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA19-NONAREA CODE - (4E22>)

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Keyword Glossary, Continued

DOMAIN.num (cont'd)

232 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA20 - (4E22>)

233 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA20-NONAREA CODE - (4E22>)

234 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA21 - (4E22>)

235 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA21-NONAREA CODE - (4E22>)

236 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA22 - (4E22>)

237 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA22-NONAREA CODE - (4E22>)

238 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA23 - (4E22>)

239 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA23-NONAREA CODE - (4E22>)

240 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA24 - (4E22>)

241 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA24-NONAREA CODE - (4E22>)

242 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA25 - (4E22>)

243 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA25-NONAREA CODE - (4E22>)

244 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA26 - (4E22>)

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Keyword Glossary, Continued

DOMAIN.num (cont'd)

245 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA26-NONAREA CODE - (4E22>)

246 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA27 - (4E22>)

247 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA27-NONAREA CODE - (4E22>)

248 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA28 - (4E22>)

249 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA28-NONAREA CODE - (4E22>)

250 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA29 - (4E22>)

251 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA29-NONAREA CODE - (4E22>)

252 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA30 - (4E22>)

253 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA30-NONAREA CODE - (4E22>)

254 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA31 - (4E22>)

255 - OFFICES USING 10 DIGIT SNPA ROUTING: POTS SERVED NPA31-NONAREA CODE - (4E22>)

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Keyword Glossary, Continued

DOMCLASS Domain class - This field is used to specify the class of routing that the SDX block will be used for. Each class of SDX block is only allowed in certain domains. Valid entries are **"DOM"** (domestic), **"NSR"** (number services routing), and **"ATNS"** (access tandem transit network selection). The domains in which the class of SDX block are allowed are as follows:

CLASS	DOMAIN
DOM	POTS, nonPOTS (20-80,82,83), SDNA, DEV, DED, SF00-SF06 (4E22R4>), SF07-SF039 (4E23R1>), DEC6, DER6, DEC0, DER0, DEC1, DER1, INCD, N64C, N64R, NH0C, NH1C.
NSR	NSR.
ATNS	STCD (4E22R4>), ATNS.

DOMGATE Domestic Gateway - This field is used by a non-International Switching Center (ISC) office to indicate that the office is a domestic gateway office capable of handling International World Zone 1 traffic. Enter **"Y"** to indicate that the office is a domestic gateway office. Enter **"N"** to indicate that the office is not a domestic gateway office. Note: If this field is marked **"Y"**, then International Call Detail Record (ICDR) 3B processor disk partitions must be engineered or else all Automatic Message Accounting (AMA) records may be stopped.

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Keyword Glossary, Continued

DOMTERM This field is used to indicate the total quantity of domestic Common Channel Interoffice Signaling (CCIS) terminals required during the current engineering period. Valid range is **"0-256"**, expressed as an even number.

DOMTYP Domain Type - YES/NO indicators. Valid entries are:

- **FCID** - Entered for a specific Domain (DOM) indicates that the Feature Group D Carrier ID is four digits for that domain. NOTE: There are no domain entry restrictions for this DOMTYP.

- **SDAC** - Entered for a specific Domain (DOM) indicates that the domain is allowed for an Access Tandem 6-Digit Called Number Trigger (CNT) for either the Advanced Intelligent Network (AIN) or the Local Number Portability (LNP) features. Provisioning restrictions: This DOMTYP can only be provisioned if the AIN 6-Digit CNT Expansion (#516) feature has been purchased. Also, the following domain entries are restricted for this DOMTYP: the data domain entries **"N64C"** and **"82"** are only allowed if the AIN Capabilities for Data Calls (#419) feature has been purchased. The footprint domain entries **"SF00-SF39"** are only allowed if the Access Tandem Routing Enhancement (#488) feature has been purchased.

- **TDAC** - Entered for a specific Domain (DOM) indicates that the domain is allowed for an Access Tandem 10-Digit Called Number Trigger (CNT) for the Advanced Intelligent Network (AIN) feature. Provisioning restrictions: This DOMTYP can only be provisioned if the AIN 6-Digit CNT Expansion (#516) feature and the AIN Called Number Trigger Expansion (#442) feature have been purchased. Also, the following domain entries are restricted for this DOMTYP: the data domain entries **"N64C"** and **"82"** are only allowed if the AIN Capabilities for Data Calls (#419) feature has been purchased, and the footprint domain entries **"SF00-SF39"** are only allowed if the Access Tandem Routing Enhancement (#488) feature has been purchased. Call Processing will only reference this domain type indicator if this 10-Digit Domain option is turned **"ON"** via the "F20" FEATURE ITEM feature indicator.

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Keyword Glossary, Continued

DPC

Destination Point Code - This field is used to specify the Destination Point Code of the far-end switch.

This field entry is divided into three subfield entries:

1. NET - Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"Blank"**, **"000-255"**.

2. CLU - Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"Blank"**, **"000-255"**.

3. MEM - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"Blank"**, **"000-255"**.

For the Trunk Subgroup (TSG) forms, nine digits must be entered, depending on the format specified in the Point Code Format (PCF) field. Nine digits must be entered if PCF is American National Standards Institute (ANSI) format. An entry must be made in this field if either the Incoming Signaling Characteristics (ISC) or Outgoing Signaling Characteristics (OSC) field value is **"ISUP"**, **"INUP"**, or **"TUP"**; otherwise this field must be **"Blank"**.

DPSTOP

Dial Pulse Stop - Enter a **"Y"** for Yes if this Trunk Subgroup (TSG) terminates in a panel, Step-by-Step or other office that might not be able to receive a complete train of dial pulse digits without a pause between digits (Outgoing Signaling Characteristic [OSC] equal to DPWINK, DPDDSD, DPIMMED, TWOPDPD, TWOPDPI, or TWOPDPW). This feature will tell the program to look for a DPSTOP signal from the far-end office after any one of the first three digits is outpulsed. Enter an **"N"** for No if this feature is not required for DP outpulsing. For other types of outpulsing, leave this field **"Blank"**.

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Keyword Glossary, Continued

DRCC

Default Routing Control Code - Valid entries are **"Blank"**, **"TRM"**, **"DRN"**, and **"CPN"**. This element specifies the treatment that applies to the call when Advanced Intelligent Network (AIN) Fault Handling (FH) is set to Default Routing (DR).

- **CPN** is for Route to Called Party Number.
- **DRN** is for Route to Specific Default Routing Number. When this is specified, the Specific Default Routing Number (DFRN) must be populated.
- **TRM** is for terminate, which is the default.
- **Blank** is valid if and only if AIN FH is set to Final Treatment (FT).

DRTC

Data Rate Transfer Capability Index for Integrated Services Digital Network User Part (ISUP) to Multifrequency (MF) inter-working. This field specifies the index that is used to select a routing treatment when a DRTC type of subsequent digit entry is encountered. The data rates and corresponding input values defined are:

0	voice
1	3.1 kb modem
2	56 kb
3	64 kb restricted
4	64 kb clear
5	384 kb
6	1536kb.

Valid entries are: **"Blank"** or **"0-7"**.

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Keyword Glossary, Continued

DS1	DS1 Number is used to change any or all of the related configuration information assignments to one or a multiple amount of DS1 digroups in a D3U of an Expanded Time Slot Interchange (XTSI) frame. The RC 707 Form can change one (1) DS1 per update. The RC 704 Form can change multiple DS1s per update. The numbers **"1-28"**, either pre-printed or free field entry, specify the DS1 to be changed.
DS3 APPL	DS3 Application is used to specify the appropriate application when equipping a DS3 to an Expanded Time Slot Interchange (XTSI) frame/member. Valid entries are **"Blank"**, **"CBP"**, **or "M23"**.
DS3 Received Path ID	Entries are **"Blank"**, *****, or **"1-75"** alpha-numeric (including **"Blank"**) characters.
DS3 Transmit P ath ID	Entries are **"Blank"**, *****, or "**1-75"** alpha-numeric (including **"Blank"**) characters.
DSD	This field specifies the disposition of calls in the Direct Services Dialing (DSD) Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is DSD. This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are: • **R** - Calls allowed, make AMA recording • **D** - Deny Calls in this SC • **N** - Calls allowed, no AMA recording.

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Keyword Glossary, Continued

DSDC

This call category is associated with Direct Services Dialing Capability (DSDC), Expanded 800 Phase 2 (E-800 II), and Outbound Toll Free Service records. If the DUAL-Revenue Accounting Office (RAO) configuration has been selected and the RAO substitution field for this call category is left **"Blank"**, it will default to **"IC"**. If the alternative RAO is required, input **"OC"**. If a change is requested in this field, the identical change must be requested for the queue field.

DSDCACP

Direct Services Dialing Capability (DSDC) Action Control Point - This field indicates whether the 4ESS Switch office is allowed to be an Action Control Point (ACP) for DSDC. A DSDCACP implies special call handling and (non-Centralized Automatic Message Accounting [CAMA]) Automatic Message Accounting (AMA) billing functions. An entry of **"1STP"** or **"2STP"** in this field indicates that the office is an Action Control Point (ACP) and that the direct signaling messages will be sent to the DSDC Network Control Point (NCP) via the 1STP network or the 2STP network. An entry of **"DCIS"** is used to designate that the direct signaling message will be sent to the DSDC NCP via the 2STP network using a high-speed link. An entry of **"TCAP"** for Transaction Capabilities Application Part is used to designate that the direct signaling message will be sent to the 2STP network using Common Channel Signaling 7 (CCS7) format.

An **"N"** for No, indicates that the office is not an ACP.

DSDNCAT

Direct Services Dialing (DSD) Signaling Type for Non-Call Associated Temporary Signaling Connection (TSC) -This field is used to specify whether direct signaling messages for Non-Call Associated TSC are sent to the 2STP network using Transaction Capabilities Application Part (TCAP). Valid entries are **"N"** or **"TCAP"**.

DSDNSCATL

Direct Services Dialing (DSD) Network Service Complex (NSC) Above Threshold -This field specifies the minimum number of NSC trunks that must be idle for the switch to report NSC idle circuits in a message to the Network Control Point (NCP). This value is used in conjunction with the DSDNSCTHR field. Valid entries are **"Blank"** or **"0-127"**.

Continued on next page

Keyword Glossary, Continued

DSDNSCBTL Direct Services Dialing (DSD) NSC Below Threshold - This field specifies the minimum number of NSC trunks that must be idle for the switch to report NSC idle circuits in a message to the NCP. This value is used in conjunction with the DSDNSCTHR field. Valid entries are **"Blank"** or **"0-127"**.

DSDNSCTHR Direct Services Dialing (DSD) NSC Threshold - This field is used to determine whether the DSDNSCATL or DSDNSCBTL value is to be used in determination of an idle circuits condition for reporting purposes to the NCP database. The DSDNSCBTL value will be used if the total number of NSC trunks are less than or equal to the value specified in this field, otherwise the DSDNSCATL value will be used. Valid entries are **"Blank"** or **"0-1023"**.

DSFUN Common Channel Interoffice Signaling (CCIS) Direct Signaling Function Number. This field identifies the master office designated to accumulate Televote counts for this Televote application. If the MSI field is **"M"** or **"B"**, this field is **"Blank"**. Valid entries in this field are **"1-32767"**.

DSIGFNUM Direct Signaling Function Number - This number is inserted in the direct signaling message to uniquely identify each office in the Common Channel Interoffice Signaling (CCIS) network. Therefore, if the entry in the DOMTERM field on 406C is non-zero, then a function number must be specified. Function numbers are assigned by the CCIS Network Administration Center (CNAC). Valid 4ESS Switch function numbers range from **"1-32767"**.

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Keyword Glossary, Continued

DSKC0-3 (<4E22 Release 3) DSKC0-1 (4E22 Release 4>)

Disk Capacity - This field is used to specify the capacity for each of the disk pairs. Valid entries are **"Blank"** or **"0"** to **"3"**. A **"0"** specifies a .5 Gigabyte capacity, **"1"** specifies a 2 Gigabyte capacity, **"2"** specifies a 4 Gigabyte capacity, and **"3"** specifies a 9 Gigabyte capacity.

For 4E22 Release 3 and earlier, up to 4 Disk Pairs could be specified. For 4E22 Release 4 and later, up to 2 Disk Pairs could be specified.

All four Disk Pairs should not be specified with a capacity of **"1"**. At least one pair should be specified with a **"0"** or left **"Blank"** (unequipped).

A disk capacity of **"2"** is only allowed in the 0 and 2 slot. If a **"2"** is specified in the 0 or 2 slot, then the DSKC(i+1) slot in translations will automatically be populated with a **"2"**. Therefore, the following checks are applied when DSKC(0)=**"2"** or DSKC(2)=**"2"**.

1. If DSKC(0) is set to **"2"**, then DSKC(1) and DSKEQ(1) must be **"Blank"**.

2. If DSKC(0) is set to **"2"**, then DSKEQ(0) must be non-**"Blank"**. If the DSKC(0) is being changed from a **"2"** to another value, then both the DSKC(0) and DSKC(1) must be non-**"Blank"**.

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Keyword Glossary, Continued

DSKC0-3 (<4E22 Release 3)
DSKC0-1 (4E22 Release 4>)
(cont'd)

The following table shows the current valid disk configurations for 4E22 Release 4 and later:

ALLOWABLE DISK ARRANGEMENT for SCU 0 Only	
0/0	0/1
2	X
0	0
0	1
1	0
3	X
X = Must be unequipped	

PACK TYPE	**CAPACITY**
0	422 MB
1	2 GB
2	4 GB
3	9 GB

SCU PHYSICAL DISK ARRANGEMENT		
OCCP		
SCU 1		
SCCU 0		
SCU 0		
FANS		
X	X	HDU0B (not used)
0/0	0/1	HDU0A

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Keyword Glossary, Continued

DSKEQ0-1 (4E22 Release)

For 4E22 Release 4 and later, there is a maximum of two disk pairs per Service Circuit Unit (SCU) which are used to store the announcements. Each disk is mirrored for reliability. This field specifies the equipage status for each of the disk pairs. Valid entries are **"Blank"**, **"P"** (present/operational), **"S"** (special growth), **"G"** (growth), or **"F"** (future/unequipped). Disk Pairs should be populated in order: 0, 1 (i.e., Disk Pair 1 cannot be populated if 0 = **"Blank"**).

DSTSTP

This field is used to specify whether direct signaling messages for Direct Signaling Network Function Number Test are sent to the 1STP or 2STP network. Enter **"1STP"** or **"2STP"**, as appropriate. Enter **"DCIS"** if the direct signaling message for DSTSTP will be sent to the 2STP network using a high-speed link. If the DSIGFNUM field is zero, then the DSTSTP field should be **"N"**.

DUPCBN

Dial Up Port Call Back Number - This field specifies the clients unique Call Back Number and may be any number of digits from a minimum of one to a maximum of eleven. Call back numbers for Traffic Data Acquisition System (TDAS) clients must be unique. For Televote Sponsor (TVSP) and Voice Storage System (VSS) clients, they do not have to be unique. Valid entries are **"0-99999999999"**.

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Keyword Glossary, Continued

DUPID

Dial Up Port Identification - This field assigns an identifier to a client. All client identifiers for the office must be unique. Identifier assignments are based on the client type as follows:

CTYPE	ID
VSS	00001-99999
TDAS or **TVSP**	Two characters which may be either a letter (**"A-Z"**) or digit (**"0-9"**).

For RC Form 607, this field identifies the TELEVOTE sponsor to whom master TELEVOTE counts will be sent. Valid entry is a two character alphanumeric. The first must be a letter **"A-Z"**, the second may be a letter **"A-Z"** or digit **"0-9"**. This entry corresponds to the DUPID entered on the RC Form 603.

NOTE: This field must be **"Blank"** if MSI is **"S"**. This field may optionally be **"Blank"** for MSI of **"M"** or **"B"**, if real time output to the sponsor is not required

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Keyword Glossary, Continued

DXL

Disk Only Translation Area - DXL is a block of store that is dedicated to disk only office translations and does not contain fixed length translation tables (such as head tables). DXL is allocated in increments of one block (1024 words). Enter the maximum number of blocks that will be reserved for variable length translations for the entire engineering period. This quantity should be compatible with the traffic requirements (per File Store work sheets) and be within the hardware limits of the provided equipment. The number of blocks needed depends upon the requirements of the following:

1. DISK Trunk Subgroup (TSG) - 128 TSG per DXL block
2. Space Administration - 2 File Store (FS) community = 5120 words = 5 DXL blocks
3. Toll Terminal Frame (TTF) - Trunk Appearance Number (TAN) - 128 TTF per DXL block

The number of DXL blocks should be resolved with the switch Engineer. DXL blocks for the TAN-to-TAN translator are required to support the large volume TAN-to-TAN (nail-up) feature. The number of DXL blocks required for the TAN-to-TAN feature is equal to two times the number of Time Slot Interchanges (TSIs) in the office.

E1T1

Not Applicable – Entries: **"Blank"**

EA800

This call category is associated with Equal Access (EA) translated 800 records. If the DUAL-Revenue Accounting Office (RAO) office configuration has been selected and the RAO substitution field is left **"Blank"**, it will default to **"IC"**. If the alternative RAO is required, input **"OC"**.

EACC.tsg

Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

EADOM	Equal Access Domain - This field identifies the domain in which the Called Number of an Equal Access call should be translated. It is only used for a call type of Service Switching Point (SSP) when the calldata is Equal Access Sequence (EASEQ) or Analyze Called Party Number (ACPN). Valid entries are **"Blank"** or **"20-69"**.
EADOM56K	56K Equal Access Domain - This field identifies the domain in which the Called Number of an 56K Equal Access call should be translated. It is only used for a call type of Service Switching Point (SSP) when the calldata is Equal Access Sequence (EASEQ) or Analyze Called Party Number (ACPN). Valid entries are **"Blank"** or **"20-69"**.
EADOM64K	64K Equal Access Domain - This field identifies the domain in which the Called Number of an 64K Equal Access Data call should be translated. It is only used for a call type of Service Switching Point (SSP) when the calldata is Equal Access Sequence (EASEQ) or Analyze Called Party Number (ACPN). Valid entries are **"Blank"** or **"20-69"**.
EAR	Emergency Alternate Routing - This field is used to activate or deactivate the Emergency Alternate Routing capability. An entry of **"Y"** activates the feature and an entry of **"N"** deactivates the feature.

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Keyword Glossary, Continued

EAS

Equal Access Signaling - This field is used to specify if Equal Access Signaling (EAS) will be received on this Trunk Subgroup (TSG), and if so, whether Automatic Number Identification (ANI) is expected for the EAS calls. Note that this field only applies to an Inter-Local Access Transport Area (LATA) Carrier switch receiving EAS or an office with the Service Switching Point (SSP) feature receiving EAS. This field must be set to **"N"** for None if EAS is not received on the TSG. If EAS can be received on the TSG, but ANI is not expected for the EAS calls, then an **"E"** must be entered. If EAS can be received on the TSG, and ANI is expected on the EAS calls, then an **"A"** must be entered.

Entries of **"D"** and **"R"** in the EAS field are used to designate Feature Group D (FGD) only. If only FGD is received on the TSG, but ANI is not expected, then a **"D"** must be entered. If only FGD is received on the TSG, and ANI is expected, then a **"R"** must be entered.

This field only applies to an Inter-LATA Carrier switch receiving Equal Access Signaling (EAS), i.e., the Type of Trunk (TOT) value is Local Exchange Carrier Connecting (LCC).

EASATMFO

Equal Access (EA) Signaling Address Timer, Multifrequency (MF) Receivers Under Overload Control - This field specifies the maximum MF receiver holding time for receiving Equal Access Signaling (EAS) digits when MF receivers are in overload control. Valid entries are **"Blank"** or **"300-28500"** (units are in hundredths of a second).

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Keyword Glossary, Continued

EASATNOL Equal Access Signaling Address Timer, No Overload Control - This field specifies the maximum Multifrequency (MF) receiver holding time for receiving EAS digits when MF receivers are not in overload control. Valid entries are **"Blank"** or **"300-28500"** (units are in hundredths of a second).

EASC Exchange Access Signaling Code - This field specifies the disposition of calls in the EASC Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is EASC.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

EASCRNOL Equal Access Signaling Call Register (CR) Holding Time Under No Overload Condition - This field specifies the maximum CR holding time at an Interexchange Carrier (IC) for an Integrated Services Digital Network User Party (ISUP) Equal Access (EA) call from an Access Tandem (AT) switch which has received the call on an Multifrequency (MF) trunk. A value must be specified if there are any incoming ISUP Trunk Subgroups (TSGs) with a Type of Trunk (TOT) value of Local Exchange Carrier Connecting (LCC). Valid entries are **"Blank"** or **"300-28500"** (units are in hundredths of a second).

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EASCRO Equal Access Signaling Call Register (CR) Holding Time Under Overload Condition - This field specifies the maximum CR holding time at an Interexchange Carrier (IC) for an Integrated Services Digital Network User Party (ISUP) Equal Access (EA) call from an Access Tandem (AT) switch which has received the call on an Multifrequency (MF) trunk. A value must be specified if there are any incoming ISUP Trunk Subgroups (TSGs) with a Type of Trunk (TOT) value of Local Exchange Carrier Connecting (LCC). Valid entries are **"Blank"** or **"300-28500"** (units are in hundredths of a second).

EESP Not Applicable - Entries: **"Blank"**

EIARB Extended Interval Accumulating Register Blocks - EIARBs are used to accumulate traffic and plant counts from a set of holding registers over an extended interval of time. These blocks are areas of disk storage that are used generally when a measurement report has an accumulation span of more than one hour. EIARBs are of varying length (depending on the anticipated number of measurements on the measurement report) and are allocated from a common pool of spare blocks as the measurement report is set up. File Store for EIARBs is engineered in blocks of 32 words each. Enter the number of blocks to be reserved for EIARBs over the next engineering interval. **"511"** blocks is the maximum. Note that under-engineering may limit the number of measurement reports that contain accumulation intervals longer than one hour. Excess EIARBs remain in an idle state and cause no significant overhead in system operation.

EM Engineered Memory - This identifier requests verification of spare Trunk Sub-Group Head Cell Trunk Block Status (TSGHC TBS) words and spare Direct Link Node (DLN) disk only translators (in 1024 word blocks).

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Keyword Glossary, Continued

ENTRY

If the Miscellaneous Scanner Number (MSN) or Miscellaneous Distributor Number (MDN) translator is specified, the field will contain the Signal Processor (SP) **"0-31"**, Matrix **"0-1"**, Row **"0-63"** and Column **"0-15"**. All seven spaces must be completed in the following arrangement:

SP MML ROW COLUMN

If the Unit Type translator is specified, this field will contain a Member Number. The valid Member Number range for the different Unit Types are as follows:

ADG	-	0-3	PUC	-	0-7
CCDS	-	0-15	OA	-	0-127
CCT	-	0-19	PS	-	0-32
CS	-	0-63	SCS	-	0-7
DIF	-	2-31	SP	-	0-31
DT	-	0-127	TGR	-	0-15
DUS	-	0-3	TMS	-	0-3
FS	-	0-3	TP51A	-	0-99
IOUS	-	0-15	TPOS	-	0-99
MAS	-	0-7	TSI	-	0-63
MB	-	0-6	TTFO	-	TTF7 - 0-127
MCF	-	0	TUC	-	0-31
MFS	-	0-31	VIF	-	0-127
PUBB	-	0	XTSI	-	2 - 63

EQP

Member Equipage Information - **"F"** means the unit is available for future use. This includes both growth and Special Growth states. **"OP"** means the unit is operational.

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Keyword Glossary, Continued

EQP01 through EQP28	Equipage for the 1st through the 28th DS1 for this D3U. Entries are **"Blank"**, **"F"** for Future or **"P"** for present/provisioned.
EQUIPAGE	Equipage for the 1st through the 28th DS1 for this D3U (4E24>). Entries are **"Blank"**, "**F**" for Future, or **"P"** for present/provisioned.
ERPI	Not Applicable - Entries: **"Blank"**
ES	Not Applicable - Entries: **"N"**
ESP	Not Applicable - Entries: **"Blank"**
ETYPE	Not Applicable - Entries: **"Blank"**
EXEC	Executive Processor - Hardware version of the EXEC pack for Expanded Time Slot Interchange (XTSI) Controller 0 or 1 (4E24>) - Entries are **"Blank"** or **"0"**(for initial UN548 EXEC pack) or **"1"** (for UN549 EXEC pack - needed for in-band). • If PUBI is **"Blank"**, EXEC must be **"Blank"**. • If PUBI is **"0"**, EXEC must be **"0"**. • If PUBI is **"1"**, EXEC must be **"1"**.
EXSEQ	Not Applicable – Entries: **"Blank"**
FAC	Not Applicable - Entries: **"Blank"**
FAI	Not Applicable - Entries: **"Blank"**

Continued on next page

Keyword Glossary, Continued

FAICNT	Not Applicable - Entries: **"Blank"**
FAILACT	This field is used to specify whether an announcement should be played or a release message should be sent with a cause value for an Integrated Services Digital Network User Part (ISUP) call that fails. Enter **"ANN"** if an announcement should be played. Enter **"CAV"** if a release message should be sent.
FAR4E	The FAR4E field is set to **"Y"** for Yes whenever the far end of the trunks in this Trunk Subgroup (TSG) is terminated on a 4ESS Switch with the international announcements. This is used in common channel signaling (Incoming Signaling Characteristics [ISC] is Domestic Common Channel Interoffice Signaling [DOMCCIS] or Integrated Services Digital Network User Part [ISUP]) to control sending backward failure messages on failed international calls. These switches are equipped with the international announcements. The FAR4E field also controls common channel signaling sending network management call preference data in a forward direction (OSC is DOMCCIS or ISUP). Such data must not be sent forward to switches not equipped to handle it. Enter **"N"** if the far end is not a 4ESS Switch or the 4ESS Switch does not have the international announcements. This field should be left **"Blank"** for International Consultative Committee for International Telephone & Telegraph Signaling System 7 [CCITT7] ISUP (INUP) trunks.
FAXPR	Not Applicable - Entries: **"Blank"**
FBAND	Not Applicable - Entries: **"Blank"**
FBS	Far Building Subdivision - See TSG.

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Keyword Glossary, Continued

FCHAN Far End Channel - If the D1D2 field on this form is **"Blank"**, this field is left **"Blank"**. If the D1D2 field contains D1 or D2, valid entries for the FCHAN field range from **"1-24"**. FCHAN is the first (far end) channel. Channels are numbered 1 to 24 and they are assigned to 24 sequential Trunk Assignment Numbers (TANs). FCHAN plus Quantity of Trunks (QTRK) must be equal to or less than 25. This means that each line is restricted to one group of 24 TANs and that a channel number of 25 or greater for any trunk is not acceptable. For each channel, the TAN is determined as follows: the Time Slot Interchange (TSI), Switching and Permuting Circuit (SPC), and Level (LVL) of the block of TANs to be used are entered on the line in the input form. The TS (Time Slot) for each TAN is derived internally from the channel number and First Time Slot (FTS).

FCIC Not Applicable - Entries: **"Blank"**

FDESEP First Destination Separation in a range of Destination Separations (DESEPs) associated with an Incoming Separation (Incoming Separation Class) or range of INSEPs and a Cell Grouping Index. If only one DESEP is desired, then the value of QDESEP must be **"1"**. Valid range is **"1-255"**.

FEALN (4E25R1>) Far End AT&T Local Network Recent Change (RC) Form 634 to determine the Final Handling Treatment (FHT) announcement which is to either send a release (with CAUSE) message or to play an announcement. Legal values are **"Blank"**, or **"REL"** for Release, or **"PA"** for Play Announcement.

FEAREA Not Applicable - Entries: **"Blank"**

FEPTY Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

FEATURE DATA.810

Feature Data (RC Form 810) - Valid entries are:

- A6TOS - Six-Digit Advanced Intelligent Network (AIN) Type Of Service Index. Entries: "**Blank**" or "**0-31**"
- AINCFRTH - "**1-32**"
- AINCGFHT - "**0-127**"
- AINFHT - "**0-127**"
- AINRESP - "**100-500**"
- AINSSN - "**0**", "**1**", "**4**", "**6-255**"
- AINTRIG - "**1-6**"
- ATOSI - AIN Type Of Service Index. Entries: "**Blank**" or "**0-31**"
- L6TOS - Six-Digit Local Number Portability (LNP) Type Of Service Index. Entries: "**Blank**" or "**0-31**"
- OFFLATA - "**0-999**"

FEATURE DATA.811

Feature Data (RC Form 811) - See FEATUREINFO.811

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Keyword Glossary, Continued

FEATGRP

Feature Group - This field provides an option of selecting a specific feature group for each unique generic application. Valid feature groups are as follows:

- **WZ1** - World Zone One - This entry indicates that the office handles traffic according to the North American Numbering Plan (NANP) and uses standard office configurations.
- **TAIWAN** - This entry indicates that the office handles traffic patterns and signaling arrangements unique to the Taiwan switching environment. Various specialized equipment and office configurations are required.
- **KOREA** - This entry indicates that the office handles traffic patterns and signaling arrangements unique to the Korean switching environment. Specialized equipment and configurations are required.

FEATURE INFO.810

Feature Information (RC Form 810) - RC Form 810 is used to change miscellaneous feature information such as timers, counters and other numeric data. Entries are **"A6TOS"**, **"AINCFRTH"**, **"AINCGFHT"**, **"AINFHT"**, **"AINRESP"**, **"AINSSN"**, **"AINTRIG"**, **"ATOS"** (4E22>), **"L6TOS"**, **or "OFFLATA"**.

Continued on next page

Keyword Glossary, Continued

FEATURE INFO.811

Feature Information (RC Form 811) - This field is used to identify the feature for which data is to be changed. Valid entries are:

- **IID -** There are six different office wide II Digit Defaults (ID1 through ID6) that can be provisioned via RC 811. These Defaults, when provisioned, can be assigned via RC 349 to replace specific II digits in forwarding calls to an Interexchange Carrier (IC) if Flexible Automatic Number Identification (ANI)/II restrictions apply. Valid **INDX** entries are **"1-6"**. Valid default II **DATA** entries are **"00-99"**. The associated Verify is input message 13ba and output form 3ba.

  NOTE: These defaults can only be provisioned if the Tandem Flexible ANI/II Digit Restriction Feature (#539) has been purchased.

- **IPPD** - (4E24R3>) The Information Identifying Digit (II) PayPhone Designation indicators are provisioned via RC 822 for the LEC Flexible ANI/II 800 to Plain Old Telephone Service (POTS) feature (#567). Valid **INDX** entries are **"0-99"** (valid possible II digits). Valid DATA entries are **"0"** or **"1"** (0=No and 1=Yes). The associated Verify is: input message 13bf and output form 3bf.

  NOTE: The PayPhone Designation indicators can only be provisioned if the LEC Flexible ANI/II 800 to POTS feature (#567) has been purchased).

- **OLID -** There are six different office wide Originating Line Identifier (OLI) Defaults (OD1-OD6) that can be provisioned via RC 811. These Defaults, when provisioned, can be assigned via RC 350 to replace specific OLIs in forwarding calls to an Interexchange Carrier (IC) if Flexible Automatic Number Identification (ANI)/II restrictions apply. Valid **INDX** entries are **"1-6"**. Valid default OLI **DATA** entries are **"0-255"**. The associated Verify is input message 13bb and output form 3bb.

  NOTE: These defaults can only be provisioned if the Tandem Flexible ANI/II Digit Restriction Feature (#539) has been purchased.

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Keyword Glossary, Continued

FEATURE INFO.811 (cont'd)

- **OPPD** - (4E24R3>) The OLI parameter PayPhone Designation indicators are provisioned via RC 811 for the LEC Flexible ANI/II 800 to POTS feature (#567). Valid **INDX** entries are **"0-255"** (valid possible OLI parameters). Valid DATA entries are **"0"** or **"1"** (0=No and 1=Yes). The associated Verify is: input message 13bg and output form 3bg.

  NOTE: The PayPhone Designation indicators can only be provisioned if the LEC Flexible ANI/II 800 to POTS feature (#567) has been purchased).

- **RVASRNSX** - Reserved Automatic Speech Recognition (ASR) Service Circuit System (SCS) Service Circuit Unit (SCU) Channels.

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Keyword Glossary, Continued

FEATURE ITEM

Feature Item (RC Form 809) - This names feature items to be turned on or off. Valid entries are:

- **AASE** - Announcement Administration System Equipment Office Parameter - This office parameter specifies if the AASE (either Administration Processor [AAP] or the Announcement Systems Manager [ASM]) is equipped or not equipped. If FEATURE ITEM is set to **"AASE"** and ON-OR-OFF is set to **"OFF"**, the AASE is set to NOT equipped. If ON-OR-OFF is set to **"ON"** the AASE is set to equipped.

- **AINON** - Advanced Intelligent Network ON-OR-OFF Switch

- **AINRDFLT** - AIN Route Using Default

- **ASM** - Service Circuit System (SCS) Update Type-Announcement Systems Manager (ASM)/Administration Processor (AAP) - FEATURE ITEM input **"ASM"** specifies the protocol to be used on the LAN for the SCS Update System Type. If FEATURE ITEM is set to **"ASM"** and ON or OFF is set to **"ON"**, then the ASM protocol will be used in Local Area Network (LAN) communications. If FEATURE ITEM is set to **"ASM"** and ON or OFF is set to **"OFF"**, then the AAP protocol will be used in LAN communications.

- **CPESR** - Call Prompter with Enhanced Speech Recognition

- **F1** - F1 is used to indicate the Network Access Interrupt (NAI) ON-OR-OFF indicator. To activate the Network Access Interrupt Feature, set FEATURE ITEM to **"F1"** and ON-OR-OFF to **"ON"**. To de-activate the Network Access Interrupt Feature, set FEATURE ITEM to **"F1"** and ON-OR-OFF to **"OFF"**. The default is **"OFF"**. Note: The Network Call Denial (NCD) Query feature bit must be turned off prior to activating the NAI feature bit; otherwise, Form 809 will not activate the NAI feature bit.

- **F2** - Spare Non-Proprietary Activation Bits reserved for future use.

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Keyword Glossary, Continued

FEATURE ITEM (cont'd)

- **F3** - ON-OR-OFF bit for Multiple 4ESS Switch Network Announcements. This bit is set to **"ON"** to provide cross service Final Handling Treatment (FHT) Announcements and service terminating announcements in different languages based on the location of the caller. If this bit is set to **"OFF"**, then the default office announcement group will be used in final handling in Service Circuit System (SCS) offices.

- **F4** - I800 Overseas 10D Global Title Translation (GTT) Feature bit. The I800 Overseas 10D GTT Feature is activated/deactivated by populating the FEATURE ITEM field with **"F4"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF field to **"ON"**. To deactivate the feature, set the ON-OR-OFF field to **"OFF"**. The feature is defaulted to **"OFF"**.

- **F5** - Spare Non-Proprietary Activation Bits reserved for future use

- **F6** - F6 is used to indicate the Information Transfer Capability (ITC) in the outgoing IAM: To encode the outgoing Initial Address Message (IAM), User Service Information (USI) parameter ITC field, 3.1kHz audio, set FEATURE ITEM to **"F6"** and ON-OR-OFF to **"ON"**. To encode the outgoing IAM, USI parameter ITC field, "speech", set FEATURE ITEM to **"F6"** and ON-OR-OFF to **"OFF"**. The default is **"OFF (speech)"**.

- **F7** - Provide Phase I Advanced Intelligent Network (AIN) default routing for Called Number Trigger (CNT) calls by populating the FEATURE ITEM field with **"F7"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To indicate that the office provides Phase I AIN default routing, set the ON-OR-OFF field to **"ON"**. To indicate that Phase I AIN default routing is not provided, set the ON-OR-OFF field to **"OFF"**. The default is **"OFF"**.

- **F8** - Spare Non-Proprietary Activation Bits reserved for future use.

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Keyword Glossary, Continued

FEATURE ITEM (cont'd)

- **F9** - The basic rather than improved processing of non-idle Q.931 trunks is activated/deactivated by populating the FEATURE ITEM field with **"F9"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF" field to **"ON"**. To deactivate the feature, set the ON-OR-OFF field to **"OFF"**. The feature is defaulted to **"OFF"**. When this feature is not active (OFF), the switch will perform the improved processing. This allows the Q.931 trunk hunt to rehunt when the initial hunt is to a non-idle trunk, and to final handle calls for which the switch receives a SETUP message that it believes to be an already stable call. When this feature is active (ON), the switch will perform basic processing rather than the above improved processing.

- **F10** - This item is used to transition performance monitoring from Digital Interface Frame (DIF) type of performance monitoring to Expanded Time Slot Interchange (XTSI) Release 2 type of performance monitoring for XTSI Trunks. Recent Change (RC) Form 664 is used to set the thresholds for XTSI Release 2 type of performance monitoring. The default setting is OFF and means performance monitoring transition to the XTSI version has not occurred. When F10 is set to **"ON"**, transitioning to XTSI Release 2 version of performance monitoring occurs. Once F10 is set to **"ON"**, it cannot be changed back to **"OFF"**.

- **F11** - The Terminating Bandwidth Screening is activated/deactivated by populating the FEATURE ITEM field with **"F11"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate Terminating Bandwidth Screening, set the ON-OR-OFF field to **"ON"** which causes the terminating 4ESS Switch to invoke bandwidth screening. To deactivate terminating bandwidth screening, set the ON-OR-OFF field to "OFF" in which case the terminating 4ESS Switch will not attempt to compare the bearer capability with the Outgoing Signaling Characteristic (OSC) of the terminating egress facility to make decisions about routing of the call. The default is **"OFF"**.

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Keyword Glossary, Continued

FEATURE ITEM (cont'd)

- **F12** - Provisioning of this committed internal development (800 Toll Free Treatment for 888 & 877) is accomplished by populating the FEATURE ITEM with **"F12"** and setting the ON or OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON OR OFF field to **"ON"**. To deactivate the feature, set the ON OR OFF field to **"OFF"**. NOTE, setting this item to **"OFF"** will also cause the following *automatic-provisioning* to occur: F28 (LEC Service Switching Point-800 (SSP-800) Support for Service Access Codes (SACs) 866 through 822 feature (#571) (4E24R3>)), will be set to **"OFF"**.

- **F13** - The 15 Digit International Numbering Plan feature is activated/ deactivated by populating the FEATURE ITEM field with **"F13"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF field to **"ON"** which causes the Extended Bellcore Automatic Message Accounting [AMA] Format (EBAF) Module 164 to appear in Local Exchange Carrier (LEC) billing records when the terminating number is > 12 digits or when the originating number is > 10 digits. To deactivate the feature, set the ON-OR-OFF field to **"OFF"** in which case the EBAF Module 164 will not appear. The feature is defaulted to **"OFF"**.

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Keyword Glossary, Continued

FEATURE ITEM (cont'd)

- **F14** - (4E23>) The Message Header Reduction for Attached Processor Interface (API) Capacity feature is activated/deactivated by populating the FEATURE ITEM field with **"F14"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF field to **"ON"**. This will remove the 6 words of unused header in all International Consultative Committee for international Telephone & Telegraph [CCITT7] Integrated Services Digital Network User Part (INUP) messages, CCITT7 Telephone User Part (TUP) messages and Transaction Capabilities Application Part (TCAP) Queries, the 8 words of unused header in all TCAP Responses, the 2 words of unused header in all Q.931 messages, and the 3 words of unused header in all Access Transport Parameter (ATP) messages sent through the API. This in turn will increase the effective throughput of the API. To deactivate the feature, set the ON-OR-OFF field to **"OFF"** in which case the removal of the unused words of the header for the above mentioned messages sent through the API will not occur. The feature is defaulted to **"OFF"**.

  (4E22>) The API Capacity Improvement feature is activated/deactivated by populating the FEATURE ITEM field with **"F14"** and setting the ON-OR-OFF field to either ON-OR-OFF. To activate the feature, set the ON-OR-OFF field to **"ON"**. This will remove the 8 words of unused header in all ISUP messages sent through the API. This in turn will Increase the effective throughput of the API. To deactivate the feature, set the ON-OR-OFF field to **"OFF"** in which case the removal of the 8 words of unused header in all ISUP messages sent through the API will not occur. The feature is defaulted to **"OFF"**.

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FEATURE ITEM (cont'd)

- **F15** - The CVU Echo-back Interface feature is activated/deactivated by populating the FEATURE ITEM field with **"F15"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF field to **"ON"**. To deactivate the feature, set the ON-OR-OFF field to **"OFF"**. The feature is defaulted to **"OFF"**.

- **F16** - To activate the Extend Address Complete Message (ACM) Timer for Common Channel Signaling 7 (CCS7) Feature, populate the FEATURE ITEM field with **"F16"** and set the ON-OR-OFF field to **"ON"**. To deactivate the Extend ACM Timer for CCS7 Feature, set the ON-OR-OFF field to **"OFF"**.

- **F17** - To activate the Network Access Interruption (NAI) for Direct Connect Calls Feature, populate the FEATURE ITEM field with **"F17"** and set the ON-OR-OFF field to **"ON"**. To deactivate the NAI for Direct Connect Calls Feature, set the ON-OR-OFF field to **"OFF"**.

- **F18** - (4E22R4>) To ignore Advanced Intelligent Network (AIN) Called Number Triggers on Location Routing Numbers (LRN) populate the FEATURE ITEM field F18 to **"ON"**. To process or act on AIN Called Number Triggers (CNTs) populate the FEATURE ITEM field F18 to **"OFF**". The default is **"OFF"**.

- **F19** - (4E23R3>) The Analyze Ported Number Generic Address Parameter (GAP) for Advanced Intelligent Network (AIN) Called Number Triggers (CNTs) feature (#515) is activated/deactivated by populating the FEATURE ITEM field with **"F19"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF field to **"ON"** (NOTE: this feature cannot be activated unless it has been purchased). To deactivate the feature, set the ON-OR-OFF field to **"OFF"**. The default is **"OFF"**.

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Keyword Glossary, Continued

FEATURE ITEM (cont'd)

- **F20** - (4E23R3>) The Expanded Advanced Intelligent Network (AIN) Called Number Triggers(CNT) for the 10-Digit Domain option capability is activated/deactivated by populating the FEATURE ITEM field with F20 and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate this capability, set the ON-OR-OFF field to "ON" (NOTE: this capability can not be activated unless both the AIN 6-Digit CNT Expansion (#516) and the AIN Called Number Trigger Expansion (#442) features have been purchased). To deactivate this capability, set the ON-OR-OFF field to **"OFF"**. The default is **"OFF"**.

- **F21** - (4E22>) The Local Exchange Carrier (LEC) Local Number Portability (LNP)/Advanced Intelligent Network (AIN) Domain Option (#534) feature is activated/deactivated by populating the FEATURE ITEM field with **"F21"** and setting the ON-OR-OFF field to either **"ON"** or "OFF". To activate or enable the feature set the ON-OR-OFF field to **"ON".** To deactivate or disable this feature set the ON-OR-OFF field to **"OFF"**. The feature default is **"OFF"**. Note: this indicator is only applicable if AIN Feature 375 and LNP Feature 450 have been purchased.

- **F22** - (4E23R3>) The Local Exchange Carrier (LEC) Originating Local Number Portability (LNP) Module Automatic Message Accounting (AMA) Enhancements feature (#537) is activated/deactivated by populating the FEATURE ITEM field with **"F22"** and setting the ON-OR-OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON-OR-OFF field to **"ON"** (NOTE: This feature cannot be activated unless it has been purchased.) To deactivate the feature, set the ON-OR-OFF field to **"OFF"**. The default is **"OFF"**.

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FEATURE ITEM (cont'd)

- **F23 -** (4E24R1>) The Tandem Flexible Automatic Number Identification (ANI)/II Digit Restriction Feature (#539) is activated/deactivated by populating the FEATURE ITEM field with **"F23"** and setting the ON OR OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON OR OFF field to **"ON"**.

  NOTE: This feature cannot be activated unless:

  - the feature has been purchased
  - all possible II digits have a valid II default type provisioned via Recent Change (RC) Form 349
  - all possible Originating Line Information (OLI) values have a valid OLI default type provisioned via RC 350.

  To deactivate the feature, set the ON OR OFF field to **"OFF"**. The default is **"OFF"**.

- **F24 -** (4E24R1>) The Connecting Network Access Record (CNAR) Trunk Subgroup (TSG) Billing Number Option (#547) Feature is activated/ deactivated by populating the FEATURE ITEM field with **"F24"** and setting the ON OR OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON OR OFF field to **"ON"**. To deactivate the feature, set the ON OR OFF field to **"OFF"**. The default is **"OFF"**.

- **F25 -** (4E24R3>) LEC Non-GETS Initial Address Message/Circuit Reservation Message (IAM/CRM) priority setting indicator feature (#555)

- **F26** - (4E24R3>) The LEC Flexible Automatic Number Identification/ Information Identifying Digits (ANI/II) 800 to Plain Old Telephone Service (POTS) feature (#567) is activated/deactived by populating the FEATURE ITEM field with F26 and setting the ON OR OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON OR OFF field to **"ON"**. To deactivate the feature, set the ON OR OFF field to **"OFF"**. The default is **"OFF"**.

  NOTE: This feature cannot be activated unless this feature has been purchased.

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Keyword Glossary, Continued

FEATURE ITEM (cont'd)

- **F27** - (4E24R3>) The AIN 3-Digit Number Trigger Criteria Type feature (#569) is activated/deactived by populating the FEATURE ITEM field with **"F27"** and setting the ON OR OFF field to either **"ON"** or **"OFF"**. To activate the feature, set the ON OR OFF field to **"ON"**. To deactivate the feature, set the ON OR OFF field to **"OFF"**. The default is **"OFF"**.

  NOTE: This feature cannot be activated unless this feature has been purchased.

- **F28** - (4E24R3>) LEC Service Switching Point-800 (SSP-800) Support for Service Access Codes (SACs) 866 through 822.

- **F29 -72** - Spare Non-Proprietary Activation Bits reserved for future use

- **SUA** - Software Update Automation. When this feature bit is set to "ON", Software Update Automation is enabled.

FELATA.cdg Far End Local Access Transport Area/Code Group. This field should contain the LATA of the offices which will send the 00Y code instead of a "800" or other Number Service call prefix digits. Legal values are: **"000-999"**.

FELATA.tsg Far End Local Access Transport Area/Trunk Subgroup - This field is used to identify the Local Access Transport Area (LATA) of the far end switch. Legal entries are: **"Blank"**," **000-999"**.

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FELN Not Applicable – Entries: **"Blank"**

FENCLASS This field specifies the classification of the Far End Network (FEN). If the Trunk Subgroup (TSG) is not associated with any FEN, this field is left **"Blank"**. The FEN with which the TSG is to be associated must be described via 4ESS Switch RC 617.

For RC 524, this field identifies the class for accumulating counts.

The following classifications are available:

- **ACCESA** - This identifier specifies that the TSG is a link to an Inter-exchange Carrier (IC) or International Carrier (INC), and the 4ESS Switch is being used by a Local Exchange Carrier (LEC) as an Access Tandem (AT) and/or Service Switching Point (SSP) to switch calls from this TSG.
- **ACCESI** -This identifier specifies that the TSG is a link to an International Carrier (INC), and the 4ESS Switch is being used by an Interexchange Carrier (IC) (e.g., AT&T-C) to switch calls from this TSG.
- **ACCESO** - This identifier specifies that the TSG is a link to an Operating Company and the 4ESS Switch is used as an IC.
- **CAMA** - This identifier specifies that the TSG is terminated on an office which delivers traffic on Centralized Automatic Message Accounting (CAMA) trunks.
- **CMC** - Cellular Mobile Carrier - This identifier specifies that the FEN is a CMC. The TSG connects an Access Tandem (AT) and a CMC.
- **INTL** - This identifier specifies that the TSG is an international link with the far end outside World Zone 1 and that the 4ESS Switch is being used as an International Switching Center (ISC)

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Keyword Glossary, Continued

FENCLASS (cont'd)

- **OWATS** - This identifier specifies that the TSG is a link to a Private Branch Exchange (PBX) over which only Outward Wide Band Area Telephone Service (WATS) calls are allowed.

- **OEO** - Other End Office connecting, meaning an Equal Access End Office (EAEO) owned by a different company. This identifier specifies that the FEN is an OEO. The TSG connects an Access Tandem (AT) and an OEO.

- **PBX** - This identifier specifies that the TSG is a link to a PBX.

- **POTS** - This identifier specifies that the TSG is a link to a switching machine serving either a Local Access Transport Area (LATA) of the Local Exchange Carrier (LEC) owning/sharing the 4ESS Switch, the Continental United States/Plain Old Telephone Service (POTS) (CUSP) network of the IEC owning/sharing the 4ESS Switch, or some other FEN to be treated similarly.

- **SWATS** - This identifier specifies that the TSG is a link to another switching system (not a PBX) over which only Outward WATS calls are allowed.

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Keyword Glossary, Continued

FENID

Far End Network (FEN) Identification - This field distinguishes the specific FEN with which this Trunk Subgroup (TSG) is associated. One to six alphanumeric characters may be entered to distinguish among several FENs with the same classification, or the field may be left **"Blank"**. If FENCLASS is **"Blank"**, FENID must also be **"Blank"**.

When the FENCLASS is ACCESA or ACCESI, FENID should consist of type of feature group access and the 4 numeric digits of the Carrier Identification Code (CIC).

The type of feature group definitions are:

- **G** - All access types (B, C, & D).
- **B** - Feature Group B Access.
- **C** - Feature Group C Access.
- **D** - Feature Group D Access.

Examples include:

- **G0288** - Carrier ID 288 has Feature Group B, C, & D access.
- **BC0288** - Carrier ID 288 has Feature Group B & C access.
- **BD0288** - Carrier ID 288 has Feature Group B & D access.
- **B2882** - Carrier ID 2882 has Feature Group B access only.
- **D2882** - Carrier ID 2882 has Feature Group D access only.

For an access type, both B2882 and D2882 can exist but be for different carriers.

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Keyword Glossary, Continued

FENPA.cdg Far End Numbering Plan Area (NPA)/Code Group. This field should contain the NPA of the offices which will send the 00Y code instead of a "800" or other Number Service call prefix digits. Legal values are: **"000-999"**.

FENPA.tsg Far End Numbering Plan Area/Trunk Subgroup (TSG) - Enter a 3-digit Numbering Plan Area (NPA) code to identify the far end of the subgroup. Valid entries range from **"200-999"**. With an International Trunk Subgroup, if the far end of the Trunk Subgroup is outside World Zone 1, enter the 1-, 2-, or 3-digit country code. Valid ranges of Country Code entries are **"2-9"**, **"20-99"**, and **"200-999"**.

This field is the NPA of the Far-End Office. If this office is not in the Home or Served area, then the Domain will be Plain Old Telephone Service-Intertoll/Intertandem (POTS-IT) and the IT field will be forced to **"Y"** in a Local Exchange Carrier (LEC) switch.

FEOFC Far-End Office Code - This field is used to identify the office code of the far end switch. Typically this value will range from 200-999. Legal entries are: **"Blank"**, **000-999**.

FESC6 Far-End 6-Digit Screening - A **"Y"** for Yes or **"N"** for No indicates whether or not the far-end office which outpulsed the incoming digits is doing 6-digit screening. An **"N"** should be entered in this field if it cannot be determined whether or not the far-end is doing 6-digit screening.

If this field is equal to yes, then vacant code analysis assumes the far-end office will never outpulse a vacant central office code (NXX), vacant Numbering Plan Area (NPA) code, an originating Inward Wide Band Area Telephone Service (INWATS) call which has been denied originating capabilities, or an incorrect number of digits on this Trunk Subgroup (TSG).

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FESWID Not Applicable - Entries: **"Blank"**

FG Signaling Feature Group - This field identifies what type of signaling the Interexchange Carrier (IC)/International Carrier (INC) will be expecting. Legal inputs are: **"C"** for Feature Group C (traditional) and **"D"** for Feature Group D (Equal Access).

FH AIN Fault Handling - Valid entries are **"Blank"**, **"FT"**, and **"DR"**. This element specifies the type of fault handling that applies to the Called Number Trigger.

- DR is for the Default Routing.
- FT is for the Final Treatment, which is the default for this field.
- **"Blank"**: translates to FT. Note: **"Blank"** will not be printed for verify.

FHT This field is used to specify a final handling treatment. Legal values are: **"AR"**, **"BT"**, **"EA1"**, **"EA2"**, **"EA3"**, **"EA4"**, **"EA5"**, **"EA6"**, **"EA7"**, **"IFF"**, **"INC"**, **"IVC"**, **"MCA"**, **"NCA"**, **"NCC"**, **"NCD"**, **"NWC"**, **"OOB"**, **"ROA"**, **"SP1"**, **"SP2"**, **"T"**, **and "VCA"**. See RDBFHT for a more complete description.

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Keyword Glossary, Continued

FID

Far End Network (FEN) Identification - This field identifies the particular FEN within the specific class of FENs. It may be left **"Blank"** or entered as 1 to 6 alphanumeric characters. When CLASS is ACCESA or ACCESI, FID should consist of type of feature group access and the 4 numeric digits of the Carrier Identification Code.

The type of feature group definitions are:

- **G** - All access types (B, C, & D).
- **B** - Feature Group B Access.
- **C** - Feature Group C Access.
- **D** - Feature Group D Access.

Examples include:

- **G0288** - Carrier ID **288** has Feature Group B, C, & D access.
- **BC0288** - Carrier ID **288** has Feature Group B & C access.
- **BD0288** - Carrier ID **288** has Feature Group B & D access.
- **B2882** - Carrier ID **2882** has Feature Group B access only.
- **D2882** - Carrier ID **2882** has Feature Group D access only.

For an access type, both **B2882** and **D2882** can exist but be for different carriers.

FINSEP

First Incoming Separation Class (INSEP) in a range of INSEPs associated with a Destination Separation (DESEP) or range of DESEPs and a Cell Grouping Index. If a single INSEP is desired, Quantity of INSEP (QINSEP) should equal one. Valid range is **"0-255"**.

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FLDSPR	Not Applicable – Entries: **"Blank"**
FLN	Floor Location Number - This field identifies the equipment location of the specified unit type. The first two digits identify the floor location, the next three digits specify the equipment line or aisle, and the last two digits after the period identify the frame.
FMEMN	Not Applicable - Entries: **"Blank"**
FOLI	Not Applicable - Entries: **"Blank"**
FOSPS	Not Applicable - Entries: **"Blank"**
FRAME.misc	Time Assignment Speech Interpolation (TASI) Frame number/ Miscellaneous - Valid entries for this field are numbers in the range **"0-255"**.
FRAME.utp	Frame Number/Unit Type - This field is used only when the Unit Type entry is Program Store (PS) or Call Store (CS), and it identifies the frame number that contains the CS or PS Memory Number (MEMN). Valid entry is **"0"** or "**1**". For the Extended Call Store (ECS) frame, when the ECS frame is next to CS/PS frame 0, the ECS frame number is 1. When it is next to CS/PS frame 1, then the ECS frame number is 0.

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Keyword Glossary, Continued

FRAME FORMAT	Frame Format for the 1st through the 28th DS1 for this D3U (4E24>). Entries are **"Blank"**, **"E"** for Extended Superframe, or **"S"** for Superframe.
FRING	Forced Ringing. Valid entries are **"Y"** for Yes, **"N"** for No, or **"Blank"**. For nonbarge-in announcement, if **"Y"** is entered, callers will be connected to at least one cycle of audible ringing tone before being connected to the announcement. For nonbarge-in announcement, if **"Y"** is not entered, **"N"** must be entered which signifies that callers are to be connected to the announcement as soon as possible. This field must be **"Blank"** for barge-in announcements, Callers are always connected to one cycle of audible ringing before hearing a barge-in announcement.
FRMF01 through FRMF28	Equipage for the 1st through the 28th DS1 for this D3U. Entries are **"Blank"**, "**E**" for Extended Superframe or "**S**" for Superframe.
FROM LATA	Local Access Transport Area - This number specifies the LATA of the originating area identified for screening. Legal inputs are: "**000**-**999**".
FROM STATE	This field specifies the state of the originating area identified for screening. Legal inputs are two alphabetic characters.
FSEG	The FSEG field specifies the File Segment that the translation words store. Valid entries are **"0"**, **"1"**, **"2"**, or **"3"**.

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FSONLY Enter a **"Y"** for Yes in this field if the data to be changed resides only in file store. Enter an **"N"** for No in this field if the data to be changed resides in core, backed up by file store. It is not possible to change the file store copy of a word that resides in core with file store back up by specifying the file store address and setting FSONLY to **"Y"**. If this is attempted, an error message will be received.

FTA Fast activate - see RCACTION.

FTB Fast buffer - see RCACTION.

FTFN First Traffic Number - For each line under FTFN, enter the FTN of the block of traffic numbers being assigned on that line. The quantity of trunks assigned on each line will be numbered sequentially by an internal program manipulation beginning with the FTFN specified. Valid inputs are **"0-9999**". Quantity of Trunks (QTRK) plus FTFN must be less than 10001.

For RC 104, this field should specify the first traffic number of the new block of traffic numbers that is being added to the Trunk Subgroup. Valid inputs are **"0-9976"**.

FTRID Not Applicable - Entries: **"Blank"**

FTT Fast test - see RCACTION.

FVSR Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

GAPI

Gapping Interval Index. This two digit field is used to specify a GAPI representing the interval in seconds between the selection of calls which are to be Cut-Through (forwarded) for live answer. One call per the number of seconds indicated is selected for Cut-Through. The available GAPIs and the associated interval in seconds are as follows:

Gap Interval Index	Gap Interval in Seconds
0	Gap control is off
1	0 (all calls advance).
2	0.1
3	0.25
4	0.5
5	1.0
6	2.0
7	5.0
8	10
9	15
10	30
11	60
12	120
13	300
14	600
15	INFINITE (100% code block).

GENERIC INFO

This field specifies the Generic, Load, Merge number occurred for the load, and Generic release number.

GEOSEP

Geographical Traffic Separation Class - Valid entries for this field are one or two digits in the range of "**0-31**" to indicate a traffic class for measurement purposes. This code is used with the Announcement Separation Class to score geographical survey counts in Mass Announcement System (MAS) offices.

GETSAOF1-5

Not Applicable - Entries: **"Blank"**

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GETSAON1-5	Not Applicable - Entries: **"Blank"**
GETSDOF1	Not Applicable - Entries: **"Blank"**
GETSDON1	Not Applicable - Entries: **"Blank"**
GETSRCVL	Not Applicable - Entries: **"Blank"**
GETSRQLT	Not Applicable - Entries: **"Blank"**
GHI	This field lists the seventh (G), eighth (H) and ninth (I) digits that complete the code group definition. One (7-digit translation), two (8-digit) or three (9-digit translation required) digits may be listed in this field. A numeric or an **"X"** may be used to specify translation. A numeric may not follow an **"X"**. The numeric will define a specific code while the **"X"** will represent all numerics from 0 to 9. Translation must be specified equal to the Number of Translated Digits (NTD). An **"X"** may be used for one, two, or three positions of GHI field, determined by the NTD. If only one **"X"** is used, it must be in the I position if there are two numerics. If two "**X**s" are used they must be in the HI position if there is one numeric. Any code not specified will be routed to vacant code Final Handling Treatment (FHT) by the Office Data Assembler (ODA) program.

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Keyword Glossary, Continued

GLARE

Glare Control - For domestic E&M trunks, enter an **"A"** for all if this office remains in control when a 2-way trunk is seized by both offices. The other office should be arranged to relinquish control. If the other office (far end) has control, enter an **"N"** for None.

For Integrated Services Digital Network User Part (ISUP) trunks, an "**O**" indicates that this office will control the odd labels. An "**E**" indicates that this office will control the even labels. The switch with the lower point code should be assigned to maintain control of the odd numbered Circuit Identification Codes (CICs). The switch with the higher point code should be assigned to maintain control of the even numbered CICs. The point codes to be compared are the Origination Point Code (OPC) and the Destination Point Code (DPC). Alternatively, for ISUP trunks, an **"A"** can be entered to indicate that the switch will control all CICs or an **"N"** can be entered to indicate that the switch will control no CICs.

The Machine Administrator should furnish this Trunk Subgroup (TSG) information.

GNSC

Go/No Go Screening Class - Go/No Go Screening may be used to block traffic dialing specific digits over a Trunk Subgroup (TSG). All incoming and two-way message TSGs are given a Go/No Go class in the range of **"0**-**3**". When this type of screening is required for a group of codes, those codes are correlated with a specific class and a "Go" or "No Go" condition (RC Forms 300-304). If a group of codes specify "Go" on a given class, those codes will be blocked on TSGs having a class other than the specified class. For a "No Go" correlation, a set of codes will not be blocked except on TSGs having the specified class. All blocked traffic is given the vacant code Final Handling Treatment (FHT).

GRAM

Global Random Access Memory - Hardware version of the GRAM pack for Expanded Time Slot Interchange (XTSI) Controller 0 or 1 (4E24>) - Entries are **"Blank"** or**"0"** (for initial UN557 GRAM pack).

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GSDN.cdg Global Software Defined Network/Code Group - This field specifies the index that is used to select a routing treatment when a GSDN type of subsequent digit entry is encountered. Valid entries are **"0-1"**.

GSDN.tsg Not Applicable - Entries: **"Blank"**

GSDNGTT Not Applicable - Entries: **"Blank"**

GSDNPD Global Software Defined Network Prefix Digits - This field is used to store a 3-digit code to be prefixed to the 7-digit customer number for incoming Global Software Defined Network (SDN) calls arriving on non-dedicated GSDN Trunk Subgroups (TSGs) at an International Switching Center (ISC). Valid entries are **"Blank"** or "**000-999**".

GSDNPHSE Not Applicable - Entries: **"Blank"**

HAWP Hawaiian Plain Old Telephone Service (POTS) - This field specifies the disposition of calls in the HAWP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is HAWP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

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Keyword Glossary, Continued

HROFL This call category is associated with Hourly Inward Wide Band Area Telephone Service (INWATS) Overflow Counts records. If the DUAL-Revenue Accounting Office (RAO) configuration has been selected and the RAO substitution field is left **"Blank"**, it will default to **"OC"**. If the alternative RAO is required, input **"IC"**. If a change is requested in this field, the identical change must be requested for both the INWACD and INWSTAT fields.

HTRCB Hard To Reach Counter Block - An HTRCB is used by Network Management to collect data from which hard to reach codes can be determined. The statistics include calls outpulsed, calls not outpulsed, and calls not answered. Idle blocks are seized from a pool of HTRCBs by the Network Manager. One block can collect the data for one Numbering Plan Area (NPA) Enough blocks should be provided to care for the number of NPAs on which complete hard to reach data is to be simultaneously collected. From 2 to 8 blocks in increments of one block (2048 words) may be specified. The first block (0) is the "all NPA" block. This block collects hard to reach information for all Area Codes. Block 1 is used for hard to reach determinations on an Office Code basis for the home NPA. These first two blocks are the minimum set for a 4ESS Switch office. Up to six additional blocks (2-7) can be engineered. These blocks may be used to collect Office Code (NXX) hard to reach data for any specified NPA in the Direct Distance Dialing (DDD) domain. The quantity indicated by this field should agree with the Call Store worksheets for the office.

HUNT Not Applicable - Entries: **"Blank"**

HYBRD Not Applicable – Entries: **"Blank"**

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IBUEQ In-Band Unit (IBU) Equipage (4E24>) - Entries are **"Blank"**, **"U"** (Unequipped), **"G"** (Grow), **"S"** (Special Grow), or **"O"** (Operational).

IBUHV In-Band Unit (IBU) Hardware Version. (4E24>) - Entries are **"Blank"** or **"0"** (initial hardware version).

IBUSV In-Band Unit (IBU) Software Version. (4E24>) - Entries are **"Blank"** or **"0-7"**.

ICIN This field specifies the disposition of calls in the Inter-Local Access Transport Area (LATA) Carrier Switch's International Carrier (ICIN) Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is ICIN.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

ICTFLUSH Not Applicable - Entries: **"Blank"**

IDDD Not Applicable - Entries: **"Blank"**

IDEF II Digits Default - **"Blank"** is only allowed if the accompanying "II" field is **"Blank"**). Valid entries are **"Blank" "PSS"** or **"ID1-ID6"**.

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Keyword Glossary, Continued

IDOM	International Domain - Valid entries for this field are **"T"** for Transit, **"O"** for Originating or **"Blank"**, if an Automatic Distribution Group (ADG) value is specified. If **"T"** is specified, then Domain (DOM) is equivalent to International Transit (INTT) on the international Code Grouping forms. If **"O"** is specified, then DOM is equivalent to International Originating (INTO) on the international code grouping forms.
IDX1	See ST1.
IDX2	See ST1.
IFITR	Not Applicable – Entries: **"Blank"**

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Keyword Glossary, Continued

II

Information Digits (II) - This field is used to specify the II digits of Multifrequency (MF) equal access signaling that correspond to the Originating Line Information (OLI) parameter for Integrated Services Digital Network User Part (ISUP). Valid entries are **"Blank"** or **"00-99"**.

IIACTION

This field specifies the action to be taken once it is determined that the first two digits of a call correspond to an Equal Access Signaling Information Digit + Automatic Number Identification (EAS II+ANI) sequence. The following entries are allowed:

1. Complete ANI. If the digit count for the call is equal to IICOUNT, assume this is the ANI sequence and expect the next stage.

2. Incomplete ANI. If the digit count for the call is equal to IICOUNT, kill the call and play the Reorder Announcement (ROA).

3. Incomplete ANI. If the digit count for the call is equal to IICOUNT, assume this is the ANI sequence and expect the next stage. Processing for the call will proceed according to the ANI Failure Action (AFA) field specified for the particular Far End Network (FEN) on the 406L Form.

4. Complete ANI. If the digit count for the call is equal to IICOUNT, assume this is the ANI sequence for an Software Defined Network (SDN) call and expect the next stage.

5. Complete ANI. If the digit count for the call is equal to IICOUNT, assume this is the ANI sequence for an outward Wide Area Telephone Service (WATS) call and expect the next stage.

6. Complete ANI. If the digit count for the call is equal to IICOUNT, assume this is the ANI sequence for a translated 800 number and expect the next stage. This action is only valid for the IIDIGITS value of 24.

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Keyword Glossary, Continued

IICOUNT The expected digit count (given that this is a valid Equal Access Signaling Information Digit + Automatic Number Identification [EAS II+ANI] sequence) is specified in this field. The expected digit count is the total number of digits, II+ANI. Valid entries are **"5-12"**.

IIDIGITS The Information Digits (II) for which actions are to be specified are entered in this field. Enter two digits in the range of **"00-99"**. A single digit is not acceptable. Only entries for valid II digits should be specified. (In most cases there should be less than ten entries.) A set of II digits may be entered more than once in order to specify the action for any given II digit count. Note that the first two digits of test call sequences, i.e., those beginning with 10 or 95, are not considered II digits and should not be entered on this form.

INBAND D3U In-band signaling state enabled for the D3U. This is used on the Recent Change (RC) Form 704 to equip a DS3 on an Expanded Time Slot Interchange (XTSI) frame/member number. Valid entries are **"Blank"**, **"N"** for In-band disabled, and **"Y"** for In-band enabled.

INBAND DS1 In-band signaling state enabled for the DS1. This is used on the Recent Change (RC) Form 704 to equip a DS1 on an Expanded Time Slot Interchange (XTSI) frame/member number. It is also used on the RC Form 707 to change the static A/B signaling bit configuration for an XTSI DS1. Valid entries are **"N"** for In-band disabled and **"Y"** for In-band enabled.

INCID Number of Carrier ID digits to be received - An entry of **"3"** specifies that the Trunk Subgroup (TSG) should expect to receive a 3-digit CID. An entry of **"4"** specifies that the TSG should expect to receive a 4-digit CID. An entry of **"B"** specifies that the TSG should expect to receive a 3- or 4-digit CID.

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Keyword Glossary, Continued

INCN International Carrier, not IC switch owner's INC - This field specifies the disposition of calls in the INCN Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is INCN.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

INCO International Carrier - This field specifies the disposition of calls in the INCO Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is INCO.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

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INDEX.cdg This number specifies the index number of the SDTYPE entered in AD1 of the appropriate code group RC Form. Legal values are:

SIZE	INDEX
1	0 - 14
2	0 - 126
3	0 - 1022

When the index values are of the Data Rate Transfer Capability (DRTC) subsequent digit type (the Subsequent Digit Index [SDINDEX] is pointed to by a code group with Additional Data 1 [AD1] of DRTC), the INDEX values of 0 to 6 are defined as follows: voice (0), 3.1 kb modem (1), 56 kb (2), 64 kb restricted (3), 64 kb clear (4), 384 kb (5), and 1536 kb (6). Value 7 is currently undefined.

When the index values are of the Voice or 3.1 kHZ Indicator (V31K) subsequent digit type, this field specifies the index that is used to select a routing treatment when a V31K type of subsequent digit entry is encountered. Index 0 will be interpreted as 3.1 kHZ, and Index 1 will be interpreted as normal speed.

The treatments for all unspecified INDEXes will be defaulted to Final Handling Treatment-Vacant Code Analysis (FHT-VCA).

INDEX.tsg Not Applicable - Entries: **"Blank"**

INDX Translator Index - Entries:

- IID (4E24>) - **"1-6"**
- OLID (4E24>) - **"1-6"**
- RVASRNSX - **"0-7"**

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INET Interim Nationwide Emergency Telecommunications System - This field specifies the disposition of calls in the INET Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is INET.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

INR Intelligent Network Register for caller interactions data - This field specifies the maximum number of INRs for caller interactions. Valid entries are **"1-2048"**.

INSEP Incoming Traffic Separation Class - Enter a number in the range of **"0-255"** to indicate a traffic class for measurement purposes. This code will be used with the outgoing destination (Destination Separation [DESEP] on code group forms) to determine the peg and usage counts for traffic flow identification. Test position and test call Trunk Subgroups (TSGs) are generically assigned to Incoming Separation Class (INSEP) 31. This should be considered before assigning any other TSG to INSEP 31. Also, since service circuits, other non-message circuits, and 1-way outgoing TSGs have a generically assigned INSEP of zero, they will appear as part of TSG listings for INSEP zero. This fact should be considered before assigning any other Trunk Subgroup to INSEP zero.

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Keyword Glossary, Continued

INSERT NEWTSG	This field identifies the position to insert the NEWTSG in relation to the Reference Trunk Subgroup (REFTSG) in the list associated with a routing data block. Use **"A"** to insert above or **"B"** to insert below the REFTSG. For an Automatic Distribution Group Routing Data Block (RDB), this field supplies the position information within the RDB. Entries are **"1**-**32"** and REFTSG must be **"Blank"**.
INT_CNT	Not Applicable - Entries: **"Blank"**
INT_STAT	Not Applicable - Entries: **"Blank"**
INTL	International Signaling indicator in the Number Services Routing Data Block Index (NDB) - The legal inputs for this field are **"N"** or **"Y"**. An **"N"** indicates that the signaling to the Interexchange Carrier/International Carrier (IC/INC) is in the domestic Equal Access (EA) format. A **"Y"** indicates that the signaling to the IC/INC is in the international EA format. This field should be a **"Y"** for routing International World Zone 1 calls to an INC. This field should be an **"N"** for routing International World Zone 1 calls to an IC Consolidated Carrier (CC). This field should be an **"N"** for routing domestic calls to a CC and should be a **"Y"** for routing International Non-World Zone 1 calls to a CC or to an INC.
INTOFC	International Office - This field is an identifier used by the International Call Detail Recording (ICDR) feature to distinguish between International Service Center (ISC). This entry may be a 1, 2 or 3 alpha or numeric and is determined by contacting the manager of the Overseas International Transit Accounting, Maintenance, and Analysis of Calls System (ITAMAC).

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INW

Inward Wide Area Telephone Service (WATS) - This field specifies the disposition of calls in the INW Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is INW.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

IOP

Inward Operator - This field specifies the disposition of calls in the IOP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is IOP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

IPR

Integrated Services Digital Network User Part (ISUP) Preferred Routing - This field specifies the index that is used to select the routing treatment when an IPR type of subsequent digit entry is encountered. Valid outputs are **"0-1022"** but only the following are currently defined:

0 - ISUP Preferred.
1 - ISUP not required.
2 - ISUP Required.

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Keyword Glossary, Continued

ISC

Incoming Signaling Characteristics - Enter one of the following codes to specify the incoming signaling characteristics required for this Trunk Subgroup (TSG).

- **CAMACW** - Centralized Automatic Message Accounting (CAMA) operator calls waiting trunk.
- **CAMAKEY** - CAMA operator keying trunk-Multifrequency (MF).
- **DPDDSD** - Dial Pulse with Delay Dial/Start Dial.
- **DPIMADG** - Dial Pulse with Immediate start and "A" Digit reconstruction.
- **DPIMMED** - Dial Pulse with Immediate start (no delay).
- **DPIMPSW** - Dial Pulse Immediate Start Permanent Signal Wink Off.
- **DTMFWK** - Dual-Tone Multifrequency (DTMF) with Wink Start.
- **DTS** - Dial-Tone Start.
- **ISUP** - CCITT7 Integrated Services Digital Network (ISDN) User Part.
- **MFDDSD** - MF with Delay Dial/Start Dial.
- **MFOPWK** - MF Operator trunk with Wink start - International operator trunks.
- **MFWINK** - MF with Wink start.
- **RPAC-S** - Secure Remote Office Test Line (ROTL) port access circuit.
- **RPAC-U** - Unsecure ROTL port access circuit.
- **TESTATP** - Test Access Trunk of a 51A Test Position.

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Keyword Glossary, Continued

ISC (cont'd)

- **TOLLMFD** - Toll operator MF Delay dial.
- **TSPSMFD** - Traffic Service Position System with MF Delay dial.
- **TSPSMFW** - Traffic Service Position System with MF Wink start.
- **1WAYOUT** - 1-WAY Outgoing Trunk. This code will appear for a non-message Trunk Subgroup (TSG) when there is no ISC.

IT

Intertoll Treatment - This field is used when the domain of the Trunk Subgroup (TSG) is Plain Old Telephone Service (POTS) and the type of trunk is either End Office or Tandem Connecting (ETC) or Other Carrier Connecting (OCC) to specify whether the TSG should receive intertoll treatment (IT="**Y**") or toll connect treatment (IT=**"N"**) or **"Blank"**. Intertoll treatment means that the call is routed in the POTS intertoll domain, that is, a normal 7-digit call will be terminated in the home Numbering Plan Area (NPA).

((4E22>) - Offices using Traditional routing only). Toll connect treatment means that the call is terminated in the NPA specified by the Far End Numbering Plan Area (FENPA) field.

This field should be set to "**Y**" in any FENPA that is not the Home NPA

((4E22>) - Offices using Traditional routing only) or a Served NPA. This field can also be set to "**Y**" in the Home NPAs

((4E22>) - Offices using Traditional routing only) or Served NPAs to force the POTS-IT domain.

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Keyword Glossary, Continued

ITC

Incoming Trunk Class - This value identifies the incoming trunk as belonging to one of four incoming classes. The ITC is used in conjunction with Local Exchange Carrier (LEC) Service Switching Point (SSP) call routing instructions to identify which Number Services Data Block (NDB) will be selected for picking a trunk to an Interexchange Carrier/International Carrier (IC/INC). The use of this field is similar to that of Multiple Treatment Screening (MTS) but is associated with the BOC SSP feature. Legal entries are **"Blank"** or "**0-3**".

ITCENC

Information Transfer Capability Encoding - (4E21>) - This Trunk Subgroup (TSG) parameter indicates the allowed Information Transfer Capability (ITC) coding in the outgoing Initial Address Message (IAM). The parameter can have values shown below:

- **"Blank"**, **"N"** (use office): encode the outgoing IAM, User Service Information (USI) parameter ITC field, the same as used in the office indicator
- **"Y"** (use opposite of office): encode the outgoing IAM, USI parameter ITC field, with the opposite of what is used in the office indicator

The default is **"use office"**.

ITELCO

Not Applicable - Entries: **"Blank"**

IWZ1

International World Zone 1 - Enter **"Y"** if this Trunk Subgroup (TSG) will carry international traffic within World Zone 1. Enter **"N"** or leave **"Blank"** if this TSG will not carry international traffic within World one 1. Valid entries are **"Blank"**, **"N"**, or "**Y**".

IXC

Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

JKL This field lists the tenth (J), eleventh (K), and twelfth (L) digits that complete the code group definition. One (10-digit translation), two (11-digit), or three (12-digit translation required) digits may be listed in this field. A numeric or an **"X"** may be used to specify translation. A numeric may not follow an **"X"**. The numeric will define a specific code while the **"X"** will represent all numerics from "**0**-**9**". Translation must be specified equal to the Number of Translated Digits (NTD). An **"X"** may be used for one, two, or three positions of GHI field, determined by the NTD. If only one **"X"** is used, it must be in the I position if there are two numerics. If two **"Xs"** are used they must be in the KL position if there is one numeric. Any code not specified will be routed to vacant code Final Handling Treatment (FHT) by the Office Data Assembler (ODA) program.

KP Key Pulse - This field indicates whether the KP1 or KP2 is to be outpulsed. Valid entries are **"1"** or **"2"**.

L6TOS Six Digit Local Number Portability (LNP) Type-Of-Service Index (4E23R3>) - This is an office wide parameter which is used instead of the Call Type TOS when querying an AIN database based on a 6-Digit LNP trigger. Legal values are: **"Blank"** or **"0-31"** (**"Blank"** means the parameter is NOT populated).

LABEL Not Applicable - Entries: **"Blank"**

LACID Not Applicable - Entries: **"Blank"**

LANADDR Local Area Network (LAN) Address - A LAN exists between the Service Circuit Unit (SCU) and the Announcement Administration Processor (AAP) in order to update the announcements on the disks in the SCU. This field identifies the LAN address. Valid entries are **"Blank"** or an address which should be equivalent to: [(Service Circuit System {SCS} number) x 16] + (SCU number). This address must be populated in 4E17 and later generics to ensure SCU Utility capabilities are functional.

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Keyword Glossary, Continued

LATA Local Access Transport Area - This number specifies the LATA of the area identified for screening. Legal inputs are: **"000-999"**.

LCVT Not Applicable – Entries: **"Blank"**

LD Language Digit - This field is a single digit entry having a value of "**0**-**9**". A zero (**0**) equals a customer dialed call. A digit of **"1**-**9**" indicates a non-customer dialed call.

LDA Inward Operator - This field specifies the disposition of calls in the LDA Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is LDA.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

LENGTH The length of the announcement in seconds ranges from **"5**-**300"**. For Voice Storage System (VSS) updated and direct producer updated announcement, the length must be in multiples of 30 seconds, i.e., 30, 60, 90, etc. For a barge-in announcement the length may be specified in one second increments. For an Service Circuit System (SCS) announcement, length must be in the range of **"5-260"**.

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Keyword Glossary, Continued

LICSTP This field is used to specify whether direct signaling messages for Link Integrity Check are sent to the 1STP or 2STP network. Enter **"1STP"** or **"2STP"**, as appropriate. Enter **"DCIS"** if the direct signaling messages for Link Integrity Check will be sent to the 2STP network using a high-speed link. If the DSIGFNUM field on 406C is zero, then the LICSTP field should be **"N"**.

LNPIC.tsg A Trunk Subgroup (TSG) field not used - valid entries are: **"Blank"**.

LOC Location used by Integrated Services Digital Network (ISDN) protocols and will be sent with the CAUSE value. Legal values are **"Blank"** for no translation change or **"0-15"** (the meanings of the values are as follows).

Input	Description
0	- User
1	- Local Private Network
2	- Local Local Network
3	- Transit Network
4	- Remote Local Network
5	- Remote Private Network
6	- Local Interface Controlled By This Signal Link
7	- International Network
8	- Spare
9	- Spare
10	- Unknown
11-15	- Spare

LRN Location Routing Number: (4E22R2>) - To support Local Number Portability (LNP), a location Routing Number (LRN) has been defined to identify a Local Service Provider (LSP) End Office. LRN is used to provide Jurisdiction Information Parameter (JIP) if not present in an initial Integrated Services Digital Network User Part (ISUP) Initial Address Message (IAM) or if Incoming Trunk (ICT) is Multifrequency (MF) type signaling. Valid entries: **"Blank"** or a **"10-digit number"**.

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Keyword Glossary, Continued

LSFHT	Local Access Transport Area (LATA)/state Screening Final Handling Treatment (FHT) - This field specifies the final handling treatment that should be given to a call that fails LATA/state screening. This field may be left **"Blank"** or see the RDBFHT description for the allowable entries.
LSMTX	Local Access Transport Area (LATA)/state Screening Matrix - This field specifies which LATA/state screening matrix is associated with the service. Legal inputs are: **"Blank"** or **"1-7"**.
LSP	Not Applicable - Entries: **"Blank"**
LSPDAY	Load Set Period Day - This field is preprinted with the day when Load Set Periods are to be specified. Preprinted entries are **"SUN"**, **"MON"**, **"TUE"**, **"WED"**, **"THU"**, **"FRI"**, and **"SAT"**.
LSPHOUR	Load Set Period Hour - The 24 entries correspond to the 24 hours in a day. Each entry represents the one hour period which 1 of the 15 Load Set Periods is in effect. All entries have a value of **"1-15"**.
LSST	(<4E21) - Local Access Transport Area (LATA)/state Screening State - This field is used to enable LATA/state screening on a Trunk Subgroup (TSG). It is used together with Far-End LATA (FELATA) to define the originating LATA/state area for calls arriving on this TSG. This field is left **"Blank"** if no LATA/state screening should be performed on traffic using this TSG. Legal inputs are **two alphabetic characters** or **"Blank"**.
LTOS	Call Type Local Number Portability Type of Service parameter. Valid entries are the same as TOS (**"Blank"** or **"0-31"**).

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Keyword Glossary, Continued

MAN

Mass Announcement Number - For the Televote forms, this field is used to specify the Direct Distance Dialing (DDD) number to be called to register a particular Televote vote or opinion (and to hear the associated Public Announcement System (PAS) announcement). A separate MAN is entered for each unique vote or opinion choice. The entry format is **NPA-NXX-XXXX**.

NOTE:

- The PAS announcement to be heard with a particular vote or opinion must be defined on RC 604 Form.
- When Master Slave Indicator (MSI) is **"S"** or **"B"**, a unique 10 digit DDD Number (MAN) must be specified on a code group form.
- When MSI is an **"M"**, a four digit line number is entered.

For the PAS with Cut-Through forms, this field is used to specify the DDD number which callers dial for the PAS announcements, and to which this Cut-Through application applies. The format of the entry is **NPA-NXX-XXXX**. A MAN can be a 6- to 10-digit number. When there are MANs that have overlapping code groups, the system only cuts through for the MAN with the most number of digits. For example, the Cut-Through MAN digits of the 9-digit code group of 212979123 include the Cut-Through digits of all 10-digit code groups that start with the first nine digits of 212979123, and if there is a 10-digit MAN defined, the system will cut through for the 10-digit MAN and not the 9-digit MAN. The MAN must be routed to a PAS or Televote (TEL) call type on a code group form.

MAPN

Master Application Number. This field identifies a particular master TELEVOTE application. Valid entries are **"0-63"**.

MAS FH AIN

Mass Announcement Systems (MAS), Final Handling (FH), and Advanced Intelligent Network (AIN) announcements all combines on one Service Circuit Unit (SCU). Valid entries are: **"Blank"**, **"Y"**, or **"N"**.

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Keyword Glossary, Continued

MATE USE	Usage of Sub-member Mate Terminal - This field indicates the type of program in the TGR mate terminal. Valid entries are **"DOM"** for Domestic and **"INTL"** for International.
MATRIX	This field specifies which Local Access Transport Area (LATA)/state screening matrix is being populated. Legal inputs are: **"1-7"**.
MAX LBO	Maximum Line Build Out for cable length. Valid entries are **"Blank"**, **"225"** (for 0-255), or **"450"** (for 255-450).
MAX5ECOS	Not Applicable - Entries: **"Blank"**
MAX5RTNR	Not Applicable - Entries: **"Blank"**
MAXCAREA	Not Applicable - Entries: **"Blank"**
MAXDAREA	Not Applicable - Entries: **"Blank"**
MAXIAREA	Not Applicable - Entries: **"Blank"**
MAXICERPI	Not Applicable - Entries: **"Blank"**
MAXIDERPI	Not Applicable - Entries: **"Blank"**
MAXIIERPI	Not Applicable - Entries: **"Blank"**
MAXOCERPI	Not Applicable - Entries: **"Blank"**

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MAXODERPI Not Applicable - Entries: **"Blank"**

MAXOIERPI Not Applicable - Entries: **"Blank"**

MC.tsg Major Category/Trunk Subgroup - This field is used to define the major category of a non-message trunk. See also the SC.tsg field description. Valid entries are:

- **ACI*** - This entry is used for AT&T Communications Integrated Services Digital Network (ISDN).
- **ATM*** - This entry is used for Automatic Trunk Measuring equipment.
- **CLN*** - This keyword indicates a Code Line Test Circuit.
- **INT*** - This entry is used to define a circuit for the international Common Channel Signaling 7 (CCS7) node.
- **MAS*** - This entry is used to define circuits for Mass Announcement Systems.
- **MIS*** - Miscellaneous. This category is used for all nonmessage trunks that are not defined under ATM*, CLN*, MAS*, SVC*, or TAS*.
- **SVC*** - Service Circuit - This entry is used for Multifrequency (MF) transmitters, MF receivers and their test circuits, Common Channel Interoffice Signaling (CCIS) transceivers and their test circuits, and Dual Tone Multifrequency (DTMF) receivers and transmitters.
- **TAS*** - This entry is used to define Tone and Announcement Circuits.

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Keyword Glossary, Continued

MC5HRB

Measurement Class 5 Holding Register Block - MC5HRB is the file store area used by traffic and plant measurements to hold counts for MC5 for an interval of one hour. This field specifies the total word size of MC5HRB. Sixty-four (one hundred twenty-eight for 4E18>) words must be provided for each Trunk Subgroup (TSG). The total number of words specified also must be a multiple of 1024 (4096 for 4E18>). Every 16 (32 for 4E18>) Trunk Subgroups require 1024 (4096 for 4E18>) words in MC5HRB memory. Obtain the quantity of TSGs from the call store worksheets. The engineered quantity of TSGs must include an assignment plus contingency engineered TSGs. MC5HRB size will be the quantity of TSGs divided by 16 (32 for 4E18>) then multiplied by 1024 (4096 for 4E18>). The valid range for MC5HRB is **"1024-261120"** (**"4096-524288"** for 4E18>) in multiples of 1024 (4096 for 4E18>). Example (<4E17) - TSGs engineered = 1250, MC5HRB = 1024 x (1250/16) = 1024 x 79 = 80896. Example (4E18>) - TSGs engineered = 1250, MC5HRB = 4096 x (1250/32) = 4096 x 40 = 163840.

MCPP

Multiquest Calling Party-Paid - This field specifies the disposition of calls in the MCPP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is MCPP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

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Keyword Glossary, Continued

ME Member Equipage - This field indicates the equipage state for the unit. Valid entries are:

- **UNEQ** - Unequipped
- **GROW** - First stage of growth
- **SGRO** - Special growth
- **OPER** - Operational

The states must be activated in succession. For example, if a frame is unequipped (UNEQ), the next state must be GROW; then SGRO and finally OPER. When removing the unit from service, the order must be reversed. An exception to sequential growth exists for Toll Terminal Frames. Equipage for all Toll Terminal Frames (TTF) changes will be done in one step. Entries will be (OLD) UNEQ, (NEW) OPER. This field is completed only when changing Member Equipage. It must be left blank when changing Sub-Member Equipage.

MEGC Not Applicable – Entries: **"Blank"**

MEM Memory - This field is used to indicate if trunk hunt with memory is to be performed on this Trunk Subgroup (TSG) when searching for an idle trunk. Trunk hunt with memory is not performed on a TSG if the TSGBBC field is greater than zero (the MEM field should be set to **"N"** in this case). Enter **"N"** if trunk hunt with memory is not to be done. Enter **"Y"** or leave **"Blank"** if trunk hunt with memory is to be done.

MEMN.mas MAS Member Number identifies the Mass Announcement System frame number in the 4ESS Switch office. Valid entries are **"0-7"**.

For RC Form 604, the member number identifies the MAS frame to which the announcement is being assigned. For a barge-in announcement this field must be left **"Blank"**. Otherwise, the MAS frame must be operational. The MAS member must have sufficient idle disk sectors to accommodate the announcement.

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Keyword Glossary, Continued

MEMN Member Number - The MEMN field specifies the member number of a particular unit. The range of entries for each unit is as follows:

UTYN	MEMN	
DIF	2 - 31	
DT	0 - 127	
DUS	0 - 3	
EST	0 - 31	
FS	0 - 3	
GRID	1 - 15	
MAS	0 - 7	
MFS	0 - 31	
PUBB	0	
PUC	0 - 7	
SCS	0 - 7	
SP	0 - 31	
TAC	0 - 15	
TGR	0 - 15	
TMS	0 - 3	
TMSP	0 - 3	
TPOS	0 - 99	
TSI	0 - 63	SEE NOTE
TUC	0 - 31	
VIF	0 - 127	
XTSI	0 - 63	SEE NOTE

NOTE: Only the even member will be allowed in the MEMN field for a cost reduced or eXpanded Time Slot Interchange (TSI) if no sub-memn is specified. Both are allowed if sub-memn is specified although only even member number should be used for eXpanded TSI.

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MF OR DTMF Multifrequency or Dual Tone Multifrequency - Type of signaling (receivers/ transmitters) supported by the In-Band Unit (IBU). Entries are **"Blank"**, **"MF"**, or **"DTMF"**.

MFEADLY Not Applicable - Entries: **"Blank"**

MFSPEED Multifrequency Speed - If Outgoing Signaling Characteristic (OSC) is specified as MFWINK, MFDDSD, SIOPMFW, or TWOPMFW enter **"7"** or **"10"** to indicate the number of outpulsed Multifrequency (MF) digits per second. Enter **"10"** for Lucent Technologies ESS machines. Seven digits per second is used for all electromechanical machines. If OSC is equal to International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5), this field should indicate an MF speed of 10. Leave this field **"Blank"** for any other value of OSC.

MIPEQ0-1 Multifunctional Interface Processor Board Equipage is used to indicate installation of the Processor Board for the Service Circuit System Unit Type using RC Form 703. Valid entries are **"Blank"**, **"P"**, **"S"**, **"G"**, or **"F"**.

MIPFV0-1 Multifunctional Interface Processor Board Firmware Version is used to indicate the firmware version of the Processor Board installed for the Service Circuit system Unit Type using RC Form 703. Valid entries are **"Blank"**, **"0"**, or **"1"**.

MML Matrix -see MSN.

MMTC MEET-ME Teleconferencing - This identifies a 4ESS Switch office as having the capability of hosting a Teleconferencing Network Service Complex (NSC) arranged for MEET-ME. The entry for this field is **"Y"** for Yes or **"N"** or **"Blank"** for No.

An **"N"** or **"Blank"** must be specified for Non-North American offices.

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Keyword Glossary, Continued

MON	Not Applicable - Entries: **"Blank"**
MPI	Miscellaneous Program Index - This is a number from 0 to 63 associated with Miscellaneous Scanner Numbers (MSNs) only and is used for miscellaneous applications.
MRT	Not Applicable - Entries: **"Blank"**
MRVT	Message Routing Verification Test timer - Waiting for a response to a Message Transfer Part (MTP) routing verification test (MRVT). This field is used to specify the maximum length of time to wait for a response to an MRVT. The amount should be in the range of 8 to 15 seconds. Valid entries are "**8-15**" or "**Blank**".
MSBEQ0-3	Multiple Signal Processor Board (MSPB) Equipage - There is a maximum of six MSPBs per Service Circuit Unit (SCU) which may be used to detect Dual Tone Multifrequency (DTMF) tones and report the collected digits to the SCU processor. This field specifies the equipage status of the MBPSs. Valid entries are "**Blank**", "**P**" for present/operational, "**S**" for special growth, "**G**" for growth, or "**F**" for future/unequipped.
MSBFV0-3	Multiple Signal Processor Board (MSPB) Firmware Version - This field is used to specify the firmware version being used in each of the six possible MSPBs. Valid entries are "**Blank**" or "**0-3**". The initial MSBFV firmware version has a value of zero.

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Keyword Glossary, Continued

MSC1-4

Miscellaneous 1 to 4 - This field specifies the disposition of calls in the MSC1-4 Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is MSC1-4.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

MSI.mas

Master/Slave Indicator/Mass Announcement System - This one character field is used to specify whether this 4ESS Switch/MAS Switch office is a Master office (M), Slave office (S), or Both (B) for this Televote application. Valid entries are **"M"**, **"S"**, or **"B"**.

MSN

This field identifies the Miscellaneous Scan Point in a Signaling Processor (SP) that is associated with a specific clique. Each of the fields (whose heading does not appear on the output message) is described as follows.

- **SP** - Signal Processor - This identifies the SP in which the scan point is located. Member Numbers for SPs range from **"0-31"**.
- **MML** - This field refers to the left or the right matrix of an SP. Valid entries are **"0"** for the left matrix and **"1"** for the right matrix.
- **ROW** - This field identifies one of 64 possible rows of points. A range of **"0-63"** may appear in this field.
- **COL** - This field identifies a particular point in a row of an SP. A number from **"0-15"** may appear here.

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Keyword Glossary, Continued

MT.misc

Main Transition indicator used to determine whether to use old or new hardware for final handling announcements. Legal values: **"OLD"** or **"NEW"**.

(Note: If SCSFHT is AR, BT, T or HW, then MT must be OLD).

MTSC

Multiple Treatment Screening Class - This field is used to assign an MTSC to this Trunk Subgroup (TSG). Multiple treatment screening may be used to separate routing treatments for TSGs in the same domain. An example is giving independent company trunks a different routing even though the received digits and domain are the same as some other TSG. All TSGs must have an MTSC in the range of **"0-63"**.

MULAW

This field is used to identify the type of encoding (A-law/Mu-law) used in the user information layer 1 protocol ID field of the User Service Information (USI) parameter. An entry of **"Y"** in this field along with an outgoing signaling characteristic of International Consultative Committee for International Telephone & Telegraph Signaling System 7 (CCITT7) Integrated Services Digital Network User Part (INUP) will indicate that Mu-law encoding is being used. A entry of **"N"** or leaving the field **"Blank"** will indicate that A-law encoding is being used.

MULT

Multiquest - This field specifies the disposition of calls in the MULT Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is MULT.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

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NBS	Near Building Subdivision - see TSG.
NCA800TT	Non-Call Associated Temporary Signaling Connection Advanced 800 Translation Type - This field specifies the Signaling System 7 (SS7) Translation Type to be used by the Signal Transfer Point (STP)on global title address NCAT Advanced 800 queries to route the query to the appropriate Network Control Point (NCP) database. Legal input values are **"Blank"** or "**0 -255"**.
NCAR	Not Applicable - Entries: **"Blank"**
NCAT	Non-Call Associated Temporary Signaling Connection - This field identifies the number of blocks to be used for Non-Call Associated Temporary Signaling Connection (TSC) call setup (applies to Integrated Services Digital Network User Part [ISUP]/Q931). Legal values are **"Blank"** or a numeric value from **"1-128"**.
NCD	Network Call Denial - This field is used to specify whether queries to the NCD database are made for calls from this office. Enter DCIS to designate that the direct signaling messages will be sent to the NCD database via a high-speed link. Enter **"N"** to deactivate this capability. Note: The NCD Query feature bit should be turned off prior to activating the NAI feature bit. Similarly, the Network Access Interruption (NAI) On/Off indicator should be turned off prior to activating the NCD Query feature bit.
NCDDPC	Network Call Denial (NCD) Destination Point Code - A **"Y"** indicates that a NCD query can be sent directly to the NCD Network Control Point without doing a global title translation in the 2STP. An **"N"** or **"Blank"** means that the NCD query must be sent to the 2STP for global title translation.

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Keyword Glossary, Continued

NCDSU

Number of Customer Data Service Units (CDSUs) Installed - Entries: **"Blank"**, **"0"** to remove (no CDSUs), or **"1-5"** (**"1-2"** when CDSU Hardware Version [HV]is 2).

When Automatic Speech Recognition Application (ASRAPP) is 1-7 the NCDSU field is used to input the number of CDSU connected to the Service Circuit Unit (SCU). When ASRAPP is 1-7 and CDSU HV is 0 or 1, this field will correspond to the number of Digroups (a Digroup is 24 consecutive trunks) on the SCU with Automatic Speech Recognition (ASR) hardware present. There are 5 Digroups on an SCU and NCDSU input is used to determine how many consecutive Digroups (starting with the first Digroup) are to have the ASR capability. The remainder of the Digroups can be assigned to Trunk Subgroups (TSGs) corresponding to ASR application of 0 (no ASR capabilities).

When ASRAPP is 1-7, CDSU HV is 2, and NCDSU is 1, this will provision the first 2 consecutive Digroups (a Digroup is 24 consecutive trunks) on the SCU to have Automatic Speech Recognition (ASR) hardware present. The remainder of the Digroups can be assigned to TSGs corresponding to ASR application of 0 (no ASR capabilities).
When ASRAPP is 1-7, CDSU HV is 2, and NCDSU is 2, this will provision the all 5 Digroups (a Digroup is 24 consecutive trunks) on the SCU to have Automatic Speech Recognition (ASR) hardware present.

When ASRAPP is 0 and Mass Announcement System (MAS) Final Handling (FH) Advanced Intelligent Network (AIN) is **"Blank"** or **"N"**, the NCDSU filed must be 0. This combination indicates no ASR capabilities are available for this SCU and MAS FH AIN announcements are not combined on this SCU. Entering ASRAPP of 0 and NCDSU of 0 will delete ASR capabilities from this SCU.

When ASRAPP is **"Blank"**, the NCDSU and MAS FH AIN fields must be **"Blank"**.

When ASRAPP is 0 and MAS FH AIN is **"Y"**, the NCDSU field is used to tell how many consecutive Digroups (starting with the first Digroup) are to be used for Mass Announcement Systems/Final Handling announcements. The remainder of the Digroups can be assigned to AIN TSGs corresponding to an ASR application of 0.

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Keyword Glossary, Continued

NCRBI	Next Customer Routing Block Index - This field is used to link trunks together for multiple trunk customers. For example, if the incoming digits routed to the Customer Routing Block Index **(**CRBI) on this form and the trunk is busy, the call would route to the NCRBI and use the trunk specified by it. **"Blank"** indicates end of search for an idle trunk. Valid entries are **"1-32767"** or **"Blank"**.
NCSDNTT	Non-Call Associated Temporary Signaling Connection Software Defined Network (SDN) Translation Type - This field specifies the Signaling System 7 (SS7)Translation Type to be used by the Signal Transfer Point (STP) on global title address NCAT SDN queries to route the query to the appropriate Network Control Point (NCP) database. Legal input values are **"Blank"** or **"0-255"**.
NDB	Number Services Routing Data Block index -This field specifies which Number Services Interexchange Carrier (IC) and International Carrier (INC) Routing Data Block (RDB) is to be populated. Legal input values are: **"1-1023"**.

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Keyword Glossary, Continued

NDCSM

Number of Duplex Call Store Modules. The range for this entry must be equal to or greater than 4 but less than or equal to 28. NDCSM + NSCSM must be equal to or less than 32.

This field specifies the number of 64K memory modules that will be provided in the duplex mode (pairs). This information is used to generate the identification (K- codes) for the stores. For example, if an office needed five pairs of duplex memory modules, this field would contain a 5. For 4E6 and later Generic Programs, the office data base will be assigned four 256K stores to provide the required memory.

For 4E17 and later, the value of NDCSM must be greater than or equal to the value of NDCSMECS. The sum of NDCSM plus NSCSMECS must be less than or equal to 32.

There is a relationship between the number of Call Store (CS) units in an office and the number of memory modules engineered. Basically, any given K-code can only be duplicated once. Thus, the following rule must satisfied:

For any given office, the number of CS memory units cannot exceed:

2*(((NDCSM+NSCSM)/4)+(NDCSMECS/4) + (NSCSMECS/4))

All division is rounded to the next higher integer.

NDCSMECS

Number of Duplex Call Store Modules for Extended Call Store (ECS) Memory - This field specifies the number of 64K memory modules for ECS memory to be provided in duplex mode (pairs). A nonzero entry must be a multiple of 4. Valid entries are **"Blank"**, **"0"**, **"4"**, **"8"**, and **"12"**. Note: this field should be **"Blank"** or equal to zero when the sum of NDCSM and NSCSM does not equal 32. If duplex ECS memory is requested, then the number of modules provided for duplex ECS must be sufficient to contain the Call Registers (CRs), TMRs, and DTMRs.

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Keyword Glossary, Continued

NEOTR Near Operational Test Responsibility - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not this office is responsible for the operational (signaling) test on outgoing trunks in this Trunk Subgroup (TSG). If a **"Y"** is entered in this field, then the OTSTT and/or OTMTT field(s) must have an entry other than **"N"**. If an **"N"** is entered in this field, then all test types are optional.

If OTSTT and OTMTT fields are **"N"**, then NEOTR must be **"N"**.

If an office has Near End Operational Test Responsibility but the far end office does not have a test number, an **"N"** should be entered in this field.

If Outgoing Signaling Characteristic (OSC) is equal to Domain Class (DOMCCIS) or Integrated Services Digital Network User Part (ISUP), then NEOTR should be **"N"** since operational tests cannot be made on Domestic Common Channel Signaling (CCS) trunks.

NETWORK Network Identification - This field is populated with the switch's carrier identification value. A value must be specified if any trunk in the office has an Incoming Signaling Characteristic (ISC) and/or Outgoing Signaling Characteristic (OSC) value of Q931. Legal values: **"Blank"** or one to three alphanumeric characters in the range of **"A-Z"** and **"0-9"**.

NEWFTFN New First Traffic Number - The new first traffic number for a block of traffic numbers of a Trunk Subgroup (TSG). Valid entries are" **0-9976"**.

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Keyword Glossary, Continued

NEWTG

New Trunk Group - This series identifies the Trunk Group. The Town, State, Building and building subdivision for the distant end of the trunk, plus the Near end Building Subdivision, make up the Trunk Group designation. This Common Language Location identification (CLLI) code is used in the Long Lines Routing Guide. Rules for establishing these codes are covered in Lucent Practice 795-100-100.

- **TOWN** - Town is a four character alphabetic combination representing the town, city, or location of the terminating toll switch.
- **ST** - State is a two character alphabetic code for the state, province or foreign country of the terminating toll switch.
- **BL** - Building is either a two character alphabetic or numeric code to identify the terminating toll switch.
- **FBS** - Far Building Subdivision code is a three character alphanumeric combination for internal building identification.
- **NBS** - Near Building Subdivision code is a three character alphanumeric combination for internal building identification.

NEWTSG

See INSERT NEWTSG.

NN1

National Number Part 1 - This field denotes the first 1-6 translatable digits of the National Number. Valid entries are 1-6 digits with each having a value of **"0-9"**, **"B"** (Code 11) or **"C"** (Code 12).

NN2

National Number Part 2 - This field contains 1 to 6 digits, after the National Number Part 1 (NN1), that are to be translated. NN1 plus NN2 does not necessarily equal all the digits in the National Number but only the translatable digits. Valid entries are 1-6 digits with each having a value of **"0-9"**, **"B"** (Code 11) or **"C"** (Code 12).

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Keyword Glossary, Continued

NNDB

Next Number Services Routing Data Block index - This field specifies which Number Data Block (NDB) should be searched next if an idle trunk cannot be obtained from the trunk subgroups identified by the NDB. Call processing will search at most two NDBs per call. Legal inputs are **"Blank"** or "**1-1023"**.

For RC 524, an **"*"** entry is used to make a positive request to have the associated data structures set to unassigned.

NNR

Not Applicable - Entries: **"Blank"**

NPA.cdg

Numbering Plan Area/Call Digit Code - This field identifies the 3-digit Area Code for the home NPA and up to seven additional NPAs served directly by the 4ESS Switch. All Area Codes in the "served" category must be listed and the appropriate treatment must be defined. The home NPA must be defined in this field. The NPA entries are in the range of **"200-999"**.

NPA.misc

Numbering Plan Area - For the NPA that is entered in this field, the Network Call Denial (NCD) query will be routed to the Network Control Point (NCP) specified by the Subsystem Number (SSN) and Destination Point Code (DPC) fields. Valid entries are **"200-999"**.

NPARFHT

Numbering Plan Area (NPA) Reconstruction Final Handling Treatment (FHT) - This field is used to specify if NPA reconstruction for equal access calls should be turned on in the office or not and, if turned on, what final handling treatment should be given if the call is blocked. Leave this field **"Blank"** if NPA reconstruction should not be turned on. Otherwise a treatment must be entered. See the RDBFHT description for the allowable entries.

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Keyword Glossary, Continued

NPARINH Inhibit Numbering Plan Area (NPA) Reconstruction - This field is used to specify whether NPA reconstruction for equal access calls or SDN should be inhibited on this TSG or not. ANI is taken to be NPA if only seven digits are received. If NPA reconstruction should be inhibited, enter **"Y"**, otherwise enter **"N"** or leave **"Blank"**. This field only applies to Local Exchange Carrier Connecting (LCC) Type of Trunks (TOTs). Valid entries are **"Blank"**, "**Y"**, or **"N"**.

NPLY Number of Plays - the number of times to play an announcement. Legal values are **"Blank"** for no translation change or **"1-4"**.

NSA Not Applicable - Entries: **"Blank"**

NSCANSET Network Service Center (NSC) Announcement Set - This value specifies which NSC announcement set will be provisioned with the switch. Generic Program specific field entries will be published in engineering notes for each Generic Program. If the DSDCACP field is **"N"**, then this field may be left **"Blank"**. Valid entries are **"Blank"** or "**0-7"**.

NSCSM Number of Simplex Call Store Modules - The range for this entry must be equal to or greater than 4 but less than or equal to 28. NDCSM + NSCSM must be less than or equal to 32.

This field specifies the number of 256K memory modules that can be provided in the simplex mode (disked backed). This information is used to generate the identification (K-codes) for the stores. For example, if an office needed seven simplex memory modules, this field would contain a 7.

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Keyword Glossary, Continued

NSCSMECS Number of Simplex Call Store Modules for Extended Call Store (ECS) Memory - This field specifies the number of 64K memory modules for ECS memory to be provided in simplex mode. A nonzero entry must be a multiple of 4. Valid entries are **"Blank"**, **"0"**, **"4"**, **"8"**, and **"12".** Note: this field should be **"Blank"** or equal to zero when the sum of NDCSM and NSCSM does not equal 32.

Office Data Assembler (ODA) will not split a given translator; e.g., TBNCORE, between regular and ECS memory. Thus, the number of modules for simplex ECS must be sufficient to contain the following translators: TBNCORE, TSNTBN, CPAORIG, AND CPATERM. Valid entries are **"0"**, **"4"**, **"8"**, **"12"**, **"16"**, and **"20"**. The sum of NDCSMECS plus NSCSMECS must be less than or equal to 28. The reason that only 28 memory modules (of a maximum possible of 32) can be used for ECS is because 4 ECS K-codes, 114-117 (octal), are reserved for maintenance.

NSCSTCAA Network Service Center System Trunk Control Area - This field specifies one of the two internal Trunk Control Areas which can be used by the Network Service Center System. Legal values are: **"Blank"**, "**TCA1"**, **"TCA2-TCA9"**. If NSCSTCAA and NSCSTCAB are both entered, then NSCSTCAA must not be equal to NSCSTCAB.

NSCSTCAB Network Service Center System Trunk Control Area - This field specifies one of the two internal Trunk Control Areas which can be used by the Network Service Center System. Legal values are: **"Blank"**, "**TCA1"**, **"TCA2-TCA9"**. If NSCSTCAA and NSCSTCAB are both entered, then NSCSTCAA must not be equal to NSCSTCAB.

NSN Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

NTD

Number of Translated Digits - This field specifies the number of digits to be analyzed for this code grouping. For domestic code grouping, this number may range from **"3 - 12"** depending on the code group form. The first three digits are listed under the ABC field, the remaining digits, if any, are listed in the DEF, GHI, and JKL fields. Valid entry for the RC Form 300 is only **"3"** because the form only changes the ABC digits. Other digit combination changes are performed on subsequent forms.

NWCSMU

Number of duplex Memory Units for Extended Windowed Call Store (WCS) - Each Memory Unit is configurable in 1 Mword. Valid entries are: **"Blank"**, "**0-2"** (4E21), **"Blank"**, **"0-6"** (4E22>).

NWZ1

Non-World Zone 1- This field specifies the disposition of calls in the NWZ1 Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is NWZ1.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

NX

This field defines the signaling digits in the 1NX sequence used for international Equal Access (EA) signaling. Valid entries are **"00-99"**.

NXZZ

NXZZ TelCo BCD digits to be used for Equal Access Signaling (EAS) to a Interexchange Carrier/International Carrier (IC/INC). The NX defines the signaling digits in the 1NX sequence used for international EAS. The ZZ defines the signaling digits in the 0ZZ-XXX EAS sequence required to route calls through a tandem office. Legal input values are: "**00-99"**.

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NXZZ DIGITS	This field lists either the NX or ZZ digits as specified by the Transit Network Selection Digit (TNSD) field. Valid entries are **"00-99"**.
OCTCP	Not Applicable - Entries: **"Blank"**
ODEF	OLI Default - **"Blank"** is only allowed if the accompanying "OLI" field is **"Blank"**. Entries are **"Blank"**, **"PSS"**, **OD1 - OD6"**.
OFACG	Not Applicable - Entries: **"Blank"**
OFFGNSC	Office Go/No Go Screening (GNS) Class - This office GNS class (**0-3**) is used during the digit translation process when an incoming trunk is not involved in the call. An example of this is the Public Announcement System (PAS) Direct Producer call back. In this case the 4ESS™2000-Switch initiates a call to the producer to verify the recently received audio for an announcement. The 4ESS Switch does this by translating the producer's phone number into a routing treatment. If the 4ESS Switch uses GNS on this number then this translation encounters a GNS call type. Since there is no incoming trunk (the 4ESS Switch is the originator), the 4ESS Switch uses this OFFGNSC parameter to resolve the routing to the producer. This parameter must resolve the routing for all direct producer call back numbers which are GO/NOGO Screened. If a Mass Announcement System (MAS) office has no Direct Producer announcements and in its planning does not foresee direct producer callback numbers being GO/NO GO screened then use zero (0). See the GNSC definition for more data. Non-MAS offices should use zero (0) in this field.
OFFICETYPE	Office Type - This field indicates the type of office and traffic handled. Enter an **"I"** to indicate that the office is an International Switching Center (ISC). Enter a **"D"** to indicate that the office handles domestic traffic only and does not perform an ISC function.

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Keyword Glossary, Continued

OFFLATA This field is used to enter the value of the Office Local Access Transport Area (LATA) for the Advanced Intelligent Network (AIN) feature.

OFFMTSC Office Multiple Treatment Screening (MTS) Class - This Office Multiple Treatment Screening Class (0-15) is used during the digit translation process when an MTS call type is encountered and an incoming trunk is not involved in the call. An example of this is the Public Announcement System (PAS) Direct Producer call back. In this case the 4ESS Switch initiates a call to the producer to verify the recently received audio for an announcement. The 4ESS Switch does this by translating the producer's phone number into a routing treatment. If the 4ESS Switch uses Multiple Treatment Screening on this number then this translation encounters an MTS call type. Since there is no incoming trunk (the 4ESS Switch is the originator) the 4ESS Switch uses this OFFMTSC parameter to resolve the routing to the producer. This means that this parameter must resolve the routing for all direct producer call back numbers which are multiple treatment screened. If a Mass Announcement System (MAS) office has no Direct Producer announcements and in its planning does not foresee direct producer call back numbers being multiple treatment screened, then use zero (0). See the MTSC definition for more data. Non-MAS offices should use zero (0) in this field.

OFFNSN Not Applicable - Entries: **"Blank"**

OFHT Old Final Handling Treatments used when Main Transitions are OLD or Service Circuit System (SCS) ports cannot be hunted. Legal values are **"Blank"** for no translation change, **"AR"**, **"BT"**, **"EA1"**, **"EA2"**, **"EA3"**, **"EA4"**, **"EA5"**, **"EA6"**, **"EA7"**, **"HW"**, **"IFF"**, **"INC"**, **"IVC"**, **"MCA"**, **"NCA"**, **"NCC"**, **"NCD"**, **"NWC"**, **"OOB"**, **"ROA"**, **"SP1"**, **"SP2"**, **"T"**, and **"VCA"**.

OFITR Not Applicable – Entries: **"Blank"**

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Keyword Glossary, Continued

OLCIGI Originating Local Call Intercept Group Index - The OLCIGI is a number from **"1-255"**. The OLCIGI (except for 1) points to a group of terminating office codes that are to be intercepted. These terminating codes are defined on another Centralized Automatic Message Accounting (CAMA) RC Form 402 with the same OLCIGI index (2-255). OLCIGI 1 is reserved for those Centralized Automatic Message Accounting (CAMA) Trunk Groups from offices that do their own local call intercept. In these cases, the valid office codes are defined in Office Data Assembler (ODA) with an OLCIGI equal to 1. No equivalent RC Form 402 is required.

OLDFTFN Old First Traffic Number - The old first traffic number for a block of traffic numbers of a Trunk Subgroup (TSG). Valid entries are **"0-9976"**.

OLDTG Old Trunk Group - This series identifies the Trunk Group. The Town, State, Building and Building Subdivision for the distant end of the trunk, plus the Near end Building Subdivision, make up the Trunk Group designation. This Common Language Location identification (CLLI) code is used in the Long Lines Routing Guide. Rules for establishing these codes are covered in Lucent Practice 795-100-100.

- **TOWN** - Town is a four character alphabetic combination representing the town, city, or location of the terminating toll switch.
- **ST** - State is a two character alphabetic code for the state, province or foreign country of the terminating toll switch.
- **BL** - Building is either a two character alphabetic or numeric code to identify the terminating toll switch.
- **FBS** - Far Building Subdivision code is a three character alphanumeric combination for internal building identification.
- **NBS** - Near Building Subdivision code is a three character alphanumeric combination for internal building identification.

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Keyword Glossary, Continued

OLI

Originating Line Information - This field is used to specify the OLI parameter value of Integrated Services Digital Network User Part (ISUP) that corresponds to the Information Digits (IIs) of Multifrequency (MF) Equal Access Signaling (EAS). Valid entries are **"Blank"** or **"0-255"**.

For RC Form 338, this field is used to specify the OLI value to be used for the specified Service Identity Index (SII) value at the terminating toll switch. This value will only be used if the indicator in the outgoing Trunk Subgroup (TSG) states that OLI can be sent. Valid entries are **"Blank"** or "**0-255"**.

OMR

Output Message Register - An OMR is a block of Call Store (CS) memory that temporarily buffers an output message. When a message is assembled, as many idle OMRs as necessary are seized from an OMR pool. These registers are held until the message transmission is complete. When no idle OMRs remain in the pool, subsequent output messages are rejected until OMRs become available. These messages may be lost or resubmitted at a later time. OMRs should be engineered to provide adequate output volume under the worst anticipated case. Excess OMRs remain in the idle state and cause no significant overhead in system operation. A minimum of 100 registers is required in a 4ESS Switch. Up to 500 total registers, in increments of one register (64 words), may be specified in this field.

ONCID

Number of Carrier ID digits to send - An entry of **"3"** specifies that the Trunk Subgroup (TSG) send a 3-digit CID. An entry of **"4"** specifies that the TSG send a 4-digit CID. If the TSG is not going to send a CID leave **"Blank"**.

ONPA

Originating Numbering Plan Area - ONPA is used to identify the area from which a 7-digit inter-area call may originate. The NPA must be a 3-digit area code (**200-999**) for either the home NPA or one of the served NPAs that are listed on RC Form 308.

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OOFC	Originating Office Code - This field may contain any 3-digit code from "**0-999**". For a given form, the originating codes listed in this field are those that are valid for the Centralized Automatic Message Accounting (CAMA) Trunk Group. If any other code is received via Automatic Number Identification (ANI) or Operator Number Identification (ONI) (except for a code with the Pass Originating Validity Check (POVC) set to "**Yes**"), the call will be intercepted.
OOY	See 00Y.
OPC	Origination Point Code (OPC) - This field is used to specify the Point Code of this switch. Nine digits must be entered (including leading zeroes) depending on the format specified in the Point Code Format (PCF) field.
OPR	Operator indicator - This field is used to specify whether the given NX code indicates an operator call. Valid entries are **"Blank"**, "**Y**", or **"N"**.
ORIGIN	This field identifies whether the subsequent digit entry was created automatically by the system or manually via form input. Legal values are: **AUTO** and **MAN.**
ORNU	Order Number - The Order Number identifies a particular Recent Change (RC) message. This number may range from **"1-999999"**. Each message in the buffer must have a unique Order Number.

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Keyword Glossary, Continued

OSC

Outgoing Signaling Characteristics - Enter one of the following codes to specify the outgoing signaling characteristics required for this Trunk Subgroup (TSG):

- **AART** - Auxiliary audible ring trunk.
- **ANN** - Announcement sources.
- **CAMACW** - Centralized Automatic Message Accounting (CAMA) operator calls waiting trunk.
- **CAMAKEY** - CAMA operator keying trunk-Multifrequency (MF).
- **CAMATLK** - CAMA operator talking trunk.
- **DATALPC** - Loopback/complement Data Test Trunk.
- **DATATAT** - Data Test Access Trunk.
- **DPDDSD** - Dial Pulse with Delay Dial/Start Dial.
- **DPIMMED** - Dial Pulse with Immediate pulsing (no delay).
- **DPWINK** - Dial Pulse with Wink start.
- **DTMFRCR** - Dual-Tone Multifrequency (DTMF) receiver.
- **DTMFWK** - DTMF with Wink Start.
- **DTMFXMR** - DTMF transmitter.
- **ICOPNOP** - Integrity Check Operator trunk with No Outpulsing. Use this characteristic on trunk subgroups which return a wink signal.
- **ISUP** - CCITT7 ISDN User Part.
- **MASBIPB** - Mass Announcement System (MAS) barge-in trunks.

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OSC (cont'd)

- **MFDDSD** - MF with Delay Dial/Start Dial.
- **MFRCVR** - MF receiver.
- **MFRCVRT** - MF receiver test trunk.
- **MFWINK** - MF with WINK start.
- **MFXMTR** - MF transmitter.
- **MFXMTRT** - MF transmitter test trunk.
- **MIOPNOP** - Miscellaneous Operator with No Outpulsing. This OSC. is used for information and other operator calls. This OSC may be used for Direct Connect calls on 1-way outgoing and 2-way TSGs when Type of Trunk (TOT) is Private Branch Exchange (PBX) or Single Trunk Customer (STC). Use this characteristic only on TSGs which do not return a wink signal.
- **MSFH** - Mass Announcement System (MAS)/Expanded Announcement.
- **MWATT** - Milliwatt source.
- **MWDWN10** - 10 dbm milliwatt source.
- **RMSDRES** - Remote measurement system data responder.
- **RMSVRES** - Remote measurement system voice responder.
- **ROTLCA0** - Control access trunk of Remote Office Test Line (ROTL) port 0.
- **ROTLCA1** - Control access trunk of ROTL port 1.
- **ROTLTA0** - Trunk under test access trunk port 0.
- **ROTLTA1** - Trunk under test access trunk port 1.

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Keyword Glossary, Continued

OSC
(cont'd)

- **SIOPMFW** - Secondary Intertoll Operator with MF and Wink start. This is used to route inward and leave word operator traffic to a Traffic Service Position System (TSPS) operator.
- **SIOPNOP** - Secondary Intertoll Operator with No Out Pulsing. This type of trunk is used only for the secondary intertoll operator treatment.
- **TESTATP** - Test Access Trunk of a Test Position.
- **TONE** - Tone sources.
- **TONEDT** - Tone detector.
- **TWOPDPD** - 2-Way Operator Dial Pulse Delay.
- **TWOPDPI** - 2-Way Operator Dial Pulse Immediate.
- **TWOPDPW** - 2-Way Operator Dial Pulse Wink.
- **TWOPMFW** - 2-Way Operator MF Wink.
- **XCVR** - CCIS voice path assurance transceiver.
- **XCVRT** - CCIS transceiver test circuit.
- **1WAYIN** - 1-WAY incoming trunk. This code will appear for a non-message Trunk Subgroup when there is no OSC.
- **104** - 104 Test Line (analog source).
- **104D** - 104 Test Line (Digital Trunk Test Unit source).
- **105D** - 105 Test Line (Digital Trunk Test Unit source).
- **105T** - 105 Test trunk.
- **109** - 109 Test Line trunk.

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OTMTN Operational Terminating Test Number - If OTMTT is **"N"** for None, leave this field **"Blank"**. If a test is specified, then a corresponding test number in the range of "**000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the OTMTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If OTMTT equals Siemens' ATME C test line (ATMC), then OTMTN must specify **"063"**.

OTMTT Operational Terminating Test Type - If an operational (signaling) test is to be made directly to the far end of this Trunk Subgroup (TSG) terminating mode, enter a code to identify the test.

- **ATMC** - Siemens' ATME C test line - This is a signaling test used with Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) trunks only. The far end returns a busy flash from the test line.
- **CTX2** - Centrex II test - This test is made toward a No. 5 Crossbar office having Phase II Centrex features. This test is similar to the SYNC test.
- C**TX3** - Centrex III - This test is made towards a No. 5 Crossbar office having Phase III Centrex features. This test is similar to the SYNC test.
- **SXS** - Step-by-Step - If the far end of this TSG is working into a Step-by-Step office, this test may be specified.
- **SYNC** - Synchronous test - This test is an automatic series of on hook/off hook transitions (flashes) on the M lead. In the 4ESS Switch, the SYNC test is software controlled and no external hardware is needed. A data table is used to specify the pulsing rate for each series of flashes. The test automatically advances from one pulsing rate to another via a timing procedure. In any system, after all of the series of flashes are complete, the trunk will be left in the quiet termination state.

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Keyword Glossary, Continued

OTMTT (cont'd)

- **T103** - 103 test - The 103 test is similar to the synchronous test in that a series of flashes are sent on the M lead. However, the sequence of pulses is controlled by the ring forward signal, rather than a timed automatic sequence. Flashing of a given rate will continue until a ring forward signal is received, or, in 4ESS Switch, until an upper limit of flashes has been sent. At this point, the trunk will be put into the quiet termination state until the originator disconnects.

- **"N"** - None - Enter an **"N"** if no test is to be made on this TSG.

OTSTN

Operational Thru Switch Test Number - If Operational Thru Switch Test Type (OTSTT) is **"N"** for None, leave this item **"Blank"**. If a thru switch test of some type is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the OTSTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If OTSTT is Siemens' ATME B test line (ATMB), then OTSTN should specify a 062 for Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) trunks or a 2 for Consultative Committee for International Telephone and Telegraph Signaling System Number 6 (CCITT6) trunks when the far end has an ATME B test line. If the far end has an Siemens' ATME A test line (ATME A), OTSTT equals ATMB and OTSTN should specify 061 for CCITT5 or 1 for CCITT6 trunks.

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LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Keyword Glossary, Continued

OTSTT Operational Thru Switch Test Type - Certain offices (No. 5 Crossbar and 1ESS) can function both as a local and a tandem or as a local and toll office. These offices have trunks that can function in both a through switch mode and a terminating mode. As a result, more than one test is required to test both modes of operation. The OTSTT is used to specify an operational (signaling) test for a trunk in the tandem (thru switch) mode. OTSTT is also used to specify the ATME B test for Consultative Committee for International Telephone and Telegraph Signaling System Number 5 (CCITT5) and Consultative Committee for International Telephone and Telegraph Signaling System Number 6 (CCITT6) trunks which have a far end test line capable of running this test. The following codes may be entered in the OTSTT field.

- **ATMB** - Siemens' ATME B test line - This is a signaling test which applies to CCITT5 and CCITT6 trunks only. The test consists of the far end test line returning a clear back/reanswer in response to a forward transfer.

- **CTX2** - Centrex II test - This test is made toward a No. 5 Crossbar office having Phase II Centrex features. CTX2 is similar to the SYNC test.

- **CTX3** - Centrex III - This test is made to a No. 5 Crossbar office having Phase III Centrex features. CTX3 is similar to the SYNC test.

- **SXS** - Step-by-Step - If the far end of this Trunk Subgroup (TSG) is working in to a Step-by-Step office, this test may be specified.

- **SYNC** - Synchronous test - This test is an automatic series of off hook/on hook transitions (flashes) on the M lead. In the 4ESS Switch, the SYNC test is software controlled and no external hardware is needed. A data table is used to specify the pulsing rate for each series of flashes. The test automatically advances from one pulsing rate to another via a timing procedure. In any system, after all of the flashes are complete, the trunk will be left in the quiet termination state.

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Keyword Glossary, Continued

OTSTT (cont'd)

- **T103 -** 103 Test - The 103 Test is similar to the synchronous test in that a series of flashes are sent on the M lead. However, the sequence of pulses is controlled by the ring forward signal, rather than a timed automatic progression. Flashing of a given rate will continue until a ring forward signal is received, or, in 4ESS Switch, until an upper limit of flashes has been sent. At this point, the trunk will be put into the quiet termination state until disconnect.

- **"N"** - Enter **"N"** if no thru switch operational test is to be made on this TSG.

OTYPE

Operational Type - This field indicates the destination of a signaling link. A signaling link can be designed to go from a 4ESS Switch office to a Signal Transfer Point (STP), a Network Services Frame (NSF) or another switching machine. If GTYPE is **"I"**, then OTYPE must be **"F"**, indicating a Fixed link to another office. If GTYPE is "**D**", then OTYPE is either **"A"** for A link to an STP, **"N"** for N link to a NSF, or **"F"** for F Link to another 4ESS Switch office. Valid entries are **"F"**, **"A"**, or **"N"**.

OUTWATS

Outward Wide Area Telephone Service -This call category is associated with OUTWATS records. If the DUAL-Revenue Accounting Office (RAO) configuration has been selected and the RAO substitution field is left **"Blank"**, it will default to **"IC"**. If the alternative RAO is required, input **"OC"**.

OVLP

Overlap Signaling- This field indicates if Consultative Committee for International Telephone & Telegraph Signaling System 7 (CCITT7) Overlap Signaling is allowed when processing an International Integrated Services Digital network User Part (INUP) or CCITT7 Telephone User Part (TUP) call. If OVLP is set to **"Y"**, then Overlap Signaling will be allowed on transit non-operator, non-test calls. The default value for this field is: **"Blank"** (Overlap Signaling not allowed).

OWAT

Not Applicable – Entries: **"Blank"**

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instructions

Keyword Glossary

PATH Signaling path type - This field specifies the number of winks that the Service Switching Point (SSP) switch expects to process. The number of winks is related to what type of office the SSP switch is connected to, e.g., Inter-exchange Carrier (IC), International Carrier (INC), or Access Tandem (AT).

- **DIR** - direct to IC/INC, no winks.
- **ATD** - signaling to AT then to IC/INC, 1 wink.
- **ATI** - signaling to INC, 2 winks.

PBAND Primary Band Number - The band within Primary Signaling Complement Index (PSLCINDX) that is to be backed up. Valid entries are **"0-127"**.

PBXAW Private Branch Exchange Answer Withheld - This field is used to specify whether Answer Supervision can or cannot be sent to the PBX. An entry can only be made if Type Of Trunk (TOT) is PBX. A **"Y"** is entered if Answer Supervision is to be withheld. An **"N"** is entered if Answer Supervision should not be withheld (i.e., Answer Supervision is returned). If this field is left **"Blank"** Answer Supervision is returned (not withheld).

PBXESGD Private Branch Exchange (PBX) Expect Station Group Designation - This field is used for the Software Defined Network (SDN) feature and is set equal to **"Y"** if the SDN customer has a direct connect PBX that will append an extra digit to the dialed number to indicate authorization of calling station. A **"Y"** or **"N"** must be entered in this field if Type Of Trunk (TOT) is PBX and Domain (DOM) is Software Defined Network Access (SDNA), otherwise it must be set to **"N"** or left **"Blank"**.

PBXNWW Private Branch Exchange (PBX) No Wait for Wink - An entry of **"Y"** in this field is used to specify that the Trunk Subgroup (TSG) has a PBX which does not wait for a wink from the 4ESS Switch before outpulsing digits. This field is used only for TSGs with a type-of-trunk value of PBX and signaling of Dual Tone Multifrequency Wink (DTMFWK). Enter **"Y"** if the PBX does not wait for a wink from the 4ESS Switch. Otherwise, enter **"N"** or leave **"Blank"**.

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Keyword Glossary, Continued

PCF

Point Code Format - This field is used to specify the format of the point code that is being entered in the point code field. If no entry is being made in the Destination Point Code (DPC) (Originating Point Code [OPC]) field, then this field must be left **"Blank"**. Three different formats are available for input: **ATT, ANSI,** or **ISPC**.

ATT is used for AT&T standard input/output which consists of a three digit network indicator, a two digit cluster region, a one digit cluster type, and a three digit cluster member.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CR**: Cluster Region - This value specifies the region of the signaling network where the office is located. Valid entries are **"00-31"**.

3. **CT**: Cluster Type - Valid entries are **"0-7"**.

4. **MEM**: - Cluster Member - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

ANSI is used to indicate that the input/output is in the American National Standards Institute format which consists of a three digit network indicator, a three digit cluster, and a three digit member number.

1. **NET**: Network Indicator - This value specifies which signaling network will be used for transport. Valid entries are **"000-255"**.

2. **CLU**: Cluster - This value specifies the cluster of the signaling network where the office is located. Valid entries are **"000-255"**.

3. **MEM**: Member Number - This value specifies the office member number within the cluster. Valid entries are **"000-255"**.

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Keyword Glossary, Continued

PCF (cont'd)

ISPC is used for international signaling point code input/output which consists of a one digit world geographical zone, a three digit area/network identifier, and a one digit signaling point identifier. Reference: International Consultative Committee for International Telephone & Telegraph Signaling System (CCITT) Recommendation "Numbering of International Signaling Point Codes", Vol. VI, Rec. Q.708.

1. **WGZ**: World Geographical Zone - This value specifies the world geographical zone of the office. Valid entries are **"1-7"**.

2. **ANI**: Area/Network Identification - This value specifies a geographical area or network in a specific zone. Valid entries are **"000-255"**.

3. **SPID**: Signaling Point Identification - This value specifies a signaling point in a specific geographical area or network. Valid entries are **"0-7"**.

PCHAN

Playback Channel Number - This field is used to specify the three-digit Playback Channel Number assigned for playback of the nonbarge-in Public Announcement System (PAS) announcement. The number of entries is from one to ten even numbers from the set **"002-118"** assigned as a Monitor (MNTR) trunk. One PCHAN must be assigned for each 30-second segment up to a maximum of ten PCHANs.

NOTES:

A. All PCHANs from a particular Mass Announcement System (MAS) Submember assigned to a given PAS announcement must be nailed up to the same PAS Dedicated Time-Slot Interchange-Switching and Permuting Circuit (PAS DED TSI-SPC).

B. The PCHANs from MAS Submember 0 for the announcement should be nailed up to a different PAS DED TSI-SPC than the PCHANs from MAS Submember 1.

C. PCHANs must have been established as Playback (PLBK) trunks.

D. PCHAN must be **"Blank"** for barge-in PAS announcements.

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Keyword Glossary, Continued

PCP	Not Applicable - Entries: **"Blank"**
PCP NCP	Not Applicable - Entries: **"Blank"**
PCPEACEL	Not Applicable – Entries: **"Blank"**
PCPPRMPT	Not Applicable - Entries: **"Blank"**
PCRBI	Previous Customer Routing Block Index - This field is used to link trunks together for multiple trunk customers. An entry in this field indicates the Customer Routing Block Index (CRBI) of the Trunk Assignment Number (TAN) that the TAN on this form is to follow. Leave this entry **"Blank"** if this is the first trunk for a customer or if the PCRBI value is entered on this form under the Next Customer Routing Block Index (NCRBI) field. Valid entries are **"1-32767"** or **"Blank"**.
PDN	The direct Producer Directory Number is a 10-digit phone number. It is used to call back the direct producer after each successful update attempt. This number must not be routed to vacant code. The number must be routed to a Routing Data Block (RDB) Call Type (CT). The PDN can be specified only for the direct producer announcement and must be specified for the direct producer announcement. If Multiple Treatment Screening (MTS) or Go/No Go Screening (GNS)apply, see the OFFMTSC and OFFGNSC descriptions for the 406C Form.
PERCENT	This number specifies the percentage of traffic that should be directed to the corresponding routing treatment. The sum of all percent values must be 100. Legal inputs are: **"1-100"**.

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Keyword Glossary, Continued

PLAYS

The number of playbacks of an announcement that a caller may listen to before being automatically disconnected. Valid entries are **"1-15"**, corresponding to the desired number of plays, or a **"U"** for an unlimited number of plays. It should be noted that the product of LENGTH times PLAYS (and the value of PLAYS can be changed via a Recent Change (RC) Message) equals the total time before the system will automatically disconnect the Public Announcement System (PAS) announcement.

For a barge-in announcement only, to insure that the caller hears at least one complete play of an announcement, either the number of plays should be 2 or the LENGTH should be specified as twice the actual length.

PLU IN WCS

Not Applicable - Entries: **"Blank"**

POVC

Pass Originating Validity Check - This column will normally be marked **"N"** for No for regular code grouping by Centralized Automatic Message Accounting (CAMA) Trunk Group.

A **"Y"** for Yes indicates that the office code listed on the form is to ignore the check for valid CAMA Trunk Group. Normally, an office code will only be valid on one CAMA Trunk Group. If some originating (calling) code may be received on more than one CAMA group, POVC must equal Yes. This should only be required for pseudo office codes associated with special billing (QZ).

If **"No"**, all codes listed in the Originating Office Code (OOFC) fields will be checked against the incoming CAMA Trunk Group for validity.

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Keyword Glossary, Continued

PREFIX

This field is **"Blank"** if no prefixing is required. If prefixing is required, the digit or digits that appear in this field will be added to the dialed address after any digit deletion. Any number up to six digits may be specified as a digit prefix. Valid range is **"0-999999"** for domestic Routing Data Blocks (RDBs) and up to six digits with each digit having a value of **"0-9"**, **"B"** for Code 11, or **"C"** for Code 12 for international RDBs.

NOTE: Intrastate Inward Wide Band Area Telephone Service (INWATS) to a customer's Automatic Call Distributor (ACD) should prefix the digit 2 when using an in-chain RDB.

PRIMDOM

Primary Domain is used together with the Primary Number of a Customer as an index into a table that contains an Alternate Number. The Alternate Number and Primary Domain would be used to route a call in the case of a natural disaster, bomb threat, etc. PRIMDOM valid entries are: **"POTS"**, **"non POTS"** (**20-80**, **82**, **83**), **"SDNA"**, **"DEV"**, **"DED"**, **"INCD"**, **"N64C"**, **"N64R"**, **"NH0C"**, **"NH1C"**, **"SF00-SF06"** (4E22R4>), and **"SF07-SF39"** (4E23R1>).

PRIMNUM

Primary Number is used together with the Primary Domain of a Customer as an index into a table that contains an Alternate Number. The Alternate Number and Primary Domain would be used to route a call in the case of a natural disaster, bomb threat, etc. Legal entries: ten digit number from **"2xxxxxxxxx** through **9xxxxxxxxx"** (where x is any digit from 0 to 9) if PRIMDOM equals Plain Old Telephone Service (POTS). Legal entries: a seven digit number from **"2xxxxxx** through **9xxxxxx"** (where x is any digit from 0 to 9) OR a ten digit number from **"2xxxxxxxxx** through **9xxxxxxxxx"** if PRIMDOM is not equal to POTS.

PRIT

Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

PROTECT This field appears on the Recent Change (RC) forms for defining protected office codes in an originating Numbering Plan Area (NPA). These codes are those in another NPA that may be dialed on a seven digit basis. Since those NXX office code combinations cannot be directed to both the local area and the foreign area, they must be "protected" (not assigned) in the originating NPA. This field may be **"Y"** for Yes or **"N"** for No to specify whether or not the codes listed are to be protected in the originating NPA.

PRTI Proportional Routing Index - This number specifies which proportional routing block is being defined. Legal inputs are: **"1-127"**.

PSATP Prohibit Sending Access Transport Parameters - This field indicates whether Access Transport Parameters (ATP) can be passed to or from a connecting network. Legal values are **"Blank"**, **"Y"** or **"N"**. Enter **"Y"** if ATP should not be sent. This value should be used on access Trunk Subgroups (TSGs) to prohibit the receipt of ATP; it should be used on egress TSGs to prohibit the sending of ATP. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only. This new field will not affect the sending of ATP at an Access Tandem (AT) switch.

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Keyword Glossary, Continued

PSBN.tsg

Prohibit Sending Billing Number (4E22>) (Feature 5371) - This field is used to indicate the conditions when the caller's billing number should not be sent or forwarded in outgoing signaling messages. Valid entries for this field are:

- **Blank** - Non-applicable.
- **PNNA** - Prohibit only Non-North American Numbering Plan (NANP) type billing numbers.
- **SALL** - Send All billing numbers regardless of the Numbering Plan type.
- **PALL** - Prohibit sending All billing numbers.

This field must be provisioned (non-blank) for ISUP or Q.931 Trunk Subgroups (TSGs) which are connecting to another network and the Type Of Trunk (TOT) is either Local Carrier Connecting (LCC) or a Local Service Provider (LSP) or a Private Branch Exchange (PBX). For all other cases, this field should be provisioned **"Blank"**.

Note: The PALL value applies only to ISUP trunks.

PSCPN

Prohibit Sending Calling Party Number - This field is used to indicate that the caller's calling party number should not be sent in the outgoing signaling messages. Enter **"Y"** if the calling party number should not be forwarded. This value should only be used on Trunk Subgroups (TSGs) connecting to another network. Enter **"N"** or leave **"Blank"** if the calling party number can be sent. This field applies to outgoing Integrated Services Digital Network User Part (ISUP) and International ISUP (INUP) trunks only.

PSD3TPID

Prohibit Sending DS3 Transmit Path ID - Entries are **"Blank"**, **"Y"**, or **"N"**. When **"Y"**, the Transmit Path ID will be sent as the all 1s signal. When **"Blank"** or **"N"** the Transmit Path ID entered on the form will be sent.

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Keyword Glossary, Continued

PSES	Prohibit Service Evaluation - An entry of **"N"** for No specifies that this Trunk Subgroup (TSG) is eligible for service evaluation by the No. 2 Service Evaluation System. An entry of **"Y"** for Yes specifies that the TSG is not eligible for service evaluation. Valid entries are **"Blank"**, **"Y"**, or **"N"**. Blank defaults to "**N**".
PSOLI	Prohibit Sending Originating Line Identity - This field indicates whether OLI can be passed to a connecting network. Legal values are **"Blank"**, **"Y"** or **"N"**. **"Y"** specifies that OLI should not be sent. **"N"** specifies that OLI should be sent.
PSTNG	Not Applicable - Entries: **"Blank"**
PSUUI	Prohibit Sending User-to-User Information - This field indicates whether to accept/send Message Associated (MA) UUI on this Trunk Subgroup (TSG). Legal values are **"Blank"**, **"Y"**, or **"N"**. Enter **"Y"** if MA-UUI should not be sent. This value should be used on access TSGs to prohibit the receipt of MA-UUI, and it should be used on egress TSGs to prohibit the sending of MA-UUI. The default condition is **"N"**. This field applies to Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q931 trunks only.
PTCL	Protocol - This field identifies the clients Data Link protocol. Valid entry is **"A"** for Asynchronous. This entry must have a related Input/Output channel specified in Office Data Assembler (ODA) by Lucent engineering.
PTERM	Not Applicable - Entries: **"Blank"**
PTSDURATN	Proceed to Send (PTS) Signal Duration - This value represents the minimum duration during which PTS signal is ON. Valid entries are **"Blank"**, **"0** and **700-1270"** (in msec). Blank defaults to **"0"**.

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Keyword Glossary, Continued

PUBI

Peripherial Unit Bus Interface - Hardware version of the PUBI pack for Expanded Time Slot Interchange (XTSI) Controller 0 or 1 (4E24>) - Entries are **"Blank"**, **"0"** (for initial KBN16 PUBI pack), or **"1"** (for KBN23 PUBI pack - needed for in-band).

- If PUBI is **"Blank"**, EXEC must be **"Blank"**.
- If PUBI is **"0"**, EXEC must be **"0"**.
- If PUBI is **"1"**, EXEC must be **"1"**.

PUSECLAN

Not Applicable - Entries: **"Blank"**

PUSECSAD

Not Applicable - Entries: **"Blank"**

PVM

This field is used to specify the action to be taken by call processing when the list of pre-assigned sub-account billing values for Positive Call Processing (PCP) customers is not retrievable from the database. An entry of **"Blank"** or **"N"** means that the call will be killed. An entry of **"Y"** means that the call will proceed without the customer entered account code being compared against the pre-assigned values.

QDESEP

Quantity of Destination Separations (DESEPs) desired in a range starting with DESEP value in First DESEP (FDESEP) field. If a single DESEP is desired, then QDESEP should equal one. Valid range is **"1-255"**. For the combined FDESEP - QDESEP pair, the value of FDESEP + (QDESEP - 1) must be less than 256.

QINSEP

Quantity of Incoming Separations (INSEPs) desired in a range starting with INSEP value assigned in First INSEP (FINSEP) field. If a single INSEP is desired QINSEP should equal one. Valid range is **1-256**. For the combined FINSEP-QINSEP pair, the value of FINSEP + (QINSEP - 1) must be less than 256.

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Keyword Glossary, Continued

QOB Queuing On Busy - This field is used to specify the maximum number of calls that can be placed in the QOB state. Enter a number between **"0"** and **"1023"** or leave the field **"Blank"** (in which case **"0"** is assumed). It should be noted that a call in the QOB state ties up a Call Register (CR). Thus, the number entered in this field plus the number entered in the AHRNA, CPACR, SVAST, and RCVHL fields must be less than or equal to the number entered for CRs on this form (in most cases, significantly less so that normal call processing is not affected by the use of QOB).

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Keyword Glossary, Continued

QTFN

Quantity of Traffic Numbers - This field specifies the size of the block of traffic numbers to be reserved with this input form beginning with the Base Traffic Number (BTFN) for this Trunk Subgroup (TSG). Traffic numbers must be allocated in groups of 24. Enter a multiple of 24 in the range of **"24 -504"**. If more than 504 traffic numbers are required for a given TSG, additional blocks of 24 may be added using RC Form 104. The total quantity of reserved traffic numbers should be equal to or greater than (to the nearest 24) the maximum size projected for this TSG during the engineering interval. This total should not include other blocks of traffic numbers that may be assigned separately with RC Form 104.

The maximum number of trunks that can be assigned to one TSG is 1023. If a TSG requires more than 1023 trunks and consequently more than 1023 traffic numbers, it must be split into two TSGs. The breakpoint must be a multiple of 24 and less than 1023 which makes 1008 trunks the logical maximum for one TSG. If for example, 1300 trunks were required between point A and point B, two TSGs should be built. The first TSG would contain 1008 trunks, and the second TSG would contain 292 trunks. The two TSGs would be linked in the Routing Data Block (RDB).

The 4ESS Switch feature, Inward Wide Band Area Telephone Service (INWATS) terminating directly to a customer's Automatic Call Distributor, has a limitation of 1023 TSGs totaling 24552 trunks (1023 trunk blocks of 24 registers).

For Voice Frequency Link (VFL) TSGs, if the traffic numbers for the VFLs are separated by 100, e.g., 801 IPLS IN 01 MSP and 901 IPLS IN 01 MSP, the QTFN must be 24 for building new TSGs. Then build the second set of 24 traffic numbers using RC Form 104.

QTM

Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

QTRK Quantity of Trunks - For each line under QTRK, valid entries are a quantity of trunks from **"1-120"** to be assigned sequentially. The QTRK plus the First Time Slot (FTS) must be less than 122.

For RC 200, trunks connected to a far-end D1D or D2 channel bank, international trunks, and service circuits must obey special constraints. Valid entries for trunks to be connected to a D1D or D2 channel bank are **"1-24"**. Valid entries for service circuits depend upon the corresponding Trunk Subgroups (TSGs). Following are the legal ranges of values for the corresponding TSGs:

TSG	QTRK
SVC*DMRV	16, 32, 48, 64 (for digital circuits)
SVC*DMXM	16, 32, 48, 64 (for digital circuits)
SVC*MFR*	1 to 32 (for analog circuits)
SVC*MFR*	16, 32, 48, 64 (for digital circuits)
SVC*MFX*	1 to 32 (for analog circuits)
SVC*MFX*	16, 32, 48, 64 (for digital circuits)
SVC*XCVR	1 to 12
SVC*MFCI	24
SVC*MFCO	24
SVC*SCAN	24
SVC*SCBN	24
SVC*SCNS	24

The Recent Change (RC) System will allow any quantity of trunks from 1 to 64 for digital service circuits (both Multifrequency [MF] and Dual Tone Multifrequency [DTMF]). However, since the hardware for digital service circuits must be grown in increments of 16, it is recommended that only the indicated values above be entered (e.g., 16, 32, 48, 64).

QTY Quantity - This field, used on Verify output #5e, specifies the number of successive Routing Data Blocks (RDBs) that are unassigned including and following the listed Routing Data Block Index (RDBI). QTY will be a value between **"1"** and **"128"** to include up to a whole subtranslator.

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Keyword Glossary, Continued

QUESTION Not Applicable - Entries: **"Blank"**

RAOCONFIG This field indicates that the office produces Automatic Message Accounting (AMA) records for either:

1. An Operating Company (OC) DUAL-Revenue Accounting Office (RAO) only,
2. An Inter-LATA Carrier (IC) RAO only, or
3. Both an OC RAO and an IC RAO.

Input **"OC"** if your office produces AMA records exclusively for an OC RAO. Input **"IC"** if your office produces AMA records exclusively for an IC RAO. Input **"DU"** if your office produces AMA records for both an OC RAO and an IC RAO. Do not complete any other fields on this form if **"OC"** or **"IC"** have been input into this field.

RCACTION Recent Change (RC) Action field - Entries appended to the message header indicate the action to be taken by the RC system. If no entry is made in this field, it will default to the buffered state.

- **BUF** - Buffer places the message in the buffer after performing only form checks.
- **TST** - Test indicates that all defensive checks are to be performed before buffering the message.
- **ACT** - Activate indicates that the message is to be immediately activated following all defensive checks. It is not buffered.
- **FTA** - Fast activate is a special form of the "ACT" action which limits output text during the processing of the action to a success or a failure message.
- **FTB** - Fast buffer is a special form of the "BUF" action which limits output text during the processing of the action to a success or a failure message.
- **FTT** - Fast test is a special form of the "TST" action which limits output text during the processing of the action to a success or a failure message.

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Keyword Glossary, Continued

RCHVL Not Applicable - Entries: **"Blank"**

RDBFHT Routing Data Block Final Handling Treatment - The RDBFHT field identifies the Final Handling Treatment (FHT) to which the call must be connected when an idle trunk cannot be found in the list of Trunk Subgroups (TSGs). This treatment may be a Recorded Announcement or tone. Refer to Lucent Practices 781-031-100 for further information on tones and announcements for Direct Distance Dialing (DDD). Valid entries are:

- **AR** - Audible Ring .
- **BT** - Busy Tone (60 Interruptions Per Minute [IPM]). This entry is used for service terminated directly to a customer's premise such as Inward Wide Band Area Telephone Service (INWATS) to an Automatic Call Distributor or Direct Inward Dialing to a Private Branch Exchange (PBX).
- **DNN** - Disconnected 800 # announcement.
- **DOO** - Destination Out of Order (Signaling System 7 [SS7]).
- **E01** - Emergency Situation.
- **E02** - Severe Weather.
- **E03** - Facility Trouble.
- **E04** - Local Company Trouble.
- **E05** - Airplane Crash.
- **E06** - Hurricane.
- **E07** - Flood.
- **E08** - Tornado.
- **E09** - Forest Fire.
- **E10** - Earthquake.
- **E11** - Mudslide.

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Keyword Glossary, Continued

RDBFHT (cont'd)

- **E12** - Major Network Outage.
- **E13-E20** - Reserved Domestic Network Management.
- **EA1** - Emergency Announcement Channel 1. This code directs a call to a designated Emergency Announcement.
- **EA2** - Emergency Announcement Channel 2. The EA2 code directs the call to the second Emergency Announcement channel.
- **EA3** - Emergency Announcement Channel 3. This code directs a call to a designated Emergency Announcement.
- **EA4** - Emergency Announcement Channel 4. This code directs a call to a designated Emergency Announcement.
- **EA5** - Emergency Announcement Channel 5. This code directs a call to a designated Emergency Announcement.
- **EA6** - Emergency Announcement Channel 6. This code directs a call to a designated Emergency Announcement.
- **EA7** - Emergency Announcement Channel 7. This code directs a call to a designated Emergency Announcement.
- **HW** - High and Wet .
- **I01** - International Emergency Situation.
- **I02** - International Severe Weather.
- **I03** - International Telephone Company.
- **I04** - International Airplane Crash.
- **I05** - International Earthquake.
- **I06** - International Mudslide.
- **I07** - International Fire.
- **I08** - Reserved International Network Management.
- **I09** - International Direct Dialing Susp.

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Keyword Glossary, Continued

RDBFHT (cont'd)

- **I10** - International Direct Dialing Test.
- **I11-I23** - Dialing Plan Changes (International).
- **I24-I30** - Reserved International Network Management.
- **IFF** - International call failed to complete in a foreign office.
- **INC** - International No Circuit. This recording indicates all circuits busy to a foreign country.
- **INF** - Info 1 ANI Failure.
- **ISB** - International Subscriber Busy.
- **IVC** - International Vacant Code announcement.
- **LDV** - AT&T Dial 1 (700-555-4141).
- **LOB** - Logging on Busy.
- **LSA** - IntraLATA Call Screening.
- **MCA** - Misrouted CAMA announcement.
- **NCA** - No Circuit Announcement. This recording is usually an announcement type N in Lucent Practices 800-100-100.
- **NCB** - Local Exchange Carrier (LEC) Egress Busy.
- **NCC** - No Circuit to Designated Carrier.
- **NCD** - Network Call Denial screening.
- **NWC** - No Wink from Carrier.
- **NWN** - Vacant 800 # announcement.
- **OOA** - Out of Area (LEC Mass Announcement System [MAS] Service).
- **OOB** - Inward Wide Band Area Telephone Service (INWATS) Out-of-Band announcement.
- **OTS** - HICAP Out of Time Slot announcement.

Continued on next page

Keyword Glossary, Continued

RDBFHT (cont'd)

- **R01**-**R09** - Dialing Plan Change (Domestic).
- **R10** - Intrastate Dialing Plan Change.
- **ROA** - Re-Order Announcement. Type P announcement per Lucent Practices 800-100-100 is used for ROA.
- **SNA** - Service Not Active announcement.
- **S01**-**S19** - Spares.
- **SP1** - Special Announcement Channel 1. This code identifies the first Special Announcement Channel.
- **SP2** - Special Announcement Channel 2. SP2 directs the call to the second Special Announcement Channel.
- **STO** - Sun Transit Outage announcement.
- **T** -Tone If the call is to be directed to a tone, a T will appear in the RDBFHT field and indicates a reorder tone of 120 IPM.
- **TDN** - Temporarily Disconnected 800 #.
- **UNN** - Unallocated # (SS7).
- **VCA** - Vacant Code Announcement.
- **VMA** - Vacant MAS Announcement.
- **WAT** - Waiting for Answer Timeout.

RDBI

Routing Data Block Index - RDBI is a link from the digit translation to a series of Trunk Subgroups (TSGs). The TSGs are listed in Routing Data Blocks (RDBs). RDBI points to regular in-chain routing patterns. The range for RDBIs is from **"1-8191"**.

For the RC 524 Form, the RDBI specified in this field identifies the trunks to be used to deliver terminating traffic to the Interexchange Carrier/ International Carrier (IC/INC).

Continued on next page

Keyword Glossary, Continued

RDC	Red Circuit Handling - This field will contain an **"N"** to indicate no special circuit handling or **"Y"** to indicate that special circuit handling is required.
RDIG	R-Digit. For international Equal Access Signaling (EAS) to countries covered under the World Zone 1 numbering plan, an **"01R"** sequence for country is used. The "R" digit defines a geographic region within the World Zone 1 area. These "R" values are specified by the Local Exchange Carriers (LECs). Valid entries for the "R" digit are **"Blank"** or **"0-9"**.
REFTSG	See INSERT NEWTSG.
REHOME NEW DPC	This is the (New) Destination Point Code to which a 4ESS Switch is being rehomed. See also DPC. Valid entries are: • NET = **"Blank"** or **"000-255"** • CLU = **"Blank"** or **"000-255"** • MEM = **"Blank"** or **"000-255"**.
REHOME OLD DPC	This is the old Destination Point Code of a 4ESS Switch which is being rehomed. See also DPC. Valid entries are: • NET = **"Blank"** or **"000-255"** • CLU = **"Blank"** or **"000-255"** • MEM = **"Blank"** or **"000-255"**.
RELEASE CCIS	This field governs the release of Common Channel Interoffice Signaling (CCIS) translators after a Trunk Subgroup (TSG) conversion from Domestic CCIS (DOMCCIS) to Integrated Services Digital Network User Part (ISUP) signaling. Enter a **"Y"** when the conversion has been successful and the translators can be released. Otherwise, leave **"Blank"**.

Continued on next page

Keyword Glossary, Continued

REM ALARM Remote Alarm Indication. Entries are **"Blank"**, **"STD"** for Standard, **"INV"** for Inverted, or **"IGN"** for Ignore.

REMARKS This field may be used to record short comments pertinent to the Recent Change (RC). Up to fifty characters (including blanks) can be stored with a given RC. These entries are not part of translations and are only retained while the message is in the buffer. All characters are valid in the remarks field with the exception of the exclamation point which denotes the end of the RC message.

RESELL Not Applicable - Entries: **"Blank"**

REV Reverse Traffic Numbers - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not the hunt sequence for this Trunk Subgroup (TSG) is to be reversed. This is determined by comparing the name of the far-end office to the local office using the Common Language Location Identification (CLLI) code for each office. The last office alphabetically should be set to hunt in a reverse sequence. This determination is required only on 2-way TSGs in order to reduce the possibility of both offices seizing a trunk at the same time (a GLARE condition).

Internally, the trunks are stored in ascending traffic number order in the trunk block when REV is set to **"N"**. For non-broadband TSGs, the trunks are stored in descending traffic number order in the trunk block when REV is set to **"Y"**. Trunk hunt always starts searching from the beginning of the trunk block. For broadband TSGs, the trunks are always stored in ascending traffic number order in the trunk block regardless of whether REV is set to **"Y"** or **"N"**, however, when REV is **"Y"**, the busy-idle-bits are searched in a reverse order.

REVAMP Not Applicable – Entries: **"Blank"**

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Keyword Glossary, Continued

RFA	Ring Forward Allowed - Enter a **"Y"** for Yes or **"N"** for No to indicate if ring forward is allowed. All intertoll (ITOLL) trunks (Type of Trunk [TOT] field is equal to ITOLL) will require the RFA feature. All trunks that have the possibility of receiving operator calls from lower class offices will also require this feature. Each 4ESS Switch office must determine which Trunk Subgroups (TSGs) may receive operator type calls. These TSGs must have the RFA feature assigned.
RFFHT	Not Applicable - Entries: **"Blank"**
RFMP	Ring Forward Miscellaneous Distributor Point - Leave **"Blank"** or enter **"N"** for No to indicate that a miscellaneous distributor point is not associated with the outgoing portion of the Trunk Subgroup (TSG). This feature is only required for outgoing trunks requiring 130V ring forward battery. This feature is presently not available on the outgoing portion of 2-way trunk circuits.
RHFHT	Not Applicable - Entries: **"Blank"**
RMAPSTC	Remote Carrier Alarm Preserve Stable Call. This field is used to specify whether stable calls should be preserved when a remote carrier alarm is reported to the switch. Enter **"Y"** if stable calls should be preserved. Enter **"N"** if stable calls should not be preserved.
ROW	Row - see MSN.
RPI	Not Applicable - Entries: **"Blank"**
RQOLT	Not Applicable - Entries: **"Blank"**

Continued on next page

Keyword Glossary, Continued

RSFHT Route Selection Final Handling Treatment (FHT) - This field specifies the FHT that should be given to a call that is denied because of the absence of an Route Selection Index (RSI) type of subsequent digit entry. This field may be left **"Blank"** or see the RDBFHT description for the allowable entries.

RSI Route Selection Index - This field specifies the index that is to be used to select a routing treatment when an RSI type of subsequent digit entry is encountered. Legal inputs are: **"Blank"** or **"0-126"**.

RSIDF Route Selection Index Default - This field specifies the default action that should be performed when no Route Selection Index (RSI) type of subsequent digit entry is encountered during routing. Enter **"A"** to allow the call to proceed using the treatment encountered. Enter **"D"** to deny the call. Legal inputs are: **"A"** or **"D"**.

RSYS Restricted System Codes - This field specifies the disposition of calls in the RSYS Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is RSYS.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

RTDOM Routing Domain - This field specifies the domain where the routing for this service is actually populated. Legal inputs are: **"Blank"**, **"APN"**, **"HNPA"**, **"IT"**, **"20-83"**, **"INTO"**, **"INTT"**, **"SDNA"**, **"SF00-SF06"** (4E22R4>), **"SF07-SF39"** (4E23R1>), **"DEV"**, **"DED"**, **"INCD"**, **"NH0C"**, **"NH1C"**. (4E22>) - The **"HNPA"** entry is allowed only in offices using Traditional Routing.

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Keyword Glossary, Continued

RTNG_TYPE (4E22>) - The Routing Type (RTNG_TYPE) field specifies the type of routing an office is using. Input is: **"TRAD"** which implies the office is using Traditional Routing.

1. The maximum number of SNPAs is 7.
2. All offices codes in the HNPA remain populated as an HNPA.

RTORT Real Time Overload Retry Treatment - When the switch detects overload, this field defines the action to be performed for the outgoing trunk re-hunt and call setup retry logic. Calls requiring retry will be blocked using the identified treatment if the RTORT field is populated with any value other than NONE (control is off). See the RDBFHT description for the remaining allowable entries.

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Keyword Glossary, Continued

S1-10

These fields are reserved for future use in order to be able to implement new capabilities in a more timely fashion. When a new capability is requested for Generic Programs currently deployed in the field, one of these spare fields will be designated for use in implementing that capability.

S1 - Valid entries are **"Blank"**, or **"0-7"**.
S2-10 - Valid entries are **"Blank"**, **"Y"**, or **"N"**.

- S2 - (4E18/4E19/4E20) - An entry of **"Y"** in this field identifies Signaling System 7 (SS7) trunks which have their Per Channel Inhibit Signaling (PCIS) bits reset to force a steady state AB bit indication. Otherwise, enter **"N"** or leave **"Blank"**. In 4E21, the CODSC field will replace the use of S2 for this purpose.

- S2 - (4E21R4) This Trunk Subgroup (TSG) parameter allows TSG circuits to trigger the Advanced Intelligent Network (AIN) processing. The parameter can have the following values: **"Blank"**, **"N"** for no access allowed, and **"Y"** for access allowed. The default is **"N"**.

- S5 - Unassigned - Reserved for future use.

- S6 (4E18/19/20) - this Trunk Subgroup (TSG) parameter indicates the allowed Information Transfer Capability (ITC) coding in the outgoing Initial Address Message (IAM). The parameter can have the following values: **"Blank"**, **"N"** (use office) to encode the outgoing IAM, User Service Information (USI) parameter ITC field, the same as used in the office indicator, and **"Y"** (use opposite of office) to encode the outgoing IAM, USI parameter ITC field, with the opposite of what is used in the office indicator. The default is "use office".

NOTE: An entry of "0-7" in the S1 field or a "Y" in any of the fields S2 thru S10 without knowledge of the capability to which the field has been assigned may result in undesirable switch behavior.

Continued on next page

Keyword Glossary, Continued

S5DIG	Not Applicable - Entries: **"Blank"**
SAN	This field is used to specify the Service Circuit System (SCS) Announcement Number. The announcement number will be used in the peripheral unit order sent to the SCS. Valid entries are **"Blank"** or **"1-4095"**. (Legal values for SAN on RC form 634 are **"Blank"** or **"1-511"**.)
SAPN	Slave Application number - This field identifies a particular slave TELEVOTE application. If the Master Slave Indicator (MSI) field is **"B"** or **"S"**, an entry must be made in the SAPN field. Valid entries are **"Blank"** or **"0-63"**.
SASP	Severely errored seconds - Alarm indication signal-Seconds Path is used on RC Form 664 to define Extended Time Slot Interchange (XTSI) DS3 Unit DS1 15-minute and 24-hour Performance Monitoring Thresholds. Valid entries are **"Blank"** or **"0-63"**.
SAT	Satellite - Enter a **"Y"** for Yes or **"N"** for No to indicate whether or not this Trunk Subgroup (TSG) is associated with satellite facilities. This entry performs a screening function to avoid two satellite TSGs from being connected together to complete a call. If the incoming TSG has SAT = "Y", then call processing will insist the outgoing TSG must have SAT = "N". This can also be used for local screening functions even though the TSG is not via a satellite. For Voice Frequency Link (VFL) TSGs, satellite facilities cannot be used for a domestic Common Channel Interoffice Signaling (CCIS) system, i.e. if DOM is Plain Old Telephone Service (POTS), then SAT must be **"N"**.

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Keyword Glossary, Continued

SATB	Schedule Activity Table Blocks - SATBs are areas of disk storage that are used to store the identity of traffic and plant Measurement Subclasses (MSC), Output Measurement Sets (OMS) and information for Trunk Subgroups (TSGs) that are monitored in a given measurement report. SATBs are dynamically allocated from a common pool of space as measurement reports are formed. The File Store SATB area is allocated in units of 32 word blocks. Up to 255 blocks may be engineered. With 4E7 and later Generic Programs, to provide sufficient storage for the 23 schedules that use the SATB, 253 blocks must be engineered. Allocating fewer than 253 blocks will limit the number and size of new measurement reports that a machine administrator may add. Excess SATBs remain in the idle state and cause no significant system overhead.
SBAND	Secondary Band Number - The band within Secondary Signaling Complement Index (SSLCINDX) which provides the backup security. Valid entries are **"0-12"**.
SB NCD	Not Applicable - Entries: **"Blank"**
SBRIV	Not Applicable - Entries: **"Blank"**

Continued on next page

Keyword Glossary, Continued

SC.cdg Service Category/Code Group. This field identifies the Service Category (SC) of the code group. This category is used to perform incoming screening on calls received from other carriers. Also, it is used to determine for which calls an Automatic Message Accounting (AMA) record or Access Charge record should be made.

As examples of screening, an Operating Company Access Tandem (AT) switch must deny calls from an Interexchange Carrier (IC) that do not terminate in the Local Access Transport Area (LATA) served by the AT.

As an example of recording, an AT must make a terminating Access Charge record for all calls it receives from an IC or INC which terminate in the LATA.

The SC defines the screening and recording classification to be used for the code group. The SC field only applies if the CALLTYP is CRB, DSD, DSN, EAR, GNS, INW, IRA, MCT, MMT, MRT, PAS, PRT, RDB, RNR, SSP, TEL, TST, or TTS. SC will also be used to specify for which calls a query will be sent to the Network Call Denial (NCD) database.

Valid Service Category entries are:

- **Blank** - If this field is **"Blank"**, the SC is unspecified.
- **ALAP** - Alaskan Plain Old Telephone Service (POTS). ALAP is the classification for POTS code groups in the Alaskan World Zone 1 area.
- **ATAP** - Access Tandem Area Pots. ATAP is only applicable if the 4ESS Switch is owned or leased by an Operating Company and used as an Access Tandem (AT) for a LATA. ATAP is the classification for the POTS code groups in the LATA served by the AT. In addition, ATAP is the category for POTS code groups in Independent Operating Company areas also served by the Tandem Switch.

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Keyword Glossary, Continued

SC.cdg
(cont'd)

- **CANP** - Canadian POTS. CANP is the classification for POTS code groups in the Canadian World Zone 1 area.
- **CARP** - Caribbean, NON-U.S. Territories, POTS. CARP is the classification for POTS code groups in the Caribbean World Zone1 area which do not include United States territories.
- **CUSP** - Continental U. S. POTS. CUSP is the classification for POTS code groups in the continental U. S., which could not also be classified ATAP.
- **CUTP** - Caribbean, U. S. Territories, POTS. CUTP is the classification for POTS code groups in the part of the Caribbean World Zone 1 area which includes United States territories.
- **DA** - Directory Assistance. DA is used to classify code groups assigned to Directory Assistance.
- **DLT** - DIAL-It. DLT is used to classify DIAL-IT code groups.
- **DSD** - Direct Services Dialing. DSD is used to classify Direct Services Dialing code groups.
- **EASC** - Exchange Access Signaling Code. EASC is used to classify the code groups used for Exchange Access Signaling (EAS) to an Interexchange (IC) or International Carrier (INC).
- **HAWP** - Hawaiian POTS. HAWP is the classification for POTS code groups in the Hawaiian World Zone 1 area.
- **ICIN** - Inter-LATA Carrier switch owner's International Carrier (INC). ICIN is used to classify code groups for calls to the Inter-LATA Carrier switch owner's International Carrier.

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Keyword Glossary, Continued

SC.cdg
(cont'd)

- **INCN** - International Carrier but not inter-LATA Carrier switch owner's International Carrier. INCN is used to classify code groups from an Inter-LATA Carrier switch to an International Carrier which is not owned by the Inter-LATA Carrier. In addition, these code groups are not destined for International Operators.

- **INCO** - International Carrier Operator. INCO is the classification for code groups used for calls to an International Carrier Operator.

- **INET** - This is used for Interim Nationwide Emergency Telecommunications System code groups. INW = Inward WATS.

- **INW** is used for Inward WATS code groups. IOP = Inward Operator.

- **IOP** is used to classify code groups assigned to Inward Operator positions.

- **LDA** - Local Directory Assistance. This service category is used to generate the appropriate billing record when used in conjunction with a Centralized Automatic Message Accounting (CAMA) Far End Network (FEN) block.

- **MCPP** - Multiquest Calling Party-Paid. MCPP is used to classify Multiquest code groups paid for by the calling party.

- **MULT** - Multiquest. MULT is used to classify Multiquest code groups.

- **MSC1** through **MSC4** - These miscellaneous categories can be used to classify code groups into miscellaneous categories. These may be especially useful if the 4ESS Switch is shared by an Operating Company and an Interexchange Carrier (IC). In this case, the general categories could be used to classify code groups by the carrier which owns the switch and the miscellaneous categories used for code groups handled by the carrier leasing capacity on the switch.

- **NWZ1** - Non-World Zone 1. NWZ1 is the classification for the code groups used for calls to Non-World Zone 1 area.

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Keyword Glossary, Continued

SC.cdg
(cont'd)

- **RSYS** - Restricted System Codes. RSYS is used to classify code groups assigned as special purpose restricted system codes.
- **SC1** through **SC36** - Spare Category 1 through Spare Category 36. These SCs can be used to classify codes in up to 36 SCs. One use for these categories is screening of IntraLATA calls at an Inter-LATA Carrier Switch. For this use, a different category would be assigned to the codes for each LATA to which the InterLATA Carrier Switch connects. Another possible use for these categories is for screening International Switching Center (ISC) terminating and transit traffic. For this use, the SCs would be assigned to the Overseas codes for which special screening is required. Yet another use is extensions of the current use of the Miscellaneous Service Categories (MSCs) (e.g., at shared switches).
- **SDN** - Software Defined Network. SDN is used for calls to a Software Defined Network.
- **SDND** - SDN Data. SDND is used for Software Defined Network Data calls.
- **SPDI** - Sponsor-Paid Dial-It. SPDI is used to classify DIAL-IT code groups paid for by the sponsor.
- **SSP** - Local Exchange Carrier (LEC) Service Switching Point (SSP). SSP is used to identify calls that will have SSP processing applied to them.
- **TC** - Teleconferencing. TC is used to classify code groups assigned to network Teleconferencing services.
- **TST** - Test Line. TST is used to classify code groups assigned to trunk test lines.
- **UNSP** - Unspecified. This entry is used for a verify input request of codes that contain no SC.

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Keyword Glossary, Continued

SC1-SC36

Spare Categories 1 to 36 - These fields specify the disposition of calls in the SC1-36 Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SC1-36.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

SCFHT

Not Applicable - Entries: **"Blank"**

SCFN

Send Confusion Messages - This field indicates if received Confusion messages are counted and if Confusion messages are to be sent when an unimplemented message is received. Valid entries are **"Blank"**, **"Y"**, or **"N"**.

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Keyword Glossary, Continued

SCGA	Software Carrier Group Alarm - This carrier alarm feature is only used on analog facilities. Valid entries are **"Y"** or **"N"**. For trunks assigned to digital facilities, leave **"Blank"**.
SCLB	Suppress Clear-back Message Indicator. This field is used to indicate whether clearback suppression applies for a given country code. This field is set to **"Y"** to suppress passing clearback at an International Switching Center (ISC) for calls to a country code known to produce an answer-clearback-reanswer sequence within prescribed time limits. Valid entries are: **"Y"**, **"N"**, **"Blank"**. Blank defaults to **"N"**.
SCPANN	Announcement Index number received from Service Control Point (SCP). Valid entries: **"0-255"**.

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Keyword Glossary, Continued

SCS	Service Circuit System - This field is used to specify the SCS member number. A maximum of eight SCS frames may be provisioned. Valid entries are **"0-7"**.
SCSANN	Announcement number for Service Circuit System (SCS) - For Form RC 345, SCSANN is the SCS Announcement for the Default Routing Voice Announcement. Valid entries are **"Blank"** or a number between **"0 and 65535"**. This element specifies the Service Circuit Unit (SCU0 voice announcement, if any, that will be played before the routing number is determined. **"0"** is the default. Note: **"Blank"** is valid if and only if Advanced Intelligent Network (AIN) Fault Handling (FH) is set to Final Treatment (FT).
SCSDIGS	Not Applicable - Entries: **"Blank"**
SCS ERAN	Not Applicable - Entries: **"Blank"**
SCSFHT	Service Circuit System Final Handling Treatment - Legal values: **"AR"**, **"T"**, **"BT"**, **"NCA"**, **"VCA"**, **"ROA"**, **"EA1-EA7"**, **"SP1"**, **"SP2"**, **"HW"**, **"MCA"**, **"NCC"**, **"NWC"**, **"OOB"**, **"NCD"**, **"INC"**, **"IVC"**, **"IFF"**, **"SNA"**, **"VMA"**, **"OTS"**, **"STO"**, **"NWN"**, **"DNN"**, **"TDN"**, **"INF"**, **"NCB"**, **"WAT"**, **"LSA"**, **"OOA"**, **"LDV"**, **"LOB"**, **"UNN"**, **"S01-S19"**, **"DOO"**, **"ISB"**, **"E01-E20"**, **"R01-R10"**, **"I01-I30"**. See RDBFHT for announcement descriptions.
SCS RPRM	Not Applicable - Entries: **"Blank"**
SCS VBL	Not Applicable - Entries: **"Blank"**
SCS_VBT	Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

SCSRSCUC	Not Applicable - Entries: **"Blank"**
SCSSETS1	Not Applicable - Entries: **"Blank"**
SCU	Service Circuit Unit - This field is used to specify the SCU member number. Valid entries are **"0-15"**.
SCSUST	Service Circuit System (SCS) Update System Type - Valid entries are **"Blank"**, **"ASM"**, or **AAP"**.
SCUFV	Service Circuit Unit Firmware Version - This field is used to specify which version of the firmware the SCU is equipped. Valid entries are **"Blank"** or **"0-3"**. The initial firmware version for the SCU, used for final handling and NSCX, has a value of zero.
SCUHV	Service Circuit Unit Hardware Version (4E22R4>). This field is used to specify which version of the hardware the SCU is equipped. Valid entries are **"Blank"** or **"0-7"**. The initial hardware version for the SCU is 0. • A value of 1 specifies an SCU with the TN9001 pack. • A value of 2 specifies an SCU with the TN9002 pack. • A value of 3 specifies an SCU with the TN9001 and TN9002 packs.
SDINDEX	Subsequent Digit Routing Index - This number specifies the subsequent digit entry being affected. Legal inputs are: **"1-16383"**.
SDNA	Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

SDNAPLAN Not Applicable - Entries: **"Blank"**

SDN.fen Software Defined Network - This field specifies the disposition of calls in the SDN Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SDN.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

SDN.misc Software Defined Network - This field indicates whether the office will perform the SDN Action Point (ACP) functions. An entry of 1STP or 2STP are used to designate whether direct signaling messages will be sent to the SDN Network Control Point (NCP) via the 1STP network or the 2STP network. An entry of **"DCIS"** is used to designate that direct signaling messages will be sent to the 2STP network using a high-speed link. An entry of **"TCAP"** for Transaction Capabilities Application Part is used to designate that the direct signaling message will be sent to the 2STP network using Common Channel Signaling 7 (CCS7) format. .

An **"N"** is entered if the office is not an SDN ACP or is a Non-North American office.

NOTE: An entry other than **"N"** must also be entered in the DSDCACP field if the SDN field is not **"N"**.

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Keyword Glossary, Continued

SDND

Software Defined Network Data calls - This field specifies the disposition of calls in the SDN Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SDN.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

SDNNPARP

Software Defined Network (SDN) Numbering Plan Area (NPA) digit Reconstruction Prohibit - This field is used to specify if NPA digit reconstruction should be prohibited in the office for SDN calls. If NPA reconstruction should be prohibited, enter **"Y"**. If NPA reconstruction should be allowed, enter **"N"** or leave **"Blank"**. If NPA reconstruction is allowed and the call is blocked, then the final handling treatment given will be the same as the one specified in the NPARFHT field (if entered).

SDNPLAN

Not Applicable - Entries: **"Blank"**

SDNTT

Software Defined Network (SDN) Translation Type - This field specifies the Signaling System 7 (SS7) Translation Type to be used by the Signal Transfer Point (STP) on global title address SDN queries to route the query to the appropriate Network Control Point (NCP) database. Legal input values are **"Blank"** or "**0**-**255**".

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Keyword Glossary, Continued

SDS.misc	Switched Digital Services - This field indicates the signaling format that will be used for this Service Category (SC), e.g., Accunet Switched 56 Service. An entry of 1STP or 2STP are used to designate whether direct signaling messages will be sent to the Network Control Point (NCP) via the 1STP network or the 2STP network. An entry of **"DCIS"** is used to designate that direct signaling messages will be sent to the 2STP network using a high-speed link. An entry of **"TCAP"** for Transaction Capabilities Application Part is used to designate that the direct signaling message will be sent to the 2STP network using the Common Channel Signaling 7 (CCS7) format. An **"N"** is entered if the office is not an Action Point (ACP).
SDS.tsg	Not Applicable – Entries: **"Blank"**
SEG	Segment number of memory - Segment 0 is the base 1B Processor disk and core memory. Segments 1-3 are used for disk memory added by the 1B File Expansion feature and core memory added by the Extended Store (XS) feature. Each segment is an 8-Megaword block of memory.
SES	Service Evaluation System - This field is used to indicate whether the switch should perform the old (pre-4E14) or new (4E14 and later) version of service evaluation. Valid entries are **"OLD"** and **"NEW"**.
SESDEGR	Not Applicable - Entries: **"Blank"**
SESDSD	Not Applicable - Entries: **"Blank"**

Continued on next page

Keyword Glossary, Continued

SESICTL Service Evaluation System Interface Control - This field identifies the type of calls to be observed at the International Service Center (ISC). The following identifiers may be specified**:**

- **POTS** - Observe Plain Old Telephone Service (POTS) calls using the "DOWNCHAIN" characteristic.
- **ISCIO** - International Switching Center International Outbound - Observe international outbound voice calls without referencing the "DOWNCHAIN" characteristic.
- **COMB** - Combination of both the POTS and ISCIO actions above.
- **"Blank"** - If this field is left **"Blank"**, it defaults to the POTS action.

If the SES field on 406Z is **"NEW"**, then an entry in this field will no longer have any affect on the program.

SESINTL Not Applicable - Entries: **"Blank"**

SESINTL2S Not Applicable - Entries: **"Blank"**

SESINTLEA Not Applicable - Entries: **"Blank"**

SESINTLIT Not Applicable - Entries: **"Blank"**

SESINWATS Not Applicable - Entries: **"Blank"**

SESNPOTS Not Applicable - Entries: **"Blank"**

SESPOTS Not Applicable - Entries: **"Blank"**

Continued on next page

Keyword Glossary, Continued

SESSDND Not Applicable - Entries: **"Blank"**

SESSDNI Not Applicable - Entries: **"Blank"**

SID Service Identity - This field is a seven digit entry which identifies the type of announcement.

A. VSS Updated -	**"0000000-9990000"** **"9999901"** and **"9999902"**
B. Direct Producer -	**"9990001-9999000"** **"9999901"** and **"9999902"**
C. Barge-In -	**"9999001-9999511"** **"9999901"** and **"9999902"**
D. SCS -	**"0000000-9990000"** **"9999901"** and **"9999902"**

SII Service Identity Index. This field is used to specify a particular service for which the customer is paying, e.g., Long Distance Service, International Direct Distance Dialed (DDD) Outbound, Alliance Teleconference, etc. Valid entries are **"0-255"**.

SINDEX Access Change Verification Sampling Rate Index value - This field specifies the rate at which calls will be sampled for access charge verification. Legal values are **"Blank"**, **"0"**, **"1"**, **"2"**, **"4"**, **"8"**, **"16"**, **"32"**, **"64". "Blank"** and **"0"** imply no verification recording. Otherwise, one call out of the number entered will be recorded.

Continued on next page

Keyword Glossary, Continued

SISETHER	Not Applicable - Entries: **"Blank"**
SISETHRR	Not Applicable - Entries: **"Blank"**
SIZE.abs	The size field specifies the number of bits to be changed in the translation word. This number can range from **"1-24"** (decimal).
SIZE.cdg	This number specifies the size of the subsequent digit entry that is being created. Legal inputs are: **"1"**, **"2"**, **"3"**. • A size of 1 will create a 16-word block (index values 0-14). • A size of 2 will create a 128-word block (index values 0-126). • A size of 3 will create a 1024-word block (index values 0-1022).
SKEW	The SKEW is a number from 0-300 that specifies the offset in seconds from Start Time when the count will be transmitted the first time from slave to master. Valid entries are **" 0-300"** or **"Blank"** if the Master Slave Indicator (MSI) is M or B.
SKSP	Not Applicable - Entries: **"Blank"**
SLC DATA	Signaling Link Complement (SLC) Translator Data - These fields contain the octal data from the SLC translator that is associated with the terminals of this Sub-member.

Continued on next page

Keyword Glossary, Continued

SME Sub-Member Equipage - The SME field indicates the equipage state of the individual subcategories defined in the SUBMEM field. Valid entries are:

- **UNEQ** - Unequipped
- **GROW** - First stage of growth
- **SGRO** - Special growth
- **OPER** - Operational

The states must be activated in succession. For example, if the unit was previously unequipped (UNEQ), the next stage must be GROW. The GROW stage must be followed by SGRO and SGRO must be followed by OPER. When removing the unit from service, the order must be followed in reverse. This field is completed only when changing Sub-Member Equipage.

SMTYPE Sub-Member Type - The SMTYPE defines what operational characteristics a unit is providing if the unit can provide multiple functions based on software programming. SMTYPE values are displayed for specific equipment; otherwise, the field will be **"Blank"**.

Continued on next page

Keyword Glossary, Continued

SNPA

Served Numbering Plan Area - This field identifies the area to be served directly by the 4ESS Switch.

There may be up to seven Numbering Plan Areas (NPAs) (in addition to the Home NPA [HNPA]) that can be served directly by the switch. The Served NPA (SNPA) designation is the area code assignment for that particular geographic area. Area codes may be in the range of **"200-999"**.

SOIP

Not Applicable - Entries: **"Blank"**

SP

Signal Processor - see MSN.

SPDI

Sponsor-Paid Dial-It (Dial-It calls paid for by the sponsor) - This field specifies the disposition of calls in the SPDI Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SPDI.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Keyword Glossary, Continued

SPN.tsg	Signal Ported Number (SPN) outgoing Trunk Subgroup (TSG) indicator - This TSG indicator indicates if the destination switch is capable of supporting the Local Number Portability (LNP). If **"Blank"** or **"N"** (the default), the destination switch is considered LNP capable and the Local Routing Number (LRN) will be signaled. If **"Y"**, the destination switch is NOT considered LNP capable and only the Ported Number will be signaled not the LRN.
SPUEQ	Not Applicable - Entries: **"Blank"**
SPUHV	Not Applicable - Entries: **"Blank"**
SPUN	Not Applicable - Entries: **"Blank"**
SPUSV	Not Applicable - Entries: **"Blank"**
SRVC.misc	Service - This field identifies the service whose parameters are being defined. Some services are identified by domain names. Legal inputs are: **"MEGC"**, **"NCAT"** for Non Call Associated Temporary Signaling Connection (TSC), **"INTV"** forWZ1 international voice, **"INTD"** for WZ1 international data, **"20-74"**, **"75"**, **"76"**, **"81"**, **"82"**, **"APN"**, **"INTO"**, **"INTT"**, **"SDNA"**, **"DEV"**, **"DED"**, **"INCD"**, **"IO56"**, **"IO64"**, **"ITD"**, **"IVT"**, **"NH0C"**, **"NH1C"**.

Continued on next page

Keyword Glossary, Continued

SRVC.trk Integrated Services Digital Network (ISDN) Service - This field specifies an ISDN service. Current services are:

- **SDN** - Software Defined Network
- **SDS** - Switched Digital Service
- **ILDS** - International Long Distance Service
- **MEGC** - MEGACOM*
- **M800** - MEGACOM 800
- **NOVA** - Dial-it NOVA
- **I800** - International 800.

SRVCT Service Type - This field is used to specify the service that the II digit pair or Originating Line Information (OLI) value is being used for. Valid entries are **"EAPOTS"** for Equal Access Plain Old Telephone Service [POTS]), **"SDN"** for Software Defined Network, **"OWATS"** for outwats, **"TRS"** for Telecommunications Relay Service), **"T800"** for translated 800 number, and **"CMC"** for cellular mobile carrier.

SSI This field is used to specify the Service Circuit System (SCS) Service Circuit Trunk Subgroup (TSG) from which an available trunk will be selected. Valid entries are **"Blank"**, **"FHA"**, and **"FHB"**.

Continued on next page

Keyword Glossary, Continued

SSN

Subsystem Number - This field specifies the Signaling System 7 (SS7) Signaling Connection Control Point (SCCP) Subsystem Number to be used for the identified Local Exchange Carrier (LEC) Service Switching Point (SSP) Type Of Service (TOS) on RC Form 626 or for the Network Call Denial (NCD) Network Control Point (NCP) destination on RC Form 632. Legal input values are: **"232-255".**

Note: For Advanced Intelligent Network (AIN), one SSN is assigned for a given office by using RC Form 810/Office Data Assembler (ODA) Form 406Z. The legal value for AIN SSN values are **"0-255"** excluding **2**, **3**, and **5**. TOS to Translation Type (TT) mapping is still contained in the TOS to TT mapping table created through RC Form 626/ODA Form 406Z, but the SSN value contained in this mapping table will not be used by call processing (in other words, the SSN field on RC Form 626/ODA Form 406Z will not be used by AIN call processing).

SSP.fen

Service Switching Point - This field specifies the disposition of calls in the SSP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is SSP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

Continued on next page

Keyword Glossary, Continued

SSP.misc	Service Switching Point - This field is used to specify if the SSP feature will be used. Legal input values are: **"N"** for No and **"Y"** for Yes.
SSP4DCID	Service Switching Point 4 Digit Carrier Identification Code - Entering **"N"** or leaving this field **"Blank"** will result in the 4ESS Switch only accepting 3-digit Carrier Identification Code from the Service Control Point (SCP) database for SSP Calls. Entering **"Y"** on this field will let SSP calls receive a 3-digit or a 4-digit Carrier Identification Code from the SCP database.
SST	Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

SSTOPT The Standby Stop Time becomes the active stop time when the standby announcement is activated. All announcements start in the standby state. The SSTOPT may be left **"Blank"** implying that the announcement runs continuously. If a time is entered, it must be a four-digit 24-hour clock time. The first two digits are the hour, ranging from **"00-23"**. The last two digits are the minutes, ranging from **"00-59"**. How the SSTOPT is interpreted depends upon the type of announcement. The SSTOPT is interpreted when audio is received.

For RC 604, the standby stop time is always interpreted as a time in the future and as a time occurring after the standby start time. How this field is treated for the various types of announcements is given below.

1. **Voice Storage System (VSS) Updated Announcement** - VSS may send a SSTOPT update which will replace the time on the Form 604. If VSS does not update the SSTOPT, then the entry on the Form 604 will govern the stop time. In this case, if the SSTOPT was **"Blank"**, the announcement will run continuously (or be replaced by a subsequent version). If VSS does not update the SSTOPT, and a SSTOPT was entered on RC Form 604, then the entered time will be interpreted as the time when the announcement will stop.

2. **Direct Producer Updated Announcement** - When the direct producer accepts the first version of the announcement, the SSTOPT is checked. If it was entered, it is interpreted as the time when the announcement is to be stopped. Otherwise, it will run continuously (or be replaced by a subsequent version).

3. **Barge-in Announcement** - When a SSTOPT is entered, it is the time when the announcement is to stop. Otherwise it will run continuously. Audio is assumed to be present for barge-in announcements.

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Keyword Glossary, Continued

SSTRTT

The Standby Start Time is the time when the standby announcement changes into the active announcement. All announcements start in the standby state. The SSTRTT is divided into two fields; the first two positions are the hour field, ranging from "**00**-**23**". The last two positions are the minute field, ranging from "**00**-**59**". Valid entries are a 24 hour clock time or **"Blank"**. .

A non-blank start time (or stop time) is defined as being in one of two classes, current or future. Current implies the current time and the preceding 59 minutes. Future times range from current time to 23 hours in the future. When a current SSTRTT is entered, the announcement is activated as soon as possible. The SSTRTT is interpreted at the time when audio is received.

For RC 604, the SSTRTT is defined as follows for the three types of announcement:

1. **Voice Storage System (VSS) Updated Announcement** - When 4ESS Switch accepts and verifies a version of the announcement from VSS, the previous SSTRTT is overwritten by the SSTRTT which is always sent by VSS. In other words, for a VSS updated announcement, the SSTRTT is not used, but may be entered.

2. **Direct Producer Updated Announcement** - When 4ESS Switch accepts and verifies a version of a Direct Producer Updated Announcement, the SSTRTT input on the #Form 604 becomes the time to activate the announcement. If the SSTRTT was not input, the announcement is activated as soon as possible.

3. **Barge-in Announcement** - The **Standby Start Time** must be entered and defines when the announcement becomes active Audio is assumed to be present for barge-in announcements.

ST

State - see TSG

Continued on next page

Keyword Glossary, Continued

ST1

SDX Type 1 (ST1), ST2, Index 1 (IDX1) and IDX2 - These fields can be used to request the routing treatment of a code in a Subsequent Digit Index (SDX) block. ST1 and ST2 specifies the SDX type and IDX1 and IDX2 specify the index into the SDX block. Two levels of routing treatments can be requested. The index must be input with the type (e.g. ST1 and IDX1 must be input together). Valid ST1/ST2 values and IDX1/IDX2 indexes are:

Input	Value	Description
• **CSRT**	0 to 1022	Carrier Specific Routing
• **DC**	0 to 15	Digit Count
• **DRTC**	0 to 15	Data Rate Transfer Capability
• **FAI**	0 to 1022	Foreign Administration ID
• **FPR**	0 to 1022	Facsimile Preferred Routing
• **GSDN**	0 to 1	Global Software Defined Network (SDN)
• **IPR**	0 to 1022	Integrated Services Digital Network User Part (ISUP) Preferred Routing
• **MTS**	0 to 63	Multiple Treatment Screening
• **RSI**	0 to 126	Route Selection Index
• **SDN**	0 to 1022	Software Defined Network
• **TPC**	0 to 102	Transport Capability
• **V31K**	0 to 102	Voice or 3.1khz

START DATE

The Start Date is the date on which the Cut-Through or Televote application is to be activated. The Start Date is composed of the Start Month, Start Day, and Start Year. The Start Month has a valid entry of **"1-12"**. The Start Day has a valid entry of **"1-31"**. The Start Year has a valid entry of **"00-99"**.

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Keyword Glossary, Continued

STATE.misc This field specifies the state of the area identified for screening. Although the intended use of this field is to specify an actual state identification, there is no restriction against using this field to assign areas that are even smaller than actual Local Access Transport Area (LATA)/state areas. Thus certain groups of Trunk Subgroups (TSGs), associated with certain groups of codes, can be treated independently from other TSGs and codes within an actual LATA/state area. Legal inputs are two alphabetic characters.

STATE.utp Alarm State of Scan Point - This field identifies the condition of the SP scan points when an alarm situation occurs. Enter an "**O**" to signify an Open Alarm condition; enter a "**C**" to signify a Closure.

STATIC A/B Static A/B enabled for this DS1 (4E24>). Entries are **"Blank"**, **"Y"** for Static A/B -56R or **"N"** for 64 clear channel.

STATUS Not Applicable - Entries: **"Blank"**

STBI.tsg Not Applicable - Entries: **"Blank"**

STERM Not Applicable - Entries: **"Blank"**

STOPD Stop Day - see STOP DATE.

STOP DATE The Stop Date is the date on which the Cut-Through or Televote application is to stop. The Stop Date is composed of the Stop Month, Stop Day, and Stop Year. All three fields must be specified, or all three may be **"Blank"**. Blank fields imply that the service is to be available on a permanent basis until removed by a Recent Change (RC). If the Stop Date fields are not all **"Blank"**, the stop time field must have an entry. Stop Month has a valid entry of "**1-12**". Stop Day has a valid entry of "**1-31**". Stop Year has a valid entry of "**00-99**".

Continued on next page

Keyword Glossary, Continued

STOPM	Stop Month - see STOP DATE.
STOPT	The daily Stop Time field specifies what time within 24 hours following the Start Date that the Cut-Through or Televote function will stop. For successive days thereafter the Cut-Through or Televote service is stopped within each 24-hour period at the Stop Time until the Stop Date is reached. The Stop Time must be specified if the Stop Date has been specified. If the Stop Date has been left **"Blank"**, then the Stop Time can be specified or left **"Blank"**. If the Stop Date is left **"Blank"** but not the Stop Time, the Cut-Through service will cycle on and off each day (after the Start Date). The first two digits of the field representing Start Time hour is **"0-23"**. The last two digits representing minutes is **"0-59"**. If the Stop Time is specified, the value must be later than the Start Time when the Start and Stop Dates are equal.
STOPY	Stop Year - see STOP DATE.
STRTD	Start Day - see START DATE.
STRTM	Start Month - see START DATE.
STRTT	The Start Time field specifies what time within a 24-hour period following the Start Date that the Cut-Through or Televote function will start. The Start Time field is composed of four digits, two for hours, and two for minutes. A **"Blank"** field is not permitted. The first two digits of the field representing the Start Time hour must be **"0-23"**. The last two digits representing the minutes of the Start Time must be **"0-59"**. For Start Date equal to Stop Date, the Start Time must be less than the Stop Time.
STRTY	Start Year - see START DATE.

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Keyword Glossary, Continued

SUBMEM.utp Sub-member - The SUBMEM field defines the Sub-Member Equipage. Each of the unit types has specific entries to identify individual subcategories. The numbers in parentheses indicate the valid range for that character(s). There may be no blanks or spaces embedded in the entry. For example, the Sub-Member entries for TSIF are:

TOPRTEQ0,	TOPRTEQ1,	TOPRTEQ2,
TOPRTEQ3,	TOPRTEQ4,	TOPRTEQ5,
TOPRTEQ6,	T1PRTEQ0,	T1PRTEQ1,
T1PRTEQ2,	T1PRTEQ3,	T1PRTEQ4,
T1PRTEQ5,	T1PRTEQ6.	

SUBMEM.utp (cont'd) This field is completed only when changing Sub-Member Equipage. It must be left blank when changing Member Equipage.

UTYN	VALID SUBMEN ENTRIES
DIF	DIUEQ (0-31), DIUSPQ (A&B)
DT	DTUEQ (0 - 7)
DUS	None
EST	ESEQ (0 - 14)
FS	FSEQSME (0 - 3)
GRID	None
MAS	MAUEQ (0 - 1)
MFS	None
PUBB	CKHEQ (0 - 7)
PUC	PUCUEQ (0 - 29)
SCS	SCUEQ (0 - 15)
SP	BFE, CFE, MDNBLK (0 or 1), MSNBLK (0 or 1) SP2EQ (0 - 3), TDNBLK (0 - 3), TSNBLK (0 - 3)
TAC	TMGRP (0 - 15)
TGR	TMGRP (0 - 15)
TMS	C (0 or 1) MBLK (0 - 3), C (0 or 1) GRWTH
TMSP	C (0 or 1) MBLK (0 - 3), C (0 or 1) GRWTH
TPOS	None
TSI	T (0 or 1) PRTEQ (0 - 6)
TUC	None
VIF	VIUEQ (0 - 6)
XTSI	XTSID3U (0-7, 6 & 7 are Spare)

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Keyword Glossary, Continued

SUBMEM.ver	Sub-member - The SUBMEM field further defines the equipment. Each unit type has a specific index number assigned for every associated pair of Sub-Member Equipage bits. A list of all Sub-member names and associated index number, with a short description of each one, is shown in Div. 8, Sec. 7b. Valid range of the index number is **"1-224"**.
SUBMEMBER NUMBER EQUIPAGE	Enter **"P"** for Present if the Sub-member Number is to be operational at Office Data Assembler (ODA) load time, or **"F"** for Future if the Sub-member Number is to be made operational by a growth procedure at some time in the future.
SUBTST	Subtranslator Status - This field, used on Verify output #5e, is used to indicate if the entire subtranslator is unassigned for the specified Routing Data Block Index (RDBI) and QTY. If the subtranslator is unassigned, **"UNA"** will appear in this field, otherwise the field will be **"Blank"**.
SUPBLK	Not Applicable – Entries: **"Blank"**
SVAST	Service Assist - This field is used to specify the maximum number of calls that can be placed in a service assist state at any given time. Enter **"0-1023"**, or leave the field **"Blank"** (in which case **"0"** is assumed). It should be noted that a call in the service assist state ties up a call register. Thus, the number entered in this field plus the number entered in the AHRNA, CPACR, QOB, and RCVHL fields must be less than the number entered for Call Registers (CR) on the 406C Form (in most cases, significantly less so that normal call processing is not affected). A number greater than zero is required in all offices serving as a Direct Services dialing (DSD) Action Point (ACP).

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Keyword Glossary, Continued

SVCT	Service Type - This field is used to specify the function for which the Service Circuit System (SCS) sub-unit is being used. Valid entries are **"0-7"**. An entry of **"0"** designates an Service Circuit Unit (SCU) with the Mass Announcement System (MAS)/Final Handling Announcement set. An entry of **"1"** designates an SCU with Network Services Complex (NSCX) announcement set S. An entry of **"3"** designates an SCU with Advanced Intelligent Network (AIN) announcement set. An entry of **"4"** designates an SCU with announcement set B (music on hold). An entry of **"5"** designates an SCU with announcement set D. Entries **"2"**, **"6"**, and **"7"** are currently unused.

Keyword Glossary

TAN

Trunk Appearance Number - Each block of trunks may be assigned a series of TANs. The TAN defines a fixed relationship to the switching equipment. The first TAN will be associated with the First Traffic Number in the block (FTFN) and the remainder of the TANs will be sequentially assigned to the remaining trunks in the block.

- **TSI** - Time Slot Interchange - The Time Slot Interchange (TSI) frame number is assigned in this field. Valid entries are **"0-63"**.
- **SPC** - Switching Permuting Circuit - The SPC identification may be **"0"** or **"1"**.
- **LVL** - Level - The TSI Level appears in this field. Valid entries are **"0"** to **"6"**. For D3U applications, valid entries are **"0-7"** (4E21>).
- **FTS** - First Time Slot - The FTS indicates the specific appearance of the TAN. Valid entries are **"001-120"**; however, the FTS plus the Quantity of Trunks (QTRK) must be less than 122 for each line. For D3U applications (4E21>):
  - When the LVL is **"0"**, FTS is **"1-127"**.
  - When the LVL is **"1-6"**, FTS is **"0-127"**.
  - When the LVL is **"7"**, FTS is **"0-112"**.

TANS RESERVED

Indicates whether the Trunk Appearance Numbers (TANs) associated with the In-Band Unit (IBU) should be reserved. Entries are **"Blank**, **"N"**, or **"Y"**.

TB INDEX

Trunk Block Index - A Trunk Block contains storage to identify 24 Trunk Appearance Numbers (TANs). This field specifies which Trunk Block storage cell is being used for the identified TAN. Broad Band circuits require that the first trunk in an H0 circuit (6 trunks) must be in Trunk Block positions 1, 7, 13, or 19. H11 circuit (24 trunks) must be in trunk Block position 1. B channel circuits (signal trunk) can be in any position. Legal values for the field are **"1-24"**.

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Keyword Glossary, Continued

TBMUF Not Applicable - Entries: **"Blank"**

TBSAB Not Applicable - Entries: **"Blank"**

TBSHC Trunk Block Status and Headcell Area - The TBSHC area contains Trunk Block Status (TBS) registers, Trunk Subgroup Headcells (TSGHC) and a pool of storage for the growth of the two. TBSHC is located on duplex Call Store (CS).

The TBS registers contain busy/idle bits for each of the 24 possible trunks in a trunk block plus the linkage to the next trunk block in the subgroup. TBS registers are only associated with trunk blocks that have assigned trunks.

TSGHCs are dedicated to Trunk Subgroups (TSGs) on a one-to-one basis. These headcells contain dynamically updatable counters and indicators for the TSGs.

The growth pool is available for either use. Unused words are seized as needed and used for TBSs or TSGHCs. Enough TBSHC space should be reserved to care for requirements for TBS registers and TSGHCs throughout the engineering period. TBS registers require two words for each trunk block. TSGHC registers require 15 words per TSG. However, note that TBS sub-translators are allocated in 1024 word blocks and TSGHC sub-translators are allocated in 480 word blocks. The minimum number of words for the TBSHC area is 1504 words. This is enough space for 32 TSGs for one TSGHC subtranslator and one TBS subtranslator for up to 512 trunk blocks (i.e, minimum words = block size + 1024). The maximum figure for a TBSHC area is 77824. This represents the theoretical maximum of 4095 TSGs and 8191 trunk blocks (i.e., maximum words = (4096/32 X block size) + (8192 X 2)). Because the TBSs and TSGHCs share a common area, it can be smaller than if separate areas were provided. However, when it is depleted, the addition of new TSGs and new trunk blocks are both inhibited.

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Keyword Glossary, Continued

TBSHC (cont'd)

The indexing scheme searches for TBS (1024 word) subtranslator from the top of the TSGHC area and searches for TSGHC 480 word sub-translators from the bottom of this area. Growth of the TBS area is dependent on trunk block growth (in simplex Call Store [CS]) and, therefore, is more related to trunk growth. TSGHC area growth is dependent on TSG. Attention should be given to revisions of the trunk forecasts which may cause unexpected growth. If spare duplex CS is available, it would be advisable to create some contingency space for increasing the size of the TBSHC area. Space for this area is dependent upon the availability of unassigned duplex CS and its associated File Store space for Measurement Class 5 Holding Registers. Questions regarding TBSHC size should be resolved with the Equipment Engineer.

TC

Teleconferencing - This field specifies the disposition of calls in the TC Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is TC.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

TCANIFP

Teleconferencing Automatic Number Identification (ANI) Fraud Prevention. This field specifies if TC ANI fraud controls are to be used. Valid entries are **"Blank"** or **"N"** to deactivate fraud control and **"Y"** to activate fraud control.

TCC.tsg

Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

TCNTR

Televote Counter Index is a number between **"0-127"** assigned to the slave Televote application for the Direct Distance Dialing (DDD) number if Master Slave Indicator (MSI) is **"S"** or **"B"**. This field is **"Blank"** if MSI is **"M"**. Up to 64 entries may be specified by using RC Form 608.

TCRB

Teleconferencing Call Record Blocks - The Teleconferencing (TC) feature uses duplex Call Store (CS) memory in the 1A Processor to keep conference and per conferee data for call recording (billing) purposes. This data is eventually transferred to the office Automatic Message Accounting (AMA) recording facility. The size of each block is 256 words. One block is needed for each Network Services Complex (NSCX) equipped for TC. This memory is contiguous, ordered by complex number (i.e., if six TC equipped NSCXs in an office are numbered **"0-5"**, then six blocks are required. However, if the highest TC-NSCX number is eleven, then twelve blocks are required). Enough blocks must be allocated to account for the highest (+1) TC complex number expected to be added to the office. An office may have up to 64 TC NSCXs. Valid entries are **"0-64"** or **"Blank"** .

TDAS1A

Traffic Data Acquisition System (TDAS) 1A tape dial-up -TDAS data can be stored on 3B disk or 1A tape. TDAS data will always be written to 3B disk and an Office Data Assembler (ODA) switch determines whether to store to 1A tape. Users will access the TDAS data via dial-up lines into the processor on which the data is stored. The purpose of storing TDAS data to 1A tape is to ease retrofit for users who must change from accessing the data from the 1A, using a 1A protocol, to accessing the 3B with a new protocol. Eventually all users will access TDAS data from 3B disk and the data will not have to be stored to 1A tape. If TDAS data is to be written to tape, then this field must be **"Y"** for Yes. If access is to the 3B disk, this entry is **"N"** for No. Valid entries are **"Y"** or **"N"**.

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LUCENT TECHNOLOGIES PROPRIETARY
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Keyword Glossary, Continued

TDG DIGROUP1 - DIGROUP5

Type of Digroup. Valid Entries are :

- "**Blank**"
- "**1**" for SF+ZCS (SM1B equivalent)
- "**2**" for SF+B8ZS (RB or 64CC as determined by TSG signaling char.)
- "**3**" for SF+ZCS (International CCITT5)
- "**4**" for ESF+B8ZS (International CCITT5)
- "**5**" for ESF+ZCS (64kb restricted)
- "**6**" for ESF+B8ZS (RB or 64CC as determined by TSG signaling char.)
- "**7**" for ESF+B8ZS (64CC only - not RB)
- "**8**" for ESF+B8ZS (64CC only, with PCC)

TDIU

Type of Digital Interface Unit (DIU). The OLD and NEW TDIU values are entered. Legal values for TDIU are "**9-21**", "**24-27**", "**29-41**", and "**44-48**".

TERM.trk

Terminal Number - The one or two Voice Frequency Link (VFL) trunks assigned to this Trunk Subgroup (TSG) will be associated with a signal terminal. Valid inputs are "**0-255**".

TERM.utp

Terminal Group Rack (TGR) Frame Terminal Number - This field is preprinted (00-15) with the maximum allowable 16 Terminal Numbers per TGR Frame Member Number.

TERM NUM

Mate Terminal Number - This field indicates the number of the back up terminal associated with this sub-member. Valid entries are "**0-15**".

TERM USE

Usage of Sub-member Terminal - This field indicates the type of program in the Terminal Group Rack (TGR) terminal. Valid entries are "**DOM**" (Domestic) and "**INTL**" (International).

Continued on next page

Keyword Glossary, Continued

TEXMD Timer for Exit Message Delay. This field is used to specify the amount of time, in milliseconds, to delay before sending an EXIT message backwards (on Integrated Services Digital Network User Part [ISUP] trunks) from an Access Tandem (AT) or Service Switching Point (SSP) office to the originating End Office (EO) when an initial address message has been sent to the Toll Office. The time interval is specified in increments of 10 milliseconds. Enter a number between **"10"** and **"120"** (corresponding to 100 - 1200 milliseconds). This field may be left **"Blank"** in which case it will default to a value of **"100"** (corresponding to 1000 milliseconds).

TFG Type of Feature Group - This field is used to specify whether the Type of Access for this Trunk Subgroup (TSG) is tariffed under Feature Group B, Feature Group C, or Feature Group D. An entry can only be made if the FENCLASS is ACCESA. If FENCLASS is ACCESA, a **"B"**, **"C"**, or **"D"** must be entered, corresponding to Feature Groups B, C, or D, respectively. FENCLASS is not ACCESA, this field must be left **"Blank"**.

TG Trunk Group - This designation identifies a particular group of Centralized Automatic Message Accounting (CAMA) trunks. The information is in the form of an abbreviated Circuit Identification Number (CIN). TOWN, State (ST), Building (BL), and Far Building Subdivision (FBS) identify the far end of the Trunk Group. NBS specifies the local termination of the trunk. The full near end definition is not required because everything except the near building subdivision will be the same. All inputs relating to this Trunk Group must have the same exact combination of characters for identification. The far end of each Trunk Subgroup in each CAMA Trunk Group must be in either the home or one of the served NPAs. This definition is found in the FENPA field of the Trunk Subgroup (TSG) characteristics.

TGORDER Trunk Subgroup Order - This field specifies the position of the Trunk Subgroup (TSG) within the Routing Data Block (RDB).

THW Type of Hardware. Valid entries are: **"Blank"**, **"1"** (SM1B), **"6"** (SM6), **"7"** (SM7), **"9"** (SM9), or **"10"** (SM10).

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Keyword Glossary, Continued

THW5 Type of Hardware for Digroup5. Valid entries are: **"Blank"**, **"1"** (SM1B), , **"9"** (SM9), or **"10"** (SM10).

TI Terminating Toll Switch Identifier - see TTSNAME.

TL Terminate and Leave status - This field indicates which Trunk Assignment Numbers (TANs) are in the terminate and leave condition. Trunks that are in the terminate and leave state are blocked from service. The TL state is controlled by the "ORD:TL;RLS:CIN ..." message.

- **Blank** - Neither TAN listed on the line are in the TL condition.
- **L** - The left TAN listed on the line is in the TL condition.
- **R** - The right TAN listed on the line is in the TL condition.
- **B** - Both TANs listed on the line are in the TL condition.

Continued on next page

Keyword Glossary, Continued

TNPA

Terminating Numbering Plan Area - For code group forms, this field identifies the specific Numbering Plan Area (NPA) to which a 7-digit inter-area call may be directed. Any NPA (including home and served) may be entered in this field. The range is **"200-999"**.

NOTE: Even though the call may be originated on a 7-digit basis, the 4ESS Switch will prefix the destination area code (before translation) for all NPAs except the home NPA. In addition to being specified on the RC Form 308 each terminating office code must also be listed on an RC Form 301 or 302 as the DEF digits, with the TNPA specified as the ABC digits. For Centralized Automatic Message Accounting (CAMA) forms, this field identifies the area code associated with the office codes listed on this form. When a local calling area crosses an NPA boundary, more than one terminating NPA may be represented by a given profile index. In this case, separate RC 402 Forms with the same profile index are prepared for each NPA (up to four). Valid entries range from "200-999".

For RC Form 403, this field lists the 3-digit codes that are to be blocked when received as the called (terminating) area code component of a CAMA call. Blocked codes will be directed to the "Unauthorized CAMA" announcement. Valid entries range from **"200-999"**.

TNSD

Access Tandem Transit Network Selection Digits This field is used to indicate whether the digits specified under the NX/ZZ Digit field are NX or ZZ digits. NX digits are the signaling digits in the 1NX sequence used for international Equal Access (EA) signaling. ZZ digits are the signaling digits in the 0ZZ-XXX EA signaling sequence required to route calls through a tandem office. Valid entries are **"NX"** or **"ZZ"**.

TNSI

Access Tandem Transit Network Selection Index - Valid entries are **"0-15"**.

Continued on next page

Keyword Glossary, Continued

TNSTYP Access Tandem Transit Network Selection Type. This field is used to specify the type of call associated with the given Transit Network Selection (TNS) value. Legal values are **"IOT"** for International Outbound Transport, **"GSDN"** for Global Software Defined Network (SDN), or **"INV"** for Invalid.

TOC Type Office Connecting - This field is used to specify the type of office to which the Integrated Services Digital Network User Part (ISUP) trunks connect. Enter **"LCC"** if the trunks are Local Carrier Connecting.

TOFC Terminating Office Code - For code group forms, TOFC identifies the NXX (200-999) office code that may be dialed on a 7-digit basis from the Originating Numbering Plan Area (ONPA) to the Terminating NPA (TNPA). This list will contain all of the office codes that can be reached by 7-digit inter-area dialing between the ONPA and TNPA.

NOTE: If the ONPA is the home NPA the TOFC listed on this form may not be entered on RC Form 300. If the ONPA is entered on RC Form 307 as a served NPA the TOFC listed on this form may not be entered on an RC Form 301 or 302 as the DEF digits for that Served NPA (SNPA).

For Centralized Automatic Message Accounting (CAMA) forms, the TOFC fields list the terminating office codes within a given NPA for a local call area definition. This definition is used to prevent local calls from being completed. The valid range for office codes is from **"200-999"**.

For RC Form 404, this field lists the 3-digit codes that are to be blocked when received as the called (terminating) office code component of a CAMA call. The range of valid entries is from **"200-999"**. The Office Data Assembler (ODA) system will automatically block codes in the range of **"000-199"**.

TO LATA Local Access Transport Area - This number specifies the LATA of the terminating area identified for screening. Legal inputs are: **"000-999"**.

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Keyword Glossary, Continued

TOS	This field specifies the Type of Service index value that is being assigned a CODE input. Legal input values are: **"Blank"** or **"0-31"**.
TOS1	Type of Service - This field is used on the 403Z Form to specify the Type Of Service associated with an Information Digit (II) and Originating Line Information (OLI) Advanced Intelligent Network (AIN) trigger.
TOS2	Type of Service - This field is used on the 403Z Form to specify the Type Of Service associated with an Information Digit (II) and Originating Line Information (OLI) Advanced Intelligent Network (AIN) trigger.
TO STATE	This field specifies the State of the terminating area identified for screening. Legal inputs are two alphabetic characters.

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Keyword Glossary, Continued

TOT

Type of Trunk - This field specifies the trunk type for this Trunk Subgroup (TSG). TOT entries of **"ETC"** for End Office or Tandem Connecting, **"LCC"** for Local Exchange Carrier Connecting, and **"OCC"** for Other Carrier Connecting are used for network interconnect. When these TOT values are used on Integrated Services Digital Network User Part (ISUP)
trunks, the Local Exchange Carrier (LEC) (Bellcore TR-317) and/or network interconnect version (TR-394) of the ISUP protocol is used. For all other allowed TOT values, the AT&T version of the ISUP protocol is used. The codes that may be entered are as follows:

- **CAMAA** – Centralized Automatic Message Accounting with Automatic Number Identification (ANI).
- **CAMAO** – Centralized Automatic Message Accounting with Operator Number Identification (ONI).
- **ETC** - End Office or Tandem Office Connecting - This Type of Trunk (TOT) is used to identify Equal Access (EA) or Intra Local Access Transport Area (IntraLATA) trunks at a switch serving as an Access Tandem (AT) or Service Switching Point (SSP) where the other end connects to an End Office. This TOT is also used to identify EA trunks between ATs or between an AT and a switch serving as an SSP. When the type of trunk is ETC, the signaling characteristic of the Trunk Subgroup (TSG) must be either Multifrequency Wink (MFWINK) or ISUP.
- **INTL** - International - International circuit with the far end outside of World Zone 1, and having signaling characteristics of International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5), CCITT6, International ISUP (INUP), and CCITT7 Telephone User Part (TUP).
- **INTLO** - International Overflow - International Overflow circuit (for overflow transit traffic) with the far end inside World Zone 1 in another International Switching Center (either the U.S. or foreign).
- **ITAND** - Inter Tandem - This TOT can be used to handle traffic between two tandem switchers in the same local calling area.

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Keyword Glossary, Continued

TOT
(cont'd)

- **ITOLL** - Intertoll - Intertoll trunks will carry toll traffic between class 4 or higher offices, or trunks dedicated to Inter-International Switching Center (inter-ISC) international overflow traffic. This includes final, full and high usage TSGs.

- **ITOP** - International Operator - International Operator tandem trunk from a No. 5 switchboard.

- **ITOPA** - International Operator Trunk A – International Operator Center 3C/3CL switchboards associated with Operator Bridged Access Trunks (OBAT). Each OBAT has two appearances on the A trunk and B trunk.

- **ITOPB** - International Operator OBAT B Trunk - Operator bridged access Trunk B from 3C/3CL switchboard.

- **LCC** - Local exchange Carrier Connecting - This TOT is used to identify EA trunks at an AT&T switch This identifier is also used for outgoing ISUP trunks from the Interexchange Carrier/International Exchange Carrier (IC/INC) to an SSP office. When the type of trunk is LCC, the signaling characteristic of the TSG must be either MFWINK or ISUP and the Equal Access Signaling (EAS) field must be marked as either "**E**", "**A**", "**D**" or "**R**".

- **MISC** - Miscellaneous - This designation is used for operator (except for inward, leave word or 2-way operator trunks), service circuit, and other miscellaneous TSGs.

- **NSDSD** - Network Services Frame Direct Services Dialing Capability - This identifier indicates trunks in this TSG are used to interface the Network Services Frame (NSF) for Direct Services Dialing Capability (DSDC) features. This TSG may only have two way Common Channel Interoffice Signaling (CCIS) characteristics. This TSG is not hunted via normal routing mechanisms, so there can be only one TSG bearing this TOT designation (all trunks connecting a 4ESS Switch to its DSDC equipped NSF must be in the same TSG).

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Keyword Glossary, Continued

TOT
(cont'd)

- **OCC** - Other Carrier Connecting - This TOT is used to identify EA trunks at a switch serving as an AT or SSP where the other end connects to an IC or INC switch. This type of trunk should be used when the signaling on the TSG is MFWINK or ISUP.
- **PBX** - Private Branch Exchange - This identifier indicates that the trunks in this TSG terminate on a PBX unit. If the PBX interface is via a 2-wire PBX Channel Unit (J98726ST), then the Incoming Signaling Characteristics (ISC) should be Dial Pulse Immediate (DPIMMED) and the Outgoing Signaling Characteristics (OSC) should be Dial Pulse Wink (DPWINK).
- **SECIT** - Secondary Intertoll - These trunks interconnect toll switching machines and manually operated toll or assistance switchboards for routing of operator completed traffic.
- **STC** - Single Trunk Customer - This TOT is used to designate a TSG for single trunk terminations not supported by a PBX. When TOT is STC, the following TSG fields must be **"Blank"** or **"N"** as allowed: ANISID, APS, BRL, CCIS2WRE, DNHR, DPC, EAS, FAR4E, PBXAW, PBXESGD, REV, RFA, RFMP, SAT, SINDEX, TFG, TSGBBC, WANISID, XCPA.
- **TAND** - Tandem - This code is used for 2-way tandem, tandem completing and tandem connecting TSGs.
- **TOLLC** - Toll Connecting or Completing - This code is used for Direct Distance Dialing (DDD) access, toll connecting or toll completing TSGs.
- **TSPS** - Traffic Service Position System - Enter this designation for TSGs associated with TSPS.

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Keyword Glossary, Continued

TRANSID

This variable length field identifies the translator in which the change is to occur. Valid entries are:

ADG	- Automatic Distribution Group
MSN	- Miscellaneous Scanner Number
MDN	- Miscellaneous Distributor Number
UT	- Unit Type

The Unit Type (UT) must be one of the following entries:

CCDS	- CCIS Data set Frame
CCT	- CCIS Transceiver
CS	- Call Store
DIF	- Digital Interface Frame
DT	- Digroup Terminal
DUS	- Data Unit Selector
EST	- Digital Echo Suppressor
FS	- File Store
IOUS	- Input/Output Unit Selector
MB	- Miscellaneous Frame B
MCF	- Miscellaneous Frame C
MFS	- Multifrequency Signaling
OA	- Office Dependent Alarm
PS	- Program Store
PUBB	- Peripheral Unit Bus Branching Frame
SCS	- Service Circuit System (4E17>)
SP	- Signal Processor
TGR	- CCIS Terminal Group
TMSP	- Time Multiplex Switching Port
TPOS	- Test Position
TSI	- Time Slot Interchange frame
TTFN	- Toll Terminal Frame (when N ranges from 0 to 7)
TUC	- Tape Unit Controller
VIF	- Voiceband Interface Frame
XTSI	- eXpanded Time Slot Interchange frame

TRIDX

Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

TSC

Temporary Signaling Connection - This field is used to indicate if the office can process TSC messages for either call associated or non-call associated TSCs. Enter **"Y"** if the office can process either of these messages, otherwise enter **"N"**.

TSG

Trunk Subgroup - This series of codes identifies a Trunk Subgroup. The TSG is a set of trunks within a Trunk Group having certain identical characteristics. A Trunk Group must have a common destination. In addition to group characteristics, a TSG also has common signaling characteristics, transmission delay, originating Numbering Plan Area (NPA), domain, traffic separation index and screening classes. The Trunk Group and TSG are identified by a series of codes that specify the near and far ends of the trunk. In most cases, the full near end definition is not required because it will always be the same. The Trunk Group designation is comprised of the town, state, building and building subdivision for the far end plus the near end building subdivision. A TSG is uniquely identified by adding a Base Traffic Number reference. Trunk Group and TSG definitions are available in the 4ESS Switch as abbreviated Circuit Identification Names (CINs). Common Language Location Identification (CLLI) codes must be entered in the fields that make up the Trunk Group definition. Rules for establishing these codes are covered in Lucent Technologies Practices 795-100-100. The code for any established office may be found by referring to the location code index in that same Lucent Technologies Practices. For non-message TSGs, the format does not include mnemonics for identifying the far end of the trunk. The TSG will mnemonically identify the type of trunk category by function. Asterisks are used in columns where no information is necessary. The following paragraphs describe the individual fields within a TSG definition.

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Keyword Glossary, Continued

TSG
(cont'd)

- **BTFN** - Base Traffic Number - The BTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG. Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG, but the BTFN remains as defined above. All non-message trunks have a BTFN of **"0000"**. For RC 104, the BTFN is stored as the starting point for a block of traffic numbers that range up to the limit originally defined on RC Forms 100, 101 and 102 when the TSG was first built. Other blocks of traffic numbers, either higher or lower in numerical value, may be assigned to this TSG, via Recent Change (RC) procedures. In this case the original BTFN would still apply, but the QTFN field would contain the number of new traffic numbers to be assigned following the First Traffic Number (FTFN) specified.

- **TOWN** - Town is a 4-character alphabetic field - The code must represent the bona fide town, city or location per Lucent Technologies Practices 795-100-100 for the far end of the TSG.

- **ST** - State - This field represents the state, province or foreign country in which the far end office is located. The code in ST must be a standard 2-character alphabetic combination. Valid standard abbreviations for states, Canadian provinces and foreign countries may be found in Lucent Technologies Practices 795-100-100.

- **BL** - Building - The BL field contains the office identity for the far end of a TSG. This code consists of either two alphabetic characters or two numeric characters. Independent Telephone Company locations are always designated by an **"X"** plus some alpha character in this field. If the TSG terminates in a customer's building and it is not necessary to identify that particular building, this code may be arbitrary.

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Keyword Glossary, Continued

TSG (cont'd)

- **FBS** - Far Building Subdivision - This field contains a code that identifies the internal building subdivision for the far end of a TSG. The code is a traffic, plant, or administrative assignment. It must be a 3-character alphanumeric combination. For non-message TSGs, this field is not required. Three asterisks are pre-printed on the form to provide an entry for this field.

- **NBS** - Near Building Subdivision - The NBS designation is the internal building identity for the near end termination of a TSG. It is always a 3-character alphanumeric code. This field should be left **"Blank"** if the NBS for this TSG is the same as the NBS assigned in the near office Circuit Identification Number (CIN) for the 4 ESS Switch. The Office Data Assembler (ODA) system will add the NBS on a default basis.

TSGBBC

Trunk Subgroup (TSG) Broadband Capability - Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), and Q.931 signaling systems allow for broadband switching. This entry specifies what type of circuits may be populated in this TSG. Valid entries are:

- **Blank** - 1 trunk circuit
- **0** - 1 trunk circuit
- **1** - 6 trunk circuits
- **2** - 24 trunk circuits
- **3** - Combined usage 1 and 6 trunk circuits
- **4** - Combined usage 1 and 24 trunk circuits
- **5** - Combined usage 6 and 24 trunk circuits
- **6** - Combined usage 1, 6, and 24 trunk circuits.

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Keyword Glossary, Continued

TSGBTFN

Trunk Subgroup Base Traffic Number - The TSGBTFN is a number in the range of **"0-9976"** that is part of the TSGs designation (which consists of the BTFN, TOWN, ST, BL, FBS, and NBS). The BTFN is the first traffic number in the first block of traffic numbers that is assigned to a TSG (e.g., on RC Form 100, 101 and 102). Additional traffic numbers, which are assigned in blocks of 24, either higher or lower in numerical value than the BTFN can be assigned to the TSG but the BTFN remains as defined above. All non-message trunks have a BTFN of 0000.

TSI MEMN

Time Slot Interchange (TSI) Member Number. Entries are **"0-63"**.

TSN

Trunk Scanner Number - A TSN identifies a universal scan point by its Signal Processor (SP), matrix, row, and column. Each of the fields are described as follows.

- **SP** - Signal Processor - This identifies the SP in which the scan point is located. Member Numbers for SPs range from **"0-31"**.
- **MML** - This field refers to the left or the right matrix of an SP. Valid entries are **"0"** for the left matrix and **"1"** for the right matrix.
- **ROW** - This field identifies one of 64 possible rows of points. A range of **"0-63"** may appear in this field.
- **COL** - This field identifies a particular point in a row of an SP. A number from **"0-15"** may appear here.

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Keyword Glossary, Continued

TST

Test Line - This field specifies the disposition of calls in the TST Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is TST.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

TSVC

Not Applicable - Entries: **"Blank"**

TT

Translation Type - This field specifies the Signaling System 7 (SS7) Translation Type to be used with the global title address so that the Signal Transfer Point (STP) can route the signaling message to the correct database. Legal input values are: **"0-255"**.

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Keyword Glossary, Continued

TTA Not Applicable - Entries: **"Blank"**

TTSI Not Applicable - Entries: **"Blank"**

TTSNAME Terminating Toll Switch Name - The TTSNAME is comprised of the town, state, building, far building subdivision plus an identifier. The first four fields are part of the Common Language Location Identifier (CLLI). The fifth field is used to distinguish TTSs with the same CLLI.

- **TOWN** - Town is a four character alphabetic combination representing the town, city, or location of the terminating toll switch.
- **ST** - State is a two character alphabetic code for the state, province or foreign country of the terminating toll switch.
- **BL** - Building is either a two character alphabetic or numeric code to identify the terminating toll switch.
- **FBS** -Far Building Subdivision code is a three character alphanumeric combination for internal building identification.
- **TI** - Terminating Toll Switch Identifier is a single alphanumeric code to distinguish one TTS from another TTS with identical CLLI codes.

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Keyword Glossary, Continued

TTYPE

Call Type Called Number Trigger Type for: the Advanced Intelligent Network (AIN) and/or the Access Tandem (AT) Local Number Portability (LNP) triggers. The following are valid field entries: **"A"** for AIN, or **"L"** for LNP, or **"B"** for both AIN & LNP.

TUBM

This field is an indicator used for International Consultative Committee for International Telephone & Telegraph Signaling System 7 (CCITT7) Telephone User Part (TUP) unsuccessful backwards messages. Legal values are:

Entry	Description
• **Blank**	
• **ADI**	- Address incomplete signal
• **CFL**	- Call failure signal
• **CGC**	- Circuit group congestion signal
• **SEL**	- Switching equipment congestion signal
• **SP1**	- Spare 1
• **SP2**	- Spare 2
• **SSB**	- Subscriber busy signal
• **UNN**	- Unallocated number

TVTSTP

This field is used to specify whether direct signaling messages for TELEVOTE are sent to the First Signal Transfer Point (1STP) or 2STP network. Enter 1STP or 2STP, as appropriate. Enter **"DCIS"** to designate that the direct signaling messages for TELEVOTE will be sent to the 2STP network using a high-speed link. If TELEVOTE does not apply to this office, then this field should be **"N"**.

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Keyword Glossary, Continued

TWOWAY

This field specifies whether calls in both directions must be screened. Enter a **"Y"** if both directions must be screened. Leave **"Blank"** if screening should only be performed from the originating Local Access Transport Area (LATA)/state area to the terminating area.

TYP.trk

This field indicates the type of nail-up transmission desired.

- **Blank**
- **C64** - 64 kbs Clear transmission
- **DCH** - D-Channel signaling connection
- **FSP** - Four State Pass Through transmission
- **LNK** - Signaling link connection
- **R56** - 56 kbs Restricted transmission
- **R64** - 64 kbs Restricted transmission

If this field is **"Blank"** and the trunk terminates on a Digital Interface Frame (DIF), the value of the field will be equal to **R64**. If this field is **"Blank"** and the trunk does NOT terminate on a DIF, the value of the field will be equal to **R56**.

TYPE

The announcement Type is entered in this field. Valid entries are as follows:

- **BI** - Barge-in announcement.
- **SCS** - Service Circuit System.

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UFH

Use Final Handling. This field is only valid when defining the Public Announcement System (PAS) Vacant Code announcement (SID = 9999901) or the PAS Inactive announcement (Service Identity [SID]= 9999902). Valid entries are **"Blank"**, **"Y"**, or **"N"**. If this field is **"Blank"** or **"N"**, then the announcement played will be the announcement for the entered Announcement Number (ANNUM). An entry of **"Y"** signifies that the call is to be final handled. The Final Handling Treatment (FHT) will be Vacant Mass Announcement System (MAS) Announcement if SID is 9999901 or Service Not Active if SID is 9999902.

UNSP

Unspecified - This field specifies the disposition of calls in the UNSP Service Category (SC), i.e., codes pointing to a Call Type (CT) for which the SC Item is UNSP.

This entry specifies whether calls in this category are denied, allowed or allowed with an Automatic Message Accounting (AMA) record made. Valid entries are:

- **R** - Calls allowed, make AMA recording
- **D** - Deny Calls in this SC
- **N** - Calls allowed, no AMA recording.

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Keyword Glossary, Continued

USE.trans

This field lists the functional usage of the assigned translator. The following is a list of the valid values of USE, in the verify memory output message and a description of the corresponding translator.

2 -TSN-TBN

3 -CORE TBN

4 - TBN CORE PACKED

5 - LACID DATA TRANSLATOR

6 - LACID TO TRUNK BLOCK TRANSLATOR

7 - CCIS TER,LABEL-TSN

8 - CCIS TSN-PRIM TERM,LABEL

9 - TOLL TERMINAL FRAME TO TAN

10 - SPACE ADMINISTRATION

11 - CORE TSG

12 - DISK TSG

13 - 3 DIGIT

14 - S DIG GRID TABLE

15 - S DIG CODE GROUP

16 - TORIG/SST/DNST/TDEST TO SII TRANSLATOR

17 - RDB

18 - ARDB

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Keyword Glossary, Continued

USE.trans (cont'd)

20 - CAMA SCREENING

21 - OLCIG

22 - TLCIG

23 - CINC

24 - CINLEN

25 - MSN

26 - MDN

30 - UT ENTRY

31 - INTERNATIONAL 1-DIGIT

32 - TSN TO MISCELLANEOUS

33 - TSN TO MISCELLANEOUS SUPPLEMENTARY

34 - TSN TO TERMINAL-LABEL SUPPLEMENTARY

35 - TERMINAL-LABEL TO TSN SUPPLEMENTARY

36 - DEDICATED TSI NAIL UP

37 - MAS ANNOUNCEMENT DATA

38 - BACKUP BAND DATA

42 - TASI-E-DLC TRANSLATOR

43 - TTS FOR DNHR

44 - SUPPLEMENTARY DIGIT TRANSLATOR

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Keyword Glossary, Continued

USE.trans (cont'd)

45 - FAR END NETWORK TRANSLATOR

46 - TSG TRANSLATOR

47 - TAN TO TAN ASSIGNMENTS TABLE

48 - ANT RECORD 1024 RTNG SUBT

49 - ACI SUBTRANSLATOR SPACE DPC SUBHEADTABLE

50 - ACI FIXED ASSIGNED HEADTABLE

51 - ACI SUBTRANSLATOR SPACE TSN-TO-AL

52 - ACI SUBTRANSLATOR SPACE DPC CONFLICT TABLE

53 - ACI SUBTRANSLATOR SPACE CIC SUBT HEADTABLE

54 - ACI SUBTRANSLATOR SPACE CIC SUBTRANSLATOR

55 - ACI SUBTRANSLATOR SPACE Q.931/SADC SUBT HEADTABLE

56 - ACI SUBTRANSLATOR SPACE Q.931/SADC SUBTRANSLATOR

57 - CUSTOMER ROUTING BLOCK TRANSLATOR

58 - CUSTOMER DATA BLOCK TRANSLATOR

59 - TSN TO CUSTOMER DATA BLOCK TRANSLATOR

60 - NUMBER SERVICES DATA BLOCK TRANSLATOR

61 - PROPORTIONAL ROUTING TRANSLATOR

62 - GRID HEAD TABLE

63 - GRID MASK HEAD TABLE

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Keyword Glossary, Continued

USE.trans (cont'd)

64 - CODE GROUP HEAD TABLE

72 - MANUAL SDX DISK SUBTRANSLATOR

73 - SAFER AND ALTERNATE DESTINATION CALL REDIRECTION

79 - EXPRESS CONNECT ACI SUBTRANSLATOR

95 - EMERGENCY ALTERNATE ROUTING ASSIGNMENT TRANSLATOR

96 - EMERGENCY ALTERNATE ROUTING ACTIVE TRANSLATOR

112 - ADVANCED INTELLIGENT NETWORK TRANSLATOR

114 - TAN TO USEC SUBTRANSLATOR

115 - USEC TO TAN SUBTRANSLATOR

116 - MULTIPLE CINC TRANSLATOR

124 - INTERNATIONAL 1-DIGIT ANNEX TRANSLATOR

125 - XTSI D3U ASSOCIATED DATA

126 - OCTCP OVERFLOW FOREIGN ADMINISTRATION INDEX LIST

127 - TSG CARRIER IDENTIFICATION PARAMETER LIST

129 - XTSI SPS TO TAN SUBTRANSLATOR

130 - AIN DIALED NUMBER TRIGGER GH LOOK-UP TRANSLATOR

132 - AIN DIALED NUMBER TRIGGER IJ LOOK-UP TRANSLATOR

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Keyword Glossary, Continued

USE.trans (cont'd)

135 - BACKWARD CODEGRP POINTER TRANSLATOR

138 - 6-DIGIT AIN/LNP CNT ASSIGNMENT 1024 WORD SUBTRANSLATOR

UT15DA

Not Applicable - Entries: **"Blank"**

UTYN

This field specifies the type of equipment whose growth is to be defined. The following acronyms may be entered.

DIF	-	Digital Interface Frame
DT	-	Digroup Terminal
DUS	-	Data Unit Selector
EST	-	Digital Echo Suppressor Terminal
FS	-	File Store
GRID	-	Alarm Grid
MFS	-	Multifrequency Signaling Frame
PUBB	-	Peripheral Unit Bus Branching Frame
SCS	-	Service Circuit System
SP	-	Signal Processor
TAC	-	Terminal Access Circuit
TGR	-	CCIS Terminal Group
TMS	-	Time Multiplex Switching Frame
TMSP	-	Time Multiplex Switch Pair
TPOS	-	Test Position
TSI	-	Time Slot Interchange
TUC	-	Tape Unit Controller
VIF	-	Voiceband Interface Frame
XTSI	-	eXpanded TSI

UTYP

Unit Type - This field specifies the type of equipment that may be associated with a Non-Trunk Program Index

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Keyword Glossary, Continued

UTYPE DATA Sub-member Data - These fields contain the octal data from the Terminal Group Rack (TGR) translator associated with this sub-member

UUD Not Applicable - Entries: **"Blank"**

UUDACT Not Applicable - Entries: **"Blank"**

VCR Voice Path Assurance Cancellation Rate - This field specifies the cancellation rate of the Voice Path Assurance (VPA) test. This allows savings of real time processing on Integrated Services Digital Network User Part (ISUP) calls using digitally protected carrier facilities. Valid entries are **"100"**, **"87"**, **"50"**, and **"0"**.

- **100** - 100% cancellation allowed on trunks between 4E-4E and 4E-5E when the entire facility is **"T"**- Carrier or other protected digital carrier.
- **87** - 87 1/2% cancellation on 4E - 1/1A ESS Digital Carrier Trunks (DCT) using protected digital carrier.
- **50** - 50 - 50% cancellation on 4E-Network Service Center (NSC) and 4E to other switches where the D-Bank is at the far end and the carrier facility is digitally protected.
- **0** - "0%" cancellation is the default or used when switches or facilities are analog or unknown.

Continued on next page

Keyword Glossary, Continued

VDCAP Not Applicable - Entries: **"Blank"**

VDESEP Not Applicable - Entries: **"Blank"**

VSSID Voice Storage System (VSS) Identity. This five digit field is the first part of the External Announcement Identity (EAID) code identifying the announcement. For announcements updated from a VSS, the VSS Identity is entered. Valid entries are **"1-99999"**. For barge-in announcements, direct producer updated announcements, or service circuit system announcements, the VSSID must be **"0"**. With VSS updated announcements, the VSSID must be a valid VSS client in the Dial Up Port translator.

WANISID Wide Area Telephone Service (WATS) Automatic Number Identification (ANI)/Service Identity (SID) requester value - This field specifies the type of calling party information which should be transmitted to the customer when Megacom* 800 type of traffic is delivered to the customer. Valid entries are:

- **Blank** - No information
- **NONE** - No information
- **ANI** - ANI only
- **SID** - SID only
- **PANI** - ANI or SID (prefer ANI)
- **PSID** - ANI or SID (prefer SID)
- **REQ** - Customer will use signaling to specify.

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WATSBN General Wide Area Telephone Service (WATS) Billing Number - Enter a 10-digit billing number for each Trunk Subgroup (TSG) which will be used to carry WATS type traffic. If an entry is not required, then the field must be "**Blank**" . Valid entries are **"0000000000-999999999"** and **"Blank"** .

WBNPT Not Applicable - Entries: **"Blank"**

WFATAMA Waiting for Answer Timing for Automatic Message Accounting (AMA) Recorded Calls - This field is used to indicate whether or not Waiting for Answer Timing (WFAT) should be enabled for AMA recorded calls. Disabling the WFAT capability will allow longer holding times before answer. An entry of **"Y"** specifies that WFAT will be enabled for AMA recorded calls. An entry of **"N"** specifies that WFAT will be disabled for AMA recorded calls.

WFATCTP Waiting for answer time-out value for Completion of Transmission Path. This feature allows Integrated Services Digital Network User Part (ISUP) outgoing calls in the Local Exchange Carrier (LEC) switches to setup the transmission path at times different from the receipt of the Address Complete Message (ACM). Since this feature holds a Call Register (CR) until answer time, a timer is provided to ensure that the CR will be released. The entry in this field specifies the maximum length of time spent in the waiting for answer state. The time interval is specified in 10 millisecond increments. Enter a number between **"100"** and **"8191"** (corresponding to 1 - 81.91 seconds). This field will initially default to a value of 3000 (30 seconds) for a LEC office if no record is submitted. If this feature is not being used, leave this field **"Blank"** .

Continued on next page

Keyword Glossary, Continued

WFATDIFHT Waiting For Answer Time-Out Final Handling Treatment For Domestic And International Calls. This field is used in conjunction with the WFATDOM, WFATINOR, WFATTERM, and WFATTRAN fields to specify the final handling treatment to be given when the waiting for answer timer expires. Valid entries are **"Blank"** , **"AR"**, **"BT"**, **"EA1"**, **"EA2"**, **"EA3"**, **"EA4"**, **"EA5"**, **"EA6"**, **"EA7"**, **"HW"**, **"IFF"**, **"INC"**, **"IVC"**, **"MCA"**, **"NCA"**, **"NCC"**, **NCD"**, **"NWC"**, **"OOB"**, **"ROA"**, **"SP1"**, **"SP2"**, **"T"**, **"VCA"**, **"DNN", "DOO"**, **"E01-E20"**, **"I01-I30"**, **"INF"**, **"ISB"**, **"LDV"**, **"LOB"**, **"LSA"**, **"NCB"**, **"NWN"**, **"OOA"**, **"OTS"**, **"R01-R10"**, **"S01-S19"**, **SNA"**, **"STO"**, **"TDN"**, **"UNN"**, **"VMA"**, and **"WAT"**. See the RDBFHT field for entry descriptions.

WFATDOM Waiting For Answer Time-out Value for Domestic Calls. This field is used to specify the maximum length of time spent in the waiting for answer state for domestic calls. Domestic calls which are not answered within the specified amount of time will be killed. The time interval is specified in increments of 10 seconds. Enter a number between **"1"** and **"127"** (corresponding to 10 - 1270 seconds). If unanswered calls should not time out, leave this field **"Blank"** .

WFATINOR Waiting For Answer Time-out Value for International Originating Calls. This field is used to specify the maximum length of time spent in the waiting for answer state for international originating calls. International originating calls which are not answered within the specified amount of time will be killed. The time interval is specified in increments of 10 seconds. Enter a number between **"1"** and **"127"** (corresponding to 10 - 1270 seconds). If unanswered calls should not time out, leave this field **"Blank"** .

WFATRNA Not Applicable - Entries: **"Blank"**

WFATSDI Not Applicable - Entries: **"Blank"**

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Keyword Glossary, Continued

WFATSSFHT Waiting For Answer Time-out Final Handling Treatment (FHT) for Local Exchange Carrier (LEC) Service Switching Point (SSP) international calls and Access Tandem Feature Group B calls. This field is used in conjunction with the WFATSSP field to specify the final handling treatment to be given when the waiting for answer timer expires. For Access Tandem (AT) FGB, the timer is fixed within the generic program and cannot be specified via form input. Valid entries are **"Blank"**, **"AR"**, **"BT"**, **"EA1"**, **"EA2"**, **"EA3"**, **"EA4"**, **"EA5"**, **"EA6"**, **"EA7"**, **"HW"**, **"IFF"**, **"INC"**, **"IVC"**, **"MCA"**, **"NCA"**, **"NCC"**, **NCD"**, **"NWC"**, **"OOB"**, **"ROA"**, **"SP1"**, **"SP2"**, **"T"**, **"VCA"**, **"DNN", "DOO"**, **"E01-E20"**, **"I01-I30"**, **"INF"**, **"ISB"**, **"LDV"**, **"LOB"**, **"LSA"**, **"NCB"**, **"NWN"**, **"OOA"**, **"OTS"**, **"R01-R10"**, **"S01-S19"**, **SNA"**, **"STO"**, **"TDN"**, **"UNN"**, **"VMA"**, and **"WAT"**. See the RDBFHT field for entry descriptions.

WFATSSP Service Switching Point (SSP) to International Carrier (INC) waiting for response timer. This timer is used during SSP call processing involving signaling to an INC. The timer specifies the amount of time to wait for an answer from an INC. Legal inputs are: **"Blank"** , **"0-127"**. Units are measured in 10 second increments. The default entry (**"Blank"**) is 30. A **"0"** input specifies that no timing function is to be performed.

WFATTERM Waiting For Answer Time-out Value for International Terminating Calls. This field is used to specify the maximum length of time spent in the waiting for answer state for international terminating calls at an International Switching Center (ISC). International terminating calls which are not answered within the specified amount of time will be killed. The time interval is specified in increments of 10 seconds. Enter a number between **"1"** and **"127"** (corresponding to 10 - 1270 seconds). If unanswered calls should not time out, leave this field **"Blank"** . If the office does not handle this type of call, leave this field **"Blank"** .

Continued on next page

Keyword Glossary, Continued

WFATTRAN

Waiting For Answer Time-out Value for International Transit Calls. This field is used to specify the maximum length of time spent in the waiting for answer state for international transit calls at an International Switching Center (ISC). International transit calls which are not answered within the specified amount of time will be killed. The time interval is specified in increments of 10 seconds. Enter a number between **"1"** and **"127"** (corresponding to 10 - 1270 seconds). If unanswered calls should not time out, leave this field **"Blank"**. If the office does not handle this type of call, leave this field **"Blank"**.

XCVR CONFIG

Transceiver Configuration - Type of miscellaneous service circuits the In-Band Unit (IBU) supports. There are two possible types:

- 16 Continuity Check Transceivers (CCT), or
- 12 CCTs plus 4 miscellaneous service circuits (i.e., digital Milliwatt, digital Milliwatt-10, Common Systems Tone Detector, and CCT test).

Entries are **"Blank"**, **"CCT"** (for 16 CCTs), or **"MISC"** (for 12 CCTs and miscellaneous circuits).

XTCHV

Expanded Time Slot Interchange (XTSI) Controller Hardware Version (4E22>) - Entries are **"Blank"**, or **"0-7"**.

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Keyword Glossary, Continued

XCPA

Transceiver (XC) Pad Adjustment - This item will be left **"Blank"** for non-Common Channel Interoffice Signaling (CCIS) trunks. If the Outgoing Signaling Characteristic (OSC) is equal to International Consultative Committee for International Telephone & Telegraph Signaling System 6 (CCITT6), Domestic CCIS (DOMCCIS), Integrated Services Digital Network User Part (ISUP), International ISUP (INUP), or CCITT7 Telephone User Part (TUP) enter a digit from **"0"** to **"3"** to indicate the pad setting for the CCIS transceiver. The correct entry can be determined by comparing the highest Inserted Connection Loss (ICL) value assigned to a trunk in this Trunk Subgroup (TSG) to the following table. The ICL can be obtained from the Circuit Order Layout Record (COLR) card.

DIGIT	ICL APPLICATION	PAD
• **0**	0 loss trunk	5 DB
• **1**	.1 to .8 loss	3.5 DB
• **2**	.9 to 1.7 loss	1.8 DB
• **3**	1.8 to 4.1 loss	0 DB

XTCN

Expanded Time Slot Interchange (XTSI) Controller Number (4E22>) - Entries are pre-printed with **"0-1"**.

XTCSV

Expanded Time Slot Interchange (XTSI) Controller Software Version (4E22>) - Entries are **"Blank"**, or **"0-7"**.

XTMTN

Transmission Terminating Test Number - If Transmission Terminating Test Type (XTMTT) is **"N"** for None, leave this field **"Blank"** . If a test is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the XTMTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location.

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Keyword Glossary, Continued

XTMTT

Transmission Terminating Test Type - If a transmission test is to be made directly to the far end of this Trunk Subgroup (TSG) in a terminating mode, enter a code to identify the type of test.

- **T100** - 100 code test - This test provides a quiet termination (600 ohms). In the 4 ESS Switch, the 100 code test provides a sequence of 1000 hz. milliwatt tone for 5.5 seconds, followed by quiet termination until disconnect.
- **T102** - 102 code test - The 102 test provides 1000 hz. milliwatt tone. The 4ESS Switch provides cycles of 9-second tone and 1-second quiet termination until disconnect.
- **T105** - 105 code test - This code provides access to a Automatic Trunk Measuring System (ATMS) responder. The 105 test permits automatic transmission loss and noise measurements in both directions.
- If no test is to be made, enter **"N"** for None.

XTSI FRAME INBAND ENABLED

Hardware generation for the Expanded Time Slot Interchange (XTSI) (4E24>) - Entries are **"Blank"**, **"N"** (for XTSI without in-band signaling), or **"Y"** (for XTSI with in-band signaling enabled).

XTSI MEMN

Time Slot Interchange (TSI) Member Number of an Expanded Time Slot Interchange (XTSI) (4E22>).
Valid entries are **"2-62"** - even numbers only.

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Keyword Glossary, Continued

XTSTN

Transmission Thru Switch Test Number - Add Presubscription Carrier. If Transmission Thru Switch Test Type (XTSTT)=N and this field is non-**"Blank"** , then the field is populated with the presubscription carrier selected by the customer to handle inter Local Access Transport Area (interLATA) calls; and intraLATA calls when intraLATA competition is allowed. It is a 4-digit number with a range of **"0000-9999"**, indicating the XXXX digits of the desired carrier. The presubscription carrier can only be populated for Incoming/Outgoing Signaling Characteristics (ISC/OSC) of Q931.

If XTSTT does not equal to N, and this field is non-**"Blank"** , then the field is populated with the transmission thru switch test number. If a test is specified, then a corresponding test number in the range of **"000-9999999"** must also be specified. This number will normally be a 3- or 7-digit test number associated with the test specified in the XTSTT field. Test numbers are derived locally and they may differ for each 4ESS Switch location. If XTSTT is Siemens' ATME A transmission test line (ATMA), the XTSTN should be specified as **"061"** for International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5) trunks or **"1"** for CCITT6, International Integrated Services Digital Network User Part (INUP), or CCITT7 Telephone User Part (TUP) trunks.

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Keyword Glossary, Continued

XTSTT

Transmission Thru Switch Test Type - If a transmission test is to be made in the thru switch (tandem) mode for this Trunk Subgroup (TSG), enter a code to identify the type of test.

- **ATMA** - Siemens' ATME A transmission test line - This entry provides access to an ATME A responder. The ATME A test permits automatic transmission loss and noise measurements in both directions for International Consultative Committee for International Telephone & Telegraph Signaling System 5 (CCITT5),CCITT6, International Integrated Services Digital Network User Part (INUP), or CCITT7 Telephone User Part (TUP) trunks.
- **T100** - 100 code test - This test provides a quiet termination (600 ohms). In the 4 ESS Switch, the 100 test provides a sequence of 1000 hz, milliwatt tone for 5.5 seconds followed by the quiet termination until disconnect.
- **T102** - 102 code test - The 102 test provides 1000 hz. milliwatt tone. The 4ESS Switch provides cycles of 9-second tone and 1-second quiet termination until disconnect.
- **T105** - 105 code test - This code provides access to an Automatic Trunk Measuring System (ATMS) responder. The 105 test permits automatic transmission loss and noise measurements in both directions.
- **N** - Enter **"N"** if no test is to be made OR if the presubscription carrier is to be populated.

ZZ

This field defines the ZZ signaling digits in the 0ZZ-XXX Equal Access (EA) signaling sequence required to route calls through a tandem office. Valid entries are **"00-99"**.

TG4 Page Inventory

This section is currently under development.

TG4 Page Inventory, Continued

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TRANSLATION GUIDE

TG-4

DIVISION 10

TRAFFIC/PLANT MEASUREMENTS

TRAFFIC/PLANT MEASUREMENTS

INDEX

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Section 1b	Traffic/Plant Measurements - 4E22 Generic Program
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Section 3	Traffic/Plant Measurements Output Messages
Section 4	On Site Operations Report System

GENERAL DESCRIPTION
4ESS SWITCH TRAFFIC/PLANT MEASUREMENTS
4E21 GENERIC PROGRAM

1. INTRODUCTION

1.01 The 4ESS Switch traffic/plant measurement system is concerned with measuring the effects of the telephone traffic presented to the switching system and the effects of the maintenance condition of the system as they effect service provided to the customer. These measurements are used by engineering to verify that existing equipage is adequate for present needs and to predict future needs. These measurements are also used by Network Management to determine the control actions necessary to efficiently utilize the nationwide network and to evaluate the effects of the various control strategies. Finally, these measurements are used to locate equipment irregularities and evaluate the effectiveness of the office's maintenance procedures as compared to other toll switching systems.

1.02 This section is primarily intended to define the counts and measurements provided by the traffic/plant measurement system. Each Measurement Subclass (MSC) and all Output Measurement Sets (OMS) associated with the MSC are defined and tabled for easy reference.

2. TERMS and DEFINITIONS

2.01 The basic terms used with the 4ESS Switch traffic/plant measurement system are described in the following paragraphs.

2.02 Count - A count is the instantaneous value of a counter that is available for change by the main information processing programs of the switch. (For example, the contents of the outgoing Peg Count register for a specific Trunk Subgroup).

2.03 Measurement - a measurement is a function of a count that is obtained from the switch. An example would be the total usage measurement for one hour on a specified Trunk Subgroup. The function may be a count accumulated over a prescribed interval or an arithmetic combination of several counts accumulated over a prescribed interval.

2.04 Peg Count - A Peg Count is the count of the number of times a given event occurs.

2.05 Peg Counter - A Peg Counter is a register to which the number one is added each time a given event occurs.

2.06 Occupancy Count - An occupancy count is the count of the number of devices of a specified class that are busy (in service - in use - occupied) at any particular instant of time.

2.07 Occupancy Counter - An occupancy counter is the register to which the number 1 is added each time a device of a specified class is made busy, and from which the number 1 is subtracted each time a device of the same specified class is made idle. This counter reflects the occupancy count of the device group.

2.08 Idle Count - An idle count is the count of the number of devices of a specified class that are available for use at any particular instant of time. The idle count of a device group subtracted from the total number of devices in the group is the occupancy count of the group.

2.09 Idle Counter - An idle counter is a register from which the number 1 is subtracted each time a device of a specified class is made busy and to which the number 1 is added each time a device of the same class is made idle. This counter reflects the idle count of the device group.

2.10 Seizure and Release Peg Counters - The seizure Peg Counter is incremented by one each time a device of a specified class is seized for a service function. The release Peg Counter is incremented by one each time a device of the same specified class is made idle. Seizure and release Peg Counters are used to maintain the occupancy count of a device group. The release Peg Count of a device group subtracted from the seizure Peg Count of the same device group equals the occupancy count of that device group.

2.11 Peg Count Measurement - A Peg Count measurement is the Peg Count accumulated over a known interval.

2.12 Usage Measurement - A usage measurement is the total accumulated time the devices of a specified class have been in services (in use-busy) during a prescribed interval. Scan intervals for usage measurements are 10, 100 or 180 seconds, and usage is output in CCS.

2.13 CCS - 100 Call Seconds - This is the standard measurement unit for usage measurements in the 4ESS Switch. For example, five trunks busy for 30 minutes (1800 seconds) would be equal to a total usage of 9000 seconds or 90 CCS.

2.14 Accumulating Registers - This register has the contents of a counter added to it periodically to form a cumulative total over a prescribed interval of time.

2.15 Holding Registers - Measurements are stored in holding registers for fixed time periods. Extended interval accumulation and/or outputting of the measurement occurs from these registers.

2.16 Extended Interval Accumulating Registers - The contents of a set of holding registers is summed in this register periodically to form a cumulative total of a measurement over an extended interval of time.

3. THE TRAFFIC/PLANT PROGRAM

3.01 The traffic/plant program routines can be divided into two classes, measuring routines and data collection routines. The measuring routines generate the data from which the various measurements will be obtained. Data collection routines process this data into the measurements required by the users. The basic interval that these two classes of routines use to perform their tasks is 15 minutes (900 seconds). This is the smallest measuring interval available to the users.

The measuring routines are actively obtaining data on the traffic presented to the 4ESS Switch and the equipment in the office during a 15 minute interval. This activity is called the measuring phase of the traffic/plant program's execution. During the next 15 minute interval, the data collection routines process the data obtained during the previous interval into measurements and prepares them for output. This activity is the collection phase of the traffic/plant program's execution. To insure that all data presented to the 4ESS Switch is measured, measuring routines for the present interval and collection routines for the previous interval must execute concurrently.

3.02 Measuring Routines - Practically all the 4ESS Switch programs must, at some time, adjust Peg Counters, occupancy counters and idle counters. These programs are classified as measuring routines. It is not economical to time the busy period of each device requiring usage measurements. The usage is estimated by periodically sampling the occupancy counter or idle counter of the device group, and compiling this count in an accumulating register (during the measuring interval).

This produces an estimate of the actual usage because the measurements obtained assume that the average number of devices that are busy at each sampling is equal to the actual average number busy.

The accuracy of this usage estimate is dependent on the scanning interval, the size of the device group, the average holding time of the devices in the group, and the traffic offered to the group. Since these characteristics vary widely among the devices requiring usage measurements in the 4ESS Switch, and because there are different accuracy requirements for the devices, two scanning intervals have been provided. These intervals are 10 seconds and 180 seconds. They have been chosen to provide the accuracy required while remaining compatible with the rest of the traffic/plant measurement system.

In addition to usage, it is necessary to accumulate certain Peg Counts. Normally, Peg Counters are allowed to accumulate for the entire 15 minutes of measurement interval. However, in some instances, the sizes of the Peg Counters are not large enough to contain counts accumulated over this long an interval. Consequently, it is necessary to recycle those periodically during the measurement interval and transfer the count to larger accumulating registers. To allow for the accumulation of idle, occupancy and Peg Counts, 10 and 180 second accumulating scan routines and accumulating registers are provided.

3.03 Data Collection Routines

A. Measurement Data Collection Routine

To prepare a measurement output, it is first necessary to obtain a data base. This data base has been generated by the measuring routines, and resides in the various counters and accumulating registers. At the end of each measurement interval, the measurement data collection routines will read these counters and accumulating registers, store their contents in one of four blocks of holding registers (on disk) and then recycle the counters and accumulating registers to zero. The holding registers now contain one hours data in four quarter hour blocks that will be further processed into the measurement output.

B. Measurement Data Extended Interval Accumulation Routines

For users requiring measurements accumulated over extended intervals (intervals greater than one hour) it is necessary to provide additional data bases. This is done by accumulating the required data in extended interval accumulating registers provided for these users. This accumulation function is performed by the measurement data extended interval accumulation routines.

C. Measurement Data Output Routines

The data from which an output is generated is contained in the holding registers and in the users' extended interval accumulating registers. The 4ESS Switch measurement data output routines will process this data into a format that can be easily interpreted by the users, and will output the data on TTY, magnetic tape, and/or eventually over Data Link.

4. TRAFFIC/PLANT MEASUREMENT CLASSES

4.01 The Measurement Class - To help with the internal manipulation of data, the set of all traffic/plant measurements has been partitioned into Measurement Classes (MC). Related measurements are, in general, assigned to the same MC. For example, all the Trunk Subgroup measurements make up one MC. Associated with the MCs where required, are blocks of accumulating registers and holding registers on disk.

These MCs, and the associated measurements, are primary sources of data for the Measurement Subclasses (MSCs) and the Output Measurement Sets (OMSs). The MCs are internal and, as such, are not specified for output on the traffic/plant measurement report. All measurements that are available may be scheduled for output by specifying the MSC and the OMS. The minimum output that can be specified is one OMS. All the measurements in that OMS will be output.

4.02 Measurement Class Counter Blocks (MC-CBs) - The counters needed to generate the required measurements for a device group sometimes reside in the memory that is associated with the particular group. For example, many of the Trunk Subgroup (TSG) counters are located in the TSG head cell. However, in many instances there is no associated memory or the memory is not adequate to accommodate all the required counters. For these cases, separate memory blocks are provided for the counters. These memory blocks are assigned to particular MCs and contain only counters used to obtain measurements in a given MC. The memory blocks reside in core and are called MC Counter Blocks (MC-CB). When an MC-CB is generic and fixed in length, the starting address of the block is Compool (predefined by the program). Otherwise, the starting address is contained in a one word head table.

4.03 Measurement Class Accumulating Register Blocks (MC-ARBs) - Accumulating registers must be provided where usage estimates are desired and where Peg Counters are too small to cycle over the complete 15 minute measurement interval. MC Accumulating Register Blocks (MC-ARB's) are provided for those MCs where many accumulating registers are required. Five traffic MC-ARBs are required in the 4ESS Switch. Those blocks that are generic in length reside in the Compool defined section of disk. Those blocks whose length are office dependent reside in the measurements section of disk and are accessed by head tables.

4.04 Measurement Class Holding Register Blocks (MC-HRBs) - At the end of each measurement interval (15 minutes), the measurement data in accumulating registers and counters is stored in holding registers, and then the counters and accumulating registers are recycled to zero. In general, the holding registers are organized into blocks on disk. The blocks are arranged such that the measurement data needed to generate all the measurements in a particular MC accumulated over one 15 minute interval, is contained in one block. These blocks are called MC Holding Register Blocks (MC-HRB). Those blocks, which are generic in length, reside in Compool defined sections (predefined by the Generic Program) of disk. Those blocks whose length is office dependent are located in the measurements section of disk and are accessed by head tables.

There are four MC-HRBs (MC-HRB-0, MC-HRB-1, MC-HRB-2 and MC-HRB-3) associated with each MC. These four MC-HRBs are identical in layout and are used so that, at any instant, they will contain measurement data obtained by the measuring routines during the previous four measurement intervals. This allows measurement data to be recovered for the previous one hour. This organization provides the flexibility needed to accommodate the users' requirements for various measurement accumulation intervals.

Any user may request measurements accumulated over intervals of 15 minutes, 30 minutes, 45 minutes, or 60 minutes without the need of providing accumulating registers since the holding registers effectively do this function. Further information on traffic/plant output schedules will be contained in the section dealing with input and output schedules.

4.05 The Measurement Subclass - To simplify measurement accumulation and output processing and to conserve memory, all the Measurement Classes (MCs) are divided into subsets (which may, or may not, be used to form some of the same measurements) called Measurement Subclasses (MSCs). Within an MSC, all the measurements associated with a particular facility or entity are called an Output Measurement Set (OMS). When a user requests an output of measurements, he identifies those measurements by specifying an OMS within a MSC. The MSCs are defined to meet the users' needs and each has a specific output format for each type of output device used. The subclasses used in the 4ESS Switch and their output formats are described later in this section. The set of OMSs a user wished to accumulate and output make up a traffic schedule. An output schedule is specified by the accumulation interval, the output times, and a set of OMSs. The schedule parameters are input by the user via various traffic input messages.

All the measurements appearing on a particular schedule are accumulated over the same interval. Since the data in the MC-HRB is sufficient to generate measurements accumulated over periods of up to one

hour (in multiples of 15 minutes), extended interval accumulating registers need only be provided when accumulation intervals of greater than one hour are required. To ensure the independence of the schedules requiring them, extended interval accumulating registers are provided for their private use. Only enough extended interval accumulating registers are provided to accommodate the OMSs that a given schedule is designed to output.

5. MEASUREMENT SUBCLASS (MSC) DEFINITIONS

5.01 MSC-OMS Definitions

In the following Tables (00-63), all measurements available are identified by MSC and OMS. Each measurement is specifically defined in the order that it appears in the particular MSC and OMS. Also included is Figure 1, a listing of all the MSCs and OMSs with their titles and the number of counts in each. Figure 2 is an alphabetized listing of all the TRAFFIC/PLANT measurements and their appropriate MSC and OMS.

TABLE 00

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

```
MSC 0  MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD
OMS 0   MF XMTR, IDTS RCVR, AND ODTMFWK XMTR QUEUE-DOMESTIC
              ATT      FAIL      TIME     SZRE     ABAN     USAGE    Q-WAIT
MF XT           0         0         0        0        -         0         -
IDTS            -         -         0        0        0         0         -
ODTMF           -         0         -        0        -         0         0

OMS 1  CCITT5 QUEUE-INTERNATIONAL
Q  ENTRY FAIL         0

OMS 2   MF, DTMF XMTRS, NSCX AND MASFH CKTS
               MF   DTMF XMTR      NSCX        MSFHA        MSFHB
SEIZURE         0           0           0           0            0
SVC USAGE       0           0           0           0            0
OVERFLOW        -           -           0           0            0
MTC USAGE       0           0           0           0            -

OMS 3   BLUE BOX FRAUD
  OVERLOAD  ATTEMPTS  DETECTED    PERSIST     MFR SZ    MFR CCS
         0         0         0           0          0          0

OMS 4  CCS MESSAGE TABLE
  BLUE BOX   OVERFLOW    TIMEOUT   SUCCESS
         0          0          0         0
  BLACK BOX FRAUD
    FEN   RF RCVD
      0         0
      1         0
      2         0
      3         0
      4         0
      5         0
      6         0
      7         0
      8         0
      9         0
     10         0
     11         0
     12         0
     13         0
     14         0
     15         0
    BBP CANCELLED
              0
```

Description of Measurements for MSC 0

OMS 0

MF Transmitter Queue Entry Attempts

Peg Count
(MF XT ATT)

This counter will be incremented by the number of MF calls for which checks are made to determine if there is room on the MF Transmitter Queue.

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

MF Transmitter Queue Entry Failure
Peg Count
(MF XT FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to be on the MF Transmitter Queue is greater than the number of non-maintenance busy MF transmitters (same count as MSC 11 OMS 5).

MF Transmitter Queue Entry Time Usage
(MF XT TIME)

This counter will be incremented by the number of MF calls that are awaiting the start dial signal after having sent a seizure on the outgoing trunk. This occupancy count will be used to generate the MF start dial usage measurement, the total amount of time MF calls wait for start dial after sending seizure.

MF Transmitter Queue Seizure Peg Count
(MF XT SZRE)

This counter is incremented by one when a Call Register (CR) is linked on the MF Transmitter Queue.

MF Transmitter Queue Usage
(MF XT USAGE)

After each 10 second scan, this counter is incremented by the number of Call Registers linked to the queue. This data will be converted to CCS units by the traffic program before output.

IDTS Receiver Dial Tone Delay Time
Peg Count
(IDTS TIME)

This counter is incremented every time a seizure is received on an IDTS trunk and we are unable to supply an IDTS receiver within 2 seconds.

IDTS Receiver Queue Seizure Peg Count
(IDTS SZRE)

This counter is incremented by one when a TR is linked to the IDTS Receiver Queue.

IDTS Receiver Queue Abandon Peg Count
(IDTS ABAN)

This counter is incremented by one each time the TR of a call that is abandoned is unlinked from the IDTS Receiver Queue.

IDTS Receiver Queue Usage
(IDTS USAGE)

After each 10-second scan, this counter is incremented by the number of trunk registers linked to the queue. This data will be converted to CCS units by the Traffic Program before output.

ODTMF Transmitter Queue Entry Failures
(ODTMF FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the DTMF Transmitter Queue, plus the number of calls waiting to be on the DTMF Transmitter Queue is greater than the number of non-maintenance busy DTMF Transmitters.

ODTMF Transmitter Queue Seizure Peg
Count
(ODTMF SZRE)

This counter is incremented by one when a Call Register is linked to the DTMF Transmitter Queue.

ODTMF Transmitter Queue Usage
(ODTMF USAGE)

After each 10-second scan, this counter is incremented by the number of Call Registers linked to the queue. This data will be converted to CCS units by the Traffic Program before output.

ODTMF Transmitter Queue Wait
(ODTMF Q-WAIT)

This counter is incremented when a Call Register is placed in a waiting to queue state and decremented when a Call Register is taken off the state.

OMS 1

CCITT No. 5 Queue Entry Failure
Peg Count
(Q ENTRY FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to be on the MF Transmitter Queue is greater than the number of non-maintenance busy MF Transmitters. This counter corresponds to the Domestic MF Transmitter queue Entry Failure. The MF Transmitter Queue is shared by both Domestic and international traffic.

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

OMS 2

MF Transmitter Seizure Peg Count
(MF SEIZURE)

This counter is incremented by one when an idle MF Transmitter is made service busy. This is done by writing a service busy state code in the Transmitter Trunk Register (TR). The MF Transmitter seizure Peg Count reflects not only the number of MF outgoing calls, but also the number of successful reattempts to seize an MF Transmitter for calls that have experienced ineffective attempts during outpulsing.

DTMF Transmitter Seizure Peg Count
(DTMF XMTR SEIZURE)

This counter is incremented by one for each DTMF transmitter that is busy.

NSCX Seizure Peg Count
(NSCX SEIZURE)

This counter is incremented by one when an idle NSCX SET S circuit is made service busy.

MAS or Expanded Ann. A Seizure Peg Count
(MSFHA SEIZURE)

This counter is incremented by one when a MAS or expanded announcement "A" circuit is made busy.

MAS or Expanded Ann. B Seizure Peg Count
(MSFHB SEIZURE)

This counter is incremented by one when a MAS or expanded announcement "B" circuit is made busy.

MF Transmitter Service Usage
(MF SVC USAGE)

After each 10 second scan, this counter will be incremented by the number of MF Transmitters found service busy. This data will be converted to CCS units by the traffic program before output.

DTMF Transmitter Service Usage
(DTMF XMTR SVC USAGE)

This counter is incremented after each ten-second scan by the number of DTMF transmitters found service busy. This data is converted to CCS units by the traffic program before output.

NSCX Service Usage
(NSCX SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of NSCX SET S circuits found service busy. The data will be converted to CCS units by the traffic program before output.

MAS or Expanded Ann. A Service Usage
(MSFHA SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of MSFHA circuits found service busy. The data will be coverted to CCS units by the traffic program before output.

MAS or Expanded Ann. B Service Usage
(MSFHB SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of MSFHB circuits found service busy. The data will be converted to CCS units by the traffic program before output.

NSCX Overflow Peg Count
(NSCX OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of NSCX SET S circuit requests not fulfilled.

MAS or Expanded Ann. A Overflow
Peg Count
(MSFHA OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of MAS or expanded announcement "A" circuit requests not fulfilled.

MAS or Expanded Ann. B Overflow
Peg Count
(MSFHB OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of MAS or expanded announcement "B" circuit requests not fulfilled.

MF Transmitter Maintenance Usage
(MF MTC USAGE)

After each 10 second scan period, this counter will be incremented by the number of MF Transmitters found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

DTMF Transmitter Maintenance Usage
(DTMF MTC USAGE)

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

After each 10-second scan period, this counter will be incremented by the number of DTMF transmitters found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

NSCX Maintenance Usage
(NSCX MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of NSCX SET S circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

MAS or Expanded Ann. Maintenance Usage
(MSFHA MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of MAS or expanded announcement "A" circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

OMS 3

Blue Box Fraud Overload
(OVERLOAD)

This counter will be incremented if the Blue Box MF Receiver queue is full, or no receivers are allocated.

Blue Box Fraud Attempts
(ATTEMPTS)

This counter is incremented whenever a fraud call is suspected (i.e., on reception of an unexpected post address wink).

Blue Box Fraud Detected
(DETECTED)

This counter is incremented when on a suspect call, four MF digits are received.

Blue Box Fraud Persisting
(PERSIST)

This count is incremented when an attempted fraud call persists for five minutes.

Blue Box Fraud MF Receiver Seizure
(MFR SZ)

This count is incremented when an MF Receiver is to be used by fraud prevention.

Blue Box Fraud MF Receiver Occupancy
(MFR CCS)

This count is updated every 10 seconds to give Fraud MF Receiver usage.

OMS 4

CCS Message Table Blue Box Attempts
Peg Count
(BLUE BOX)

This counter is incremented whenever a fraud call is suspected on a Teleconferencing request (i.e, when the second stage call identification cannot be found in the Common Channel Signaling (CCS) message table.

CCS Message Table Overflow Peg Count
(OVERFLOW)

This counter is incremented whenever a CCS message is received from TSPS to load into the CCS Message Table and no room is available.

CCS Message Table Timeout Peg Count
(TIMEOUT)

This counter is incremented when an entry in the CCS Message Table does not receive the subsequent second stage MF digit ID within 15 seconds.

CCS Message Table Success Peg Count
(SUCCESS)

This counter is incremented when the second stage MF digit ID is found in the CCS Message Table.

Black Box Fraud Ring Forwards Received
(RF RCVD)

These counters, which are broken down by the Far End Network (FEN), are incremented each time a ring forward signal is received.

Black Box Fraud Prevention Canceled
(BBP CANCELLED)

On receipt of a ring forward signal from an operator, black box fraud prevention is canceled to allow the operator to service a call.

TABLE 01

OUTPUT MEASUREMENT SETS FOR MSC 1
(MF RCVR AND DTMF RCVR)

```
MSC 1 MF RCVR AND DTMF RCVR
OMS 0
                MF RCVR    DTMF RCVR
SZRE                  0            0
SVC USAGE             0            0
MTCE USAGE            0            0
```

Description of Measurements for MSC 1

OMS 0

MF Receiver Seizure Peg Count
(MF RCVR SZRE)

This counter is incremented by one when an idle MF Receiver is made busy. This is done by writing a service busy state code in the receiver's Trunk Register (TR).

DTMF Receiver Seizure Peg Count
(DTMF SZRE)

This counter is incremented by one when an idle DTMF Receiver is made busy. This is done by writing a service busy code in the Receiver Trunk Register.

MF Receiver Service Usage
(MF RCVR SCV USAGE)

This counter is incremented, after each 10 second scan, by the number of MF Receivers found service busy. This data will be converted to CCS units by the traffic program before output.

DTMF Receiver Service Circuit Usage
(DTMF SVC USAGE)

This counter is incremented, after each 10-second scan, by the number of DTMF Receivers found service busy. This data will be converted to CCS units by the traffic program before output.

MF Receiver Maintenance Usage
(MF RCVR MTCE USAGE)

After each 10 second scan this counter will be incremented by the number of MF Receivers found maintenance busy. This data will be converted to CCS units by the traffic program before output.

DTMF Receiver Maintenance Usage
(DTMF RCVR MTCE USAGE)

After each 10-second scan, this counter will be incremented by the number of DTMF receivers found maintenance busy. This data will be converted to CCS units by the traffic program before output.

TABLE 02

OUTPUT MEASUREMENT SETS FOR MSC 2
(CCIS, ISUP, ITUP AND INUP XCVR)

```
MSC 2  CCIS, ISUP, ITUP AND INUP XCVR
OMS 0
                    SVC       MTCE
          SZRE      USAGE     USAGE     OVFL
XCVR           0         0         0         0

VPA CANC  ISUP XCVR OVFL  ITUP XCVR OVFL  INUP XCVR OVFL
       0          0               0               0
```

Description of Measurements for MSC 2

OMS 0

CCIS Transceiver Seizure Peg Count
(XCVR SZRE)

This counter is incremented by one when an idle CCIS Transceiver is made busy by writing a service state code in the transceivers Trunk Register (TR).

CCIS Transceiver Service Usage
(XCVR SVC USAGE)

After each 10 second scan, this register is incremented by the number of CCIS Transceivers found service busy. This data will be converted to CCS units by the traffic program before output.

CCIS Transceiver Maintenance Usage
(XCVR MTCE USAGE)

This counter is incremented by the number of CCIS Transceivers found maintenance busy after each 10 second scan period. This data will be converted to CCS units by the traffic program before output.

CCIS Transceiver Overflow Peg Count
(XCVR OVFL)

This counter is incremented by one when a hunt for an idle CCIS Transceiver fails because there are no idle Transceivers in the group.

CCIS VPA Cancellation and Path Hunt
Peg Count
(VPA CANC)

Each call will increment this counter by one when the Voice Path Assurance (VPA) test on a CCIS outgoing trunk is canceled because of the current level of overload control. This counter is also incremented when a network path between the CCIS Transceiver and the outgoing trunk can not be found.

ISUP Transceiver Overflow Peg Count
(ISUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle CCS7 Transceiver fails because there are no idle transceivers in the group.

ITUP Transceiver Overflow Peg Count
(ITUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle International Transceiver fails because there are no idle Transceivers in the group.

INUP Transceiver Overflow Peg Count
(INUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle International Transceiver fails because there are no idle transceivers in the group.

TABLE 03

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

MSC 3 OMS	ANCMT CKT TYPE	SZRE	USAGE	OVFL
0	xxx	0	-	-
1	xxx	0	-	-
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
30	xxx	0	-	-
31	xxx	0	-	-
32	TSI 0	-	0	0
	TSI 1	-	0	0
	TSI 2	-	0	0
	TSI 3	-	0	0
	TSI 4	-	0	0
	TSI 5	-	0	0
	TSI 6	-	0	0
	TSI 7	-	0	0
	TSI 8	-	0	0
	TSI 9	-	0	0
	TSI 10	-	0	0
	TSI 11	-	0	0
	TSI 12	-	0	0
	TSI 13	-	0	0
	TSI 14	-	0	0
	TSI 15	-	0	0
33	xxx	0	-	-
34	xxx	0	-	-
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
159	xxx	0	-	-
160	xxx	0	-	-

Description for Measurements for MSC 3

OMS 0-31

Announcement or Tone Group Seizure
Peg Count
(SZRE)

When a path through the network between an incoming trunk and an announcement or tone group has been seized and connected, this counter is incremented by one. The Output Measurement Set (OMS) number will be equal to the announcement or tone group number and the TYPE code is the 1-, 2-, or 3-character code shown below. The following is a list of each OMS and the associated announcement or tone type for announcements on the Recorded Announcement Frame.

OMS 0 - Unassigned (***)
OMS 1 - Audible Ring (AR)
OMS 2 - 120 IPM Tone (T)
OMS 3 - 60 IPM Busy Tone (BT)
OMS 4 - Test Progress Tone (TPT)
OMS 5 - 1000 hz. Milliwatt Test Tone (MW)
OMS 6 - No Circuit Announcement (NCA)
OMS 7 - Vacant Code Announcement (VCA)
OMS 8 - Reorder Announcement (ROA)
OMS 9 - Emergency Announcement No. 1 (EA1)
OMS 10 - Emergency Announcement No. 2 (EA2)
OMS 11 - Special Announcement No. 1 (SP1)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 12 - Special Announcement No. 2 (SP2)

OMS 13 - Idle Wet (IDL)

OMS 14 - High and Wet (HW)

OMS 15 - Idle No Guard Timing (ING)

OMS 16 - 10DB 1004 HZ Test Tone (M10)

OMS 17 - Unassigned (***)

OMS 18 - Misrouted Non-CAMA (MCA)

OMS 19 - No Circuit to Carrier (NCC)

OMS 20 - No Wink to Carrier (NWC)

OMS 21 - INWATS Out-Of-Band Announcement (OOB)

OMS 22 - Emergency Announcement Number 6 (EA6)

OMS 23 - Emergency Announcement Number 3 (EA3)

OMS 24 - Emergency Announcement Number 4 (EA4)

OMS 25 - Network Call Denial (NCD)

OMS 26 - Emergency Announcement Number 7 (EA7)

OMS 27 - All Circuits Busy to Foreign Country (INC)

OMS 28 - Vacant Code on International Call (IVC)

OMS 29 - Emergency Announcement Number 5 (EA5)

OMS 30 - International Foreign Failure (IFF)

OMS 31 - Unassigned (***)

OMS 32

The following two counts are maintained for each dedicated TSI. Each PAS announcement in a MAS office will be assigned to an announcement separation class from 0 to 31. At most one announcement may be assigned to each of the classes 1 to 31. Any number of announcements may be assigned to class 0.

Dedicated TSI Usage
(TSI USAGE)

Every 100 seconds the occupancy of the TSI's dedicated to announcements and tones is accumulated. This data is converted into CCS units by the traffic program before output.

Dedicated TSI Overflow Peg Count
(TSI OVFL)

This counter is incremented by one when an attempt to establish a network connection between an incoming trunk connection and an idle announcement or tone circuit fails because there is no available time slot in the TSI.

OMS 33-160

Announcement or Tone Group Seizure
Peg Count
(SZRE)

When a path through the network between an incoming trunk and an announcement or tone group has been seized and connected, this counter is incremented by one. The Output Measurement Set (OMS) number will be equal to the announcement or tone group number and the TYPE code is the 1-, 2-, or 3-character code shown below. The following is a list of each OMS and the associated announcement or tone type for announcements on the Service Circuit System (SCS) frame. (The first 32 announcements on the SCS are the same as the 32 announcements on the RAF.)

OMS 33 - Unassigned (***)

OMS 34 - Audible Ring (AR)

OMS 35 - 120 IPM Tone (T)

OMS 36 - 60 IPM Busy Tone (BT)

OMS 37 - Test Progress Tone (TPT)

OMS 38 - 1000 hz. Milliwatt Test Tone (MW)

OMS 39 - No Circuit Announcement (NCA)

OMS 40 - Vacant Code Announcement (VCA)

OMS 41 - Reorder Announcement (ROA)

OMS 42 - Emergency Announcement No. 1 (EA1)

OMS 43 - Emergency Announcement No. 2 (EA2)

OMS 44 - Special Announcement No. 1 (SP1)

OMS 45 - Special Announcement No. 2 (SP2)

OMS 46 - Idle Wet (IDL)

OMS 47 - High and Wet (HW)

OMS 48 - Idle No Guard Timing (ING)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 49 - 10DB 1004 HZ Test Tone (M10)

OMS 50 - Unassigned (***)

OMS 51 - Misrouted Non-CAMA (MCA)

OMS 52 - No Circuit to Carrier (NCC)

OMS 53 - No Wink to Carrier (NWC)

OMS 54 - INWATS Out-Of-Band Announcement (OOB)

OMS 55 - Emergency Announcement Number 6 (EA6)

OMS 56 - Emergency Announcement Number 3 (EA3)

OMS 57 - Emergency Announcement Number 4 (EA4)

OMS 58 - Network Call Denial (NCD)

OMS 59 - Emergency Announcement Number 7 (EA7)

OMS 60 - All Circuits Busy to Foreign Country (INC)

OMS 61 - Vacant Code on International Call (IVC)

OMS 62 - Emergency Announcement Number 5 (EA5)

OMS 63 - International Foreign Failure (IFF)

OMS 64 - Unassigned (***)

OMS 65 - Service Not Active (SNA)

OMS 66 - Vacant MAS Announcement (VMA)

OMS 67 - HICAP Out of Time Slot (OTS)

OMS 68 - SUN Transit Outage (STO)

OMS 69 - Vacant 800 Number (NWN)

OMS 70 - Disconnected 800 Number (DNN)

OMS 71 - Temporarily Disconnected 800 Number (TDN)

OMS 72 - INFO 1 ANI Failure (INF)

OMS 73 - LEC EGRESS Busy (NCB)

OMS 74 - Waiting For Answer Timeout (WAT)

OMS 75 - Intra-LATA Call Screening (LSA)

OMS 76 - LEC MAS Service (OOA)

OMS 77 - 700-555-4141 (LDV)

OMS 78 - Logging on Busy (LOB)

OMS 79 - SS7 (UNN)

OMS 80 - Spare (S19)

OMS 81 - SS7 (DOO)

OMS 82- International Subscriber Busy (ISB)

OMS 83 - Emergency Situation (E01)

OMS 84 - Severe Weather (E02)

OMS 85 - Facility Trouble (E03)

OMS 86 - Local Company Trouble (E04)

OMS 87 - Airplane Crash (E05)

OMS 88 - Hurricane (E06)

OMS 89 - Flood (E07)

OMS 90 - Tornado (E08)

OMS 91 - Forest Fire (E09)

OMS 92 - Earthquake (E10)

OMS 93 - Mudslide (E11)

OMS 94 - Major Network Outage (E12)

OMS 95 - Reserved Domestic Network Management (E13)

OMS 96 - Reserved Domestic Network Management (E14)

OMS 97 - Reserved Domestic Network Management (E15)

OMS 98 - Reserved Domestic Network Management (E16)

OMS 99 - Reserved Domestic Network Management (E17)

OMS 100 - Reserved Domestic Network Management (E18)

OMS 101 - Reserved Domestic Network Management (E19)

OMS 102 - Reserved Domestic Network Management (E20)

OMS 103 - Domestic (R01)

OMS 104 - Domestic (R02)

OMS 105 - Domestic (R03)

OMS 106 - Domestic (R04)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 107 - Domestic (R05)

OMS 108 - Domestic (R06)

OMS 109 - Domestic (R07)

OMS 110 - Domestic (R08)

OMS 111 - Domestic (R09)

OMS 112 - Domestic (R10)

OMS 113 - International Emergency Situation (I01)

OMS 114 - International Severe Weather (I02)

OMS 115 - International Telephone Company (I03)

OMS 116 - International Airplane Crash (I04)

OMS 117 - International Earthquake (I05)

OMS 118 - International Mudslide (I06)

OMS 119 - International Fire (I07)

OMS 120 - Reserved International Network Management (I08)

OMS 121 - International Direct Dialing Suspended (I09)

OMS 122 - International Direct Dialing Test (I10)

OMS 123 - International (I11)

OMS 124 - International (I12)

OMS 125 - International (I13)

OMS 126 - International (I14)

OMS 127 - International (I15)

OMS 128 - International (I16)

OMS 129 - International (I17)

OMS 130 - International (I18)

OMS 131 - International (I19)

OMS 132 - International (I20)

OMS 133 - International (I21)

OMS 134 - International (I22)

OMS 135 - International (I23)

OMS 136 - Reserved International Network Management (I24)

OMS 137 - Reserved International Network Management (I25)

OMS 138 - Reserved International Network Management (I26)

OMS 139 - Reserved International Network Management (I27)

OMS 140 - Reserved International Network Management (I28)

OMS 141 - Reserved International Network Management (I29)

OMS 142 - Reserved International Network Management (I30)

OMS 143 - Spare (S01)

OMS 144 - Spare (S02)

OMS 145 - Spare (S03)

OMS 146 - Spare (S04)

OMS 147 - Spare (S05)

OMS 148 - Spare (S06)

OMS 149 - Spare (S07)

OMS 150 - Spare (S08)

OMS 151 - Spare (S09)

OMS 152 - Spare (S10)

OMS 153 - Spare (S11)

OMS 154 - Spare (S12)

OMS 155 - Spare (S13)

OMS 156 - Spare (S14)

OMS 157 - Spare (S15)

OMS 158 - Spare (S16)

OMS 159 - Spare (S17)

OMS 160 - Spare (S18)

TABLE 04

OUTPUT MEASUREMENT SETS FOR MSC 4
(NETWORK)

```
MSC 4 NETWORK
OMS 0
PATH HUNT SUCS  PATH HUNT FAIL   USAGE  LSNC INTRABUF
         0               0           0           0

OMS 1  SVC OBSV
SVC OBSV NETWORK USAGE
              0
```

Description of Measurements for MSC 4

OMS 0

Network Path Hunt Success Peg Count
(PATH HUNT SUCS)

This counter is incremented by one when a path through the network has been seized by setting the appropriate bits in the time division map. This action either reserves a path between an incoming trunk and an outgoing trunk or corresponds to the connection of a service circuit to an incoming or outgoing trunk.

Network Path Hunt Failure Peg Count
(PATH HUNT FAIL)

When an attempt to seize an idle path through the network has failed because it appeared that no acceptable idle path was available, this counter is incremented by one. This counter contains the total number of network path hunt failures whereas the final trial network path hunt failure Peg counter (MSC 11 OMS 1) contains only the count of calls sent to final handling because of network path hunt failure.

Network Total Usage
(USAGE)

After every 180 second scan, the total number of occupied paths in the network is added to this counter. This data is converted to CCS by the traffic program before output.

Large Scale Nail-Up Intra-Buffer Count
(LSNC INTRABUF)

This is a count of large scale nail up (LSNC) intra-buffer connections.

OMS 1

Service Observing Network Usage
(SVC OBSV NETWORK USAGE)

This counter will show the total usage on the two service observing Trunk Subgroups. It will be used as an estimate of the network usage generated by service observing.

TABLE 05

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

```
MSC 5 OFFICE TOTALS
OMS 0
  INC    OUTWATS   OG IT   OG TC   DNHR    DNHR    NCAT
 CALL      ORIG      SZ      SZ     VTS     TTS     SUC
    0         0       0       0       0       0       0

OMS 1
   MF       DP-DD     DP-IS     CCIS    CCIS-2W     IDTS    IDTS-DP
INC SZRE  INC SZRE  INC SZRE  INC CALL  INC SZRE  INC SZRE  INC SZRE
       0         0         0         0         0         0         0

IDTMFWK   ODTMFWK     Q931      Q931      Q931    ISUP-2W   ISUP-4W
INC SZRE  OUT SZRE  INC SZRE  OUT SZRE  CN SETUP  INC SZRE  INC SZRE
       0         0         0         0         0         0         0

  ISUP     BBC-6     BBC-24    BBC-6     BBC-24     BSSP      BSSP
OUT SZRE  INC SZRE  INC SZRE  OUT SZRE  OUT SZRE  INC SZRE  OUT SZRE
       0         0         0         0         0         0         0

  NCAT     BBC-6     BBC-24    BBC-6     BBC-24
ATTEMPTS  OPRI ATT  OPRI ATT  RCVD ATT  RCVD ATT
       0         0         0         0         0

OMS 2
MF OPLS   DP OPLS    CCIS OG
ATTEMPTS  ATTEMPTS     CALLS
       0         0         0

OMS 3
STABLE CALLS LOST, CGF
            0

OMS 4  INTERNATIONAL INCOMING
           CCITT#5   CCITT#6      ITUP   INUP
ATTEMPTS         0         0         0      0
         CUSTOMER  OPERATOR      TEST   TRANSIT    EN-BLOC
CALLS            0         0         0         0          0

OMS 5 INTL OUTGOING
           CCITT#5   CCITT#6    ITUP    INUP
ATTEMPTS         0         0       0       0
              SENT       REC    ISUP
OVERFLOWS        0         0       0
              CUST   OP   PCC NG
CALLS            0    0        0
```

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

```
OMS 6   NETWORK CLOCK SYNC UNIT PERFORMANCE MEASUREMENTS
                  --- TOTAL --- ---- REG ---- ---- ALT ----
                      PC    DUR     PC    DUR     PC    DUR
FREE RUN               0      0
FREE RUN < 10 MIN      0
REFERENCE OUTAGE       -      -      0      0      0      0
PHASE HITS             0      -      0      -      0
FREQUENCY OFFSET       -      -      0      -      0
PHASE ERRORS           -      -      0      -      0
FAST START TO          0
FAST STARTS            0      0
REFERENCE OOS          -      -      0      0      0      0
TRANSFER TO ALT        0      0
TRANSMISSION SLIPS     -      -      0      -      0

OMS 7  SERVICE OBSERVING
  ---- TRUNK A ---
  SEIZURES   USAGE
        0        0

OMS 8  CALLS ORIG,TERM
    ORIG OGA            0
  TERM ATTS
    PAS                 0

OMS 9  MAS IRREGULARITIES
  MAS IRREGULARITIES
    NO ANS DUE TO CCIS              0
    TELEVOTE DIRECT SIG FAIL        0
```

Description of Measurements for MSC 5

OMS 0

Total Incoming Calls Peg Count
(INC CALL)

This counter is incremented for every incoming call for which at least one digit has been received.

OUTWATS Originating Calls Peg Count
(OUTWATS ORIG)

This count is incremented by one when an OUTWATS Call is attempted.

Total Outgoing Intertoll Trunk Seizure
Peg Count
(OG IT SZ)

This counter is set to the sum of the outgoing seizure Peg Counts collected from all outgoing intertoll TSGs at the time of the collection of TSG data.

Total Outgoing Toll Completing Trunk
Seizure Peg Count
(OG TC SZ)

This counter is set to the sum of the outgoing seizure Peg Counts collected from all outgoing toll connecting and toll completing TSGs at the time of the collection of TSG data.

Total Via Toll Switch Calls
(DNHR VTS)

This counter is incremented by one when the total number of calls entering the node from any DNHR TSG is serving as a Via Toll Switch.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

Total Terminating Toll Switch Calls
(DNHR TTS)

This counter is incremented by one when the total number of calls entering the node from any DNHR TSG is serving as a Terminating Toll Switch.

Non-Call Associated Temporary
Signaling Connection (TSC) Successes
(NCAT SUC)

This counter registers the number of successful TSC connections made through the 1B.

OMS 1

MF Incoming Seizure Peg Count
(MF INC SZRE)

This counter is incremented at the start of each base level cycle by the number of MF originations processed in the last base level cycle. This count of originations includes false starts, permanent signals, continuity test failures, as well as incoming calls.

DP Delay Dial Incoming Seizure Peg Count
(DP-DD INC SZRE)

When a DP origination is recognized on a DP delay dial trunk, this counter is incremented by one.

DP Immediate Start Incoming Seizure
Peg Count
(DP-IS INC SZRE)

When a DP origination is recognized on a DP immediate start trunk, this counter is incremented by one.

CCIS Incoming Calls Peg Count
(CCIS INC CALL)

This counter is the sum of CCIS CR seizures and CCIS CR queue overflows.

CCIS 2-Wire Incoming Seizure Peg Count
(CCIS-2W INC SZRE)

This count is incremented by one when a CCIS origination is recognized on a 2-wire incoming trunk.

IDTS Incoming Seizure Peg Count
(IDTS INC SZRE)

This counter is incremented by one for each Incoming Dial Tone Start (IDTS) seizure processing attempt.

IDTS DP Incoming Seizure Peg Count
(IDTS-DP INC SZRE)

This counter is incremented by one for each IDTS seizure processing attempt that is followed by a DP digit.

IDTMFWK Incoming Seizure Peg Count
(IDTMFWK INC SZRE)

This counter is incremented by one for each Incoming Dual-Tone Multifrequency Wink (IDTMFWK) seizure processing attempt.

ODTMFWK Outgoing Seizure Peg Count
(ODTMFWK OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing Dual-Tone Multifrequency Wink (ODTMFWK) trunk is to be seized.

Q.931 Incoming Seizures
(Q931 INC SZRE)

This counter is incremented by one for each Q.931 seizure processing attempt.

Q.931 Outgoing Seizures
(Q931 OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing Q.931 trunk is to be seized.

Q.931 Channel Negotiation Setup
(Q931 CN SETUP)

This counter is incremented by one each time a Q.931 Channel Negotiation Setup message is sent.

The CCIS incoming calls count is calculated each quarter hour. A summation of the CCIS call register seizure Peg Count, the CCIS origination call register queue Overflow Peg Count, and the CCIS origination call register queue abandon Peg Count is stored in this counter.

ISUP 2-Wire Incoming Seizures
(ISUP-2W INC SZRE)

This counter is incremented by one for each ISUP seizure processing attempt received over a 2-wire trunk.

ISUP 4-Wire Incoming Seizures
(ISUP-4W INC SZRE)

This counter is incremented by one for each ISUP seizure processing attempt received over a 4-wire trunk.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

ISUP Outgoing Seizures
(ISUP OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing ISUP trunk is to be seized.

Broadband Call 6-Trunk Incoming Seizures
(BBC-6 INC SZRE)

This counter is incremented by one for each H0 (384K bps) call seizure processing attempt received.

Broadband Call 24-Trunk Incoming Seizures
(BBC-24 INC SZRE)

This counter is incremented by one for each H11 (1536K bps) call seizure processing attempt received.

Broadband Call 6-Trunk Outgoing Seizures
(BBC-6 OUT SZRE)

This counter is incremented by one when trunk hunt determines enough trunks are available to be seized to process an H0 call.

Broadband Call 24-Trunk Outgoing Seizures
(BBC-24 OUT SZRE)

This counter is incremented by one when trunk hunt determines enough trunks are available to be seized to process an H11 call.

BOC SSP MF Incoming Seizures
(BSSP INC SZRE)

This counter is incremented by one when the first stage digit sequence on a MF trunk is translated with a result of BOC SSP Equal Access.

BOC SSP MF Outgoing Seizures
(BSSP OUT SZRE)

This counter is incremented by one when a trunk is seized for feature Group "D" or BOC SSP Equal Access call.

Non-Call Associated Temporary
Signaling Connection (TSC) Attempt
(NCAT ATTEMPTS)

This counter is incremented by one when a Non-Call Associated TSC request is received.

Broadband Call 6 - Originating Data
Attempts From a PRI Peg Count
(BBC-6 OPRI ATT)

This counter is incremented by one for each originating inter-LATA H0 (384K bps) data call attempt received from a PRI.

Broadband Call 24 - Originating Data
Attempts From a PRI Peg Count
(BBC-24 OPRI ATT)

This counter is incremented by one for each originating inter-LATA H11 (1536K bps) data call attempt received from a PRI.

Broadband Call 6 - Data Calls
Received From an IEC Peg Count
(BBC-6 RCVD ATT)

This counter is incremented by one for each H0 (384K bps) data call received from an IEC terminating through an Access Tandem.

Broadband Call 24 - Data Calls
Received From an IEC Peg Count
(BBC-24 RCVD ATT)

This counter is incremented by one for each H11 (1536K bps) data call received from an IEC terminating through an Access Tandem.

OMS 2

MF Outpulsing Attempts Peg Count
(MF OPULS ATTEMPTS)

This measurement reflects the total number of MF outgoing call attempts. This counter reflects not only the number of MF outgoing calls, but also the number of times MF outpulsing recurred for MF calls that experienced ineffective attempts during outpulsing and for which retrial trunk hunts were performed.

DP Outpulsing Attempts Peg Count
(DP OPULS ATTEMPTS)

This counter is incremented by one when DP outpulsing is first attempted for an outgoing DP call. That is, when the first digit to be outpulsed is sent to the Signal Processor. This counter reflects not only the number of DP outgoing calls, but also the number of times DP outpulsing recurred for DP calls that experienced ineffective attempts during outpulsing and for which retrial trunk hunts were performed.

CCIS Outgoing Calls Peg Count
(CCIS OG CALLS)

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

This measurement reflects the total number of all CCIS outgoing calls. Every call for which an initial address message is transmitted is included in this count. This measurement also reflects the number of times retrial trunk hunts were performed for CCIS outgoing calls for which a backward failure message is received or for which the Voice Path Assurance test fails.

OMS 3

Stable Calls Lost, Carrier Group
Failure Peg Count
(STABLE CALLS LOST, CGF)

For each call in the waiting-for-answer state or in the talking state that is lost because of a Carrier Group Failure, this counter is incremented by one.

OMS 4

CCITT No. 5 Incoming Attempts Peg Count
(CCITT#5 ATTEMPTS)

This count is incremented by one when a CCITT No. 5 incoming seizure is recognized by the system.

CCITT No. 6 Incoming Attempts Peg Count
(CCITT#6 ATTEMPTS)

This count is incremented by one when a CCITT No. 6 incoming seizure is recognized by the system.

ITUP Incoming Attempts Peg Count
(ITUP ATTEMPTS)

This counter is incremented by one for each International Telephone User Part (ITUP) seizure processing attempt received.

INUP Incoming Attempts Peg Count
(INUP ATTEMPTS)

This counter is incremented by one for each International User Part (INUP) seizure processing attempt received.

International Incoming Customer
Dialed Calls Peg Count
(CUSTOMER CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming call that was customer dialed.

International Incoming Operator
Dialed Calls Peg Count
(OPERATOR CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming call that was operator dialed.

International Incoming Test Calls Peg Count
(TEST CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming test call.

International Incoming Transit Calls
Peg Count
(TRANSIT CALLS)

This counter is incremented by one after the incoming digit was analyzed and the call was found to have been an international incoming transit call.

International Overlap to
Enblock Signaling Peg Count
(EN-BLOC CALLS)

This counter is incremented whenever the overlap to en-bloc procedure is invoked.

OMS 5

CCITT No. 5 Outgoing Attempts Peg Count
(CCITT#5 ATTEMPTS)

This count is incremented by one when a CCITT No. 5 outgoing seizure is recognized by the system.

CCITT No. 6 Outgoing Attempts Peg Count
(CCITT#6 ATTEMPTS)

This count is incremented by one when a CCITT No. 6 outgoing seizure is recognized by the system.

ITUP Outgoing Attempts Peg Count
(ITUP ATTEMPTS)

The counter is incremented by one when trunk hunt determines an outgoing ITUP trunk is to be seized.

INUP Outgoing Attempts Peg Count
(INUP ATTEMPTS)

The counter is incremented by one when trunk hunt determines an outgoing INUP trunk is to be seized.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

International Outbound Overflow Sent to Alternate Office Peg Count
(OVERFLOWS SENT)

This counter is incremented by one when the intended CCITT No. 5 or CCITT No. 6 route is in a no circuit condition and the call is passed to an alternate International Office for completion.

International Outbound Overflow Received from Alternate Office Peg Count
(OVERFLOWS REC)

This counter is incremented by one when another International Office has no CCITT No. 5 or CCITT No. 6 circuits for outbound calls and the call is passed to this International office for completion.

International ISUP Outbound Overflow Peg Count
(OVERFLOWS ISUP)

This counter is incremented by one when the intended CCITT #5 or CCITT #6 route is in a NO circuit condition and the call is passed to an alternate ISC for completion via ISUP trunks.

International Outgoing Customer Dialed Calls Peg Count
(CUST CALLS)

This is a count of the domestically originated, customer dialed calls destined for non-world zone 1 termination. This count is pegged by call processing after digit analysis.

International Outbound Operator Dialed Call Peg Count
(OP CALLS)

This counter is incremented by one on receipt of an International outbound call from an IOC or IOTC operator.

Pseudo Country Code No Good Peg Count
(PCC NG CALLS)

This counter is incremented by one when a pseudo country code is received on a one-stage call.

OMS 6

For several events in the NCSU, peg count and duration counts are kept. Peg count is defined as the number of times an event occurs. Duration is defined as the length of time the event took, in 8-second intervals.

Free Run
(FREE RUN)

Free run occurs when the NCSU is decoupled from the external reference. Total peg count and duration counters are maintained.

Free Run Less Than 10 Minutes
(FREE RUN < 10 MIN)

Total peg count of free run occurrences less than 10 minutes.

Reference Outage
(REFERENCE OUTAGE)

Reference outage is impairment of the reference. Regular and alternate reference peg counts and duration counters are maintained.

Phase Hits
(PHASE HITS)

A phase hit is defined as a step change in phase error exceeding 5 microseconds. Total, regular, and alternate reference peg counts are maintained.

Frequency Offset
(FREQUENCY OFFSET)

Frequency offset is defined as the frequency offset of the selected reference relative to the VCO (Voltage Control Oscillator) of one part in 100,000,000 or more. Regular and alternate reference peg counts are maintained.

Phase Errors
(PHASE ERRORS)

A Phase Error is one that is outside the range of about $\pm$ 60 microseconds from center of the phase comparator range. Regular and alternate reference peg counts are maintained.

Fast Start Timeout
(FAST START TO)

A fast start TO occurs when the NCSU fails to enter normal mode from fast start within 40 minutes. Total peg count is maintained.

Fast Starts
(FAST STARTS)

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

Fast starts are defined as the number of fast starts entered since the last look. Total peg count and duration counters are maintained.

Reference OOS
(REFERENCE OOS)

Reference OOS occurs when the reference is out of service. Regular and alternate reference peg counts and duration counts are maintained.

Transfer to Alternate
(TRANSFER TO ALT)

This counter keeps track of the number of times the alternate reference was made active. Total peg count and duration counts are maintained.

Transmission Slips
(TRANSMISSION SLIPS)

This counter keeps track of the number of slip impairments on the regular or alternate references. Peg counts are maintained.

OMS 7

Service Observing Trunk A Seizure Peg Count
(TRUNK A SEIZURES)

This counter is incremented by one each time an attempt is made to establish a Service Observing Trunk A connection.

Service Observing Trunk A Usage
(TRUNK A USAGE)

This measurement reflects the time, measured in CCS, that Service Observing is in effect. This count differs from MSC 4, OMS 1 which is the sum of the usage on the two Trunk Subgroups for Service Observing and results in an estimate of network occupancy due to Service Observing.

OMS 8

4ESS Switch Originated Outgoing Attempts
(ORIG OGA)

This counter keeps track of the number of attempts to seize a CR for a 4ESS Switch originated outgoing call. Noted that this count is not limited to MAS related calls. Initially it will include attempts occurring during the direct producer callback and trunk maintenance outgoing test attempts.

Total Attempts to PAS Announcements
(PAS TERM ATTS)

This counter keeps track of the number of attempts to reach PAS announcements, including PAS with TELEVOTE and with cut-through calls.

OMS 9

Customer Calls To MAS Which No Answer Supervision Is Returned Due To CCIS Terminal Congestion
(NO ANS DUE TO CCIS)

This counter keeps track of the number of customer calls to MAS on CCIS trunks that are successfully connected to announcement audio but do not have answer supervision returned because call processing detects that the CCIS terminal is overloaded.

TELEVOTE CCIS Direct Signaling Counts Not Updated
(TELEVOTE DIRECT SIG FAIL)

This counter keeps track of the number of nonzero counts received at a TELEVOTE machine in a CCIS direct signaling message, for which no counter can be located for the MAPN and line number associated with the count in the direct signaling message.

TABLE 06

OUTPUT MEASUREMENT SETS FOR MSC 6
(BOC SSP MEASUREMENTS)

```
MSC 6 BOC SSP MEASUREMENTS

OMS 0
  TOS   SEIZURES
    0       0
    1       0
    2       0
    3       0
          .
          .
          .
   28       0
   29       0
   30       0
   31       0


  TOS   INIT QUERIES
    0       0
    1       0
    2       0
    3       0
          .
          .
          .
   28       0
   29       0
   30       0
   31       0

  TOTAL INITIAL QUERIES
            0
```

Description of Measurements for MSC 6

OMS 0

BOC SSP Seizures
(SEIZURES)

Each time a BOC SSP Number Services origination is detected, a counter is incremented by one, depending on the Type Of Service (TOS).

BOC SSP Initial Queries
(INIT QUERIES)

Each time a BOC SSP Number Services Query is sent to the database, a counter is incremented by one, depending on the Type Of Service (TOS).

TABLE 07

OUTPUT MEASUREMENT SETS FOR MSC 7
(INCOMING IRREGULARITIES)

```
MSC 7 INCOMING IRREGULARITIES
OMS 0

         MF EQ  DP EQ   Q931   ISUP  ITUP  INUP  DTMF  IOC

  PST        0      0      0      0     0     0     0    0
  FSA        0      0      0      0     0     0     0    0
  PDA        0      0      0      0     0     0     0    0
  PDT        0      0      0      0     0     0     0    0

OMS 1
  INC    8 DIG   DP DIG  INC DP  OPLS DP
 DPED    NC CR    LOST   WL FULL WL FULL
     0        0       0       0       0
```

Description of Measurements for MSC 7

OMS 0

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing

b. DP trunks with equipment, operator or by-link pulsing

c. Q.931 trunks

d. ISUP trunks

e. ITUP trunks

f. INUP trunks

g. DTMF trunks with equipment or customer pulsing

h. IOC

Permanent Signal Timeout Peg Count
(PST)

These counters will be incremented by one each time a bid for service is received on an incoming trunk, but no digits are received within the permanent signal time out interval.

False Start Abandon Peg Count
(FSA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk but no digits are received, and the call is abandoned before permanent signal timeout.

Partial Dial Abandon Peg Count
(PDA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk and at least one digit but less than the expected number of digits is received, and the bid is removed before partial dial timeout.

Partial Dial Timeout Peg Count
(PDT)

Each time at least one but less than the expected number of digits is received before timeout on an incoming trunk, one of these counters will be incremented by one.

OMS 1

Incoming DP Early Digit Peg Count
(INC DPED)

This counter is incremented by one when a call is sent to final handling treatment after the reception of a digit buffer report from the Signal Processor. This report shows that a DP change of state occurred before the time when the system is ready to receive digits. This count is incremented for both immediate start and delay dial/start dial trunks.

Eighth Digit No Call Register Peg Count
(8 DIG NO CR)

TABLE 07 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 7
(INCOMING IRREGULARITIES)

This counter will be incremented by one when the eighth digit is received for a DP call waiting on the DP CR queue and no CR is available, resulting in the call being sent to final handling treatment.

DP Digit Lost Peg Count
(DP DIG LOST)

This counter will be incremented by the number of calls lost due to failure to load a DP digit into the digit buffer because of digit buffer congestion.

Incoming DP Work List Full Peg Count
(INC DP WL FULL)

This counter is incremented by one when the first call is sent to final handling treatment after the reception of a digit buffer incoming DP worklist full report from the SP. All succeeding calls trying to get on the full worklist will not be scored. A system audit is required to reset the worklist before new entries can be accepted.

DP Outpulsing Work List Full Peg Count
(OPLS DP WL FULL)

When a call is sent to final handling treatment because the Signal Processor DP outpulsing worklist is full, this counter will be incremented by one.

TABLE 08

OUTPUT MEASUREMENT SETS FOR MSC 8
(reserved for future use)

```
This table reserved for MSC 8.
```

TABLE 09

OUTPUT MEASUREMENT SETS FOR MSC 9
(PROCESSOR LOAD)

```
MSC 9 PROCESSOR LOAD
OMS 0
AVG BASE LEV MSEC
        0

OMS 1  BASE LEVEL PEG CNTS
  CANCEL OVLD          0

                    NONE       MAC       SGMT
  NONLOAD CONT         0         0          0

                  LEV(1)    LEV(2)    LEV(3)
  LOAD CONT            0         0          0

  NO TRKS HNTD         0
```

Description of Measurements for MSC 9

OMS 0

Average Base Level Cycle Length In Milliseconds
(AVG BASE LEV MSEC)

This time is calculated by multiplying the number of 10 millisecond interjects that occur in a 15 minute collection interval by 10 and dividing this product by the number of base level cycles, thus yielding average time in milliseconds. The time spent in maintenance interrupts is not included in the average length. Average base level cycle time is corrected for intervals longer than 15 minutes by summing the 15 minute averages and dividing by the number of quarter hours in the accumulation interval.

*Note: The sum of the next 7 counts equals the number of base level cycles in the accumulation interval.

OMS 1

Cancel Overload in Effect Peg Count
(CANCEL OVLD)

This counter is incremented at the beginning of each base level cycle if the cancel overload key at the MCC is activated.

Non-Load No Overload Control Peg Count
(NONLOAD CONT NONE)

This measurement reflects the number of base level cycles during which no overload controls were in effect or when cancel overload was not in effect.

Non-Load MAC Overload Control Peg Count
(NONLOAD CONT MAC)

This counter is incremented by the overload control program at the beginning of each base level cycle if it had instituted the set of state two controls in the previous base level cycle. These controls are nonload affecting, but restrict the number of segments allowed the Maintenance Administration Control (MAC) program in the base level cycle.

Non-Load Segment Overload Control Peg Count
(NONLOAD CONT SGMT)

At the beginning of each base level cycle, this counter is incremented by the overload control program if the set of state three controls had been instituted in the previous base level cycle. These controls are nonload affecting, but restrict the number of segments that are allowed for deferrable programs. In addition, a total Dynamic Overload Control (DOC) MC1 control is sent out to contiguous offices.

Load Level 1 Overload Control Peg Count
(LOAD CONT LEV 1)

This counter is incremented at the beginning of each base level cycle if the overload load control program had instituted the set of state four controls in the previous base level cycle. These controls reduce the accepted load to an overload Level 1, further reduce the number of segments that MAC can have, and restrict

TABLE 09 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 9
(PROCESSOR LOAD)

the Voice Path Assurance (VPA) test for CCIS outgoing calls.

Load Level 2 Overload Control Peg Count
(LOAD CONT LEV 2)

The overload control program will increment this counter at the beginning of each base level cycle, if the set of state five controls had been instituted in the previous cycle. These controls further reduce the accepted load to an overload level 2 and send out a total DOC, MC2, control to contiguous offices.

Load Level 3 Overload Control Peg Count
(LOAD CONT LEV 3)

This counter is incremented by the overload control program at the beginning of each base level cycle if it had instituted the set of state six controls in the previous base level cycle. These controls reduce the accepted load to zero.

No Trunks Hunted
(NO TRKS HNTD)

This counter is incremented by the number of base level cycles in which no trunks were hunted.

TABLE 10

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

MSC 10 TRAFFIC SEPARATIONS

OMS	SZRE	USAGE
0	0	0
1	0	0
2	0	0
.	.	.
.	.	.
.	.	.
1021	0	0
1022	0	0
1023	0	0

Description of Measurements for MSC 10

Traffic Separations

Measurement subclass 10 is the traffic separations and distribution measurement class. Each call successfully processed by the 4ESS Switch will fall into a traffic separations category (determined by the incoming TSG, domain and designation code of the call). The traffic separation incoming TSG class (INSEP) is specified in the trunk block translator, while the destination class (DESEP) is a code grouping translator item. There can be up to 256 traffic separations incoming TSG classes and 256 destination classes, with DESEP 0 not available for general assignment. Each (INSEP, DESEP) pair is assigned a Cell-Grouping Index. There are 1024 Cell-Grouping Indexes, each of which is associated with an OMS. The only measurements required in this MSC are the traffic separations class usage and Peg Count measurements.

The traffic separations class measurements provide the data required to facilitate divisions of revenue and to perform a variety of engineering, dial administration, and Network Management functions.

Traffic separations counts are accumulated primarily to provide breakdowns of the total toll telephone traffic. These may be based on variables such as geographic locality, Trunk Subgroup ownership (Long Lines, Associated Company or Independent Company), and type of traffic (message toll, CAMA, operator handled, local tandem, data PICTUREPHONE, and private network).

In addition to these measurement functions, the traffic separations MSC can be used, if required, to determine the quantity of "through" traffic switched by the machine. This is a count of calls that enter the system via intertoll trunks and are destined for distant toll centers. To accomplish this, it is necessary to assign the Cell Grouping Indexes so that none of these classes represent both interstate and intrastate traffic.

The traffic separations classes usage in conjunction with service circuit and trunk maintenance network usage provide an estimate of total network usage for output in usage measurement form at the MCC and on traffic schedules.

Traffic separations counters provide Peg Count and usage measurements for separations classes to which have been assigned selected destination codes or groups of codes. This facility enables the network manager to obtain a breakdown of the traffic items that may be offered to a particular route. The traffic separations class concept provides the network manager with the mechanism to analyze traffic patterns through the toll hierarchy. These patterns can be defined by categorizing traffic with respect to where it originates and terminates:

Category 1 identifies traffic from or terminating in an office that is served by a different regional center switching machine (including regional center traffic) than the 4ESS Switch.

Category 2 identifies traffic from or terminating in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes traffic to the home regional.

Category 3 identifies traffic from or terminating in an office that is lower in the hierarchial network and "homes" (i.e., is in the direct routing ladder) on the 4ESS Switch.

Category 4 identifies traffic from or terminating in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those

TABLE 10 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

end offices.

To provide data to light lamps in the traffic pattern module of the 4ESS Switch toll Network Management exception panel, the INSEP classes must be associated with one of the four incoming TSG classifications.

1. Foreign region TSGs,
2. Home region TSGs,
3. Subtending office TSGs, and
4. Home toll center area TSGs

Category 1 includes those Trunk Subgroups whose far end is in an office that is served by a different regional center switching machine (including Trunk Subgroups to that regional center) than the 4ESS Switch.

Category 2 includes Trunk Subgroups whose far end is in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes Trunk Subgroups to the home regional.

Category 3 includes Trunk Subgroups whose far end is in an office that is lower in the hierarchial network and "homes" (i.e., is in the direct routing ladder) on the 4ESS Switch.

Category 4 includes Trunk Subgroups whose far end is in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those end offices.

The 4ESS Switch office may not have representative Trunk Subgroups in all the categories. For instance, high volume tandem offices will probably not have Trunk Subgroups from the Home Toll Center area.

The DESEP classes must be associated with one of the four destination code classifications:

1. Foreign region codes,
2. Home region codes,
3. Subtending office codes, and
4. Home toll center area codes.

Category 1 includes those destination codes that terminate in an office that is served by a different regional center switching machine (including codes to that regional center) than the 4ESS Switch.

Category 2 includes destination codes that terminate in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes codes to the home regional.

Category 3 includes destination codes that terminate in an office that is lower in the hierarchial network and "homes" (i.e., in the direct routing ladder) on the 4ESS Switch.

Category 4 includes destination codes that terminate in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those end offices.

With the exception of summing the separation class usage counts to calculate one of the components of the total network usage count, no other summing over Cell Groupings will be performed by traffic measurements programs. Therefore, the "through switched traffic" Peg Count and the measurements for the four categories specified above will be computed by the Network Management program PA-1 (Traffic Pattern Overview).

Since the integrity of these seizure release counters is not infallible, audits will be necessary to insure the accuracy of the traffic separations class usage counts. This audit (number 33) is designed such that the traffic separations measurements can be maintained while it is being executed. Consequently, Cell Grouping 0 has been reserved for the traffic separations class usage count audit. Several functions are responsible for adjusting counters in addition to, or with, call processing routines. It is desirable to isolate the effects of some of these functions and, for that reason, an INSEP class (31) is generally assigned to both system integrity test call TSGs and maintenance test access trunks. All (outpulsed) trunk maintenance calls for which digit translation is done, and for which call processing sets up the connection, will be tagged with this appropriate INSEP class.

The appropriate DESEP class will be found in the digit translator. These are trunk maintenance outpulsed calls for which no digit translation is done. (The origination of a system integrity test call is an example.) For this reason, a DESEP class must be supplied to enable call processing to set up the connection. These calls will be with the appropriate INSEP class and a generically assigned DESEP class (63). Generic assignment of INSEP and a DESEP class does not preclude their assignment to other TSGs and destination codes if this is required. However, INSEP class (31) and DESEP class (63) will be generically assigned to Cell-Grouping (1).

Point-to-point distribution studies (this feature will not be available for phase 1) will be made at appropriate times to determine the distribution of the flow of traffic through an office. The data for this study is obtained by

TABLE 10 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

recording (on high speed magnetic tape in standard ASCII characters) pertinent information on a sampling of the successfully handled calls processed by the office. A successfully processed call is, by definition for the traffic system, one that goes into the "waiting-for-answer" state. After this time in the call processing sequence, some of the data required by the point-to-point studies is no longer available. For every Nth successfully processed call, this system will record the identity of the incoming trunk, the identity of the outgoing trunk to which it was connected, call area and office codes, and traveling classmark (if used to indicate domain and/or routing treatment). The value of N will be based on real time and data volume considerations. Information obtained from the sampled calls will not be available for output on the traffic schedules. This data will be processed off line.

OMS 0-1023

There are 1024 Cell Groupings, each of which corresponds to an OMS.

Traffic Separation Class Seizure Peg Count
(TRAFFIC SEPARATIONS SZRE)

This counter is incremented by one just before a call goes into the waiting-for-answer state. The Cell Grouping Index will reside in the CR, and can be retrieved to index the counter block.

Traffic Separation Class Usage
(TRAFFIC SEPARATIONS USAGE)

After each 100 second scan, this register will be incremented by the number of calls (for this Cell Grouping) that are found busy to obtain CCS.

TABLE 11

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

```
MSC 11 IA
OMS 0
          OPULS
  PER      FAIL    GLARE
    0         0        0

OMS 1
FIN NET FAIL  RSRC LMT        NCI       NCT  STC NC  PBX NC  ITL NC    CGF
        0           0           0         0       0       0       0      0
OMS 2
          Q931                          PBX       -- INWATS --
    VCA    VCA     LSIF     RSIF       VCA    TERM    ORIG   BLK-SCRN
      0       0        0        0         0       0       0       0

OMS 3 NM BLOCKED
     CB   SDOC    STR    CANT    CANF    TSAR    BNG
      0      0      0       0       0       0      0

   DSTR   DSTR  DSDOC   DSDOC     OCR     OCR    GSC
    CAN     SK    CAN      SK     RCV    FAIL     SK
      0      0      0       0       0       0      0

    DRR   DCAN
      0      0

OMS 4  MISC IA
MISC IA
  DTMF                    000000
  ISUP                    000000
  ITUP                    000000
  INUP                    000000
  Q931                    000000
  INC                     000000
  CONN                    000000
  OUT                     000000
  TUP OUT                 000000
  NUP OUT                 000000
  CALL DENIAL SCRN        000000
  AT ACK WINK T/O         000000
  ISUP MAB                000000
  ISUP EQUIP CONG         000000
  ISUP OTHER ABAN         000000
  ITUP MAB                000000
  ITUP EQUIP CONG         000000
  ITUP OTHER ABAN         000000
  INUP MAB                000000
  INUP EQUIP CONG         000000
  INUP OTHER ABAN         000000
  Q931 OTHER ABAN         000000
  Q931 SW CUTOFFS         000000
  BROADBAND FAIL          000000
  PBX REORDERS            000000
  ROUTING DATA ERR        000000
```

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

```
OMS 5
                FAIL    OVFL
TRMTR QUEUE        0       0

OMS 6
                 OVFL    ABAN
DP CR QUEUE         0       0
CCIS CR QUEUE       0       0
```

Description of Measurements for MSC 11

MSC 11 is the ineffective attempt measurement class for the nonequipment related ineffective machine attempts (NIAs). The following paragraphs define each counter for each NIA as it is referred to in a 4ESS Switch.

OMS 0

Pulsing Error Peg Count
(PER)

This register will be incremented by one each time one or more of the received digits is in error. This error may be defined by one of the following:

a. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.

b. False Key Pulse - On MF pulsing calls, when a second Key Pulse (KP) signal is received.

c. Extra Digit - When more digits are received than expected.

d. Extra Pulse - On DP calls, when an eleventh pulse is received for a single digit.

e. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Outpulsing Failures Peg Count
(OPULS FAIL)

This register will be incremented by one each time an outpulsing failure occurs for any of the following reasons:

a. Unexpected Stop - This count will be incremented by one each time an unexpected stop dial signal is received because of any of the following reasons.

1. Any stop dial during pulsing on an MF trunk.
2. Any stop dial during pulsing on a DP trunk that does not have the "expect stop-go" class.
3. A second stop dial during pulsing on a DP trunk that does have "expect stop-go" class.
4. On DP stop-go trunks, a stop dial at an invalid time.

b. Integrity Check Failure - Each time there is a failure of the trunk E&M lead integrity check (expected on delay dial-start dial trunks) this counter will be incremented by one.

c. Continuity Test Failure - This count will be incremented by one each time there is a failure of the continuity and polarity test.

d. No Start Dial - This count will be incremented by one each time the delay dial signal (off-hook) from the office persists beyond the transmitter timeout interval on MF or DP delay dial trunks. For wink start trunks, this count is also incremented if the first part of the wink (on to off-hook) is not received within the transmitter timeout interval, or the second part of the wink (off to on-hook) is not received within a specified interval of receipt of the first part of the wink.

e. Expected Stop Timeout - Each time, on any DP trunk with expected stop-go class, an unexpected stop dial signal is received during outpulsing and persists beyond the transmitter time out interval, this counter will be incremented by one.

Glare Peg Counter
(GLARE)

This counter is incremented by one when a glare condition is encountered on the second trial, and the call is sent to Final Handling Treatment (FHT).

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

OMS 1

Final Trial Network Path Hunt Failure
Peg Count
(FIN NET FAIL)

This counter is incremented when a call is sent to Final Handling Treatment because an attempt to seize an idle path through the network fails due to no acceptable idle path availability.

Call Merge Failure - Resource Limitations
Peg Count
(RSRC LMT)

This count is incremented when a call merge request fails because of the lack of resources or because of a path hunt failure.

No Circuit Intertoll Peg Count
(NCI)

When a call is sent to Final Handling Treatment because it has overflowed all the available intertoll routes in its routing chain, this counter is incremented by one.

No Circuit Toll Completing Peg Count
(NCT)

When a call is sent to Final Handling Treatment because it has overflowed all the available toll completing routes to its destination, this counter is incremented by one.

No Circuit Single Trunk Customer
Peg Count
(STC NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to an STC, this counter is incremented by one.

No Circuit Private Branch Exchange
Peg Count
(PBX NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to a PBX, this counter is incremented by one.

International No Circuit Peg Count
(ITL NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to its destination, this counter is incremented by one.

Carrier Group Failure Peg Count
(CGF)

This counter is incremented by one for every incoming seizure that is processed as an origination and is later determined to be an off-hook because of a carrier group failure.

OMS 2

Vacant Code Announcement Peg Count
(VCA)

When a call is sent to Final Handling Treatment because a return from translations is interpreted to be a vacant code (unassigned routing digits have been received for this call), this counter is incremented by one.

Vacant Code Announcement Q.931 Peg Count
(Q931 VCA)

When a call on a Q.931 trunk is sent to Final Handling treatment because a return from translations is interpreted to be a vacant code, this counter is incremented by one.

LATA/STATE Screening Index Failure
Peg Count
(LSIF)

This counter is incremented by one when a call encounters a LATA/STATE Screening Index Failure.

Route Selection Index Screening Failure
Peg Count
(RSIF)

This counter is incremented by one when a call encounters a Route Selection Index Screening Failure.

Vacant Code Announcement Private
Branch Exchange Peg Count
(PBX VCA)

When a call on a PBX trunk is sent to Final Handling treatment because a return from translations is interpreted to be a vacant code, this counter is incremented by one.

INWATS Band Check Peg Count
(INWATS TERM)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

When a call is sent to Final Handling Treatment because a return from the terminating translation indicates that the zonal band check has failed, this counter will be incremented by one.

Originating INWATS Denied Peg Count
(INWATS ORIG)

This counter is incremented by one when an originating INWATS call is sent to final handling for one of the following reasons.

a. INWATS is invalid for the incoming Trunk Subgroup.

b. The INWATS zone is unauthorized for the incoming Trunk Subgroup.

Calls Blocked by Go-No Go Screening Peg Count
(INWATS BLK-SCRN)

This count will be included in a later issue. It is not being pegged in the 4E3 Generic Program.

OMS 3

Code Block Control Blocked Peg Count
(CB)

When a call that has been blocked by a Network Management code block control is sent to Final Handling Treatment, this counter is incremented by one.

Selective Dynamic Overload Control Blocked Peg Count
(SDOC)

This counter is incremented when a call that has been blocked by a Network Management Selective Dynamic Overload Control is sent to Final Handling Treatment.

Selective Trunk Reservation Control Blocked Peg Count
(STR)

When a call has been blocked by a Network Management activated Selective Trunk Reservation control and sent to Final Handling Treatment, this counter is incremented by one.

Cancel-To Control Blocked Peg Count
(CANT)

This counter is incremented by one when a call that has been blocked by a Network Management "Cancel To Control" is sent to Final Handling Treatment.

Cancel-From Control Blocked Peg Count
(CANF)

When a call is blocked by a Network Management "Cancel From Control" and then sent to Final Handling Treatment, this counter is incremented by one.

TSG Access Restriction Peg Count
(TSAR)

This counter is incremented by one when a call that has been blocked by a Network Management TSAR control is sent to Final Handling.

Billing Number Gap Peg Count
(BNG)

This counter is incremented by one when a call is blocked by Network Management based on the billing number.

Selective Trunk Reservation Canceled Peg Count
(DSTR CAN)

This counter is incremented by one when the calls are canceled at the OTS node by DSTR.

Selective Trunk Reservation Skipped Peg Count
(DSTR SK)

This counter is incremented by one when the calls are skipped at the OTS node by DSTR.

Selective Dynamic Overload Control Canceled Peg Count
(DSDOC CAN)

This counter is incremented by one when the calls are canceled at the node by D-SDOC.

Selective Dynamic Overload Control Skipped Peg Count
(DSDOC SK)

This counter is incremented by one when the calls are skipped at the node by D-SDOC.

Out-of-Chain Routed Calls Received
(OCR RCV)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

This counter is incremented by one when a rerouted call is received.

Out-of-Chain Routed Calls Failed
(OCR FAIL)

This counter is incremented by one when a rerouted call is received that failed.

Group Signaling Congestion Skipped
(GSC SK)

This counter is incremented by one when the calls are skipped at the node because of GSC.

D-Reroute Killed Calls
(DRR)

This counter is incremented by one when a D-rerouted call is killed.

D-Cancel Killed Calls
(DCAN)

This counter is incremented by one when a D-CAN call is killed.

OMS 4

DTMF Miscellaneous Ineffective Attempts
Peg Count
(DTMF MISC IA)

This counter is incremented by one when greater than 10 DTMF digits are received on an IDTS trunk.

ISUP Miscellaneous Ineffective Attempts
Peg Count
(ISUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ANI digits missing, ISUP IAM with invalid digit is detected.

ITUP Miscellaneous Ineffective Attempts
Peg Count
(ITUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ITUP IAM to LANGE to fit ITUP or QUEUE slot.

INUP Miscellaneous Ineffective Attempts
Peg Count
(INUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ICT unusable because of MB state.

Q.931 Miscellaneous Ineffective Attempts
Peg Count
(Q931 MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition, e.g., invalid message, is detected.

Incoming Miscellaneous Ineffective Attempts
Peg Count
(INC MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs.

Miscellaneous Connecting Ineffective Attempts
Peg Count
(CONN MISC IA)

This counter is incremented by one when a failure to a second MF receiver occurs.

Miscellaneous Outgoing Ineffective Attempts
Peg Count
(OUT MISC IA)

This counter is incremented by one when a Q.931 or CCS7 outgoing received a message that ended the call.

ITUP Outgoing Miscellaneous Failure
Peg Count
(TUP OUT MISC IA)

This counter is incremented by one when a miscellaneous IA occurs, e.g., OGT receives a BLO during setup on second try.

INUP Outgoing Miscellaneous Failure
Peg Count
(NUP OUT MISC IA)

This counter is incremented by one when a miscellaneous IA occurs, e.g., OGT receives a BLO during setup on second try.

Call Denial Screening Peg Count
(CALL DENIAL SCRN)

This count is incremented when a call is denied based on incoming trunk Far End Network characteristics and Call Type data found from called digits.

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

Access Tandem Post Acknowledgement Wink Timeout
(AT ACK WINK T/O)

This count is incremented whenever an access tandem call fails while waiting for a Post Acknowledgement Wink.

ISUP Miscellaneous Abandon Peg Count
(ISUP MAB MISC IA)

This counter is incremented by one when an ISUP call receives a released message or release message while busy in a call register.

ISUP Switching Equipment Congestion Peg Count
(ISUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an ISUP continuity check request.

ISUP Other Abandons Peg Count
(ISUP OTHER ABAN MISC IA)

This counter is incremented by one when an ISUP call that is on queue for a call register receiving a released or release message.

ITUP Miscellaneous Abandon Peg Count
(ITUP MAB MISC IA)

This counter is incremented by one when an ITUP call receives a released or release message while busy in a call register.

ITUP Switching Equipment Congestion Peg Count
(ITUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an ITUP continuity check request.

ITUP Other Abandons Peg Count
(ITUP OTHER ABAN MISC IA)

This counter is incremented by one when an ITUP call that is on queue for a call register receiving a released or release message.

INUP Miscellaneous Abandon Peg Count
(INUP MAB MISC IA)

This counter is incremented by one when an INUP call receives a release message while on queue for a CR or during call setup.

INUP Switching Equipment Congestion Peg Count
(INUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an INUP continuity check request.

INUP Other Abandons Peg Count
(INUP OTHER ABAN MISC IA)

This counter is incremented by one when an INUP call that is on queue for a call register receiving a released or release message.

Q.931 Other Abandons Peg Count
(Q931 OTHER ABAN MISC IA)

This counter is incremented by one when a Q.931 call that is on queue for or busy to a call register receives a disconnect.

Q.931 Switching Cutoffs Peg Count
(Q931 SW CUTOFFS MISC IA)

This counter is incremented by one when a Q.931 call is in a stable or confused state and an irregularity occurs to end the call.

Broadband Call Failure Peg Count
(BROADBAND FAIL MISC IA)

This counter is incremented by one for H0 (384K bps) or H11 (1536K bps) call attempts that fail.

PBX Reorders Peg Count
(PBX REORDERS MISC IA)

This counter is incremented by one when a Q.931 call attempt encounters a reorder condition.

Routing Data Error
(ROUTING DATA ERR MISC IA)

This counter is incremented by one when a CCIS or CCS7 outgoing trunk encounters routing problems.

OMS 5

MF Transmitter Queue Entry Failure Peg Count
(TRMTR QUEUE FAIL)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

This counter is incremented by one when a call is sent to Final Handling Treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to go on the MF Transmitter Queue, is greater than the number of nonmaintenance busy MF Transmitters (same count as MSC 0 OMS 0).

MF Transmitter Queue Overflow Peg Count
(TRMTR QUEUE OVFL)

When a call attempts to link to the MF transmitter queue and no slots are available, this counter is incremented by one.

OMS 6

DP CR Queue Overflow Peg Count
(DP CR QUEUE OVFL)

When an attempt to link the trunk register of a trunk associated with a DP call to an entry on the DP Call Register queue fails because there is no free entry on the queue, this counter will be incremented by one (same count as MSC 17 OMS 0).

DP CR Queue Abandon Peg Count
(DP CR QUEUE ABAN)

This counter is incremented by one when the trunk register of a trunk associated with a DP call that has been abandoned is unlinked from the DP Call Register queue (same count as MSC 17 OMS 0).

CCIS Origination CR Queue Overflow
Peg Count
(CCIS CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with a CCIS call in an entry on the CCIS origination Call Register queue fails because no free entry is available, this counter will be incremented by one (same count as MSC 17 OMS 0).

CCIS Origination CR Queue Abandon
Peg Count
(CCIS CR QUEUE ABAN)

When the IAM and other identifying information for a CCIS call that has been abandoned is removed from the CCIS origination Call Register queue, this counter is incremented by one (same count as MSC 17 OMS 0).

TABLE 12

OUTPUT MEASUREMENT SETS FOR MSC 12
(TIME SLOT INTERCHANGE USAGE)

```
MSC 12 TSI USAGE
OMS 0
TSI   SPC   USAGE  TSI   SPC   USAGE
  0     0       0    0     0       0
  0     0       0    0     0       0
  0     0       0    0     0       0
  0     0       0    0     0       0
```

Description of Measurements for MSC 12

OMS 0

Measurement Subclass 12 is the Time Slot Interchange (TSI) usage measurement class. This MSC provides the capability of obtaining estimates of the Usage on up to eight selected TSIs.

TSI Number
(TSI)

This register contains the TSI number that was previously specified by an input message as requiring usage measurements. Up to eight TSI numbers can be stored. (See Division 10, Section 2a.)

SPC Number
(SPC)

This register contains the Signal Processing Circuit (SPC) number of the TSI that was previously specified by an input message as requiring usage measurements. Each TSI may have two associated SPCs (0-1). (See Division 10, Section 2a).

TSI Usage Measurement
(USAGE)

For the specified TSI and SPC requiring usage measurements, the TSI Usage (occupancy) count is determined every 180 seconds by counting the busy idle bits in the time slot memory map. The traffic measurements program will convert this count into CCS before output.

TABLE 13

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

```
MSC 13 TSG
------CIN------
  IN SZ     OCC   OG ATT   OVFL    RRTO    RRAT    RRCR    RRSU
    MAN    AUTO    PATT    ECBS    DATT    DOVF     ATP    SILC
0001LSAN CA 02 01T LAB (a 1-way incoming TSG)
  000000  000000     -       -       -       -       -       -
     -       -       -       -       -       -    000000* 000000

2001ISUP TO LL 3IC HHP (a 1-way outgoing TSG)
     -    000000  000000  000000  000000  000000  000000  000000
  000000  000000  000000  000000  000000  000000  000000*    -

1001TCFD PD DI FMF DOM (a 2-way TSG)
  000000  000000  000000  000000  000000  000000  000000  000000
  000000  000000  000000  000000  000000  000000  000000* 000000
```

* - Count ATP is only output in non-AT&T offices.

Description of Measurements for MSC 13

OMS CIN

There are three possible types of output measurement sets. These sets relate to the TSGs by directionality. That is, one-way incoming, one-way outgoing, and two-way. The OMS number will be the abbreviated Circuit Identification Number (CIN) of the TSG. Each TSG is provided with a complete set of traffic counters (irrespective of its directionality). Thus for one-way TSGs, certain counters will be unused and should always contain dashes.

1. **OMS - For One-Way Incoming Trunk Subgroups (TSG)**

Incoming Seizure Peg Count
(IN SZ)

When an incoming trunk in this TSG is represented as busy by changing the trunk's busy idle bits from one to zero, this counter is incremented by one. Note that this count represents the number of trunks associated with incoming seizures. For example, an incoming H0 (384K bps) seizure has six trunks associated with it and will cause this count to be incremented by six (6).

Total Usage Measurement
(OCC)

The Trunk Subgroups occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

Selective Incoming Load Control
(SILC)

This counter is incremented by one when a bid for service is denied on an incoming trunk because of Network Management Selective Incoming Load Control.

2. **OMS - For One-Way Outgoing Trunk Subgroups (TSG)**

Total Usage Measurement
(OCC)

The Trunk Subgroup's occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Outgoing Attempts Peg Count
(OG ATT)

This counter is incremented by one when an idle outgoing trunk in this TSG is made busy by changing

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

the trunk's busy idle bits from one to zero. Should an outgoing ineffective attempt occur on this TSG before or during outpulsing, a retrial hunt can be performed (starting with this TSG). The TSG Outgoing attempts Peg Counter, if non-zero, is decremented before the retrial trunk hunt to avoid pegging it twice for the same call. Note that the outgoing attempts printed is the sum of the TSG outgoing seizures Peg Count, and the TSG overflow Peg Count. The carried call load can be obtained by subtracting the overflow from the outgoing attempts (OG ATT). Note that the outgoing seizures count represents the number of trunks associated with outgoing seizures. For example, an outgoing H0 (384K bps) seizure has six trunks associated with it and will cause this count to be incremented by six (6).

Overflow Peg Count
(OVFL)

This counter is incremented by one when an attempt to hunt an idle trunk fails because there are no idle trunks in this TSG. Note that this count represents the number of trunks associated with calls that overflow this TSG. For example, if all six trunks needed for an H0 (384K bps) call cannot be found in this TSG, this count will be incremented by six (6) no matter how many of the six trunks are busy.

Reroute To Seizure Peg Count
(RRTO)

This counter is incremented by one whenever a call that is routed out-of-chain to this outgoing TSG seizes an idle trunk. This count includes the number of incoming calls that have been automatically or manually rerouted out-of-chain and recognized by the via office as out-of-chain routed. It also includes the number of calls that may have been rerouted in this office by either a manual reroute control or an automatic out-of-chain control. Should an outgoing ineffective attempt occur on this TSG for a call that has been routed out-of-chain to it, the TSG reroute to seizure Peg Counter, if non-zero, is decremented by one before a retrial trunk hunt.

Spray Reroute Attempts
(RRAT)

This counter is incremented by one when a reroute is attempted.

Spray Reroute Calls Received
(RRCR)

This counter is incremented by one when a reroute call is received.

Spray Reroute Failures
(RRSU)

This counter is the number of reroute successes. It is obtained by subtracting the number of reroute failures from the total number of reroute attempts.

Manual Network Management Controls
(MAN)

This counter is incremented by one any time Network Management (NM) control cancels or skips a call manually.

Automatic Network Management Controls
(AUTO)

This counter is incremented by one any time NM controls cancel or skip calls automatically.

Preferred Call Attempts Peg Count
(PATT)

This counter is incremented by one when a Preferred Call (defined to be calls with maximal revenue potential, e.g., international inboard calls) is attempted.

Egress Busy Crankbacks Sent
(ECBS)

This counter is incremented by one when an egress busy crankback is sent due to unable to complete on an outgoing TSG.

Data Call Attempts Peg Count
(DATT)

This counter is incremented by one when a data call is attempted.

Data Call Overflow Peg Count
(DOVF)

This counter is incremented by one when a data call is attempted and no idle trunk is found because there are idle trunks in the TSG.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

3. **OMS - For Two-Way Trunk Subgroups (TSG)**

Incoming Seizure Peg Count
(IN SZ)

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

When an incoming trunk in this TSG is represented as busy (by changing the trunks busy idle bits from one to zero), this counter is incremented by one. Note that this count represents the number of trunks associated with incoming seizures. For example, an incoming H0 (384K bps) seizure has six trunks associated with it and will cause this count to be incremented by six (6).

Total Usage Measurement
(OCC)

The Trunk Subgroup's occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Outgoing Attempts Peg Count
(OG ATT)

This counter is incremented by one when an idle outgoing trunk in this TSG is made busy by changing the trunks busy idle bits from one to zero. Should an outgoing ineffective attempt occur on this TSG before or during outpulsing, a retrial hunt can be performed (starting with this TSG). The TSG outgoing attempts Peg Counter, if nonzero, is decremented before the retrial trunk hunt to avoid pegging it twice for the same call. Note that the outgoing attempts printed is the sum of the TSG outgoing seizures Peg Counter and the TSG overflow Peg Count. The carried call load can be obtained by subtracting the overflow from the outgoing attempts (OG ATT). Note that the outgoing seizures count represents the number of trunks associated with outgoing seizures. For example, an outgoing H0 (384K bps) seizure has six trunks associated with it and will cause this count to be incremented by six (6).

Overflow Peg Count
(OVFL)

This counter is incremented by one when an attempt to hunt an idle trunk fails because there are no idle trunks in this TSG. Note that this count represents the number of trunks associated with calls that overflow this TSG. For example, if all six trunks needed for an H0 (384K bps) call cannot be found in this TSG, this count will be incremented by six (6) no matter how many of the six trunks are busy.

Reroute To Seizure Peg Count
(RRTO)

This counter is incremented by one whenever a call that is routed out-of-chain to this outgoing TSG seizes an idle trunk. This count includes the number of incoming calls that have been automatically or manually rerouted out-of-chain and recognized by the via office as out-of-chain routed. It also includes the number of calls that may have been rerouted in this office by either a manual reroute control or an automatic out-of-chain control. Should an outgoing ineffective attempt occur on this TSG for a call that has been routed out-of-chain to it, the TSG reroute to seizure Peg Counter, if non-zero, is decremented by one before a retrial trunk hunt.

Spray Reroute Attempts
(RRAT)

This counter is incremented by one when a reroute is attempted.

Spray Reroute Calls Received
(RRCR)

This counter is incremented by one when a reroute call is received.

Spray Reroute Failures
(RRSU)

This counter is the number of reroute successes. It is obtained by subtracting the number of reroute failures from the total number of reroute attempts.

Manual Network Management Controls
(MAN)

This counter is incremented by one any time Network Management (NM) control cancels or skips a call manually.

Automatic Network Management Controls
(AUTO)

This counter is incremented by one any time NM controls cancel or skip calls automatically.

Preferred Call Attempts Peg Count
(PATT)

This counter is incremented by one when a Preferred Call (defined to be calls with maximal revenue potential, e.g., international inboard calls) is attempted.

Egress Busy Crankbacks Sent
(ECBS)

This counter is incremented by one when an egress busy crankback is sent due to unable to complete on an outgoing TSG.

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

Data Call Attempts Peg Count
(DATT)

This counter is incremented by one when a data call is attempted.

Data Call Overflow Peg Count
(DOVF)

This counter is incremented by one when a data call is attempted and no idle trunk is found because there are idle trunks in the TSG.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

Selective Incoming Load Control
(SILC)

This counter is incremented by one when a bid for service is denied on an incoming trunk because of Network Management Selective Incoming Load Control.

TABLE 14

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

```
MSC 14 CCIS/CCITT NO.6 TERMINALS
OMS 0
                      VFL1   VFL2
NEAR AUTO CO         000000 000000
FAR  AUTO CO         000000 000000
REXMIT   REQ         000000 000000
SU IN    ERR         000000 000000
QTR HR IN SERV       000000 000000
RCV RPT ACU          000000
RCV SKP ACU          000000
IN  MSGS             000000
IN  DATA FILLED SU   000000
IN  TRANS        SU  000000
IN  IAM          SU  000000
IN  ANS          SU  000000
OUT MSGS             000000
OUT DATA FILLED SU   000000
IAM XFER PER TERM    000000
OUT TRANS        SU  000000
OUT IAM          SU  000000
OUT ANS          SU  000000
EMER RESTART         000000
THRES EXC            000000
THRES EXC(SEC)       000000
BUFFER OVFL          000000
OUTAGE(CCS)          000000
MAINT OCC(CCS)       000000
TERM TYPE            CCC
IN  DIRECT SIG   SU  000000
OUT DIRECT SIG   SU  000000
```

Description of Measurements for MSC 14

The OMS numbers for this MSC must correspond to the CCIS signaling links (CCIS/CCITT No. 6 Terminals) engineered for the 4ESS Switch office. The maximum OMS for a particular office must be less than or equal to the number of engineered CCIS signaling links (DOMTERM + INTL term specified on 406C), or the contents of OD4DNUM6HR07. Each OMS will supply the following measurements.

OMS 0-255

VFL-1 Near-end Initiated Automatic Changeovers Peg Count
(NEAR AUTO CO VFL1)

This counter is incremented by one when a signaling link is automatically relieved of its traffic load (changeover) and this event is initiated by the near end office.

VFL-2 Near-end Initiated Automatic Changeovers Peg Count
(NEAR AUTO CO VFL2)

Same as above except for VFL-2

VFL-1 Far-end Initiated Automatic Changeovers Peg Count
(FAR AUTO CO VFL1)

This counter is incremented by one when a signaling link is automatically relieved of its traffic load (changeover) and this event is initiated by the far end office.

VFL-2 Far-end Initiated Automatic Changeovers Peg Count
(FAR AUTO CO VFL2)

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

Same as above except for VFL-2

VFL-1 Retransmission Requests Peg Count
(REXMIT REQ VFL1)

This counter is maintained by the CCIS terminal and it is incremented by one each time a retransmission request is received by the terminal. If the number of changeovers for the signaling link is zero during a quarter hour, this count is read from the terminal memory and attributed to the VFL over which transmission occurred during the quarter hour. The count of transmission requests for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the retransmission requests Peg Counters for both VFLs are set to zero.

VFL-2 Retransmission Requests Peg Count
(REXMIT REQ VFL2)

Same as above except for VFL-2

VFL-1 Signal Units in Error Peg Count
(SU IN ERR VFL1)

This counter is maintained by the CCIS terminal and it is incremented by one each time a signal unit is received in error by the terminal. (A signal unit is considered in error when the 8 bit checksum over the other 20 bits in the signal unit that is transmitted, do not match the checksum over the first 20 bits in the signal unit that is computed on reception of the signal unit). If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal memory and attributed to the VFL over which transmission occurred during the quarter hour. The count of signal units in error for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the signal units in error Peg Counts for both VFLs are set to zero.

VFL-2 Signal Units in Error Peg Count
(SU IN ERR VFL2)

Same as above except for VFL-2

VFL-1 Quarter Hour in Service Peg Count
(QTR HR IN SRV VFL1)

This counter is set to one each quarter hour during which no changeovers for the signaling link occurred. The quarter hour in service Peg Counter for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the quarter hour in service Peg Counters for both VFLs are set to zero.

VFL-2 Quarter Hour in Service Peg Count
(QTR HR IN SVR VFL2)

Same as above except for VFL-2

Received Repeated ACU Peg Count
(RCV RPT ACU)

This counter is maintained by the CCIS terminal and is incremented by one each time a received Acknowledgement Signal Unit (ACU) contains a block acknowledgement number equal to the block acknowledgement number in the last ACU received. If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal. Otherwise, it is set to zero.

Received Skipped ACU Peg Count
(RCV SKP ACU)

This counter is maintained by the CCIS terminal and is incremented by one each time a received ACU contains an acknowledgement number that is more than one greater than the block acknowledgement number in the last ACU received. A retransmission request is then made for the skipped block. If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal. Otherwise it is set to zero.

Total Incoming Messages Peg Count
(IN MSGS)

This counter is maintained by the CCIS terminal and is incremented by one for each message received (a message may consist of more than one signal unit).

Total Incoming Data Filled Signal Units
Peg Count
(IN DATA FILLED SU)

This counter is maintained by the CCIS terminal and is incremented by one for each non-SYN, non-ACU signal unit that is received. This count includes retransmitted data filled signal units.

Incoming Transitions Peg Count
(IN TRANS)

This count is maintained by the CCIS terminal and is incremented by one each time an incoming data filled signal unit is followed by an SYU or preceded by an SYU, not counting the presence of ACU's.

Incoming IAM Peg Count
(IN IAM)

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

This counter is maintained by the CCIS terminal and is incremented by one for each Initial Address Message (IMA) that is received. This count includes retransmitted IAMs.

Incoming Answer Signal Units Peg Count
(IN ANS)

This count is maintained by the CCIS terminal and is incremented by one each time an answer signal is received.

Total Outgoing Messages Peg Count
(OUT MSGS)

This counter is maintained by the CCIS terminal and is incremented by one for each message transmitted (a message may consist of more than one signal unit).

Total Outgoing Data Filled Signal Units
Peg Count
(OUT DATA FILLED SU)

This counter is maintained by the CCIS terminal and is incremented by one for each non-Synchronous (SYN), non-ACU signal unit that is transmitted. This count includes retransmitted data filled signal units.

Initial Address Messages Transferred
Per Terminal
(IAM XFER PER TERM)

This counter is maintained by the number of CCITT6 IAMS forwarded at the international STP. This count is stored per receiving terminal to indicate the originating office.

Outgoing Transitions Peg Count
(OUT TRANS)

This count is maintained by the CCIS terminal and is incremented by one each time an outgoing data filled signal unit is followed by an SYU or preceded by an SYU, not counting the presence of ACU's.

Outgoing IAM Peg Count
(OUT IAM)

This counter is maintained by the CCIS terminal and is incremented by one for each IAM that is transmitted. This count includes transmitted IAMs.

Outgoing Answer Signal Units Peg Count
(OUT ANS)

This count is maintained by the CCIS terminal and is incremented by one each time an answer signal is transmitted.

Emergency Restart Peg Count
(EMER RESTART)

This count is incremented by one each time synchronization is successfully achieved after failure of all Data Links associated with a terminal pair. The count is incremented against the terminal in which synchronization first occurred. The number of restarts per terminal pair is the sum of the restarts pegged for the associated terminals.

Threshold Exceeded Peg Counts
(THRES EXC)

This count is incremented by one each time the CCIS terminal reports that it was necessary to link spare memory to the report buffer. This occurs when the number of pending incoming and outgoing messages have filled the normal buffer to capacity.

Threshold Exceeded Time in Seconds
(THRES EXC SEC)

This count contains the time in seconds that spare memory is linked to the report buffer. On initial threshold exceeded the counter is incremented once. After one second, if the contents of the buffer is not reduced to or below the capacity of the normal buffer size, the count is incremented again. One second later, if the buffer contents have not been reduced to normal capacity the terminal is removed from service.

Buffer Overflow Peg Count
(BUFFER OVFL)

This counter is incremented by one each time the buffer and the spare linked memory are full of pending messages and an incoming message for which there is no room is received. The terminal is then removed from service.

Terminal Pair Outage
(OUTAGE - CCS)

This count contains the time in CCS of duplex failure of a terminal pair. Each terminal counter contains the pair outage. The count is achieved by scanning the link security registers for the prohibit state every 10 seconds.

Terminal Maintenance Occupancy

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

(MAINT OCC - CCS)

This count contains the time in CCS that the terminal was marked maintenance busy. It does not include any time that the TGR containing the terminal was duplex failed but may include time the terminal pair was duplex failed if the terminals in the pair are in different frames.

Terminal Type Identifier
(TERM TYPE)

Three ASCII characters are used to identify the terminal as Domestic CCIS (DOM), International CCITT No. 6 (INT), or Domestic 4800 BPS (D48).

Incoming Direct Signaling Signal Units
Peg Count
(IN DIRECT SIG SU)

This counter will be incremented by the number of signaling units in the message each time a direct signaling message is received on a particular signaling link. This count is kept by the CCIS terminal program in the terminal memory.

Outgoing Direct Signaling Signal Units
Peg Count
(OUT DIRECT SIG SU)

This counter is incremented by the number of signaling units in the message each time a direct signaling message is sent on a particular signaling link. This count is kept by the CCIS terminal program in the terminal memory.

TABLE 15

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

```
MSC 15  INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS

OMS 0  SECOND STAGE
        ATTS     VCA  ABN-ND  ABN-SD    FAIL
INTL       0       0       0       0       -
EA         -       -       -       -       0
DOM        -       -       0       0       -

OMS 1  IOC OPER ATTEMPTS
    INT ONLY      0
    INT OVFL      0
    INT-DOM       0
    OUT           0
    NC-DOM        0
    NC-INTL       0

OMS 2  INTL IA
    VCA
                     CUSTOMER    OPERATOR    SCREENED
      TRANSIT             0           0           0
      INBOUND             0           0           -
      ITUP                0           0           -
      INUP                0           0           -

                       ITUP        INUP
      TRANSIT             0           0

                        IOC        IOTC
      DOM OPER            0           0

    NCA CUST            0

    OUTBOUND INTERNATIONAL OVFL
      NTC        0
      NSC        0

    NM BLOCKED INTERNATIONAL
      SDOC        STR    CAN-TO     CAN-FR
         0          0         0          0
    INBOUND SCREENED
      INV CALL          0
      INV L DIG         0

    TRANSLATION FAILURE
          CCITT#5     CCITT#6      IOC         TSPC
                0           0          0           0

    OUTBOUND INTERNATIONAL SERVICE
         TC    TCVPC     OPER  OPERVPC   OUTWATS   OWVPC
          0        0        0        0         0       0
       CUST  CUSTVPC
          0        0
```

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

```
OMS 3 ORIG INTL CALL - DOM SATELLITE INCOMING
                0

OMS 4 TWO STAGE SWITCHING ERRORS
           PE  NO REC    PSTO    PDTO
INTL        0       0       0       0
DOM         0       0       0       0
EA          0       -       0       0
```

Description of Measurements for MSC 15

OMS 0

Second Stage International Attempts
(SECOND STAGE INTL ATTS)

This count is incremented by one when a call on an international incoming trunk requires two stage pulsing. It does not include calls for which only second stage pulsing formats are used.

Second Stage International Vacant Codes
(SECOND STAGE INTL VCA)

This count is incremented by one when a vacant code is recognized during second stage impulsing. It does not include the cases where second stage only impulsing is used as in operator and inter-ISC overflow calls. The latter are considered international vacant codes.

Abandon During Second Stage International -
No Digits Received
(SECOND STAGE INTL ABN-ND)

This counter is incremented by one when an international incoming trunk abandons while second stage impulsing is taking place and no digits have been received.

Abandon During Second Stage International -
Some Digits Received
(SECOND STAGE INTL ABN-SD)

This counter is incremented by one when an international incoming trunk abandons while second stage impulsing is taking place and some digits have been received.

Second Stage Equal Access Failure Peg Count
(SECOND STAGE EA FAIL)

This counter is incremented by one when the second stage of an EA call is not received.

Abandon During Second Stage VSS -
No Digits Received
(SECOND STAGE DOM ABN-ND)

This counter is incremented by one when a VSS incoming trunk abandons while second stage impulsing is taking place and no digits have been received.

Abandon During Second Stage VSS -
Some Digits Received
(SECOND STAGE DOM ABN-SD)

This counter is incremented by one when a VSS incoming trunk abandons while second stage impulsing is taking place and some digits have been received.

OMS 1

International Originating Attempts To
The Local IOC Operator
(INT ONLY)

This count is incremented by the number of incoming international originating calls offered to local IOC operators, by a 4ESS Switch machine. It is the summation of trunk subgroup head cell counts that represent successful trunk hunts.

International Originating Attempts To
The Local IOC Operator That Overflow
(INT OVFL)

This count is incremented by the number of incoming international originating calls offered to local IOC operators that overflow. It is the summation of Trunk Subgroup head cell counts that represent successful trunk hunts.

Local IOC Originating Operator Incoming
Attempts Going To Domestic or International

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

Domain
(INT-DOM)

This count is incremented by the number of incoming international and domestic calls attempted by local IOC operators to go to the domestic or international domain. It is the summation of Trunk Subgroup head cell counts that represent successful trunk hunts.

IOC Operator Outgoing Attempts
(OUT)

This count is incremented by the number of outgoing calls (domestic or international originating) offered to local IOC operators. It is the summation of Trunk Subgroup head cell counts that represent successful trunk hunts.

IOC Operator No Circuit-Domestic
(NC-DOM)

This counter is incremented by one when a call originated by a local IOC operator fails to find an idle trunk in the domestic domain.

IOC Operator No Circuit-International
(NC-INTL)

This counter is incremented by one when a call originated by an IOC operator fails to find an idle trunk in the international domain.

OMS 2

International Customer Dialed Vacant Code
(CUSTOMER-TRANSIT VCA)

This counter is incremented by one when a vacant code is recognized on an international call that was customer dialed.

International Operator Dialed Vacant Code
(OPERATOR-TRANSIT VCA)

This counter is incremented by one when a vacant code is recognized on an international call that was operator dialed.

International Calls Blocked by Screening
(SCREENED-TRANSIT VCA)

This counter is incremented by one when an international customer originated call attempts to reach a number not reachable by direct dialing. This would include INWATS numbers and domestic directory information numbers.

International Inbound Customer Dialed
Vacant Code
(CUSTOMER-INBOUND VCA)

This counter is incremented by one when an inbound customer dialed call on a CCITT No. 5 or CCITT No. 6 trunk is determined to be a vacant code.

International Inbound Operator Dialed
Vacant Code
(OPERATOR-INBOUND VCA)

This counter is incremented by one when an inbound operator dialed call on a CCITT No. 5 or CCITT No. 6 trunk is determined to be a vacant code.

ITUP Inbound Customer Dialed
Vacant Code
(CUSTOMER-ITUP VCA)

This counter is incremented by one when an inbound customer dialed call on an ITUP trunk is determined to be a vacant code.

ITUP Inbound Operator Dialed
Vacant Code
(OPERATOR-ITUP VCA)

This counter is incremented by one when an inbound operator dialed call on an ITUP trunk is determined to be vacant code.

INUP Inbound Customer Dialed
Vacant Code
(CUSTOMER-INUP VCA)

This counter is incremented by one when an inbound customer dialed call on an INUP trunk is determined to be a vacant code.

INUP Inbound Operator Dialed
Vacant Code
(OPERATOR-INUP VCA)

This counter is incremented by one when an inbound operator dialed call on an INUP trunk is determined to be vacant code.

ITUP Transit Vacant Code
(ITUP TRANSIT VCA)

This counter is incremented by one when a transit call on an ITUP trunk fails on what is determined to be a vacant code.

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

INUP Transit Vacant Code
(INUP TRANSIT VCA)

This counter is incremented by one when a transit call on an INUP trunk fails on what is determined to be a vacant code.

Domestic IOC Originated Vacant Code
(IOC-DOM OPER VCA)

This counter is incremented by one when a domestic IOC dialed outbound call is determined to be a vacant code.

Domestic IOTC Originated Vacant Code
(IOTC-DOM OPER VCA)

This counter is incremented by one when a domestic IOTC dialed outbound call is determined to be a vacant code.

International Outbound Customer
Dialed Call Encountered No Circuit
(NCA CUST)

This counter is incremented by one when a customer dialed international outbound call encounters no circuit.

NTC Received on International Outbound
Call Using CCIS Overflow Trunk Subgroup
(OUTBOUND INTERNATIONAL OVFL-NTC)

This counter is incremented by one when National trunk congestion (NTC) has been received for an outbound call placed on an International overflow Trunk Subgroup.

NSC Received on International Outbound
Call Using CCIS Overflow Trunk Subgroup
(OUTBOUND INTERNATIONAL OVFL-NSC)

This counter is incremented by one when National Switching Congestion (NSC) has been received for an outbound call placed on an International Overflow Trunk Subgroup.

International Calls Block by Network
Management Controls
(NM BLOCKED INTERNATIONAL)

The four controls used by Network Management to block calls domestically, as explained plained in TABLE 11 for MSC 11/OMS 3, are also used to control International traffic. The counters used to maintain this data are maintained similar to the Domestic equivalent, but the International Blocking Control counters are separate counters.

International Incoming Screened-Invalid Call
(INBOUND SCREENED-INV CALL)

This counter is incremented by one when translation determines that an International inbound call is invalid.

International Incoming Screened-Invalid
Language Digit
(INBOUND SCREENED-INV L DIG)

This counter is incremented by one when translation determines that an International inbound call contains an invalid language digit.

International Translation Fail -
Too Few/Too Many Digits
CCITT No. 5 Incoming Trunk
(TRANSLATION FAILURE-CCITT#5)

This counter is incremented by one when an incoming transit call on a CCITT No. 5 trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits
CCITT No. 6 Incoming Trunk
(TRANSLATION FAILURE-CCITT#6)

This counter is incremented by one when an incoming transit call on a CCITT No. 6 trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits IOC ITC
(TRANSLATION FAILURE-IOC)

This counter is incremented by one when an outbound transit call on an International Operator Center (IOC) incoming trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits TSPC
(TRANSLATION FAILURE-TSPC)

This counter is incremented by one when an International outbound call has too few/too many second stage digits for further International translation.

Outbound International Teleconferencing
Peg Count
(TC)

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

This register is incremented by one when an outbound international teleconferencing call is attempted.

Outbound International Teleconferencing,
Voice Path Cancellation Peg Count
(TCVPC)

This register is incremented by one when an outbound international teleconferencing call with voice path assurance cancellation is attempted.

Outbound International Operator Peg Count
(OPER)

This register is incremented by one when an operator originated international outbound call is attempted.

Outbound International Operator,
Voice Path Cancellation Peg Count
(OPERVPC)

This register is incremented by one when an operator originated international outbound call with voice path assurance cancellation is attempted.

Outbound International Toll-Free
Peg Count
(OUTWATS)

This register is incremented by one when an outbound international toll-free call is attempted by a customer.

Outbound International Toll-Free,
Voice Path Cancellation Peg Count
(OWVPC)

This register is incremented by one when an outbound international toll-free call, with voice path assurance cancellation, is attempted by a customer.

Outbound Customer Dialed Call Peg Count
(CUST)

This register is incremented by one when an outbound international customer dialed call is attempted.

Outbound Customer Dialed Call, Voice
Path Cancellation Peg Count
(CUSTVPC)

This register is incremented by one when an outbound international customer dialed call with voice path cancellation is attempted.

OMS 3

Originating International Call
Incoming From a Domestic Satellite
(DOM SATELLITE INCOMING)

This counter is incremented by one when a call destined for non-world zone 1 is sent via a Domestic Satellite link from a world zone 1 office.

OMS 4

Two Stage Pulsing Errors
(TWO STAGE INTL PE)

This count is incremented by one each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Two Stage MF Receiver Not Found
(TWO STAGE INTL NO REC)

This counter is incremented by one when there is no available MF Receiver for a call requiring second stage pulsing after a previously selected receiver cannot be connected.

Two Stage MF Permanent Signal Timeout
(TWO STAGE INTL PSTO)

This counter is incremented by one each time a bid for service is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE INTL PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) is received before partial dial timeout on a trunk requiring two stage pulsing.

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

Two Stage VSS Pulsing Errors
(TWO STAGE DOM PE)

This count is incremented by one on a VSS call each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Two Stage VSS MF Receiver Not Found
(TWO STAGE DOM NO REC)

This counter is incremented by one when there is no available MF Receiver for a VSS call requiring second stage pulsing after a previously selected receiver cannot be connected.

Two Stage Permanent Signal Timeout
(TWO STAGE DOM PSTO)

This counter is incremented by one each time a bid for service for a VSS call is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE DOM PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) for a VSS call is received before partial dial timeout on a trunk requiring two stage pulsing.

Two Stage EA Pulsing Errors
(TWO STAGE EA PE)

This count is incremented by one on an EA call each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Two Stage Permanent Signal Timeout
(TWO STAGE EA PSTO)

This counter is incremented by one each time a bid for service for an EA call is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE EA PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) for an EA call is received before partial dial timeout on a trunk requiring two stage pulsing.

TABLE 16

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

```
MSC 16 IO,FS,TU,AND DLK
OMS 0
OUTMSG  OUTMSG    OMR      OMR      OMR
 SUCS    FAIL    SZRE     USAGE    OVFL
     0       0       0        0        0

OMS 1  APS COMM
MISSED 3B COLLECTIONS 0
DKADI REQ   ACCEPTED      REJ     COMPL   CANCELED   FAILED
                  0        0         0          0        0
DMA JOB BUFF  SZRE     RSV ST     OVFL       CCS    TIMEOUT
1B               0          0         0          0         0
3B               0          0         0          0         0
COM BUFFER    SZRE       CCS      OVFL
1B               0          0         0
3B               0          0         0
MESSAGES      MSGS      READS    WRITES
1B               0          0         0
3B               0          0         0
FMI BUFFERS   SZRE       CCS      OVFL
3B               0          0         0
```

Description of Measurements for MSC 16

OMS 0

Output Message Success Peg Count
(OUTMSG SUCS)

When an output message is successfully loaded and placed on the translate link list, this counter is incremented by one.

Output Message Failure Peg Count
(OUTMSG FAIL)

This counter is incremented by one when an output message is not successfully loaded due to: incorrect input data in the PRINT call; or to a filed attempt to remove Output Message Register (OMRs) from the OMR idle link list (insufficient OMRs available); or the idle link list is found in an invalid state.

OMR Seizure Peg Count
(OMR SZRE)

Each time an output message is loaded into one or more Output Message Registers (OMRs) this counter is incremented by the number of OMRs removed from the OMR idle link list.

OMR Usage
(OMR USAGE)

The OMR occupancy counter is scanned every ten seconds for the number of OMRs that are busy. This number is accumulated over the measurement interval and it is converted to CCS units before output.

OMR Overflow Peg Count
(OMR OVFL)

When an attempt to remove OMRs from the OMR idle link list for an output message fails because enough OMRs are not available, this counter is incremented by the number of OMRs requested for the output message.

OMS 1

Missed 3B Collections Peg Count
(MISSED 3B COLLECTIONS)

This count reflects the number of times the 1B processor failed to collect 3B AP driver counts. The collection is performed once every 15 minutes.

Disk Requests Accepted Peg Count
(DKADI REQ ACCEPTED)

This count is incremented each time the disk administration program accepts a client request to make a disk request.

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

Disk Requests Rejected Peg Count
(DKADI REQ REJ)

This count is incremented each time the disk administration program does not accept a client disk request. These type of failures result from software range checks on input parameters.

Disk Requests Completed Peg Count
(DKADI REQ COMPL)

This count is incremented each time the disk administration program completes the transfer of data requested by a client.

Disk Requests Canceled Peg Count
(DKADI REQ CANCELED)

This count is incremented by the disk administration program each time a disk request is canceled.

Disk Requests Failed Peg Count
(DKADI REQ FAILED)

This count is incremented each time the disk administration program determines a request failed after being accepted. This does not include the number of requests canceled.

1B DMA Job Buffer Seizures Peg Count
(DMA JOB BUFF SZRE 1B)

This count is incremented each time the attached processor message handler program seizes a direct memory access job buffer. DMA buffers control memory transfers between the 1B and 3B processors.

1B DMA Job Buffers Entered into the
Reserved State Peg Count
(DMA JOB BUFF RSV ST 1B)

This count is incremented each time the attached processor message handler program changes a direct memory access job buffer state to reserved. The buffer is in the reserved state until the DMA transfer is ready in each processor.

1B DMA Job Buffer Overflow Peg Count
(DMA JOB BUFF OVFL 1B)

This count is incremented whenever the attached processor message handler program needed a direct memory access job buffer and none was available.

1B DMA Job Buffer Usage
(DMA JOB BUFF CCS 1B)

This number represents the 1B direct memory access job buffers usage in units of CCS, over the measurement interval.

1B DMA Job Buffer Timeout Peg Count
(DMA JOB BUFF TIMEOUT 1B)

This count is incremented whenever the attached processor message handler program determines a direct memory access job buffer has timed out waiting for a block transfer to take place.

3B DMA Job Buffer Seizures Peg Count
(DMA JOB BUFF SZRE 3B)

This count is incremented whenever the 3B AP driver program seizes a direct memory access job buffer. DMA buffers control memory transfers between the 1B and 3B processors.

3B DMA Job Buffers Entered into the
Reserved State Peg Count
(DMA JOB BUFF RSV ST 3B)

This count is incremented whenever the 3B AP driver program changes a direct memory access job buffer state to reserved. The buffer is in the reserved state until the DMA transfer is ready in each processor.

3B DMA Job Buffer Overflow Peg Count
(DMA JOB BUFF OVFL 3B)

This count is incremented whenever the 3B AP driver program needs a direct memory access job buffer and none is available.

3B DMA Job Buffer Usage
(DMA JOB BUFF CCS 3B)

This number represents the 3B direct memory access job buffer usage, in units of CCS, over the measurement interval.

3B DMA Job Buffer Timeout Peg Count
(DMA JOB BUFF TIMEOUT 3B)

This count is incremented whenever the 3B AP driver program determines a direct memory access job buffer has timed out waiting for a block transfer to take place.

1B-3B Communication Send Buffer Seizures
Peg Count
(COM BUFFER SZRE 1B)

When the 1B attached processor message handler program enters a message into the 3B communication

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

send buffer this count is incremented. The communication buffer is a mechanism that enables programs in the 1B and in the 3B to communicate. The 3B AP driver delivers the message to the proper 3B client.

1B Communication Buffer Usage
(COM BUFFER CCS 1B)

This number represents the usage, in CCS, of the 1B resident 3B communications send buffer, over the measurement interval.

1B-3B Communication Send Buffer Overflows
Peg Count
(COM BUFFER OVFL 1B)

When the 1B attached processor message handler program cannot load a message into the 3B communication send buffer because there is no room, this count is incremented.

3B-1B Communication Send Buffer Seizures
Peg Count
(COM BUFFER SZRE 3B)

When the 3B AP driver program enters a message into the 3B communication send buffer this count is incremented. The communication buffer is a mechanism that enables programs in the 1B and in the 3B to communicate. The 1B attached processor message handler program delivers the message to the proper 1B client.

3B Communication Send Buffer Usage
(COM BUFFER CCS 3B)

This number represents the usage, in CCS, of the 3B resident 1B communication send buffer, over the measurement interval.

3B-1B Communication Send Buffer Overflows
Peg Count
(COM BUFFER OVFL 3B)

When the 3B AP driver program cannot load a message into the 1B communication send buffer because there is no room, this count is incremented.

1B Messages Sent to the 3B Peg Count
(MESSAGES MSGS 1B)

This is a count of the number of times the 1B attached processor message handler program loaded a message of type MSG into the 3B communication send buffer. There are around 13 different message types.

1B Read Messages Sent to the 3B Peg Count
(MESSAGES READS 1B)

This is a count of the number of times the 1B attached processor message handler program loaded a message of type READ into the 3B communication send buffer.

1B Write Messages Sent to the 3B Peg Count
(MESSAGES WRITES 1B)

This is a count of the number of times the 1B attached processor message handler program loaded a message of type WRITE into the 3B communication send buffer.

3B Messages Sent to the 1B Peg Count
(MESSAGES MSGS 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type MSG into the 1B communication send buffer. There are around 13 different message types.

3B Read Messages Sent to the 1B Peg Count
(MESSAGES READS 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type READ Into the 1B communication send buffer.

3B Write Messages Sent to the 1B Peg Count
(MESSAGES WRITES 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type WRITE into the 1B communication send buffer.

3B File Manager Buffer Seizures
Peg Count
(FMI BUFFERS SZRE 3B)

This count is incremented each time a FMI buffer is required by the file manager interface. FMI buffers hold data for transfer to or from the 1B section of the 3B disk. The file manager interface is part of the 3B AP driver program.

3B File Manager Buffer Usage
(FMI BUFFERS CCS 3B)

This number is the FMI buffer usage, in CCS, over the measurement interval.

3B File Manager Buffer Overflows Peg Count
(FMI BUFFERS OVFL 3B)

This count is incremented each time a FMI buffer is required by the file manager interface and none is

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

available. FMI buffers hold data for transfer to or from the 1B section of the 3B disk. The file manager interface is part of the 3B AP driver program.

TABLE 17

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

```
MSC 17 ENGINEERED MEMORY
OMS 0  DOMESTIC MEMORY
                 SZRE     RLS
ISUP CTP CR         0       0
                 SZRE    USAGE    OVFL    ABAN
MF CR               0       -        -       -
DP CR               0       -        -       -
CCIS CR             0       -        -       -
MISC CR             0       -        -       -
Q931 CR             0       -        -       -
ISUP CR             0       -        -       -
ITUP CR             0       -        -       -
INUP CR             0       -        -       -
Q931 CR QUEUE       0       0        0       0
ISUP CR QUEUE       0       0        0       0
ITUP CR QUEUE       0       0        0       0
INUP CR QUEUE       0       0        0       0
CR                  -       0        -       -
DP CR QUEUE         0       0        0       0
CCIS CR QUEUE       0       0        0       0
MF ORIG QUEUE       0       0        -       0
DTMF CR             0       -        -       -
IDTMFWK CR Q        0       0        -       0
IDTS CR QUEUE       0       0        0       0

OMS 1  MEMORY FOR INTERNATIONAL
                       SZRE      USAGE      OVFL      ABAN
CCITT5 CR                 0          -         -         -
CCITT6 CR                 0          -         -         -
CCITT5 ORIG Q             0          0         -         -
CCITT6 ORIG Q             0          0         0         0
2ND STAGE MF REC Q        0          0         -         0

OMS 2  CALL DETAIL REC. BUFFERS
TOTAL RECORDS LOST       0
BUFFER OCCUPANCY         0

OMS 3  SZRE     CCS    OVFL
TMR       0       0       0
```

Description of Measurements for MSC 17

OMS 0

ISUP Completion of Transmission Path
CR Seize Peg Count
(ISUP CTP CR SZRE)

This count is for data calls where neither the Backward Call Indicator (BCI) nor the Optional Backward Call Indicator (OBCI) in the address complete message says to cut-through the transmission path.

ISUP Completion of Transmission Path
CR Release Peg Count
(ISUP CTP CR RLS)

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

This release count is pegged when an Answer message is received while in the timing for answer states.

MF CR Seizure Peg Count
(MF CR SZRE)

When a Call Register (CR) is removed from the link list of idle CRs and initialized for an MF call or for a test call, this counter will be incremented by one.

DP CR Seizure Peg Count
(DP CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a DP call, this counter will be incremented by one.

CCIS CR Seizure Peg Count
(CCIS CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a CCIS call, this count will be incremented by one.

Miscellaneous CR Seizure Peg Count
(MISC CR SZRE)

This count is incremented by one when a CR is removed from the link list of idle CRs and initialized for a test call.

Q.931 CR Seizure Peg Count
(Q931 CR SZRE)

When a Call Register (CR) is removed from the link list of idle CRs and initialized for a Q.931 call, this counter is incremented by one.

ISUP CR Seizure Peg Count
(ISUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an ISUP call, this counter is incremented by one.

ITUP CR Seizure Peg Count
(ITUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an ITUP call, this counter is incremented by one.

INUP CR Seizure Peg Count
(INUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an INUP call, this counter is incremented by one.

Q.931 Origination CR Queue Seizure
Peg Count
(Q931 CR QUEUE SZRE)

When an incoming Q.931 call fails to obtain a CR by overload, the setup message is placed on queue for a CR, with this counter being incremented by one.

Q.931 Origination CR Queue Usage
(Q931 CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

Q.931 Origination CR Queue Overflow
Peg Count
(Q931 CR QUEUE OVFL)

When a Q.931 call fails to obtain a queue entry due to lack of a free entry, this counter is incremented by one.

Q.931 Origination CR Queue Abandon
Peg Count
(Q931 CR QUEUE ABAN)

When the setup message for a Q.931 call that has been abandoned has been removed from the Q.931 CR queue, this counter is incremented by one.

ISUP Origination CR Queue Seizure
Peg Count
(ISUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received via the CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

ISUP Origination CR Queue Usage
(ISUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. The number is accumulated over the measurement interval and then converted to CCS units before output.

ISUP Origination CR Queue Overflow
Peg Count
(ISUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an ISUP call in an entry on

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

the ISUP origination CR queue fails because no free entry is available, this counter is incremented by one.

ISUP Origination CR Queue Abandon
Peg Count
(ISUP CR QUEUE ABAN)

When the IAM and other identifying information for an ISUP call that has been abandoned is removed from the ISUP origination call register queue, this counter is incremented by one.

ITUP Origination CR Queue Seizure
Peg Count
(ITUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received on an ITUP CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

ITUP Origination CR Queue Usage
(ITUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This is accumulated over the measurement interval and then converted to CCS units before output.

ITUP CR Queue Overflow Peg Count
(ITUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an ITUP call in an entry on the ITUP origination CR queue fails because no free entry is available, this counter is incremented by one.

ITUP Origination CR Queue Abandon
Peg Count
(ITUP CR QUEUE ABAN)

When the IAM and other identifying information for an ITUP call that has been abandoned is removed from the ITUP origination call register queue, this counter is incremented by one.

INUP Origination CR Queue Seizure
Peg Count
(INUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received on an INUP CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

INUP Origination CR Queue Usage
(INUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This is accumulated over the measurement interval and then converted to CCS units before output.

INUP CR Queue Overflow Peg Count
(INUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an INUP call in an entry on the INUP origination CR queue fails because no free entry is available, this counter is incremented by one.

INUP Origination CR Queue Abandon
Peg Count
(INUP CR QUEUE ABAN)

When the IAM and other identifying information for an INUP call that has been abandoned is removed from the INUP origination call register queue, this counter is incremented by one.

Call Register (CR) Usage
(CR USAGE)

The Call Register occupancy count is scanned every ten seconds for the number of CRs that are busy. This number is accumulated over the measurement interval and then converted to CCS units before output.

DP CR Queue Seizure Peg Count
(DP CR QUEUE SZRE)

When the Trunk Register (TR) of a trunk associated with an incoming DP call is linked to an entry on the DP CR queue, this counter will be incremented by one.

DP CR Queue Usage
(DP CR QUEUE USAGE)

The DP CR queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and it is converted to CCS units before output.

DP CR Queue Overflow Peg Count
(DP CR QUEUE OVFL)

This counter is incremented by one when an attempt to link the Trunk Register of a trunk handling a DP call with an entry on the DP CR queue fails because there is no free entry on the queue. (same count as MSC 11 OMS 6).

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

DP CR Queue Abandon Peg Count
(DP CR QUEUE ABAN)

When the Trunk Register of a trunk associated with a DP call that has been abandoned is unlinked from the DP CR queue, this counter is incremented by one. (same count as MSC 11 OMS 6).

CCIS Origination CR Queue Seizure
Peg Count
(CCIS CR QUEUE SZRE)

This counter is incremented by one each time an Initial Address Message (IAM) is read from a terminal for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

CCIS Origination CR Queue Usage
(CCIS CR QUEUE USAGE)

The queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCIS Origination CR Queue Overflow
Peg Count
(CCIS CR QUEUE OVFL)

When an attempt to place an IAM, and other identifying information associated with a CCIS call, in an entry on the CCIS origination CR queue fails because no free entry is available, this counter is incremented by one. (same count as MSC 11 OMS 6).

CCIS Origination CR Queue Abandon
Peg Count
(CCIS CR QUEUE ABAN)

When the IAM and other identifying information for a CCIS call that has been abandoned is removed from the CCIS origination Call Register queue, this counter is incremented by one. (same count as MSC 11 OMS 6).

MF Origination Queue Seizure Peg Count
(MF ORIG QUEUE SZRE)

When the Trunk Register of a trunk with an MF origination is linked to the MF origination queue, this counter will be incremented by one.

MF Origination Queue Usage
(MF ORIG QUEUE USAGE)

The MF origination queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

MF Origination Queue Abandon Peg Count
(MF ORIG QUEUE ABAN)

When the Trunk Register of a trunk with an MF origination in unlinked from the MF origination queue after the origination is abandoned, this counter is incremented by one.

DTMF CR Seizure Peg Count
(DTMF CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a DTMF call, the counter will be incremented by one.

IDTMFWK CR Queue Seizure Peg Count
(IDTMFWK CR Q SZRE)

When the TR of a trunk associated with an incoming DTMF call is linked to an entry on the incoming DTMF wink (IDTMFWK) CR queue, this counter will be incremented by one.

IDTMFWK CR Queue Usage
(IDTMFWK CR Q USAGE)

The IDTMFWK CR Queue occupancy count is scanned every 10 seconds for the number of entries on the queue. The number is accumulated over the measurement interval and it is converted to CCS units before output.

IDTMFWK CR Queue Abandon Peg Count
(IDTMFWK CR Q ABAN)

When the TR of a trunk associated with a DTMF call that has been abandoned is unlinked from the IDTMFWK CR queue, this counter is incremented by one.

IDTS CR Queue Seizure Peg Count
(IDTS CR QUEUE SZRE)

When the TR of a trunk associated with an Incoming Dial Tone Start (IDTS) call is linked to an entry on the IDTS CR queue, this counter will be incremented by one.

IDTS CR Queue Usage
(IDTS CR QUEUE USAGE)

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

The IDTS CR Queue occupancy count is scanned every 10 seconds for the number of entries on the queue. The number is accumulated over the measurement interval and it is converted to CCS units before output.

IDTS CR Queue Overflow Peg Count
(IDTS CR QUEUE OVFL)

This counter is incremented by one when an attempt to link the TR of a trunk handling an IDTS call to an entry on the IDTS CR queue fails because there is no free entry on the queue.

IDTS CR Queue Abandon Peg Count
(IDTS CR QUEUE ABAN)

When the TR of a trunk associated with an IDTS call that has been abandoned is unlinked from the IDTS CR queue, this counter is incremented by one.

OMS 1

CCITT No. 5 Call Register Queue Seizure
Peg Count
(CCITT5 CR SZRE)

When a Call Register is removed from the link list of idle CRs and initialized for a CCITT No. 5 call, this counter will be incremented by one.

CCITT No. 6 Call Register Queue Seizure
Peg Count
(CCITT6 CR SZRE)

This count will be incremented by one when a CR is removed from the link list of idle CRs and initialized for a CCITT No. 6 call.

CCITT No. 5 Originating Queue Seizure
Peg Count
(CCITT5 ORIG Q SZRE)

This count is incremented by one when the Trunk Register of a trunk with a CCITT No. 5 origination is linked to the CCITT No. 5 origination queue.

CCITT No. 5 Originating Queue Usage
(CCITT5 ORIG Q USAGE)

The CCITT No. 5 originating queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCITT No. 6 Originating Queue Seizure
Peg Count
(CCITT6 ORIG Q SZRE)

This counter is incremented by one when a CCITT No. 6 call goes on queue for a Call Register.

CCITT No. 6 Originating Queue Usage
(CCITT6 ORIG Q USAGE)

The CCITT No. 6 originating queue usage count is scanned every ten seconds the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCITT No. 6 Originating Queue Overflow
Peg Count
(CCITT6 ORIG Q OVFL)

This count is incremented by one when an attempt to link the Trunk Register of a trunk handling a CCITT No. 6 call with an entry on the CCITT No. 6 CR queue fails because there is no free entry on the queue.

CCITT No. 6 Originating Queue Abandon
Peg Count
(CCITT6 ORIG Q ABAN)

This counter is incremented by one when a CCITT No. 6 call goes off the originating queue for any abnormal reason. The count is pegged via Final Handling.

Second Stage MF Receiver Queue Seizure
Peg Count
(2ND STAGE MF REC Q SZRE)

This count is incremented by one when a call requiring second stage is removed from the CR link list and canceled to a second stage MF Receiver.

Second Stage MF Receiver Queue Usage
(2ND STAGE MF REC Q USAGE)

The second stage MF Receiver queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS before output.

Second Stage MF Receiver Queue Abandon
Peg Count
(2ND STAGE MF REC Q ABAN)

This count is incremented by one when a call on the second stage MF Receiver queue leaves the queue for

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

any abnormal reason. The count is incremented via Final Handling.

OMS 2

International Call Detail Recording
Registers Total Records Lost Peg Count
(TOTAL RECORDS LOST)

This count is incremented by one every time a request is made to write a record into the buffer block but there are no buffer blocks available.

International Call Detail Recording
Register Buffer Block Occupancy Peg Count
(BUFFER OCCUPANCY)

The buffer occupancy counter is an up/down counter that reflects how many records are in the buffer at any time.

OMS 3

Trunk Maintenance Register Seizure
Peg Count
(TMR SZRE)

When a Trunk Maintenance Register (TMR) is removed from the link list of idle TMRs and initialized for a trunk maintenance test, this counter will be incremented by one.

Trunk Maintenance Register Usage
(TMR CCS)

The TMR occupancy count is scanned every ten seconds for the number of registers that are busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Trunk Maintenance Register Overflow
Peg Count
(TMR OVFL)

This counter is incremented by one when an attempt to seize an idle TMR fails because there are no idle TMRs on the TMR idle link list.

TABLE 18

OUTPUT MEASUREMENT SETS FOR MSC 18
(CAMA INEFFECTIVE ATTEMPTS)

```
MSC 18 CAMA IA
OMS 0
    CAMA         CAMA    CAMA POS              CAMA
   POS TO         CDT     ATT TO       CPR   POS DISC
        0           0          0         0          0
                          OVFL     ABAN
  OPERATOR QUEUE           0        0
  DP ANI RCVR QUEUE        -        0
     MCA        UCA
       0          0
```

Description of Measurements for MSC 18

OMS 0

CAMA Position Timeout Peg Count
(CAMA POS TO)

This register will be incremented when an occupied and idle CAMA operator position is seized, but remains unassigned until it times out.

CAMA Position Disconnect Timeout
Peg Count
(CAMA CDT)

This counter will be incremented by one whenever more than 5 seconds elapse between sending a disconnect signal to a CAMA operator position and receipt of off-hook from the operator on the keying trunk.

CAMA Position Attached Timeout Peg Count
(CAMA POS ATT TO)

This counter is incremented by one each time the CAMA position fails to provide a position attached signal within 30 seconds of seizure.

CAMA Position Report (CPR) Peg Count
(CPR)

This register will be incremented by one when a trouble condition is reported by the operator. An example might be poor transmission. This results in a predetermined seven digit trouble code being keyed (rather than a calling party number) and the call is aborted. (Same as MSC 36 OMS 5.)

CAMA Position Disconnect Peg Count
(CAMA POS DISC)

This counter is incremented by one each time an operator depresses the position disconnect key or unplugs between the time seizure is sent out and valid ONI digits are received. (Same as MSC 19 OMS 0.)

CAMA Operator Queue Overflow Peg Count
(OPERATOR QUEUE OVFL)

When an attempt to link a Call Register on the CAMA operator queue fails because the queue is full, this counter is incremented by one. (Same as MSC 19 OMS 0.)

CAMA Operator Queue Abandon Peg Count
(OPERATOR QUEUE ABAN)

This counter is incremented when the Call Register of a call that has been abandoned is unlinked from the CAMA operator queue (Same as MSC 19 OMS 0).

DP ANI MF Receiver Queue Abandon
Peg Count
(DP ANI RCVR QUEUE ABAN)

When the Call Register of a call that has been abandoned is unlinked from the DP ANI MF receiver queue, this counter is incremented by one. (Same as MSC 19 OMS 0.)

Misrouted CAMA Peg Count
(MCA)

This counter is incremented by one when a call is sent to Final Handling Treatment because a return is made from the local call intercept translation that says the call should have been completed locally.

Unauthorized CAMA Peg Count
(UCA)

This counter is incremented by one when a call is sent to Final Handling Treatment because a return is made from the local call intercept translation that indicates that the dialed number is unauthorized for CAMA (for example, operator codes).

TABLE 19

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

```
MSC 19  CAMA
OMS 0
                        SRV
                  SZRE    USAGE   USAGE   OVFL    ABAN     DCONN
POSITION             0        0       0       -       -         0
OP QUEUE             0        -       0       0       0         -
DP ANI QUEUE         0        -       0       -       0         -

   CALLS      ONI  ANI MP  ONI PROCESSED  5-SEC TOUT
       0        0       0              0           0
     ANF      AIF     AOF
       0        0       0

OMS 1
      AMA MATCH      AMA WRONG
       CHK FAIL    CALLING CODE
              0               0

OMS 2
      EA ANI      EA ANI      EA ANI        CALL          TAPE/3B
        FAIL      FL-RTE        SUCC    RCD LOST           BLOCKS
           0           0           0           0                0
```

Description of Measurements for MSC 19

OMS 0

Total CAMA Positions Seizure Peg Count
(POSITION SZRE)

This counter is incremented by one each time an occupied (manned) and idle CAMA operator position is made service busy. This is done by changing the first busy idle bit associated with a position's keying trunk from 1 to 0.

Total CAMA Positions Service Usage
(POSITION SRV USAGE)

After each ten second scan, this counter is incremented by the number of CAMA operator positions that are found occupied and service busy. This data is converted into CCS by the traffic program before output.

CAMA Positions Usage
(POSITION USAGE)

This counter is incremented by the number of CAMA positions found occupied after each ten second scan. This data is converted into CCS by the traffic program before output.

CAMA Position Disconnect Peg Count
(POSITION DCONN)

This counter is incremented by one each time an operator depresses the position disconnect key or unplugs between the time seizure is sent and valid ONI digits are received. (Same as MSC 18 OMS 0.)

CAMA Operator Queue Seizure Peg Count
(OP QUEUE SZRE)

When a Call Register is linked on the CAMA operator queue, this counter is incremented by one.

CAMA Operator Queue Usage
(OP QUEUE USAGE)

After each ten second scan, this counter is incremented by the number of call registers linked on the CAMA operator queue. This data is converted to CCS by the traffic program before output.

CAMA Operator Queue Overflow Peg Count
(OP QUEUE OVFL)

When an attempt to link a Call Register on the CAMA operator queue fails because the queue is full, this counter is incremented by one. (Same as MSC 18 OMS 0.)

TABLE 19 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

CAMA Operator Queue Abandon Peg Count
(OP QUEUE ABAN)

This counter is incremented by one when the Call Register of a call that has been abandoned is unlinked from the CAMA operator queue. (Same as MSC 18 OMS 0.)

DP ANI MF Receiver Queue Seizure
Peg Count
(DP ANI QUEUE SZRE)

This counter is incremented by one when a Call Register associated with a DP ANI call is linked on the DP ANI MF Receiver queue. This link to the queue is necessary while waiting for a receiver to collect the information digit and the calling number (Same as MSC 18 OMS 0).

DP ANI MF Receiver Queue Usage
(DP ANI QUEUE USAGE)

After each ten second scan, this counter is incremented by the number of Call Registers (associated with a DP ANI call) that are linked on the DP ANI MF Receiver queue. This data is converted into CCS by the traffic program before output.

DP ANI MF Receiver Queue Abandon
Peg Count
(DP ANI QUEUE ABAN)

When the Call Register of a call that has been abandoned is unlinked from the DP ANI MF Receiver queue, this counter is incremented by one.

NOTE: The following four (4) counts are incremented at key points in the CAMA program. From these the On-Site Report System can derive the counts for offered ONI calls, offered ANI calls and ANI failure.

Total CAMA Calls Peg Count
(CALLS)

This counter is incremented by one whenever a call originates on a CAMA trunk and the called number is received for an ANI or ONI call.

ONI Calls Peg Count
(ONI)

This counter will be incremented by one each time a call is initially determined to be an ONI call to the information digit outpulsed by the ANI office indicates multi-party.

ANI Multi-Party Calls Peg Count
(ANI MP)

This count will be incremented by one each time the information digit outpulsed by an ANI office indicates the caller is on a multi-party line.

Operator Processed CAMA Calls Peg Count
(ONI PROCESSED)

This count will be incremented each time a CAMA call is sent to an operator because:

a. The call is from an ONI trunk,

b. The information digit from an ANI office indicated multi-party.

c. There was an AIF or ANF on an ANI call.

CAMA Calls Queue Over 5-Seconds Peg Count
(5-SEC TOUT)

This counter is incremented whenever a call abandons or is removed from the CAMA operator position queue and the length of time the call was queued exceeds 5-seconds.

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

On CAMA Automatic Number Identification (ANI) calls, this counter will be incremented by one when 5 seconds have elapsed between reception of an information digit and the calling party number digits. The counter will also be incremented when the ANI equipment receives invalid or non-MF calling party digits, or the ANI information digit is a non-MF tone. The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Local Office Failure
(AIF)

This counter will be incremented by one for CAMA ANI calls for which the ANI information digit is not 0 or 3 (ANI information is not forthcoming from the origination office). The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure
(AOF)

TABLE 19 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

This counter will be incremented by one for CAMA ANI calls for which a five second timeout occurs while waiting for the ANI information digit. The call is then transferred to an operator for further handling.

OMS 1

AMA Match Check Failure Peg Count
(AMA MATCH CHK FAIL)

This counter is incremented by one each time the customer gives the CAMA operator the called number instead of the calling number.

AMA Wrong Calling Code Peg Count
(AMA WRONG CALLING CODE)

This counter is incremented by one each time a CAMA operator keys in a calling number invalid for CAMA.

OMS 2

EA ANI Failure Peg Count
(EA ANI FAIL)

This counter is incremented by one each time an Equal Access (EA) Automatic Number Identification (ANI) call encounters an error in reception of the ANI digits.

EA ANI Failure - Route Peg Count
(EA ANI FL-RTE)

This counter is incremented by one each time an EA ANI call encounters an error in the reception of the ANI digits and the call was still routed.

EA ANI Success Peg Count
(EA ANI SUCC)

This count is incremented by one each time an EA ANI call either receives the correct ANI digit sequence or the ANI digit sequence fails with Far End Network (FEN) ANI Failure Action (AFA) set to a continue state.

Call Record Lost Peg Count
(CALL RCD LOST)

This counter is incremented by the number of records that were lost due to the records not being entered on the AMA tape.

Call Record Block Peg Count
(TAPE/3B BLOCKS)

This counter is incremented by one each time a block of AMA call records is written onto the AMA tape or to the 3B/APS.

TABLE 20

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

```
MSC 20 PERFORMANCE MEASUREMENTS - MAJOR MAINT RESPONSES AND ALARMS
OMS 0  INTERRUPT - TOTALS
         TOT-A  TOT-B  TOT-C  TOT-D  TOT-E  TOT-F  TOT-K
 SINGLE      0      0      0      0      0      0      0
 MULT        0      0      0      0      0      -      -

OMS 1 MAJOR MAINTENANCE RESPONSES
  INTERRUPTS
    B HIN    B PSI    B PSO   B CCSW   B BROM   B CPAR   D CSIR     D AUI
        0        0        0        0        0        0        0         0
  D AUIIR    D STK    D IVT    D PAF    D OOR  D IFBOR    D MUP   D MUPIR
        0        0        0        0        0        0        0         0
    D SSD  D SSDIR    E INR    E OOR   F PUFO   F APUF   F PUFI  INT LEVL
        0        0        0        0        0        0        0         0
TOT MTINJ   INJ,AP  INJ,DUS  OPINJPS   STFLAP  INJ,MUP  INJ,AUI   BLM,MUP
        0        0        0        0        0        0        0         0
ADDRESSING ERRORS
   DURUIR   CCMUPIR   CCMUPOR   CCAUIIR   CCAUIOR   CCSSDIR   CCSSDOR
        0         0         0         0         0         0         0
  MUPCLIR   MUPCLOR   MUPCSIR   MUPCSOR   MUPPSIR   MUPPSOR
        0         0         0         0         0         0
  AUIPSIR   AUIPSOR  AUIAPIIR  AUIAPIOR  AUIDUSIR  AUIDUSOR
        0         0         0         0         0         0
  AUICSIR   AUICSOR   CLSSDIR   CLSSDOR
        0         0         0         0
MISC MAINTENANCE RESPONSES
 CCFR,CC0  CCFR,CC1  FAN0,INH  FAN1,INH
        0         0         0         0

OMS 2  ALARMS
          CRITICAL  MAJOR   MINOR
                0       0       0
 POWER RM     -          0       0

OMS 3   HARDWARE DETECTED CGA
            0
```

Description of Measurements for MSC 20

OMS 0

Individual Totals of A through K
Level Interrupts Peg Count
(SINGLE or MULT TOT A-K)

These counters will be incremented by one each time the A through K level interrupt logic is placed in execution. The counters will be incremented by the Maintenance Restart Program (MARP) before exiting from interrupt level program execution.

Note that in 4E3 the multiple F-Level total Peg Counter is not being pegged. It will be added in the future issue. Also note that the total number of single F-Levels includes F-Levels from the MCC and IOUS. These last two sources are not shown individually in MSC 20/OMS 1.

OMS 1

B-Level Interrupts Hardware Initialization
Peg Count
(B HIN)

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

This counter will be incremented by one each time it can be determined that the B-Level interrupt is due to a processor configuration or a processor configuration accompanying a system reinitialization. The counter will be incremented by the Processor Configuration Recovery Program (PCRV).

B-Level Interrupts Pulse Source In-Range
Peg Count
(B PSI)

This counter will be incremented by one each time it can be determined that the B-Level interrupt is due to an in-range pulse source error. The counter is incremented by the Central Control Fault Recognition Program (CCFR).

B-Level Interrupts Pulse Source Out-Of-Range
Peg Count
(B PSO)

This counter will be incremented by one by the CCFR program each time it determines that the B-level interrupt is due to an out-of-range pulse source error.

B-Level Interrupt Central Control Switch
Peg Count
(B CCSW)

This counter will be incremented by one by the CCFR program each time it determines that the B-Level interrupt resulted from a Central Control Switch.

Internal B-level Boot ROM Parity Error Count
(B BROM)

This counter is pegged every time that the CCs are switched. This includes switches on base level and on interrupt.

Internal B-level Control Parity Error Count
(B CPAR)

This count is pegged every time a B-level occurs because of a Control Parity Error.

D-Level Interrupts Call Store In-Range
Peg Count
(D CSIR)

This counter will be incremented by one each time the Call Store Terminal Equipment Center Fault Recognition Program (CSFR) can determine that the D-level interrupt is due to an in-range Call Store Error.

AUI D-Level Counter
(D AUI)

This counter is incremented each time a D level error is involved with the Auxiliary Unit Interface (AUI) board. The error could occur under two types of transactions: memory mapped input output (MMIO), and Word DMA.

AUI In-Range D-Level Counter
(D AUIIR)

This counter is incremented each time an in-range D-level error is involved with the Auxiliary Unit Interface (AUI) board. The error could occur under two types of transactions: memory mapped input output (MMIO), and Word DMA.

D-Level Interrupts Stack Related Peg Count
(D STK)

This counter will be incremented by one each time the CSFR program can determine that the d-level interrupt is due to a stack related error, such as overflow or underflow.

D-Level Interrupts Invalid Transfer
Peg Count
(D IVT)

This counter will be incremented by one each time the CSFR program can determine that the D-level interrupt is due to an invalid transfer.

D-Level interrupts Protected Area Failure
Peg Count
(D PAF)

Each time the CSFR program can determine that the D-level interrupt is due to a protected area failure, this counter will be incremented by one.

D-Level Interrupts Out-Of-Range Peg Count
(D OOR)

This counter will be incremented by one each time the Maintenance Restart Program (MARP) can determine that the D-level interrupt was due to an Out-Of-Range error.

IFB Out-Of-Range D-Level
(D IFBOR)

This counter is incremented each time an invalid software access is found on the IFB. These access

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

could occur under all types of transactions: memory mapped input output (MMIO), Word or Block DMA.

MUP D-Level Counter
(D MUP)

This counter is incremented each time a D-level error is involved with the Maintenance and Utility Processor (MUP). The error could occur under all types of transactions: memory mapped input output (MMIO), client-to-client, and Word or Block DMA.

MUP In-Range D-Level Counter
(D MUPIR)

This counter is incremented each time an in-range D-level error is involved with the Maintenance and Utility Processor (MUP). The error could occur under all types of transactions: memory mapped input output (MMIO), client-to-client, and Word or Block DMA.

SSD D-Level Counter
(D SSD)

This counter is incremented each time a D-level error is involved with the Scan and Signal Distributor (SSD). The error occurred under memory mapped input output (MMIO) when CC tried to access it.

SSD In-Range D-Level Counter
(D SSDIR)

This counter is incremented each time a D-level error is involved with the Scan and Signal Distributor (SSD). The error occurred under memory mapped input output (MMIO) when CC tried to access it.

E-Level Interrupts In-Range Peg Count
(E INR)

Each time that the Program Store Fault Recognition Program (PSFR) can determine that the E-level interrupt is due to an in-range PS error, this counter will be incremented by one.

E-Level Interrupts Out-Of-Range Peg Count
(E OOR)

This counter will be incremented by one each time the PSFR program can determine that the E-level interrupt is due to an Out-Of-Range PS error.

F-Level Interrupts Peripheral Unit
Failure Out-Of-Range Peg Count
(F PUFO)

Each time the PBFR program can determine that the F-level interrupt is due to an Out-Of-Range PUF, this counter will be incremented by one.

F-Level Interrupts Autonomous
Peripheral Unit Failure Peg Count
(F APUF)

This counter will be incremented by one each time the PBFR can determine that the F-level interrupt was due to an Autonomous Peripheral Unit Failure (APUF). The units capable of this action include the SP, VIP, TSI and TMS.

F-Level Interrupts Peripheral Unit
Failure In-Range Peg Count
(F PUFI)

This counter will be incremented by one each time that the Peripheral Bus Fault Recognition Program (PBFR) can determine that the F-level interrupt is due to an in-range Peripheral Unit Failure (PUF).

Interrupt Level Duration Count
(INT LEVL)

This counter will be updated by the Maintenance Restart Program (MARP), before existing from interrupt level processing, by the amount of time, measured in tens of milliseconds, which has been spent on interrupt level. This count will reflect system outage due to interrupts.

Maintenance Interjects Voiceband Interface
Peg Count
(TOT MTINJ)

For each maintenance interject request associated with a VIF, PUC, MAS, DIF, or Signal Processor, this counter will be incremented by one.

Attached Processor Interject Peg Count
(INJ,AP)

This counter will be incremented by one by the AUFR program for each Attached Processor Maintenance Interject request.

Data Unit Selector Interject Peg Count
(INJ,DUS)

This counter will be incremented by one by the AUFR program for each Data Unit Selector Control Unit Maintenance Interject request.

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

Operational Interject Data Unit Selector
Peg Count
(OPINJPS)

This counter will be incremented by one by the AUFR program each time an operational interject is caused by a Data Unit selector.

Status Failure Attached Processor
Peg Count
(STFLAP)

Each time a status failure is caused by a Attached Processor, this counter will be incremented by one.

MUP Interject Counter
(INJ,MUP)

This counter is incremented each time an interject from the Maintenance and Utility Processor (MUP) is reported.

AUI Interject Counter
(INJ,AUI)

This counter is incremented each time an interject from the Auxiliary Unit Interface (AUI) board is reported.

MUP BLM Counter
(BLM,MUP)

This counter is incremented each time a Base Level Maintenance (BLM) request from the Maintenance and Utility Processor (MUP) is processed.

DUS to TUC In-Range Error Peg Count
(DURUIR)

This counter will be incremented by one each time the appropriate program determines that the specified addressing error has taken place.

CC to MUP In-Range Counter
(CCMUPIR)

This counter is incremented each time a D-level error of the valid in-range memory mapped input output (MMIO) access is involved with the Maintenance and Utility Processor (MUP).

CC to MUP Out-Of-Range Counter
(CCMUPOR)

This counter is incremented each time a D-level error of invalid out-of-range memory mapped input output (MMIO) access is involved with the Maintenance and Utility Processor (MUP).

CC to AUI In-Range Counter
(CCAUIIR)

This counter is incremented each time a D-level error of the valid in-range memory mapped input output (MMIO) access is involved with the Auxiliary Unit Interface (AUI) board.

CC to AUI Out-Of-Range Counter
(CCAUIOR)

This counter is incremented each time a D-level error of invalid out-of-range memory mapped input output (MMIO) access is involved with the Auxiliary Unit Interface (AUI) board.

CC to SSD In-Range Counter
(CCSSDIR)

This counter is incremented each time a D-level error of the valid in-range memory mapped input output (MMIO) access is involved with the Scan and Signal Distributor (SSD) board.

CC to SSD Out-Of-Range Counter
(CCSSDOR)

This counter is incremented each time a D-level error of invalid out-of-range memory mapped input output (MMIO) access is involved with the Scan and Signal Distributor (SSD) board.

MUP to Client In-Range Counter
(MUPCLIR)

This counter is incremented each time a D-level error of valid in-range client-to-client access is involved with the Maintenance and Utility Processor (MUP).

MUP to Client Out-Of-Range Counter
(MUPCLOR)

This counter is incremented each time a D-level error of invalid out-of-range client-to-client access is involved with the Maintenance and Utility Processor (MUP).

MUP to CS In-Range Counter
(MUPCSIR)

This counter is incremented each time a D-level error of valid in-range MUP to CS DMA is involved with the Maintenance and Utility Processor (MUP).

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

MUP to CS Out-Of-Range Counter
(MUPCSOR)

This counter is incremented each time a D-level error of invalid out-of-range MUP to CS DMA is involved with the Maintenance and Utility Processor (MUP).

MUP to PS In-Range Counter
(MUPPSIR)

This counter is incremented each time a D-level error of valid in-range MUP to PS DMA is involved with the Maintenance and Utility Processor (MUP).

MUP to PS Out-Of-Range Counter
(MUPPSOR)

This counter is incremented each time a D-level error of invalid out-of-range MUP to PS DMA is involved with the Maintenance and Utility Processor (MUP).

AUI to PS In-Range Counter
(AUIPSIR)

This counter is incremented each time a D-level error of valid in-range AUI to PS DMA is involved with the Auxiliary Unit Interface (AUI) board.

AUI to PS Out-Of-Range Counter
(AUIPSOR)

This counter is incremented each time a D-level error of invalid out-of-range AUI to PS DMA is involved with the Auxiliary Unit Interface (AUI) board.

AUI to API In-Range Counter
(AUIAPIIR)

This counter is incremented each time an interject error on a valid in-range AUI to API access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to API Out-Of-Range Counter
(AUIAPIOR)

This counter is incremented each time an interject error on an invalid out-of-range AUI to API access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to DUS In-Range Counter
(AUIDUSIR)

This counter is incremented each time an interject error on a valid in-range AUI to DUS access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to DUS Out-Of-Range Counter
(AUIDUSOR)

This counter is incremented each time an interject error on an invalid out-of-range AUI to DUS access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to CS In-Range Counter
(AUICSIR)

This counter is incremented each time a D-level error of valid in-range AUI to CS DMA is involved with the Auxiliary Unit Interface (AUI) board.

AUI to CS Out-Of-Range Counter
(AUICSOR)

This counter is incremented each time a D-level error of invalid out-of-range AUI to CS DMA is involved with the Auxiliary Unit Interface (AUI) board.

SSD to Client In-Range Counter
(CLSSDIR)

This counter is incremented each time a D-level error of valid in-range client-to-client access is involved with the Scan and Signal Distributor (SSD).

SSD to Client Out-Of-Range Counter
(CLSSDOR)

This counter is incremented each time a D-level error of invalid out-of-range client-to-client access is involved with the Scan and Signal Distributor (SSD).

External CCFR Entry When
CC 0 Was Active Simplex
(CCFR,CC0)

This count is pegged every time the CCFR program is called by D/E/F-level.

External CCFR Entry When
CC 1 Was Active Simplex
(CCFR,CC1)

This count is pegged every time the CCFR program is called by D/E/F-level.

Fan Controller 0 Inhibited Counter
(FAN0,INH)

This counter is incremented each time 1B overrides Fan Controller 0’ control when software receives an invalid response from it.

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

Fan Controller 1 Inhibited Counter
(FAN1,INH)

This counter is incremented each time 1B overrides Fan Controller 0' control when software receives an invalid response from it.

OMS 2

Alarms Peg Count
(ALARMS CRITICAL, MAJOR, or MINOR)

Within the 4ESS Switch there are three categories of alarms-critical, major and minor. A counter will exist for each one of these categories individually. Each time an alarm is announced the appropriate counter will be incremented by one to produce a total Peg Count for each alarm.

Power Room Alarms Peg Count
(POWER RM MAJOR-MINOR)

Power Room Alarm Peg Counts are counts of major and minor alarms sounded for power failures in power rooms remote from the switching equipment.

OMS 3

Hardware Detected CGA Peg Count
(HARDWARE DETECTED CGA)

This counter will be incremented by one each time a carrier failure is detected by hardware.

TABLE 21

OUTPUT MEASUREMENT SETS FOR MSC 21
(PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES)

```
MSC 21 PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES
OMS 0  SYSTEM RECOVERY - PHASES
  PH1PRG  PH1MAN  PH2PRG  PH2MAN  PH3PRG  PH3MAN  PH4MAN   PHTIME
       0       0       0       0       0       0       0        0

OMS 1  RECENT CHANGE MEASUREMENTS
 NO. RC ACTIVATED       0
 TYPE 2 ROLLBACKS       0

OMS 2  NM MEASUREMENTS

  CONTROL       SILC
  INVOKED     CONTROL    ROLLBACKS
        0           0            0

OMS 3  MACHINE CONGESTION

     MC1        REAL TIME        MF        DP      CCIS
  PEG COUNT             0         0         0         0
  TIME(10 MSEC)         0         0         0         0

     MC2        REAL TIME        MF        DP      CCIS
  PEG COUNT             0         0         0         0
  TIME (10 MSEC)        0         0         0         0
```

Description of Measurements for MSC 21

OMS 0

Phase 1 Program Initiated Peg Count
(PH1PRG)

This counter will be incremented by one by the Software Initialization Program (SINT) each time a phase 1 software initialization is initiated by the System Integrity Control (SICO) due to a program request.

Phase 1 Manually Initiated Peg Count
(PH1MAN)

Each time a phase 1 software initialization is initiated by SICO due to a manual request, this counter will be incremented by one by SINT.

Phase 2 Program Initiated Peg Count
(PH2PRG)

This counter will be incremented by one by the SINT program each time the SICO program initiates a phase 2 software initialization due to a program request.

Phase 2 Manually Initiated Peg Count
(PH2MAN)

Each time a phase 2 software initialization is initiated by the SICO program due to a manual request, this counter will be incremented by one by the SINT program.

Phase 3 Program Initiated Peg Count
(PH3PRG)

This counter will be incremented by one by the SINT program each time the SICO program initiated a phase 3 software initialization due to a program request.

Phase 3 Manually Initiated Peg Count
(PH3MAN)

Each time a phase 3 software initialization is initiated by the SICO program due to a manual request, this counter will be incremented by one by the SINT program.

Phase 4 Manually Initiated Peg Count
(PH4MAN)

This counter will be incremented by one by the SINT program each time the SICO initiates a phase 4 software initialization due to a manual request.

TABLE 21 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 21
(PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES)

Phase Level Duration Count
(PHTIME)

This counter will be updated by the Maintenance Restart Program (MARP) with the amount of time, measured in tens of milliseconds, that the system spends in a phase level recovery of any type. This count will include only the time spent in the phase and not time spent on interrupt processing due to a phase or as part of a phase.

OMS 1

Number Of Recent Changes Activated
Peg Count
(NO. RC ACTIVATED)

This counter is incremented by one each time a Recent Change is Activated.

Total Type 2 Rollbacks Peg Count
(TYPE 2 ROLLBACKS)

This counter will be incremented by one each time a Type 2 Recent Change rollback occurs. A Type 2 rollback is manually activated with a phase.

OMS 2

Network Management Controls Invoked
Peg Count
(CONTROL INVOKED)

This counter is incremented by one each time a Network Management control is instituted by the Network Manager.

Selective Incoming Load Control Peg Count
(SILC CONTROL)

This count is incremented by one when an incoming bid for service is denied due to Network Management Selective Incoming Load Control.

Network Management Control Rollbacks
Peg Count
(ROLLBACKS)

This counter is incremented by one each time the reinstatement of TSG control is inhibited as a result of a system reinitialization. The count relates to the number of phases when this occurs, not to the number of TSGs affected.

OMS 3

Dynamic Overload Control Peg Count
and Duration Measurement

This counter is incremented by the Network Management program whenever a request is made by overload or phase control programs to transmit a particular level and type of Dynamic Overload Control on order to reduce incoming call pressure. There are 4 types of control per level and 2 levels MC1 and MC2 (no counts are kept for MC3). The types are MF, DP, CCIS and Real Time, which determine the types of trunks for which DOC signals are sent. The Real Time control implies all signaling types.

The duration measurement for each level and type of control is given in tens of milliseconds. The measurement is maintained by recording the time a control was instituted, calculating elapsed time when the control is removed and summing that time into a counter. The specified counts are:

1. MC1 Real Time Peg Count
2. MC1 MF Peg Count
3. MC1 DP Peg Count
4. MC1 CCIS Peg Count
5. MC1 Real Time Duration
6. MC1 MF Duration
7. MC1 DP Duration
8. MC1 CCIS Duration
9. MC2 Real Time Peg Count
10. MC2 MF Peg Count
11. MC2 DP Peg Count
12. MC2 CCIS Peg Count
13. MC2 Real Time Duration
14. MC2 MF Duration
15. MC2 DP Duration
16. MC2 CCIS Duration

TABLE 22

OUTPUT MEASUREMENT SETS FOR MSC 22
(PERFORMANCE MEASUREMENTS - AUDIT TYPE)

```
MSC 22 PERFORMANCE MEASUREMENTS - AUDIT TYPE
OMS 0 AUDIT COMPLT
  ROUTINE-     0
  DEMAND -     0
OMS 1 AUDIT ERRORS
  ROUTINE-     0
  DEMAND -     0
```

Description of Measurements for MSC 22

OMS 0

Total Routine Audits Completed Peg Count
(AUDIT COMPLT-ROUTINE)

This counter will be incremented by one by the Audit Control Program (AUDS) each time any audit type (00-127) that is routinely requested by the program is completed.

Total Demand Audits Completed Peg Count
(AUDIT COMPLT-DEMAND)

Each time any audit type (00-127) that is manually requested is completed, this counter will be incremented by one by the AUDS program.

OMS 1

Total Routine Audits Errors Found
Peg Count
(AUDIT ERRORS-ROUTINE)

This counter will be incremented by one by the AUDS program each time an error is found by an audit type (00-127) that is routinely requested by the program.

Total Demand Audits Errors Found
Peg Count
(AUDIT ERRORS-DEMAND)

Each time any audit type (00-127) that is manually requested finds an error, this counter will be incremented by one by the AUDS program.

TABLE 23

OUTPUT MEASUREMENT SETS FOR MSC 23
(PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR)

```
MSC 23 PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR
OMS 0  MAINTENANCE OCCUPANCIES
  PROCESSOR  NETWORK  SERV CIRC
          0        0         0

OMS 1  MTCE USAGE
     CC     PS     CS    MUP    AUI
      0      0      0      0      0
    AUB    PSB    CSB    PUB   XPWR
      0      0      0      0      0
   IOUS   IOUC    API    IFB
      0      0      0      0
    DUS    TUC    PDF    SSD
      0      0      0      0

OMS 2 PERIPHERAL UNIT MTCE USAGE AND OUTAGE
                 TSI     TMS     TGR     TER    NCLK    SCLK    NCSU
  MTCE USAGE      0       0       0       0       0       0       0
  OUTAGE          0       0       0       0       0       0       0
                 D3U
  MTCE USAGE      0
  OUTAGE          0

OMS 3  PER CALL SERVICE CIRCUITS ACCUM MAINT OCC
    MF RCVR  DTMF RCVR  MF XMTR  DTMF XMTR
         0         0         0         0
     NSCXS     MSFHA   CCIS XMTR
         0         0         0

OMS 4  VFL ACCUM MAINT OCC
   DOM       0
   INT       0
```

Description of Measurements for MSC 23

OMS 0

Processor Accumulated Maintenance Usage (PROCESSOR)

This counter will accumulate total maintenance usage for all units listed separately under OMS 1.

Network Accumulated Maintenance Usage (NETWORK)

This counter will accumulate total maintenance usage for all units listed separately under OMS 2.

Service Circuits Accumulated Maintenance Usage (SERV CIRC)

This counter will accumulate total maintenance usage for all units listed separately under OMS 3.

OMS 1

Accumulated Maintenance Usage

The maintenance status for each of the specified units is determined every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register for the following unit types will reflect, in CCS, the amount of time the units were maintenance busy.

1. Central Control (CC)

TABLE 23 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 23
(PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR)

2. Program Store (PS)
3. Call Store (CS)
4. Maintenance and Utility Processor (MUP)
5. Auxiliary Unit Interface (AUI)
6. Auxiliary Unit Bus (AUB)
7. Program Store Bus (PSB)
8. Call Store Bus (CSB)
9. Peripheral Unit Bus (PUB)
10. Miscellaneous Power Board (XPWR)
11. Input-Output Unit Selector (IOUS)
12. Input-Output Unit Controller (IOUC)
13. Attached Processor Interface (API)
14. Interface Bus (IFB)
15. Data Unit Selector (DUS)
16. Tape Unit Controller (TUC)
17. Power Distribution Frame (PDF)
18. Scan and Signal Distributor (SSD)

OMS 2

Accumulated Maintenance Usage

The status table for each of the specified peripheral unit types is scanned every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus, the printout of each register for the following unit types will reflect in CCS, the amount of time the units were maintenance busy.

1. Time-Slot Interchange frame (TSI)
2. Time-Multiplex Switching Pair (TMS)
3. CCIS Terminal Group (TGR)
4. CCIS Terminal (TER)
5. Network Clock (NCLK)
6. System Clock (SCLK)
7. Network Clock Synchronization Unit (NCSU)
8. DS3 Unit (D3U)

Outage

The Service Degrading Conditions Table is scanned every 10 seconds to determine the number of each of the following unit types that are unavailable for service. The output, in CCS, is service outage time due to the condition specified for each unit type. Only primary outage times are reported. When a failure of one type causes the failure of another, only the first is recorded. (See MSC 24 for other outage measurements.)

9. TSI - Duplex Controller OOS
10. TMS - Duplex Controller OOS
11. TGR - Duplex Controller OOS
12. TER - Terminal Pair OOS
13. NCLK - 4 Clock Chains OOS
14. SCLK - Duplex Controller OOS
15. NCSU - 4 Clock Chains OOS
16. D3U - OOS unit not protection switched

OMS 3

Accumulated Maintenance Usage

The occupancy counter for each of the specified service circuits is scanned every 180 seconds. After each scan, the accumulating register for the service circuit type is incremented by the number of units found to be maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register for the following service circuit type will reflect, in CCS, the amount of time the units were maintenance busy.

1. MF Receivers (MF RCVR)
2. DTMF Receivers (DTMF RCVR)
3. MF Transmitters (MF XMTR)
4. DTMF Transmitters (DTMF XMTR)
5. NSCX Set S (NSCXS)
6. MAS and Expanded Announcements (MSFHA)
7. CCIS Transceivers (CCIS XCVR)

OMS 4

Domestic VFL Accumulated Maintenance Occupancy
(DOM VFL ACCUM MAINT OCC)

This counter contains the accumulated maintenance occupancy for all Domestic VFL circuits and is obtained via a 180 second scan of Trunk Subgroup head cells for VFL's. The output is in CCS.

International VFL Accumulated Maintenance Occupancy
(INT VFL ACCUM MAINT OCC)

This counter contains the accumulated maintenance occupancy for all International VFL circuits. It is obtained via a 180 second scan of Trunk Subgroup head cells for VFLs. The output is in CCS.

TABLE 24

OUTPUT MEASUREMENT SETS FOR MSC 24
(PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT)

```
MSC 24 PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT
OMS 0  TOTAL ACCUMULATED MAINTENANCE OCCUPANCY
  TERMINAL EQUIPMENT
         0

OMS 1  TERMINAL EQUIPMENT MAINT USAGE AND OUTAGE
          SP     VIC    VIU    DTC    DTU    DIF    DIU    SCS    SCU
USAGE      0       0      0      0      0      0      0      0      0
OUTAGE     0       0      0      0      0      0      0      0      0

OMS 2  TERMINAL EQUIPMENT
          UNIT     LOC     NONLOC   ---DIAG REQ----   ---DIAG ATP----
         ERRORS   FAULTS   FAULTS    PROG    MANUAL    PROG    MANUAL

 SP          0        0        0        0        0        0        0
 VIC         0        0        0        0        0        0        0
 VIU         0        0        0        0        0        0        0
 DTC         0        0        0        0        0        0        0
 DTU         0        0        0        0        0        0        0
 DIF         0        0        0        0        0        0        0
 DIU         0        0        0        0        0        0        0
 SCS         0        0        0        0        0        0        0
 SCU         0        0        0        0        0        0        0
```

Description of Measurements for MSC 24

OMS 0

Terminal Equipment Accumulated
Maintenance Usage
(TERMINAL EQUIPMENT)

This counter will accumulate total maintenance usage for all units associated with the MOC, and TEC 1 through 5. These units are listed individually under OMS 1.

OMS 1

Accumulated Maintenance Usage
(USAGE)

For Administration purposes, each of the units specified is assigned, via CMS 1A, to a Terminal Equipment Center (TEC 1 to 5). All maintenance usage for units assigned to TEC 1 to 5 will be combined and accumulated in a register assigned to the Maintenance Operations Center (MOC). The occupancy counter for each of the specified units is scanned every 180 seconds. After each scan, the accumulating register for each unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units before output. Thus, the printout of each register for a specified unit type will reflect in CCS, the amount of time the units were maintenance busy.

The units are SP, VIC, VIU, DTC, DTU, DIF, DIU, SCS, and SCU. No maintenance usage is charged against units (VIU, DTU, DIU, SCU) resident in a frame that is duplex failed.

Accumulated Outage
(OUTAGE)

These counters contain the time in CCS that the specified terminal units are not available for service. The Service Degrading Conditions Table is scanned every 10 seconds and the number of units found failed in each category is added to the plant counters. Outage is defined as follows:

a. SP, VIF, DT, DIF and SCS - Duplex controller failure

b. VIU, DTU, DIU, SCU - Out-Of-Service unit is not protection switched. No outage is counted against units resident in a duplex failed frame.

TABLE 24 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 24
(PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT)

OMS 2

The counts described below (with the SP as an example unit) are outputted for the following units:

Signal Processor (SP)
Voiceband Interface Controller (VIC)
Voiceband Interface Unit (VIU)
Digroup Terminal Controller (DTC)
Digroup Terminal Unit (DTU)
Digital Interface Frame (DIF)
Digital Interface Unit (DIU)
Service Circuit System (SCS)
Service Circuit Unit (SCU)

Signal Processor Errors Peg Count
(SP UNIT ERRORS)

The entries in this counter are defined as malfunctions, the symptoms of which cannot be reproduced under program control. An interrupt associated with a Signal Processor causes this counter to be incremented by one. The Unit Fault Recognition (FR) program will increment this Peg Counter.

Signal Processor Located Faults Peg Count
(SP LOC FAULTS)

This item is defined as a fault occurrence that can be resolved through analysis, to a replaceable equipment unit. This counter will be incremented by one when an interrupt causes execution of the FR program, which requests that the unit be diagnosed, and the diagnostic finds the trouble source.

Signal Processor Non-located Faults
Peg Counts
(SP NONLOC FAULTS)

This register will be incremented by one when a fault occurs that cannot be resolved through analysis to a replaceable equipment unit. It is incremented only when the diagnostic was requested by a fault recognition program. (The unit diagnostic would complete with an All Test Pass "ATP" result.)

Signal Processor Diagnostics Program
Requested Peg Count
(SP DIAG REQ PROG)

This counter will be incremented by one each time the unit diagnostic program is executed, unless its execution has been manually requested.

Signal Processor Diagnostic Manually
Requested Peg Count
(SP DIAG REQ MAN)

Each time the unit diagnostic program is executed by a manual request, this counter will be incremented by one.

Signal Processor Diagnostics Program
Requested - All Tests Passed Peg Count
(SP DIAG ATP PROG)

This counter will be incremented by one each time the unit diagnostic program is executed with an ATP result. This does not include diagnostics requested manually.

Signal Processor Diagnostics Manually
Requested - All Tests Passed Peg Count
(SP DIAG ATP MAN)

This counter will be incremented by one each time the unit diagnostic program is executed by a manual request with an ATP result.

TABLE 25

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
MSC 25  CONTROL AREA ZERO
OMS 0  CONTROL AREA SUMMATION
  TOTAL IMAS     TRK MTC OCC
          0               0

OMS 1  INCOMING IMAS
         MF EQ  DP EQ   Q931   ISUP   ITUP   INUP  DTMF   IOC
  PST        0      0      0      0      0      0     0      0
  FSA        0      0      0      0      0      0     0      0
  PDA        0      0      0      0      0      0     0      0
  PDT        0      0      0      0      0      0     0      0
  PER        0      0      0      0      0      0     0      0
  ANF        0      0      -      -      -      -     -      -
  AIF        0      0      -      -      -      -     -      -
  AOF        0      0      -      -      -      -     -      -

OMS 2  INCOMING IMAS
         MF EQ  DP EQ   Q931   ISUP   ITUP   INUP  DTMF   IOC
  MAB        0      0      0      0      0      0     0      0
  CST        0      0      -      -      -      -     -      -
  CDT        0      0      -      -      -      -     -      -

OMS 3    OUTGOING IMAS AND GLARE FAILURES
          MF EQ   DP EQ    Q931    ISUP    ITUP   INUP   DTMF
  UXS         0       0       0       0       0      0      0
  IKF         0       0       0       0       0      0      -
  CPF         0       0       0       0       0      0      0
  NSD         0       0       0       0       0      0      0
  XST         0       0       0       0       0      0      -
  GLR         0       0       0       0       0      0      0
  GLC         0       0       0       0       0      0      0

OMS 4  OOS PEG COUNTS
      RR       OTF        MAN      EASF      CGA
       0         0          0         0        0
     NIU       TSF        BLK       CCF      HAW
       0         0          0         0        0

ERR ANAL SUSP FLT(NOT OOS)
                 0

OMS 5  ATTEMPTS AND MAINTENANCE USAGE
 ATT      MF EQ     DP EQ     Q931     ISUP    CCIS
  IN          0         0        0        0       0
  OUT         0         0        0        0       0
  MTC         0         0        0        0       0

OMS 6  CCIS INEFFECTIVE ATTEMPTS

                    ------- VPA TESTS -------
     CKF      CLF      ATT     COMP      FAIL
       0        0        0        0         0
```

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
OMS 7  ROTL
                TEST    TEST
                 ATT     COMP
  CODE 100         0       0
  CODE 102         0       0
  CODE 105         0       0

OMS 8  TERMINATING TEST LINES
  ATTEMPTS
     100     102      103     104      105      106
       0       0        0       0        0        0
     107     108      109     110     SYNCHR   DATA
       0       0        0       0        0        0
  OVERFLOWS
     100     102      103     104      105      106
       0       0        0       0        0        0
     107     108      109     110     SYNCHR   DATA
       0       0        0       0        0        0

OMS 9  ROUTINE OPERATIONAL TESTS
               TEST    TEST    TEST
                ATT    PASS    FAIL
  CODE 103       0       0       0
  QIC            0       0       0
  SYNCHR         0       0       0
  CENTREX 2      0       0       0
  CENTREX 3      0       0       0
  SXS            0       0       0
  FTT            0       0       0

OMS 10  TEST ACCESS CIRCUIT
  ORIG   101 ORIG  INC ATT  101 FTB  INC OVF  101 XFR
      0       0         0        0        0        0
  TOTAL   101   INC 101  MAINT
  USAGE  USAGE   USAGE   USAGE
      0      0       0       0

OMS 11  INTERNATIONAL ATTEMPTS AND MAINT. USAGE
                 CCITT5     CCITT6     ITUP      INUP
INC ATTEMPTS          0          0        0         0
OUT ATTEMPTS          0          0        0         0
MAINT USAGE           0          0        0         0

OMS 12  OOS PEG COUNTS
  ATME-B    ATME-C
       0         0

OMS13 INTERNATIONAL TRUNK TESTS-DIRECTOR
        ATTEMPTS      PASS      FAIL
ATME-B         0         0         0
ATME-C         0         0         0
```

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
OMS 14  INTERNATIONAL TRUNK TESTS-RESPONDER
        ATTEMPTS      OVFL
ATME-A         0         0
ATME-B         0         0
ATME-C         0         -

OMS 15  ATME FAILURES
INV INC TC          0
DIR/RES IRREG       0
OMS 16  CCITT5 CALL IRREGULARITIES
--INCOMING--
IDLE-URS      FS-TO     PST-TO     SOP-TO     IAD-TO      URS  PLS-ERR
       1          0          0          0          0        0        0
--OUTGOING--
  DS-CLF     DS-URS      DS-TO     PTS-TO
       0          0          0          0
  TX-ERR        URS         BF     PS-PTS
       0          0          0          0
--WAITING FOR ANSWER--
      TO    URS-ICT    URS-OGT     BF-OGT     ANS-TO  ANS-ACK-TO
       0          0          0          0          0         0
--ANSWERED--
 URS-ICT    URS-OGT
       0          0
--DISCONNECTED--
  CLB-TO     NO-CLF      PS-CB     NO-RLG     CLF-TO    PS-RLG
       0          0          0          0          0         0
--ABANDONS--
     ISA        IAD        MAB
       0          0          0
--OTHERS--
 MULT SP       URS-CCITT6
       0               0
FIRST TRIAL - CCITT5
  GLARE              0
  NSD                0
  OUTPULSING         0
  SIG IRREG          0
OMS 17  CCITT6 ACKNOWLEDGEMENT TIMEOUTS
     BLA     UBA
       0       0
```

Description of Measurements for MSC 25

These performance measurements are associated with trunks and they will be kept on a Control Area basis. The number of Control Areas is office dependent. The number of counter blocks is also office dependent, one for each Control Area. Each block will correspond to a Control Area or Administration Area within the Circuit Maintenance System CMS 1A. Each Trunk Subgroup in the office is assigned to one and only one Control Area. The counters associated with the data block 0, corresponding to Control Area 0, will be the performance measures of all Trunk Subgroups assigned to Control Area 0. So, Plant Maintenance performance

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

data on a per Trunk Subgroup basis will not be available. However, the ability will be provided whereby at most, 31 individual Trunk Subgroups can be monitored for ineffective attempts, total attempts, and maintenance usage, using one or all of the Control and Administrative.

All the following counts listed with the exceptions of the total attempts counts and the accumulated maintenance usage, will be incremented by the Trunk Maintenance Administration Program (TMAD). This program is responsible for removing trunks from service and has available to it the data about signaling characteristics and reasons for removal. TMAD is aware of all trunks undergoing error analysis. This program is entered whenever there is an ineffective call attempt and has the identity and signaling characteristics of the trunk involved. The total attempts counts and the accumulated maintenance occupancy are calculated by the Traffic and Plant Measurement program.

OMS 0

Total Ineffective Machine Attempts
Peg Count
(TOTAL IMAS)

This register contains the combined counts of all registers in OMS 1 and OMS 2. All these counts are considered Ineffective Machine Attempts.

Trunk Maintenance Usage
(TRK MTC OCC)

This counter will record the combined accumulated maintenance usage of all trunks assigned to the Control Area. The trunks are scanned every 180 seconds and the program will convert this counter to CCS units before it is printed out.

OMS 1

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing
h. IOC

Permanent Signal Timeout Peg Count
(PST)

These counters will be incremented by one each time a bid for service is received on an incoming trunk, but no digits are received within the permanent signal time out interval.

False Start Abandon Peg Count
(FSA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk but no digits are received, and the call is abandoned before permanent signal timeout.

Partial Dial Abandon Peg Count
(PDA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk and at least one digit but less than the expected number of digits is received, and the bid is removed before partial dial timeout.

Partial Dial Timeout Peg Count
(PDT)

Each time at least one but less than the expected number of digits is received before timeout on an incoming trunk, one of these counters will be incremented by one.

Pulsing Error Peg Count
(PER)

These counters will be incremented by one each time one or more of the received digits is in error as defined by one of the following:

a. Mutilated Digit (MTD) - on MF pulsing calls, a single frequency or more than two frequencies are received in a digit pulse.
b. Misplaced Start (MPS) - on MF pulsing calls, an ST signal is received in an improper position.
c. False Key Pulse (FKP) - on MF pulsing calls, a second KP signal is received.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

d. Extra Digit (EXD) - More digits are received than expected.

e. Extra Pulse (EXP) - on DP calls, an 11th pulse is received for a single digit.

f. Pulsing Error Other (PEO) - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above.

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

These counters will be incremented by one for CAMA ANI calls when 5-seconds have elapsed between reception of an information digit and the calling party number digits. These counters will also be incremented when the ANI equipment receives invalid or non-MF calling party digits, or the ANI information digit is non-MF tone. The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure Peg Count
(AIF)

These counters will be incremented by one for CAMA ANI calls that exceed 5 seconds waiting for the ANI information digit, or the ANI information is not:

a. 0 - ANI OK
b. 3 - ANI OK - Service Observing
c. 1 - ANI Multi-party
d. 4 - ANI Multi-party - Service Observing

The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure Peg Count
(AOF)

These counters will be incremented by one for CAMA ANI calls for which a five second timeout occurs while waiting for the ANI information digit. The call is then transferred to an operator for further handling.

OMS 2

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing
h. IOC

Miscellaneous Abandon Peg Count
(MAB)

These counters will be incremented by one each time a bid for service is abandoned before completion of outpulsing and after the completion of inpulsing and no other abandon register is pegged.

CAMA Seizure Timeout Peg Count
(CST)

With each occurrence of the following situation, these counters will be incremented by one. When the CAMA operator position circuit automatically recognizes a seizure, the circuit returns an on-hook on the keying trunk, and the keying trunk fails to go on-hook within 5-seconds of when the seizure was sent.

CAMA Disconnect Timeout Peg Count
(CDT)

This counter is incremented when more than 5-seconds elapses between the sending of a disconnect signal to a CAMA operator position and the receipt of off-hook on the keying trunk.

OMS 3

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Unexpected Stop
(UXS)

These counters will be incremented by one each time an unexpected stop dial signal is received. This includes the following:

a. Any stop dial during pulsing on an MF trunk.

b. Any stop dial during pulsing on a DP trunk that does not have expect stop-go class.

c. A second stop dial during pulsing on a DP trunk that does not expect stop-go class.

d. On DP, expect stop-go trunks, a stop dial at an invalid time.

Integrity Check Failure
(IKF)

These counters will be incremented by one each time there is a failure to receive a delay dial signal on a delay dial start dial trunk within 4-seconds of trunk seizure.

Continuity/Polarity Test Failure
(CPF)

These counters are incremented by one each time one of the following conditions occur:

a. An incoming seizure is processed on a one way outgoing trunk.

b. An off-hook on an operator no-outpulsing trunk occurs where the operator fails to hang up within a 1-second timeout interval.

c. An off-hook on maintenance test trunks and service circuits occur.

No Start Dial
(NSD)

These counters will be incremented by one each time there is a failure to receive a wink start signal within 4-seconds of a trunk seizure, a failure to receive on-hook on a one way outgoing trunk, and failure of the far end office to relinquish the trunk within the 4-second timeout interval when glare occurred on a trunk that the near end office has control of.

Expected Stop Timeout
(XST)

This counter is incremented by one each time, on any DP trunk with expected stop-go class, an unexpected stop dial signal is received during outpulsing and persists beyond the transmitter timeout interval.

Glare Condition - Far End in Control
(GLR)

These counters will be incremented by one each time the 4ESS Switch and the far end office simultaneously attempt to seize the same trunk, and the 4ESS Switch relinquishes control. The 4ESS Switch backs down if the far end office has control of the trunk and if a check to determine whether the outgoing trunk is on-hook before seizure indicates that the trunk is off-hook and when for a given call, the TSN of the outgoing trunk had to be retrieved from disk memory for 3 different trunks and on each successful retrieval the trunk was found busy.

Glare Condition - 4ESS Switch in Control
(GLC)

This counter is incremented by one each time the 4ESS Switch and a far end office simultaneously attempt to seize the same trunk, and the 4ESS Switch is in control.

OMS 4

Out-Of-Service Peg Counts are kept for trunks as they are removed from service. These Peg Counts indicate the reason for removal from service.

Out-Of-Service ROTL Request Peg Count
(OOS - RR)

Out-Of-Service Operational Test Failure
Peg Count
(OOS - OTF)

Out-Of-Service Manual Request Peg Count
(OOS - MAN)

Out-Of-Service Error Analysis Suspected
Failure Peg Count
(OOS - EASF)

Out-Of-Service Carrier Group Alarm
Peg Count
(OOS - CGA)

Out-Of-Service Equipment Failure, VIU,
DTU, ESU Peg Count
(OOS - NIU)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Out-Of-Service Total Signaling Failure
Peg Count (CCIS trunk only)
(OOS - TSF)

Out-Of-Service Blocking Received (CCIS
Trunks) from Far End Office Peg Count
(OOS - BLK)

Out-Of-Service Continuity Check Retest
Failure Peg Count
(OOS - CCF)

Out-Of-Service High and Wet Peg Count
(OOS - HAW)

Error Analysis Suspected Failure Peg Count
(ERR ANAL SUSP FLT - NOY OOS)

Each time the error analysis encounters a suspected failure and leaves the trunk in service, this counter is incremented by one.

OMS 5

The performance measurements for each of the following measurements will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. CCIS trunks

Incoming Attempts
(ATTEMPTS IN)

These counts will be calculated by accumulating the incoming seizures for which at least one digit was received on message Trunk Subgroups. This count will not include false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Outgoing Attempts
(ATTEMPTS OUT)

These counts will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing message Trunk Subgroups. Since there is only one seizure Peg Count for outgoing call attempts, these counts will be off by the number of retrials attempted.

Maintenance Usage
(MTC USAGE)

These counters will accumulate maintenance usage of all message trunks assigned to this Control Area.

OMS 6

Continuity Check Failure (CKF) Peg Count
(CKF)

Each time a failure of the continuity test of a CCIS trunk that is made before a voice path cut through occurs, this register will be incremented by one.

Clear-Forward Received Peg Count
(CLF)

This counter is incremented each time a Clear-Forward signal is received on an incoming trunk in the transient state.

Voice Path Assurance (VPA) Test Attempted
Peg Count
(VPA TESTS ATT)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

Voice Path Assurance (VPA) Test Completed
Peg Count
(VPA TESTS COMP)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

Voice Path Assurance (VPA) Test Failure
Peg Count
(VPA TESTS FAIL)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

OMS 7

Code 10X Test Attempted Peg Count
(TEST ATT)

Code 10X Test Completed Peg Count
(TEST COMP)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

These counters, by test type, will be incremented by one each time ROTL attempts or completes a transmission test on a trunk. The following codes identify the types of transmission tests:

1. CODE 100
2. CODE 102
3. CODE 105

OMS 8

Terminating Test Line Tests Attempts
(ATTEMPTS)

Terminating Test Line Tests Overflows
(OVERFLOWS)

These counters will record the total number of call attempts made to the following terminating test lines and the total attempts that overflow.

1. 100
2. 102
3. 103
4. 104
5. 105
6. 106
7. 107
8. 108
9. 109
10. 110
11. SYNCHRONOUS (SYNCHR)
12. DATA

OMS 9

Routine Operational Tests Attempted
(TEST ATT)

Routine Operational Tests Passed
(TEST PASS)

Routine Operational Tests Failed
(TEST FAIL)

These counters will record total test attempts, test passed and test failures for types of outgoing operational tests.

1. CODE 103
2. Quick Integrity Check (QIC)
3. Synchronous Test (SYNCHR)
4. Centrex 2 Test (CENTREX 2)
5. Centrex 3 Test (CENTREX 3)
6. Step by Step Test (SXS)
7. Functional Trunk Test (FTT)

OMS 10

Test Access Circuit Origination Peg Count
(ORIG)

Each time a Test Access Circuit is seized for originating a maintenance request, this counter is incremented by one.

Code 101 Origination Peg Count
(101 ORIG)

This counter will be incremented by one each time a Test Access Circuit is seized to originate a code 101 test call.

Incoming Code 101 Peg Count
(INC ATT)

This counter will be incremented by one each time an attempted seizure is made on a Code 101 Test Access Circuit. The count is incremented based on the Control Area that is assigned to the incoming trunk through translation data. This count also includes test attempts that are aborted.

Code 101 First Trial Busy Peg Count
(101 FTB)

When an incoming code 101 test call attempts to terminate at a test position, which is determined by the trunk or by a request for a test position through the digits received, and this first choice test position cannot be seized, this counter will be incremented by one.

Incoming Code 101 Overflow Peg Count
(INC OVF)

This counter is incremented by one each time an incoming 101 test call is unable to be terminated.

Code 101 Transfer Peg Count
(101 XFR)

This counter will be incremented by one each time the Test Access Circuit transfer facility is utilized. The counter is incremented based on the Control Area that is assigned to the incoming trunk through translation data.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Total Test Access Circuit Usage
(TOTAL USAGE)

This counter will be incremented by the number of Test Access Circuits found busy after each 180 second scan. This count does not include maintenance usage. The program will convert the data to CCS units before output.

Code 101 Usage
(101 USAGE)

This counter will record the accumulated Test Access Circuit Usage attributable to outgoing code 101 test calls.

Incoming Code 101 Usage
(INC 101 USAGE)

This counter will record the accumulated Test Access Circuit Usage attributable to incoming code 101 code test calls.

Maintenance Test Access Circuit Usage
(MAINT USAGE)

This counter will record the accumulated Test Access Circuit maintenance busy usage.

OMS 11

CCITT No. 5, CCITT No. 6, ITUP and INUP
Incoming Attempts
(INC ATTEMPTS)

These counts will be calculated by accumulating the incoming seizures for which at least one digit was received on CCITT No. 5, CCITT No. 6, ITUP or INUP Trunk Subgroups. These counts do not include false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

CCITT No. 5, CCITT No. 6, ITUP and INUP
Outgoing Attempts
(OUT ATTEMPTS)

These counts will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing message Trunk Subgroups. Since there is only one seizure Peg Count for CCITT No. 5, CCITT No. 6, ITUP or INUP outgoing call attempts, respectively, these counts will be off by the number of retrials attempted.

CCITT No. 5, CCITT No. 6, ITUP and INUP
Maintenance Usage
(MAINT USAGE)

After each 180 second scan period, these counts will be incremented by the number of CCITT No. 5, CCITT No. 6, ITUP or INUP trunks found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

OMS 12

ATME-B Out-Of-Service Peg Count
(ATME-B OOS)

This counter is incremented by one each time a trunk is taken out-of-service because it failed either a hardware or software requested ATME-B Director Test.

ATME-C Out-Of-Service Peg Count
(ATME-C OOS)

This counter is incremented by one each time a trunk is taken out-of-service because it failed either a hardware or software requested ATME-C Director Test.

OMS 13

ATME-B Director Tests Attempted Peg Count
(ATME-B ATTEMPTS)

This count is incremented by one each time an ATME-B Director is seized as a result of a hardware or software request for testing.

ATME-B Director Tests Passed Peg Count
(ATME-B PASS)

This count is incremented by one each time an ATME-B director successfully passes the Director test requested.

ATME-B Director Tests Failed Peg Count
(ATME-B FAIL)

This count is incremented by one each time an ATME-B Director fails to pass the Director test requested.

ATME-C Director Tests Attempted
Peg Count
(ATME-C ATTEMPTS)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

This count is incremented by one each time an ATME-C Director is seized as a result of a hardware or software test request.

ATME-C Director Tests Passed Peg Count
(ATME-C PASS)

This count is incremented by one when an ATME-C Director passes successfully the Director tests required.

ATME-C Director Tests Failed Peg Count
(ATME-C FAIL)

This count is incremented by one each time an ATME-C Director fails to pass the Director test.

OMS 14

ATME-A Responder Tests Attempted
Peg Count
(ATME-A ATTEMPTS)

This count is incremented by one each time an ATME-A Responder is seized from a distant office for testing.

ATME-A Responder Tests Overflowed
Peg Count
(ATME-A OVFL)

This count is incremented by one when a request is made by a distant office to seize an ATME-A Responder for testing and none is available.

ATME-B Responder Tests Attempted
Peg Count
(ATME-B ATTEMPTS)

This count is incremented by one each time an ATME-B Responder is seized from a distant office for testing.

ATME-B Responder Tests Overflowed
Peg Count
(ATME-B OVFL)

This count is incremented by one when a request is made by a distant office to seize an ATME-B Responder for testing and none is available.

ATME-C Responder Tests Attempted
Peg Count
(ATME-C ATTEMPTS)

This count is incremented by one each time an ATME-C Responder is seized from a distant office for testing.

OMS 15

Invalid Incoming ATME Test Call Peg Count
(INV INC TC)

This counter is incremented by one when an inbound call on a CCITT No. 5 or CCITT No. 6 trunk has been determined to be invalid.

ATME Director/Responder Irregularities
Peg Count
(DIR/RES IRREG)

This counter is incremented by one when a signaling irregularity has been detected on an inbound or outbound automatic trunk measuring equipment (ATME) test call on a CCITT No. 5 or CCITT No. 6 trunk.

OMS 16

INCOMING

Unreasonable Signal Peg Count
(IDLE-URS)

This counter is incremented by one if one of the following frequencies is received on an idle circuit:

a. (F1+F2)
b. (F2)
c. (F1) on an idle one-way Outgoing Trunk

False Seizure Timeout Peg Count
(FS-TO)

This counter is incremented by one if a Clear-Forward signal is not received on an incoming trunk within a 40-second timing interval after the loss of a seizing signal (F1), and before a Proceed-To-Send signal was sent.

Proceed-To-Send Signal Timeout Peg Count
(PST-TO)

This counter is incremented by one when a seizing signal (F1), is not removed within 6-seconds of transmitting a Proceed-To-Send signal.

Start of Pulsing Timeout Peg Count
(SOP-TO)

This counter is incremented by one when the KP-signal is not received within 2-seconds after the Proceed-To-

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Send signal is removed.

Incomplete Address Timeout Peg Count
(IAD-TO)

This counter is incremented by one when an ST-signal is not received within 5-seconds after receipt of the KP-signal.

Unreasonable Signal Peg Count
(URS)

This counter is incremented by one when an (F1) or (F2) signal is received during register timing on an incoming call.

Pulsing Error Peg Count
(PLS-ERR)

This counter is incremented by one each time one or more of the following digits is in error as defined by one of the following:

a. Mutilated Digit (MTD) - On MF pulsing calls, a single frequency or more than two frequencies are received in a digit pulse.

b. Misplaced Start (MPS) - On MF outpulsing calls, an ST-signal is received in an improper position.

c. False Key Pulse (FKP) - On MF pulsing calls, a second KP-signal is received.

d. Extra Digit (EXD) - More digits are received than are expected.

OUTGOING

Double Seizure - Clear-Forward Peg Count
(DS-CLF)

This count is incremented by one if a Clear-Forward (F1+F2) signal is received instead of a Proceed-To-Send signal.

Double Seizure - Unreasonable Signal
Peg Count
(DS-URS)

This count is incremented by one if an (F2) signal is received on the outgoing trunk during the 850-millisecond double seizure (Glare) timing interval.

Double Seizure Timeout Peg Count
(DS-TO)

This counter is incremented by one if an incoming seizure signal persists for 20-seconds after the terminating seizure is released following an 850-millisecond glare timeout.

Seizing Signal Timeout Peg Count
(PTS-TO)

This counter is incremented by one if the Proceed-To-Send signal is not received within 20-seconds after sending the seizure signal (F1).

Transmitter Error Peg Count
(TX-ERR)

This counter is incremented by one if an MF Transmitter fails during outpulsing.

Unreasonable Signal Peg Count
(URS)

This counter is incremented by one if an (F1) or (F1+F2) signal is received during outpulsing.

Busy-Flash Peg Count
(BF)

This counter is incremented by one if a Busy-Flash (F2) signal is received during outpulsing.

Persisting Proceed-To-Send Signal Peg Count
(PS-PTS)

This counter is incremented by one if the Proceed-To-Send signal is not removed from the outgoing trunk within 20-seconds after the completion of outpulsing.

WAITING FOR ANSWER

Timeout Peg Count
(TO)

This counter is incremented by one if an answer signal is not received within 4-minutes after outpulsing is completed.

Unreasonable Signal on the Incoming Trunk
Peg Count
(URS-ICT)

This counter is incremented by one if a seizure signal (F1) is received on the incoming trunk during the 4-minute waiting-for-answer.

Unreasonable Signal on the Outgoing Trunk

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Peg Count
(URS-OGT)

This counter is incremented by one if an (F1,F2) signal is received on an outgoing trunk that is in the waiting-for-answer stage.

Busy-Flash on the Outgoing Trunk Peg Count
(BF-OGT)

This counter is incremented by one if a Busy-Flash (F2) signal is received on the outgoing trunk while in the waiting-for-answer stage.

Answer Signal Timeout Peg Count
(ANS-TO)

This counter is incremented by one if an answer acknowledgement signal (F1) is not received within 15-seconds of sending an answer signal (F1) on the incoming trunk.

Answer-Acknowledgement Signal Timeout
Peg Count
(ANS-ACK-TO)

This counter is incremented by one if the answer acknowledgement signal (F1) is not stopped on the outgoing trunk within 6-seconds of sending the answer-acknowledgement signal (F1).

ANSWERED

Unreasonable Signal On the Incoming Trunk
Peg Count
(URS-ICT)

This counter is incremented by one if an (F1) signal is not received on an incoming trunk in the answered call state.

Unreasonable Signal on the Outgoing Trunk
Peg Count
(URS-OGT)

This counter is incremented by one if an (F1+F2) or an (F1) signal is received on an outgoing trunk in the answered call state.

DISCONNECTED

Clear-Back/Busy-Flash Signal Timeout
Peg Count
(CLB-TO)

This counter is incremented by one when an acknowledgement signal (F1) is not received within 15-seconds of sending a Clear-Back or Busy-Flash (F2) signal.

Failure to Receive Clear-Forward Peg Count
(NO-CLF)

This counter is incremented by one if a Clear-Forward signal is not received within 60-seconds after receipt of a Clear-Back or Busy-Flash acknowledgement (4-minutes if it is a transit call).

Clear-Back and Busy-Flash Acknowledgement
Signal Timeout Peg Count
(PS-CB)

This counter is incremented by one if the Clear-Back or Busy-Flash signal is not removed within 6-seconds after sending Clear-Back or Busy-Flash acknowledgement.

Release-Guard Signal Timeout Peg Count
(NO-RLG)

This counter is incremented by one if on sending a Release-Guard (F1+F2) signal on the incoming trunk, the Clear-Forward signal is not removed within 6-seconds.

Clear-Forward Signal Timeout Peg Count
(CLF-TO)

This counter is incremented by one if on sending a Clear-Forward (F1,F2) signal on an outgoing trunk, a Release-Guard (F1+F2) signal is not received within the Clear-Forward timing interval.

Persisting Release Guard Signal Peg Count
(PS-RLG)

This counter is incremented by one if a Release-Guard signal is not removed within 15-seconds of removing Clear-Forward.

ABANDONS

Incoming Seizure Abandon Peg Count
(ISA)

This counter is incremented by one if:

a. The seizing signal (F1) on an incoming trunk stops before a Proceed-To-Send signal is sent, and a Clear-Forward (F1+F2) signal is received before a 40-second timeout occurs.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

b. If a Clear-Forward signal is received the Proceed-To-Send signal is sent but before the reception of a KP-signal.

Incomplete Address Abandon Peg Count
(IAD)

This counter is incremented by one if a Clear-Forward signal is received on an incoming call after a KP-signal has been received but before receiving the ST-signal.

Miscellaneous Abandon Peg Count
(MAB)

This counter is incremented by one if a Clear-Forward signal is received on the incoming trunk before completion of outpulsing on a CCITT No. 5 outgoing trunk.

OTHERS

Multiple Scan Points Active Peg Count
(MULT SP)

This count is incremented by one when more than one scan point is active at the same time on a CCITT No. 5 circuit.

Unreasonable Signal on an Idle
CCITT No. 6 Trunk Peg Count
(URS-CCITT6)

This counter is incremented by one when an unreasonable signal is received on an idle CCITT No. 6 trunk.

First Trial Glare Fail CCITT No. 5 Trunk
Peg Count
(FIRST TRIAL-CCITT5-GLARE)

This counter is incremented by one when a first trial glare condition has been encountered on a CCITT No. 5 outgoing trunk.

First Trial No. Start Dial (NSD) -
CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-NSD)

This counter is incremented by one when an outbound call encounters a first trial proceed to send timeout on a CCITT No. 5 trunk.

First Trial Outpulsing Fail
CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-OUTPULSING)

This counter is incremented by one when an outbound call encounters a first trial outpulsing failure on a CCITT No. 5 trunk.

Incoming Signal Irregularities Before
Answer CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-SIG IRREG)

This counter is incremented by one when a signaling irregularity occurs before answer on a CCITT No. 5 outgoing trunk.

OMS 17

Blocking Acknowledgement Timeout
Peg Count
(BLA)

This count is incremented by one if on sending a blocking signal a blocking acknowledgement signal is not received within 6-minutes.

Unblocking Acknowledgement Timeout
Peg Count
(UBA)

This count is incremented by one if on sending an unblocking signal, an unblocking acknowledgement signal is not received within 6-minutes.

TABLE 26

OUTPUT MEASUREMENT SETS FOR MSC 26
(CONTROL AREA ONE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area One.

TABLE 27

OUTPUT MEASUREMENT SETS FOR MSC 27
(CONTROL AREA TWO)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Two.

TABLE 28

OUTPUT MEASUREMENT SETS FOR MSC 28
(CONTROL AREA THREE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Three.

TABLE 29

OUTPUT MEASUREMENT SETS FOR MSC 29
(CONTROL AREA FOUR)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Four.

TABLE 30

OUTPUT MEASUREMENT SETS FOR MSC 30
(CONTROL AREA FIVE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Five.

TABLE 31

OUTPUT MEASUREMENT SETS FOR MSC 31
(CONTROL AREA SIX)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Six.

TABLE 32

OUTPUT MEASUREMENT SETS FOR MSC 32
(CONTROL AREA SEVEN)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Seven.

TABLE 33

OUTPUT MEASUREMENT SETS FOR MSC 33
(CONTROL AREA EIGHT)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Eight.

TABLE 34

OUTPUT MEASUREMENT SETS FOR MSC 34
(CONTROL AREA NINE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Nine.

TABLE 35

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

```
MSC 35  SERVICE CIRCUITS
OMS 0 MAINTENANCE SERVICE CIRCUITS MAINTENANCE OCCUPANCIES

      RA      RT    ROTL  MF RCVR TST  MF XMTR TST   CSTD    XCVR TEST
       0       0       0           0            0       0            0

OMS 1  MAINTENANCE SERVICE CIRCUITS MEASUREMENTS
         LOC   NONLOC    SEIZ  SEIZ   TOTAL
  UNIT  FLTS    FLTS     ATT   OVFL   USAGE   SCF
  RA       0       0       -      -       -      -
  RT       0       0       -      -       -      -
  ROTL     -       -       0      0       0      0
  MRCT     -       -       -      -       0      -
  MXMT     -       -       -      -       0      0
  CSTD     0       0       0      0       0      -
  XCVR     0       0       -      -       0      -

OMS 2  ATME-A
               SZRE     USAGE  MTC USAGE
RESPONDER         0         0          0

OMS 3  TMR SEIZURES
              ATT        OVFL
                0         0
```

Description of Measurements for MSC 35

OMS 0

Maintenance Busy Occupancy

The occupancy counter for each of the specified units is scanned every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register will reflect, in CCS, the amount of time each of the following types of units were maintenance busy.

1. Recorded Announcement Machine (RA)
2. Ringing and Tone Plant (RT)
3. Remote Office Test Line (ROTL)
4. MF Receiver Test Circuit (MF RCVR TST)
5. MF Transmitter Test Circuit (MF XMTR TST)
6. Common System Tone Detector (CSTD)
7. CCIS Transceiver Test Circuit (XCVR TEST)

OMS 1

Recorded Announcement Machine Located
Faults Peg Count
(RA LOC FLTS)

This counter is incremented by one each time the Recorded Announcement machine diagnostic locates a fault.

Recorded Announcement Machine Non-located
Faults Peg Count
(RA NONLOC FLTS)

This counter is incremented by one each time the Recorded Announcement machine diagnostic is run and no fault is found.

Ringing and Tone Plant Located Faults
Peg Counts
(RT LCO FLTS)

This counter is incremented by one each time the ringing and tone plant diagnostic locates a fault.

Ringing and Tone Plant Non-located Faults
Peg Count
(RT NONLOC FLTS)

TABLE 35 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

This counter is incremented by one each time the ringing and tone plant diagnostic is run and no fault is found.

Remote Office Test Line Seizure
Attempts Peg Count
(ROTL SEIZ ATT)

Each time a 4ESS Switch program attempts to seize a ROTL port, this counter is incremented by one.

Remote Office Test Line Seizure Overflow
Peg Count
(ROTL SEIZ OVFL)

This counter is incremented by one each time a 4ESS Switch program attempts to seize a ROTL port but none are available.

Remote Office Test Line Total Usage
(ROTL TOTAL USAGE)

This counter will record the accumulated usage for ROTL ports. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

Remote Office Test Line Self-Check Fail
Peg Count
(ROTL SCF)

This counter will be incremented by one each time either the ROTL Responder or the 105 responder fails its self-check.

MF Receiver Test Circuit Total Usage
(MRCT TOTAL USAGE)

This counter will record the accumulated usage for MF Receiver tests sets. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

MF Transmitter Test Circuit Total Usage
(MXMT TOTAL USAGE)

This counter will record the accumulated usage for MF Transmitter test sets. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

MF Transmitter Test Self-Check Fail
Peg Count
(MXMT SCF)

Each time an MF Transmitter or MF Receiver fails its self-check, this counter will be incremented by one.

Common System Tone Detector (CSTD)
Located Faults Peg Count
(CSTD LOC FLTS)

This counter will be incremented by one each time the CSTD diagnostic is executed and a fault is found.

Common System Tone Detector (CSTD)
Non-located Faults Peg Count
(CSTD NONLOC FLTS)

Each time the CSTD diagnostic is executed and no fault is found, this counter will be incremented by one.

Common System Tone Detector (CSTD)
Seizure Attempts Peg Count
(CSTD SEIZ ATT)

This counter is incremented by one each time an attempt is made to seize a CSTD.

Common System Tone Detector (CSTD)
Seizure Overflow Peg Count
(CSTD SEIZ OVFL)

This counter is incremented by one each time an attempt is made to seize a CSTD and none is available.

Common System Tone Detector (CSTD)
Total Usage
(CSTD TOTAL USAGE)

This counter will record the accumulated usage for all CSTDs. This count does not include maintenance usage.

CCIS Transceiver Test Circuit
Located Faults Peg Count
(XCVR LOC FLTS)

This counter is incremented by one each time the CCIS Transceiver diagnostic locates a fault.

CCIS Transceiver Test Circuit
Non-located Faults Peg Count
(XCVR NONLOC FLTS)

This counter is incremented by one each time the CCIS Transceiver diagnostic is run and no fault is found.

CCIS Transceiver Test Circuit Total Usage
(XCVR TOTAL USAGE)

TABLE 35 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

This counter will record the accumulated usage for CCIS Transceiver test circuits. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

OMS 2

ATME-A Responder Incoming Seizures
Peg Count
(RESPONDER SZRE)

This counter is incremented by one each time an ATME-A responder is seized by the office for testing.

ATME-A Responder Total Usage
(RESPONDER USAGE)

This counter will record the accumulating usage for ATME-A responder test circuits. This count does not include maintenance usage. The scan rate is 180 seconds and the data is converted to CCS by the traffic program before output.

ATME-A Responder Maintenance Usage
(RESPONDER MTC USAGE)

This counter will record the accumulated maintenance usage for ATME-A responder test circuits. This count does not include service usage. The scan rate is 180 seconds and the data is converted to CCS by the traffic program before output.

OMS 3

Trunk Maintenance Register Seizure
Attempts Peg Count
(TMR SEIZURES ATT)

Each time an attempt is made to seize a TMR, this register is incremented by one.

Trunk Maintenance Register Seizure
Overflow Peg Count
(TMR SEIZURES OVFL)

Each time an attempt is made to seize a TMR and there are none available this register is incremented by one.

TABLE 36

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

```
MSC 36  SERVICE MEASUREMENTS
OMS 0 INCOMING IA, CCIS, ISUP, ITUP, INUP AND Q931
  INC ADRS   COT SIG    ISUP IAD  ISUP COT  ISUP COT  ITUP COT
    DET        T/O         DET      FAIL      T/O       FAIL
       0         0           0         0         0         0

  ITUP COT    INUP        INUP    INUP COT    Q931      Q931
    T/O        IAD         COT      T/O     INC ADRS    INFO
       0         0           0         0         0         0

    Q931      ISUP        ISUP      ITU       ITUP      INUP
     URS       URS        MISC       UR       MISC       URS
    RCVD      RCVD         T/O      RCVD       T/O      RCVD
       0         0           0         0         0         0

  INUP MSC  ITUP IRR    ITUP OUT  INUP IRR  INUP OUT
    T/O       B4ANS     IRR B4ANS   B4ANS   IRR B4ANS
       0         0           0         0         0

OMS 1  INCOMING IAS,BEFORE ADDR SIGNALING
         MF EQ  DP EQ   Q931   ISUP   ITUP  INUP  DTMF  IOC
  PST       0      0      0      0      0     0     0    0
  FSA       0      0      0      0      0     0     0    0

OMS 2  INCOMING IAS,DURING ADDRESS SIGNALING
         MF EQ  DP EQ   Q931   ISUP   ITUP  INUP  DTMF  IOC
  PDA       0      0      0      0      0     0     0    0
  PDT       0      0      0      0      0     0     0    0
  PER       0      0      0      0      0     0     0    0

OMS 3  INCOMING IAS,CALLING PARTY SIGNALING
         MF EQ  DP EQ
  ANF       0      0
  AIF       0      0
  AOF       0      0

OMS 4  OUTGOING IAS
         MF EQ  DP EQ    Q931    ISUP    ITUP    INUP  DTMF   IOC
  MAB         0      0       0       0       0       0     0     0

  OVERLOAD RETRY CANCEL       0
  CCIS
   CALL FAIL DETECTION        0
   SGNLING NWK FAILURE        0
   ADC SGN TIMEOUT            0
  ITUP
   ADC SGN TIMEOUT            0
  INUP
   ADC SGN TIMEOUT            0

  FINAL TRIAL GROUP
    CKF  TUPCKF  NUPCKF   UXS     IKF     NSD     XST   GLARE
      0       0       0    0       0       0       0       0
```

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

```
 MFT ERR
      0

 OTHER ERRORS
MFT OPLS    CPF    NO XCVR FTF
      0       0           0

OMS 5  CAMA POSITION IRREGULARITIES
  FREE CLS  POS REPT
        0         0

OMS 6  CALLS LOST DUE TO MACHINE IRREG
                                                          RCPT
            PHASE    VIU    DTU    DIU     ESU  SCS   TRNK OR BAND
TRANSIENT       0      0      0      0       0    0           -
STABLE          0      0      0      0       0    0           0
             D3U
TRANSIENT       0
STABLE          0

OMS 7  CCITT6 FINAL TRIAL FAILURES
     CCF     MCI     GLR     SNF
       0       0       0       0

OMS 8  CCITT5 FINAL TRIAL FAILURES-OUTGOING STAGE
  DS-CLF  PTS-TO  TX-ERR     URS      BF     GLR
       0       0       0       0       0       0

OMS 9  CCITT6 INEFFECTIVE ATTEMPTS
INCOMING    COT-TO
                 0
OUTGOING    ADC-TO
                 0
ABANDONS     MISC
                 0
WAIT ANS        CF      TO
                 0       0
DISCONNECT  CLF-TO  RLG-TO
                 0       0

OMS 10  CUSTOMER CALL TO MAS FTF
  XLATE LOOP         0
  DATA ON DISK       0
  PATH HUNT          0
  NO VAC ANN         0
  HARDWARE OOS       0

OMS 11  ADJUNCT TIMEOUTS
----------------------- ADJUNCT T303 TIMEOUTS -------------------------
        0      1      2      3      4      5      6      7      8      9
00      0      0      0      0      0      0      0      0      0      0
01      0      0      0      0      0      0

----------------------- ADJUNCT TADJ TIMEOUTS -------------------------
        0      1      2      3      4      5      6      7      8      9
00      0      0      0      0      0      0      0      0      0      0
01      0      0      0      0      0      0
```

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

Descriptions of measurements for MSC 36

OMS 0

Incomplete Address Detection Peg Count
(INC ADRS DET)

The Trunk Maintenance Administration Program (TMAD) will increment this counter by one each time a call is sent to Final Handling due to the detection of an incomplete address.

Continuity Signal Timeout Peg Count
(COT SIG T/O)

This counter is incremented by one each time a continuity (COT) timeout signal is not received within the timeout interval following the receipt of an Initial Address Message (IAM). The call will be sent to Final Handling.

ISUP Incomplete Address Detected Peg Count
(ISUP IAD DET)

On detection of an illegal digit in an ISUP IAM, this counter will be incremented by one via TMAD.

ISUP Continuity Failure Peg Count
(ISUP COT FAIL)

This counter is incremented by one when an ISUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to Final Handling.

ISUP Continuity Timeout Peg Count
(ISUP COT T/O)

This counter is incremented by one when an ISUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to Final Handling.

ITUP Continuity Failure Peg Count
(ITUP COT FAIL)

This counter is incremented by one when an ITUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to final handling.

ITUP Continuity Timeout Peg Count
(ITUP COT T/O)

This counter is incremented by one when an ITUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to final handling.

INUP Incomplete Address Detected Peg Count
(INUP IAD)

On detection of an illegal digit in an INUP IAM, this counter will be incremented by one via TMAD.

INUP Continuity Failure Peg Count
(INUP COT)

This counter is incremented by one when an INUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to final handling.

INUP Continuity Timeout Peg Count
(INUP COT T/O)

This counter is incremented by one when an INUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to final handling.

Q.931 Incomplete Address Detected
Peg Count
(Q931 INC ADRS)

An invalid address, e.g., unacceptable digit count, illegal digit in setup message on a Q.931 call, will increment this counter by one. The call will be sent to Final Handling.

Q.931 Information Element Error Detected
Peg Count
(Q931 INFO)

This counter is incremented by one when an error involving the information element field is detected on a Q.931 call. The call is sent to Final Handling.

Q.931 Unreasonable Signal Received
Peg Count
(Q931 URS RCVD)

This counter is incremented by one when an unreasonable signal, e.g., release, disconnect is received during Q.931 call setup.

ISUP Unreasonable Signal Received
Peg Count
(ISUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an ISUP call is in the setup state.

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

ISUP Miscellaneous Timeout Peg Count
(ISUP MISC T/O)

This counter is incremented by one when an ISUP test call timed out waiting for a released message.

ITUP Unreasonable Signal Received Peg Count
(ITUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an ITUP call is in the setup state.

ITUP Miscellaneous Timeout Peg Count
(ITUP MISC T/O)

This counter is incremented by one when an ITUP test call timed out waiting for a clearforward message.

INUP Unreasonable Signal Received
Peg Count
(INUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an INUP call is in setup state.

INUP Miscellaneous Timeout Peg Count
(INUP MSC T/O)

This counter is incremented by one when an INUP test call timeout waiting for a release message.

ITUP Incoming Irregularity Before Answer
Peg Count
(ITUP IRR B4ANS)

This counter is incremented by one when an irregularity such as an ADC message was returned on an ITUP call in a stable state.

ITUP Outgoing Irregularity Before Answer
Peg Count
(ITUP OUT IRR B4ANS)

This counter is incremented by one when an irregularity such as a clearing message received during setup.

INUP Incoming Irregularity Before Answer
Peg Count
(INUP IRR B4ANS)

This counter is incremented by one when an irregularity such as an ADC message returned on a stable call occurs.

INUP Outgoing Irregularity Before Answer
Peg Count
(INUP OUT IRR B4ANS)

This counter is incremented by one when an irregularity such as receiving an invalid or out of sequence message occurs.

OMS 1

Permanent Signal Timeout Peg Count
(PST)

These counters will record the total number of Permanent Signal Timeouts for the office, categorized by signaling type. These counters are a summation of the per Control Area counters.

False Start Abandon Peg Count
(FSA)

The total number of False Start Abandons for the office, categorized by signaling type, is recorded with this counter. The counters will reflect a summation of the per Control Area counters.

OMS 2

Partial Dial Abandon Peg Count
(PDA)

These total office counts of Partial Dial Abandons, categorized by signaling type, will be the summation of the per Control Area counters for PDA.

Partial Dial Timeout Peg Count
(PDT)

These total office counts of Partial Dial Timeouts categorized by signaling type, will equal the summation of the per Control Area counters for PDTO.

Pulsing Error Peg Count
(PER)

These total office counts of Pulsing Errors, categorized by signaling type, will equal the summation of the per Control Area counters for Pulsing Errors.

OMS 3

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

These counts of total office ANF will reflect the summation of the per Control Area counters for ANF.

CAMA Automatic Number Identification
Office Failure Peg Count
(AIF)

These counts of total office AIF will reflect the summation of the per Control Area Counters for AIF.

CAMA Automatic Number Identification
Office Failure Peg Count
(AOF)

These counts of total office AOF will reflect the summation of the per Control Area Counters for AOF.

OMS 4

Miscellaneous Abandon Peg Count
(MAB)

These total counts of Miscellaneous Abandons, categorized by signaling type, reflect the summations of the per Control Area Counts.

Real-Time Overload Retry Cancel Peg Count
(OVERLOAD RETRY CANCEL)

This counter is incremented by one when a call attempt retry is canceled by the real-time overload function.

CCIS Call Fail Detection Peg Count
(CCIS CALL FAIL DETECTION)

This counter is incremented by one each time a COF, RLG, and RST signal is received for a call that is sent to final Handling.

CCIS Signaling Network Failure Peg Count
(CCIS SIGNLING NWK FAILURE)

This counter is incremented by one each time a call is sent to Final Handling because of a failure to send an IAM or COT for an outgoing trunk or an ADC for an incoming trunk because of a signaling network failure and each time a Message Refusal (MRF) signal is received for an outgoing CCIS call attempt.

CCIS Address Complete Signal Timeout
Peg Count
(CCIS ADC SGN TIMEOUT)

This counter is incremented by one each time a CCIS call times out while waiting for the ADC signal from the succeeding office.

ITUP Address Complete Signal Timeout
Peg Count
(ITUP ADC SGN TIMEOUT)

This counter is incremented by one each time an ITUP call times out while waiting for the ADC message from the succeeding office.

INUP Address Complete Signal Timeout
Peg Count
(INUP ADC SGN TIMEOUT)

This counter is incremented by one each time an INUP call times out while waiting for the ADC message from the succeeding office.

Final Trial Group Peg Count
(FINAL TRIAL GROUP)

These counters will be incremented by one each time a call is lost due to an ineffective attempt on the final trial. One counter exists for each of the following outgoing ineffective attempt type.

1. CCIS Continuity Check Failure (CKF)
2. ITUP Continuity Check Failure (TUPCKF)
3. INUP Continuity Check Failure (NUPCKF)
4. Unexpected Stop Failures (UXS)
5. Integrity Check Failures (IKF)
6. No Start Dial (NSD)
7. Expected Stop Timeout (XST)
8. Glare
9. MF Transmitter Errors (MFT ERR)

Other Errors - MF Transmitter
Outpulsing Errors Peg Count
(MFT OPLS)

This counter will be incremented by one each time a MF Transmitter reports a failure while outpulsing. This count will be maintained on a Control Area basis.

Other Errors - Continuity/Polarity
Test Failures Peg Count
(CPF)

This counter will be incremented by one each time there is a failure on a Continuity and Polarity test, indicating an off-hook on a one-way outgoing trunk.

Other Errors - No XCVR, Final Trial Failure
(NO XCVR FTF)

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

This counter will be incremented by one each time a CCIS call is sent to Final Handling because no CCIS Transceiver is available to do a Voice Path Assurance test.

OMS 5

CAMA Free Calls Peg Count
(FREE CLS)

This counter is incremented by one each time a CAMA call is allowed to complete free because ONI suspension is active.

CAMA Position Report (CPR) Peg Count
(POS REPT)

This counter is incremented by one each time CAMA determines that a trouble condition has taken place and the operator keys a predetermined seven digit trouble code rather than a calling party number and the call is aborted. (Same as MSC 18 OMS 0.)

OMS 6

Transient Calls Lost Peg Count
(TRANSIENT CALLS LOST)

Each time a call is lost during software initialization, a recovery phase, or because of the failure of a VIU, DTU, DIU, ESU, SCS, or D3U, this counter will be incremented by one. Note that this count is concerned with those calls that have not progressed to the "waiting-for-answer" state or beyond.

Established Calls Lost Peg Count
(STABLE CALLS LOST)

This count will be incremented by one each time a call is lost during software initialization, a recovery phase or because of the failure of a VIU, DTU, DIU, ESU, SCS, or D3U and the call had progressed to or beyond the "waiting-for-answer" state.

CCIS Calls Lost Due to Trunk or
Band Reset Peg Count
(STABLE RCPT TRNK OR BAND)

Each time a CCIS call is lost due to a trunk or band reset, this counter is incremented by one.

OMS 7

Continuity Check Failure Final Trial Failure
Peg Count
(CCF)

This count is incremented by one on final trial failure if a transceiver has not detected the receipt of the check tone within acceptable timing limits after sending IAM.

Miscellaneous call Irregularities
Final Trial Failure Peg Count
(MCI)

This count is incremented by one on final failure on the receipt of confusion (COF) or Release-Guard (RLG) signals during setup of an outgoing IAM but before any backward signal has been received.

Double Seizures (GLARE) Final Trial Failures
Peg Count
(GLR)

This count is incremented by one on final trial failure by the non-control office on detection of a double seizure.

Signaling Network Final Trial Failures
Peg Count
(SNF)

This count is incremented by one on the final trial failure on receipt of a Message Refusal (MRF) signal or loss of signaling capability on all signaling paths to which a trunk is assigned during an outgoing call setup (before receipt of the ADC signal).

OMS 8

Double Seizure - Clear Forward Final
Trial Failure Peg Count
(DS-CLF)

This count is incremented by one on final trial failure if a (F1+F2) signal is received instead of a Proceed-To-Send signal.

Seizing Signal Timeout Final Trial Failure
Peg Count
(PTS-TO)

This count is incremented by one on final trial failure if the Proceed--To-Send signal is not received within 20-seconds after sending seizure (F1).

Transmitter Error Final Trial Failure
Peg Count

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

(TX-ERR)

This counter is incremented by one on final trial failure if an MF Transmitter fails during outpulsing.

Unreasonable Signal Final Trial Failure
Peg Count
(URS)

This counter is incremented by one on final trial failure if an (F1) or (F1+F2) signal is received during outpulsing.

Busy-Flash Final Trial Failure Peg Count
(BF)

This counter is incremented by one on final trial failure if a Busy-Flash (F2) signal is received during outpulsing.

Glare Final Trial Failure Peg Count
(GLR)

This counter is incremented by one on final trial failure by the non-control office on detection of a double seizure.

OMS 9

Incoming Continuity Signal Timeout
Peg Count
(INCOMING COT-TO)

This counter is incremented by one when an initial message (IAM) is not followed within the accepted timing interval by a COT signal or a blocking signal followed by Clear-Forward.

Outgoing Address Complete Signal
Timeout Peg Count
(OUTGOING ADC-TO)

This counter is incremented by one when the CCITT No. 6 office that sent an address message and a COT message has not received an address complete signal within the accepted timing interval.

Miscellaneous Abandon Peg Count
(ABANDONS MISC)

This count is incremented by one if a CLF signal is received subsequent to a COT signal but before receipt of an address complete signal (or early answer).

Waiting-for-Answer Call Failure Peg Count
(WAIT ANS CF)

This count is incremented by one on receipt of a Call Failure (CFL) signal for an outgoing CCITT No. 6 trunk during the "waiting-for-answer" stage.

Waiting-for-Answer Timeout Peg Count
(WAIT ANS TO)

This count is incremented by one if an outgoing CCITT No. 6 trunk does not receive an answer signal or other appropriate signal within 4-minutes of receipt of ADC.

Disconnect Stage Failure to Receive
Clear-Forward Peg Count
(DISCONNECT CLF-TO)

This count is incremented by one if when Clear-Back or any failure signal is transmitted for an incoming CCITT No. 6 trunk, a Clear-Forward signal is not received with 40 to 60-seconds for the failure signals.

Disconnect Stage Failure to Receive
Release Guard Peg Count
(DISCONNECT RLG-TO)

This count is incremented by one when a Release-Guard signal is not received within acceptable timing limits of sending Clear-Forward.

OMS 10

MAS - Looping Through Translate All Digits
Peg Count
(XLATE LOOP)

This counter keeps track of the number of customer calls to MAS that fail because the digit reception program (DIRE) is looping through translate all digits due to multiple cut-throughs and/or INWATS routing.

MAS - Data On Disk Peg Count
(DATA ON DISK)

This counter keeps track of the number of customer calls to MAS that fail because DIRE has found MAS call data on disk.

MAS - Path Hunt Peg Count
(PATH HUNT)

This counter keeps track of the number of customer calls to MAS that fail because all path hunt attempts failed.

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

MAS - No Vacant Announcement Peg Count
(NO VAC ANN)

This counter keeps track of the number of customer calls to MAS that fail because they are routed to a MAS vacant code or service inactive announcement and the vacant code/service inactive announcement is not available.

MAS - Hardware Duplex Failed Peg Count
(HARDWARE OOS)

This counter keeps track of the number of customer calls to MAS that fail because the MAS hardware is duplex failed, the two dedicated TSI SPCS serving the announcement are duplex failed, or two consecutive announcement phases are on tested TSI ports.

OMS 11

Adjunct Logical Address T303 Timeouts Peg Count
(ADJUNCT T303 TIMEOUTS)

These are the per Adjunct Logical Address T303 expiration counts that are pegged on timeout for response after sending a setup message on a CPA Q931 (B1) outgoing trunk. The count is reported for each of the 16 possible adjuncts.

Adjunct Logical Address TADJ Timeouts
Peg Count
(ADJUNCT TADJ TIMEOUTS)

These are the per Adjunct Logical Address T_ADJ expiration counts that are pegged on timeout while waiting for a message after a PROGRESS message has been received on a CPA Q931 (B1) outgoing trunk. The count is reported for each of the 16 possible adjuncts.

TABLE 37

OUTPUT MEASUREMENT SETS FOR MSC 37
(BASE MEASUREMENTS)

```
MSC 37  BASE MEASUREMENTS
OMS 0  DOM ATTEMPTS-TOTAL OFFICE
 ATT      MF EQ     DP EQ     Q931      ISUP    CCIS
   IN          0         0         0         0       0
   OUT         0         0         0         0       0
OMS 1  INTL ATTEMPTS-TOTAL OFFICE
 ATT    CCITT5    CCITT6     ITUP      INUP
   IN          0         0         0         0
   OUT         0         0         0         0
```

Description of Measurements for MSC 37

OMS 0

Incoming Domestic MF Call Attempts
(IN ATT MF EQ)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on MF Trunk Subgroups at 15 minute intervals. This count will not include those false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic DP Call Attempts
(IN ATT DP EQ)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on DP Trunk Subgroups at 15 minute intervals. This count will not include those false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic Q.931 Call Attempts
(IN ATT Q931)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on Q.931 Trunk Subgroups at 15 minute intervals. This count will not include those false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic ISUP Call Attempts
(IN ATT ISUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute intervals.

Incoming Domestic CCIS Call Attempts
(IN ATT CCIS)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute intervals.

Outgoing Domestic MF Call Attempts
(OUT ATT MF EQ)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing MF Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic DP Call Attempts
(OUT ATT DP EQ)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing DP Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic Q.931 Call Attempts
(OUT ATT Q931)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing Q.931 Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic ISUP Call Attempts
(OUT ATT ISUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute

TABLE 37 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 37
(BASE MEASUREMENTS)

intervals.

Outgoing Domestic CCIS Call Attempts
(OUT ATT CCIS)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCIS Trunk Subgroups at 15 minute intervals.

OMS 1

Incoming International CCITT No. 5
Call Attempts
(IN ATT CCITT5)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 5 Trunk Subgroups at 15 minute intervals.

Incoming International CCITT No. 6
Call Attempts
(IN ATT CCITT6)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 6 Trunk Subgroups at 15 minute intervals.

Incoming International ITUP Call Attempts
(IN ATT ITUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ITUP Trunk Subgroups at 15 minute intervals.

Incoming International INUP Call Attempts
(IN ATT INUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the INUP Trunk Subgroups at 15 minute intervals.

Outgoing International CCITT No. 5
Call Attempts
(OUT ATT CCITT5)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 5 Trunk Subgroups at 15 minute intervals.

Outgoing International CCITT No. 6
Call Attempts
(OUT ATT CCITT6)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 6 Trunk Subgroups at 15 minute intervals.

Outgoing International ITUP Call Attempts
(OUT ATT ITUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the ITUP Trunk Subgroups at 15 minute intervals.

Outgoing International INUP Call Attempts
(OUT ATT INUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the INUP Trunk Subgroups at 15 minute intervals.

TABLE 38

OUTPUT MEASUREMENT SETS FOR MSC 38
(ADMINISTRATIVE AREA ZERO)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Administrative Area Zero.

TABLE 39

OUTPUT MEASUREMENT SETS FOR MSC 39
(ADMINISTRATIVE AREA ONE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Administrative Area One.

TABLE 40

OUTPUT MEASUREMENTS SETS FOR MSC 40
(PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE)

```
MSC 40  PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE
OMS 0  AUDIT IMPLICATOR CODES
  000     0  001     0  002     0  003     0  004     0  005     0
  006     0  007     0  008     0  009     0  010     0  011     0
  012     0  013     0  014     0  015     0  016     0  017     0
  018     0  019     0  020     0  021     0  022     0  023     0
  024     0  025     0  026     0  027     0  028     0  029     0
  030     0  031     0  032     0  033     0  034     0  035     0
  036     0  037     0  038     0  039     0  040     0  041     0
  042     0  043     0  044     0  045     0  046     0  047     0
  048     0  049     0  050     0  051     0  052     0  053     0
  054     0  055     0  056     0  057     0  058     0  059     0
  060     0  061     0  062     0  063     0

OMS 1  AUDIT IMPLICATOR CODES
  064     0  065     0  066     0  067     0  068     0  069     0
  070     0  071     0  072     0  073     0  074     0  075     0
  076     0  077     0  078     0  079     0  080     0  081     0
  082     0  083     0  084     0  085     0  086     0  087     0
  088     0  089     0  090     0  091     0  092     0  093     0
  094     0  095     0  096     0  097     0  098     0  099     0
  100     0  101     0  102     0  103     0  104     0  105     0
  106     0  107     0  108     0  109     0  110     0  111     0
  112     0  113     0  114     0  115     0  116     0  117     0
  118     0  119     0  120     0  121     0  122     0  123     0
  124     0  125     0  126     0  127     0

OMS 2  AUDIT IMPLICATOR CODES
  128     0  129     0  130     0  131     0  132     0  133     0
  134     0  135     0  136     0  137     0  138     0  139     0
  140     0  141     0  142     0  143     0  144     0  145     0
  146     0  147     0  148     0  149     0  150     0  151     0
  152     0  153     0  154     0  155     0  156     0  157     0
  158     0  159     0  160     0  161     0  162     0  163     0
  164     0  165     0  166     0  167     0  168     0  169     0
  170     0  171     0  172     0  173     0  174     0  175     0
  176     0  177     0  178     0  179     0  180     0  181     0
  182     0  183     0  184     0  185     0  186     0  187     0
  188     0  189     0  190     0  191     0

OMS 3  AUDIT IMPLICATOR CODES
  192     0  193     0  194     0  195     0  196     0  197     0
  198     0  199     0  200     0  201     0  202     0  203     0
  204     0  205     0  206     0  207     0  208     0  209     0
  210     0  211     0  212     0  213     0  214     0  215     0
  216     0  217     0  218     0  219     0  220     0  221     0
  222     0  223     0  224     0  225     0  226     0  227     0
  228     0  229     0  230     0  231     0  232     0  233     0
  234     0  235     0  236     0  237     0  238     0  239     0
  240     0  241     0  242     0  243     0  244     0  245     0
  246     0  247     0  248     0  249     0  250     0  251     0
  252     0  253     0  254     0  255     0
```

TABLE 40 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 40
(PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE)

Description of Measurements for MSC 40

OMS 0-3

Audit Implicator Codes Peg Count

Each of these OMS have a total of 64 registers, one for each of the audit implicator codes within the specified OMS. Audit implicator codes point to memory structures and error types involved in defensive check failures.

TABLE 41

OUTPUT MEASUREMENT SETS FOR MSC 41
(AUDITS BY CLIENT)

```
MSC 41  AUDITS BY CLIENT
OMS 0 AUDIT CALLS BY CLIENT, ERRORS FOUND
    AUDITS  OPER   MAINT  MAN
     SYST   PRGMS  PRGMS  REQ
        0       0      0      0
```

Description of Measurements for MSC 41

OMS 0

Errors Found By Audit System Peg Count
(AUDITS SYST)

Each time an error is found by the audit system this register is incremented by one.

Errors Found By Operational Programs
Peg Count
(OPER PRGMS)

This counter will be incremented by one each time an error is found by an operational program.

Errors Found By Maintenance Programs
Peg Count
(MAINT PRGMS)

Each time an error is found by a maintenance program this register is incremented by one.

Errors Found By Manual Request
Peg Count
(MAN REQ)

This counter is incremented by one each time an error is found by an audit program that was initiated by manual request.

TABLE 42

OUTPUT MEASUREMENT SETS FOR MSC 42
(TRUNK ERROR ANALYSIS - SECOND STAGE FILTERS)

MSC 42 TRUNK ERROR ANALYSIS COUNTS

SP NUMBER	SECOND STAGE FILTER OVERFLOWS
OMS 0	0
OMS 1	0
OMS 2	0
OMS 3	0
OMS 4	0
OMS 5	0
OMS 6	0
OMS 7	0
OMS 8	0
OMS 9	0
OMS 10	0
OMS 11	0
OMS 12	0
OMS 13	0
OMS 14	0
OMS 15	0
OMS 16	0
OMS 17	0
OMS 18	0
OMS 19	0
OMS 20	0
OMS 21	0
OMS 22	0
OMS 23	0
OMS 24	0
OMS 25	0
OMS 26	0
OMS 27	0
OMS 28	0
OMS 29	0
OMS 30	0
OMS 31	0

Description of Measurements for MSC 42

OMS 0-31

Trunk Error Analysis Second Stage Filter Overflow For Signal Processor Peg Count (SECOND STAGE FILTER OVERFLOWS)

Each OMS has one counter for a signal processor of the same number (i.e., OMS 0 = SP Member 0, ..., OMS 31 = SP Member 31). These registers will be incremented by one for each trunk error analysis second stage filter overflow. This overflow will occur when an SP has received the maximum number of trunk requests it can handle and another request is received.

TABLE 43

OUTPUT MEASUREMENT SETS FOR MSC 43
(TRUNK ERROR ANALYSIS - LONG TERM TABLE)

```
MSC 43  TRUNK ERROR ANALYSIS COUNTS

                    LONG TERM
          SP          TABLE
       NUMBER      OVERFLOWS

  OMS 0                    0
  OMS 1                    0
  OMS 2                    0
  OMS 3                    0
  OMS 4                    0
  OMS 5                    0
  OMS 6                    0
  OMS 7                    0
  OMS 8                    0
  OMS 9                    0
  OMS 10                   0
  OMS 11                   0
  OMS 12                   0
  OMS 13                   0
  OMS 14                   0
  OMS 15                   0
  OMS 16                   0
  OMS 17                   0
  OMS 18                   0
  OMS 19                   0
  OMS 20                   0
  OMS 21                   0
  OMS 22                   0
  OMS 23                   0
  OMS 24                   0
  OMS 25                   0
  OMS 26                   0
  OMS 27                   0
  OMS 28                   0
  OMS 29                   0
  OMS 30                   0
  OMS 31                   0
```

Description of Measurements for MSC 43

OMS 0-31

Trunk Error Analysis Long Term Table
Overflow For Signal Processor Peg Count
(LONG TERM TABLE OVERFLOWS)

Each OMS has one counter for a signal processor of the same number (i.e., OMS 0 = SP Member 0, ..., OMS 31 = SP Member 31). These registers will be incremented by one for each long term table overflow. This type of overflow will occur when the long term table is full and an attempt is made to place another trunk is on the table.

TABLE 44

OUTPUT MEASUREMENT SETS FOR MSC 44
(TRUNK ERROR ANALYSIS - REPORT BUFFER OVERFLOW)

```
MSC 44  TRUNK ERROR ANALYSIS - REPORT BUFFER OVERFLOW
OMS 0                   0
```

Description of Measurements for MSC 44

OMS 0

Trunk Error Analysis Report Buffer
Overflow Peg Count

This counter will be incremented by one each time an attempt is made to place a report to be printed out in the report buffer and the buffer is full to capacity.

TABLE 45

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

```
MSC 45 SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS
OMS 0
IAM IRR     0
        RESET    NSC    NTC    VNN    ADI    COF    CFL    UQL   UNRES
  RCVD      0      0      0      0      0      0      0      0       0
  XMIT      0      0      0      0      0      0      0      0

        IN CNI RING   OUT CNI RING   UBM    OUT   RESET   -CONFUSION-
        FAIL   OVFL   FAIL   OVFL   RCVD   UNEXP  RCVD   RCVD   XMIT
  Q931      0      0      0      0      -      -      0       0      0
  ISUP      0      0      0      0      0      0      0       -      -
  ITUP      0      0      0      0      0      0      0       -      -
  INUP      0      0      0      0      0      0      0       -      -

                SENT     RCVD
  ISUP CFN         0        0
  DNHR CRB         0        0
  RTNR EBCRB       0        0
  RTNR QUERY       0        0

  PROCESSOR INTERFACES DOWN
   CNI STRM    API   1B FILE
         0        0        0

OMS 1 CCIS SOFTWARE CARRIER GROUP ALARM
                   PASS         FAIL
       INITIAL        0            0
       MONITOR        0            -
       RESTORAL       0            0

OMS 2  TRKS BLOCKED FAR END EQUIP PROB
                   0

OMS 3  CCITT6 PERFORMANCE SIGNALS RECEIVED
     SEC     ADI     CFL     VNN     CGC     NNC
       0       0       0       0       0       0
     LOS     SSB    CONG
       0       0       0

       ITUP PERFORMANCE SIGNALS RECEIVED
     SEC  CGC WFA  CFL WFA   CGC     NNC  NNC WFA
       0       0       0       0       0       0
     LOS     SSB
       0       0

       INUP SIGNALLING IRREGULARITIES
     SEC  SEC WFA    NCA  NCA WFA  TFL WFA
       0       0       0       0       0
     LOS  SSB WFA
       0       0
       CCITT7 SAM IGNORED
              0
```

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

```
OMS 4  CCITT6 PERFORMANCE SIGNALS TRANSMITTED
     SEC     ADI     CFL     VNN     CGC     NNC
       0       0       0       0       0       0
     COF     SSB     SST     LOS     BLO
       0       0       0       0       0
OMS 5  CCITT6 SIGNALLING IRREGULARITIES
     IAD     IAM     ISA     CCF     MCI     SNF     GLR
       0       0       0       0       0       0       0
       ITUP SIGNALLING IRREGULARITIES
     IAD     ISA  IAM GLR  CCR GLR   GLR
       0       0       0       0       0
       INUP SIGNALLING IRREGULARITIES
     ISA  IAM GLR  CCR GLR   GLR
      0       0       0       0
OMS 6  ISUP UUI AND ATP DROPPED
     UUI  UUI INT    ATP  ATP INT
       0       0       0       0
OMS 7  CALL MERGE
------------------ CALL MERGE ------------------
    RQST    SUCC  ADJ NA  INV CS  INV CN  MFRQST
       0       0       0       0       0       0
OMS 8 E&M SOFTWARE CARRIER GROUP ALARM
        ALARM  RESTORAL  NON-CON  QIC-PASS  QIC-FAIL
  TPF       0         0         0         0         0
  RPF       0         0         -         -         -
```

Descriptions of Measurements for MSC 45

OMS 0

Initial Address Message (IAM)
Irregularity (IRR) Peg Count
(IAM IRR)

This counter will be incremented by one for each of the following initial address irregularities:

a. Invalid Initial Address Message (IAM) data - An example of an IAM containing invalid data is an invalid digit such as digit 14.

b. IAM length check failure - A CCIS office is unable to complete a length check on a received IAM because, for example, one or more subsequent signaling units of the IAM are missing.

c. Receipt of a nonmatching second IAM - If during the call setup a CCIS office receives a second IAM, a comparison is made to the first IAM and the two are different.

CCIS Trunk Or Band Reset Received
Peg Count
(RESET RCVD)

Each time a trunk or band Reset signal (RST) from the incoming direction is received during call set-up, this counter is incremented by one.

CCIS National Switching Congestion (NSC)
Signals Received Peg Count
(NSC RCVD)

This counter is incremented by one when a National Switching Congestion (NSC) signal is received for an outgoing CCIS call attempt because common control facilities in a subsequent office were not available or a network path hunt failed in a subsequent office.

CCIS National Trunk Congestion (NTC)
Signals Received Peg Count

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

(NTC RCVD)

This counter is incremented by one each time a National Trunk Congestion signal (NTC) is received for an outgoing CCIS call attempt because of an outgoing trunk congestion condition (no circuit) in a subsequent office.

CCIS Vacant National Number (VNN)
Signals Received Peg Count
(VNN RCVD)

When a succeeding CCIS office has examined the digits received on a CCIS call and determined that it has received a vacant code, and this office received a Vacant National Number (VNN) signal, this counter is incremented by one.

CCIS Address Incomplete (ADI) Signals
Received Peg Count
(ADI RCVD)

This counter is incremented by one when a succeeding CCIS office determined that the address received on an incoming call does not contain the proper number of digits and this office received an Address Incomplete (ADI) signal.

CCIS Confusion (COF) Signals Received
Peg Count
(COF RCVD)

Each time a Confusion Signal (COF) is received because the forward office detected an invalid Initial Address Message (IAM) irregularity, this counter is incremented by one.

CCIS Call Failure (CFL) Signals Received
Peg Count
(CFL RCVD)

This counter is incremented by one each time a forward CCIS office experienced Continuity (COT) Timeout signal or Address Complete (ADC) signal timeout and this office received a Call Failure (CFL) signal.

CCIS Unequipped Label Signals Received
Peg Count
(UQL RCVD)

This counter is incremented by one each time an Unequipped Label (UQL) signal is received from a forward office that had been sent an IAM.

CCIS Unreasonable Message (UNRES)
Signals Received Peg Count
(UNRES RCVD)

This counter is incremented by one each time the CCIS office receives an unreasonable backward message that causes retrial. Such messages include receipt of Release Guard (RLG) signal or Reset (RST) signal after an IAM or IAM plus COT has been sent.

CCIS Trunk Or Band Reset Signals
Transmitted Peg Count
(RESET XMIT)

Each time a band or trunk Reset signal is sent in the outgoing direction during call setup, this counter is incremented by one.

CCIS National Switching Congestion (NSC)
Signals Transmitted Peg Count
(NSC XMIT)

This counter is incremented by one each time a National Switching Congestion signal (NSC) is returned for an incoming call because insufficient common control facilities were available for the CCIS call or because a failure occurred while hunting a network path.

CCIS National Trunk Congestion (NTC)
Signals Transmitted Peg Count
(NTC XMIT)

Each time a National Trunk Congestion signal is returned for a CCIS incoming call because of an outgoing trunk congestion condition (no circuit), this counter is incremented by one.

CCIS Vacant National Number (VNN)
Signals Transmitted Peg Count
(VNN XMIT)

This counter is incremented by one each time the digits received have been examined and determined to be a vacant code and a Vacant National Number (VNN) signal has been sent to the CCIS office that sent the digits.

CCIS Address Incomplete (ADI) Signals
Transmitted Peg Count
(ADI XMIT)

Each time the address received on an incoming call does not contain the proper number of digits and an Address Incomplete (ADI) signal is sent to the CCIS office that transmitted the IAM, this counter will be incremented by one.

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

CCIS Confusion (COF) Signals Transmitted Peg Count
(COF XMIT)

This counter is incremented by one each time a Confusion (COF) signal is transmitted because an invalid Initial Address Message (IAM) irregularity has been received.

CCIS Call Failure (CFL) Signals Transmitted Peg Count
(CFL XMIT)

Each time a Continuity (COT) Timeout or an Address Complete (ADC) timeout occurs and a Call Failure (CFL) signal has been transmitted to the sending office, this counter will be incremented by one.

CCIS Unequipped Label Signals Transmitted Peg Count
(UQL XMIT)

This counter is incremented by one each time an Unequipped Label response (UQL) is sent to an office as a result of an invalid label found in an IAM.

Q.931 Incoming CNI Ring Failure Peg Count
(Q931 IN CNI RING FAIL)

This counter is incremented by one when an incoming Q.931 call is sent to Final Handling due to Customer Network Interface (CNI) ring failure.

Q.931 Incoming CNI Ring Buffer Overflow Peg Count
(Q931 IN CNI RING OVFL)

This counter is incremented by one when an incoming Q.931 call fails due to an inability to send messages caused by CNI buffer overflow.

Q.931 Outgoing CNI Ring Failure Peg Count
(Q931 OUT CNI RING FAIL)

This counter is incremented by one when an outgoing Q.931 call is sent to Final Handling due to CNI ring failure.

Q.931 Outgoing CNI Ring Overflow Peg Count
(Q931 OUT CNI RING OVFL)

This counter is incremented by one when an outgoing Q.931 call fails due to an inability to send messages caused by CNI buffer overflow.

Q.931 Resets Received Peg Count
(Q931 RESET RCVD)

This counter is incremented by one when a reset message is received on a Q.931 trunk that is on queue for or busy to a CR.

Q.931 Confusion Received Peg Count
(Q931 CONFUSION RCVD)

This counter is incremented by one when an incoming Q.931 fails due to a call state mismatch in a setup or post-setup state.

Q.931 Confusion Transmitted Peg Count
(Q931 CONFUSION XMIT)

This counter is incremented by one when a call state mismatch is detected on an outgoing Q.931 call in either setup or post setup state.

ISUP Incoming CNI Ring Failure Peg Count
(ISUP IN CNI RING FAIL)

This counter is incremented by one when an incoming ISUP call is sent to Final Handling due to CNI ring failure.

ISUP Incoming CNI Ring Overflow Peg Count
(ISUP IN CNI RING OVFL)

This counter is incremented by one when an incoming ISUP call fails due to an inability to send messages caused by CNI buffer overflow.

ISUP Outgoing CNI Ring Failure Peg Count
(ISUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing ISUP call is sent to Final Handling due to CNI ring failure.

ISUP Outgoing CNI Ring Overflow Peg Count
(ISUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing ISUP call fails due to an inability to send messages caused by CNI buffer overflow.

ISUP Unsuccessful Backward Setup Received Peg Count
(ISUP UBM RCVD)

This counter is incremented by one when an ISUP release message is received in setup.

ISUP Outgoing Unexpected Message

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Peg Count
(ISUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR occurs.

ISUP Resets Received Peg Count
(ISUP RESET RCVD)

This counter is incremented by one when an incoming ISUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

ITUP Incoming CNI Ring Failure Peg Count
(ITUP IN CNI RING FAIL)

This counter is incremented by one when an incoming ITUP call is sent to Final Handling due to CNI ring failure.

ITUP Incoming CNI Ring Overflow Peg Count
(ITUP IN CNI RING OVFL)

This counter is incremented by one when an incoming ITUP call fails due to an inability to send messages caused by CNI buffer overflow.

ITUP Outgoing CNI Ring Failure Peg Count
(ITUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing ITUP call is sent to Final Handling due to CNI ring failure.

ITUP Outgoing CNI Ring Overflow Peg Count
(ITUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing ITUP call fails due to an inability to send messages caused by CNI buffer overflow.

ITUP Unblocking Message Received
Peg Count
(ITUP UBM RCVD)

This counter is incremented by one when an unblocking message is received on an ITUP call that is busy to a call register.

ITUP Outgoing Unexpected Message
Peg Count
(ITUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR occurs.

ITUP Resets Received Peg Count
(ITUP RESET RCVD)

This counter is incremented by one when an incoming ITUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

INUP Incoming CNI Ring Failure Peg Count
(INUP IN CNI RING FAIL)

This counter is incremented by one when an incoming INUP call is sent to Final Handling due to CNI ring failure.

INUP Incoming CNI Ring Overflow Peg Count
(INUP IN CNI RING OVFL)

This counter is incremented by one when an incoming INUP call fails due to an inability to send messages caused by CNI buffer overflow.

INUP Outgoing CNI Ring Failure Peg Count
(INUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing INUP call is sent to Final Handling due to CNI ring failure.

INUP Outgoing CNI Ring Overflow Peg Count
(INUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing INUP call is sent to Final Handling due to CNI ring overflow.

INUP Unblocking Message Received
Peg Count
(INUP UBM RCVD)

This counter is incremented by one when an unblocking message is received on an INUP call that is busy to a call register.

INUP Outgoing Unexpected Message
Peg Count
(INUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR.

INUP Resets Received Peg Count
(INUP RESET RCVD)

This counter is incremented by one when an incoming INUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

ISUP Confusion Message Sent Peg Count
(ISUP CFN SENT)

This counter is incremented by one when a Confusion message is sent in response to an unimplemented message.

ISUP Confusion Message Received Peg Count
(ISUP CFN RCVD)

This counter is incremented by one when a Confusion message is received.

DNHR Crank Backs Sent Peg Count
(DNHR CRB SENT)

This counter is incremented by one when a crank back is sent from the Via Toll Switch.

DNHR Crank Backs Received Peg Count
(DNHR CRB RCVD)

This counter is incremented by one when a crank back is received at the Originating Toll Switch.

RTNR Egress Busy Crankbacks Sent
Peg Count
(RTNR EBCRB SENT)

This counter is incremented by one when a crankback is sent at a Terminating Access Switch.

RTNR Egress Busy Crankback Received
Peg Count
(RTNR EBCRB RCVD)

This counter is incremented by one when a crankback is received at an Originating Access Switch.

RTNR Queries Sent Peg Count
(RTNR QUERY SENT)

This counter is incremented by one when a TSG bit-map query is sent from an Originating Access Switch (OAS).

RTNR Queries Received Peg Count
(RTNR QUERY RCVD)

This counter is incremented by one when a TSG bit-map query is received at a Terminating Access Switch (TAS).

CNI Stream Processor Interface Down
(CNI STRM PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the CNI data stream has been down.

API Processor Interface Down
(API PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the API is down.

1B File Processor Interface Down
(1B FILE PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the 1B File Store is down.

OMS 1

These counters are incremented by the Software Carrier Group Alarm program from statistical tests on the Carrier Group believed to have failed. An initial continuity test is run when a suspected failure is first encountered. A monitor test is run at periodic intervals after the failure of an initial test. A restoral test is run after a monitor test pass.

1. Initial Tests Pass Peg Count
2. Initial Tests Failure Peg Count
3. Monitor Tests Pass Peg Count
4. Restoral Tests Pass Peg Count
5. Restoral Tests Failure Peg Count

OMS 2

Trunks Blocked Due To Far End
Equipment Problems Peg Count
(TRKS BLOCKED FAR END EQUIP PROB)

This counter is incremented by one for each trunk that is blocked and taken out of service due to far end switching equipment problems.

OMS 3

CCITT No. 6 Switching Equipment Congestion
(SEC) Signals Received Peg Count
(CCITT6 SEC)

This count is incremented by one when a Switching Equipment Congestion signal is received from a forward CCITT No. 6 office or when there is some

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

congestion in the office itself, such as no transceivers available for an outgoing CCITT No. 6 call.

CCITT No. 6 Address Incomplete (ADI) Signals Received Peg Count (CCITT6 ADI)

This counter is incremented by one when a succeeding CCITT No. 6 office determined that the address received on an incoming call does not contain the proper number of digits and this office received an Address Incomplete signal.

CCITT No. 6 Call Failure (CFL) Signals Received Peg Count (CCITT6 CFL)

This counter is incremented by one each time a forward CCITT No. 6 office experienced Continuity (COT) Timeout signal or Address Complete (ADC) signal timeout and this office received a Call Failure (CFL) signal.

CCITT No. 6 Vacant National Number (VNN) Signals Received Peg Count (CCITT6 VNN)

This counter is incremented by one when a succeeding CCITT No. 6 office has examined the digits received on a CCITT No. 6 call and determined that it has received a Vacant National Number signal.

CCITT No. 6 Circuit Group Congestion (CGC) Signals Received Peg Count (CCITT6 CGC)

This count is incremented by one each time a Circuit Group Congestion signal is received for an outgoing CCITT No. 6 call attempt because of an outgoing trunk congestion (no circuit) condition is a subsequent office.

CCITT No. 6 National Network Congestion (NNC) Signals Received Peg Count (CCITT6 NNC)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing CCITT No. 6 call attempt because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

CCITT No. 6 Line Out-of-Service Signals Received Peg Count (CCITT6 LOS)

This counter is incremented by one when a LOS fail signal is received on a CCITT6 outgoing trunk.

CCITT No. 6 Subscriber Busy Signals Received Peg Count (CCITT6 SSB)

This counter is incremented by one when an SSB fail signal is received on a CCITT6 outgoing trunk.

CCITT No. 6 Terminal Congestion Peg Count (CCITT6 CONG)

This counter is incremented by one when a CCITT6 call is final handled due to terminal congestion that cancels IAMs to a terminal.

ITUP Switching Equipment Congestion (SEC) Signals Received Peg Count (ITUP SEC)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received from a forward ITUP office or when there is some congestion in the office itself, such as no transceivers available for an outgoing ITUP call.

ITUP Circuit Group Congestion (CGC) Received While Waiting For Answer Peg Count (ITUP CGC WFA)

This counter is incremented by one when a Circuit Group Congestion (CGC) signal is received on an outgoing ITUP call attempt while waiting for answer because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP Call Failure (CFL) Received While Waiting For Answer Peg Count (ITUP CFL WFA)

This counter is incremented by one when a Call Failure (CFL) signal is received on an outgoing ITUP call attempt while waiting for answer.

ITUP Circuit Group Congestion (CGC) Signals Received Peg Count (ITUP CGC)

This count is incremented by one each time a Circuit Group Congestion signal is received for an outgoing ITUP call attempt because of outgoing trunk congestion (CGC) condition in a subsequent office.

ITUP National Network Congestion (NNC)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Signals Received Peg Count
(ITUP NNC)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing ITUP call attempt because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP National Network Congestion (NNC)
While Waiting For Answer Peg Count
(ITUP NNC WFA)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing ITUP call attempt while waiting for answer because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP Line Out-of-Service (LOS) Signals
Received Peg Count
(ITUP LOS)

This counter is incremented by one when a LOS fail signal is received on an ITUP outgoing trunk.

ITUP Subscriber Busy (SSB) Signals
Received Peg Count
(ITUP SSB)

This counter is incremented by one when an SSB fail signal is received on an ITUP outgoing trunk.

INUP Switching Equipment Congestion (SEC)
Signals Received Peg Count
(INUP SEC)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received from a forward INUP office or when there is some congestion in the office itself, such as no transceivers available for an outgoing INUP call.

INUP Switching Equipment Congestion (SEC)
Signals Received While Waiting For Answer
Peg Count
(INUP SEC WFA)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received while waiting for answer from a forward INUP office or when there is some congestion in the office itself, such as no transceivers available for an INUP call.

INUP No Circuit Available (NCA) Signals
Received Peg Count
(INUP NCA)

This counter is incremented by one when a REL message is received with a cause of No Circuit Available from a forward INUP office.

INUP No Circuit Available (NCA) Signals
Received While Waiting For Answer
Peg Count
(INUP NCA WFA)

This counter is incremented by one when a REL message is received with a cause of No Circuit Available while waiting for answer from a forward INUP office.

INUP Temporary Failure (TFL) Signals
Received While Waiting For Answer
Peg Count
(INUP TFL WFA)

This counter is incremented by one when a REL message is received with a cause of Temporary Failure while waiting for answer from a forward INUP office.

INUP Line Out-of-Service (LOS) Signals
Received Peg Count
(INUP LOS)

This counter is incremented by one when a LOS fail signal is received on an INUP outgoing trunk.

INUP Subscriber Busy (SB) Signals Received
While Waiting For Answer Peg Count
(INUP SSB WFA)

This counter is incremented by one when a Subscriber Busy fail signal is received while waiting for answer on an INUP outgoing trunk.

CCITT No. 7 Subsequent Address
Message Ignored Peg Count
(CCITT7 SAM IGNORED)

This is a count of the number of Subsequent Address Messages (SAM) ignored in the incoming setup post routing state.

OMS 4

CCITT No. 6 Switching Equipment Congestion
(SEC) Signals Transmitted Peg Count
(SEC)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

This counter is incremented by one when there is some congestion in the office such as no transceiver available for an outgoing CCITT No. 6 call or when a Switching Equipment Congestion signal is received from a forward office.

CCITT No. 6 Address Incomplete (ADI) Signals Transmitted Peg Count
(ADI)

This counter is incremented by one when an Address Incomplete signal is received by the office or if the CCITT No. 6 office determined that the address received on an incoming call does not contain the proper number of digits.

CCITT No. 6 Call Failure (CFL) Signals Transmitted Peg Count
(CFL)

This counter is incremented by one when this office received a Call Failure signal from a forward CCITT No. 6 office or if the outgoing trunk fails on a final trial.

CCITT No. 6 Vacant National Number (VNN) Signals Transmitted Peg Count
(VNN)

This counter is incremented by one each time the digits received have been examined and determined to be a vacant code and a Vacant National Number (VNN) signal has been sent to the CCITT No. 6 office that sent the digits.

CCITT No. 6 Circuit Group Congestion (CGC) Signals Transmitted Peg Count
(CGC)

This counter is incremented by one each time a Circuit Group Congestion is received from a forward office or when an incoming CCITT No. 6 call encounters outgoing trunk congestion (no circuit).

CCITT No. 6 National Network Congestion (NNC) Signals Transmitted Peg Count
(NNC)

This counter is incremented by one each time a National Network Congestion signal is returned for a CCITT No. 6 incoming call because of an outgoing trunk congestion problem (no circuit).

CCITT No. 6 Confusion (COF) Signals Transmitted Peg Count
(COF)

This counter is incremented by one each time a Confusion signal is transmitted because an invalid Initial Address Message (IAM) irregularity has been received.

CCITT No. 6 Subscriber Busy (SSB) Signals Transmitted Peg Count
(SSB)

This counter is incremented by one each time a Subscriber Busy (SSB) signal is received from the sending office.

CCITT No. 6 Subscriber Transferred (SST) Signals Transmitted Peg Count
(SST)

This counter is incremented by one each time a Subscriber Transferred (SST) signal is received from the sending office.

CCITT No. 6 Line Out-Of-Service (LOS) Signal Transmitted Peg Count
(LOS)

This counter is incremented by one each time a Line Out-Of-Service signal is received from the sending office.

CCITT No. 6 Blocking (BLO) Signal Transmitted Peg Count
(BLO)

This counter is incremented by one on the receipt of Confusion (COF) and Release-Guard (RLG) signals during set-up of an outgoing CCITT No. 6 call, or the receipt of a Blocking (BLO) signal after sending an Initial Address Message (IAM) but before any backward signal has been received.

OMS 5

CCITT No. 6 Incomplete Address Detected Call Irregularity Peg Count
(CCITT6 IAD)

This count is incremented by one when it is determined on an incoming CCITT No. 6 call that a received address does not contain the proper number of digits for setting up the call and an Address Incomplete (ADI) signal is sent in the backward direction for the incoming trunk.

CCITT No. 6 Initial Address Message (IAM)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Call Irregularity Peg Count
(CCITT6 IAM)

This counter is incremented by one when the Initial Address Message (IAM) or Subsequent Address Message (SAM) data is invalid, or if the IAM or SAM length checks fail, or if a second nonmatching IAM or SAM signal is received. Detecting any of these failures, the office will send a Confusion (COF) signal in the backward direction for the incoming trunk.

CCITT No. 6 Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(CCITT6 ISA)

This counter is incremented by one each time a Clear-Forward (CLF) signal is received on an incoming CCITT No. 6 trunk (not preceded by a blocking signal) while timing for the receipt of the Continuity (COT) signal.

CCITT No. 6 Continuity Check Failure (CCF)
Signaling Irregularity Peg Count
(CCITT6 CCF)

This counter is incremented by one each time a transceiver has not detected the receipt of the check tone within acceptable transmission and time limits. Four reattempts are allowed in the event of successive continuity check failures.

CCITT No. 6 Miscellaneous Call Irregularity
Peg Count
(CCITT6 MCI)

This counter is incremented by one when a CCITT No. 6 outgoing call attempt receives a Confusion or Blocking message in response to an IAM.

CCITT No. 6 Signaling Network Failures
(SNF) Call Irregularities Peg Count
(CCITT6 SNF)

This counter is incremented by one on receipt of a Message Refusal (MRF) signal or loss of signaling capability on all signaling paths to which a trunk is assigned at a CCITT No. 6 office.

CCITT No. 6 Double Seizure (GLR) Call
Irregularity Peg Count
(CCITT6 GLR)

This counter is incremented by one by the non-control office on detection of a double seizure.

ITUP Incomplete Address Detected (IAD)
Call Irregularity Peg Count
(ITUP IAD)

This count is incremented by one when it is determined on an incoming ITUP call that a received address does not contain the proper number of digits for setting up a call and an Address Incomplete (ADI) signal is sent in the backward direction for the incoming trunk.

ITUP Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(ITUP ISA)

This counter is incremented by one each time a Reset (RST) message is received on an incoming ITUP trunk that is either on queue for or busy to a CR.

ITUP Initial Address Message (IAM) Glare
Peg Count
(ITUP IAM GLR)

This counter is incremented by one on an ITUP outgoing attempt when an IAM is received on the outgoing trunk that the far end controls while either doing a continuity check request or in setup.

ITUP Continuity Check Request (CCR) Glare
Peg Count
(ITUP CCR GLR)

This counter is incremented by one when a CCR is received on an ITUP outgoing trunk after a CCR was successfully sent, which is a glare condition in a non-control office.

ITUP Glare Peg Count
(ITUP GLR)

This counter is incremented by one when an outgoing ITUP trunk detects a double seizure is detected in a non-control office.

INUP Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(INUP ISA)

This counter is incremented by one each time a Reset (RST) message is received on an incoming INUP trunk that is either on queue for or busy to a CR.

INUP Initial Address Message (IAM) Glare
Peg Count
(INUP IAM GLR)

This counter is incremented by one on an INUP outgoing attempt when an IAM is received on the

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

outgoing trunk that the far end controls while either doing a continuity check request or in setup.

INUP Continuity Check Request (CCR) Glare Peg Count
(INUP CCR GLR)

This counter is incremented by one when a CCR is received on an INUP outgoing trunk after a CCR was successfully sent, which is a glare condition in a non-control office.

INUP Glare Peg Count
(INUP GLR)

This counter is incremented by one when an outgoing INUP trunk detects a double seizure is detected in a non-control office.

OMS 6

ISUP UUI Dropped Due to Length Peg Count
(ISUP UUI)

This is a count of the number of times User-to-User Information (UUI) was dropped due to length considerations and maximum ISUP length restrictions.

ISUP UUI Dropped Due to Internal Loss Peg Count
(ISUP UUI INT)

This is a count of the number of times User-to-User Information (UUI) is dropped due to lack of internal buffer space.

ISUP ATP Dropped Due to Length Peg Count
(ISUP ATP)

This is a count of the number of times Access Transport data (ATP) was dropped due to length considerations and maximum ISUP length restrictions.

ISUP ATP Dropped Due to Internal Loss Peg Count
(ISUP ATP INT)

This is a count of the number of times Access Transport data (ATP) is dropped due to lack of internal buffer space.

OMS 7

Call Merge Requests Peg Count
(CALL MERGE RQST)

This is a count of call merge requests to connect two calls set up through a PRI interface as a single call into the switch.

Call Merge Success Peg Count
(CALL MERGE SUCC)

This is a count of successfully completed call merge operations.

Call Merge Denials - Adjunct Not Allowed Peg Count
(CALL MERGE ADJ NA)

This is the count of call merge denials because the adjunct is prohibited from merging calls.

Call Merge Denials - Invalid Call States Peg Count
(CALL MERGE INV CS)

This is the count of call merge denials because the calls to be merged were in invalid states.

Call Merge Denials - Invalid Channel ID Peg Count
(CALL MERGE INV CN)

This is the count of call merge denials because of an invalid channel ID.

Call Merge Denials - Multi-Feature Request Peg Count
(CALL MERGE MFRQST)

This is the count of call merge denials because of multiple feature requests in one facility message.

OMS 8

Confirmed Transmit Path Failure Carrier Alarm Peg Count
(TPF ALARM)

This counter will be incremented by one each time a Confirmed Transmit Path Failure Carrier Alarm is detected.

Confirmed Transmit Path Failure Carrier Restoral Peg Count
(TPF RESTORAL)

This counter will be incremented by one each time a retest quick test verifies that a Transmit Path Failure

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Carrier Restoral has passed and the carrier alarm will be deactivated.

Non-Confirmed Transmit Path Failure Carrier Alarm Peg Count (TPF NON-CON)

This counter will be incremented by one each time a Non-Confirmed Transmit Path Failure Carrier Alarm has been detected.

Monitor QIC Passed - Suspected Transmit Path Failure Restoral Peg Count (TPF QIC-PASS)

This counter will be incremented by one each time a transmit path failure monitor test has passed and the carrier alarm will be deactivated.

Retest QIC Failed - Non-Confirmed Transmit Path Failure Restoral Peg Count (TPF QUIC-FAIL)

This counter will be incremented by one each time a retest quick test has failed.

Confirmed Receive Path Failure Carrier Alarm Peg Count (RPF ALARM)

This counter will be incremented by one each time a Confirmed Receive Path Failure Carrier Alarm has been detected.

Confirmed Receive Path Failure Carrier Restoral Peg Count (RPF RESTORAL)

This counter will be incremented by one each time a successful Receive Path Failure Carrier Restoral has been detected.

TABLE 46

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

MSC 46 SWITCHING AREA EQUIPMENT COUNTS

OMS 0 PROCESSOR

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG EXC PROG REQ	DIAG EXC MAN REQ	DIAG ATP PROG REQ	DIAG ATP MAN REQ
CC	0	0	0	0	0	0	0
PS	0	0	0	0	0	0	0
MUP	0	0	0	0	0	0	0
CS	0	0	0	0	0	0	0
API	0	0	0	0	0	0	0
DUS	0	0	0	0	0	0	0
TUC	0	0	0	0	0	0	0
PDF	0	0	0	0	0	0	0
AUI	0	0	0	0	0	0	0
SSD	0	0	0	0	0	0	0
XPWR	0	0	0	0	0	0	0

OMS 1 I/O

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG EXC PROG REQ	DIAG EXC MAN REQ	DIAG ATP PROG REQ	DIAG ATP MAN REQ
IOUS	0	0	0	0	0	0	0
IOUC	0	0	0	0	0	0	0

OMS 2 BUS SYSTEM

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG EXC PROG REQ	DIAG EXC MAN REQ	DIAG ATP PROG REQ	DIAG ATP MAN REQ
PSB	0	0	0	0	0	0	0
CSB	0	0	0	0	0	0	0
AUB	0	0	0	0	0	0	0
PUB	0	0	0	0	0	0	0
IFB	0	0	0	0	0	0	0

OMS 3 NETWORK

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG EXC PROG REQ	DIAG EXC MAN REQ	DIAG ATP PROG REQ	DIAG ATP MAN REQ
TSI	0	0	0	0	0	0	0
D3U	0	0	0	0	0	0	0
TMSP	0	0	0	0	0	0	0

OMS 4 SIGNALING EQUIPMENT

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG EXC PROG REQ	DIAG EXC MAN REQ	DIAG ATP PROG REQ	DIAG ATP MAN REQ
TGR							
CONTR	0	0	0	0	0	0	0
DOM TER	0	0	0	0	0	0	0
DOM VFL	-	0	0	-	-	-	-
INT TER	0	0	0	0	0	0	0
INT VFL	-	0	0	-	-	-	-

OMS 5 CLOCKS

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG EXC PROG REQ	DIAG EXC MAN REQ	DIAG ATP PROG REQ	DIAG ATP MAN REQ
NCLK	0	0	0	0	0	0	0
SCLK	0	0	0	0	0	0	0
NCSU	0	0	0	0	0	0	0

TABLE 46 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

```
OMS 6  PER CALL SERVICE CIRCUIT MEASUREMENTS
           UNIT LOC  UNIT NON
            FAULTS   LOC FLTS
  MF RCVR        0      0
  MF XMTR        0      0
  CCIS XCVR      0      0
  DTMF RCVR      0      0
  DTMF XMTR      0      0
```

Descriptions of Measurements for MSC 46

The following seven counts will be taken for the entire office, for all members of each Unit Type, that is specified as being associated with OMS 0 through OMS 7.

Unit Errors Peg Count
(UNIT ERRORS)

Defined as a malfunction, the symptoms of which cannot be reproduced under program control. The initial stimulus leading to this counter being incremented by one is an interrupt associated with the particular Unit Type. The fault recognition program, of the unit will increment this counter.

Unit Located Fault Peg Count
(UNIT-LOC FAULTS)

This is a fault occurrence that can be resolved through analysis to a replaceable equipment unit. The general situation leading to this counter being incremented by one, is an interrupt causing execution of the fault Recognition program and the FR program finds the suspected trouble, requests that the unit be diagnosed and the diagnostic finds the trouble source.

Non-located Faults
(NONLOC FAULTS)

This register will be incremented by one when a fault occurs that cannot be resolved through analysis to a replaceable equipment unit. The unit diagnostic would compete with an All Tests Pass (ATP) result.

Diagnostics Program Requested
(DIAG EXC PROG REQ)

This counter will be incremented by one each time the particular unit diagnostic program is executed, unless its execution has been manually requested.

Diagnostics Manually Requested
(DIAG EXC MAN REQ)

Each time the unit diagnostic program is executed by requesting a manual or routine exercise request, this counter will be incremented by one.

Diagnostics ATP Program Requested
(DIAG ATP PROG REQ)

This counter will be incremented by one each time the unit diagnostic program is executed with an ATP result. This does not include diagnostics requested manually or by routine exercise.

Diagnostics ATP Manually Requested
(DIAG ATP MAN REQ)

This counter will be incremented by one each time the unit diagnostic program is executed by a manual request or routine exercise with an ATP result.

OMS 0

The counts described above are outputted for the following units:

Central Control (CC)
Program Store (PS)
Maintenance and Utility Processor (MUP)
Call Store (CS)
Attached Processor Interface (API)
Data Unit Selector (DUS)
Tape Unit Controller (TUC)
Power Distribution Frame (PDF)
Auxiliary Unit Interface (AUI)
Scan and Signal Distributor (SSD)
Miscellaneous Power Board (XPWR)

OMS 1

The counts described above are outputted for the

TABLE 46 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

following units:

Input/Output Unit Selector (IOUS)
Input/Output Unit Controller (IOUC)

OMS 2

The counts described above are outputted for the following units:

Program Store Bus (PSB)
Call Store Bus (CSB)
Auxiliary Unit Bus (AUB)
Peripheral Unit Bus (PUB)
Interface Bus (IFB)

OMS 3

The counts described above are outputted for the following units:

Time-Slot Interchange (TSI)
DS3 Unit (D3U)
Time-Multiplexed Switching Pair (TMSP)

OMS 4

The counts described above are outputted for the following units:

CCIS Terminal Group (CONTR)
Domestic CCIS Terminal (DOM TER)
Domestic VFL (DOM VFL)
International CCIS Terminal (INT TER)
International VFL (INT VFL)

OMS 5

The counts described above are outputted for the following units:

Network Clock (NCLK)
System Clock (SCLK)
Network Clock Synchronization Unit (NCSU)

OMS 6

The two counts described below are output for each of the following service circuits:

MF Receiver (MF RCVR)
MF Transmitter (MF XMTR)
CCIS Transceiver (CCIS XCVR)
DTMF Receiver (DTMF RCVR)
DTMF Transmitter (DTMF XMTR)

Located Faults Peg Count
(UNIT LOC FAULTS)

This counter will be incremented by one each time the service circuit is diagnosed and a fault is found, or each time the unit undergoes error analysis and is deemed to be faulty.

Non-located Faults Peg Count
(UNIT NON LOC FLTS)

Each time the service circuit is either diagnosed and no trouble is found or the unit undergoes error analysis and no fault is found, this counter is incremented by one.

TABLE 47

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENTS - AUDITS BY TYPE)

MSC 47 PERFORMANCE MEASUREMENTS - AUDITS BY TYPE

OMS 0 ROUTINE AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

OMS 1 ROUTINE AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 2 ROUTINE AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

OMS 3 DEMAND AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

OMS 4 DEMAND AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 5 DEMAND AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

OMS 6 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

TABLE 47 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENTS - AUDITS BY TYPE)

OMS 7 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 8 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

OMS 9 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

OMS 10 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 11 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

Description of Measurements for MSC 47

OMS 0

Audit 00 through 49 Routine Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit that is routinely requested by the program is completed.

OMS 1

Audit 50 through 99 Routine Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit that is routinely requested by the program is completed.

OMS 2

Audit 100 through 127 Routine Request
Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is routinely requested by the program is completed.

TABLE 47 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENTS - AUDITS BY TYPE)

OMS 3

Audit 00 through 49 Demand Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is requested by a manual or routine exercise is completed.

OMS 4

Audit 50 through 99 Demand Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit that is requested by a manual or routine exercise is completed.

OMS 5

Audit 100 through 127 Demand Request
Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit that is requested by a manual or routine exercise is completed.

OMS 6

Audit 00 through 49 Routine Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 7

Audit 50 through 99 Routine Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 8

Audit 100 through 127 Routine Request
Errors Found Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 9

Audit 00 through 49 Demand Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

OMS 10

Audit 50 through 99 Demand Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

OMS 11

Audit 100 through 127 Demand Request
Errors Found Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

TABLE 48

OUTPUT MEASUREMENT SETS FOR MSC 48
(ADMINISTRATIVE AREA TWO)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Administrative Area Two.

TABLE 49

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

```
MSC 49  INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI
OMS 0  CCIS INWATS
  TOT CLS   QUERIES  SUCCESS  NM MSGS     MSGS
   TO OSO     SENT   REPLIES    RCVD       SSB
        0         0        0        0        0

   ------------------ BSSP DATA BASE FAILURES -----------------
   CBVNCP   CBSCP  CBMASS   CBSMS  QFSTRM  QFOVFL   SCPTO  SCPREJ
        0       0       0       0       0       0       0       0
   SCPRTE  RESPER   PLAYA  800DCE  TCPUDS  TCPHDR  TCPCPE  EXRPTS
        0       0       0       0       0       0       0       0
   EXRPTF  TRANID  CLABND  NOCLID  LATMSG   10D6D
        0       0       0       0       0       0

   ----- Q.931 CHANNEL NEGOTIATION REQUESTS -----
   ORGTSG   TATSG   FATSG  FOOTSG  FTATSG  FFOTSG
        0       0       0       0       0       0

   ----------- INWATS FAILURES ----------
   NM6DCC  NM10DCC  NM-DSC     SLC  NO-AUX
        0        0       0       0       0

   -------------------- DATA BASE FAILURES --------------------
      ALB    OVLD  UA-NXX  NE-NPA  NP-NPA      VL  V-NXX       TO
        0       0       0       0       0       0      0        0

-DIRECT SIGNALING FAILURE -
   NW-BLK  NW-CON  NO-XLT
        0       0       0

    OUTWATS
  NON-PUR NPA
         0
  -------------------- NETWORK CALL DENIAL -------------------
      IQ  BQOVLD  BQCSC  BQCONG     RDC    RDBA    RDAA   QRBLK
       0       0      0       0       0       0       0       0
   QROVLD   QRNRD QNOVLD   QNMSC     INV
        0       0      0       0       0
```

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

```
OMS 1  AIN CALLS

  -- AIN ORIGINATIONS --
           INC
             0

  ----------- PRE-SCP RESPONSE ------------
   QRYS   NMBLK   FAIL-CP-BIQ   UNAVAIL-BIQ
      0       0             0             0

  ---- AWAITING/RECEIVED SCP RESPONSE -----
  RSP-MSG   PLAY-ANN   RETREJ   SIG-FAIL-TD
        0          0        0             0

  --- ABANDON ---   --- TN INFO ---
  ABDNBO   ABDNAO        TN-REC
       0        0             0

  ------------------ UNABLE TO COMPLETE -------------------
  INVLD   INVLD-CMD   TRIG-OVFL   FAIL-CP-AIQ   UNAVAIL-AIQ
      0           0           0             0             0


OMS 2  DIRECT SIGNALING
  MISROUTED
  MSGS RCVD
         0
- SADC MESSAGES -
   TOTAL     UNX
       0       0

  TERM NTFY
  MSGS LOST
         0
  1B-3B AMA RECORDS
    SENT    LOST
       0       0

  AIN TN INFO
    TN-RET
         0
```

Output Measurement Sets for MSC 49

OMS 0

Total INWATS Calls Reaching CCIS OSO
Peg Count
(TOT CLS TO OSO)

This counter will be incremented by one each time a "Query Data Base" return is received from the initial digit translation. Before an office becomes a CCIS OSO, this count will always be 0. This count will be maintained by DIRE or translations.

INWATS Queries Sent Peg Count
(QUERIES SENT)

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

This counter will be incremented by one each time a query is sent to the Data Base. This count will be maintained by call processing.

Successful INWATS Replies Peg Count
(SUCCESS REPLIES)

This counter is incremented by one each time a successful INWATS reply is received from the Data Base. This count is kept by the CCIS dispenser program.

INWATS Network Management Messages
Received Peg Count
(NM MSGS RCVD)

This counter will be incremented by one each time a Network Management Message is received from the INWATS Data Base. This count will be maintained by Network Management.

CCIS Message Subscriber Busy Peg Count
(MSGS SSB)

This counter will be incremented by one each time an SSB message will be sent from the terminating end. This count is kept by the CCIS Dispenser Program.

Vacant Code/Non-Purchased NPA
BOC-Service Switch Point (SSP) Calls
Blocked Due To Excess Calling Peg Count
(CBVNCP BSSP DATA BASE FAILURES)

This counter is incremented by one each time a BOC SSP call is blocked via vacant code controls.

SCP Overload Blocked BOC-SSP Calls
Peg Count
(CBSCP BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked due to NM implementation of Service Control Point Overload controls.

MAS - BOC-SSP Calls Blocked Peg Count
(CBMASS BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked due to NM implementation of MAS calling controls.

SMS Blocked BOC-SSP Call Peg Count
(CBSMS BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked via NM Service Management Position (SMS) controls.

Initial Query Failure Due to CNI
Stream Down Peg Count
(QFSTRM BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is unable to complete due to Initial query failure caused by the CNI stream being down.

Initial Query Failure Due to CNI
Buffer Overflow Peg Count
(QFOVFL BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is unable to complete due to Initial query failure caused by the CNI Buffer overflowing.

Timeout Waiting for SCP Response Peg Count
(SCPTO BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt times out waiting for a response from the SCP data base.

Reject Message Returned from SCP Peg Count
(SCPREJ BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to the SCP returning a Reject Message.

Return Error Returned from SCP Peg Count
(SCPRTE BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to Return Error Message from the SCP.

Fatal Protocol Error Response from SCP
Peg Count
(RESPER DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to the SCP response containing Fatal Protocol Errors.

Play Announcement Message from SCP
Peg Count
(PLAYA BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails with the SCP indicating that an announcement should be played.

800 Number Services (NS) Attempts Failed

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

Due to Unacceptable Digit Count Peg Count
(800DCE BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP 800 number services call is finaled due to an insufficient number of dialed digits (10).

Unit Data Service Messages Returned by STP
Peg Count
(TCPUDS BSSP DATA BASE FAILURES)

This is a total count of CCS7 Transaction Capability (TCAP) Unit Data Service Messages returned by the Signal Transfer Point (STP).

Fatal Errors in SCCP Header Peg Count
(TCPHDR BSSP DATA BASE FAILURES)

This is a total count of Signaling Connection Control Point (SCCP) fatal header errors on CCS7 TCAP messages.

Discrepancy in Number of Components
and End Address of TCAP Message
Peg Count
(TCPCPE BSSP DATA BASE FAILURES)

This is a count of CCS7 TCAP messages that have a discrepancy in the number of components versus end address.

Exception Reports Sent to the SCP Peg Count
(EXRPTS BSSP DATA BASE FAILURES)

This is a count of Exception Reports sent to the SCP.

Exception Reports Failed to Send to the SCP
Peg Count
(EXRPTF BSSP DATA BASE FAILURES)

This is a count of exception reports that should have been sent to the SCP but were not.

Transaction ID in SCP Response Was Invalid
Peg Count
(TRANID BSSP DATA BASE FAILURES)

This is a count of responses from the SCP that contained an invalid transaction ID.

Caller Abandon Before Response from SCP
Peg Count
(CLABND BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP caller abandons before a response has been received from the SCP.

Undetermined Call ID in a Response from the
SCP Which Contained Protocol Errors
Peg Count
(NOCLID BSSP DATA BASE FAILURES)

This is a count of SCP responses that contained fatal protocol errors where the call ID could not be determined.

Response from SCP After Query
Timer Timeout Peg Count
(LATMSG BSSP DATA BASE FAILURES)

This counter is incremented by one when a query to the SCP results in a response after Timer timeout.

Failure to Place NM 10/6 Digit Controls
on ACG Control List Peg Count
(10D6D BSSP DATA BASE FAILURES)

This counter is incremented by one each time a NM Automatic Call Gap (ACG) control received in the response from the SCP cannot be placed on the ACG control list because the list is full.

Q.931 Channel Negotiation (CN) Requests
on Original TSG
(ORGTSG Q931 CN REQUESTS)

This is the number of CN requests that resulted in the originally hunted trunk being selected.

Q.931 Channel Negotiation (CN) Requests
to Another TSG
(TATSG Q931 CN REQUESTS)

This is the number of CN requests where the egress call is to be diverted to the PBX specified TSG.

Q.931 Channel Negotiation (CN) Requests
From Other TSG
(FATSG Q931 CN REQUESTS)

This is the number of CN requests where the egress call is requested to complete on the non-originally hunted TSG.

Q.931 Channel Negotiation (CN) Failures
On Originating TSG
(FOOTSG Q931 CN REQUESTS)

This is the number of times a CN request on the originating TSG failed to connect.

Q.931 Channel Negotiation (CN) Request
Failures To Another TSG

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

(FTATSG Q931 CN REQUESTS)

This is the number of times a CN request to another specified TSG failed.

Q.931 Channel Negotiation (CN) Request Failures From Other TSG
(FFOTSG Q931 CN REQUESTS)

This is the number of times a CN request from another TSG failed.

Network Management Blocked: INWATS 6-digit Code Control
(NM6DCC INWATS FAILURES)

This counter will be incremented by one each time an INWATS call is blocked by 6-digit INWATS Code Control. This count will be maintained by Final Handling.

Network Management Blocked: INWATS 10-digit Code Control
(NM10DCC INWATS FAILURES)

This counter will be incremented by one each time an INWATS call is blocked by 10-digit INWATS Code Control. This count will be maintained by Final Handling.

Network Management Blocked: Direct Signaling Control
(NM-DSC INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS call is blocked by 6-digit INWATS Direct Signaling Control. This count will be maintained by Final Handling.

INWATS Blocked by Signaling Link Congestion
(SLC INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS Call Failure is received because of one or more of the following reasons:

a. Terminal Buffer Overflow

b. Signaling Link Failure

c. Receipt of Processor Switching Congestions (PSC) signal prevented the INWATS query from being sent

This count will be maintained by Final Handling.

No Auxiliary Call Register
(NO-AUX INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS failure is received because an Auxiliary Call Register is not available. This count will be maintained by Final Handling.

Data Base Failure Reply: All Lines Busy
(ALB DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base because all lines are busy to the INWATS subscriber. This count will be maintained by Final Handling.

Data Base Failure Reply: Data Base Overload
(OVLD DATA BASE FAILURES)

This counter will be incremented by one each time a Data Base Failure is received that specifies that Data Base Overload is the reason for failure. This count will be maintained by Final Handling.

Data Base Failure Reply: Unassigned NXX
(UA-NXX DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base because an unassigned NXX was the reason for the failure. This indicates that the CCIS network routed the query to the wrong Data Base and implies bad translation data at the STP. This count will be maintained by Final Handling.

Data Base Failure Reply: Non-Existent NPA
(NE-NPA DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specifies Non-Existent NPA as the reason for failure. This implies bad translation data either at the OSO (trunk block or 3-digit translator) or at the Data Base. This count will be maintained by Final Handling.

Data Base Failure Reply: Non-Purchased NPA
(NP-NPA DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specifies non-purchased NPA as the reason for failure. This is analogous to zonal band exceeded in conventional INWATS. This count will be maintained by Final Handling.

Data Base Failure Reply: Vacant Line
(VL DATA BASE FAILURES)

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

This counter will be incremented by one each time a failure reply is received from the Data Base that specifies Vacant Line Number as the reason for failure. This count will be maintained by Final Handling.

Data Base Failure Reply: Vacant NXX
(V-NXX DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specified vacant NXX as the reason for failure. This count will be maintained by Final Handling.

Data Base Query Timeout
(TO DATA BASE FAILURES)

This counter will be incremented by one each time an INWATS call failure is received because the Data Base query timed out before a response was received. Here, it is likely that the replies are being misrouted in the CCIS network. This count will be maintained by Final Handling.

INWATS CCIS Failure: Network Blockage
(NW-BLK)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return specified as network blockage failure. This count will be maintained by Final Handling.

INWATS CCIS Failure: Network Congestion
(NW-CON)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return specified as network congestion failure. This count will be maintained by Final Handling.

INWATS CCIS Failure: No Translation Data
(NO-XLT)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return being specified as no translation data at the STP to route the query failure. This count will be maintained by Final Handling.

OUTWATS Non-purchased NPA Peg Count
(OUTWATS NON-PUR NPA)

This counter will be incremented when an OUTWATS customer attempts to call an NPA that has not been contracted for.

Network Call Denial Initial Query Peg Count
(NETWORK CALL DENIAL IQ)

This counter is incremented when an attempt is made to send a query to the Network Call Denial (NCD) data base.

Network Call Denial Blocked Queries
From Overload Peg Count
(NETWORK CALL DENIAL BQOVLD)

This counter is incremented when an NCD query is blocked at the Action Point (AP) due to NCD/Network Control Point (NCP) overload control.

Network Call Denial Blocked Queries From
CCS Abnormal Replies Control Peg Count
(NETWORK CALL DENIAL BQCSC)

This counter is incremented when an NCD query is blocked at the AP due to CCIS Network Abnormal replies control.

Network Call Denial Blocked Queries
From Congestion Peg Count
(NETWORK CALL DENIAL BQCONG)

This counter is incremented when an NCD query is blocked at the AP due to congestion signals received at the AP.

Network Call Denial Replies With Deny Codes
Peg Count
(NETWORK CALL DENIAL RDC)

This counter is incremented when an NCD reply is received with a call deny code.

Network Call Denial Replies With Deny Code
Before Answer Supervision Peg Count
(NETWORK CALL DENIAL RDBA)

This counter is incremented when NCD reply is received with a call deny code before Answer Supervision has been received.

Network Call Denial Replies With Deny
Code After Answer Supervision Peg Count
(NETWORK CALL DENIAL RDAA)

This counter is incremented when an NCD reply is received with a call deny code after Answer Supervision has been received.

Network Call Denial Queries Returned
Due to CCS Network Block Replies Peg Count

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

(NETWORK CALL DENIAL QRBLK)

This counter is incremented when an NCD query is returned due to CCIS Network Block replies.

Network Call Denial Queries Returned
Due to CCS Network Overload Replies
(NETWORK CALL DENIAL QROVLD)

This counter is incremented when an NCD query is returned due to CCIS Network Overload replies.

Network Call Denial Queries Returned
Due to No Routing Data Peg Count
(NETWORK CALL DENIAL QRNRD)

This counter is incremented when an NCD query is returned due to lack of routing data for destination reply code.

Network Call Denial Queries Returned
Due to Overload Peg Count
(NETWORK CALL DENIAL QNOVLD)

This counter is incremented when an NCD query is returned due to data base overload reply condition.

Network Call Denial Queries Returned
Due to Miscellaneous Replies Peg Count
(NETWORK CALL DENIAL QNMSC)

This counter is incremented when an NCD query is returned due to miscellaneous reply reasons.

Network Call Denial Replies With
Invalid Data Peg Count
(NETWORK CALL DENIAL INV)

This counter is incremented when an NCD reply is interpreted to have invalid data.

OMS 1

AIN Calls Received from Another Switch
Peg Count
(INC)

The Advanced Intelligent Network (AIN) Calls Received From Another Switch count is pegged for all AIN calls that have been received from another switch (that is, the AIN call did not originate on this Service Switching Point (SSP) switch).

AIN Queries to the SCP Peg Count
(QRYS)

The AIN Queries Sent to the SCP count is pegged for each query that is sent to the Service Control Point (SCP). This is the total number of queries sent and can be incremented more than once for each AIN call attempt.

Network Management Control Blocks Call
Peg Count
(NMBLK)

Regardless of the type of NM control, the Network Management (NM) Control Blocks Call count is pegged on every occurrence of an AIN query blocked at the SSP due to an NM control. This count can be pegged due to one of the following reasons:

1. An SCP overload automatic code gap (ACG) control.
2. An SCP overload manual automatic code gap (MACG) control.
3. An SMS originated code control (SOCC).
4. A POTS destination code control.

This count is not pegged when a call is blocked after the SCP has provided routing instructions.

Call Processing Failure Before Initial Query
Peg Count
(FAIL-CP-BIQ)

The Call Processing Failure Before Initial Query count is pegged when an AIN call is terminated before the query to the SCP is sent. The reason for an AIN call being terminated could either be because of a hardware or software initialization, or because of a failure in the normal call processing routine. Any call processing failure that can be detected by the SSP is counted under this failure.

Resource Unavailable Before Initial Query
Peg Count
(UNAVAIL-BIQ)

The Resource Unavailable Before Initial Query count is pegged when an AIN call fails because a resource, which is normally provided by the SSP, is unavailable because of maintenance or engineering reasons before the query to the SCP is sent. The resources might either be engineerable, or might be fixed internally via the switch software release. This count is also pegged when a failure to send a query occurs on the initial leg of a call due to buffer overflow or stream down.

Normal Route Response Message Received
Peg Count

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

(RSP-MSG)

The Normal Route Response Message Received count is pegged when a route response is received from the SCP on AIN calls.

Play Announcement Message from the SCP Peg Count
(PLAY-ANN)

The Play Announcement Message from the SCP count is pegged when a play announcement message is received from the SCP.

Return Error or Reject Message Peg Count
(RETREJ)

The Return Error or Reject Message count is pegged when the SSP receives a Return Error message or a Reject message in response to a Query or Conversation message. A Return Error message is returned from the SCP for an invalid command sent from the SSP. The Reject message is returned from the SCP for a valid command sent from the SSP that is either incomplete or out of sequence.

Signaling Failure - Time-out at SSP Peg Count
(SIG-FAIL-TD)

The Signaling Failure - Time-out at SSP count is pegged when the SSP times-out while waiting for a reply from the SCP.

Abandon - Before Outpulsing Peg Count
(ABDNBO)

The Abandon - Before Outpulsing count is pegged when an on-hook is received from the calling party before the SSP receives and interprets a routing response. This includes the case where the caller abandons during a play announcement and collect digits operation.

Abandon - After Outpulsing Peg Count
(ABDNAO)

The Abandon - After Outpulsing count is pegged when an on-hook is received from the calling party while the SSP is processing an SCP route response.

Termination Notification Requests Received Peg Count
(TN-REC)

The Termination Notification Requests Received count represents the number of Termination Notification requests received from the SCP.

Invalid Command Sequence Peg Count
(INVLD)

The Invalid Command Sequence count is pegged when the SSP receives a response from the SCP that contains an incomplete or out of sequence valid command. In other words, the SSP receives a valid command from the SCP, but its order or completeness, with reference to the current dialogue sequence is incorrect.

Invalid Command Message Peg Count
(INVLD-CMD)

The Invalid Command Message count is pegged when the SSP receives a response from the SCP that is undecipherable or has bad data.

Serial-Triggering Limit Overflow Peg Count
(TRIG-OVFL)

The Serial-Triggering Limit Overflowed measurement represents the number of times the office-administrable serial-triggering limit has been overflowed or exhausted.

Call Processing Failure After Initial Query Peg Count
(FAIL-CP-AIQ)

The Call Processing Failure After Initial Query count is pegged when an AIN call is terminated after the query is sent. The reason for an AIN call being terminated could either be because of a hardware or software initialization, or because of a failure in the normal call processing routine. A call processing failure that can be detected by the SSP is counted under this failure. This counter is also pegged when a unit data service message, DLN returned message, or CNI returned message is received. This count indicates a more serious event than the FAIL-CP-BIQ one because of the waste in resources.

Resource Unavailable After Initial Query Peg Count
(UNAVAIL-AIQ)

The Resource Unavailable After Initial Query count is pegged when an AIN call fails because a resource, which is normally provided by the SSP, is unavailable because of maintenance or engineering reasons after the

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

query to the SCP is sent. This count is also pegged when a failure to send a query occurs on other than the initial leg of a call due to buffer overflow or stream down. This count indicates a more serious event than the UNAVAIL-BIQ one because of the waste in resources.

OMS 2

Misrouted Direct Signaling Messages Received Peg Count
(MISROUTED MSGS RCVD)

This counter will be incremented by one each time a Direct Signaling Message is received in which the address is not valid for the office that received the message. This implies that one or both of the office's home STP's has bad translation data or that the office data is incorrect. This count is kept by the CCIS dispenser program.

Direct Access Data Channel (DADC) Total Messages Peg Count
(SADC MESSAGES TOTAL)

This counter reflects the total number of messages sent and received between the 1B and the 3B Processors.

Direct Access Data Channel (DADC) Unexpected Messages Peg Count
(SADC MESSAGES UNX)

This counter reflects the total number of unexpected messages, including both invalid and out of sequence types.

Termination Notification Messages Lost Peg Count
(TERM NTFY MSGS LOST)

This count is incremented by one when Termination Notification messages are lost due to 3B problems.

1B-3B AMA Records Sent Peg Count
(1B-3B AMA RECORDS SENT)

This counter reflects the total number of all AMA record types (e.g.: CAMA, INWATS, DSD, etc.) that were made by the 3B Processor.

1B-3B AMA Records Lost Peg Count
(1B-3B AMA RECORDS LOST)

This counter reflects the total number of AMA record types sent by 1B to the 3B Processor that were mutilated or unauthorized.

Termination Notification Response Peg Count
(TN-RET)

The Termination Notification Response (TN-RET) count represents the number of Termination Notification responses sent to the SCP for AIN calls.

TABLE 50

OUTPUT MEASUREMENT SETS FOR MSC 50
(MAS PER ANNOUNCEMENT MEASUREMENTS)

MSC 50 MAS PER ANNOUNCEMENT MEASUREMENTS

OMS	EAID	ANNSEP	ATT	CONNECT TO AUDIO	OVFL	SEC
0	0000000000000	00	000000	000000	000000	000000
1	0000000000000	00	000000	000000	000000	000000
2	0000000000000	00	000000	000000	000000	000000
3	0000000000000	00	000000	000000	000000	000000
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
508	0000000000000	00	000000	000000	000000	000000
509	0000000000000	00	000000	000000	000000	000000
510	0000000000000	00	000000	000000	000000	000000
511	0000000000000	00	000000	000000	000000	000000

Description of Measurements for MSC 50

All per-announcement measurements will be labeled with the External Announcement Identifier (EAID) for the announcement. The OMS for a particular office must be less than <OD4DNUM28H0> * 64. The EAID is a 12-digit identifier with the format:

VVVVVAAAAAAA

where VVVVV is the VSSID identifier (VSSID) if this service is updatable from VSS and is all zeros, otherwise,

AAAAAA is the service identifier.

There will be 64 OMSs for each frame in use in the office (maximum of 8 frames).

OMS 0-511

MAS - Per-Announcement Attempts
Peg Count
(ATT)

When an attempt is made to reach a PAS announcement, this counter is incremented by one. This counter includes all PAS with TELEVOTE and PAS with cut-through calls that are routed to an announcement but not those routed to a cut-through number.

MAS - Per-Announcement Connect To Audio
Peg Count
(CONNECT TO AUDIO)

When a call is successfully connected to announcement audio, this counter is incremented by one.

MAS - Per-Announcement Overflow Peg Count
(OVFL)

When a call cannot be connected to a given announcement because one or both dedicated TSI SPCs serving the announcement have overflowed, this counter is incremented by one.

MAS - Per-Announcement Usage
(SEC)

This counter provides the occupancy count of calls connected to a given announcement and audible ring preceding that announcement. This count is converted to CCS before output.

TABLE 51

OUTPUT MEASUREMENT SETS FOR MSC 51
(CALL GAPPING/CUT-THRU)

```
MSC 51 CALL GAPPING/CUT-THRU
 OMS DIALED NUM  CUTHRU  TO-ANN
   0 0000000000       0       0
   1 0000000000       0       0
   2 0000000000       0       0
   3 0000000000       0       0
   .     .            .       .
   .     .            .       .
   .     .            .       .
  60 0000000000       0       0
  61 0000000000       0       0
  62 0000000000       0       0
  63 0000000000       0       0
```

Description of Measurements for MSC 51

OMS 0-63

The following counts will be outputted per 10-digit dialed number via OMS 0-63.

MAS - Calls Routed To A Cut-Through Number Peg Count
(CUTHRU)

When a PAS with cut-through call is routed to a cut-through number, this counter is incremented by one. This counter also includes the number of calls routed to the called number, for any dialed number that has a network management call gapping control applied to it.

MAS - Calls Routed To An Announcement Peg Count
(TO-ANN)

When a PAS with cut-through call is routed to the specific announcement, this counter is incremented by one. This counter also includes the number of calls routed by network management to a final handling announcement in the office, for any dialed number that has a network management call gapping control applied to it.

TABLE 52

OUTPUT MEASUREMENT SETS FOR MSC 52
(TELEVOTE MASTER DIALED NUMBER)

MSC 52 TELEVOTE MASTER DIALED NUMBER			
OMS	MAPN	LINE	VOTES
0	00	0000	0
1	00	0000	0
2	00	0000	0
3	00	0000	0
.	.	.	.
.	.	.	.
.	.	.	.
124	00	0000	0
125	00	0000	0
126	00	0000	0
127	00	0000	0

Description of Measurements for MSC 52

OMS 0-127

MAS - Totals of the TELEVOTE Counts
Received Peg Count
(VOTES)

MSC 52, OMS 0-127, contain cumulative totals of the TELEVOTE counts received from the TELEVOTE slaves reporting to a particular master. These counts are labeled with a 2-digit Master Application Number (MAPN) from 0-63 and a 4-digit line number that identifies a voting option within a TELEVOTE application. This MSC should be scheduled for a 15 minute accumulation interval only, because the counts are cumulative.

TABLE 53

OUTPUT MEASUREMENT SETS FOR MSC 53
(TELEVOTE SLAVE DIALED NUMBER)

MSC 53 TELEVOTE SLAVE DIALED NUMBER		
OMS	NUMBER	VOTES
0	0000000000	0
1	0000000000	0
2	0000000000	0
3	0000000000	0
.	.	.
.	.	.
.	.	.
124	0000000000	0
125	0000000000	0
126	0000000000	0
127	0000000000	0

Description of Measurements for MSC 53

OMS 0-127

MAS - Total Calls (Votes) to a TELEVOTE Slave Dialed Number Peg Count (VOTES)

MSC 53, OMS 0-127, contains a count of the number of calls to a given 10-digit number. The 10-digit number is the number called by a customer to reach the TELEVOTE service. Each 10-digit number is specified by an OMS. The count is incremented by one when a call to a given TELEVOTE number is successfully connected to an audible ringing preceding the appropriate announcement. It also includes PAS with TELEVOTE and cut-through type calls that are routed to the cut-through number.

TABLE 54

OUTPUT MEASUREMENT SETS FOR MSC 54
(GEOGRAPHIC ATTEMPTS MATRIX)

```
MSC 54 GEOGRAPHIC ATTEMPTS MATRIX
OMS-0-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
OMS-1-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
OMS-2-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000

     .
     .
     .

OMS-31-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
```

Description of Measurements for MSC 54

In order to add any OMSs in this MSC to a schedule, the ODA parameter OD4DNUMMGO0 must not be zero. If it is zero, this MSC can not be scheduled.

OMS 0-31

MAS - Geographic Attempts Matrix
Completion Peg Count

The Geographic Attempts Matrix contains 32 OMSs (0-31) containing completion Peg Counts based on incoming Trunk Subgroup and announcement called. There is a separate OMS for each of 32 announcement operations.

TABLE 55

OUTPUT MEASUREMENT SETS FOR MSC 55
(SURVIVABLE SIGNALLING NETWORK MEASUREMENTS)

```
MSC 55  SURVIVABLE SIGNALLING NETWORK MEASUREMENTS
OMS 0  SSN OFFICE TOTALS
----------- NUM OF LSP -----------
    GEN  DIS RED  DIS AGE  WAIT XT  DUR LSP  AVG HOP  PATH >4
      0        0        0        0        0        0        0
IAM XMT  ANS RCV  CHG BOV  MSG DIS  DUR UNA
      0        0        0        0        0
---------- NSEP CALLS AT OAS ----------
 ATMPTS  SIG FAIL  NSIG FAIL  ORIG ASTN
      0         0          0          0
OMS 1  SSN PER LINK
SSN LINK  LSP RCV  OCT XMT  OCT RCV  MSG DRP  CHNGOVR  UNA OOS  UNA PRO
          UNA MAH  CHG PRO  CHG LMH  XMT STP
      00        0        0        0        0        0        0        0
                0        0        0        0
      01        0        0        0        0        0        0        0
                0        0        0        0
      02        0        0        0        0        0        0        0
                0        0        0        0
      03        0        0        0        0        0        0        0
                0        0        0        0
      04        0        0        0        0        0        0        0
                0        0        0        0
OMS 2  SSN PER LINK
SSN LINK  LSP RCV  OCT XMT  OCT RCV  MSG DRP  CHNGOVR  UNA OOS  UNA PRO
          UNA MAH  CHG PRO  CHG LMH  XMT STP
      05        0        0        0        0        0        0        0
                0        0        0        0
      06        0        0        0        0        0        0        0
                0        0        0        0
      07        0        0        0        0        0        0        0
                0        0        0        0
      08        0        0        0        0        0        0        0
                0        0        0        0
      09        0        0        0        0        0        0        0
                0        0        0        0
OMS 3  SSN PER LINK
SSN LINK  LSP RCV  OCT XMT  OCT RCV  MSG DRP  CHNGOVR  UNA OOS  UNA PRO
          UNA MAH  CHG PRO  CHG LMH  XMT STP
      10        0        0        0        0        0        0        0
                0        0        0        0
      11        0        0        0        0        0        0        0
                0        0        0        0
      12        0        0        0        0        0        0        0
                0        0        0        0
      13        0        0        0        0        0        0        0
                0        0        0        0
      14        0        0        0        0        0        0        0
                0        0        0        0
```

TABLE 55 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 55
(SURVIVABLE SIGNALLING NETWORK MEASUREMENTS)

OMS 4 SSN PER LINK

SSN	LINK	LSP UNA	RCV MAH	OCT XMT CHG	PRO	OCT RCV CHG	LMH	MSG DRP XMT	STP	CHNGOVR	UNA OOS	UNA PRO
	15		0		0		0		0	0	0	0
			0		0		0		0			
	16		0		0		0		0	0	0	0
			0		0		0		0			
	17		0		0		0		0	0	0	0
			0		0		0		0			
	18		0		0		0		0	0	0	0
			0		0		0		0			
	19		0		0		0		0	0	0	0
			0		0		0		0			

OMS 5 SSN - NO ROUTE DURATION

000	0	001	0	002	0	003	0	004	0
005	0	006	0	007	0	008	0	009	0
010	0	011	0	012	0	013	0	014	0
015	0	016	0	017	0	018	0	019	0
020	0	021	0	022	0	023	0	024	0
025	0	026	0	027	0	028	0	029	0
030	0	031	0	032	0	033	0	034	0
035	0	036	0	037	0	038	0	039	0
040	0	041	0	042	0	043	0	044	0
045	0	046	0	047	0	048	0	049	0
050	0	051	0	052	0	053	0	054	0
055	0	056	0	057	0	058	0	059	0
060	0	061	0	062	0	063	0		

OMS 6 SSN - NO ROUTE DURATION

064	0	065	0	066	0	067	0	068	0
069	0	070	0	071	0	072	0	073	0
074	0	075	0	076	0	077	0	078	0
079	0	080	0	081	0	082	0	083	0
084	0	085	0	086	0	087	0	088	0
089	0	090	0	091	0	092	0	093	0
094	0	095	0	096	0	097	0	098	0
099	0	100	0	101	0	102	0	103	0
104	0	105	0	106	0	107	0	108	0
109	0	110	0	111	0	112	0	113	0
114	0	115	0	116	0	117	0	118	0
119	0	120	0	121	0	122	0	123	0
124	0	125	0	126	0	127	0		

OMS 7 SSN - NO ROUTE DURATION

128	0	129	0	130	0	131	0	132	0
133	0	134	0	135	0	136	0	137	0
138	0	139	0	140	0	141	0	142	0
143	0	144	0	145	0	146	0	147	0
148	0	149	0	150	0	151	0	152	0
153	0	154	0	155	0	156	0	157	0
158	0	159	0	160	0	161	0	162	0
163	0	164	0	165	0	166	0	167	0

TABLE 55 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 55
(SURVIVABLE SIGNALLING NETWORK MEASUREMENTS)

Description of Measurements for MSC 55

OMS 0

LSPs Generated Peg Count
(NUM OF LSP GEN)

The number of Link State Packets (LSPs) generated due to changeover or changeback or due to periodic flooding.

LSPs Discarded Due to Redundancy Peg Count
(NUM OF LSP DIS RED)

The number of Link State Packets (LSPs) discarded due to redundancy.

LSPs Discarded Due to Aging Peg Count
(NUM OF LSP DIS AGE)

The number of Link State Packets (LSPs) discarded due to aging.

LSPs Waiting to be Transmitted Peg Count
(NUM OF LSP WAIT XT)

The number of Link State Packets (LSPs) waiting to be transmitted. This count is updated every second. At each 1-second interval, the counter is incremented by the number of LSPs waiting to be transmitted.

Duration That at Least One LSP is
Waiting to be Transmitted Peg Count
(DUR LSP)

This count is the duration that at least one Link State Packet (LSP) is waiting to be transmitted. This count is updated every second. This measurement is pegged every second that at least one LSP is waiting; the maximum value or duration is 3600 (for a one-hour interval).

Average Links in the Minimum-hop Path
(AVG HOP)

This measurement is the average number of links in minimum-hop path. It is computed every 30 seconds. Note: This average is calculated (using integer division) for each report interval. For report intervals greater than 15 minutes, this is a true average; not simply an average of the included 15-minute interval averages.

Average Number of Paths of Length > 4
(PATH >4)

This measurement is the average number of paths with path length > 4 links. It is computed every 30 seconds. See Note on previous measurement.

IAMs Transmitted Functioning as a Switch
Peg Count
(IAM XMT)

The number of IAMs transmitted at the switch functioning as a switch rather than an STP.

ANSs Received Functioning as a Switch
Peg Count
(ANS RCV)

The number of ANS messages received at the switch, which functions as a switch rather than an STP.

Changeover Buffer Overflows Peg Count
(CHG BOV)

The number of changeover buffer overflows. An overflow occurs each time an attempt is made to store a message and there is not enough memory.

Messages Discarded Due to No Route
to Destination Peg Count
(MSG DIS)

The number of messages discarded due to no route to destination.

Duration of All S-Links Unavailable
(DUR UNA)

This measurement is the duration of all S-Links simultaneously unavailable for any reason (i.e., SSN isolation). This is updated every 30 seconds.

Originating NSEP Call Attempts Peg Count
(NSEP CALLS AT OAS - ATMPTS)

The number of originating NSEP call attempts at the originating switch.

NSEP Call Failures Due to
Signaling Unavailable Peg Count
(NSEP CALLS AT OAS - SIG FAIL)

The number of NSEP call failures due to signaling unavailability at the originating switch.

NSEP Call Failures Due to
Non-Signaling-Unavailable Peg Count
(NSEP CALLS AT OAS - NSIG FAIL)

TABLE 55 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 55
(SURVIVABLE SIGNALLING NETWORK MEASUREMENTS)

The number of NSEP call failures due to non-signaling-related reasons at the originating switch.

NSEP Calls Originating on ASTN
Peg Count
(NSEP CALLS AT OAS - ORIG ASTN)

The number of NSEP calls originating on ASTN.

OMS 1-4

All the measurements in these OMSs are reported for each of the possible 20 links (numbered 0-19) in an office.

LSPs Received Peg Count
(LSP RCV)

The number of Link State Packets (LSPs) received per link.

Call-Related Octets Transmitted Peg Count
(OCT XMT)

The number of call-related octets transmitted per link.

Call-Related Octets Received Peg Count
(OCT RCV)

The number of call-related octets received per link.

Messages Dropped Peg Count
(MSG DRP)

The number of received messages dropped due to an excessive number of hops per link.

Changeovers Peg Count
(CHNGOVR)

The number of changeovers per link.

Duration of Unavailability Due to OOS
(UNA OOS)

The duration of unavailability of a link due to Out of Service (OOS) per link. This is updated every 30 seconds. At each 30 second interval, this measurement is incremented by one if the link is unavailable because it is OOS.

Duration of Unavailability Due to PRO
(UNA PRO)

The duration of unavailability of a link due to Processor Outage (PRO) per link. This is updated every 30 seconds. At each 30 second interval, this measurement is incremented by one if the link is unavailable because of a processor outage.

Duration of Unavailability Due to MAH
(UNA MAH)

The duration of unavailability of a link due to Management Hindering (MAH) per link. This is updated every 30 seconds. At each 30 second interval, this measurement is incremented by one if the link is unavailable because of MAH.

Changeovers Due to PRO Peg Count
(CHG PRO)

The number of changeovers due to Processor Outage (PRO) per link.

Changeovers Due to LMH Peg Count
(CHG LMH)

The number of changeovers due to local Management Hindering (LMH) per link.

Call Related Octets Transmitted With 4ESS as
STP Peg Count
(XMT STP)

The number of call related octets transmitted, where the 4ESS is functioning as a Signal Transfer Point (STP).

OMS 5-7

Duration With No Route to a Destination
(NO ROUTE DURATION)

This measurement is the duration with no route to a destination. It is updated every 30 seconds and reported on a per destination switch number basis (from 0-167). At each 30 second interval, this measurement is incremented by one if there is no route to the destination switch.

TABLE 56

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

MSC 56 ANI DELIVERY SERVICE COUNTS

OMS 0 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
1	0	0	0	0	0
	0	0	0	0	0
2	0	0	0	0	0
	0	0	0	0	0
3	0	0	0	0	0
	0	0	0	0	0
4	0	0	0	0	0
	0	0	0	0	0
5	0	0	0	0	0
	0	0	0	0	0
6	0	0	0	0	0
	0	0	0	0	0

OMS 1 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
7	0	0	0	0	0
	0	0	0	0	0
8	0	0	0	0	0
	0	0	0	0	0
9	0	0	0	0	0
	0	0	0	0	0
10	0	0	0	0	0
	0	0	0	0	0
11	0	0	0	0	0
	0	0	0	0	0
12	0	0	0	0	0
	0	0	0	0	0

OMS 2 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
13	0	0	0	0	0
	0	0	0	0	0
14	0	0	0	0	0
	0	0	0	0	0

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

```
  15          0         0         0         0         0
              0         0         0         0         0
  16          0         0         0         0         0
              0         0         0         0         0

OMS 3  DIAL-A-VIEW MESSAGE REGISTER MEASUREMENTS
         -------LINK 1-------   -------LINK 2-------
         MSG REGS   RREG THLD    MSG REGS   RREG THLD
 ADSI    RETURNED   LINK SKPD    RETURNED   LINK SKPD
    1           0           0           0           0
    2           0           0           0           0
    3           0           0           0           0
    4           0           0           0           0
    5           0           0           0           0
    6           0           0           0           0
    7           0           0           0           0
    8           0           0           0           0
    9           0           0           0           0
   10           0           0           0           0
   11           0           0           0           0
   12           0           0           0           0
   13           0           0           0           0
   14           0           0           0           0
   15           0           0           0           0
   16           0           0           0           0

OMS 4  PER CALL CONTROL OF USEC
  TOT ORD   SOC ORD  TEST ORD   REG MSG     UNACK  SADC CON  REG FAIL
        0         0         0         0         0         0         0
  -------------------- GATEWAY/USEC GENERATED DATA --------------------
  CRC ERR     FRAME   BAD PKT   ERRORED  GOOD PKT  LOST MSG  PORT CRC
        0         0         0         0         0         0         0
 SADC PRT    IG CRC  SEC GATE  MSG QOVF   IG LINK  NO RCMSG
        0         0         0         0         0         0
 ---------------------- MESSAGE THROTTLING DATA ----------------------
 TVON/OFF   TVON/ON  TVOFF/OFF  64C/64C  ODAT   NMT      FSUS      FRES
        0         0          0        0     0     0         0         0
 ----------- MESSAGES NOT THROTTLED WHILE THRESHOLD EXCEEDED ----------
     TVON     TVOFF        64C  MSG/UNK      SPR1      SPR2
        0         0          0        0         0         0

OMS 5  TRANSMITTED NOISE REDUCTION (TNR) COUNTS
  TNR SOC   TNR TOT
        0         0
```

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

Description of Measurements for MSC 56

OMS 0-2

MAS Attempts Peg Count
(MAS ATT)

This counter is incremented by one each time a Dial-A-View network transaction is attempted. This counter is maintained by the DTSCADMN Program.

MAS Cutthru Peg Count
(MAS CUT)

This counter is incremented by one each time a Dial-A-View network transaction results in a cut-through to an operator. Such a situation occurs when the customers' ANI is not available. This counter is maintained by the DTSCADMN Program.

ANI Sent Peg Count
(ANI SNT)

This counter is incremented by one each time a Dial-A-View REGister message containing the ANI and the Event digits is sent to the vendor. This counter is maintained by the ADJSCNTL Program.

Registers From Attendant Peg Count
(REG ATD)

This counter is incremented by one each time a Dial-A-View REGister message is received from an Attendant CPE. This scenario will result following a cut-through to an operator. This counter is maintained by the ADJSCNTL Program.

Attendant Failures Peg Count
(ATD FL)

This counter is incremented by one each time an attendant transaction failure occurs. This counter is maintained by the ADJSCNTL PIDENT.

Timeouts Peg Count
(TIMEOUT)

This counter is incremented by one each time a Dial-A-View network transaction experiences a time out. This occurs when the vendor does not acknowledge a REGister message within 6 seconds. This counter is maintained by the DTSCADMN Program.

Gapped Peg Count
(GAPPED)

This counter is incremented by one each time a network or an attendant transaction experiences congestion due to either too many timeouts per minute or too many REGister messages sent to a given vendor per second. This counter is maintained by the ADJSCNTL Program.

Vendor Rejection Peg Count
(VENDREJ)

This counter is incremented by one each time a Dial-A-View network or attendant transaction experiences a Vendor Rejection message (RELease COMPlete message). This counter is maintained by the ADJSCNTL Program.

Facility Received Indicating Caller Hung-Up
Peg Count
(FCRVHUP)

This counter is incremented by one each time a Dial-A-View network transaction receives a FACility message from the vendor and the caller has hung up. This counter is maintained by the ADJSCNTL Program.

Total Final Handled Calls Peg Count
(TOT FH)

This counter is incremented by one each time a network handled transaction is final handled. This counter is maintained by the ADJSCNTL and DTSCADMN Programs.

OMS 3

Link 1 Message Register Returned
Peg Count
(MSG REGS RETURNED LINK 1)

This counter is incremented by one each time a message is registered by the CNI ring. This counter is maintained by ADJSCNTL programs.

Link 1 Return Register Threshold Exceeded
Peg Count
(RREG THLD LINK SKPD LINK 1)

This counter is incremented by one each time the Return Register Threshold is exceeded. This counter specifies the number of times a SADC link is considered to be "POSSIBLY" going out of service. MSGs will not be routed over this link. This counter is maintained by ADJSCNTL program.

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

Link 2 Message Register Returned
Peg Count
(MSG REGS RETURNED LINK 2)

Same as above except for Link 2.

Link 2 Return Register Threshold Exceeded
Peg Count
(RREG THLD LINK SKPD LINK 2)

Same as above except for Link 2.

OMS 4

Total Number of Orders Peg Count
(TOT ORD)

The total number of orders contained in the REGISTER messages (Event Digits = 0001), irrespective of indicators in the order, sent to the Gateway.

Total Number of Orders with Start of Call
Indicator Set Peg Count
(SOC ORD)

The total number of operational USEC orders and test orders sent to the Gateway in a REGISTER message (Event Digits = 0001) with the start/end indicator set to "start" irrespective of other indicators.

Total Number of Test Orders Sent
Peg Count
(TEST ORD)

The total number of test orders sent to the Gateway with the Maintenance indicator set to "on" in a REGISTER message irrespective of other indicators.

Total Number of Register Messages
Peg Count
(REG MSG)

The total number of REGISTER messages (Event Digits = 0001) sent to the Gateway. This counter is incremented by one each time a REGISTER message is sent irrespective of the number of orders in the message.

Total Number of Unacknowledged
Register Messages Peg Count
(UNACK)

The total number of unacknowledged REGISTER messages sent to the Gateway. This counter is incremented by one each time a 2 second timeout occurs while waiting for a Release Complete message from the Gateway. This counter is only incremented for REGISTER messages with Event Digits = 0001 or 2222.

Total Number of Register Messages
Not Sent due to Congestion Peg Count
(SADC CON)

The total number of REGISTER messages (irrespective of the value in the Event Digits field) *not* sent to the Gateway due to SADC node congestion.

Total Number of Register Messages
Failed to be Sent Peg Count
(REG FAIL)

The total number of REGISTER messages failed to be sent to the Gateway and the cause is anything other than SADC congestion *or* timeout of the REGISTER message. Examples of conditions that cause this count to be incremented are: 1) both SADC links are out-of-service, and 2) no USEC translation data can be retrieved.

Total Number of Packets with CRC Errors
Peg Count
(CRC ERR)

The total number of Gateway Type 1 and Type 2 packets received since the last valid Type 2 packet that has the correct number of bytes but has a cyclic redundancy check (CRC) 6 error shall be collected by the 4ESS switch for all USECs connected to the Gateway.

Total Number of Framing and Overrun
Errors Peg Count
(FRAME)

The total number of framing and overrun errors at the USEC IPCC port UART since the last valid Gateway Type 2 packet was received. This count is for all USECs connected to the Gateway. A framing error is defined as a received byte with an invalid stop bit. An overrun error is defined as a new byte received at the UART before the previous byte is read.

Total Number of Bad Packets Received
Peg Count
(BAD PKT)

The total number of bad packets received since the last valid Gateway Type 2 packet was received. This count is for all USECs connected to the Gateway. The

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

number of bad packets is determined by the USEC by counting the number of Type 1 and Type 2 packets that did not have the correct number of bytes, did not have an all ones Header byte, did not have a correct Message Type byte, or had a CRC 6 error. An incorrect number of bytes may due to many factors including, but not limited to, UART overrun errors on the CP (defined as a new byte received at the UART before the previous byte is read), UART framing errors (count given in the fourth byte), and the Gateway not sending the correct number of bytes.

Total Number of Errored Commands
Peg Count
(ERRORED)

The total number of errored two byte 4ESS-USEC-PCC (IPCC) commands (which are found inside each Type 1 packet) received since the last valid Type 2 packet. This count is for all USECs connected to the Gateway. An 4ESS-USEC-PCC (IPCC) command is in error when at least one of the following occurs:

- An invalid channel address is received. An invalid channel address is defined as being outside the range of 0 to 6 for the shelf number, 0 to 7 for the digroup number, or 1 to 24 for the channel number.
- The "Enhancement off" bit and/or the "End USEC" bit is set when the "Maintenance bit" is set.

Total Number of Good Packets Received
Peg Count
(GOOD PKT)

The total number of good packets received by the Gateway since the last Type 2 packet was received. This count is for all USECs connected to the Gateway. This count is determined by the USEC by counting the number of Type 1 packets that have the correct number of bytes, correct header, message type, and CRC 6. Errors in the 10 bytes of data, which is considered to be part of the application message, will be reflected in the sixth byte of this Type 2 acknowledgment packet (i.e., the invalid 4ESS-USEC-PCC (IPCC) command count). The seventh byte contains the most significant byte and the eighth byte contains the least significant byte.

Total Number of Lost Messages
Peg Count
(LOST MSG)

The number of messages that the Gateway attempted to send to the USEC(s) but were lost. This count will be calculated by the Gateway by subtracting the number of good packets received by the USEC(s) and the number of bad packets received by the USEC(s) from the total number of packets that the Gateway attempted to send to the USEC(s).

Total Number of USEC CRC Errors
Peg Count
(PORT CRC)

The total number of USEC port cyclic redundancy check (CRC) errors detected by the Gateway.

Total Number of SADC Port Errors
Peg Count
(SADC PRT)

The total number of SADC port errors detected by the Gateway.

Total Number of Inter-Gateway CRC Errors
Peg Count
(IG CRC)

The total number of Inter-Gateway port CRC errors detected by the Gateway.

Total Number of Times the Secondary
Gateway was Used Peg Count
(SEC GATE)

The total number of times that the secondary Gateway was used during the fifteen minute report interval.

Total Number of Times That Message
Queue Overflowed Peg Count
(MSG QOVF)

The total number of times that the Gateway message queue overflowed during the fifteen minute report interval.

Total Number of Messages Not Sent
Between Gateways Peg Count
(IG LINK)

The total number of messages that could not be sent from the Primary Gateway to the Secondary Gateway due to Inter-Gateway link problems during the fifteen minute report interval.

Total Number of Register Messages That Did
Not Receive a Release Complete Peg Count
(NO RCMSG)

The number of Register messages sent by the Gateway that did not receive a Release Complete message from the 4ESS Switch during the fifteen minute report

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

interval. The Gateway will peg this count when a Release Complete is not returned by the 4ESS Switch within an expected time interval.

TVON Messages Throttled Following TVOFF
Peg Count
(TVON/OFF)

The number of TVON messages (True Voice on iPCC message) throttled following TVOFF message (True Voice off iPCC start-of-call message).

TVON Messages Throttled Following TVON
Peg Count
(TVON/ON)

The number of TVON messages throttled following TVON.

TVOFF Messages Throttled Following TVOFF
Peg Count
(TVOFF/OFF)

The number of TVOFF messages throttled following TVOFF.

64C Messages Throttled Following 64C
Peg Count
(64C/64C)

The number of 64C messages (iPCC 64clear start-of-call message) throttled following 64C.

ODA IPCC Message Queue Threshold
Value in Effect
(ODAT)

This is the latest ODA IPCC message queue threshold value in effect for the 15-minute interval. It is updated every 6 seconds. If the report interval is greater than 15 minutes, then this value is the sum of each of the 15-minute values in the report interval.

Latest IPCC Message Queue NEMOS
Override Threshold Value
(NMT)

This is the latest non-zero IPCC message queue NEMOS override threshold value in effect for the 15 minute interval. It is updated every 6 seconds but if it is non-zero at any time during the interval, it will not be reset to zero. If the report interval is greater than 15 minutes, then this value is the sum of each of the 15-minute values in the report interval.

USEC Frame Suspend Event Peg Count
(FSUS)

USEC frame suspend event count.

Individual USEC Frame Resume Event
Peg Count
(FRES)

Individual USEC frame resume event count.

TVON Messages Sent During Throttling,
Not Due to Unknown Peg Count
(TVON)

The number of TVON messages sent during throttling, not due to unknown.

TVOFF Messages Sent During Throttling,
Not Due to Unknown Peg Count
(TVOFF)

The number of TVOFF messages sent during throttling, not due to unknown.

64C Messages Sent During Throttling,
Not Due to Unknown Peg Count
(64C)

The number of 64C messages sent during throttling, not due to unknown.

TVON/TVOFF/64C Messages Sent
During Throttling Due to Unknown Peg Count
(MSG/UNK)

The number of TVON/TVOFF/64C messages sent during throttling due to unknown.

Spare 1 Peg Count
(SPR1)

This is a spare peg count provided for future use.

Spare 2 Peg Count
(SPR2)

This is a spare peg count provided for future use.

OMS 5

Total Number of TNR Operational Orders
for Start of Call Peg Count
(TNR SOC)

The total number of operational TNR USEC orders sent for egress trunks to the iPCC Gateway in a REGISTER

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

message (Event Digits = 0001) with the Start/End indicator set to "start".

Total Number of TNR Orders Peg Count
(TNR TOT)

The total number of TNR USEC orders sent to the iPCC Gateway in REGISTER messages (Event Digits = 0001) for access/egress trunks, regardless of the setting of the Start/End of Call indicator.

TABLE 57

OUTPUT MEASUREMENT SETS FOR MSC 57
(POSITIVE CALL PROCESSING)

```
MSC 57  POSITIVE CALL PROCESSING
OMS 0  PCP IA & PERF COUNTS
0
0
0
.
.
.
0
```

Description of Measurements for MSC 57

[As this MSC is intended as a report for use by a computer system, no description of the counts is printed on the output.]

OMS 0

(1) PCP DTMF Queue Seizure Peg Count
(2) PCP DTMF Queue Accumulated Occupancy Count
(3) PCP DTMF Queue Abandon Peg Count
(4) CPA Call Register Seizures Peg Count
(5) CPA Call Register Accumulated Occupancy Count
(6) CPA Call Register Overflow Peg Count
(7) PCP Receiver Holding Time in Sec for SAN
(8) PCP Receiver Holding Time in Sec for 1+SACDS
(9) PCP Receiver Holding Time in Sec for MUVF
(10) PCP Receiver Holding Time in Sec for FAX S&F
(11) PCP Call Killed Due to DTMF Receiver Queue Overload Count
(12) PCP Call Subjected to Excessive Delay Count (i.e., Wait on DTMF Receiver Queue >= 2 seconds)
(13) PCP SAB Call Denied Due to Improper Collection for LDS
(14) PCP SAB Call Denied Due to Improper Collection for SA WATS
(15) PCP SAB Call Denied Due to Improper Collection for MEGACOM and DC WATS
(16) PCP Call Denied Due to MUVF CTI Improper Collection for LDS
(17) PCP Call Denied Due to MUVF CTI Improper Collection for SA WATS
(18) PCP Call Denied Due to MUVF CTI Improper Collection for MEGACOM and DC WATS
(19) PCP FAX S&F Call Denied Due to Invalid Service Code Received for LDS
(20) PCP FAX S&F Call Denied Due to Invalid Service Code Received for SA WATS
(21) PCP FAX S&F Call Denied Due to Invalid Service Code Received for MEGACOM and DC WATS
(22) PCP Subaccount Number Initial Attempt Failed Count (TMAD0002 pegs for call irregularity report.)
(23) PCP 1+SACDS Initial Attempt Failed in Receipt of Service Code
(24) PCP MUVF Initial Attempt Failed in Receipt of CTI
(25) PCP Total SAN Account Code Verification Failures
(26) PCP SAN Denied - none entered and was mandatory
(27) PCP FAX S&F Initial Attempt Fail in Receipt of Service Code
(28) PCP 1+SACDS Due to Invalid Service Code Received
(29) PCP CDS Attempts for Which Failure to Reseize Receiver Occurred
(30) PCP FAX S&F Attempts for Which Failure to Seize Receiver Occurs
(31) PCP FAX S&F DTMF Receiver Timeout in Wait for ANS State
(32) PCP BN(ANI) Query Attempt CNT for DC and SA LDS
(33) PCP BN(ANI) Query Attempt CNT for SA WATS
(34) PCP BN(ANI) Query Attempt Count for MEGACOM and DC WATS
(35) PCP BN(ANI) Subscribed to Some PCP Feature for DC and SA LDS

TABLE 57 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 57
(POSITIVE CALL PROCESSING)

(36) PCP BN(ANI) Subscribed to Some PCP Feature for SA WATS
(37) PCP BN(ANI) Subscribed to Some PCP Feature for MEGACOM and DC WATS
(38) PCP Handled Customer Specific Recording Successfully for LDS
(39) PCP Handled Customer Specific Recording Successfully for SA WATS
(40) PCP Handled Customer Specific Recording Successfully for MEGACOM and DC WATS
(41) PCP Subaccount Number Collected Successfully for LDS
(42) PCP Subaccount Number Collected Successfully for SA WATS
(43) PCP Subaccount Number Collected Successfully for MEGACOM and DC WATS
(44) PCP Handled Dedicated FAX ID Successfully for LDS
(45) PCP Handled Dedicated FAX ID Successfully for SA WATS
(46) PCP Handled Dedicated FAX ID Successfully for MEGACOM and DC WATS
(47) PCP MUVF CTI Collected Successfully for LDS
(48) PCP MUVF CTI Collected Successfully for SA WATS
(49) PCP MUVF CTI Collected Successfully for MEGACOM and DC WATS
(50) PCP SAB Calls Allowed to Complete with No SAN Received
(51) PCP SAB Calls Allowed to Complete with SAN Received and it was Optional
(52) PCP SAB Calls Allowed to Complete with SAN Received and it was Mandatory
(53) PCP Calls with SAN Account Code Validation Successful
(54) PCP TOTAL 1+SACDS Attempts to Seize a Receiver
(55) PCP TOTAL 1+SACDS Successfully Attempted Routing to VMOC
(56) PCP Total MUVF Calls Identified as Being FAX
(57) PCP FAX ID Calls Identified as Using FAX FPR
(58) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for LDS
(59) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for SA WATS
(60) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for MEGACOM and DC WATS
(61) PCP FAX S&F Successfully Attempted Routing to a FAX S&F Node
(62) PCP SAN Validation Success Peg Count
(63) PCP 1B to DLN Failure to Send Query Peg Count
(64) PCP DLN to 1B No Reply From DLN Peg Count
(65) PCP SAN No Data in DLN Peg Count
(66) CAS-NCP Unrecognized Info Received Peg Count
(67) CPA BN(ANI) Trigger Table Query Attempt Peg Count for All Applicable Services
(68) CPA BN(ANI) Trigger Table Data Found Peg Count for All Applicable Services
(69) CPA Destination Number Trigger Table Query Attempt Peg Count for FAX Calls
(70) CPA Destination Number Trigger Table Data Found Peg Count for FAX Calls
(71) PCP Using 2NCP/NSCX Peg Count

The total number of calls for which an ABC ANI trigger table record was matched, for which the Feature Processing Data Type Indicator was set to "FI", and the "PCP Using 2NCP/NSCX" Indicator is "on."

TABLE 58

OUTPUT MEASUREMENT SETS FOR MSC 58
(reserved for future use)

```
This table reserved for MSC 58.
```

TABLE 59

OUTPUT MEASUREMENT SETS FOR MSC 59
(reserved for future use)

```
This table reserved for MSC 59.
```

TABLE 60

OUTPUT MEASUREMENT SETS FOR MSC 60
(reserved for future use)

```
This table reserved for MSC 60.
```

TABLE 61

OUTPUT MEASUREMENT SETS FOR MSC 61
(reserved for future use)

```
This table reserved for MSC 61.
```

TABLE 62

OUTPUT MEASUREMENT SETS FOR MSC 62
(reserved for future use)

```
This table reserved for MSC 62.
```

TABLE 63

OUTPUT MEASUREMENT SETS FOR MSC 63
(reserved for future use)

```
This table reserved for MSC 63.
```

FIGURE 1

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
0	-	60	MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD
	0	15	MF XMTR, IDTS RCVR, AND ODTMFWK XMTR QUEUE-DOMESTIC
	1	1	CCITT5 QUEUE-INTERNATIONAL
	2	17	MF, DTMF XMTRS, NSCX AND MASFH CKTS
	3	6	BLUE BOX FRAUD
	4	21	CCS MESSAGE TABLE
1	-	6	MF RCVR AND DTMF RCVR
	0	6	
2	-	8	CCIS, ISUP, ITUP AND INUP XCVR
	0	8	
3	-	192	ANNOUNCEMENT CIRCUITS AND DEDICATED TSI
	0-31	1	
	32	32	DEDICATED TSI
	33-160	1	
4	-	5	NETWORK
	0	4	
	1	1	SERVICE OBSERVING
5	-	87	OFFICE TOTALS
	0	7	
	1	26	
	2	3	
	3	1	
	4	9	INTERNATIONAL INCOMING
	5	10	INTERNATIONAL OUTGOING
	6	25	NETWORK CLOCK SYNCHRONIZATION UNIT
	7	2	SERVICE OBSERVING
	8	2	CALLS ORIGINATING AND TERMINATING
	9	2	MAS IRREGULARITIES
6	-	65	BOC SSP MEASUREMENTS
	0	65	
7	-	37	INCOMING IRREGULARITIES
	0	32	
	1	5	
8	-	-	Reserved For Future Use
9	-	10	PROCESSOR LOAD
	0	2	
	1	8	BASE LEVEL PEG COUNTS
10	-	2048	TRAFFIC SEPARATIONS
	0-1023	2	TRAFFIC SEPARATIONS BASED ON DESEP AND INSEP
11	-	67	INEFFECTIVE ATTEMPTS
	0	3	
	1	8	
	2	8	
	3	16	NETWORK MANAGEMENT BLOCKED
	4	26	MISCELLANEOUS INEFFECTIVE ATTEMPTS
	5	2	

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	6	4	
12	-	16	TSI USAGE
	0	16	
13	-	-	TRUNK SUB-GROUPS (MAX OF 64)
	-	-	OUTPUT IS BY CIN (MAX OF 16 COUNTS PER CIN)
14	-	8192	CCIS/CCITT NO. 6 TERMINALS
	0-255	32	
15	-	59	INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS
	0	7	SECOND STAGE
	1	6	IOC OPERATOR ATTEMPTS
	2	34	INTERNATIONAL INEFFECTIVE ATTEMPTS
	3	1	ORIGINATING INTL CALL-DOMESTIC SATELLITE INCOMING
	4	11	TWO STAGE SWITCHING ERRORS
16	-	36	IO, FILE STORE, TAPE UNIT AND DATA LINK
	0	5	
	1	31	APS COMMUNITY
17	-	62	ENGINEERED MEMORY
	0	46	DOMESTIC MEMORY
	1	11	MEMORY FOR INTERNATIONAL
	2	2	CALL DETAIL RECORDING REGISTERS
	3	3	
18	-	10	CAMA INEFFECTIVE ATTEMPTS
	0	10	
19	-	26	CAMA
	0	19	
	1	2	
	2	5	
20	-	77	PERFORMANCE MEASUREMENTS-MAJOR MAINT RESPONSES AND ALARMS
	0	12	INTERRUPT TOTALS
	1	59	MAJOR MAINTENANCE RESPONSES
	2	5	ALARMS
	3	1	HARDWARE DETECTED CGA
21	-	29	PERFORMANCE MEASUREMENTS- SYSTEM RECOVERY- PHASES
	0	8	SYSTEM RECOVERY-PHASES
	1	2	RECENT CHANGE MEASUREMENTS
	2	3	NETWORK MANAGEMENT MEASUREMENTS
	3	16	MACHINE CONGESTION
22	-	4	PERFORMANCE MEASUREMENTS - AUDIT TYPE
	0	2	AUDIT COMPLETE
	1	2	AUDIT ERRORS
23	-	46	PERFORMANCE MEASUREMENTS-EQUIPMENT TYPE - PROCESSOR
	0	3	MAINTENANCE OCCUPANCIES
	1	18	MAINTENANCE USAGE
	2	16	PERIPHERAL UNIT MAINTENANCE USAGE AND OUTAGE
	3	7	PER CALL SERVICE CKTS ACCUMULATED MAINT OCCUPANCY
	4	2	VFL ACCUMULATED MAINTENANCE OCCUPANCY

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
24	-	82	PERFORMANCE MEASUREMENTS-TERMINAL EQUIPMENT
	0	1	TOTAL ACCUMULATED MAINTENANCE OCCUPANCY
	1	18	TERMINAL EQUIPMENT MAINTENANCE USAGE AND OUTAGE
	2	63	TERMINAL EQUIPMENT
25	-	293	CONTROL AREA ZERO
	0	2	CONTROL AREA SUMMATION
	1	61	INCOMING IMAS
	2	22	INCOMING IMAS
	3	49	OUTGOING IMAS AND GLARE FAILURES
	4	11	OUT-OF-SERVICE PEG COUNTS
	5	15	ATTEMPTS AND MAINTENANCE USAGE
	6	5	CCIS INEFFECTIVE ATTEMPTS
	7	6	ROTL
	8	24	TERMINATING TEST LINES
	9	21	ROUTINE OPERATIONAL TESTS
	10	10	TEST ACCESS CIRCUIT
	11	12	INTERNATIONAL ATTEMPTS AND MAINTENANCE USAGE
	12	2	OUT-OF-SERVICE PEG COUNTS
	13	6	INTERNATIONAL TRUNK TESTS-DIRECTOR
	14	5	INTERNATIONAL TRUNK TESTS-RESPONDER
	15	2	ATME FAILURES
	16	38	CCITT #5 CALL IRREGULARITIES
	17	2	CCITT #6 ACKNOWLEDGEMENT TIMEOUTS
26	-	293	CONTROL AREA ONE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
27	-	293	CONTROL AREA TWO
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
28	-	293	CONTROL AREA THREE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
29	-	293	CONTROL AREA FOUR
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
30	-	293	CONTROL AREA FIVE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
31	-	293	CONTROL AREA SIX
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
32	-	293	CONTROL AREA SEVEN
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
33	-	293	CONTROL AREA EIGHT
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
34	-	293	CONTROL AREA NINE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
35	-	31	SERVICE CIRCUITS
	0	7	MAINTENANCE SERVICE CKTS MAINTENANCE OCCUPANCIES
	1	19	MAINTENANCE SERVICE CIRCUITS MEASUREMENTS
	2	3	ATME-A
	3	2	TMR SEIZURES
36	-	181	SERVICE MEASUREMENTS

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	0	23	INCOMING IA, CCIS, ISUP, ITUP, INUP AND Q931
	1	16	INCOMING INEFFECTIVE ATTEMPTS, BEFORE ADDR SIGNALING
	2	24	INCOMING INEFFECTIVE ATTEMPTS, DURING ADDR SIGNALING
	3	21	INCOMING INEFFECTIVE ATTEMPTS, CALLING PARTY SIGNALING
	4	26	OUTGOING INEFFECTIVE ATTEMPTS
	5	2	CAMA POSITION IRREGULARITIES
	6	15	CALLS LOST DUE TO MACHINE IRREGULARITIES
	7	4	CCITT #6 FINAL TRIAL FAILURES
	8	6	CCITT #5 FINAL TRIAL FAILURES-OUTGOING STAGE
	9	7	CCITT #6 INEFFECTIVE ATTEMPTS
	10	5	CUSTOMER CALL TO MAS FTF
	11	32	ADJUNCT TIMEOUTS
37	-	18	BASE MEASUREMENTS
	0	10	DOM ATTEMPTS-TOTAL OFFICE
	1	8	INTL ATTEMPTS-TOTAL OFFICE
38	-	293	ADMINISTRATIVE AREA ZERO
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
39	-	293	ADMINISTRATIVE AREA ONE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
40	-	256	PERFORMANCE MEASUREMENTS-AUDIT IMPLICATOR CODE
	0	64	AUDIT IMPLICATOR CODE (000-063)
	1	64	AUDIT IMPLICATOR CODE (064-127)
	2	64	AUDIT IMPLICATOR CODE (128-191)
	3	64	AUDIT IMPLICATOR CODE (192-255)
41	-	4	AUDITS BY CLIENT
	0	4	AUDIT CALLS BY CLIENT, ERRORS FOUND
42	-	32	TRUNK ERROR ANALYSIS COUNTS - SECOND STAGE FILTERS
	0-31	1	SECOND STAGE FILTER OVERFLOWS BY SP NUMBER
43	-	32	TRUNK ERROR ANALYSIS COUNTS - LONG TERM TABLE
	0-31	1	LONG TERM TABLE OVERFLOWS BY SP NUMBER
44	-	1	TRUNK ERROR ANALYSIS-REPORT BUFFER OVERFLOW
	0	1	
45	-	132	SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS
	0	57	
	1	5	CCIS SOFTWARE CARRIER GROUP ALARM
	2	1	TRUNKS BLOCKED FAR END EQUIPMENT PROBLEMS
	3	25	CCITT #6 PERFORMANCE SIGNALS RECEIVED
	4	11	CCITT #6 PERFORMANCE SIGNALS TRANSMITTED
	5	16	CCITT #6 SIGNALING IRREGULARITIES
	6	4	ISUP UUI AND ATP DROPPED
	7	6	CALL MERGE
	8	7	E&M SOFTWARE CARRIER GROUP ALARM
46	-	203	SWITCHING AREA EQUIPMENT COUNTS
	0	77	PROCESSOR
	1	14	I/O
	2	35	BUS SYSTEM
	3	21	NETWORK

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	4	25	SIGNALING EQUIPMENT
	5	21	CLOCKS
	6	10	PER CALL SERVICE CIRCUIT MEASUREMENTS
47	-	512	PERFORMANCE MEASUREMENTS-AUDITS BY TYPE
	0	50	ROUTINE AUDIT COMPLETIONS NO. 00-49
	1	50	ROUTINE AUDIT COMPLETIONS NO. 50-99
	2	28	ROUTINE AUDIT COMPLETIONS NO. 100-127
	3	50	DEMAND AUDIT COMPLETIONS NO. 00-49
	4	50	DEMAND AUDIT COMPLETIONS NO. 50-99
	5	28	DEMAND AUDIT COMPLETIONS NO. 100-127
	6	50	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 00-49
	7	50	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 50-99
	8	28	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 100-127
	9	50	ERRORS - DEMAND AUDIT COMPLETIONS NO. 00-49
	10	50	ERRORS - DEMAND AUDIT COMPLETIONS NO. 50-99
	11	28	ERRORS - DEMAND AUDIT COMPLETIONS NO. 100-127
48	-	293	ADMINISTRATIVE AREA TWO
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
49	-	87	INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI
	0	63	CCIS INWATS
	1	17	AIN CALLS
	2	7	DIRECT SIGNALING
50	-	2048	MAS PER ANNOUNCEMENT MEASUREMENTS
	0-511	4	
51	-	128	CALL GAPPING/CUT THRU
	0-63	2	
52	-	128	TELEVOTE MASTER DIALED NUMBER
	0-127	1	
53	-	128	TELEVOTE SLAVE DIALED NUMBER
	0-127	1	
54	-	1024	GEOGRAPHIC ATTEMPTS MATRIX
	0-31	32	ANNOUNCEMENT SEPARATION
55	-	404	SURVIVABLE SIGNALLING NETWORK MEASUREMENTS
	0	16	SSN OFFICE TOTALS
	1	55	SSN PER LINK - LINKS 00-04
	2	55	SSN PER LINK - LINKS 05-09
	3	55	SSN PER LINK - LINKS 10-14
	4	55	SSN PER LINK - LINKS 15-19
	5	64	SSN - NO ROUTE DURATION - NSN 000-063
	6	64	SSN - NO ROUTE DURATION - NSN 064-127
	7	40	SSN - NO ROUTE DURATION - NSN 128-167
56	-	260	ANI DELIVERY SERVICE
	0	60	DIAL-A-VIEW PERFORMANCE MEASUREMENTS - ADSI 01-06
	1	60	DIAL-A-VIEW PERFORMANCE MEASUREMENTS - ADSI 07-12
	2	40	DIAL-A-VIEW PERFORMANCE MEASUREMENTS - ADSI 13-16
	3	64	DIAL-A-VIEW MESSAGE REGISTER MEASUREMENTS
	4	34	PER CALL CONTROL OF USEC

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	5	2	TRANSMITTED NOISE REDUCTION (TNR) COUNTS
57	-	71	POSITIVE CALL PROCESSING
	0	71	PCP IA & PERF COUNTS
58	-	-	Reserved For Future Use
59	-	-	Reserved For Future Use
60	-	-	Reserved For Future Use
61	-	-	Reserved For Future Use
62	-	-	Reserved For Future Use
63	-	-	Reserved For Future Use

FIGURE 2

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
1B Communication Buffer Usage	16/1
1B DMA Job Buffer Overflow Peg Count	16/1
1B DMA Job Buffer Seizures Peg Count	16/1
1B DMA Job Buffer Timeout Peg Count	16/1
1B DMA Job Buffer Usage	16/1
1B DMA Job Buffers Entered into the Reserved State Peg Count	16/1
1B File Processor Interface Down	45/0
1B Messages Sent to the 3B Peg Count	16/1
1B Read Messages Sent to the 3B Peg Count	16/1
1B Write Messages Sent to the 3B Peg Count	16/1
1B-3B AMA Records Lost Peg Count	49/2
1B-3B AMA Records Sent Peg Count	49/2
1B-3B Communication Send Buffer Overflows Peg Count	16/1
1B-3B Communication Send Buffer Seizures Peg Count	16/1
3B Communication Send Buffer Usage	16/1
3B DMA Job Buffer Overflow Peg Count	16/1
3B DMA Job Buffer Seizures Peg Count	16/1
3B DMA Job Buffer Timeout Peg Count	16/1
3B DMA Job Buffer Usage	16/1
3B DMA Job Buffers Entered into the Reserved State Peg Count	16/1
3B File Manager Buffer Overflows Peg Count	16/1
3B File Manager Buffer Seizures Peg Count	16/1
3B File Manager Buffer Usage	16/1
3B Messages Sent to the 1B Peg Count	16/1
3B Read Messages Sent to the 1B Peg Count	16/1
3B Write Messages Sent to the 1B Peg Count	16/1
3B-1B Communication Send Buffer Overflows Peg Count	16/1
3B-1B Communication Send Buffer Seizures Peg Count	16/1
4ESS Switch Originated Outgoing Attempts	5/8
64C Messages Sent During Throttling, Not Due to Unknown Peg Count	56/4
64C Messages Throttled Following 64C Peg Count	56/4
800 Number Services (NS) Attempts Failed Due to Unacceptable Digit Count Peg Count	49/0
Abandon - After Outpulsing Peg Count	49/1
Abandon - Before Outpulsing Peg Count	49/1
Abandon During Second Stage International - No Digits Received	15/0
Abandon During Second Stage International - Some Digits Received	15/0
Abandon During Second Stage VSS - No Digits Received	15/0
Abandon During Second Stage VSS - Some Digits Received	15/0
Access Tandem Post Acknowledgement Wink Timeout	11/4
Access Transport Received Peg Count	13/CIN
Adjunct Logical Address T303 Timeouts Peg Count	36/11
Adjunct Logical Address TADJ Timeouts Peg Count	36/11
AIN Calls Received from Another Switch Peg Count	49/1
AIN Queries to the SCP Peg Count	49/1
AMA Match Check Failure Peg Count	19/1
AMA Wrong Calling Code Peg Count	19/1
ANI Multi-Party Calls Peg Count	19/0
ANI Sent Peg Count	56/0-2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Announcement or Tone Group Seizure Peg Count	3/0-31
Announcement or Tone Group Seizure Peg Count	3/33-160
ANSs Received Functioning as a Switch Peg Count	55/0
Answer Signal Timeout Peg Count	25/16
Answer-Acknowledgement Signal Timeout Peg Count	25/16
API Accumulated Maintenance Usage	23/1
API Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
API Diagnostics Manually Requested Peg Count	46/0
API Diagnostics Program Requested - All Tests Passed Peg Count	46/0
API Diagnostics Program Requested Peg Count	46/0
API Errors Peg Count	46/0
API Located Faults Peg Count	46/0
API Non-located Peg Count	46/0
API Processor Interface Down	45/0
ATME Director/Responder Irregularities Peg Count	25/15
ATME-A Responder Incoming Seizures Peg Count	35/2
ATME-A Responder Maintenance Usage	35/2
ATME-A Responder Tests Attempted Peg Count	25/14
ATME-A Responder Tests Overflowed Peg Count	25/14
ATME-A Responder Total Usage	35/2
ATME-B Director Tests Attempted Peg Count	25/13
ATME-B Director Tests Failed Peg Count	25/13
ATME-B Director Tests Passed Peg Count	25/13
ATME-B Out-Of-Service Peg Count	25/12
ATME-B Responder Tests Attempted Peg Count	25/14
ATME-B Responder Tests Overflowed Peg Count	25/14
ATME-C Director Tests Attempted Peg Count	25/13
ATME-C Director Tests Failed Peg Count	25/13
ATME-C Director Tests Passed Peg Count	25/13
ATME-C Out-Of-Service Peg Count	25/12
ATME-C Responder Tests Attempted Peg Count	25/14
Attached Processor Interject Peg Count	20/1
Attendant Failures Peg Count	56/0-2
AUB Accumulated Maintenance Usage	23/1
AUB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
AUB Diagnostics Manually Requested Peg Count	46/2
AUB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
AUB Diagnostics Program Requested Peg Count	46/2
AUB Errors Peg Count	46/2
AUB Located Faults Peg Count	46/2
AUB Non-located Peg Count	46/2
Audit 00 through 49 Demand Request Errors Found Peg Count	47/9
Audit 00 through 49 Demand Request Peg Count	47/3
Audit 00 through 49 Routine Request Errors Found Peg Count	47/6
Audit 00 through 49 Routine Request Peg Count	47/0
Audit 100 through 127 Demand Request Errors Found Peg Count	47/11
Audit 100 through 127 Demand Request Peg Count	47/5

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Audit 100 through 127 Routine Request Errors Found Peg Count	47/8
Audit 100 through 127 Routine Request Peg Count	47/2
Audit 50 through 99 Demand Request Errors Found Peg Count	47/10
Audit 50 through 99 Demand Request Peg Count	47/4
Audit 50 through 99 Routine Request Errors Found Peg Count	47/7
Audit 50 through 99 Routine Request Peg Count	47/1
Audit Implicator Codes Peg Count	40/0-3
AUI Accumulated Maintenance Usage	23/1
AUI Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
AUI Diagnostics Manually Requested Peg Count	46/0
AUI Diagnostics Program Requested - All Tests Passed Peg Count	46/0
AUI Diagnostics Program Requested Peg Count	46/0
AUI D-Level Counter	20/1
AUI Errors Peg Count	46/0
AUI In-Range D-Level Counter	20/1
AUI Interject Counter	20/1
AUI Located Faults Peg Count	46/0
AUI Non-located Peg Count	46/0
AUI to API In-Range Counter	20/1
AUI to API Out-Of-Range Counter	20/1
AUI to CS In-Range Counter	20/1
AUI to CS Out-Of-Range Counter	20/1
AUI to DUS In-Range Counter	20/1
AUI to DUS Out-Of-Range Counter	20/1
AUI to PS In-Range Counter	20/1
AUI to PS Out-Of-Range Counter	20/1
Automatic Network Management Controls	13/CIN
Average Base Level Cycle Length In Milliseconds	9/0
Average Links in the Minimum-hop Path	55/0
Average Number of Paths of Length > 4	55/0
Billing Number Gap Peg Count	11/3
Black Box Fraud Prevention Canceled	0/4
Black Box Fraud Ring Forwards Received	0/4
B-Level Interrupt Central Control Switch Peg Count	20/1
B-Level Interrupts Hardware Initialization Peg Count	20/1
B-Level Interrupts Pulse Source In-Range Peg Count	20/1
B-Level Interrupts Pulse Source Out-Of-Range Peg Count	20/1
Blocking Acknowledgement Timeout Peg Count	25/17
Blue Box Fraud Attempts	0/3
Blue Box Fraud Detected	0/3
Blue Box Fraud MF Receiver Occupancy	0/3
Blue Box Fraud MF Receiver Seizure	0/3
Blue Box Fraud Overload	0/3
Blue Box Fraud Persisting	0/3
BOC SSP Initial Queries	6/0
BOC SSP MF Incoming Seizures	5/1
BOC SSP MF Outgoing Seizures	5/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
BOC SSP Seizures	6/0
Broadband Call 24 - Data Calls Received From an IEC Peg Count	5/1
Broadband Call 24 - Originating Data Attempts From a PRI Peg Count	5/1
Broadband Call 24-Trunk Incoming Seizures	5/1
Broadband Call 24-Trunk Outgoing Seizures	5/1
Broadband Call 6 - Data Calls Received From an IEC Peg Count	5/1
Broadband Call 6 - Originating Data Attempts From a PRI Peg Count	5/1
Broadband Call 6-Trunk Incoming Seizures	5/1
Broadband Call 6-Trunk Outgoing Seizures	5/1
Broadband Call Failure Peg Count	11/4
Buffer Overflow Peg Count	14/0-255
Busy-Flash Final Trial Failure Peg Count	36/8
Busy-Flash on the Outgoing Trunk Peg Count	25/16
Busy-Flash Peg Count	25/16
Call Denial Screening Peg Count	11/4
Call Merge Denials - Adjunct Not Allowed Peg Count	45/7
Call Merge Denials - Invalid Call States Peg Count	45/7
Call Merge Denials - Invalid Channel ID Peg Count	45/7
Call Merge Denials - Multi-Feature Request Peg Count	45/7
Call Merge Failure - Resource Limitations Peg Count	11/1
Call Merge Requests Peg Count	45/7
Call Merge Success Peg Count	45/7
Call Processing Failure After Initial Query Peg Count	49/1
Call Processing Failure Before Initial Query Peg Count	49/1
Call Record Block Peg Count	19/2
Call Record Lost Peg Count	19/2
Call Register (CR) Usage	17/0
Call Related Octets Transmitted With 4ESS as STP Peg Count	55/1-4
Caller Abandon Before Response from SCP Peg Count	49/0
Call-Related Octets Received Peg Count	55/1-4
Call-Related Octets Transmitted Peg Count	55/1-4
Calls Blocked by Go-No Go Screening Peg Count	11/2
CAMA Automatic Number Identification Failure Peg Count	19/0
CAMA Automatic Number Identification Local Office Failure	19/0
CAMA Automatic Number Identification Office Failure	19/0
CAMA Calls Queue Over 5-Seconds Peg Count	19/0
CAMA Free Calls Peg Count	36/5
CAMA Operator Queue Abandon Peg Count	18/0
CAMA Operator Queue Abandon Peg Count	19/0
CAMA Operator Queue Overflow Peg Count	18/0
CAMA Operator Queue Overflow Peg Count	19/0
CAMA Operator Queue Seizure Peg Count	19/0
CAMA Operator Queue Usage	19/0
CAMA Position Attached Timeout Peg Count	18/0
CAMA Position Disconnect Peg Count	18/0
CAMA Position Disconnect Peg Count	19/0
CAMA Position Disconnect Timeout Peg Count	18/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CAMA Position Report (CPR) Peg Count	18/0
CAMA Position Report (CPR) Peg Count	36/5
CAMA Position Timeout Peg Count	18/0
CAMA Positions Usage	19/0
Cancel Overload in Effect Peg Count	9/1
Cancel-From Control Blocked Peg Count	11/3
Cancel-To Control Blocked Peg Count	11/3
Carrier Group Failure Peg Count	11/1
CAS-NCP Unrecognized Info Received Peg Count	57/0
CC Accumulated Maintenance Usage	23/1
CC Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
CC Diagnostics Manually Requested Peg Count	46/0
CC Diagnostics Program Requested - All Tests Passed Peg Count	46/0
CC Diagnostics Program Requested Peg Count	46/0
CC Errors Peg Count	46/0
CC Located Faults Peg Count	46/0
CC Non-located Peg Count	46/0
CC to AUI In-Range Counter	20/1
CC to AUI Out-Of-Range Counter	20/1
CC to MUP In-Range Counter	20/1
CC to MUP Out-Of-Range Counter	20/1
CC to SSD In-Range Counter	20/1
CC to SSD Out-Of-Range Counter	20/1
CCIS 2-Wire Incoming Seizure Peg Count	5/1
CCIS Address Complete Signal Timeout Peg Count	36/4
CCIS Address Incomplete (ADI) Signals Received Peg Count	45/0
CCIS Address Incomplete (ADI) Signals Transmitted Peg Count	45/0
CCIS Call Fail Detection Peg Count	36/4
CCIS Call Failure (CFL) Signals Received Peg Count	45/0
CCIS Call Failure (CFL) Signals Transmitted Peg Count	45/0
CCIS Calls Lost Due to Trunk or Band Reset Peg Count	36/6
CCIS Confusion (COF) Signals Received Peg Count	45/0
CCIS Confusion (COF) Signals Transmitted Peg Count	45/0
CCIS Continuity Check Failure Final Trial Group Peg Count	36/4
CCIS CR Seizure Peg Count	17/0
CCIS Incoming Attempts Peg Count	25/5
CCIS Incoming Calls Peg Count	5/1
CCIS Maintenance Usage	25/5
CCIS Message Subscriber Busy Peg Count	49/0
CCIS National Switching Congestion (NSC) Signals Received Peg Count	45/0
CCIS National Switching Congestion (NSC) Signals Transmitted Peg Count	45/0
CCIS National Trunk Congestion (NTC) Signals Received Peg Count	45/0
CCIS National Trunk Congestion (NTC) Signals Transmitted Peg Count	45/0
CCIS Origination CR Queue Abandon Peg Count	11/6
CCIS Origination CR Queue Abandon Peg Count	17/0
CCIS Origination CR Queue Overflow Peg Count	11/6
CCIS Origination CR Queue Overflow Peg Count	17/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CCIS Origination CR Queue Seizure Peg Count	17/0
CCIS Origination CR Queue Usage	17/0
CCIS Outgoing Attempts Peg Count	25/5
CCIS Outgoing Calls Peg Count	5/2
CCIS Signaling Network Failure Peg Count	36/4
CCIS Terminal Group Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
CCIS Terminal Group Diagnostics Manually Requested Peg Count	46/4
CCIS Terminal Group Diagnostics Program Requested - All Tests Passed Peg Count	46/4
CCIS Terminal Group Diagnostics Program Requested Peg Count	46/4
CCIS Terminal Group Errors Peg Count	46/4
CCIS Terminal Group Located Faults Peg Count	46/4
CCIS Terminal Group Non-located Peg Count	46/4
CCIS Transceiver Accumulated Maintenance Usage	23/3
CCIS Transceiver Located Faults Peg Count	46/6
CCIS Transceiver Maintenance Usage	2/0
CCIS Transceiver Non-located Peg Count	46/6
CCIS Transceiver Overflow Peg Count	2/0
CCIS Transceiver Seizure Peg Count	2/0
CCIS Transceiver Service Usage	2/0
CCIS Transceiver Test Circuit Located Faults Peg Count	35/1
CCIS Transceiver Test Circuit Maintenance Busy Occupancy	35/0
CCIS Transceiver Test Circuit Non-located Faults Peg Count	35/1
CCIS Transceiver Test Circuit Total Usage	35/1
CCIS Trunk Or Band Reset Received Peg Count	45/0
CCIS Trunk Or Band Reset Signals Transmitted Peg Count	45/0
CCIS Unequipped Label Signals Received Peg Count	45/0
CCIS Unequipped Label Signals Transmitted Peg Count	45/0
CCIS Unreasonable Message (UNRES) Signals Received Peg Count	45/0
CCIS Vacant National Number (VNN) Signals Received Peg Count	45/0
CCIS Vacant National Number (VNN) Signals Transmitted Peg Count	45/0
CCIS VPA Cancellation and Path Hunt Peg Count	2/0
CCITT No. 5 Call Register Queue Seizure Peg Count	17/1
CCITT No. 5 Control Area Incoming Attempts Peg Count	25/11
CCITT No. 5 Control Area Outgoing Attempts Peg Count	25/11
CCITT No. 5 Maintenance Usage	25/11
CCITT No. 5 Miscellaneous Abandon Peg Count	25/16
CCITT No. 5 Originating Queue Seizure Peg Count	17/1
CCITT No. 5 Originating Queue Usage	17/1
CCITT No. 5 Queue Entry Failure Peg Count	0/1
CCITT No. 5 Total Office Incoming Attempts Peg Count	5/4
CCITT No. 5 Total Office Outgoing Attempts Peg Count	5/5
CCITT No. 6 Address Incomplete (ADI) Signals Received Peg Count	45/3
CCITT No. 6 Address Incomplete (ADI) Signals Transmitted Peg Count	45/4
CCITT No. 6 Blocking (BLO) Signal Transmitted Peg Count	45/4
CCITT No. 6 Call Failure (CFL) Signals Received Peg Count	45/3
CCITT No. 6 Call Failure (CFL) Signals Transmitted Peg Count	45/4
CCITT No. 6 Call Register Queue Seizure Peg Count	17/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CCITT No. 6 Circuit Group Congestion (CGC) Signals Received Peg Count	45/3
CCITT No. 6 Circuit Group Congestion (CGC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Confusion (COF) Signals Transmitted Peg Count	45/4
CCITT No. 6 Continuity Check Failure (CCF) Signaling Irregularity Peg Count	45/5
CCITT No. 6 Control Area Incoming Attempts Peg Count	25/11
CCITT No. 6 Control Area Outgoing Attempts Peg Count	25/11
CCITT No. 6 Double Seizure (GLR) Call Irregularity Peg Count	45/5
CCITT No. 6 Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
CCITT No. 6 Incomplete Address Detected Call Irregularity Peg Count	45/5
CCITT No. 6 Initial Address Message (IAM) Call Irregularity Peg Count	45/5
CCITT No. 6 Line Out-Of-Service (LOS) Signal Transmitted Peg Count	45/4
CCITT No. 6 Line Out-of-Service Signals Received Peg Count	45/3
CCITT No. 6 Maintenance Usage	25/11
CCITT No. 6 Miscellaneous Abandon Peg Count	36/9
CCITT No. 6 Miscellaneous Call Irregularity Peg Count	45/5
CCITT No. 6 National Network Congestion (NNC) Signals Received Peg Count	45/3
CCITT No. 6 National Network Congestion (NNC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Originating Queue Abandon Peg Count	17/1
CCITT No. 6 Originating Queue Overflow Peg Count	17/1
CCITT No. 6 Originating Queue Seizure Peg Count	17/1
CCITT No. 6 Originating Queue Usage	17/1
CCITT No. 6 Signaling Network Failures (SNF) Call Irregularities Peg Count	45/5
CCITT No. 6 Subscriber Busy Signals Received Peg Count	45/3
CCITT No. 6 Subscriber Busy (SSB) Signals Transmitted Peg Count	45/4
CCITT No. 6 Subscriber Transferred (SST) Signals Transmitted Peg Count	45/4
CCITT No. 6 Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
CCITT No. 6 Switching Equipment Congestion (SEC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Terminal Congestion Peg Count	45/3
CCITT No. 6 Total Office Incoming Attempts Peg Count	5/4
CCITT No. 6 Total Office Outgoing Attempts Peg Count	5/5
CCITT No. 6 Vacant National Number (VNN) Signals Received Peg Count	45/3
CCITT No. 6 Vacant National Number (VNN) Signals Transmitted Peg Count	45/4
CCITT No. 7 Subsequent Address Message Ignored Peg Count	45/3
CCS Message Table Blue Box Attempts Peg Count	0/4
CCS Message Table Overflow Peg Count	0/4
CCS Message Table Success Peg Count	0/4
CCS Message Table Timeout Peg Count	0/4
Centrex 2 Test Routine Operational Tests Attempted Peg Count	25/9
Centrex 2 Test Routine Operational Tests Failed Peg Count	25/9
Centrex 2 Test Routine Operational Tests Passed Peg Count	25/9
Centrex 3 Test Routine Operational Tests Attempted Peg Count	25/9
Centrex 3 Test Routine Operational Tests Failed Peg Count	25/9
Centrex 3 Test Routine Operational Tests Passed Peg Count	25/9
Changeover Buffer Overflows Peg Count	55/0
Changeovers Due to LMH Peg Count	55/1-4
Changeovers Due to PRO Peg Count	55/1-4
Changeovers Peg Count	55/1-4

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Clear-Back and Busy-Flash Acknowledgement Signal Timeout Peg Count	25/16
Clear-Back/Busy-Flash Signal Timeout Peg Count	25/16
Clear-Forward Received Peg Count	25/6
Clear-Forward Signal Timeout Peg Count	25/16
CNI Stream Processor Interface Down	45/0
Code 100 Test Attempted Peg Count	25/7
Code 100 Test Completed Peg Count	25/7
Code 101 First Trial Busy Peg Count	25/10
Code 101 Origination Peg Count	25/10
Code 101 Transfer Peg Count	25/10
Code 101 Usage	25/10
Code 102 Test Attempted Peg Count	25/7
Code 102 Test Completed Peg Count	25/7
Code 103 Routine Operational Tests Attempted Peg Count	25/9
Code 103 Routine Operational Tests Failed Peg Count	25/9
Code 103 Routine Operational Tests Passed Peg Count	25/9
Code 105 Test Attempted Peg Count	25/7
Code 105 Test Completed Peg Count	25/7
Code Block Control Blocked Peg Count	11/3
Common System Tone Detector (CSTD) Located Faults Peg Count	35/1
Common System Tone Detector (CSTD) Maintenance Busy Occupancy	35/0
Common System Tone Detector (CSTD) Non-located Faults Peg Count	35/1
Common System Tone Detector (CSTD) Seizure Attempts Peg Count	35/1
Common System Tone Detector (CSTD) Seizure Overflow Peg Count	35/1
Common System Tone Detector (CSTD) Total Usage	35/1
Confirmed Receive Path Failure Carrier Alarm Peg Count	45/8
Confirmed Receive Path Failure Carrier Restoral Peg Count	45/8
Confirmed Transmit Path Failure Carrier Alarm Peg Count	45/8
Confirmed Transmit Path Failure Carrier Restoral Peg Count	45/8
Continuity Check Failure (CKF) Peg Count	25/6
Continuity Check Failure Final Trial Failure Peg Count	36/7
Continuity Signal Timeout Peg Count	36/0
Control Area Pulsing Error Peg Count	25/16
CPA BN(ANI) Trigger Table Data Found Peg Count for All Applicable Services	57/0
CPA BN(ANI) Trigger Table Query Attempt Peg Count for All Applicable Services	57/0
CPA Call Register Accumulated Occupancy Count	57/0
CPA Call Register Overflow Peg Count	57/0
CPA Call Register Seizures Peg Count	57/0
CPA Destination Number Trigger Table Data Found Peg Count for FAX Calls	57/0
CPA Destination Number Trigger Table Query Attempt Peg Count for FAX Calls	57/0
Critical Alarms Peg Count	20/2
CS Accumulated Maintenance Usage	23/1
CS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
CS Diagnostics Manually Requested Peg Count	46/0
CS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
CS Diagnostics Program Requested Peg Count	46/0
CS Errors Peg Count	46/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CS Located Faults Peg Count	46/0
CS Non-located Peg Count	46/0
CSB Accumulated Maintenance Usage	23/1
CSB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
CSB Diagnostics Manually Requested Peg Count	46/2
CSB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
CSB Diagnostics Program Requested Peg Count	46/2
CSB Errors Peg Count	46/2
CSB Located Faults Peg Count	46/2
CSB Non-located Peg Count	46/2
Customer Calls To MAS - Supervision Not Returned Due To CCIS Terminal Congestion	5/9
D3U Accumulated Maintenance Usage	23/2
D3U Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
D3U Diagnostics Manually Requested Peg Count	46/3
D3U Diagnostics Program Requested - All Tests Passed Peg Count	46/3
D3U Diagnostics Program Requested Peg Count	46/3
D3U Errors Peg Count	46/3
D3U Located Faults Peg Count	46/3
D3U Non-located Peg Count	46/3
D3U Service Outage Usage	23/2
Data Base Failure Reply: All Lines Busy	49/0
Data Base Failure Reply: Data Base Overload	49/0
Data Base Failure Reply: Non-Existent NPA	49/0
Data Base Failure Reply: Non-Purchased NPA	49/0
Data Base Failure Reply: Unassigned NXX	49/0
Data Base Failure Reply: Vacant Line	49/0
Data Base Failure Reply: Vacant NXX	49/0
Data Base Query Timeout	49/0
Data Call Attempts Peg Count	13/CIN
Data Call Overflow Peg Count	13/CIN
Data Unit Selector Interject Peg Count	20/1
D-Cancel Killed Calls	11/3
Dedicated TSI Overflow Peg Count	3/32
Dedicated TSI Usage	3/32
DIF Accumulated Maintenance Usage	24/1
DIF Accumulated Outage	24/1
DIF Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DIF Diagnostics Manually Requested Peg Count	24/2
DIF Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DIF Diagnostics Program Requested Peg Count	24/2
DIF Errors Peg Count	24/2
DIF Located Faults Peg Count	24/2
DIF Non-located Faults Peg Count	24/2
Direct Access Data Channel (DADC) Total Messages Peg Count	49/2
Direct Access Data Channel (DADC) Unexpected Messages Peg Count	49/2
Disconnect Stage Failure to Receive Clear-Forward Peg Count	36/9
Disconnect Stage Failure to Receive Release Guard Peg Count	36/9

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Discrepancy in Number of Components and End Address of TCAP Message Peg Count	49/0
Disk Requests Accepted Peg Count	16/1
Disk Requests Canceled Peg Count	16/1
Disk Requests Completed Peg Count	16/1
Disk Requests Failed Peg Count	16/1
Disk Requests Rejected Peg Count	16/1
DIU Accumulated Maintenance Usage	24/1
DIU Accumulated Outage	24/1
DIU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DIU Diagnostics Manually Requested Peg Count	24/2
DIU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DIU Diagnostics Program Requested Peg Count	24/2
DIU Errors Peg Count	24/2
DIU Located Faults Peg Count	24/2
DIU Non-located Faults Peg Count	24/2
D-Level Interrupts Call Store In-Range Peg Count	20/1
D-Level Interrupts Invalid Transfer Peg Count	20/1
D-Level Interrupts Out-Of-Range Peg Count	20/1
D-Level interrupts Protected Area Failure Peg Count	20/1
D-Level Interrupts Stack Related Peg Count	20/1
DNHR Crank Backs Received Peg Count	45/0
DNHR Crank Backs Sent Peg Count	45/0
Domestic CCIS Terminal Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
Domestic CCIS Terminal Diagnostics Manually Requested Peg Count	46/4
Domestic CCIS Terminal Diagnostics Program Requested - All Tests Passed Peg Count	46/4
Domestic CCIS Terminal Diagnostics Program Requested Peg Count	46/4
Domestic CCIS Terminal Errors Peg Count	46/4
Domestic CCIS Terminal Located Faults Peg Count	46/4
Domestic CCIS Terminal Non-located Peg Count	46/4
Domestic IOC Originated Vacant Code	15/2
Domestic IOTC Originated Vacant Code	15/2
Domestic VFL Accumulated Maintenance Occupancy	23/4
Domestic VFL Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
Domestic VFL Diagnostics Manually Requested Peg Count	46/4
Domestic VFL Diagnostics Program Requested - All Tests Passed Peg Count	46/4
Domestic VFL Diagnostics Program Requested Peg Count	46/4
Domestic VFL Errors Peg Count	46/4
Domestic VFL Located Faults Peg Count	46/4
Domestic VFL Non-located Peg Count	46/4
Double Seizure - Clear Forward Final Trial Failure Peg Count	36/8
Double Seizure - Clear-Forward Peg Count	25/16
Double Seizure - Unreasonable Signal Peg Count	25/16
Double Seizure Timeout Peg Count	25/16
Double Seizures (GLARE) Final Trial Failures Peg Count	36/7
DP ANI MF Receiver Queue Abandon Peg Count	18/0
DP ANI MF Receiver Queue Abandon Peg Count	19/0
DP ANI MF Receiver Queue Seizure Peg Count	19/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DP ANI MF Receiver Queue Usage	19/0
DP CR Queue Abandon Peg Count	11/6
DP CR Queue Abandon Peg Count	17/0
DP CR Queue Overflow Peg Count	11/6
DP CR Queue Overflow Peg Count	17/0
DP CR Queue Seizure Peg Count	17/0
DP CR Queue Usage	17/0
DP CR Seizure Peg Count	17/0
DP Delay Dial Incoming Seizure Peg Count	5/1
DP Digit Lost Peg Count	7/1
DP Equipment CAMA ANI Failure - Information Digit Error Peg Count	25/1
DP Equipment CAMA ANI Failure Peg Count	25/1
DP Equipment CAMA ANI Office Failure Peg Count	25/1
DP Equipment CAMA Disconnect Timeout Peg Count	25/2
DP Equipment CAMA Seizure Timeout Peg Count	25/2
DP Equipment Continuity/Polarity Test Failure Peg Count	25/3
DP Equipment Control Area False Start Abandon Peg Count	25/1
DP Equipment Control Area Partial Dial Abandon Peg Count	25/1
DP Equipment Control Area Partial Dial Timeout Peg Count	25/1
DP Equipment Control Area Permanent Signal Timeout Peg Count	25/1
DP Equipment Control Area Summation False Start Abandon Peg Count	36/1
DP Equipment Control Area Summation Miscellaneous Abandon Peg Count	36/4
DP Equipment Control Area Summation Partial Dial Abandon Peg Count	36/2
DP Equipment Control Area Summation Partial Dial Timeout Peg Count	36/2
DP Equipment Control Area Summation Permanent Signal Timeout Peg Count	36/1
DP Equipment Control Area Summation Pulsing Error Peg Count	36/2
DP Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
DP Equipment Glare Condition - Far End in Control Peg Count	25/3
DP Equipment Incoming Attempts Peg Count	25/5
DP Equipment Integrity Check Failure Peg Count	25/3
DP Equipment Maintenance Usage	25/5
DP Equipment Miscellaneous Abandon Peg Count	25/2
DP Equipment No Start Dial Peg Count	25/3
DP Equipment Outgoing Attempts Peg Count	25/5
DP Equipment Pulsing Error Peg Count	25/1
DP Equipment Total Office CAMA ANI Failure - Information Digit Error Peg Count	36/3
DP Equipment Total Office CAMA ANI Failure Peg Count	36/3
DP Equipment Total Office CAMA ANI Office Failure Peg Count	36/3
DP Equipment Total Office False Start Abandon Peg Count	7/0
DP Equipment Total Office Partial Dial Abandon Peg Count	7/0
DP Equipment Total Office Partial Dial Timeout Peg Count	7/0
DP Equipment Total Office Permanent Signal Timeout Peg Count	7/0
DP Equipment Unexpected Stop Peg Count	25/3
DP Equipment Unexpected Stop Timeout Peg Count	25/3
DP Immediate Start Incoming Seizure Peg Count	5/1
DP Outpulsing Attempts Peg Count	5/2
DP Outpulsing Work List Full Peg Count	7/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
D-Reroute Killed Calls	11/3
DTC Accumulated Maintenance Usage	24/1
DTC Accumulated Outage	24/1
DTC Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DTC Diagnostics Manually Requested Peg Count	24/2
DTC Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DTC Diagnostics Program Requested Peg Count	24/2
DTC Errors Peg Count	24/2
DTC Located Faults Peg Count	24/2
DTC Non-located Faults Peg Count	24/2
DTMF Control Area Summation False Start Abandon Peg Count	36/1
DTMF Control Area Summation Miscellaneous Abandon Peg Count	36/4
DTMF Control Area Summation Partial Dial Abandon Peg Count	36/2
DTMF Control Area Summation Partial Dial Timeout Peg Count	36/2
DTMF Control Area Summation Permanent Signal Timeout Peg Count	36/1
DTMF Control Area Summation Pulsing Error Peg Count	36/2
DTMF CR Seizure Peg Count	17/0
DTMF Equipment Continuity/Polarity Test Failure Peg Count	25/3
DTMF Equipment Control Area False Start Abandon Peg Count	25/1
DTMF Equipment Control Area Partial Dial Abandon Peg Count	25/1
DTMF Equipment Control Area Partial Dial Timeout Peg Count	25/1
DTMF Equipment Control Area Permanent Signal Timeout Peg Count	25/1
DTMF Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
DTMF Equipment Glare Condition - Far End in Control Peg Count	25/3
DTMF Equipment Miscellaneous Abandon Peg Count	25/2
DTMF Equipment No Start Dial Peg Count	25/3
DTMF Equipment Pulsing Error Peg Count	25/1
DTMF Equipment Unexpected Stop Peg Count	25/3
DTMF Miscellaneous Ineffective Attempts Peg Count	11/4
DTMF Receiver Accumulated Maintenance Usage	23/3
DTMF Receiver Located Faults Peg Count	46/6
DTMF Receiver Maintenance Usage	1/0
DTMF Receiver Non-located Peg Count	46/6
DTMF Receiver Seizure Peg Count	1/0
DTMF Receiver Service Circuit Usage	1/0
DTMF Total Office False Start Abandon Peg Count	7/0
DTMF Total Office Partial Dial Abandon Peg Count	7/0
DTMF Total Office Partial Dial Timeout Peg Count	7/0
DTMF Total Office Permanent Signal Timeout Peg Count	7/0
DTMF Transmitter Accumulated Maintenance Usage	23/3
DTMF Transmitter Located Faults Peg Count	46/6
DTMF Transmitter Maintenance Usage	0/2
DTMF Transmitter Non-located Peg Count	46/6
DTMF Transmitter Seizure Peg Count	0/2
DTMF Transmitter Service Usage	0/2
DTU Accumulated Maintenance Usage	24/1
DTU Accumulated Outage	24/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DTU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DTU Diagnostics Manually Requested Peg Count	24/2
DTU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DTU Diagnostics Program Requested Peg Count	24/2
DTU Errors Peg Count	24/2
DTU Located Faults Peg Count	24/2
DTU Non-located Faults Peg Count	24/2
Duration of All S-Links Unavailable	55/0
Duration of Unavailability Due to MAH	55/1-4
Duration of Unavailability Due to OOS	55/1-4
Duration of Unavailability Due to PRO	55/1-4
Duration That at Least One LSP is Waiting to be Transmitted Peg Count	55/0
Duration With No Route to a Destination	55/5-7
DUS Accumulated Maintenance Usage	23/1
DUS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
DUS Diagnostics Manually Requested Peg Count	46/0
DUS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
DUS Diagnostics Program Requested Peg Count	46/0
DUS Errors Peg Count	46/0
DUS Located Faults Peg Count	46/0
DUS Non-located Peg Count	46/0
DUS to TUC In-Range Error Peg Count	20/1
Dynamic Overload Control Peg Count and Duration Measurement	21/3
EA ANI Failure - Route Peg Count	19/2
EA ANI Failure Peg Count	19/2
EA ANI Success Peg Count	19/2
Egress Busy Crankbacks Sent	13/CIN
Eighth Digit No Call Register Peg Count	7/1
E-Level Interrupts In-Range Peg Count	20/1
E-Level Interrupts Out-Of-Range Peg Count	20/1
Emergency Restart Peg Count	14/0-255
Error Analysis Suspected Failure Peg Count	25/4
Errors Found By Audit System Peg Count	41/0
Errors Found By Maintenance Programs Peg Count	41/0
Errors Found By Manual Request Peg Count	41/0
Errors Found By Operational Programs Peg Count	41/0
Exception Reports Failed to Send to the SCP Peg Count	49/0
Exception Reports Sent to the SCP Peg Count	49/0
Expected Stop Timeout Final Trial Group Peg Count	36/4
External CCFR Entry When CC 0 Was Active Simplex	20/1
External CCFR Entry When CC 1 Was Active Simplex	20/1
Facility Received Indicating Caller Hung-Up Peg Count	56/0-2
Failure to Place NM 10/6 Digit Controls on ACG Control List Peg Count	49/0
Failure to Receive Clear-Forward Peg Count	25/16
False Seizure Timeout Peg Count	25/16
False Start Abandon Peg Count	7/0
Fan Controller 0 Inhibited Counter	20/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Fan Controller 1 Inhibited Counter	20/1
Fatal Errors in SCCP Header Peg Count	49/0
Fatal Protocol Error Response from SCP Peg Count	49/0
Final Trial Network Path Hunt Failure Peg Count	11/1
First Trial Glare Fail CCITT No. 5 Trunk Peg Count	25/16
First Trial No. Start Dial (NSD) - CCITT No. 5 Trunk Peg Count	25/16
First Trial Outpulsing Fail CCITT No. 5 Trunk Peg Count	25/16
F-Level Interrupts Autonomous Peripheral Unit Failure Peg Count	20/1
F-Level Interrupts Peripheral Unit Failure In-Range Peg Count	20/1
F-Level Interrupts Peripheral Unit Failure Out-Of-Range Peg Count	20/1
Functional Trunk Test Routine Operational Tests Attempted Peg Count	25/9
Functional Trunk Test Routine Operational Tests Failed Peg Count	25/9
Functional Trunk Test Routine Operational Tests Passed Peg Count	25/9
Gapped Peg Count	56/0-2
Glare Final Trial Failure Peg Count	36/8
Glare Final Trial Group Peg Count	36/4
Glare Peg Counter	11/0
Group Signaling Congestion Skipped	11/3
Hardware Detected CGA Peg Count	20/3
IAMs Transmitted Functioning as a Switch Peg Count	55/0
IDTMFWK CR Queue Abandon Peg Count	17/0
IDTMFWK CR Queue Seizure Peg Count	17/0
IDTMFWK CR Queue Usage	17/0
IDTMFWK Incoming Seizure Peg Count	5/1
IDTS CR Queue Abandon Peg Count	17/0
IDTS CR Queue Overflow Peg Count	17/0
IDTS CR Queue Seizure Peg Count	17/0
IDTS CR Queue Usage	17/0
IDTS DP Incoming Seizure Peg Count	5/1
IDTS Incoming Seizure Peg Count	5/1
IDTS Receiver Dial Tone Delay Time Peg Count	0/0
IDTS Receiver Queue Abandon Peg Count	0/0
IDTS Receiver Queue Seizure Peg Count	0/0
IDTS Receiver Queue Usage	0/0
IFB Accumulated Maintenance Usage	23/1
IFB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
IFB Diagnostics Manually Requested Peg Count	46/2
IFB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
IFB Diagnostics Program Requested Peg Count	46/2
IFB Errors Peg Count	46/2
IFB Located Faults Peg Count	46/2
IFB Non-located Peg Count	46/2
IFB Out-Of-Range D-Level	20/1
Incoming Answer Signal Units Peg Count	14/0-255
Incoming Code 101 Overflow Peg Count	25/10
Incoming Code 101 Peg Count	25/10
Incoming Code 101 Usage	25/10

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Incoming Continuity Signal Timeout Peg Count	36/9
Incoming Direct Signaling Signal Units Peg Count	14/0-255
Incoming Domestic CCIS Call Attempts	37/0
Incoming Domestic DP Call Attempts	37/0
Incoming Domestic ISUP Call Attempts	37/0
Incoming Domestic MF Call Attempts	37/0
Incoming Domestic Q.931 Call Attempts	37/0
Incoming DP Early Digit Peg Count	7/1
Incoming DP Work List Full Peg Count	7/1
Incoming IAM Peg Count	14/0-255
Incoming International CCITT No. 5 Call Attempts	37/1
Incoming International CCITT No. 6 Call Attempts	37/1
Incoming International INUP Call Attempts	37/1
Incoming International ITUP Call Attempts	37/1
Incoming Miscellaneous Ineffective Attempts Peg Count	11/4
Incoming Seizure Abandon Peg Count	25/16
Incoming Seizure Peg Count	13/CIN
Incoming Signal Irregularities Before Answer CCITT No. 5 Trunk Peg Count	25/16
Incoming Transitions Peg Count	14/0-255
Incomplete Address Abandon Peg Count	25/16
Incomplete Address Detection Peg Count	36/0
Incomplete Address Timeout Peg Count	25/16
Individual USEC Frame Resume Event Peg Count	56/4
Initial Address Message (IAM) Irregularity (IRR) Peg Count	45/0
Initial Address Messages Transferred Per Terminal	14/0-255
Initial Query Failure Due to CNI Buffer Overflow Peg Count	49/0
Initial Query Failure Due to CNI Stream Down Peg Count	49/0
Integrity Check Failures Final Trial Group Peg Count	36/4
Internal B-level Boot ROM Parity Error Count	20/1
Internal B-level Control Parity Error Count	20/1
International Call Detail Recording Register Buffer Block Occupancy Peg Count	17/2
International Call Detail Recording Registers Total Records Lost Peg Count	17/2
International Calls Block by Network Management Controls	15/2
International Calls Blocked by Screening	15/2
International CCIS Terminal Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
International CCIS Terminal Diagnostics Manually Requested Peg Count	46/4
International CCIS Terminal Diagnostics Program Requested - All Tests Passed Peg Count	46/4
International CCIS Terminal Diagnostics Program Requested Peg Count	46/4
International CCIS Terminal Errors Peg Count	46/4
International CCIS Terminal Located Faults Peg Count	46/4
International CCIS Terminal Non-located Peg Count	46/4
International Customer Dialed Vacant Code	15/2
International Inbound Customer Dialed Vacant Code	15/2
International Inbound Operator Dialed Vacant Code	15/2
International Incoming Customer Dialed Calls Peg Count	5/4
International Incoming Operator Dialed Calls Peg Count	5/4
International Incoming Screened-Invalid Call	15/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
International Incoming Screened-Invalid Language Digit	15/2
International Incoming Test Calls Peg Count	5/4
International Incoming Transit Calls Peg Count	5/4
International ISUP Outbound Overflow Peg Count	5/5
International No Circuit Peg Count	11/1
International Operator Dialed Vacant Code	15/2
International Originating Attempts To The Local IOC Operator That Overflow	15/1
International Originating Attempts To The Local IOC Operator	15/1
International Outbound Customer Dialed Call Encountered No Circuit	15/2
International Outbound Operator Dialed Call Peg Count	5/5
International Outbound Overflow Received from Alternate Office Peg Count	5/5
International Outbound Overflow Sent to Alternate Office Peg Count	5/5
International Outgoing Customer Dialed Calls Peg Count	5/5
International Overlap to Enblock Signaling Peg Count	5/4
International Translation Fail - Too Few/Too Many Digits CCITT No. 5 Incoming Trunk	15/2
International Translation Fail - Too Few/Too Many Digits CCITT No. 6 Incoming Trunk	15/2
International Translation Fail - Too Few/Too Many Digits IOC ITC	15/2
International Translation Fail - Too Few/Too Many Digits TSPC	15/2
International VFL Accumulated Maintenance Occupancy	23/4
International VFL Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
International VFL Diagnostics Manually Requested Peg Count	46/4
International VFL Diagnostics Program Requested - All Tests Passed Peg Count	46/4
International VFL Diagnostics Program Requested Peg Count	46/4
International VFL Errors Peg Count	46/4
International VFL Located Faults Peg Count	46/4
International VFL Non-located Peg Count	46/4
Interrupt Level Duration Count	20/1
INUP Address Complete Signal Timeout Peg Count	36/4
INUP Continuity Check Failure Final Trial Group Peg Count	36/4
INUP Continuity Check Request (CCR) Glare Peg Count	45/5
INUP Continuity Failure Peg Count	36/0
INUP Continuity Timeout Peg Count	36/0
INUP Continuity/Polarity Test Failure Peg Count	25/3
INUP Control Area False Start Abandon Peg Count	25/1
INUP Control Area Incoming Attempts Peg Count	25/11
INUP Control Area Miscellaneous Abandon Peg Count	25/2
INUP Control Area Outgoing Attempts Peg Count	25/11
INUP Control Area Partial Dial Abandon Peg Count	25/1
INUP Control Area Partial Dial Timeout Peg Count	25/1
INUP Control Area Permanent Signal Timeout Peg Count	25/1
INUP Control Area Summation False Start Abandon Peg Count	36/1
INUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
INUP Control Area Summation Partial Dial Abandon Peg Count	36/2
INUP Control Area Summation Partial Dial Timeout Peg Count	36/2
INUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
INUP Control Area Summation Pulsing Error Peg Count	36/2
INUP CR Queue Overflow Peg Count	17/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
INUP CR Seizure Peg Count	17/0
INUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
INUP Glare Condition - Far End in Control Peg Count	25/3
INUP Glare Peg Count	45/5
INUP Inbound Customer Dialed Vacant Code	15/2
INUP Inbound Operator Dialed Vacant Code	15/2
INUP Incoming CNI Ring Failure Peg Count	45/0
INUP Incoming CNI Ring Overflow Peg Count	45/0
INUP Incoming Irregularity Before Answer Peg Count	36/0
INUP Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
INUP Incomplete Address Detected Peg Count	36/0
INUP Initial Address Message (IAM) Glare Peg Count	45/5
INUP Integrity Check Failure Peg Count	25/3
INUP Line Out-of-Service (LOS) Signals Received Peg Count	45/3
INUP Maintenance Usage	25/11
INUP Miscellaneous Ineffective Attempts Peg Count	11/4
INUP Miscellaneous Timeout Peg Count	36/0
INUP No Circuit Available (NCA) Signals Received Peg Count	45/3
INUP No Circuit Available (NCA) Signals Received While Waiting For Answer Peg Count	45/3
INUP No Start Dial Peg Count	25/3
INUP Origination CR Queue Abandon Peg Count	17/0
INUP Origination CR Queue Seizure Peg Count	17/0
INUP Origination CR Queue Usage	17/0
INUP Other Abandons Peg Count	11/4
INUP Outgoing CNI Ring Failure Peg Count	45/0
INUP Outgoing CNI Ring Overflow Peg Count	45/0
INUP Outgoing Irregularity Before Answer Peg Count	36/0
INUP Outgoing Miscellaneous Failure Peg Count	11/4
INUP Outgoing Unexpected Message Peg Count	45/0
INUP Pulsing Error Peg Count	25/1
INUP Resets Received Peg Count	45/0
INUP Subscriber Busy (SB) Signals Received While Waiting For Answer Peg Count	45/3
INUP Switching Equipment Congestion Peg Count	11/4
INUP Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
INUP Switching Equipment Congestion (SEC) Signals Received While Waiting For Answer Peg Count	45/3
INUP Temporary Failure (TFL) Signals Received While Waiting For Answer Peg Count	45/3
INUP Total Office False Start Abandon Peg Count	7/0
INUP Total Office Incoming Attempts Peg Count	5/4
INUP Total Office Miscellaneous Abandon Peg Count	11/4
INUP Total Office Outgoing Attempts Peg Count	5/5
INUP Total Office Partial Dial Abandon Peg Count	7/0
INUP Total Office Partial Dial Timeout Peg Count	7/0
INUP Total Office Permanent Signal Timeout Peg Count	7/0
INUP Transceiver Overflow Peg Count	2/0
INUP Transit Vacant Code	15/2
INUP Unblocking Message Received Peg Count	45/0
INUP Unexpected Stop Peg Count	25/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
INUP Unexpected Stop Timeout Peg Count	25/3
INUP Unreasonable Signal Received Peg Count	36/0
Invalid Command Message Peg Count	49/1
Invalid Command Sequence Peg Count	49/1
Invalid Incoming ATME Test Call Peg Count	25/15
INWATS Band Check Peg Count	11/2
INWATS Blocked by Signaling Link Congestion	49/0
INWATS CCIS Failure: Network Blockage	49/0
INWATS CCIS Failure: Network Congestion	49/0
INWATS CCIS Failure: No Translation Data	49/0
INWATS Network Management Messages Received Peg Count	49/0
INWATS Queries Sent Peg Count	49/0
IOC Control Area False Start Abandon Peg Count	25/1
IOC Control Area Partial Dial Abandon Peg Count	25/1
IOC Control Area Partial Dial Timeout Peg Count	25/1
IOC Control Area Permanent Signal Timeout Peg Count	25/1
IOC Control Area Summation False Start Abandon Peg Count	36/1
IOC Control Area Summation Miscellaneous Abandon Peg Count	36/4
IOC Control Area Summation Partial Dial Abandon Peg Count	36/2
IOC Control Area Summation Partial Dial Timeout Peg Count	36/2
IOC Control Area Summation Permanent Signal Timeout Peg Count	36/1
IOC Control Area Summation Pulsing Error Peg Count	36/2
IOC Miscellaneous Abandon Peg Count	25/2
IOC Operator No Circuit-Domestic	15/1
IOC Operator No Circuit-International	15/1
IOC Operator Outgoing Attempts	15/1
IOC Pulsing Error Peg Count	25/1
IOC Total Office False Start Abandon Peg Count	7/0
IOC Total Office Partial Dial Abandon Peg Count	7/0
IOC Total Office Partial Dial Timeout Peg Count	7/0
IOC Total Office Permanent Signal Timeout Peg Count	7/0
IOUC Accumulated Maintenance Usage	23/1
IOUC Diagnostics Manually Requested - All Tests Passed Peg Count	46/1
IOUC Diagnostics Manually Requested Peg Count	46/1
IOUC Diagnostics Program Requested - All Tests Passed Peg Count	46/1
IOUC Diagnostics Program Requested Peg Count	46/1
IOUC Errors Peg Count	46/1
IOUC Located Faults Peg Count	46/1
IOUC Non-located Peg Count	46/1
IOUS Accumulated Maintenance Usage	23/1
IOUS Diagnostics Manually Requested - All Tests Passed Peg Count	46/1
IOUS Diagnostics Manually Requested Peg Count	46/1
IOUS Diagnostics Program Requested - All Tests Passed Peg Count	46/1
IOUS Diagnostics Program Requested Peg Count	46/1
IOUS Errors Peg Count	46/1
IOUS Located Faults Peg Count	46/1
IOUS Non-located Peg Count	46/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ISUP 2-Wire Incoming Seizures	5/1
ISUP 4-Wire Incoming Seizures	5/1
ISUP ATP Dropped Due to Internal Loss Peg Count	45/6
ISUP ATP Dropped Due to Length Peg Count	45/6
ISUP Completion of Transmission Path CR Release Peg Count	17/0
ISUP Completion of Transmission Path CR Seize Peg Count	17/0
ISUP Confusion Message Received Peg Count	45/0
ISUP Confusion Message Sent Peg Count	45/0
ISUP Continuity Failure Peg Count	36/0
ISUP Continuity Timeout Peg Count	36/0
ISUP Continuity/Polarity Test Failure Peg Count	25/3
ISUP Control Area False Start Abandon Peg Count	25/1
ISUP Control Area Miscellaneous Abandon Peg Count	25/2
ISUP Control Area Partial Dial Abandon Peg Count	25/1
ISUP Control Area Partial Dial Timeout Peg Count	25/1
ISUP Control Area Permanent Signal Timeout Peg Count	25/1
ISUP Control Area Summation False Start Abandon Peg Count	36/1
ISUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
ISUP Control Area Summation Partial Dial Abandon Peg Count	36/2
ISUP Control Area Summation Partial Dial Timeout Peg Count	36/2
ISUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
ISUP Control Area Summation Pulsing Error Peg Count	36/2
ISUP CR Seizure Peg Count	17/0
ISUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
ISUP Glare Condition - Far End in Control Peg Count	25/3
ISUP Incoming Attempts Peg Count	25/5
ISUP Incoming CNI Ring Failure Peg Count	45/0
ISUP Incoming CNI Ring Overflow Peg Count	45/0
ISUP Incomplete Address Detected Peg Count	36/0
ISUP Integrity Check Failure Peg Count	25/3
ISUP Maintenance Usage	25/5
ISUP Miscellaneous Ineffective Attempts Peg Count	11/4
ISUP Miscellaneous Timeout Peg Count	36/0
ISUP No Start Dial Peg Count	25/3
ISUP Origination CR Queue Abandon Peg Count	17/0
ISUP Origination CR Queue Overflow Peg Count	17/0
ISUP Origination CR Queue Seizure Peg Count	17/0
ISUP Origination CR Queue Usage	17/0
ISUP Other Abandons Peg Count	11/4
ISUP Outgoing Attempts Peg Count	25/5
ISUP Outgoing CNI Ring Failure Peg Count	45/0
ISUP Outgoing CNI Ring Overflow Peg Count	45/0
ISUP Outgoing Seizures	5/1
ISUP Outgoing Unexpected Message Peg Count	45/0
ISUP Pulsing Error Peg Count	25/1
ISUP Resets Received Peg Count	45/0
ISUP Switching Equipment Congestion Peg Count	11/4

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ISUP Total Office False Start Abandon Peg Count	7/0
ISUP Total Office Miscellaneous Abandon Peg Count	11/4
ISUP Total Office Partial Dial Abandon Peg Count	7/0
ISUP Total Office Partial Dial Timeout Peg Count	7/0
ISUP Total Office Permanent Signal Timeout Peg Count	7/0
ISUP Transceiver Overflow Peg Count	2/0
ISUP Unexpected Stop Peg Count	25/3
ISUP Unexpected Stop Timeout Peg Count	25/3
ISUP Unreasonable Signal Received Peg Count	36/0
ISUP Unsuccessful Backward Setup Received Peg Count	45/0
ISUP UUI Dropped Due to Internal Loss Peg Count	45/6
ISUP UUI Dropped Due to Length Peg Count	45/6
ITUP Address Complete Signal Timeout Peg Count	36/4
ITUP Call Failure (CFL) Received While Waiting For Answer Peg Count	45/3
ITUP Circuit Group Congestion (CGC) Received While Waiting For Answer Peg Count	45/3
ITUP Circuit Group Congestion (CGC) Signals Received Peg Count	45/3
ITUP Continuity Check Failure Final Trial Group Peg Count	36/4
ITUP Continuity Check Request (CCR) Glare Peg Count	45/5
ITUP Continuity Failure Peg Count	36/0
ITUP Continuity Timeout Peg Count	36/0
ITUP Continuity/Polarity Test Failure Peg Count	25/3
ITUP Control Area False Start Abandon Peg Count	25/1
ITUP Control Area Incoming Attempts Peg Count	25/11
ITUP Control Area Miscellaneous Abandon Peg Count	25/2
ITUP Control Area Outgoing Attempts Peg Count	25/11
ITUP Control Area Partial Dial Abandon Peg Count	25/1
ITUP Control Area Partial Dial Timeout Peg Count	25/1
ITUP Control Area Permanent Signal Timeout Peg Count	25/1
ITUP Control Area Summation False Start Abandon Peg Count	36/1
ITUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
ITUP Control Area Summation Partial Dial Abandon Peg Count	36/2
ITUP Control Area Summation Partial Dial Timeout Peg Count	36/2
ITUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
ITUP Control Area Summation Pulsing Error Peg Count	36/2
ITUP CR Queue Overflow Peg Count	17/0
ITUP CR Seizure Peg Count	17/0
ITUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
ITUP Glare Condition - Far End in Control Peg Count	25/3
ITUP Glare Peg Count	45/5
ITUP Inbound Customer Dialed Vacant Code	15/2
ITUP Inbound Operator Dialed Vacant Code	15/2
ITUP Incoming CNI Ring Failure Peg Count	45/0
ITUP Incoming CNI Ring Overflow Peg Count	45/0
ITUP Incoming Irregularity Before Answer Peg Count	36/0
ITUP Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
ITUP Incomplete Address Detected (IAD) Call Irregularity Peg Count	45/5
ITUP Initial Address Message (IAM) Glare Peg Count	45/5

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ITUP Integrity Check Failure Peg Count	25/3
ITUP Line Out-of-Service (LOS) Signals Received Peg Count	45/3
ITUP Maintenance Usage	25/11
ITUP Miscellaneous Ineffective Attempts Peg Count	11/4
ITUP Miscellaneous Timeout Peg Count	36/0
ITUP National Network Congestion (NNC) Signals Received Peg Count	45/3
ITUP National Network Congestion (NNC) While Waiting For Answer Peg Count	45/3
ITUP No Start Dial Peg Count	25/3
ITUP Origination CR Queue Abandon Peg Count	17/0
ITUP Origination CR Queue Seizure Peg Count	17/0
ITUP Origination CR Queue Usage	17/0
ITUP Other Abandons Peg Count	11/4
ITUP Outgoing CNI Ring Failure Peg Count	45/0
ITUP Outgoing CNI Ring Overflow Peg Count	45/0
ITUP Outgoing Irregularity Before Answer Peg Count	36/0
ITUP Outgoing Miscellaneous Failure Peg Count	11/4
ITUP Outgoing Unexpected Message Peg Count	45/0
ITUP Pulsing Error Peg Count	25/1
ITUP Resets Received Peg Count	45/0
ITUP Subscriber Busy (SSB) Signals Received Peg Count	45/3
ITUP Switching Equipment Congestion Peg Count	11/4
ITUP Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
ITUP Total Office False Start Abandon Peg Count	7/0
ITUP Total Office Incoming Attempts Peg Count	5/4
ITUP Total Office Miscellaneous Abandon Peg Count	11/4
ITUP Total Office Outgoing Attempts Peg Count	5/5
ITUP Total Office Partial Dial Abandon Peg Count	7/0
ITUP Total Office Partial Dial Timeout Peg Count	7/0
ITUP Total Office Permanent Signal Timeout Peg Count	7/0
ITUP Transceiver Overflow Peg Count	2/0
ITUP Transit Vacant Code	15/2
ITUP Unblocking Message Received Peg Count	45/0
ITUP Unexpected Stop Peg Count	25/3
ITUP Unexpected Stop Timeout Peg Count	25/3
ITUP Unreasonable Signal Received Peg Count	36/0
Large Scale Nail-Up Intra-Buffer Count	4/0
LATA/STATE Screening Index Failure Peg Count	11/2
Latest IPCC Message Queue NEMOS Override Threshold Value	56/4
Link 1 Message Register Returned Peg Count	56/3
Link 1 Return Register Threshold Exceeded Peg Count	56/3
Link 2 Message Register Returned Peg Count	56/3
Link 2 Return Register Threshold Exceeded Peg Count	56/3
Load Level 1 Overload Control Peg Count	9/1
Load Level 2 Overload Control Peg Count	9/1
Load Level 3 Overload Control Peg Count	9/1
Local IOC Originating Operator Incoming Attempts Going To Domestic or International Domain	15/1
LSPs Discarded Due to Aging Peg Count	55/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
LSPs Discarded Due to Redundancy Peg Count	55/0
LSPs Generated Peg Count	55/0
LSPs Received Peg Count	55/1-4
LSPs Waiting to be Transmitted Peg Count	55/0
Maintenance Interjects Voiceband Interface Peg Count	20/1
Maintenance Test Access Circuit Usage	25/10
Major Alarms Peg Count	20/2
Manual Network Management Controls	13/CIN
MAS - BOC-SSP Calls Blocked Peg Count	49/0
MAS - Calls Routed To A Cut-Through Number Peg Count	51/0-63
MAS - Calls Routed To An Announcement Peg Count	51/0-63
MAS - Data On Disk Peg Count	36/10
MAS - Geographic Attempts Matrix Completion Peg Count	54/0-31
MAS - Hardware Duplex Failed Peg Count	36/10
MAS - Looping Through Translate All Digits Peg Count	36/10
MAS - No Vacant Announcement Peg Count	36/10
MAS - Path Hunt Peg Count	36/10
MAS - Per-Announcement Attempts Peg Count	50/0-511
MAS - Per-Announcement Connect To Audio Peg Count	50/0-511
MAS - Per-Announcement Overflow Peg Count	50/0-511
MAS - Per-Announcement Usage	50/0-511
MAS - TELEVOTE Slave Dialed Number	53/0-127
MAS - Total Calls (Votes) to a TELEVOTE Slave Dialed Number Peg Count	53/0-127
MAS - Totals of the TELEVOTE Counts Received Peg Count	52/0-127
MAS and Expanded Announcements Accumulated Maintenance Usage	23/3
MAS Attempts Peg Count	56/0-2
MAS Cutthru Peg Count	56/0-2
MAS or Expanded Ann. A Overflow Peg Count	0/2
MAS or Expanded Ann. A Seizure Peg Count	0/2
MAS or Expanded Ann. A Service Usage	0/2
MAS or Expanded Ann. B Overflow Peg Count	0/2
MAS or Expanded Ann. B Seizure Peg Count	0/2
MAS or Expanded Ann. B Service Usage	0/2
MAS or Expanded Ann. Maintenance Usage	0/2
MC1 CCIS Duration	21/3
MC1 CCIS Peg Count	21/3
MC1 DP Duration	21/3
MC1 DP Peg Count	21/3
MC1 MF Duration	21/3
MC1 MF Peg Count	21/3
MC1 Real Time Duration	21/3
MC1 Real Time Peg Count	21/3
MC2 CCIS Duration	21/3
MC2 CCIS Peg Count	21/3
MC2 DP Duration	21/3
MC2 DP Peg Count	21/3
MC2 MF Duration	21/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MC2 MF Peg Count	21/3
MC2 Real Time Duration	21/3
MC2 Real Time Peg Count	21/3
Messages Discarded Due to No Route to Destination Peg Count	55/0
Messages Dropped Peg Count	55/1-4
MF CR Seizure Peg Count	17/0
MF Equipment CAMA ANI Failure - Information Digit Error Peg Count	25/1
MF Equipment CAMA ANI Failure Peg Count	25/1
MF Equipment CAMA ANI Office Failure Peg Count	25/1
MF Equipment CAMA Disconnect Timeout Peg Count	25/2
MF Equipment CAMA Seizure Timeout Peg Count	25/2
MF Equipment Continuity/Polarity Test Failure Peg Count	25/3
MF Equipment Control Area False Start Abandon Peg Count	25/1
MF Equipment Control Area Partial Dial Abandon Peg Count	25/1
MF Equipment Control Area Partial Dial Timeout Peg Count	25/1
MF Equipment Control Area Permanent Signal Timeout Peg Count	25/1
MF Equipment Control Area Summation False Start Abandon Peg Count	36/1
MF Equipment Control Area Summation Miscellaneous Abandon Peg Count	36/4
MF Equipment Control Area Summation Partial Dial Abandon Peg Count	36/2
MF Equipment Control Area Summation Partial Dial Timeout Peg Count	36/2
MF Equipment Control Area Summation Permanent Signal Timeout Peg Count	36/1
MF Equipment Control Area Summation Pulsing Error Peg Count	36/2
MF Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
MF Equipment Glare Condition - Far End in Control Peg Count	25/3
MF Equipment Incoming Attempts Peg Count	25/5
MF Equipment Integrity Check Failure Peg Count	25/3
MF Equipment Maintenance Usage	25/5
MF Equipment Miscellaneous Abandon Peg Count	25/2
MF Equipment No Start Dial Peg Count	25/3
MF Equipment Outgoing Attempts Peg Count	25/5
MF Equipment Pulsing Error Peg Count	25/1
MF Equipment Total Office CAMA ANI Failure - Information Digit Error Peg Count	36/3
MF Equipment Total Office CAMA ANI Failure Peg Count	36/3
MF Equipment Total Office CAMA ANI Office Failure Peg Count	36/3
MF Equipment Total Office False Start Abandon Peg Count	7/0
MF Equipment Total Office Partial Dial Abandon Peg Count	7/0
MF Equipment Total Office Partial Dial Timeout Peg Count	7/0
MF Equipment Total Office Permanent Signal Timeout Peg Count	7/0
MF Equipment Unexpected Stop Peg Count	25/3
MF Equipment Unexpected Stop Timeout Peg Count	25/3
MF Incoming Seizure Peg Count	5/1
MF Origination Queue Abandon Peg Count	17/0
MF Origination Queue Seizure Peg Count	17/0
MF Origination Queue Usage	17/0
MF Outpulsing Attempts Peg Count	5/2
MF Receiver Accumulated Maintenance Usage	23/3
MF Receiver Located Faults Peg Count	46/6

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MF Receiver Maintenance Usage	1/0
MF Receiver Non-located Peg Count	46/6
MF Receiver Seizure Peg Count	1/0
MF Receiver Service Usage	1/0
MF Receiver Test Circuit Maintenance Busy Occupancy	35/0
MF Receiver Test Circuit Total Usage	35/1
MF Transmitter Accumulated Maintenance Usage	23/3
MF Transmitter Errors Final Trial Group Peg Count	36/4
MF Transmitter Located Faults Peg Count	46/6
MF Transmitter Maintenance Usage	0/2
MF Transmitter Non-located Peg Count	46/6
MF Transmitter Queue Entry Attempts Peg Count	0/0
MF Transmitter Queue Entry Failure Peg Count	0/0
MF Transmitter Queue Entry Failure Peg Count	11/5
MF Transmitter Queue Entry Time Usage	0/0
MF Transmitter Queue Overflow Peg Count	11/5
MF Transmitter Queue Seizure Peg Count	0/0
MF Transmitter Queue Usage	0/0
MF Transmitter Seizure Peg Count	0/2
MF Transmitter Service Usage	0/2
MF Transmitter Test Circuit Maintenance Busy Occupancy	35/0
MF Transmitter Test Circuit Total Usage	35/1
MF Transmitter Test Self-Check Fail Peg Count	35/1
Minor Alarms Peg Count	20/2
Miscellaneous call Irregularities Final Trial Failure Peg Count	36/7
Miscellaneous Connecting Ineffective Attempts Peg Count	11/4
Miscellaneous CR Seizure Peg Count	17/0
Miscellaneous Outgoing Ineffective Attempts Peg Count	11/4
Misrouted CAMA Peg Count	18/0
Misrouted Direct Signaling Messages Received Peg Count	49/2
Missed 3B Collections Peg Count	16/1
Monitor QIC Passed - Suspected Transmit Path Failure Restoral Peg Count	45/8
Multiple Scan Points Active Peg Count	25/16
MUP Accumulated Maintenance Usage	23/1
MUP BLM Counter	20/1
MUP Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
MUP Diagnostics Manually Requested Peg Count	46/0
MUP Diagnostics Program Requested - All Tests Passed Peg Count	46/0
MUP Diagnostics Program Requested Peg Count	46/0
MUP D-Level Counter	20/1
MUP Errors Peg Count	46/0
MUP In-Range D-Level Counter	20/1
MUP Interject Counter	20/1
MUP Located Faults Peg Count	46/0
MUP Non-located Peg Count	46/0
MUP to Client In-Range Counter	20/1
MUP to Client Out-Of-Range Counter	20/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MUP to CS In-Range Counter	20/1
MUP to CS Out-Of-Range Counter	20/1
MUP to PS In-Range Counter	20/1
MUP to PS Out-Of-Range Counter	20/1
NCLK Accumulated Maintenance Usage	23/2
NCLK Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
NCLK Diagnostics Manually Requested Peg Count	46/5
NCLK Diagnostics Program Requested - All Tests Passed Peg Count	46/5
NCLK Diagnostics Program Requested Peg Count	46/5
NCLK Errors Peg Count	46/5
NCLK Located Faults Peg Count	46/5
NCLK Non-located Peg Count	46/5
NCLK Service Outage Usage	23/2
NCSU Accumulated Maintenance Usage	23/2
NCSU Alternate Frequency Offset Peg Count	5/6
NCSU Alternate Phase Errors Peg Count	5/6
NCSU Alternate Phase Hits Peg Count	5/6
NCSU Alternate Reference OOS Duration	5/6
NCSU Alternate Reference OOS Peg Count	5/6
NCSU Alternate Reference Outage Duration	5/6
NCSU Alternate Reference Outage Peg Count	5/6
NCSU Alternate Transmission Slips Peg Count	5/6
NCSU Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
NCSU Diagnostics Manually Requested Peg Count	46/5
NCSU Diagnostics Program Requested - All Tests Passed Peg Count	46/5
NCSU Diagnostics Program Requested Peg Count	46/5
NCSU Errors Peg Count	46/5
NCSU Free Run Duration	5/6
NCSU Free Run Less Than 10 Minutes Peg Count	5/6
NCSU Free Run Peg Count	5/6
NCSU Located Faults Peg Count	46/5
NCSU Non-located Peg Count	46/5
NCSU Regular Frequency Offset Peg Count	5/6
NCSU Regular Phase Errors Peg Count	5/6
NCSU Regular Phase Hits Peg Count	5/6
NCSU Regular Reference OOS Duration	5/6
NCSU Regular Reference OOS Peg Count	5/6
NCSU Regular Reference Outage Duration	5/6
NCSU Regular Reference Outage Peg Count	5/6
NCSU Regular Transmission Slips Peg Count	5/6
NCSU Service Outage Usage	23/2
NCSU Total Fast Start Timeout Peg Count	5/6
NCSU Total Fast Starts Duration	5/6
NCSU Total Fast Starts Peg Count	5/6
NCSU Total Phase Hits Peg Count	5/6
NCSU Total Transfer to Alternate Duration	5/6
NCSU Total Transfer to Alternate Peg Count	5/6

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Network Accumulated Maintenance Usage	23/0
Network Call Denial Blocked Queries From CCS Abnormal Replies Control Peg Count	49/0
Network Call Denial Blocked Queries From Congestion Peg Count	49/0
Network Call Denial Blocked Queries From Overload Peg Count	49/0
Network Call Denial Initial Query Peg Count	49/0
Network Call Denial Queries Returned Due to CCS Network Block Replies Peg Count	49/0
Network Call Denial Queries Returned Due to CCS Network Overload Replies	49/0
Network Call Denial Queries Returned Due to Miscellaneous Replies Peg Count	49/0
Network Call Denial Queries Returned Due to No Routing Data Peg Count	49/0
Network Call Denial Queries Returned Due to Overload Peg Count	49/0
Network Call Denial Replies With Deny Code After Answer Supervision Peg Count	49/0
Network Call Denial Replies With Deny Code Before Answer Supervision Peg Count	49/0
Network Call Denial Replies With Deny Codes Peg Count	49/0
Network Call Denial Replies With Invalid Data Peg Count	49/0
Network Management Blocked: Direct Signaling Control	49/0
Network Management Blocked: INWATS 10-digit Code Control	49/0
Network Management Blocked: INWATS 6-digit Code Control	49/0
Network Management Control Blocks Call Peg Count	49/1
Network Management Control Rollbacks Peg Count	21/2
Network Management Controls Invoked Peg Count	21/2
Network Path Hunt Failure Peg Count	4/0
Network Path Hunt Success Peg Count	4/0
Network Total Usage	4/0
No Auxiliary Call Register	49/0
No Circuit Intertoll Peg Count	11/1
No Circuit Private Branch Exchange Peg Count	11/1
No Circuit Single Trunk Customer Peg Count	11/1
No Circuit Toll Completing Peg Count	11/1
No Start Dial Final Trial Group Peg Count	36/4
No Trunks Hunted	9/1
Non-Call Associated Temporary Signaling Connection (TSC) Attempt	5/1
Non-Call Associated Temporary Signaling Connection (TSC) Successes	5/0
Non-Confirmed Transmit Path Failure Carrier Alarm Peg Count	45/8
Non-Load MAC Overload Control Peg Count	9/1
Non-Load No Overload Control Peg Count	9/1
Non-Load Segment Overload Control Peg Count	9/1
Normal Route Response Message Received Peg Count	49/1
NSC Received on International Outbound Call Using CCIS Overflow Trunk Subgroup	15/2
NSCX Maintenance Usage	0/2
NSCX Overflow Peg Count	0/2
NSCX Seizure Peg Count	0/2
NSCX Service Usage	0/2
NSCX Set S Accumulated Maintenance Usage	23/3
NSEP Call Failures Due to Non-Signaling-Unavailable Peg Count	55/0
NSEP Call Failures Due to Signaling Unavailable Peg Count	55/0
NSEP Calls Originating on ASTN Peg Count	55/0
NTC Received on International Outbound Call Using CCIS Overflow Trunk Subgroup	15/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Number Of Recent Changes Activated Peg Count	21/1
ODA IPCC Message Queue Threshold Value in Effect	56/4
ODTMF Transmitter Queue Entry Failures	0/0
ODTMF Transmitter Queue Seizure Peg Count	0/0
ODTMF Transmitter Queue Usage	0/0
ODTMF Transmitter Queue Wait	0/0
ODTMFWK Outgoing Seizure Peg Count	5/1
OMR Overflow Peg Count	16/0
OMR Seizure Peg Count	16/0
OMR Usage	16/0
ONI Calls Peg Count	19/0
Operational Interject Data Unit Selector Peg Count	20/1
Operator Processed CAMA Calls Peg Count	19/0
Originating International Call Incoming From a Domestic Satellite	15/3
Originating INWATS Denied Peg Count	11/2
Originating NSEP Call Attempts Peg Count	55/0
Other Errors - Continuity/Polarity Test Failures Peg Count	36/4
Other Errors - MF Transmitter Outpulsing Errors Peg Count	36/4
Other Errors - No XCVR, Final Trial Failure	36/4
Outbound Customer Dialed Call Peg Count	15/2
Outbound Customer Dialed Call, Voice Path Cancellation Peg Count	15/2
Outbound International Operator Peg Count	15/2
Outbound International Operator, Voice Path Cancellation Peg Count	15/2
Outbound International Teleconferencing Peg Count	15/2
Outbound International Teleconferencing, Voice Path Cancellation Peg Count	15/2
Outbound International Toll-Free Peg Count	15/2
Outbound International Toll-Free, Voice Path Cancellation Peg Count	15/2
Outgoing Address Complete Signal Timeout Peg Count	36/9
Outgoing Answer Signal Units Peg Count	14/0-255
Outgoing Attempts Peg Count	13/CIN
Outgoing Direct Signaling Signal Units Peg Count	14/0-255
Outgoing Domestic CCIS Call Attempts	37/0
Outgoing Domestic DP Call Attempts	37/0
Outgoing Domestic ISUP Call Attempts	37/0
Outgoing Domestic MF Call Attempts	37/0
Outgoing Domestic Q.931 Call Attempts	37/0
Outgoing IAM Peg Count	14/0-255
Outgoing International CCITT No. 5 Call Attempts	37/1
Outgoing International CCITT No. 6 Call Attempts	37/1
Outgoing International INUP Call Attempts	37/1
Outgoing International ITUP Call Attempts	37/1
Outgoing Transitions Peg Count	14/0-255
Out-of-Chain Routed Calls Failed	11/3
Out-of-Chain Routed Calls Received	11/3
Out-Of-Service Blocking Received (CCIS Trunks) from Far End Office Peg Count	25/4
Out-Of-Service Carrier Group Alarm Peg Count	25/4
Out-Of-Service Continuity Check Retest Failure Peg Count	25/4

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Out-Of-Service Equipment Failure, VIU, DTU, ESU Peg Count	25/4
Out-Of-Service Error Analysis Suspected Failure Peg Count	25/4
Out-Of-Service High and Wet Peg Count	25/4
Out-Of-Service Manual Request Peg Count	25/4
Out-Of-Service Operational Test Failure Peg Count	25/4
Out-Of-Service ROTL Request Peg Count	25/4
Out-Of-Service Total Signaling Failure Peg Count (CCIS trunk only)	25/4
Outpulsing Failures Peg Count	11/0
Output Message Failure Peg Count	16/0
Output Message Success Peg Count	16/0
OUTWATS Non-purchased NPA Peg Count	49/0
OUTWATS Originating Calls Peg Count	5/0
Overflow Peg Count	13/CIN
Partial Dial Abandon Peg Count	7/0
Partial Dial Timeout Peg Count	7/0
PBX Reorders Peg Count	11/4
PCP 1B to DLN Failure to Send Query Peg Count	57/0
PCP 1+SACDS Due to Invalid Service Code Received	57/0
PCP 1+SACDS Initial Attempt Failed in Receipt of Service Code	57/0
PCP BN(ANI) Query Attempt CNT for DC and SA LDS	57/0
PCP BN(ANI) Query Attempt CNT for SA WATS	57/0
PCP BN(ANI) Query Attempt Count for MEGACOM and DC WATS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for DC and SA LDS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for MEGACOM and DC WATS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for SA WATS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for LDS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for MEGACOM and DC WATS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for SA WATS	57/0
PCP Call Killed Due to DTMF Receiver Queue Overload Count	57/0
PCP Call Subjected to Excessive Delay Count (i.e., Wait on DTMF Receiver Queue >= 2 seconds)	57/0
PCP Calls with SAN Account Code Validation Successful	57/0
PCP CDS Attempts for Which Failure to Reseize Receiver Occurred	57/0
PCP DLN to 1B No Reply From DLN Peg Count	57/0
PCP DTMF Queue Abandon Peg Count	57/0
PCP DTMF Queue Accumulated Occupancy Count	57/0
PCP DTMF Queue Seizure Peg Count	57/0
PCP FAX ID Calls Identified as Using FAX FPR	57/0
PCP FAX S&F Attempts for Which Failure to Seize Receiver Occurs	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for LDS	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for MEGACOM and DC WATS	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for SA WATS	57/0
PCP FAX S&F DTMF Receiver Timeout in Wait for ANS State	57/0
PCP FAX S&F Initial Attempt Fail in Receipt of Service Code	57/0
PCP FAX S&F Successfully Attempted Routing to a FAX S&F Node	57/0
PCP Handled Customer Specific Recording Successfully for LDS	57/0
PCP Handled Customer Specific Recording Successfully for MEGACOM and DC WATS	57/0
PCP Handled Customer Specific Recording Successfully for SA WATS	57/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
PCP Handled Dedicated FAX ID Successfully for LDS	57/0
PCP Handled Dedicated FAX ID Successfully for MEGACOM and DC WATS	57/0
PCP Handled Dedicated FAX ID Successfully for SA WATS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for LDS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for MEGACOM and DC WATS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for SA WATS	57/0
PCP MUVF CTI Collected Successfully for LDS	57/0
PCP MUVF CTI Collected Successfully for MEGACOM and DC WATS	57/0
PCP MUVF CTI Collected Successfully for SA WATS	57/0
PCP MUVF Initial Attempt Failed in Receipt of CTI	57/0
PCP Receiver Holding Time in Sec for 1+SACDS	57/0
PCP Receiver Holding Time in Sec for FAX S&F	57/0
PCP Receiver Holding Time in Sec for MUVF	57/0
PCP Receiver Holding Time in Sec for SAN	57/0
PCP SAB Call Denied Due to Improper Collection for LDS	57/0
PCP SAB Call Denied Due to Improper Collection for MEGACOM and DC WATS	57/0
PCP SAB Call Denied Due to Improper Collection for SA WATS	57/0
PCP SAB Calls Allowed to Complete with No SAN Received	57/0
PCP SAB Calls Allowed to Complete with SAN Received and it was Mandatory	57/0
PCP SAB Calls Allowed to Complete with SAN Received and it was Optional	57/0
PCP SAN Denied - none entered and was mandatory	57/0
PCP SAN No Data in DLN Peg Count	57/0
PCP SAN Validation Success Peg Count	57/0
PCP Subaccount Number Collected Successfully for LDS	57/0
PCP Subaccount Number Collected Successfully for MEGACOM and DC WATS	57/0
PCP Subaccount Number Collected Successfully for SA WATS	57/0
PCP Subaccount Number Initial Attempt Failed Count	57/0
PCP TOTAL 1+SACDS Attempts to Seize a Receiver	57/0
PCP TOTAL 1+SACDS Successfully Attempted Routing to VMOC	57/0
PCP Total MUVF Calls Identified as Being FAX	57/0
PCP Total SAN Account Code Verification Failures	57/0
PCP Using 2NCP/NSCX Peg Count	57/0
PDF Accumulated Maintenance Usage	23/1
PDF Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
PDF Diagnostics Manually Requested Peg Count	46/0
PDF Diagnostics Program Requested - All Tests Passed Peg Count	46/0
PDF Diagnostics Program Requested Peg Count	46/0
PDF Errors Peg Count	46/0
PDF Located Faults Peg Count	46/0
PDF Non-located Peg Count	46/0
Permanent Signal Timeout Peg Count	7/0
Persisting Proceed-To-Send Signal Peg Count	25/16
Persisting Release Guard Signal Peg Count	25/16
Phase 1 Manually Initiated Peg Count	21/0
Phase 1 Program Initiated Peg Count	21/0
Phase 2 Manually Initiated Peg Count	21/0
Phase 2 Program Initiated Peg Count	21/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Phase 3 Manually Initiated Peg Count	21/0
Phase 3 Program Initiated Peg Count	21/0
Phase 4 Manually Initiated Peg Count	21/0
Phase Level Duration Count	21/0
Play Announcement Message from SCP Peg Count	49/0
Play Announcement Message from the SCP Peg Count	49/1
Power Room Major Alarms Peg Count	20/2
Power Room Minor Alarms Peg Count	20/2
Preferred Call Attempts Peg Count	13/CIN
Proceed-To-Send Signal Timeout Peg Count	25/16
Processor Accumulated Maintenance Usage	23/0
PS Accumulated Maintenance Usage	23/1
PS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
PS Diagnostics Manually Requested Peg Count	46/0
PS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
PS Diagnostics Program Requested Peg Count	46/0
PS Errors Peg Count	46/0
PS Located Faults Peg Count	46/0
PS Non-located Peg Count	46/0
PSB Accumulated Maintenance Usage	23/1
PSB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
PSB Diagnostics Manually Requested Peg Count	46/2
PSB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
PSB Diagnostics Program Requested Peg Count	46/2
PSB Errors Peg Count	46/2
PSB Located Faults Peg Count	46/2
PSB Non-located Peg Count	46/2
Pseudo Country Code No Good Peg Count	5/5
PUB Accumulated Maintenance Usage	23/1
PUB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
PUB Diagnostics Manually Requested Peg Count	46/2
PUB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
PUB Diagnostics Program Requested Peg Count	46/2
PUB Errors Peg Count	46/2
PUB Located Faults Peg Count	46/2
PUB Non-located Peg Count	46/2
Q.931 Channel Negotiation (CN) Failures On Originating TSG	49/0
Q.931 Channel Negotiation (CN) Request Failures From Other TSG	49/0
Q.931 Channel Negotiation (CN) Request Failures To Another TSG	49/0
Q.931 Channel Negotiation (CN) Requests From Other TSG	49/0
Q.931 Channel Negotiation (CN) Requests on Original TSG	49/0
Q.931 Channel Negotiation (CN) Requests to Another TSG	49/0
Q.931 Channel Negotiation Setup	5/1
Q.931 Confusion Received Peg Count	45/0
Q.931 Confusion Transmitted Peg Count	45/0
Q.931 Continuity/Polarity Test Failure Peg Count	25/3
Q.931 Control Area False Start Abandon Peg Count	25/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Q.931 Control Area Partial Dial Abandon Peg Count	25/1
Q.931 Control Area Partial Dial Timeout Peg Count	25/1
Q.931 Control Area Permanent Signal Timeout Peg Count	25/1
Q.931 Control Area Summation False Start Abandon Peg Count	36/1
Q.931 Control Area Summation Miscellaneous Abandon Peg Count	36/4
Q.931 Control Area Summation Partial Dial Abandon Peg Count	36/2
Q.931 Control Area Summation Partial Dial Timeout Peg Count	36/2
Q.931 Control Area Summation Permanent Signal Timeout Peg Count	36/1
Q.931 Control Area Summation Pulsing Error Peg Count	36/2
Q.931 CR Seizure Peg Count	17/0
Q.931 Glare Condition - 4ESS Switch in Control Peg Count	25/3
Q.931 Glare Condition - Far End in Control Peg Count	25/3
Q.931 Incoming Attempts Peg Count	25/5
Q.931 Incoming CNI Ring Buffer Overflow Peg Count	45/0
Q.931 Incoming CNI Ring Failure Peg Count	45/0
Q.931 Incoming Seizures	5/1
Q.931 Incomplete Address Detected Peg Count	36/0
Q.931 Information Element Error Detected Peg Count	36/0
Q.931 Integrity Check Failure Peg Count	25/3
Q.931 Maintenance Usage	25/5
Q.931 Miscellaneous Abandon Peg Count	25/2
Q.931 Miscellaneous Ineffective Attempts Peg Count	11/4
Q.931 No Start Dial Peg Count	25/3
Q.931 Origination CR Queue Abandon Peg Count	17/0
Q.931 Origination CR Queue Overflow Peg Count	17/0
Q.931 Origination CR Queue Seizure Peg Count	17/0
Q.931 Origination CR Queue Usage	17/0
Q.931 Other Abandons Peg Count	11/4
Q.931 Outgoing Attempts Peg Count	25/5
Q.931 Outgoing CNI Ring Failure Peg Count	45/0
Q.931 Outgoing CNI Ring Overflow Peg Count	45/0
Q.931 Outgoing Seizures	5/1
Q.931 Pulsing Error Peg Count	25/1
Q.931 Resets Received Peg Count	45/0
Q.931 Switching Cutoffs Peg Count	11/4
Q.931 Total Office False Start Abandon Peg Count	7/0
Q.931 Total Office Partial Dial Abandon Peg Count	7/0
Q.931 Total Office Partial Dial Timeout Peg Count	7/0
Q.931 Total Office Permanent Signal Timeout Peg Count	7/0
Q.931 Unexpected Stop Peg Count	25/3
Q.931 Unexpected Stop Timeout Peg Count	25/3
Q.931 Unreasonable Signal Received Peg Count	36/0
Quick Integrity Check Routine Operational Tests Attempted Peg Count	25/9
Quick Integrity Check Routine Operational Tests Failed Peg Count	25/9
Quick Integrity Check Routine Operational Tests Passed Peg Count	25/9
Real-Time Overload Retry Cancel Peg Count	36/4
Received Repeated ACU Peg Count	14/0-255

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Received Skipped ACU Peg Count	14/0-255
Recorded Announcement Machine Located Faults Peg Count	35/1
Recorded Announcement Machine Maintenance Busy Occupancy	35/0
Recorded Announcement Machine Non-located Faults Peg Count	35/1
Registers From Attendant Peg Count	56/0-2
Reject Message Returned from SCP Peg Count	49/0
Release-Guard Signal Timeout Peg Count	25/16
Remote Office Test Line Maintenance Busy Occupancy	35/0
Remote Office Test Line Seizure Attempts Peg Count	35/1
Remote Office Test Line Seizure Overflow Peg Count	35/1
Remote Office Test Line Self-Check Fail Peg Count	35/1
Remote Office Test Line Total Usage	35/1
Reroute To Seizure Peg Count	13/CIN
Resource Unavailable After Initial Query Peg Count	49/1
Resource Unavailable Before Initial Query Peg Count	49/1
Response from SCP After Query Timer Timeout Peg Count	49/0
Retest QIC Failed - Non-Confirmed Transmit Path Failure Restoral Peg Count	45/8
Return Error or Reject Message Peg Count	49/1
Return Error Returned from SCP Peg Count	49/0
Ringing and Tone Plant Located Faults Peg Counts	35/1
Ringing and Tone Plant Maintenance Busy Occupancy	35/0
Ringing and Tone Plant Non-located Faults Peg Count	35/1
Route Selection Index Screening Failure Peg Count	11/2
Routing Data Error	11/4
RTNR Egress Busy Crankback Received Peg Count	45/0
RTNR Egress Busy Crankbacks Sent Peg Count	45/0
RTNR Queries Received Peg Count	45/0
RTNR Queries Sent Peg Count	45/0
SCLK Accumulated Maintenance Usage	23/2
SCLK Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
SCLK Diagnostics Manually Requested Peg Count	46/5
SCLK Diagnostics Program Requested - All Tests Passed Peg Count	46/5
SCLK Diagnostics Program Requested Peg Count	46/5
SCLK Errors Peg Count	46/5
SCLK Located Faults Peg Count	46/5
SCLK Non-located Peg Count	46/5
SCLK Service Outage Usage	23/2
SCP Overload Blocked BOC-SSP Calls Peg Count	49/0
SCS Accumulated Maintenance Usage	24/1
SCS Accumulated Outage	24/1
SCS Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
SCS Diagnostics Manually Requested Peg Count	24/2
SCS Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SCS Diagnostics Program Requested Peg Count	24/2
SCS Errors Peg Count	24/2
SCS Located Faults Peg Count	24/2
SCS Non-located Faults Peg Count	24/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
SCU Accumulated Maintenance Usage	24/1
SCU Accumulated Outage	24/1
SCU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
SCU Diagnostics Manually Requested Peg Count	24/2
SCU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SCU Diagnostics Program Requested Peg Count	24/2
SCU Errors Peg Count	24/2
SCU Located Faults Peg Count	24/2
SCU Non-located Faults Peg Count	24/2
Second Stage Equal Access Failure Peg Count	15/0
Second Stage International Attempts	15/0
Second Stage International Vacant Codes	15/0
Second Stage MF Receiver Queue Abandon Peg Count	17/1
Second Stage MF Receiver Queue Seizure Peg Count	17/1
Second Stage MF Receiver Queue Usage	17/1
Seizing Signal Timeout Final Trial Failure Peg Count	36/8
Seizing Signal Timeout Peg Count	25/16
Selective Dynamic Overload Control Blocked Peg Count	11/3
Selective Dynamic Overload Control Canceled Peg Count	11/3
Selective Dynamic Overload Control Skipped Peg Count	11/3
Selective Incoming Load Control Peg Count	21/2
Selective Incoming Load Control	13/CIN
Selective Trunk Reservation Canceled Peg Count	11/3
Selective Trunk Reservation Control Blocked Peg Count	11/3
Selective Trunk Reservation Skipped Peg Count	11/3
Serial-Triggering Limit Overflow Peg Count	49/1
Service Circuits Accumulated Maintenance Usage	23/0
Service Observing Network Usage	4/1
Service Observing Trunk A Seizure Peg Count	5/7
Service Observing Trunk A Usage	5/7
Signaling Failure - Time-out at SSP Peg Count	49/1
Signaling Network Final Trial Failures Peg Count	36/7
SMS Blocked BOC-SSP Call Peg Count	49/0
Software CGA Initial Tests Failure Peg Count	45/1
Software CGA Initial Tests Pass Peg Count	45/1
Software CGA Monitor Tests Pass Peg Count	45/1
Software CGA Restoral Tests Failure Peg Count	45/1
Software CGA Restoral Tests Pass Peg Count	45/1
SP Accumulated Maintenance Usage	24/1
SP Accumulated Outage	24/1
SP Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
SP Diagnostics Manually Requested Peg Count	24/2
SP Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SP Diagnostics Program Requested Peg Count	24/2
SP Errors Peg Count	24/2
SP Located Faults Peg Count	24/2
SP Non-located Faults Peg Count	24/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Spare 1 Peg Count	56/4
Spare 2 Peg Count	56/4
SPC Number	12/0
Spray Reroute Attempts	13/CIN
Spray Reroute Calls Received	13/CIN
Spray Reroute Failures	13/CIN
SSD Accumulated Maintenance Usage	23/1
SSD Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
SSD Diagnostics Manually Requested Peg Count	46/0
SSD Diagnostics Program Requested - All Tests Passed Peg Count	46/0
SSD Diagnostics Program Requested Peg Count	46/0
SSD D-Level Counter	20/1
SSD Errors Peg Count	46/0
SSD In-Range D-Level Counter	20/1
SSD Located Faults Peg Count	46/0
SSD Non-located Peg Count	46/0
SSD to Client In-Range Counter	20/1
SSD to Client Out-Of-Range Counter	20/1
Stable Calls Lost, Carrier Group Failure Peg Count	5/3
Stable Calls Lost Due to a Phase Peg Count	36/6
Stable Calls Lost Due to D3U Peg Count	36/6
Stable Calls Lost Due to DIU Peg Count	36/6
Stable Calls Lost Due to DTU Peg Count	36/6
Stable Calls Lost Due to ESU Peg Count	36/6
Stable Calls Lost Due to SCS Peg Count	36/6
Stable Calls Lost Due to VIU Peg Count	36/6
Start of Pulsing Timeout Peg Count	25/16
Status Failure Attached Processor Peg Count	20/1
Step by Step Test Routine Operational Tests Attempted Peg Count	25/9
Step by Step Test Routine Operational Tests Failed Peg Count	25/9
Step by Step Test Routine Operational Tests Passed Peg Count	25/9
Successful INWATS Replies Peg Count	49/0
Synchronous Test Routine Operational Tests Attempted Peg Count	25/9
Synchronous Test Routine Operational Tests Failed Peg Count	25/9
Synchronous Test Routine Operational Tests Passed Peg Count	25/9
TELEVOTE CCIS Direct Signaling Counts Not Updated	5/9
TER Accumulated Maintenance Usage	23/2
TER Service Outage Usage	23/2
Terminal Equipment Accumulated Maintenance Usage	24/0
Terminal Maintenance Occupancy	14/0-255
Terminal Pair Outage	14/0-255
Terminal Type Identifier	14/0-255
Termination Notification Messages Lost Peg Count	49/2
Termination Notification Requests Received Peg Count	49/1
Termination Notification Response Peg Count	49/2
Test Access Circuit Origination Peg Count	25/10
TGR Accumulated Maintenance Usage	23/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
TGR Service Outage Usage	23/2
Threshold Exceeded Peg Counts	14/0-255
Threshold Exceeded Time in Seconds	14/0-255
Timeout Peg Count	25/16
Timeout Waiting for SCP Response Peg Count	49/0
Timeouts Peg Count	56/0-2
TMS Accumulated Maintenance Usage	23/2
TMS Service Outage Usage	23/2
TMSP Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
TMSP Diagnostics Manually Requested Peg Count	46/3
TMSP Diagnostics Program Requested - All Tests Passed Peg Count	46/3
TMSP Diagnostics Program Requested Peg Count	46/3
TMSP Errors Peg Count	46/3
TMSP Located Faults Peg Count	46/3
TMSP Non-located Peg Count	46/3
Total Attempts That Overflow to Terminating Test Line 100	25/8
Total Attempts That Overflow to Terminating Test Line 102	25/8
Total Attempts That Overflow to Terminating Test Line 103	25/8
Total Attempts That Overflow to Terminating Test Line 104	25/8
Total Attempts That Overflow to Terminating Test Line 105	25/8
Total Attempts That Overflow to Terminating Test Line 106	25/8
Total Attempts That Overflow to Terminating Test Line 107	25/8
Total Attempts That Overflow to Terminating Test Line 108	25/8
Total Attempts That Overflow to Terminating Test Line 109	25/8
Total Attempts That Overflow to Terminating Test Line 110	25/8
Total Attempts That Overflow to Terminating Test Line DATA	25/8
Total Attempts That Overflow to Terminating Test Line SYNCHRONOUS	25/8
Total Attempts to PAS Announcements	5/8
Total Attempts to Terminating Test Line 100	25/8
Total Attempts to Terminating Test Line 102	25/8
Total Attempts to Terminating Test Line 103	25/8
Total Attempts to Terminating Test Line 104	25/8
Total Attempts to Terminating Test Line 105	25/8
Total Attempts to Terminating Test Line 106	25/8
Total Attempts to Terminating Test Line 107	25/8
Total Attempts to Terminating Test Line 108	25/8
Total Attempts to Terminating Test Line 109	25/8
Total Attempts to Terminating Test Line 110	25/8
Total Attempts to Terminating Test Line DATA	25/8
Total Attempts to Terminating Test Line SYNCHRONOUS	25/8
Total CAMA Calls Peg Count	19/0
Total CAMA Positions Seizure Peg Count	19/0
Total CAMA Positions Service Usage	19/0
Total Demand Audits Completed Peg Count	22/0
Total Demand Audits Errors Found Peg Count	22/1
Total Final Handled Calls Peg Count	56/0-2
Total Incoming Calls Peg Count	5/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Total Incoming Data Filled Signal Units Peg Count	14/0-255
Total Incoming Messages Peg Count	14/0-255
Total Ineffective Machine Attempts Peg Count	25/0
Total INWATS Calls Reaching CCIS OSO Peg Count	49/0
Total Number of Bad Packets Received Peg Count	56/4
Total Number of Errored Commands Peg Count	56/4
Total Number of Framing and Overrun Errors Peg Count	56/4
Total Number of Good Packets Received Peg Count	56/4
Total Number of Inter-Gateway CRC Errors Peg Count	56/4
Total Number of Lost Messages Peg Count	56/4
Total Number of Messages Not Sent Between Gateways Peg Count	56/4
Total Number of Orders Peg Count	56/4
Total Number of Orders with Start of Call Indicator Set Peg Count	56/4
Total Number of Packets with CRC Errors Peg Count	56/4
Total Number of Register Messages Failed to be Sent Peg Count	56/4
Total Number of Register Messages Not Sent due to Congestion Peg Count	56/4
Total Number of Register Messages Peg Count	56/4
Total Number of Register Messages That Did Not Receive a Release Complete Peg Count	56/4
Total Number of SADC Port Errors Peg Count	56/4
Total Number of Test Orders Sent Peg Count	56/4
Total Number of Times That Message Queue Overflowed Peg Count	56/4
Total Number of Times the Secondary Gateway was Used Peg Count	56/4
Total Number of TNR Operational Orders for Start of Call Peg Count	56/5
Total Number of TNR Orders Peg Count	56/5
Total Number of Unacknowledged Register Messages Peg Count	56/4
Total Number of USEC CRC Errors Peg Count	56/4
Total of Multiple A-Level Interrupts Peg Count	20/0
Total of Multiple B-Level Interrupts Peg Count	20/0
Total of Multiple C-Level Interrupts Peg Count	20/0
Total of Multiple D-Level Interrupts Peg Count	20/0
Total of Multiple E-Level Interrupts Peg Count	20/0
Total of Single A-Level Interrupts Peg Count	20/0
Total of Single B-Level Interrupts Peg Count	20/0
Total of Single C-Level Interrupts Peg Count	20/0
Total of Single D-Level Interrupts Peg Count	20/0
Total of Single E-Level Interrupts Peg Count	20/0
Total of Single F-Level Interrupts Peg Count	20/0
Total of Single K-Level Interrupts Peg Count	20/0
Total Office Pulsing Error Peg Count	11/0
Total Outgoing Data Filled Signal Units Peg Count	14/0-255
Total Outgoing Intertoll Trunk Seizure Peg Count	5/0
Total Outgoing Messages Peg Count	14/0-255
Total Outgoing Toll Completing Trunk Seizure Peg Count	5/0
Total Routine Audits Completed Peg Count	22/0
Total Routine Audits Errors Found Peg Count	22/1
Total Terminating Toll Switch Calls	5/0
Total Test Access Circuit Usage	25/10

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Total Type 2 Rollbacks Peg Count	21/1
Total Usage Measurement	13/CIN
Total Via Toll Switch Calls	5/0
Traffic Separation Class Seizure Peg Count	10/0-1023
Traffic Separation Class Usage	10/0-1023
Transaction ID in SCP Response Was Invalid Peg Count	49/0
Transient Calls Lost Due to a Phase Peg Count	36/6
Transient Calls Lost Due to D3U Peg Count	36/6
Transient Calls Lost Due to DIU Peg Count	36/6
Transient Calls Lost Due to DTU Peg Count	36/6
Transient Calls Lost Due to ESU Peg Count	36/6
Transient Calls Lost Due to SCS Peg Count	36/6
Transient Calls Lost Due to VIU Peg Count	36/6
Transmitter Error Final Trial Failure Peg Count	36/8
Transmitter Error Peg Count	25/16
Trunk Error Analysis Long Term Table Overflow For Signal Processor Peg Count	43/0-31
Trunk Error Analysis Report Buffer Overflow Peg Count	44/0
Trunk Error Analysis Second Stage Filter Overflow For Signal Processor Peg Count	42/0-31
Trunk Maintenance Register Overflow Peg Count	17/3
Trunk Maintenance Register Seizure Attempts Peg Count	35/3
Trunk Maintenance Register Seizure Overflow Peg Count	35/3
Trunk Maintenance Register Seizure Peg Count	17/3
Trunk Maintenance Register Usage	17/3
Trunk Maintenance Usage	25/0
Trunks Blocked Due To Far End Equipment Problems Peg Count	45/2
TSG Access Restriction Peg Count	11/3
TSI Accumulated Maintenance Usage	23/2
TSI Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
TSI Diagnostics Manually Requested Peg Count	46/3
TSI Diagnostics Program Requested - All Tests Passed Peg Count	46/3
TSI Diagnostics Program Requested Peg Count	46/3
TSI Errors Peg Count	46/3
TSI Located Faults Peg Count	46/3
TSI Non-located Peg Count	46/3
TSI Number	12/0
TSI Service Outage Usage	23/2
TSI Usage Measurement	12/0
TUC Accumulated Maintenance Usage	23/1
TUC Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
TUC Diagnostics Manually Requested Peg Count	46/0
TUC Diagnostics Program Requested - All Tests Passed Peg Count	46/0
TUC Diagnostics Program Requested Peg Count	46/0
TUC Errors Peg Count	46/0
TUC Located Faults Peg Count	46/0
TUC Non-located Peg Count	46/0
TVOFF Messages Sent During Throttling, Not Due to Unknown Peg Count	56/4
TVOFF Messages Throttled Following TVOFF Peg Count	56/4

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
TVON Messages Sent During Throttling, Not Due to Unknown Peg Count	56/4
TVON Messages Throttled Following TVOFF Peg Count	56/4
TVON Messages Throttled Following TVON Peg Count	56/4
TVON/TVOFF/64C Messages Sent During Throttling Due to Unknown Peg Count	56/4
Two Stage EA Pulsing Errors	15/4
Two Stage MF Permanent Signal Timeout	15/4
Two Stage MF Receiver Not Found	15/4
Two Stage Partial Dial Timeout	15/4
Two Stage Permanent Signal Timeout	15/4
Two Stage Pulsing Errors	15/4
Two Stage VSS MF Receiver Not Found	15/4
Two Stage VSS Pulsing Errors	15/4
Unauthorized CAMA Peg Count	18/0
Unblocking Acknowledgement Timeout Peg Count	25/17
Undetermined Call ID in a Response from the SCP Which Contained Protocol Errors Peg Count	49/0
Unexpected Stop Failures Final Trial Group Peg Count	36/4
Unit Data Service Messages Returned by STP Peg Count	49/0
Unreasonable Signal Final Trial Failure Peg Count	36/8
Unreasonable Signal on an Idle CCITT No. 6 Trunk Peg Count	25/16
Unreasonable Signal on the Incoming Trunk Peg Count	25/16
Unreasonable Signal on the Outgoing Trunk Peg Count	25/16
Unreasonable Signal Peg Count	25/16
USEC Frame Suspend Event Peg Count	56/4
Vacant Code Announcement Peg Count	11/2
Vacant Code Announcement Private Branch Exchange Peg Count	11/2
Vacant Code Announcement Q.931 Peg Count	11/2
Vacant Code/Non-Purchased NPA BOC-SSP Calls Blocked Due To Excess Calling Peg Count	49/0
Vendor Rejection Peg Count	56/0-2
VFL-1 Far-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-1 Near-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-1 Quarter Hour in Service Peg Count	14/0-255
VFL-1 Retransmission Requests Peg Count	14/0-255
VFL-1 Signal Units in Error Peg Count	14/0-255
VFL-2 Far-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-2 Near-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-2 Quarter Hour in Service Peg Count	14/0-255
VFL-2 Retransmission Requests Peg Count	14/0-255
VFL-2 Signal Units in Error Peg Count	14/0-255
VIC Accumulated Maintenance Usage	24/1
VIC Accumulated Outage	24/1
VIC Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
VIC Diagnostics Manually Requested Peg Count	24/2
VIC Diagnostics Program Requested - All Tests Passed Peg Count	24/2
VIC Diagnostics Program Requested Peg Count	24/2
VIC Errors Peg Count	24/2
VIC Located Faults Peg Count	24/2
VIC Non-located Faults Peg Count	24/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
VIU Accumulated Maintenance Usage	24/1
VIU Accumulated Outage	24/1
VIU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
VIU Diagnostics Manually Requested Peg Count	24/2
VIU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
VIU Diagnostics Program Requested Peg Count	24/2
VIU Errors Peg Count	24/2
VIU Located Faults Peg Count	24/2
VIU Non-located Faults Peg Count	24/2
Voice Path Assurance (VPA) Test Attempted Peg Count	25/6
Voice Path Assurance (VPA) Test Completed Peg Count	25/6
Voice Path Assurance (VPA) Test Failure Peg Count	25/6
Waiting-for-Answer Call Failure Peg Count	36/9
Waiting-for-Answer Timeout Peg Count	36/9
XPWR Accumulated Maintenance Usage	23/1
XPWR Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
XPWR Diagnostics Manually Requested Peg Count	46/0
XPWR Diagnostics Program Requested - All Tests Passed Peg Count	46/0
XPWR Diagnostics Program Requested Peg Count	46/0
XPWR Errors Peg Count	46/0
XPWR Located Faults Peg Count	46/0
XPWR Non-located Peg Count	46/0

GENERAL DESCRIPTION
4ESS SWITCH TRAFFIC/PLANT MEASUREMENTS
4E22 GENERIC PROGRAM

1. INTRODUCTION

1.01 The 4ESS Switch traffic/plant measurement system is concerned with measuring the effects of the telephone traffic presented to the switching system and the effects of the maintenance condition of the system as they effect service provided to the customer. These measurements are used by engineering to verify that existing equipage is adequate for present needs and to predict future needs. These measurements are also used by Network Management to determine the control actions necessary to efficiently utilize the nationwide network and to evaluate the effects of the various control strategies. Finally, these measurements are used to locate equipment irregularities and evaluate the effectiveness of the office's maintenance procedures as compared to other toll switching systems.

1.02 This section is primarily intended to define the counts and measurements provided by the traffic/plant measurement system. Each Measurement Subclass (MSC) and all Output Measurement Sets (OMS) associated with the MSC are defined and tabled for easy reference.

2. TERMS and DEFINITIONS

2.01 The basic terms used with the 4ESS Switch traffic/plant measurement system are described in the following paragraphs.

2.02 Count - A count is the instantaneous value of a counter that is available for change by the main information processing programs of the switch. (For example, the contents of the outgoing Peg Count register for a specific Trunk Subgroup).

2.03 Measurement - a measurement is a function of a count that is obtained from the switch. An example would be the total usage measurement for one hour on a specified Trunk Subgroup. The function may be a count accumulated over a prescribed interval or an arithmetic combination of several counts accumulated over a prescribed interval.

2.04 Peg Count - A Peg Count is the count of the number of times a given event occurs.

2.05 Peg Counter - A Peg Counter is a register to which the number one is added each time a given event occurs.

2.06 Occupancy Count - An occupancy count is the count of the number of devices of a specified class that are busy (in service - in use - occupied) at any particular instant of time.

2.07 Occupancy Counter - An occupancy counter is the register to which the number 1 is added each time a device of a specified class is made busy, and from which the number 1 is subtracted each time a device of the same specified class is made idle. This counter reflects the occupancy count of the device group.

2.08 Idle Count - An idle count is the count of the number of devices of a specified class that are available for use at any particular instant of time. The idle count of a device group subtracted from the total number of devices in the group is the occupancy count of the group.

2.09 Idle Counter - An idle counter is a register from which the number 1 is subtracted each time a device of a specified class is made busy and to which the number 1 is added each time a device of the same class is made idle. This counter reflects the idle count of the device group.

2.10 Seizure and Release Peg Counters - The seizure Peg Counter is incremented by one each time a device of a specified class is seized for a service function. The release Peg Counter is incremented by one each time a device of the same specified class is made idle. Seizure and release Peg Counters are used to maintain the occupancy count of a device group. The release Peg Count of a device group subtracted from the seizure Peg Count of the same device group equals the occupancy count of that device group.

2.11 Peg Count Measurement - A Peg Count measurement is the Peg Count accumulated over a known interval.

2.12 Usage Measurement - A usage measurement is the total accumulated time the devices of a specified class have been in services (in use-busy) during a prescribed interval. Scan intervals for usage measurements are 10, 100 or 180 seconds, and usage is output in CCS.

2.13 CCS - 100 Call Seconds - This is the standard measurement unit for usage measurements in the 4ESS Switch. For example, five trunks busy for 30 minutes (1800 seconds) would be equal to a total usage of 9000 seconds or 90 CCS.

2.14 Accumulating Registers - This register has the contents of a counter added to it periodically to form a cumulative total over a prescribed interval of time.

2.15 Holding Registers - Measurements are stored in holding registers for fixed time periods. Extended interval accumulation and/or outputting of the measurement occurs from these registers.

2.16 Extended Interval Accumulating Registers - The contents of a set of holding registers is summed in this register periodically to form a cumulative total of a measurement over an extended interval of time.

3. THE TRAFFIC/PLANT PROGRAM

3.01 The traffic/plant program routines can be divided into two classes, measuring routines and data collection routines. The measuring routines generate the data from which the various measurements will be obtained. Data collection routines process this data into the measurements required by the users. The basic interval that these two classes of routines use to perform their tasks is 15 minutes (900 seconds). This is the smallest measuring interval available to the users.

The measuring routines are actively obtaining data on the traffic presented to the 4ESS Switch and the equipment in the office during a 15 minute interval. This activity is called the measuring phase of the traffic/plant program's execution. During the next 15 minute interval, the data collection routines process the data obtained during the previous interval into measurements and prepares them for output. This activity is the collection phase of the traffic/plant program's execution. To insure that all data presented to the 4ESS Switch is measured, measuring routines for the present interval and collection routines for the previous interval must execute concurrently.

3.02 Measuring Routines - Practically all the 4ESS Switch programs must, at some time, adjust Peg Counters, occupancy counters and idle counters. These programs are classified as measuring routines. It is not economical to time the busy period of each device requiring usage measurements. The usage is estimated by periodically sampling the occupancy counter or idle counter of the device group, and compiling this count in an accumulating register (during the measuring interval).

This produces an estimate of the actual usage because the measurements obtained assume that the average number of devices that are busy at each sampling is equal to the actual average number busy.

The accuracy of this usage estimate is dependent on the scanning interval, the size of the device group, the average holding time of the devices in the group, and the traffic offered to the group. Since these characteristics vary widely among the devices requiring usage measurements in the 4ESS Switch, and because there are different accuracy requirements for the devices, two scanning intervals have been provided. These intervals are 10 seconds and 180 seconds. They have been chosen to provide the accuracy required while remaining compatible with the rest of the traffic/plant measurement system.

In addition to usage, it is necessary to accumulate certain Peg Counts. Normally, Peg Counters are allowed to accumulate for the entire 15 minutes of measurement interval. However, in some instances, the sizes of the Peg Counters are not large enough to contain counts accumulated over this long an interval. Consequently, it is necessary to recycle those periodically during the measurement interval and transfer the count to larger accumulating registers. To allow for the accumulation of idle, occupancy and Peg Counts, 10 and 180 second accumulating scan routines and accumulating registers are provided.

3.03 Data Collection Routines

A. Measurement Data Collection Routine

To prepare a measurement output, it is first necessary to obtain a data base. This data base has been generated by the measuring routines, and resides in the various counters and accumulating registers. At the end of each measurement interval, the measurement data collection routines will read these counters and accumulating registers, store their contents in one of four blocks of holding registers (on disk) and then recycle the counters and accumulating registers to zero. The holding registers now contain one hours data in four quarter hour blocks that will be further processed into the measurement output.

B. Measurement Data Extended Interval Accumulation Routines

For users requiring measurements accumulated over extended intervals (intervals greater than one hour) it is necessary to provide additional data bases. This is done by accumulating the required data in extended interval accumulating registers provided for these users. This accumulation function is performed by the measurement data extended interval accumulation routines.

C. Measurement Data Output Routines

The data from which an output is generated is contained in the holding registers and in the users' extended interval accumulating registers. The 4ESS Switch measurement data output routines will process this data into a format that can be easily interpreted by the users, and will output the data on TTY, magnetic tape, and/or eventually over Data Link.

4. TRAFFIC/PLANT MEASUREMENT CLASSES

4.01 The Measurement Class - To help with the internal manipulation of data, the set of all traffic/plant measurements has been partitioned into Measurement Classes (MC). Related measurements are, in general, assigned to the same MC. For example, all the Trunk Subgroup measurements make up one MC. Associated with the MCs where required, are blocks of accumulating registers and holding registers on disk.

These MCs, and the associated measurements, are primary sources of data for the Measurement Subclasses (MSCs) and the Output Measurement Sets (OMSs). The MCs are internal and, as such, are not specified for output on the traffic/plant measurement report. All measurements that are available may be scheduled for output by specifying the MSC and the OMS. The minimum output that can be specified is one OMS. All the measurements in that OMS will be output.

4.02 Measurement Class Counter Blocks (MC-CBs) - The counters needed to generate the required measurements for a device group sometimes reside in the memory that is associated with the particular group. For example, many of the Trunk Subgroup (TSG) counters are located in the TSG head cell. However, in many instances there is no associated memory or the memory is not adequate to accommodate all the required counters. For these cases, separate memory blocks are provided for the counters. These memory blocks are assigned to particular MCs and contain only counters used to obtain measurements in a given MC. The memory blocks reside in core and are called MC Counter Blocks (MC-CB). When an MC-CB is generic and fixed in length, the starting address of the block is Compool (predefined by the program). Otherwise, the starting address is contained in a one word head table.

4.03 Measurement Class Accumulating Register Blocks (MC-ARBs) - Accumulating registers must be provided where usage estimates are desired and where Peg Counters are too small to cycle over the complete 15 minute measurement interval. MC Accumulating Register Blocks (MC-ARB's) are provided for those MCs where many accumulating registers are required. Five traffic MC-ARBs are required in the 4ESS Switch. Those blocks that are generic in length reside in the Compool defined section of disk. Those blocks whose length are office dependent reside in the measurements section of disk and are accessed by head tables.

4.04 Measurement Class Holding Register Blocks (MC-HRBs) - At the end of each measurement interval (15 minutes), the measurement data in accumulating registers and counters is stored in holding registers, and then the counters and accumulating registers are recycled to zero. In general, the holding registers are organized into blocks on disk. The blocks are arranged such that the measurement data needed to generate all the measurements in a particular MC accumulated over one 15 minute interval, is contained in one block. These blocks are called MC Holding Register Blocks (MC-HRB). Those blocks, which are generic in length, reside in Compool defined sections (predefined by the Generic Program) of disk. Those blocks whose length is office dependent are located in the measurements section of disk and are accessed by head tables.

There are four MC-HRBs (MC-HRB-0, MC-HRB-1, MC-HRB-2 and MC-HRB-3) associated with each MC. These four MC-HRBs are identical in layout and are used so that, at any instant, they will contain measurement data obtained by the measuring routines during the previous four measurement intervals. This allows measurement data to be recovered for the previous one hour. This organization provides the flexibility needed to accommodate the users' requirements for various measurement accumulation intervals.

Any user may request measurements accumulated over intervals of 15 minutes, 30 minutes, 45 minutes, or 60 minutes without the need of providing accumulating registers since the holding registers effectively do this function. Further information on traffic/plant output schedules will be contained in the section dealing with input and output schedules.

4.05 The Measurement Subclass - To simplify measurement accumulation and output processing and to conserve memory, all the Measurement Classes (MCs) are divided into subsets (which may, or may not, be used to form some of the same measurements) called Measurement Subclasses (MSCs). Within an MSC, all the measurements associated with a particular facility or entity are called an Output Measurement Set (OMS). When a user requests an output of measurements, he identifies those measurements by specifying an OMS within a MSC. The MSCs are defined to meet the users' needs and each has a specific output format for each type of output device used. The subclasses used in the 4ESS Switch and their output formats are described later in this section. The set of OMSs a user wished to accumulate and output make up a traffic schedule. An output schedule is specified by the accumulation interval, the output times, and a set of OMSs. The schedule parameters are input by the user via various traffic input messages.

All the measurements appearing on a particular schedule are accumulated over the same interval. Since the data in the MC-HRB is sufficient to generate measurements accumulated over periods of up to one

hour (in multiples of 15 minutes), extended interval accumulating registers need only be provided when accumulation intervals of greater than one hour are required. To ensure the independence of the schedules requiring them, extended interval accumulating registers are provided for their private use. Only enough extended interval accumulating registers are provided to accommodate the OMSs that a given schedule is designed to output.

5. MEASUREMENT SUBCLASS (MSC) DEFINITIONS

5.01 MSC-OMS Definitions

In the following Tables (00-63), all measurements available are identified by MSC and OMS. Each measurement is specifically defined in the order that it appears in the particular MSC and OMS. Also included is Figure 1, a listing of all the MSCs and OMSs with their titles and the number of counts in each. Figure 2 is an alphabetized listing of all the TRAFFIC/PLANT measurements and their appropriate MSC and OMS.

TABLE 00

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

MSC 0 MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD
OMS 0 MF XMTR, IDTS RCVR, AND ODTMFWK XMTR QUEUE-DOMESTIC

	ATT	FAIL	TIME	SZRE	ABAN	USAGE	Q-WAIT
MF XT	0	0	0	0	-	0	-
IDTS	-	-	0	0	0	0	-
ODTMF	-	0	-	0	-	0	0

OMS 1 CCITT5 QUEUE-INTERNATIONAL
Q ENTRY FAIL 0

OMS 2 MF, DTMF XMTRS, NSCX AND MASFH CKTS

	MF	DTMF XMTR	NSCX	MSFHA	MSFHB
SEIZURE	0	0	0	0	0
SVC USAGE	0	0	0	0	0
OVERFLOW	-	-	0	0	0
MTC USAGE	0	0	0	0	-

	SCSB
SEIZURE	0
SVC USAGE	0
OVERFLOW	0
MTC USAGE	0

OMS 3 BLUE BOX FRAUD

OVERLOAD	ATTEMPTS	DETECTED	PERSIST	MFR SZ	MFR CCS
0	0	0	0	0	0

OMS 4 CCS MESSAGE TABLE

BLUE BOX	OVERFLOW	TIMEOUT	SUCCESS
0	0	0	0

BLACK BOX FRAUD

FEN	RF RCVD
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0

BBP CANCELLED
0

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

Description of Measurements for MSC 0

OMS 0

MF Transmitter Queue Entry Attempts Peg Count
(MF XT ATT)

This counter will be incremented by the number of MF calls for which checks are made to determine if there is room on the MF Transmitter Queue.

MF Transmitter Queue Entry Failure Peg Count
(MF XT FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to be on the MF Transmitter Queue is greater than the number of non-maintenance busy MF transmitters (same count as MSC 11 OMS 5).

MF Transmitter Queue Entry Time Usage
(MF XT TIME)

This counter will be incremented by the number of MF calls that are awaiting the start dial signal after having sent a seizure on the outgoing trunk. This occupancy count will be used to generate the MF start dial usage measurement, the total amount of time MF calls wait for start dial after sending seizure.

MF Transmitter Queue Seizure Peg Count
(MF XT SZRE)

This counter is incremented by one when a Call Register (CR) is linked on the MF Transmitter Queue.

MF Transmitter Queue Usage
(MF XT USAGE)

After each 10 second scan, this counter is incremented by the number of Call Registers linked to the queue. This data will be converted to CCS units by the traffic program before output.

IDTS Receiver Dial Tone Delay Time Peg Count
(IDTS TIME)

This counter is incremented every time a seizure is received on an IDTS trunk and we are unable to supply an IDTS receiver within 2 seconds.

IDTS Receiver Queue Seizure Peg Count
(IDTS SZRE)

This counter is incremented by one when a TR is linked to the IDTS Receiver Queue.

IDTS Receiver Queue Abandon Peg Count
(IDTS ABAN)

This counter is incremented by one each time the TR of a call that is abandoned is unlinked from the IDTS Receiver Queue.

IDTS Receiver Queue Usage
(IDTS USAGE)

After each 10-second scan, this counter is incremented by the number of trunk registers linked to the queue. This data will be converted to CCS units by the Traffic Program before output.

ODTMF Transmitter Queue Entry Failures
(ODTMF FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the DTMF Transmitter Queue, plus the number of calls waiting to be on the DTMF Transmitter Queue is greater than the number of non-maintenance busy DTMF Transmitters.

ODTMF Transmitter Queue Seizure Peg Count
(ODTMF SZRE)

This counter is incremented by one when a Call Register is linked to the DTMF Transmitter Queue.

ODTMF Transmitter Queue Usage
(ODTMF USAGE)

After each 10-second scan, this counter is incremented by the number of Call Registers linked to the queue. This data will be converted to CCS units by the Traffic Program before output.

ODTMF Transmitter Queue Wait
(ODTMF Q-WAIT)

This counter is incremented when a Call Register is placed in a waiting to queue state and decremented when a Call Register is taken off the state.

OMS 1

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

CCITT No. 5 Queue Entry Failure
Peg Count
(Q ENTRY FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to be on the MF Transmitter Queue is greater than the number of non-maintenance busy MF Transmitters. This counter corresponds to the Domestic MF Transmitter queue Entry Failure. The MF Transmitter Queue is shared by both Domestic and international traffic.

OMS 2

MF Transmitter Seizure Peg Count
(MF SEIZURE)

This counter is incremented by one when an idle MF Transmitter is made service busy. This is done by writing a service busy state code in the Transmitter Trunk Register (TR). The MF Transmitter seizure Peg Count reflects not only the number of MF outgoing calls, but also the number of successful reattempts to seize an MF Transmitter for calls that have experienced ineffective attempts during outpulsing.

DTMF Transmitter Seizure Peg Count
(DTMF XMTR SEIZURE)

This counter is incremented by one for each DTMF transmitter that is busy.

NSCX Seizure Peg Count
(NSCX SEIZURE)

This counter is incremented by one when an idle NSCX SET S circuit is made service busy.

MAS or Expanded Ann. A Seizure Peg Count
(MSFHA SEIZURE)

This counter is incremented by one when a MAS or expanded announcement "A" circuit is made busy.

MAS or Expanded Ann. B Seizure Peg Count
(MSFHB SEIZURE)

This counter is incremented by one when a MAS or expanded announcement "B" circuit is made busy.

MF Transmitter Service Usage
(MF SVC USAGE)

After each 10 second scan, this counter will be incremented by the number of MF Transmitters found service busy. This data will be converted to CCS units by the traffic program before output.

DTMF Transmitter Service Usage
(DTMF XMTR SVC USAGE)

This counter is incremented after each ten-second scan by the number of DTMF transmitters found service busy. This data is converted to CCS units by the traffic program before output.

NSCX Service Usage
(NSCX SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of NSCX SET S circuits found service busy. The data will be converted to CCS units by the traffic program before output.

MAS or Expanded Ann. A Service Usage
(MSFHA SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of MSFHA circuits found service busy. The data will be coverted to CCS units by the traffic program before output.

MAS or Expanded Ann. B Service Usage
(MSFHB SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of MSFHB circuits found service busy. The data will be converted to CCS units by the traffic program before output.

NSCX Overflow Peg Count
(NSCX OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of NSCX SET S circuit requests not fulfilled.

MAS or Expanded Ann. A Overflow
Peg Count
(MSFHA OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of MAS or expanded announcement "A" circuit requests not fulfilled.

MAS or Expanded Ann. B Overflow
Peg Count
(MSFHB OVERFLOW)

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

After each 10-second scan period, this counter is incremented by the number of MAS or expanded announcement "B" circuit requests not fulfilled.

MF Transmitter Maintenance Usage
(MF MTC USAGE)

After each 10 second scan period, this counter will be incremented by the number of MF Transmitters found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

DTMF Transmitter Maintenance Usage
(DTMF MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of DTMF transmitters found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

NSCX Maintenance Usage
(NSCX MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of NSCX SET S circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

MAS or Expanded Ann. Maintenance Usage
(MSFHA MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of MAS or expanded announcement "A" circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

SCSB Seizure Peg Count
(SCSB SEIZURE)

This counter is incremented by one when an idle SCS SET B circuit is made service busy.

SCSB Service Usage
(SCSB SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of SCS SET B circuits found service busy. The data will be converted to CCS units by the traffic program before output.

SCSB Overflow Peg Count
(SCSB OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of SCS SET B circuit requests not fulfilled.

SCSB Maintenance Usage
(SCSB MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of SCS SET B circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

OMS 3

Blue Box Fraud Overload
(OVERLOAD)

This counter will be incremented if the Blue Box MF Receiver queue is full, or no receivers are allocated.

Blue Box Fraud Attempts
(ATTEMPTS)

This counter is incremented whenever a fraud call is suspected (i.e., on reception of an unexpected post address wink).

Blue Box Fraud Detected
(DETECTED)

This counter is incremented when on a suspect call, four MF digits are received.

Blue Box Fraud Persisting
(PERSIST)

This count is incremented when an attempted fraud call persists for five minutes.

Blue Box Fraud MF Receiver Seizure
(MFR SZ)

This count is incremented when an MF Receiver is to be used by fraud prevention.

Blue Box Fraud MF Receiver Occupancy
(MFR CCS)

This count is updated every 10 seconds to give Fraud MF Receiver usage.

OMS 4

CCS Message Table Blue Box Attempts
Peg Count
(BLUE BOX)

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

This counter is incremented whenever a fraud call is suspected on a Teleconferencing request (i.e, when the second stage call identification cannot be found in the Common Channel Signaling (CCS) message table.

CCS Message Table Overflow Peg Count
(OVERFLOW)

This counter is incremented whenever a CCS message is received from TSPS to load into the CCS Message Table and no room is available.

CCS Message Table Timeout Peg Count
(TIMEOUT)

This counter is incremented when an entry in the CCS Message Table does not receive the subsequent second stage MF digit ID within 15 seconds.

CCS Message Table Success Peg Count
(SUCCESS)

This counter is incremented when the second stage MF digit ID is found in the CCS Message Table.

Black Box Fraud Ring Forwards Received
(RF RCVD)

These counters, which are broken down by the Far End Network (FEN), are incremented each time a ring forward signal is received.

Black Box Fraud Prevention Canceled
(BBP CANCELLED)

On receipt of a ring forward signal from an operator, black box fraud prevention is canceled to allow the operator to service a call.

TABLE 01

OUTPUT MEASUREMENT SETS FOR MSC 1
(MF RCVR AND DTMF RCVR)

```
MSC 1 MF RCVR AND DTMF RCVR
OMS 0
                MF RCVR    DTMF RCVR
SZRE                  0            0
SVC USAGE             0            0
MTCE USAGE            0            0
```

Description of Measurements for MSC 1

OMS 0

MF Receiver Seizure Peg Count
(MF RCVR SZRE)

This counter is incremented by one when an idle MF Receiver is made busy. This is done by writing a service busy state code in the receiver's Trunk Register (TR).

DTMF Receiver Seizure Peg Count
(DTMF SZRE)

This counter is incremented by one when an idle DTMF Receiver is made busy. This is done by writing a service busy code in the Receiver Trunk Register.

MF Receiver Service Usage
(MF RCVR SCV USAGE)

This counter is incremented, after each 10 second scan, by the number of MF Receivers found service busy. This data will be converted to CCS units by the traffic program before output.

DTMF Receiver Service Circuit Usage
(DTMF SVC USAGE)

This counter is incremented, after each 10-second scan, by the number of DTMF Receivers found service busy. This data will be converted to CCS units by the traffic program before output.

MF Receiver Maintenance Usage
(MF RCVR MTCE USAGE)

After each 10 second scan this counter will be incremented by the number of MF Receivers found maintenance busy. This data will be converted to CCS units by the traffic program before output.

DTMF Receiver Maintenance Usage
(DTMF RCVR MTCE USAGE)

After each 10-second scan, this counter will be incremented by the number of DTMF receivers found maintenance busy. This data will be converted to CCS units by the traffic program before output.

TABLE 02

OUTPUT MEASUREMENT SETS FOR MSC 2
(CCIS, ISUP, ITUP AND INUP XCVR)

```
MSC 2  CCIS, ISUP, ITUP AND INUP XCVR
OMS 0
                    SVC       MTCE
          SZRE      USAGE     USAGE     OVFL
XCVR           0         0         0         0

VPA CANC  ISUP XCVR OVFL  ITUP XCVR OVFL  INUP XCVR OVFL
       0          0               0               0
```

Description of Measurements for MSC 2

OMS 0

CCIS Transceiver Seizure Peg Count
(XCVR SZRE)

This counter is incremented by one when an idle CCIS Transceiver is made busy by writing a service state code in the transceivers Trunk Register (TR).

CCIS Transceiver Service Usage
(XCVR SVC USAGE)

After each 10 second scan, this register is incremented by the number of CCIS Transceivers found service busy. This data will be converted to CCS units by the traffic program before output.

CCIS Transceiver Maintenance Usage
(XCVR MTCE USAGE)

This counter is incremented by the number of CCIS Transceivers found maintenance busy after each 10 second scan period. This data will be converted to CCS units by the traffic program before output.

CCIS Transceiver Overflow Peg Count
(XCVR OVFL)

This counter is incremented by one when a hunt for an idle CCIS Transceiver fails because there are no idle Transceivers in the group.

CCIS VPA Cancellation and Path Hunt
Peg Count
(VPA CANC)

Each call will increment this counter by one when the Voice Path Assurance (VPA) test on a CCIS outgoing trunk is canceled because of the current level of overload control. This counter is also incremented when a network path between the CCIS Transceiver and the outgoing trunk can not be found.

ISUP Transceiver Overflow Peg Count
(ISUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle CCS7 Transceiver fails because there are no idle transceivers in the group.

ITUP Transceiver Overflow Peg Count
(ITUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle International Transceiver fails because there are no idle Transceivers in the group.

INUP Transceiver Overflow Peg Count
(INUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle International Transceiver fails because there are no idle transceivers in the group.

TABLE 03

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

MSC 3 OMS	ANCMT CKT TYPE	SZRE	USAGE	OVFL
0	xxx	0	-	-
1	xxx	0	-	-
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
30	xxx	0	-	-
31	xxx	0	-	-
32	TSI 0	-	0	0
	TSI 1	-	0	0
	TSI 2	-	0	0
	TSI 3	-	0	0
	TSI 4	-	0	0
	TSI 5	-	0	0
	TSI 6	-	0	0
	TSI 7	-	0	0
	TSI 8	-	0	0
	TSI 9	-	0	0
	TSI 10	-	0	0
	TSI 11	-	0	0
	TSI 12	-	0	0
	TSI 13	-	0	0
	TSI 14	-	0	0
	TSI 15	-	0	0
33	xxx	0	-	-
34	xxx	0	-	-
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
159	xxx	0	-	-
160	xxx	0	-	-

Description for Measurements for MSC 3

OMS 0-31

Announcement or Tone Group Seizure
Peg Count
(SZRE)

When a path through the network between an incoming trunk and an announcement or tone group has been seized and connected, this counter is incremented by one. The Output Measurement Set (OMS) number will be equal to the announcement or tone group number and the TYPE code is the 1-, 2-, or 3-character code shown below. The following is a list of each OMS and the associated announcement or tone type for announcements on the Recorded Announcement Frame.

OMS 0 - Unassigned (***)
OMS 1 - Audible Ring (AR)
OMS 2 - 120 IPM Tone (T)
OMS 3 - 60 IPM Busy Tone (BT)
OMS 4 - Test Progress Tone (TPT)
OMS 5 - 1000 hz. Milliwatt Test Tone (MW)
OMS 6 - No Circuit Announcement (NCA)
OMS 7 - Vacant Code Announcement (VCA)
OMS 8 - Reorder Announcement (ROA)
OMS 9 - Emergency Announcement No. 1 (EA1)
OMS 10 - Emergency Announcement No. 2 (EA2)
OMS 11 - Special Announcement No. 1 (SP1)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 12 - Special Announcement No. 2 (SP2)

OMS 13 - Idle Wet (IDL)

OMS 14 - High and Wet (HW)

OMS 15 - Idle No Guard Timing (ING)

OMS 16 - 10DB 1004 HZ Test Tone (M10)

OMS 17 - Unassigned (***)

OMS 18 - Misrouted Non-CAMA (MCA)

OMS 19 - No Circuit to Carrier (NCC)

OMS 20 - No Wink to Carrier (NWC)

OMS 21 - INWATS Out-Of-Band Announcement (OOB)

OMS 22 - Emergency Announcement Number 6 (EA6)

OMS 23 - Emergency Announcement Number 3 (EA3)

OMS 24 - Emergency Announcement Number 4 (EA4)

OMS 25 - Network Call Denial (NCD)

OMS 26 - Emergency Announcement Number 7 (EA7)

OMS 27 - All Circuits Busy to Foreign Country (INC)

OMS 28 - Vacant Code on International Call (IVC)

OMS 29 - Emergency Announcement Number 5 (EA5)

OMS 30 - International Foreign Failure (IFF)

OMS 31 - Unassigned (***)

OMS 32

The following two counts are maintained for each dedicated TSI. Each PAS announcement in a MAS office will be assigned to an announcement separation class from 0 to 31. At most one announcement may be assigned to each of the classes 1 to 31. Any number of announcements may be assigned to class 0.

Dedicated TSI Usage
(TSI USAGE)

Every 100 seconds the occupancy of the TSI's dedicated to announcements and tones is accumulated. This data is converted into CCS units by the traffic program before output.

Dedicated TSI Overflow Peg Count
(TSI OVFL)

This counter is incremented by one when an attempt to establish a network connection between an incoming trunk connection and an idle announcement or tone circuit fails because there is no available time slot in the TSI.

OMS 33-160

Announcement or Tone Group Seizure
Peg Count
(SZRE)

When a path through the network between an incoming trunk and an announcement or tone group has been seized and connected, this counter is incremented by one. The Output Measurement Set (OMS) number will be equal to the announcement or tone group number and the TYPE code is the 1-, 2-, or 3-character code shown below. The following is a list of each OMS and the associated announcement or tone type for announcements on the Service Circuit System (SCS) frame. (The first 32 announcements on the SCS are the same as the 32 announcements on the RAF.)

OMS 33 - Unassigned (***)

OMS 34 - Audible Ring (AR)

OMS 35 - 120 IPM Tone (T)

OMS 36 - 60 IPM Busy Tone (BT)

OMS 37 - Test Progress Tone (TPT)

OMS 38 - 1000 hz. Milliwatt Test Tone (MW)

OMS 39 - No Circuit Announcement (NCA)

OMS 40 - Vacant Code Announcement (VCA)

OMS 41 - Reorder Announcement (ROA)

OMS 42 - Emergency Announcement No. 1 (EA1)

OMS 43 - Emergency Announcement No. 2 (EA2)

OMS 44 - Special Announcement No. 1 (SP1)

OMS 45 - Special Announcement No. 2 (SP2)

OMS 46 - Idle Wet (IDL)

OMS 47 - High and Wet (HW)

OMS 48 - Idle No Guard Timing (ING)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 49 - 10DB 1004 HZ Test Tone (M10)

OMS 50 - Unassigned (***)

OMS 51 - Misrouted Non-CAMA (MCA)

OMS 52 - No Circuit to Carrier (NCC)

OMS 53 - No Wink to Carrier (NWC)

OMS 54 - INWATS Out-Of-Band Announcement (OOB)

OMS 55 - Emergency Announcement Number 6 (EA6)

OMS 56 - Emergency Announcement Number 3 (EA3)

OMS 57 - Emergency Announcement Number 4 (EA4)

OMS 58 - Network Call Denial (NCD)

OMS 59 - Emergency Announcement Number 7 (EA7)

OMS 60 - All Circuits Busy to Foreign Country (INC)

OMS 61 - Vacant Code on International Call (IVC)

OMS 62 - Emergency Announcement Number 5 (EA5)

OMS 63 - International Foreign Failure (IFF)

OMS 64 - Unassigned (***)

OMS 65 - Service Not Active (SNA)

OMS 66 - Vacant MAS Announcement (VMA)

OMS 67 - HICAP Out of Time Slot (OTS)

OMS 68 - SUN Transit Outage (STO)

OMS 69 - Vacant 800 Number (NWN)

OMS 70 - Disconnected 800 Number (DNN)

OMS 71 - Temporarily Disconnected 800 Number (TDN)

OMS 72 - INFO 1 ANI Failure (INF)

OMS 73 - LEC EGRESS Busy (NCB)

OMS 74 - Waiting For Answer Timeout (WAT)

OMS 75 - Intra-LATA Call Screening (LSA)

OMS 76 - LEC MAS Service (OOA)

OMS 77 - 700-555-4141 (LDV)

OMS 78 - Logging on Busy (LOB)

OMS 79 - SS7 (UNN)

OMS 80 - Spare (S19)

OMS 81 - SS7 (DOO)

OMS 82- International Subscriber Busy (ISB)

OMS 83 - Emergency Situation (E01)

OMS 84 - Severe Weather (E02)

OMS 85 - Facility Trouble (E03)

OMS 86 - Local Company Trouble (E04)

OMS 87 - Airplane Crash (E05)

OMS 88 - Hurricane (E06)

OMS 89 - Flood (E07)

OMS 90 - Tornado (E08)

OMS 91 - Forest Fire (E09)

OMS 92 - Earthquake (E10)

OMS 93 - Mudslide (E11)

OMS 94 - Major Network Outage (E12)

OMS 95 - Reserved Domestic Network Management (E13)

OMS 96 - Reserved Domestic Network Management (E14)

OMS 97 - Reserved Domestic Network Management (E15)

OMS 98 - Reserved Domestic Network Management (E16)

OMS 99 - Reserved Domestic Network Management (E17)

OMS 100 - Reserved Domestic Network Management (E18)

OMS 101 - Reserved Domestic Network Management (E19)

OMS 102 - Reserved Domestic Network Management (E20)

OMS 103 - Domestic (R01)

OMS 104 - Domestic (R02)

OMS 105 - Domestic (R03)

OMS 106 - Domestic (R04)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 107 - Domestic (R05)

OMS 108 - Domestic (R06)

OMS 109 - Domestic (R07)

OMS 110 - Domestic (R08)

OMS 111 - Domestic (R09)

OMS 112 - Domestic (R10)

OMS 113 - International Emergency Situation (I01)

OMS 114 - International Severe Weather (I02)

OMS 115 - International Telephone Company (I03)

OMS 116 - International Airplane Crash (I04)

OMS 117 - International Earthquake (I05)

OMS 118 - International Mudslide (I06)

OMS 119 - International Fire (I07)

OMS 120 - Reserved International Network Management (I08)

OMS 121 - International Direct Dialing Suspended (I09)

OMS 122 - International Direct Dialing Test (I10)

OMS 123 - International (I11)

OMS 124 - International (I12)

OMS 125 - International (I13)

OMS 126 - International (I14)

OMS 127 - International (I15)

OMS 128 - International (I16)

OMS 129 - International (I17)

OMS 130 - International (I18)

OMS 131 - International (I19)

OMS 132 - International (I20)

OMS 133 - International (I21)

OMS 134 - International (I22)

OMS 135 - International (I23)

OMS 136 - Reserved International Network Management (I24)

OMS 137 - Reserved International Network Management (I25)

OMS 138 - Reserved International Network Management (I26)

OMS 139 - Reserved International Network Management (I27)

OMS 140 - Reserved International Network Management (I28)

OMS 141 - Reserved International Network Management (I29)

OMS 142 - Reserved International Network Management (I30)

OMS 143 - Spare (S01)

OMS 144 - Spare (S02)

OMS 145 - Spare (S03)

OMS 146 - Spare (S04)

OMS 147 - Spare (S05)

OMS 148 - Spare (S06)

OMS 149 - Spare (S07)

OMS 150 - Spare (S08)

OMS 151 - Spare (S09)

OMS 152 - Spare (S10)

OMS 153 - Spare (S11)

OMS 154 - Spare (S12)

OMS 155 - Spare (S13)

OMS 156 - Spare (S14)

OMS 157 - Spare (S15)

OMS 158 - Spare (S16)

OMS 159 - Spare (S17)

OMS 160 - Spare (S18)

TABLE 04

OUTPUT MEASUREMENT SETS FOR MSC 4
(NETWORK)

```
MSC 4 NETWORK
OMS 0
PATH HUNT SUCS  PATH HUNT FAIL   USAGE  LSNC INTRABUF
         0               0           0           0

OMS 1  SVC OBSV
SVC OBSV NETWORK USAGE
              0
```

Description of Measurements for MSC 4

OMS 0

Network Path Hunt Success Peg Count
(PATH HUNT SUCS)

This counter is incremented by one when a path through the network has been seized by setting the appropriate bits in the time division map. This action either reserves a path between an incoming trunk and an outgoing trunk or corresponds to the connection of a service circuit to an incoming or outgoing trunk.

Network Path Hunt Failure Peg Count
(PATH HUNT FAIL)

When an attempt to seize an idle path through the network has failed because it appeared that no acceptable idle path was available, this counter is incremented by one. This counter contains the total number of network path hunt failures whereas the final trial network path hunt failure Peg counter (MSC 11 OMS 1) contains only the count of calls sent to final handling because of network path hunt failure.

Network Total Usage
(USAGE)

After every 180 second scan, the total number of occupied paths in the network is added to this counter. This data is converted to CCS by the traffic program before output.

Large Scale Nail-Up Intra-Buffer Count
(LSNC INTRABUF)

This is a count of large scale nail up (LSNC) intra-buffer connections.

OMS 1

Service Observing Network Usage
(SVC OBSV NETWORK USAGE)

This counter will show the total usage on the two service observing Trunk Subgroups. It will be used as an estimate of the network usage generated by service observing.

TABLE 05

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

```
MSC 5 OFFICE TOTALS
OMS 0
  INC    OUTWATS   OG IT   OG TC   DNHR    DNHR    NCAT
 CALL      ORIG      SZ      SZ     VTS     TTS     SUC
    0         0       0       0       0       0       0

OMS 1
   MF       DP-DD     DP-IS     CCIS    CCIS-2W     IDTS    IDTS-DP
INC SZRE  INC SZRE  INC SZRE  INC CALL  INC SZRE  INC SZRE  INC SZRE
       0         0         0         0         0         0         0

IDTMFWK   ODTMFWK     Q931      Q931      Q931    ISUP-2W   ISUP-4W
INC SZRE  OUT SZRE  INC SZRE  OUT SZRE  CN SETUP  INC SZRE  INC SZRE
       0         0         0         0         0         0         0

  ISUP     BBC-6     BBC-24    BBC-6     BBC-24     BSSP      BSSP
OUT SZRE  INC SZRE  INC SZRE  OUT SZRE  OUT SZRE  INC SZRE  OUT SZRE
       0         0         0         0         0         0         0

  NCAT     BBC-6     BBC-24    BBC-6     BBC-24
ATTEMPTS  OPRI ATT  OPRI ATT  RCVD ATT  RCVD ATT
       0         0         0         0         0

OMS 2
MF OPLS   DP OPLS    CCIS OG
ATTEMPTS  ATTEMPTS     CALLS
       0         0         0

OMS 3
STABLE CALLS LOST, CGF
            0

OMS 4  INTERNATIONAL INCOMING
           CCITT#5   CCITT#6      ITUP   INUP
ATTEMPTS         0         0         0      0
         CUSTOMER  OPERATOR      TEST   TRANSIT    EN-BLOC
CALLS            0         0         0         0          0

OMS 5 INTL OUTGOING
           CCITT#5   CCITT#6    ITUP    INUP
ATTEMPTS         0         0       0       0
              SENT       REC    ISUP
OVERFLOWS        0         0       0
              CUST   OP   PCC NG
CALLS            0    0        0
```

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

```
OMS 6   NETWORK CLOCK SYNC UNIT PERFORMANCE MEASUREMENTS
                  --- TOTAL --- ---- REG ---- ---- ALT ----
                      PC    DUR     PC    DUR     PC    DUR
FREE RUN               0      0
FREE RUN < 10 MIN      0
REFERENCE OUTAGE       -      -      0      0      0      0
PHASE HITS             0      -      0      -      0
FREQUENCY OFFSET       -      -      0      -      0
PHASE ERRORS           -      -      0      -      0
FAST START TO          0
FAST STARTS            0      0
REFERENCE OOS          -      -      0      0      0      0
TRANSFER TO ALT        0      0
TRANSMISSION SLIPS     -      -      0      -      0

OMS 7  SERVICE OBSERVING
  ---- TRUNK A ---
  SEIZURES   USAGE
        0        0

OMS 8  CALLS ORIG,TERM
    ORIG OGA            0
  TERM ATTS
    PAS                 0

OMS 9  MAS IRREGULARITIES
  MAS IRREGULARITIES
    NO ANS DUE TO CCIS              0
    TELEVOTE DIRECT SIG FAIL        0
```

Description of Measurements for MSC 5

OMS 0

Total Incoming Calls Peg Count
(INC CALL)

This counter is incremented for every incoming call for which at least one digit has been received.

OUTWATS Originating Calls Peg Count
(OUTWATS ORIG)

This count is incremented by one when an OUTWATS Call is attempted.

Total Outgoing Intertoll Trunk Seizure
Peg Count
(OG IT SZ)

This counter is set to the sum of the outgoing seizure Peg Counts collected from all outgoing intertoll TSGs at the time of the collection of TSG data.

Total Outgoing Toll Completing Trunk
Seizure Peg Count
(OG TC SZ)

This counter is set to the sum of the outgoing seizure Peg Counts collected from all outgoing toll connecting and toll completing TSGs at the time of the collection of TSG data.

Total Via Toll Switch Calls
(DNHR VTS)

This counter is incremented by one when the total number of calls entering the node from any DNHR TSG is serving as a Via Toll Switch.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

Total Terminating Toll Switch Calls
(DNHR TTS)

This counter is incremented by one when the total number of calls entering the node from any DNHR TSG is serving as a Terminating Toll Switch.

Non-Call Associated Temporary
Signaling Connection (TSC) Successes
(NCAT SUC)

This counter registers the number of successful TSC connections made through the 1B.

OMS 1

MF Incoming Seizure Peg Count
(MF INC SZRE)

This counter is incremented at the start of each base level cycle by the number of MF originations processed in the last base level cycle. This count of originations includes false starts, permanent signals, continuity test failures, as well as incoming calls.

DP Delay Dial Incoming Seizure Peg Count
(DP-DD INC SZRE)

When a DP origination is recognized on a DP delay dial trunk, this counter is incremented by one.

DP Immediate Start Incoming Seizure
Peg Count
(DP-IS INC SZRE)

When a DP origination is recognized on a DP immediate start trunk, this counter is incremented by one.

CCIS Incoming Calls Peg Count
(CCIS INC CALL)

This counter is the sum of CCIS CR seizures and CCIS CR queue overflows.

CCIS 2-Wire Incoming Seizure Peg Count
(CCIS-2W INC SZRE)

This count is incremented by one when a CCIS origination is recognized on a 2-wire incoming trunk.

IDTS Incoming Seizure Peg Count
(IDTS INC SZRE)

This counter is incremented by one for each Incoming Dial Tone Start (IDTS) seizure processing attempt.

IDTS DP Incoming Seizure Peg Count
(IDTS-DP INC SZRE)

This counter is incremented by one for each IDTS seizure processing attempt that is followed by a DP digit.

IDTMFWK Incoming Seizure Peg Count
(IDTMFWK INC SZRE)

This counter is incremented by one for each Incoming Dual-Tone Multifrequency Wink (IDTMFWK) seizure processing attempt.

ODTMFWK Outgoing Seizure Peg Count
(ODTMFWK OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing Dual-Tone Multifrequency Wink (ODTMFWK) trunk is to be seized.

Q.931 Incoming Seizures
(Q931 INC SZRE)

This counter is incremented by one for each Q.931 seizure processing attempt.

Q.931 Outgoing Seizures
(Q931 OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing Q.931 trunk is to be seized.

Q.931 Channel Negotiation Setup
(Q931 CN SETUP)

This counter is incremented by one each time a Q.931 Channel Negotiation Setup message is sent.

The CCIS incoming calls count is calculated each quarter hour. A summation of the CCIS call register seizure Peg Count, the CCIS origination call register queue Overflow Peg Count, and the CCIS origination call register queue abandon Peg Count is stored in this counter.

ISUP 2-Wire Incoming Seizures
(ISUP-2W INC SZRE)

This counter is incremented by one for each ISUP seizure processing attempt received over a 2-wire trunk.

ISUP 4-Wire Incoming Seizures
(ISUP-4W INC SZRE)

This counter is incremented by one for each ISUP seizure processing attempt received over a 4-wire trunk.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

ISUP Outgoing Seizures
(ISUP OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing ISUP trunk is to be seized.

Broadband Call 6-Trunk Incoming Seizures
(BBC-6 INC SZRE)

This counter is incremented by one for each H0 (384K bps) call seizure processing attempt received.

Broadband Call 24-Trunk Incoming Seizures
(BBC-24 INC SZRE)

This counter is incremented by one for each H11 (1536K bps) call seizure processing attempt received.

Broadband Call 6-Trunk Outgoing Seizures
(BBC-6 OUT SZRE)

This counter is incremented by one when trunk hunt determines enough trunks are available to be seized to process an H0 call.

Broadband Call 24-Trunk Outgoing Seizures
(BBC-24 OUT SZRE)

This counter is incremented by one when trunk hunt determines enough trunks are available to be seized to process an H11 call.

BOC SSP MF Incoming Seizures
(BSSP INC SZRE)

This counter is incremented by one when the first stage digit sequence on a MF trunk is translated with a result of BOC SSP Equal Access.

BOC SSP MF Outgoing Seizures
(BSSP OUT SZRE)

This counter is incremented by one when a trunk is seized for feature Group "D" or BOC SSP Equal Access call.

Non-Call Associated Temporary
Signaling Connection (TSC) Attempt
(NCAT ATTEMPTS)

This counter is incremented by one when a Non-Call Associated TSC request is received.

Broadband Call 6 - Originating Data
Attempts From a PRI Peg Count
(BBC-6 OPRI ATT)

This counter is incremented by one for each originating inter-LATA H0 (384K bps) data call attempt received from a PRI.

Broadband Call 24 - Originating Data
Attempts From a PRI Peg Count
(BBC-24 OPRI ATT)

This counter is incremented by one for each originating inter-LATA H11 (1536K bps) data call attempt received from a PRI.

Broadband Call 6 - Data Calls
Received From an IEC Peg Count
(BBC-6 RCVD ATT)

This counter is incremented by one for each H0 (384K bps) data call received from an IEC terminating through an Access Tandem.

Broadband Call 24 - Data Calls
Received From an IEC Peg Count
(BBC-24 RCVD ATT)

This counter is incremented by one for each H11 (1536K bps) data call received from an IEC terminating through an Access Tandem.

OMS 2

MF Outpulsing Attempts Peg Count
(MF OPULS ATTEMPTS)

This measurement reflects the total number of MF outgoing call attempts. This counter reflects not only the number of MF outgoing calls, but also the number of times MF outpulsing recurred for MF calls that experienced ineffective attempts during outpulsing and for which retrial trunk hunts were performed.

DP Outpulsing Attempts Peg Count
(DP OPULS ATTEMPTS)

This counter is incremented by one when DP outpulsing is first attempted for an outgoing DP call. That is, when the first digit to be outpulsed is sent to the Signal Processor. This counter reflects not only the number of DP outgoing calls, but also the number of times DP outpulsing recurred for DP calls that experienced ineffective attempts during outpulsing and for which retrial trunk hunts were performed.

CCIS Outgoing Calls Peg Count
(CCIS OG CALLS)

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

This measurement reflects the total number of all CCIS outgoing calls. Every call for which an initial address message is transmitted is included in this count. This measurement also reflects the number of times retrial trunk hunts were performed for CCIS outgoing calls for which a backward failure message is received or for which the Voice Path Assurance test fails.

OMS 3

Stable Calls Lost, Carrier Group
Failure Peg Count
(STABLE CALLS LOST, CGF)

For each call in the waiting-for-answer state or in the talking state that is lost because of a Carrier Group Failure, this counter is incremented by one.

OMS 4

CCITT No. 5 Incoming Attempts Peg Count
(CCITT#5 ATTEMPTS)

This count is incremented by one when a CCITT No. 5 incoming seizure is recognized by the system.

CCITT No. 6 Incoming Attempts Peg Count
(CCITT#6 ATTEMPTS)

This count is incremented by one when a CCITT No. 6 incoming seizure is recognized by the system.

ITUP Incoming Attempts Peg Count
(ITUP ATTEMPTS)

This counter is incremented by one for each International Telephone User Part (ITUP) seizure processing attempt received.

INUP Incoming Attempts Peg Count
(INUP ATTEMPTS)

This counter is incremented by one for each International User Part (INUP) seizure processing attempt received.

International Incoming Customer
Dialed Calls Peg Count
(CUSTOMER CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming call that was customer dialed.

International Incoming Operator
Dialed Calls Peg Count
(OPERATOR CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming call that was operator dialed.

International Incoming Test Calls Peg Count
(TEST CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming test call.

International Incoming Transit Calls
Peg Count
(TRANSIT CALLS)

This counter is incremented by one after the incoming digit was analyzed and the call was found to have been an international incoming transit call.

International Overlap to
Enblock Signaling Peg Count
(EN-BLOC CALLS)

This counter is incremented whenever the overlap to en-bloc procedure is invoked.

OMS 5

CCITT No. 5 Outgoing Attempts Peg Count
(CCITT#5 ATTEMPTS)

This count is incremented by one when a CCITT No. 5 outgoing seizure is recognized by the system.

CCITT No. 6 Outgoing Attempts Peg Count
(CCITT#6 ATTEMPTS)

This count is incremented by one when a CCITT No. 6 outgoing seizure is recognized by the system.

ITUP Outgoing Attempts Peg Count
(ITUP ATTEMPTS)

The counter is incremented by one when trunk hunt determines an outgoing ITUP trunk is to be seized.

INUP Outgoing Attempts Peg Count
(INUP ATTEMPTS)

The counter is incremented by one when trunk hunt determines an outgoing INUP trunk is to be seized.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

International Outbound Overflow Sent to Alternate Office Peg Count
(OVERFLOWS SENT)

This counter is incremented by one when the intended CCITT No. 5 or CCITT No. 6 route is in a no circuit condition and the call is passed to an alternate International Office for completion.

International Outbound Overflow Received from Alternate Office Peg Count
(OVERFLOWS REC)

This counter is incremented by one when another International Office has no CCITT No. 5 or CCITT No. 6 circuits for outbound calls and the call is passed to this International office for completion.

International ISUP Outbound Overflow Peg Count
(OVERFLOWS ISUP)

This counter is incremented by one when the intended CCITT #5 or CCITT #6 route is in a NO circuit condition and the call is passed to an alternate ISC for completion via ISUP trunks.

International Outgoing Customer Dialed Calls Peg Count
(CUST CALLS)

This is a count of the domestically originated, customer dialed calls destined for non-world zone 1 termination. This count is pegged by call processing after digit analysis.

International Outbound Operator Dialed Call Peg Count
(OP CALLS)

This counter is incremented by one on receipt of an International outbound call from an IOC or IOTC operator.

Pseudo Country Code No Good Peg Count
(PCC NG CALLS)

This counter is incremented by one when a pseudo country code is received on a one-stage call.

OMS 6

For several events in the NCSU, peg count and duration counts are kept. Peg count is defined as the number of times an event occurs. Duration is defined as the length of time the event took, in 8-second intervals.

Free Run
(FREE RUN)

Free run occurs when the NCSU is decoupled from the external reference. Total peg count and duration counters are maintained.

Free Run Less Than 10 Minutes
(FREE RUN < 10 MIN)

Total peg count of free run occurrences less than 10 minutes.

Reference Outage
(REFERENCE OUTAGE)

Reference outage is impairment of the reference. Regular and alternate reference peg counts and duration counters are maintained.

Phase Hits
(PHASE HITS)

A phase hit is defined as a step change in phase error exceeding 5 microseconds. Total, regular, and alternate reference peg counts are maintained.

Frequency Offset
(FREQUENCY OFFSET)

Frequency offset is defined as the frequency offset of the selected reference relative to the VCO (Voltage Control Oscillator) of one part in 100,000,000 or more. Regular and alternate reference peg counts are maintained.

Phase Errors
(PHASE ERRORS)

A Phase Error is one that is outside the range of about $\pm$ 60 microseconds from center of the phase comparator range. Regular and alternate reference peg counts are maintained.

Fast Start Timeout
(FAST START TO)

A fast start TO occurs when the NCSU fails to enter normal mode from fast start within 40 minutes. Total peg count is maintained.

Fast Starts
(FAST STARTS)

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

Fast starts are defined as the number of fast starts entered since the last look. Total peg count and duration counters are maintained.

Reference OOS
(REFERENCE OOS)

Reference OOS occurs when the reference is out of service. Regular and alternate reference peg counts and duration counts are maintained.

Transfer to Alternate
(TRANSFER TO ALT)

This counter keeps track of the number of times the alternate reference was made active. Total peg count and duration counts are maintained.

Transmission Slips
(TRANSMISSION SLIPS)

This counter keeps track of the number of slip impairments on the regular or alternate references. Peg counts are maintained.

OMS 7

Service Observing Trunk A Seizure Peg Count
(TRUNK A SEIZURES)

This counter is incremented by one each time an attempt is made to establish a Service Observing Trunk A connection.

Service Observing Trunk A Usage
(TRUNK A USAGE)

This measurement reflects the time, measured in CCS, that Service Observing is in effect. This count differs from MSC 4, OMS 1 which is the sum of the usage on the two Trunk Subgroups for Service Observing and results in an estimate of network occupancy due to Service Observing.

OMS 8

4ESS Switch Originated Outgoing Attempts
(ORIG OGA)

This counter keeps track of the number of attempts to seize a CR for a 4ESS Switch originated outgoing call. Noted that this count is not limited to MAS related calls. Initially it will include attempts occurring during the direct producer callback and trunk maintenance outgoing test attempts.

Total Attempts to PAS Announcements
(PAS TERM ATTS)

This counter keeps track of the number of attempts to reach PAS announcements, including PAS with TELEVOTE and with cut-through calls.

OMS 9

Customer Calls To MAS Which No Answer Supervision Is Returned Due To CCIS Terminal Congestion
(NO ANS DUE TO CCIS)

This counter keeps track of the number of customer calls to MAS on CCIS trunks that are successfully connected to announcement audio but do not have answer supervision returned because call processing detects that the CCIS terminal is overloaded.

TELEVOTE CCIS Direct Signaling Counts Not Updated
(TELEVOTE DIRECT SIG FAIL)

This counter keeps track of the number of nonzero counts received at a TELEVOTE machine in a CCIS direct signaling message, for which no counter can be located for the MAPN and line number associated with the count in the direct signaling message.

TABLE 06

OUTPUT MEASUREMENT SETS FOR MSC 6
(BOC SSP MEASUREMENTS)

```
MSC 6 BOC SSP MEASUREMENTS

OMS 0
  TOS   SEIZURES
    0       0
    1       0
    2       0
    3       0
          .
          .
          .
   28       0
   29       0
   30       0
   31       0


  TOS   INIT QUERIES
    0       0
    1       0
    2       0
    3       0
          .
          .
          .
   28       0
   29       0
   30       0
   31       0

  TOTAL INITIAL QUERIES
            0
```

Description of Measurements for MSC 6

OMS 0

BOC SSP Seizures
(SEIZURES)

Each time a BOC SSP Number Services origination is detected, a counter is incremented by one, depending on the Type Of Service (TOS).

BOC SSP Initial Queries
(INIT QUERIES)

Each time a BOC SSP Number Services Query is sent to the database, a counter is incremented by one, depending on the Type Of Service (TOS).

TABLE 07

OUTPUT MEASUREMENT SETS FOR MSC 7
(INCOMING IRREGULARITIES)

```
MSC 7 INCOMING IRREGULARITIES
OMS 0

        MF EQ  DP EQ   Q931   ISUP  ITUP  INUP  DTMF  IOC

  PST       0      0      0      0     0     0     0    0
  FSA       0      0      0      0     0     0     0    0
  PDA       0      0      0      0     0     0     0    0
  PDT       0      0      0      0     0     0     0    0

OMS 1
  INC   8 DIG   DP DIG  INC DP  OPLS DP
 DPED   NC CR    LOST   WL FULL WL FULL
    0       0       0       0       0
```

Description of Measurements for MSC 7

OMS 0

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing

b. DP trunks with equipment, operator or by-link pulsing

c. Q.931 trunks

d. ISUP trunks

e. ITUP trunks

f. INUP trunks

g. DTMF trunks with equipment or customer pulsing

h. IOC

Permanent Signal Timeout Peg Count
(PST)

These counters will be incremented by one each time a bid for service is received on an incoming trunk, but no digits are received within the permanent signal time out interval.

False Start Abandon Peg Count
(FSA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk but no digits are received, and the call is abandoned before permanent signal timeout.

Partial Dial Abandon Peg Count
(PDA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk and at least one digit but less than the expected number of digits is received, and the bid is removed before partial dial timeout.

Partial Dial Timeout Peg Count
(PDT)

Each time at least one but less than the expected number of digits is received before timeout on an incoming trunk, one of these counters will be incremented by one.

OMS 1

Incoming DP Early Digit Peg Count
(INC DPED)

This counter is incremented by one when a call is sent to final handling treatment after the reception of a digit buffer report from the Signal Processor. This report shows that a DP change of state occurred before the time when the system is ready to receive digits. This count is incremented for both immediate start and delay dial/start dial trunks.

Eighth Digit No Call Register Peg Count
(8 DIG NO CR)

TABLE 07 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 7
(INCOMING IRREGULARITIES)

This counter will be incremented by one when the eighth digit is received for a DP call waiting on the DP CR queue and no CR is available, resulting in the call being sent to final handling treatment.

DP Digit Lost Peg Count
(DP DIG LOST)

This counter will be incremented by the number of calls lost due to failure to load a DP digit into the digit buffer because of digit buffer congestion.

Incoming DP Work List Full Peg Count
(INC DP WL FULL)

This counter is incremented by one when the first call is sent to final handling treatment after the reception of a digit buffer incoming DP worklist full report from the SP. All succeeding calls trying to get on the full worklist will not be scored. A system audit is required to reset the worklist before new entries can be accepted.

DP Outpulsing Work List Full Peg Count
(OPLS DP WL FULL)

When a call is sent to final handling treatment because the Signal Processor DP outpulsing worklist is full, this counter will be incremented by one.

TABLE 08

OUTPUT MEASUREMENT SETS FOR MSC 8
(reserved for future use)

```
This table reserved for MSC 8.
```

TABLE 09

OUTPUT MEASUREMENT SETS FOR MSC 9
(PROCESSOR LOAD)

```
MSC 9 PROCESSOR LOAD
OMS 0
AVG BASE LEV MSEC
        0

OMS 1  BASE LEVEL PEG CNTS
  CANCEL OVLD          0

                    NONE       MAC       SGMT
  NONLOAD CONT         0         0          0

                  LEV(1)    LEV(2)    LEV(3)
  LOAD CONT            0         0          0

  NO TRKS HNTD         0
```

Description of Measurements for MSC 9

OMS 0

Average Base Level Cycle Length In Milliseconds
(AVG BASE LEV MSEC)

This time is calculated by multiplying the number of 10 millisecond interjects that occur in a 15 minute collection interval by 10 and dividing this product by the number of base level cycles, thus yielding average time in milliseconds. The time spent in maintenance interrupts is not included in the average length. Average base level cycle time is corrected for intervals longer than 15 minutes by summing the 15 minute averages and dividing by the number of quarter hours in the accumulation interval.

*Note: The sum of the next 7 counts equals the number of base level cycles in the accumulation interval.

OMS 1

Cancel Overload in Effect Peg Count
(CANCEL OVLD)

This counter is incremented at the beginning of each base level cycle if the cancel overload key at the MCC is activated.

Non-Load No Overload Control Peg Count
(NONLOAD CONT NONE)

This measurement reflects the number of base level cycles during which no overload controls were in effect or when cancel overload was not in effect.

Non-Load MAC Overload Control Peg Count
(NONLOAD CONT MAC)

This counter is incremented by the overload control program at the beginning of each base level cycle if it had instituted the set of state two controls in the previous base level cycle. These controls are nonload affecting, but restrict the number of segments allowed the Maintenance Administration Control (MAC) program in the base level cycle.

Non-Load Segment Overload Control Peg Count
(NONLOAD CONT SGMT)

At the beginning of each base level cycle, this counter is incremented by the overload control program if the set of state three controls had been instituted in the previous base level cycle. These controls are nonload affecting, but restrict the number of segments that are allowed for deferrable programs. In addition, a total Dynamic Overload Control (DOC) MC1 control is sent out to contiguous offices.

Load Level 1 Overload Control Peg Count
(LOAD CONT LEV 1)

This counter is incremented at the beginning of each base level cycle if the overload load control program had instituted the set of state four controls in the previous base level cycle. These controls reduce the accepted load to an overload Level 1, further reduce the number of segments that MAC can have, and restrict

TABLE 09 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 9
(PROCESSOR LOAD)

the Voice Path Assurance (VPA) test for CCIS outgoing calls.

Load Level 2 Overload Control Peg Count
(LOAD CONT LEV 2)

The overload control program will increment this counter at the beginning of each base level cycle, if the set of state five controls had been instituted in the previous cycle. These controls further reduce the accepted load to an overload level 2 and send out a total DOC, MC2, control to contiguous offices.

Load Level 3 Overload Control Peg Count
(LOAD CONT LEV 3)

This counter is incremented by the overload control program at the beginning of each base level cycle if it had instituted the set of state six controls in the previous base level cycle. These controls reduce the accepted load to zero.

No Trunks Hunted
(NO TRKS HNTD)

This counter is incremented by the number of base level cycles in which no trunks were hunted.

TABLE 10

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

MSC 10 TRAFFIC SEPARATIONS

OMS	SZRE	USAGE
0	0	0
1	0	0
2	0	0
.	.	.
.	.	.
.	.	.
1021	0	0
1022	0	0
1023	0	0

Description of Measurements for MSC 10

Traffic Separations

Measurement subclass 10 is the traffic separations and distribution measurement class. Each call successfully processed by the 4ESS Switch will fall into a traffic separations category (determined by the incoming TSG, domain and designation code of the call). The traffic separation incoming TSG class (INSEP) is specified in the trunk block translator, while the destination class (DESEP) is a code grouping translator item. There can be up to 256 traffic separations incoming TSG classes and 256 destination classes, with DESEP 0 not available for general assignment. Each (INSEP, DESEP) pair is assigned a Cell-Grouping Index. There are 1024 Cell-Grouping Indexes, each of which is associated with an OMS. The only measurements required in this MSC are the traffic separations class usage and Peg Count measurements.

The traffic separations class measurements provide the data required to facilitate divisions of revenue and to perform a variety of engineering, dial administration, and Network Management functions.

Traffic separations counts are accumulated primarily to provide breakdowns of the total toll telephone traffic. These may be based on variables such as geographic locality, Trunk Subgroup ownership (Long Lines, Associated Company or Independent Company), and type of traffic (message toll, CAMA, operator handled, local tandem, data PICTUREPHONE, and private network).

In addition to these measurement functions, the traffic separations MSC can be used, if required, to determine the quantity of "through" traffic switched by the machine. This is a count of calls that enter the system via intertoll trunks and are destined for distant toll centers. To accomplish this, it is necessary to assign the Cell Grouping Indexes so that none of these classes represent both interstate and intrastate traffic.

The traffic separations classes usage in conjunction with service circuit and trunk maintenance network usage provide an estimate of total network usage for output in usage measurement form at the MCC and on traffic schedules.

Traffic separations counters provide Peg Count and usage measurements for separations classes to which have been assigned selected destination codes or groups of codes. This facility enables the network manager to obtain a breakdown of the traffic items that may be offered to a particular route. The traffic separations class concept provides the network manager with the mechanism to analyze traffic patterns through the toll hierarchy. These patterns can be defined by categorizing traffic with respect to where it originates and terminates:

Category 1 identifies traffic from or terminating in an office that is served by a different regional center switching machine (including regional center traffic) than the 4ESS Switch.

Category 2 identifies traffic from or terminating in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes traffic to the home regional.

Category 3 identifies traffic from or terminating in an office that is lower in the hierarchial network and "homes" (i.e., is in the direct routing ladder) on the 4ESS Switch.

Category 4 identifies traffic from or terminating in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those

TABLE 10 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

end offices.

To provide data to light lamps in the traffic pattern module of the 4ESS Switch toll Network Management exception panel, the INSEP classes must be associated with one of the four incoming TSG classifications.

1. Foreign region TSGs,
2. Home region TSGs,
3. Subtending office TSGs, and
4. Home toll center area TSGs

Category 1 includes those Trunk Subgroups whose far end is in an office that is served by a different regional center switching machine (including Trunk Subgroups to that regional center) than the 4ESS Switch.

Category 2 includes Trunk Subgroups whose far end is in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes Trunk Subgroups to the home regional.

Category 3 includes Trunk Subgroups whose far end is in an office that is lower in the hierarchial network and "homes" (i.e., is in the direct routing ladder) on the 4ESS Switch.

Category 4 includes Trunk Subgroups whose far end is in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those end offices.

The 4ESS Switch office may not have representative Trunk Subgroups in all the categories. For instance, high volume tandem offices will probably not have Trunk Subgroups from the Home Toll Center area.

The DESEP classes must be associated with one of the four destination code classifications:

1. Foreign region codes,
2. Home region codes,
3. Subtending office codes, and
4. Home toll center area codes.

Category 1 includes those destination codes that terminate in an office that is served by a different regional center switching machine (including codes to that regional center) than the 4ESS Switch.

Category 2 includes destination codes that terminate in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes codes to the home regional.

Category 3 includes destination codes that terminate in an office that is lower in the hierarchial network and "homes" (i.e., in the direct routing ladder) on the 4ESS Switch.

Category 4 includes destination codes that terminate in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those end offices.

With the exception of summing the separation class usage counts to calculate one of the components of the total network usage count, no other summing over Cell Groupings will be performed by traffic measurements programs. Therefore, the "through switched traffic" Peg Count and the measurements for the four categories specified above will be computed by the Network Management program PA-1 (Traffic Pattern Overview).

Since the integrity of these seizure release counters is not infallible, audits will be necessary to insure the accuracy of the traffic separations class usage counts. This audit (number 33) is designed such that the traffic separations measurements can be maintained while it is being executed. Consequently, Cell Grouping 0 has been reserved for the traffic separations class usage count audit. Several functions are responsible for adjusting counters in addition to, or with, call processing routines. It is desirable to isolate the effects of some of these functions and, for that reason, an INSEP class (31) is generally assigned to both system integrity test call TSGs and maintenance test access trunks. All (outpulsed) trunk maintenance calls for which digit translation is done, and for which call processing sets up the connection, will be tagged with this appropriate INSEP class.

The appropriate DESEP class will be found in the digit translator. These are trunk maintenance outpulsed calls for which no digit translation is done. (The origination of a system integrity test call is an example.) For this reason, a DESEP class must be supplied to enable call processing to set up the connection. These calls will be with the appropriate INSEP class and a generically assigned DESEP class (63). Generic assignment of INSEP and a DESEP class does not preclude their assignment to other TSGs and destination codes if this is required. However, INSEP class (31) and DESEP class (63) will be generically assigned to Cell-Grouping (1).

Point-to-point distribution studies (this feature will not be available for phase 1) will be made at appropriate times to determine the distribution of the flow of traffic through an office. The data for this study is obtained by

TABLE 10 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

recording (on high speed magnetic tape in standard ASCII characters) pertinent information on a sampling of the successfully handled calls processed by the office. A successfully processed call is, by definition for the traffic system, one that goes into the "waiting-for-answer" state. After this time in the call processing sequence, some of the data required by the point-to-point studies is no longer available. For every Nth successfully processed call, this system will record the identity of the incoming trunk, the identity of the outgoing trunk to which it was connected, call area and office codes, and traveling classmark (if used to indicate domain and/or routing treatment). The value of N will be based on real time and data volume considerations. Information obtained from the sampled calls will not be available for output on the traffic schedules. This data will be processed off line.

OMS 0-1023

There are 1024 Cell Groupings, each of which corresponds to an OMS.

Traffic Separation Class Seizure Peg Count
(TRAFFIC SEPARATIONS SZRE)

This counter is incremented by one just before a call goes into the waiting-for-answer state. The Cell Grouping Index will reside in the CR, and can be retrieved to index the counter block.

Traffic Separation Class Usage
(TRAFFIC SEPARATIONS USAGE)

After each 100 second scan, this register will be incremented by the number of calls (for this Cell Grouping) that are found busy to obtain CCS.

TABLE 11

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

```
MSC 11 IA
OMS 0
          OPULS
  PER      FAIL    GLARE
    0         0        0
OMS 1
FIN NET FAIL  RSRC LMT        NCI       NCT  STC NC  PBX NC  ITL NC    CGF
        0           0           0         0       0       0       0      0
OMS 2
          Q931                          PBX       -- INWATS --
    VCA    VCA     LSIF     RSIF       VCA    TERM    ORIG   BLK-SCRN
      0       0        0        0         0       0       0       0
OMS 3 NM BLOCKED
     CB   SDOC    STR    CANT    CANF    TSAR    BNG
      0      0      0       0       0       0      0
   DSTR   DSTR  DSDOC   DSDOC     OCR     OCR    GSC
    CAN     SK    CAN      SK     RCV    FAIL     SK
      0      0      0       0       0       0      0
    DRR   DCAN
      0      0
OMS 4  MISC IA
MISC IA
  DTMF                    000000
  ISUP                    000000
  ITUP                    000000
  INUP                    000000
  Q931                    000000
  INC                     000000
  CONN                    000000
  OUT                     000000
  TUP OUT                 000000
  NUP OUT                 000000
  CALL DENIAL SCRN        000000
  AT ACK WINK T/O         000000
  ISUP MAB                000000
  ISUP EQUIP CONG         000000
  ISUP OTHER ABAN         000000
  ITUP MAB                000000
  ITUP EQUIP CONG         000000
  ITUP OTHER ABAN         000000
  INUP MAB                000000
  INUP EQUIP CONG         000000
  INUP OTHER ABAN         000000
  Q931 OTHER ABAN         000000
  Q931 SW CUTOFFS         000000
  BROADBAND FAIL          000000
  PBX REORDERS            000000
  ROUTING DATA ERR        000000
```

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

```
OMS 5
                FAIL    OVFL
TRMTR QUEUE        0       0
OMS 6
                 OVFL    ABAN
DP CR QUEUE         0       0
CCIS CR QUEUE       0       0
```

Description of Measurements for MSC 11

MSC 11 is the ineffective attempt measurement class for the nonequipment related ineffective machine attempts (NIAs). The following paragraphs define each counter for each NIA as it is referred to in a 4ESS Switch.

OMS 0

Pulsing Error Peg Count
(PER)

This register will be incremented by one each time one or more of the received digits is in error. This error may be defined by one of the following:

a. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.

b. False Key Pulse - On MF pulsing calls, when a second Key Pulse (KP) signal is received.

c. Extra Digit - When more digits are received than expected.

d. Extra Pulse - On DP calls, when an eleventh pulse is received for a single digit.

e. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Outpulsing Failures Peg Count
(OPULS FAIL)

This register will be incremented by one each time an outpulsing failure occurs for any of the following reasons:

a. Unexpected Stop - This count will be incremented by one each time an unexpected stop dial signal is received because of any of the following reasons.

1. Any stop dial during pulsing on an MF trunk.
2. Any stop dial during pulsing on a DP trunk that does not have the "expect stop-go" class.
3. A second stop dial during pulsing on a DP trunk that does have "expect stop-go" class.
4. On DP stop-go trunks, a stop dial at an invalid time.

b. Integrity Check Failure - Each time there is a failure of the trunk E&M lead integrity check (expected on delay dial-start dial trunks) this counter will be incremented by one.

c. Continuity Test Failure - This count will be incremented by one each time there is a failure of the continuity and polarity test.

d. No Start Dial - This count will be incremented by one each time the delay dial signal (off-hook) from the office persists beyond the transmitter timeout interval on MF or DP delay dial trunks. For wink start trunks, this count is also incremented if the first part of the wink (on to off-hook) is not received within the transmitter timeout interval, or the second part of the wink (off to on-hook) is not received within a specified interval of receipt of the first part of the wink.

e. Expected Stop Timeout - Each time, on any DP trunk with expected stop-go class, an unexpected stop dial signal is received during outpulsing and persists beyond the transmitter time out interval, this counter will be incremented by one.

Glare Peg Counter
(GLARE)

This counter is incremented by one when a glare condition is encountered on the second trial, and the call is sent to Final Handling Treatment (FHT).

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

OMS 1

Final Trial Network Path Hunt Failure
Peg Count
(FIN NET FAIL)

This counter is incremented when a call is sent to Final Handling Treatment because an attempt to seize an idle path through the network fails due to no acceptable idle path availability.

Call Merge Failure - Resource Limitations
Peg Count
(RSRC LMT)

This count is incremented when a call merge request fails because of the lack of resources or because of a path hunt failure.

No Circuit Intertoll Peg Count
(NCI)

When a call is sent to Final Handling Treatment because it has overflowed all the available intertoll routes in its routing chain, this counter is incremented by one.

No Circuit Toll Completing Peg Count
(NCT)

When a call is sent to Final Handling Treatment because it has overflowed all the available toll completing routes to its destination, this counter is incremented by one.

No Circuit Single Trunk Customer
Peg Count
(STC NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to an STC, this counter is incremented by one.

No Circuit Private Branch Exchange
Peg Count
(PBX NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to a PBX, this counter is incremented by one.

International No Circuit Peg Count
(ITL NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to its destination, this counter is incremented by one.

Carrier Group Failure Peg Count
(CGF)

This counter is incremented by one for every incoming seizure that is processed as an origination and is later determined to be an off-hook because of a carrier group failure.

OMS 2

Vacant Code Announcement Peg Count
(VCA)

When a call is sent to Final Handling Treatment because a return from translations is interpreted to be a vacant code (unassigned routing digits have been received for this call), this counter is incremented by one.

Vacant Code Announcement Q.931 Peg Count
(Q931 VCA)

When a call on a Q.931 trunk is sent to Final Handling treatment because a return from translations is interpreted to be a vacant code, this counter is incremented by one.

LATA/STATE Screening Index Failure
Peg Count
(LSIF)

This counter is incremented by one when a call encounters a LATA/STATE Screening Index Failure.

Route Selection Index Screening Failure
Peg Count
(RSIF)

This counter is incremented by one when a call encounters a Route Selection Index Screening Failure.

Vacant Code Announcement Private
Branch Exchange Peg Count
(PBX VCA)

When a call on a PBX trunk is sent to Final Handling treatment because a return from translations is interpreted to be a vacant code, this counter is incremented by one.

INWATS Band Check Peg Count
(INWATS TERM)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

When a call is sent to Final Handling Treatment because a return from the terminating translation indicates that the zonal band check has failed, this counter will be incremented by one.

Originating INWATS Denied Peg Count
(INWATS ORIG)

This counter is incremented by one when an originating INWATS call is sent to final handling for one of the following reasons.

a. INWATS is invalid for the incoming Trunk Subgroup.

b. The INWATS zone is unauthorized for the incoming Trunk Subgroup.

Calls Blocked by Go-No Go Screening Peg Count
(INWATS BLK-SCRN)

This count will be included in a later issue. It is not being pegged in the 4E3 Generic Program.

OMS 3

Code Block Control Blocked Peg Count
(CB)

When a call that has been blocked by a Network Management code block control is sent to Final Handling Treatment, this counter is incremented by one.

Selective Dynamic Overload Control Blocked Peg Count
(SDOC)

This counter is incremented when a call that has been blocked by a Network Management Selective Dynamic Overload Control is sent to Final Handling Treatment.

Selective Trunk Reservation Control Blocked Peg Count
(STR)

When a call has been blocked by a Network Management activated Selective Trunk Reservation control and sent to Final Handling Treatment, this counter is incremented by one.

Cancel-To Control Blocked Peg Count
(CANT)

This counter is incremented by one when a call that has been blocked by a Network Management "Cancel To Control" is sent to Final Handling Treatment.

Cancel-From Control Blocked Peg Count
(CANF)

When a call is blocked by a Network Management "Cancel From Control" and then sent to Final Handling Treatment, this counter is incremented by one.

TSG Access Restriction Peg Count
(TSAR)

This counter is incremented by one when a call that has been blocked by a Network Management TSAR control is sent to Final Handling.

Billing Number Gap Peg Count
(BNG)

This counter is incremented by one when a call is blocked by Network Management based on the billing number.

Selective Trunk Reservation Canceled Peg Count
(DSTR CAN)

This counter is incremented by one when the calls are canceled at the OTS node by DSTR.

Selective Trunk Reservation Skipped Peg Count
(DSTR SK)

This counter is incremented by one when the calls are skipped at the OTS node by DSTR.

Selective Dynamic Overload Control Canceled Peg Count
(DSDOC CAN)

This counter is incremented by one when the calls are canceled at the node by D-SDOC.

Selective Dynamic Overload Control Skipped Peg Count
(DSDOC SK)

This counter is incremented by one when the calls are skipped at the node by D-SDOC.

Out-of-Chain Routed Calls Received
(OCR RCV)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

This counter is incremented by one when a rerouted call is received.

Out-of-Chain Routed Calls Failed
(OCR FAIL)

This counter is incremented by one when a rerouted call is received that failed.

Group Signaling Congestion Skipped
(GSC SK)

This counter is incremented by one when the calls are skipped at the node because of GSC.

D-Reroute Killed Calls
(DRR)

This counter is incremented by one when a D-rerouted call is killed.

D-Cancel Killed Calls
(DCAN)

This counter is incremented by one when a D-CAN call is killed.

OMS 4

DTMF Miscellaneous Ineffective Attempts
Peg Count
(DTMF MISC IA)

This counter is incremented by one when greater than 10 DTMF digits are received on an IDTS trunk.

ISUP Miscellaneous Ineffective Attempts
Peg Count
(ISUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ANI digits missing, ISUP IAM with invalid digit is detected.

ITUP Miscellaneous Ineffective Attempts
Peg Count
(ITUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ITUP IAM to LANGE to fit ITUP or QUEUE slot.

INUP Miscellaneous Ineffective Attempts
Peg Count
(INUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ICT unusable because of MB state.

Q.931 Miscellaneous Ineffective Attempts
Peg Count
(Q931 MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition, e.g., invalid message, is detected.

Incoming Miscellaneous Ineffective Attempts
Peg Count
(INC MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs.

Miscellaneous Connecting Ineffective Attempts
Peg Count
(CONN MISC IA)

This counter is incremented by one when a failure to a second MF receiver occurs.

Miscellaneous Outgoing Ineffective Attempts
Peg Count
(OUT MISC IA)

This counter is incremented by one when a Q.931 or CCS7 outgoing received a message that ended the call.

ITUP Outgoing Miscellaneous Failure
Peg Count
(TUP OUT MISC IA)

This counter is incremented by one when a miscellaneous IA occurs, e.g., OGT receives a BLO during setup on second try.

INUP Outgoing Miscellaneous Failure
Peg Count
(NUP OUT MISC IA)

This counter is incremented by one when a miscellaneous IA occurs, e.g., OGT receives a BLO during setup on second try.

Call Denial Screening Peg Count
(CALL DENIAL SCRN)

This count is incremented when a call is denied based on incoming trunk Far End Network characteristics and Call Type data found from called digits.

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

Access Tandem Post Acknowledgement Wink Timeout
(AT ACK WINK T/O)

This count is incremented whenever an access tandem call fails while waiting for a Post Acknowledgement Wink.

ISUP Miscellaneous Abandon Peg Count
(ISUP MAB MISC IA)

This counter is incremented by one when an ISUP call receives a released message or release message while busy in a call register.

ISUP Switching Equipment Congestion Peg Count
(ISUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an ISUP continuity check request.

ISUP Other Abandons Peg Count
(ISUP OTHER ABAN MISC IA)

This counter is incremented by one when an ISUP call that is on queue for a call register receiving a released or release message.

ITUP Miscellaneous Abandon Peg Count
(ITUP MAB MISC IA)

This counter is incremented by one when an ITUP call receives a released or release message while busy in a call register.

ITUP Switching Equipment Congestion Peg Count
(ITUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an ITUP continuity check request.

ITUP Other Abandons Peg Count
(ITUP OTHER ABAN MISC IA)

This counter is incremented by one when an ITUP call that is on queue for a call register receiving a released or release message.

INUP Miscellaneous Abandon Peg Count
(INUP MAB MISC IA)

This counter is incremented by one when an INUP call receives a release message while on queue for a CR or during call setup.

INUP Switching Equipment Congestion Peg Count
(INUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an INUP continuity check request.

INUP Other Abandons Peg Count
(INUP OTHER ABAN MISC IA)

This counter is incremented by one when an INUP call that is on queue for a call register receiving a released or release message.

Q.931 Other Abandons Peg Count
(Q931 OTHER ABAN MISC IA)

This counter is incremented by one when a Q.931 call that is on queue for or busy to a call register receives a disconnect.

Q.931 Switching Cutoffs Peg Count
(Q931 SW CUTOFFS MISC IA)

This counter is incremented by one when a Q.931 call is in a stable or confused state and an irregularity occurs to end the call.

Broadband Call Failure Peg Count
(BROADBAND FAIL MISC IA)

This counter is incremented by one for H0 (384K bps) or H11 (1536K bps) call attempts that fail.

PBX Reorders Peg Count
(PBX REORDERS MISC IA)

This counter is incremented by one when a Q.931 call attempt encounters a reorder condition.

Routing Data Error
(ROUTING DATA ERR MISC IA)

This counter is incremented by one when a CCIS or CCS7 outgoing trunk encounters routing problems.

OMS 5

MF Transmitter Queue Entry Failure Peg Count
(TRMTR QUEUE FAIL)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

This counter is incremented by one when a call is sent to Final Handling Treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to go on the MF Transmitter Queue, is greater than the number of nonmaintenance busy MF Transmitters (same count as MSC 0 OMS 0).

MF Transmitter Queue Overflow Peg Count
(TRMTR QUEUE OVFL)

When a call attempts to link to the MF transmitter queue and no slots are available, this counter is incremented by one.

OMS 6

DP CR Queue Overflow Peg Count
(DP CR QUEUE OVFL)

When an attempt to link the trunk register of a trunk associated with a DP call to an entry on the DP Call Register queue fails because there is no free entry on the queue, this counter will be incremented by one (same count as MSC 17 OMS 0).

DP CR Queue Abandon Peg Count
(DP CR QUEUE ABAN)

This counter is incremented by one when the trunk register of a trunk associated with a DP call that has been abandoned is unlinked from the DP Call Register queue (same count as MSC 17 OMS 0).

CCIS Origination CR Queue Overflow
Peg Count
(CCIS CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with a CCIS call in an entry on the CCIS origination Call Register queue fails because no free entry is available, this counter will be incremented by one (same count as MSC 17 OMS 0).

CCIS Origination CR Queue Abandon
Peg Count
(CCIS CR QUEUE ABAN)

When the IAM and other identifying information for a CCIS call that has been abandoned is removed from the CCIS origination Call Register queue, this counter is incremented by one (same count as MSC 17 OMS 0).

TABLE 12

OUTPUT MEASUREMENT SETS FOR MSC 12
(TIME SLOT INTERCHANGE USAGE)

```
MSC 12 TSI USAGE
OMS 0
TSI   SPC   USAGE  TSI   SPC   USAGE
  0     0       0    0    0       0
  0     0       0    0    0       0
  0     0       0    0    0       0
  0     0       0    0    0       0
```

Description of Measurements for MSC 12

OMS 0

Measurement Subclass 12 is the Time Slot Interchange (TSI) usage measurement class. This MSC provides the capability of obtaining estimates of the Usage on up to eight selected TSIs.

TSI Number
(TSI)

This register contains the TSI number that was previously specified by an input message as requiring usage measurements. Up to eight TSI numbers can be stored. (See Division 10, Section 2a.)

SPC Number
(SPC)

This register contains the Signal Processing Circuit (SPC) number of the TSI that was previously specified by an input message as requiring usage measurements. Each TSI may have two associated SPCs (0-1). (See Division 10, Section 2a).

TSI Usage Measurement
(USAGE)

For the specified TSI and SPC requiring usage measurements, the TSI Usage (occupancy) count is determined every 180 seconds by counting the busy idle bits in the time slot memory map. The traffic measurements program will convert this count into CCS before output.

TABLE 13

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

```
MSC 13 TSG
------CIN------
  IN SZ     OCC   OG ATT   OVFL    RRTO    RRAT    RRCR    RRSU
    MAN    AUTO    PATT    ECBS    DATT    DOVF     ATP    SILC
0001LSAN CA 02 01T LAB (a 1-way incoming TSG)
  000000  000000     -       -       -       -       -       -
     -       -       -       -       -       -    000000* 000000

2001ISUP TO LL 3IC HHP (a 1-way outgoing TSG)
     -    000000  000000  000000  000000  000000  000000  000000
  000000  000000  000000  000000  000000  000000  000000*    -

1001TCFD PD DI FMF DOM (a 2-way TSG)
  000000  000000  000000  000000  000000  000000  000000  000000
  000000  000000  000000  000000  000000  000000  000000* 000000
```

* - Count ATP is only output in non-AT&T offices.

Description of Measurements for MSC 13

OMS CIN

There are three possible types of output measurement sets. These sets relate to the TSGs by directionality. That is, one-way incoming, one-way outgoing, and two-way. The OMS number will be the abbreviated Circuit Identification Number (CIN) of the TSG. Each TSG is provided with a complete set of traffic counters (irrespective of its directionality). Thus for one-way TSGs, certain counters will be unused and should always contain dashes.

1. **OMS - For One-Way Incoming Trunk Subgroups (TSG)**

Incoming Seizure Peg Count
(IN SZ)

When an incoming trunk in this TSG is represented as busy by changing the trunk's busy idle bits from one to zero, this counter is incremented by one. Note that this count represents the number of trunks associated with incoming seizures. For example, an incoming H0 (384K bps) seizure has six trunks associated with it and will cause this count to be incremented by six (6).

Total Usage Measurement
(OCC)

The Trunk Subgroups occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

Selective Incoming Load Control
(SILC)

This counter is incremented by one when a bid for service is denied on an incoming trunk because of Network Management Selective Incoming Load Control.

2. **OMS - For One-Way Outgoing Trunk Subgroups (TSG)**

Total Usage Measurement
(OCC)

The Trunk Subgroup's occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Outgoing Attempts Peg Count
(OG ATT)

This counter is incremented by one when an idle outgoing trunk in this TSG is made busy by changing

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

the trunk's busy idle bits from one to zero. Should an outgoing ineffective attempt occur on this TSG before or during outpulsing, a retrial hunt can be performed (starting with this TSG). The TSG Outgoing attempts Peg Counter, if non-zero, is decremented before the retrial trunk hunt to avoid pegging it twice for the same call. Note that the outgoing attempts printed is the sum of the TSG outgoing seizures Peg Count, and the TSG overflow Peg Count. The carried call load can be obtained by subtracting the overflow from the outgoing attempts (OG ATT). Note that the outgoing seizures count represents the number of trunks associated with outgoing seizures. For example, an outgoing H0 (384K bps) seizure has six trunks associated with it and will cause this count to be incremented by six (6).

Overflow Peg Count
(OVFL)

This counter is incremented by one when an attempt to hunt an idle trunk fails because there are no idle trunks in this TSG. Note that this count represents the number of trunks associated with calls that overflow this TSG. For example, if all six trunks needed for an H0 (384K bps) call cannot be found in this TSG, this count will be incremented by six (6) no matter how many of the six trunks are busy.

Reroute To Seizure Peg Count
(RRTO)

This counter is incremented by one whenever a call that is routed out-of-chain to this outgoing TSG seizes an idle trunk. This count includes the number of incoming calls that have been automatically or manually rerouted out-of-chain and recognized by the via office as out-of-chain routed. It also includes the number of calls that may have been rerouted in this office by either a manual reroute control or an automatic out-of-chain control. Should an outgoing ineffective attempt occur on this TSG for a call that has been routed out-of-chain to it, the TSG reroute to seizure Peg Counter, if non-zero, is decremented by one before a retrial trunk hunt.

Spray Reroute Attempts
(RRAT)

This counter is incremented by one when a reroute is attempted.

Spray Reroute Calls Received
(RRCR)

This counter is incremented by one when a reroute call is received.

Spray Reroute Failures
(RRSU)

This counter is the number of reroute successes. It is obtained by subtracting the number of reroute failures from the total number of reroute attempts.

Manual Network Management Controls
(MAN)

This counter is incremented by one any time Network Management (NM) control cancels or skips a call manually.

Automatic Network Management Controls
(AUTO)

This counter is incremented by one any time NM controls cancel or skip calls automatically.

Preferred Call Attempts Peg Count
(PATT)

This counter is incremented by one when a Preferred Call (defined to be calls with maximal revenue potential, e.g., international inboard calls) is attempted.

Egress Busy Crankbacks Sent
(ECBS)

This counter is incremented by one when an egress busy crankback is sent due to unable to complete on an outgoing TSG.

Data Call Attempts Peg Count
(DATT)

This counter is incremented by one when a data call is attempted.

Data Call Overflow Peg Count
(DOVF)

This counter is incremented by one when a data call is attempted and no idle trunk is found because there are idle trunks in the TSG.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

3. **OMS - For Two-Way Trunk Subgroups (TSG)**

Incoming Seizure Peg Count
(IN SZ)

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

When an incoming trunk in this TSG is represented as busy (by changing the trunks busy idle bits from one to zero), this counter is incremented by one. Note that this count represents the number of trunks associated with incoming seizures. For example, an incoming H0 (384K bps) seizure has six trunks associated with it and will cause this count to be incremented by six (6).

Total Usage Measurement
(OCC)

The Trunk Subgroup's occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Outgoing Attempts Peg Count
(OG ATT)

This counter is incremented by one when an idle outgoing trunk in this TSG is made busy by changing the trunks busy idle bits from one to zero. Should an outgoing ineffective attempt occur on this TSG before or during outpulsing, a retrial hunt can be performed (starting with this TSG). The TSG outgoing attempts Peg Counter, if nonzero, is decremented before the retrial trunk hunt to avoid pegging it twice for the same call. Note that the outgoing attempts printed is the sum of the TSG outgoing seizures Peg Counter and the TSG overflow Peg Count. The carried call load can be obtained by subtracting the overflow from the outgoing attempts (OG ATT). Note that the outgoing seizures count represents the number of trunks associated with outgoing seizures. For example, an outgoing H0 (384K bps) seizure has six trunks associated with it and will cause this count to be incremented by six (6).

Overflow Peg Count
(OVFL)

This counter is incremented by one when an attempt to hunt an idle trunk fails because there are no idle trunks in this TSG. Note that this count represents the number of trunks associated with calls that overflow this TSG. For example, if all six trunks needed for an H0 (384K bps) call cannot be found in this TSG, this count will be incremented by six (6) no matter how many of the six trunks are busy.

Reroute To Seizure Peg Count
(RRTO)

This counter is incremented by one whenever a call that is routed out-of-chain to this outgoing TSG seizes an idle trunk. This count includes the number of incoming calls that have been automatically or manually rerouted out-of-chain and recognized by the via office as out-of-chain routed. It also includes the number of calls that may have been rerouted in this office by either a manual reroute control or an automatic out-of-chain control. Should an outgoing ineffective attempt occur on this TSG for a call that has been routed out-of-chain to it, the TSG reroute to seizure Peg Counter, if non-zero, is decremented by one before a retrial trunk hunt.

Spray Reroute Attempts
(RRAT)

This counter is incremented by one when a reroute is attempted.

Spray Reroute Calls Received
(RRCR)

This counter is incremented by one when a reroute call is received.

Spray Reroute Failures
(RRSU)

This counter is the number of reroute successes. It is obtained by subtracting the number of reroute failures from the total number of reroute attempts.

Manual Network Management Controls
(MAN)

This counter is incremented by one any time Network Management (NM) control cancels or skips a call manually.

Automatic Network Management Controls
(AUTO)

This counter is incremented by one any time NM controls cancel or skip calls automatically.

Preferred Call Attempts Peg Count
(PATT)

This counter is incremented by one when a Preferred Call (defined to be calls with maximal revenue potential, e.g., international inboard calls) is attempted.

Egress Busy Crankbacks Sent
(ECBS)

This counter is incremented by one when an egress busy crankback is sent due to unable to complete on an outgoing TSG.

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

Data Call Attempts Peg Count
(DATT)

This counter is incremented by one when a data call is attempted.

Data Call Overflow Peg Count
(DOVF)

This counter is incremented by one when a data call is attempted and no idle trunk is found because there are idle trunks in the TSG.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

Selective Incoming Load Control
(SILC)

This counter is incremented by one when a bid for service is denied on an incoming trunk because of Network Management Selective Incoming Load Control.

TABLE 14

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

```
MSC 14 CCIS/CCITT NO.6 TERMINALS
OMS 0
                      VFL1   VFL2
NEAR AUTO CO         000000 000000
FAR  AUTO CO         000000 000000
REXMIT   REQ         000000 000000
SU IN    ERR         000000 000000
QTR HR IN SERV       000000 000000
RCV RPT ACU          000000
RCV SKP ACU          000000
IN  MSGS             000000
IN  DATA FILLED SU   000000
IN  TRANS        SU  000000
IN  IAM          SU  000000
IN  ANS          SU  000000
OUT MSGS             000000
OUT DATA FILLED SU   000000
IAM XFER PER TERM    000000
OUT TRANS        SU  000000
OUT IAM          SU  000000
OUT ANS          SU  000000
EMER RESTART         000000
THRES EXC            000000
THRES EXC(SEC)       000000
BUFFER OVFL          000000
OUTAGE(CCS)          000000
MAINT OCC(CCS)       000000
TERM TYPE            CCC
IN  DIRECT SIG   SU  000000
OUT DIRECT SIG   SU  000000
```

Description of Measurements for MSC 14

The OMS numbers for this MSC must correspond to the CCIS signaling links (CCIS/CCITT No. 6 Terminals) engineered for the 4ESS Switch office. The maximum OMS for a particular office must be less than or equal to the number of engineered CCIS signaling links (DOMTERM + INTL term specified on 406C), or the contents of OD4DNUM6HR07. Each OMS will supply the following measurements.

OMS 0-255

VFL-1 Near-end Initiated Automatic Changeovers Peg Count
(NEAR AUTO CO VFL1)

This counter is incremented by one when a signaling link is automatically relieved of its traffic load (changeover) and this event is initiated by the near end office.

VFL-2 Near-end Initiated Automatic Changeovers Peg Count
(NEAR AUTO CO VFL2)

Same as above except for VFL-2

VFL-1 Far-end Initiated Automatic Changeovers Peg Count
(FAR AUTO CO VFL1)

This counter is incremented by one when a signaling link is automatically relieved of its traffic load (changeover) and this event is initiated by the far end office.

VFL-2 Far-end Initiated Automatic Changeovers Peg Count
(FAR AUTO CO VFL2)

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

Same as above except for VFL-2

VFL-1 Retransmission Requests Peg Count
(REXMIT REQ VFL1)

This counter is maintained by the CCIS terminal and it is incremented by one each time a retransmission request is received by the terminal. If the number of changeovers for the signaling link is zero during a quarter hour, this count is read from the terminal memory and attributed to the VFL over which transmission occurred during the quarter hour. The count of transmission requests for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the retransmission requests Peg Counters for both VFLs are set to zero.

VFL-2 Retransmission Requests Peg Count
(REXMIT REQ VFL2)

Same as above except for VFL-2

VFL-1 Signal Units in Error Peg Count
(SU IN ERR VFL1)

This counter is maintained by the CCIS terminal and it is incremented by one each time a signal unit is received in error by the terminal. (A signal unit is considered in error when the 8 bit checksum over the other 20 bits in the signal unit that is transmitted, do not match the checksum over the first 20 bits in the signal unit that is computed on reception of the signal unit). If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal memory and attributed to the VFL over which transmission occurred during the quarter hour. The count of signal units in error for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the signal units in error Peg Counts for both VFLs are set to zero.

VFL-2 Signal Units in Error Peg Count
(SU IN ERR VFL2)

Same as above except for VFL-2

VFL-1 Quarter Hour in Service Peg Count
(QTR HR IN SRV VFL1)

This counter is set to one each quarter hour during which no changeovers for the signaling link occurred. The quarter hour in service Peg Counter for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the quarter hour in service Peg Counters for both VFLs are set to zero.

VFL-2 Quarter Hour in Service Peg Count
(QTR HR IN SVR VFL2)

Same as above except for VFL-2

Received Repeated ACU Peg Count
(RCV RPT ACU)

This counter is maintained by the CCIS terminal and is incremented by one each time a received Acknowledgement Signal Unit (ACU) contains a block acknowledgement number equal to the block acknowledgement number in the last ACU received. If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal. Otherwise, it is set to zero.

Received Skipped ACU Peg Count
(RCV SKP ACU)

This counter is maintained by the CCIS terminal and is incremented by one each time a received ACU contains an acknowledgement number that is more than one greater than the block acknowledgement number in the last ACU received. A retransmission request is then made for the skipped block. If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal. Otherwise it is set to zero.

Total Incoming Messages Peg Count
(IN MSGS)

This counter is maintained by the CCIS terminal and is incremented by one for each message received (a message may consist of more than one signal unit).

Total Incoming Data Filled Signal Units
Peg Count
(IN DATA FILLED SU)

This counter is maintained by the CCIS terminal and is incremented by one for each non-SYN, non-ACU signal unit that is received. This count includes retransmitted data filled signal units.

Incoming Transitions Peg Count
(IN TRANS)

This count is maintained by the CCIS terminal and is incremented by one each time an incoming data filled signal unit is followed by an SYU or preceded by an SYU, not counting the presence of ACU's.

Incoming IAM Peg Count
(IN IAM)

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

This counter is maintained by the CCIS terminal and is incremented by one for each Initial Address Message (IMA) that is received. This count includes retransmitted IAMs.

Incoming Answer Signal Units Peg Count
(IN ANS)

This count is maintained by the CCIS terminal and is incremented by one each time an answer signal is received.

Total Outgoing Messages Peg Count
(OUT MSGS)

This counter is maintained by the CCIS terminal and is incremented by one for each message transmitted (a message may consist of more than one signal unit).

Total Outgoing Data Filled Signal Units
Peg Count
(OUT DATA FILLED SU)

This counter is maintained by the CCIS terminal and is incremented by one for each non-Synchronous (SYN), non-ACU signal unit that is transmitted. This count includes retransmitted data filled signal units.

Initial Address Messages Transferred
Per Terminal
(IAM XFER PER TERM)

This counter is maintained by the number of CCITT6 IAMS forwarded at the international STP. This count is stored per receiving terminal to indicate the originating office.

Outgoing Transitions Peg Count
(OUT TRANS)

This count is maintained by the CCIS terminal and is incremented by one each time an outgoing data filled signal unit is followed by an SYU or preceded by an SYU, not counting the presence of ACU's.

Outgoing IAM Peg Count
(OUT IAM)

This counter is maintained by the CCIS terminal and is incremented by one for each IAM that is transmitted. This count includes transmitted IAMs.

Outgoing Answer Signal Units Peg Count
(OUT ANS)

This count is maintained by the CCIS terminal and is incremented by one each time an answer signal is transmitted.

Emergency Restart Peg Count
(EMER RESTART)

This count is incremented by one each time synchronization is successfully achieved after failure of all Data Links associated with a terminal pair. The count is incremented against the terminal in which synchronization first occurred. The number of restarts per terminal pair is the sum of the restarts pegged for the associated terminals.

Threshold Exceeded Peg Counts
(THRES EXC)

This count is incremented by one each time the CCIS terminal reports that it was necessary to link spare memory to the report buffer. This occurs when the number of pending incoming and outgoing messages have filled the normal buffer to capacity.

Threshold Exceeded Time in Seconds
(THRES EXC SEC)

This count contains the time in seconds that spare memory is linked to the report buffer. On initial threshold exceeded the counter is incremented once. After one second, if the contents of the buffer is not reduced to or below the capacity of the normal buffer size, the count is incremented again. One second later, if the buffer contents have not been reduced to normal capacity the terminal is removed from service.

Buffer Overflow Peg Count
(BUFFER OVFL)

This counter is incremented by one each time the buffer and the spare linked memory are full of pending messages and an incoming message for which there is no room is received. The terminal is then removed from service.

Terminal Pair Outage
(OUTAGE - CCS)

This count contains the time in CCS of duplex failure of a terminal pair. Each terminal counter contains the pair outage. The count is achieved by scanning the link security registers for the prohibit state every 10 seconds.

Terminal Maintenance Occupancy

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

(MAINT OCC - CCS)

This count contains the time in CCS that the terminal was marked maintenance busy. It does not include any time that the TGR containing the terminal was duplex failed but may include time the terminal pair was duplex failed if the terminals in the pair are in different frames.

Terminal Type Identifier
(TERM TYPE)

Three ASCII characters are used to identify the terminal as Domestic CCIS (DOM), International CCITT No. 6 (INT), or Domestic 4800 BPS (D48).

Incoming Direct Signaling Signal Units
Peg Count
(IN DIRECT SIG SU)

This counter will be incremented by the number of signaling units in the message each time a direct signaling message is received on a particular signaling link. This count is kept by the CCIS terminal program in the terminal memory.

Outgoing Direct Signaling Signal Units
Peg Count
(OUT DIRECT SIG SU)

This counter is incremented by the number of signaling units in the message each time a direct signaling message is sent on a particular signaling link. This count is kept by the CCIS terminal program in the terminal memory.

TABLE 15

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

```
MSC 15  INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS

OMS 0  SECOND STAGE
        ATTS     VCA  ABN-ND  ABN-SD    FAIL
INTL       0       0       0       0       -
EA         -       -       -       -       0
DOM        -       -       0       0       -

OMS 1  IOC OPER ATTEMPTS
    INT ONLY      0
    INT OVFL      0
    INT-DOM       0
    OUT           0
    NC-DOM        0
    NC-INTL       0

OMS 2  INTL IA
    VCA
                     CUSTOMER    OPERATOR    SCREENED
      TRANSIT             0           0           0
      INBOUND             0           0           -
      ITUP                0           0           -
      INUP                0           0           -

                       ITUP        INUP
      TRANSIT             0           0

                        IOC        IOTC
      DOM OPER            0           0

    NCA CUST            0

    OUTBOUND INTERNATIONAL OVFL
      NTC        0
      NSC        0

    NM BLOCKED INTERNATIONAL
      SDOC        STR    CAN-TO     CAN-FR
         0          0         0          0
    INBOUND SCREENED
      INV CALL          0
      INV L DIG         0

    TRANSLATION FAILURE
          CCITT#5     CCITT#6      IOC         TSPC
                0           0          0           0

    OUTBOUND INTERNATIONAL SERVICE
         TC    TCVPC     OPER  OPERVPC   OUTWATS   OWVPC
          0        0        0        0         0       0
       CUST  CUSTVPC
          0        0
```

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

```
OMS 3 ORIG INTL CALL - DOM SATELLITE INCOMING
                0
OMS 4 TWO STAGE SWITCHING ERRORS
          PE  NO REC    PSTO    PDTO
INTL       0       0       0       0
DOM        0       0       0       0
EA         0       -       0       0
```

Description of Measurements for MSC 15

OMS 0

Second Stage International Attempts
(SECOND STAGE INTL ATTS)

This count is incremented by one when a call on an international incoming trunk requires two stage pulsing. It does not include calls for which only second stage pulsing formats are used.

Second Stage International Vacant Codes
(SECOND STAGE INTL VCA)

This count is incremented by one when a vacant code is recognized during second stage impulsing. It does not include the cases where second stage only impulsing is used as in operator and inter-ISC overflow calls. The latter are considered international vacant codes.

Abandon During Second Stage International -
No Digits Received
(SECOND STAGE INTL ABN-ND)

This counter is incremented by one when an international incoming trunk abandons while second stage impulsing is taking place and no digits have been received.

Abandon During Second Stage International -
Some Digits Received
(SECOND STAGE INTL ABN-SD)

This counter is incremented by one when an international incoming trunk abandons while second stage impulsing is taking place and some digits have been received.

Second Stage Equal Access Failure Peg Count
(SECOND STAGE EA FAIL)

This counter is incremented by one when the second stage of an EA call is not received.

Abandon During Second Stage VSS -
No Digits Received
(SECOND STAGE DOM ABN-ND)

This counter is incremented by one when a VSS incoming trunk abandons while second stage impulsing is taking place and no digits have been received.

Abandon During Second Stage VSS -
Some Digits Received
(SECOND STAGE DOM ABN-SD)

This counter is incremented by one when a VSS incoming trunk abandons while second stage impulsing is taking place and some digits have been received.

OMS 1

International Originating Attempts To
The Local IOC Operator
(INT ONLY)

This count is incremented by the number of incoming international originating calls offered to local IOC operators, by a 4ESS Switch machine. It is the summation of trunk subgroup head cell counts that represent successful trunk hunts.

International Originating Attempts To
The Local IOC Operator That Overflow
(INT OVFL)

This count is incremented by the number of incoming international originating calls offered to local IOC operators that overflow. It is the summation of Trunk Subgroup head cell counts that represent successful trunk hunts.

Local IOC Originating Operator Incoming
Attempts Going To Domestic or International
Domain
(INT-DOM)

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

This count is incremented by the number of incoming international and domestic calls attempted by local IOC operators to go to the domestic or international domain. It is the summation of Trunk Subgroup head cell counts that represent successful trunk hunts.

IOC Operator Outgoing Attempts
(OUT)

This count is incremented by the number of outgoing calls (domestic or international originating) offered to local IOC operators. It is the summation of Trunk Subgroup head cell counts that represent successful trunk hunts.

IOC Operator No Circuit-Domestic
(NC-DOM)

This counter is incremented by one when a call originated by a local IOC operator fails to find an idle trunk in the domestic domain.

IOC Operator No Circuit-International
(NC-INTL)

This counter is incremented by one when a call originated by an IOC operator fails to find an idle trunk in the international domain.

OMS 2

International Customer Dialed Vacant Code
(CUSTOMER-TRANSIT VCA)

This counter is incremented by one when a vacant code is recognized on an international call that was customer dialed.

International Operator Dialed Vacant Code
(OPERATOR-TRANSIT VCA)

This counter is incremented by one when a vacant code is recognized on an international call that was operator dialed.

International Calls Blocked by Screening
(SCREENED-TRANSIT VCA)

This counter is incremented by one when an international customer originated call attempts to reach a number not reachable by direct dialing. This would include INWATS numbers and domestic directory information numbers.

International Inbound Customer Dialed
Vacant Code
(CUSTOMER-INBOUND VCA)

This counter is incremented by one when an inbound customer dialed call on a CCITT No. 5 or CCITT No. 6 trunk is determined to be a vacant code.

International Inbound Operator Dialed
Vacant Code
(OPERATOR-INBOUND VCA)

This counter is incremented by one when an inbound operator dialed call on a CCITT No. 5 or CCITT No. 6 trunk is determined to be a vacant code.

ITUP Inbound Customer Dialed
Vacant Code
(CUSTOMER-ITUP VCA)

This counter is incremented by one when an inbound customer dialed call on an ITUP trunk is determined to be a vacant code.

ITUP Inbound Operator Dialed
Vacant Code
(OPERATOR-ITUP VCA)

This counter is incremented by one when an inbound operator dialed call on an ITUP trunk is determined to be vacant code.

INUP Inbound Customer Dialed
Vacant Code
(CUSTOMER-INUP VCA)

This counter is incremented by one when an inbound customer dialed call on an INUP trunk is determined to be a vacant code.

INUP Inbound Operator Dialed
Vacant Code
(OPERATOR-INUP VCA)

This counter is incremented by one when an inbound operator dialed call on an INUP trunk is determined to be vacant code.

ITUP Transit Vacant Code
(ITUP TRANSIT VCA)

This counter is incremented by one when a transit call on an ITUP trunk fails on what is determined to be a vacant code.

INUP Transit Vacant Code
(INUP TRANSIT VCA)

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

This counter is incremented by one when a transit call on an INUP trunk fails on what is determined to be a vacant code.

Domestic IOC Originated Vacant Code
(IOC-DOM OPER VCA)

This counter is incremented by one when a domestic IOC dialed outbound call is determined to be a vacant code.

Domestic IOTC Originated Vacant Code
(IOTC-DOM OPER VCA)

This counter is incremented by one when a domestic IOTC dialed outbound call is determined to be a vacant code.

International Outbound Customer
Dialed Call Encountered No Circuit
(NCA CUST)

This counter is incremented by one when a customer dialed international outbound call encounters no circuit.

NTC Received on International Outbound
Call Using CCIS Overflow Trunk Subgroup
(OUTBOUND INTERNATIONAL OVFL-NTC)

This counter is incremented by one when National trunk congestion (NTC) has been received for an outbound call placed on an International overflow Trunk Subgroup.

NSC Received on International Outbound
Call Using CCIS Overflow Trunk Subgroup
(OUTBOUND INTERNATIONAL OVFL-NSC)

This counter is incremented by one when National Switching Congestion (NSC) has been received for an outbound call placed on an International Overflow Trunk Subgroup.

International Calls Block by Network
Management Controls
(NM BLOCKED INTERNATIONAL)

The four controls used by Network Management to block calls domestically, as explained plained in TABLE 11 for MSC 11/OMS 3, are also used to control International traffic. The counters used to maintain this data are maintained similar to the Domestic equivalent, but the International Blocking Control counters are separate counters.

International Incoming Screened-Invalid Call
(INBOUND SCREENED-INV CALL)

This counter is incremented by one when translation determines that an International inbound call is invalid.

International Incoming Screened-Invalid
Language Digit
(INBOUND SCREENED-INV L DIG)

This counter is incremented by one when translation determines that an International inbound call contains an invalid language digit.

International Translation Fail -
Too Few/Too Many Digits
CCITT No. 5 Incoming Trunk
(TRANSLATION FAILURE-CCITT#5)

This counter is incremented by one when an incoming transit call on a CCITT No. 5 trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits
CCITT No. 6 Incoming Trunk
(TRANSLATION FAILURE-CCITT#6)

This counter is incremented by one when an incoming transit call on a CCITT No. 6 trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits IOC ITC
(TRANSLATION FAILURE-IOC)

This counter is incremented by one when an outbound transit call on an International Operator Center (IOC) incoming trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits TSPC
(TRANSLATION FAILURE-TSPC)

This counter is incremented by one when an International outbound call has too few/too many second stage digits for further International translation.

Outbound International Teleconferencing
Peg Count
(TC)

This register is incremented by one when an outbound international teleconferencing call is attempted.

Outbound International Teleconferencing,

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

Voice Path Cancellation Peg Count
(TCVPC)

This register is incremented by one when an outbound international teleconferencing call with voice path assurance cancellation is attempted.

Outbound International Operator Peg Count
(OPER)

This register is incremented by one when an operator originated international outbound call is attempted.

Outbound International Operator,
Voice Path Cancellation Peg Count
(OPERVPC)

This register is incremented by one when an operator originated international outbound call with voice path assurance cancellation is attempted.

Outbound International Toll-Free
Peg Count
(OUTWATS)

This register is incremented by one when an outbound international toll-free call is attempted by a customer.

Outbound International Toll-Free,
Voice Path Cancellation Peg Count
(OWVPC)

This register is incremented by one when an outbound international toll-free call, with voice path assurance cancellation, is attempted by a customer.

Outbound Customer Dialed Call Peg Count
(CUST)

This register is incremented by one when an outbound international customer dialed call is attempted.

Outbound Customer Dialed Call, Voice
Path Cancellation Peg Count
(CUSTVPC)

This register is incremented by one when an outbound international customer dialed call with voice path cancellation is attempted.

OMS 3

Originating International Call
Incoming From a Domestic Satellite
(DOM SATELLITE INCOMING)

This counter is incremented by one when a call destined for non-world zone 1 is sent via a Domestic Satellite link from a world zone 1 office.

OMS 4

Two Stage Pulsing Errors
(TWO STAGE INTL PE)

This count is incremented by one each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Two Stage MF Receiver Not Found
(TWO STAGE INTL NO REC)

This counter is incremented by one when there is no available MF Receiver for a call requiring second stage pulsing after a previously selected receiver cannot be connected.

Two Stage MF Permanent Signal Timeout
(TWO STAGE INTL PSTO)

This counter is incremented by one each time a bid for service is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE INTL PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) is received before partial dial timeout on a trunk requiring two stage pulsing.

Two Stage VSS Pulsing Errors
(TWO STAGE DOM PE)

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

This count is incremented by one on a VSS call each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Two Stage VSS MF Receiver Not Found
(TWO STAGE DOM NO REC)

This counter is incremented by one when there is no available MF Receiver for a VSS call requiring second stage pulsing after a previously selected receiver cannot be connected.

Two Stage Permanent Signal Timeout
(TWO STAGE DOM PSTO)

This counter is incremented by one each time a bid for service for a VSS call is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE DOM PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) for a VSS call is received before partial dial timeout on a trunk requiring two stage pulsing.

Two Stage EA Pulsing Errors
(TWO STAGE EA PE)

This count is incremented by one on an EA call each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Two Stage Permanent Signal Timeout
(TWO STAGE EA PSTO)

This counter is incremented by one each time a bid for service for an EA call is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE EA PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) for an EA call is received before partial dial timeout on a trunk requiring two stage pulsing.

TABLE 16

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

```
MSC 16 IO,FS,TU,AND DLK
OMS 0
OUTMSG  OUTMSG    OMR      OMR      OMR
 SUCS    FAIL    SZRE     USAGE    OVFL
     0       0       0        0        0

OMS 1  APS COMM
MISSED 3B COLLECTIONS 0
DKADI REQ   ACCEPTED      REJ     COMPL   CANCELED   FAILED
                  0        0         0          0        0
DMA JOB BUFF  SZRE     RSV ST     OVFL       CCS    TIMEOUT
1B               0          0         0          0         0
3B               0          0         0          0         0
COM BUFFER    SZRE       CCS      OVFL
1B               0          0         0
3B               0          0         0
MESSAGES      MSGS      READS    WRITES
1B               0          0         0
3B               0          0         0
FMI BUFFERS   SZRE       CCS      OVFL
3B               0          0         0
```

Description of Measurements for MSC 16

OMS 0

Output Message Success Peg Count
(OUTMSG SUCS)

When an output message is successfully loaded and placed on the translate link list, this counter is incremented by one.

Output Message Failure Peg Count
(OUTMSG FAIL)

This counter is incremented by one when an output message is not successfully loaded due to: incorrect input data in the PRINT call; or to a filed attempt to remove Output Message Register (OMRs) from the OMR idle link list (insufficient OMRs available); or the idle link list is found in an invalid state.

OMR Seizure Peg Count
(OMR SZRE)

Each time an output message is loaded into one or more Output Message Registers (OMRs) this counter is incremented by the number of OMRs removed from the OMR idle link list.

OMR Usage
(OMR USAGE)

The OMR occupancy counter is scanned every ten seconds for the number of OMRs that are busy. This number is accumulated over the measurement interval and it is converted to CCS units before output.

OMR Overflow Peg Count
(OMR OVFL)

When an attempt to remove OMRs from the OMR idle link list for an output message fails because enough OMRs are not available, this counter is incremented by the number of OMRs requested for the output message.

OMS 1

Missed 3B Collections Peg Count
(MISSED 3B COLLECTIONS)

This count reflects the number of times the 1B processor failed to collect 3B AP driver counts. The collection is performed once every 15 minutes.

Disk Requests Accepted Peg Count
(DKADI REQ ACCEPTED)

This count is incremented each time the disk administration program accepts a client request to make a disk request.

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

Disk Requests Rejected Peg Count
(DKADI REQ REJ)

This count is incremented each time the disk administration program does not accept a client disk request. These type of failures result from software range checks on input parameters.

Disk Requests Completed Peg Count
(DKADI REQ COMPL)

This count is incremented each time the disk administration program completes the transfer of data requested by a client.

Disk Requests Canceled Peg Count
(DKADI REQ CANCELED)

This count is incremented by the disk administration program each time a disk request is canceled.

Disk Requests Failed Peg Count
(DKADI REQ FAILED)

This count is incremented each time the disk administration program determines a request failed after being accepted. This does not include the number of requests canceled.

1B DMA Job Buffer Seizures Peg Count
(DMA JOB BUFF SZRE 1B)

This count is incremented each time the attached processor message handler program seizes a direct memory access job buffer. DMA buffers control memory transfers between the 1B and 3B processors.

1B DMA Job Buffers Entered into the
Reserved State Peg Count
(DMA JOB BUFF RSV ST 1B)

This count is incremented each time the attached processor message handler program changes a direct memory access job buffer state to reserved. The buffer is in the reserved state until the DMA transfer is ready in each processor.

1B DMA Job Buffer Overflow Peg Count
(DMA JOB BUFF OVFL 1B)

This count is incremented whenever the attached processor message handler program needed a direct memory access job buffer and none was available.

1B DMA Job Buffer Usage
(DMA JOB BUFF CCS 1B)

This number represents the 1B direct memory access job buffers usage in units of CCS, over the measurement interval.

1B DMA Job Buffer Timeout Peg Count
(DMA JOB BUFF TIMEOUT 1B)

This count is incremented whenever the attached processor message handler program determines a direct memory access job buffer has timed out waiting for a block transfer to take place.

3B DMA Job Buffer Seizures Peg Count
(DMA JOB BUFF SZRE 3B)

This count is incremented whenever the 3B AP driver program seizes a direct memory access job buffer. DMA buffers control memory transfers between the 1B and 3B processors.

3B DMA Job Buffers Entered into the
Reserved State Peg Count
(DMA JOB BUFF RSV ST 3B)

This count is incremented whenever the 3B AP driver program changes a direct memory access job buffer state to reserved. The buffer is in the reserved state until the DMA transfer is ready in each processor.

3B DMA Job Buffer Overflow Peg Count
(DMA JOB BUFF OVFL 3B)

This count is incremented whenever the 3B AP driver program needs a direct memory access job buffer and none is available.

3B DMA Job Buffer Usage
(DMA JOB BUFF CCS 3B)

This number represents the 3B direct memory access job buffer usage, in units of CCS, over the measurement interval.

3B DMA Job Buffer Timeout Peg Count
(DMA JOB BUFF TIMEOUT 3B)

This count is incremented whenever the 3B AP driver program determines a direct memory access job buffer has timed out waiting for a block transfer to take place.

1B-3B Communication Send Buffer Seizures
Peg Count
(COM BUFFER SZRE 1B)

When the 1B attached processor message handler program enters a message into the 3B communication

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

send buffer this count is incremented. The communication buffer is a mechanism that enables programs in the 1B and in the 3B to communicate. The 3B AP driver delivers the message to the proper 3B client.

1B Communication Buffer Usage
(COM BUFFER CCS 1B)

This number represents the usage, in CCS, of the 1B resident 3B communications send buffer, over the measurement interval.

1B-3B Communication Send Buffer Overflows
Peg Count
(COM BUFFER OVFL 1B)

When the 1B attached processor message handler program cannot load a message into the 3B communication send buffer because there is no room, this count is incremented.

3B-1B Communication Send Buffer Seizures
Peg Count
(COM BUFFER SZRE 3B)

When the 3B AP driver program enters a message into the 3B communication send buffer this count is incremented. The communication buffer is a mechanism that enables programs in the 1B and in the 3B to communicate. The 1B attached processor message handler program delivers the message to the proper 1B client.

3B Communication Send Buffer Usage
(COM BUFFER CCS 3B)

This number represents the usage, in CCS, of the 3B resident 1B communication send buffer, over the measurement interval.

3B-1B Communication Send Buffer Overflows
Peg Count
(COM BUFFER OVFL 3B)

When the 3B AP driver program cannot load a message into the 1B communication send buffer because there is no room, this count is incremented.

1B Messages Sent to the 3B Peg Count
(MESSAGES MSGS 1B)

This is a count of the number of times the 1B attached processor message handler program loaded a message of type MSG into the 3B communication send buffer. There are around 13 different message types.

1B Read Messages Sent to the 3B Peg Count
(MESSAGES READS 1B)

This is a count of the number of times the 1B attached processor message handler program loaded a message of type READ into the 3B communication send buffer.

1B Write Messages Sent to the 3B Peg Count
(MESSAGES WRITES 1B)

This is a count of the number of times the 1B attached processor message handler program loaded a message of type WRITE into the 3B communication send buffer.

3B Messages Sent to the 1B Peg Count
(MESSAGES MSGS 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type MSG into the 1B communication send buffer. There are around 13 different message types.

3B Read Messages Sent to the 1B Peg Count
(MESSAGES READS 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type READ Into the 1B communication send buffer.

3B Write Messages Sent to the 1B Peg Count
(MESSAGES WRITES 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type WRITE into the 1B communication send buffer.

3B File Manager Buffer Seizures
Peg Count
(FMI BUFFERS SZRE 3B)

This count is incremented each time a FMI buffer is required by the file manager interface. FMI buffers hold data for transfer to or from the 1B section of the 3B disk. The file manager interface is part of the 3B AP driver program.

3B File Manager Buffer Usage
(FMI BUFFERS CCS 3B)

This number is the FMI buffer usage, in CCS, over the measurement interval.

3B File Manager Buffer Overflows Peg Count
(FMI BUFFERS OVFL 3B)

This count is incremented each time a FMI buffer is required by the file manager interface and none is

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

available. FMI buffers hold data for transfer to or from the 1B section of the 3B disk. The file manager interface is part of the 3B AP driver program.

TABLE 17

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

```
MSC 17 ENGINEERED MEMORY
OMS 0  DOMESTIC MEMORY
                 SZRE     RLS
ISUP CTP CR         0       0
                 SZRE    USAGE    OVFL    ABAN
MF CR               0        -       -       -
DP CR               0        -       -       -
CCIS CR             0        -       -       -
MISC CR             0        -       -       -
Q931 CR             0        -       -       -
ISUP CR             0        -       -       -
ITUP CR             0        -       -       -
INUP CR             0        -       -       -
Q931 CR QUEUE       0        0       0       0
ISUP CR QUEUE       0        0       0       0
ITUP CR QUEUE       0        0       0       0
INUP CR QUEUE       0        0       0       0
CR                  -        0       -       -
DP CR QUEUE         0        0       0       0
CCIS CR QUEUE       0        0       0       0
MF ORIG QUEUE       0        0       -       0
DTMF CR             0        -       -       -
IDTMFWK CR Q        0        0       -       0
IDTS CR QUEUE       0        0       0       0

OMS 1  MEMORY FOR INTERNATIONAL
                       SZRE      USAGE      OVFL      ABAN
CCITT5 CR                 0          -         -         -
CCITT6 CR                 0          -         -         -
CCITT5 ORIG Q             0          0         -         -
CCITT6 ORIG Q             0          0         0         0
2ND STAGE MF REC Q        0          0         -         0

OMS 2  CALL DETAIL REC. BUFFERS
TOTAL RECORDS LOST       0
BUFFER OCCUPANCY         0

OMS 3  SZRE     CCS    OVFL
TMR       0       0       0
```

Description of Measurements for MSC 17

OMS 0

ISUP Completion of Transmission Path
CR Seize Peg Count
(ISUP CTP CR SZRE)

This count is for data calls where neither the Backward Call Indicator (BCI) nor the Optional Backward Call Indicator (OBCI) in the address complete message says to cut-through the transmission path.

ISUP Completion of Transmission Path
CR Release Peg Count
(ISUP CTP CR RLS)

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

This release count is pegged when an Answer message is received while in the timing for answer states.

MF CR Seizure Peg Count
(MF CR SZRE)

When a Call Register (CR) is removed from the link list of idle CRs and initialized for an MF call or for a test call, this counter will be incremented by one.

DP CR Seizure Peg Count
(DP CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a DP call, this counter will be incremented by one.

CCIS CR Seizure Peg Count
(CCIS CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a CCIS call, this count will be incremented by one.

Miscellaneous CR Seizure Peg Count
(MISC CR SZRE)

This count is incremented by one when a CR is removed from the link list of idle CRs and initialized for a test call.

Q.931 CR Seizure Peg Count
(Q931 CR SZRE)

When a Call Register (CR) is removed from the link list of idle CRs and initialized for a Q.931 call, this counter is incremented by one.

ISUP CR Seizure Peg Count
(ISUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an ISUP call, this counter is incremented by one.

ITUP CR Seizure Peg Count
(ITUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an ITUP call, this counter is incremented by one.

INUP CR Seizure Peg Count
(INUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an INUP call, this counter is incremented by one.

Q.931 Origination CR Queue Seizure
Peg Count
(Q931 CR QUEUE SZRE)

When an incoming Q.931 call fails to obtain a CR by overload, the setup message is placed on queue for a CR, with this counter being incremented by one.

Q.931 Origination CR Queue Usage
(Q931 CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

Q.931 Origination CR Queue Overflow
Peg Count
(Q931 CR QUEUE OVFL)

When a Q.931 call fails to obtain a queue entry due to lack of a free entry, this counter is incremented by one.

Q.931 Origination CR Queue Abandon
Peg Count
(Q931 CR QUEUE ABAN)

When the setup message for a Q.931 call that has been abandoned has been removed from the Q.931 CR queue, this counter is incremented by one.

ISUP Origination CR Queue Seizure
Peg Count
(ISUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received via the CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

ISUP Origination CR Queue Usage
(ISUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. The number is accumulated over the measurement interval and then converted to CCS units before output.

ISUP Origination CR Queue Overflow
Peg Count
(ISUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an ISUP call in an entry on

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

the ISUP origination CR queue fails because no free entry is available, this counter is incremented by one.

ISUP Origination CR Queue Abandon
Peg Count
(ISUP CR QUEUE ABAN)

When the IAM and other identifying information for an ISUP call that has been abandoned is removed from the ISUP origination call register queue, this counter is incremented by one.

ITUP Origination CR Queue Seizure
Peg Count
(ITUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received on an ITUP CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

ITUP Origination CR Queue Usage
(ITUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This is accumulated over the measurement interval and then converted to CCS units before output.

ITUP CR Queue Overflow Peg Count
(ITUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an ITUP call in an entry on the ITUP origination CR queue fails because no free entry is available, this counter is incremented by one.

ITUP Origination CR Queue Abandon
Peg Count
(ITUP CR QUEUE ABAN)

When the IAM and other identifying information for an ITUP call that has been abandoned is removed from the ITUP origination call register queue, this counter is incremented by one.

INUP Origination CR Queue Seizure
Peg Count
(INUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received on an INUP CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

INUP Origination CR Queue Usage
(INUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This is accumulated over the measurement interval and then converted to CCS units before output.

INUP CR Queue Overflow Peg Count
(INUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an INUP call in an entry on the INUP origination CR queue fails because no free entry is available, this counter is incremented by one.

INUP Origination CR Queue Abandon
Peg Count
(INUP CR QUEUE ABAN)

When the IAM and other identifying information for an INUP call that has been abandoned is removed from the INUP origination call register queue, this counter is incremented by one.

Call Register (CR) Usage
(CR USAGE)

The Call Register occupancy count is scanned every ten seconds for the number of CRs that are busy. This number is accumulated over the measurement interval and then converted to CCS units before output.

DP CR Queue Seizure Peg Count
(DP CR QUEUE SZRE)

When the Trunk Register (TR) of a trunk associated with an incoming DP call is linked to an entry on the DP CR queue, this counter will be incremented by one.

DP CR Queue Usage
(DP CR QUEUE USAGE)

The DP CR queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and it is converted to CCS units before output.

DP CR Queue Overflow Peg Count
(DP CR QUEUE OVFL)

This counter is incremented by one when an attempt to link the Trunk Register of a trunk handling a DP call with an entry on the DP CR queue fails because there is no free entry on the queue. (same count as MSC 11 OMS 6).

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

DP CR Queue Abandon Peg Count
(DP CR QUEUE ABAN)

When the Trunk Register of a trunk associated with a DP call that has been abandoned is unlinked from the DP CR queue, this counter is incremented by one. (same count as MSC 11 OMS 6).

CCIS Origination CR Queue Seizure
Peg Count
(CCIS CR QUEUE SZRE)

This counter is incremented by one each time an Initial Address Message (IAM) is read from a terminal for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

CCIS Origination CR Queue Usage
(CCIS CR QUEUE USAGE)

The queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCIS Origination CR Queue Overflow
Peg Count
(CCIS CR QUEUE OVFL)

When an attempt to place an IAM, and other identifying information associated with a CCIS call, in an entry on the CCIS origination CR queue fails because no free entry is available, this counter is incremented by one. (same count as MSC 11 OMS 6).

CCIS Origination CR Queue Abandon
Peg Count
(CCIS CR QUEUE ABAN)

When the IAM and other identifying information for a CCIS call that has been abandoned is removed from the CCIS origination Call Register queue, this counter is incremented by one. (same count as MSC 11 OMS 6).

MF Origination Queue Seizure Peg Count
(MF ORIG QUEUE SZRE)

When the Trunk Register of a trunk with an MF origination is linked to the MF origination queue, this counter will be incremented by one.

MF Origination Queue Usage
(MF ORIG QUEUE USAGE)

The MF origination queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

MF Origination Queue Abandon Peg Count
(MF ORIG QUEUE ABAN)

When the Trunk Register of a trunk with an MF origination in unlinked from the MF origination queue after the origination is abandoned, this counter is incremented by one.

DTMF CR Seizure Peg Count
(DTMF CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a DTMF call, the counter will be incremented by one.

IDTMFWK CR Queue Seizure Peg Count
(IDTMFWK CR Q SZRE)

When the TR of a trunk associated with an incoming DTMF call is linked to an entry on the incoming DTMF wink (IDTMFWK) CR queue, this counter will be incremented by one.

IDTMFWK CR Queue Usage
(IDTMFWK CR Q USAGE)

The IDTMFWK CR Queue occupancy count is scanned every 10 seconds for the number of entries on the queue. The number is accumulated over the measurement interval and it is converted to CCS units before output.

IDTMFWK CR Queue Abandon Peg Count
(IDTMFWK CR Q ABAN)

When the TR of a trunk associated with a DTMF call that has been abandoned is unlinked from the IDTMFWK CR queue, this counter is incremented by one.

IDTS CR Queue Seizure Peg Count
(IDTS CR QUEUE SZRE)

When the TR of a trunk associated with an Incoming Dial Tone Start (IDTS) call is linked to an entry on the IDTS CR queue, this counter will be incremented by one.

IDTS CR Queue Usage
(IDTS CR QUEUE USAGE)

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

The IDTS CR Queue occupancy count is scanned every 10 seconds for the number of entries on the queue. The number is accumulated over the measurement interval and it is converted to CCS units before output.

IDTS CR Queue Overflow Peg Count
(IDTS CR QUEUE OVFL)

This counter is incremented by one when an attempt to link the TR of a trunk handling an IDTS call to an entry on the IDTS CR queue fails because there is no free entry on the queue.

IDTS CR Queue Abandon Peg Count
(IDTS CR QUEUE ABAN)

When the TR of a trunk associated with an IDTS call that has been abandoned is unlinked from the IDTS CR queue, this counter is incremented by one.

OMS 1

CCITT No. 5 Call Register Queue Seizure
Peg Count
(CCITT5 CR SZRE)

When a Call Register is removed from the link list of idle CRs and initialized for a CCITT No. 5 call, this counter will be incremented by one.

CCITT No. 6 Call Register Queue Seizure
Peg Count
(CCITT6 CR SZRE)

This count will be incremented by one when a CR is removed from the link list of idle CRs and initialized for a CCITT No. 6 call.

CCITT No. 5 Originating Queue Seizure
Peg Count
(CCITT5 ORIG Q SZRE)

This count is incremented by one when the Trunk Register of a trunk with a CCITT No. 5 origination is linked to the CCITT No. 5 origination queue.

CCITT No. 5 Originating Queue Usage
(CCITT5 ORIG Q USAGE)

The CCITT No. 5 originating queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCITT No. 6 Originating Queue Seizure
Peg Count
(CCITT6 ORIG Q SZRE)

This counter is incremented by one when a CCITT No. 6 call goes on queue for a Call Register.

CCITT No. 6 Originating Queue Usage
(CCITT6 ORIG Q USAGE)

The CCITT No. 6 originating queue usage count is scanned every ten seconds the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCITT No. 6 Originating Queue Overflow
Peg Count
(CCITT6 ORIG Q OVFL)

This count is incremented by one when an attempt to link the Trunk Register of a trunk handling a CCITT No. 6 call with an entry on the CCITT No. 6 CR queue fails because there is no free entry on the queue.

CCITT No. 6 Originating Queue Abandon
Peg Count
(CCITT6 ORIG Q ABAN)

This counter is incremented by one when a CCITT No. 6 call goes off the originating queue for any abnormal reason. The count is pegged via Final Handling.

Second Stage MF Receiver Queue Seizure
Peg Count
(2ND STAGE MF REC Q SZRE)

This count is incremented by one when a call requiring second stage is removed from the CR link list and canceled to a second stage MF Receiver.

Second Stage MF Receiver Queue Usage
(2ND STAGE MF REC Q USAGE)

The second stage MF Receiver queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS before output.

Second Stage MF Receiver Queue Abandon
Peg Count
(2ND STAGE MF REC Q ABAN)

This count is incremented by one when a call on the second stage MF Receiver queue leaves the queue for

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

any abnormal reason. The count is incremented via Final Handling.

OMS 2

International Call Detail Recording
Registers Total Records Lost Peg Count
(TOTAL RECORDS LOST)

This count is incremented by one every time a request is made to write a record into the buffer block but there are no buffer blocks available.

International Call Detail Recording
Register Buffer Block Occupancy Peg Count
(BUFFER OCCUPANCY)

The buffer occupancy counter is an up/down counter that reflects how many records are in the buffer at any time.

OMS 3

Trunk Maintenance Register Seizure
Peg Count
(TMR SZRE)

When a Trunk Maintenance Register (TMR) is removed from the link list of idle TMRs and initialized for a trunk maintenance test, this counter will be incremented by one.

Trunk Maintenance Register Usage
(TMR CCS)

The TMR occupancy count is scanned every ten seconds for the number of registers that are busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Trunk Maintenance Register Overflow
Peg Count
(TMR OVFL)

This counter is incremented by one when an attempt to seize an idle TMR fails because there are no idle TMRs on the TMR idle link list.

TABLE 18

OUTPUT MEASUREMENT SETS FOR MSC 18
(CAMA INEFFECTIVE ATTEMPTS)

```
MSC 18 CAMA IA
OMS 0
    CAMA         CAMA    CAMA POS              CAMA
   POS TO         CDT     ATT TO       CPR   POS DISC
        0           0          0         0          0
                          OVFL     ABAN
  OPERATOR QUEUE           0        0
  DP ANI RCVR QUEUE        -        0
     MCA        UCA
       0          0
```

Description of Measurements for MSC 18

OMS 0

CAMA Position Timeout Peg Count
(CAMA POS TO)

This register will be incremented when an occupied and idle CAMA operator position is seized, but remains unassigned until it times out.

CAMA Position Disconnect Timeout
Peg Count
(CAMA CDT)

This counter will be incremented by one whenever more than 5 seconds elapse between sending a disconnect signal to a CAMA operator position and receipt of off-hook from the operator on the keying trunk.

CAMA Position Attached Timeout Peg Count
(CAMA POS ATT TO)

This counter is incremented by one each time the CAMA position fails to provide a position attached signal within 30 seconds of seizure.

CAMA Position Report (CPR) Peg Count
(CPR)

This register will be incremented by one when a trouble condition is reported by the operator. An example might be poor transmission. This results in a predetermined seven digit trouble code being keyed (rather than a calling party number) and the call is aborted. (Same as MSC 36 OMS 5.)

CAMA Position Disconnect Peg Count
(CAMA POS DISC)

This counter is incremented by one each time an operator depresses the position disconnect key or unplugs between the time seizure is sent out and valid ONI digits are received. (Same as MSC 19 OMS 0.)

CAMA Operator Queue Overflow Peg Count
(OPERATOR QUEUE OVFL)

When an attempt to link a Call Register on the CAMA operator queue fails because the queue is full, this counter is incremented by one. (Same as MSC 19 OMS 0.)

CAMA Operator Queue Abandon Peg Count
(OPERATOR QUEUE ABAN)

This counter is incremented when the Call Register of a call that has been abandoned is unlinked from the CAMA operator queue (Same as MSC 19 OMS 0).

DP ANI MF Receiver Queue Abandon
Peg Count
(DP ANI RCVR QUEUE ABAN)

When the Call Register of a call that has been abandoned is unlinked from the DP ANI MF receiver queue, this counter is incremented by one. (Same as MSC 19 OMS 0.)

Misrouted CAMA Peg Count
(MCA)

This counter is incremented by one when a call is sent to Final Handling Treatment because a return is made from the local call intercept translation that says the call should have been completed locally.

Unauthorized CAMA Peg Count
(UCA)

This counter is incremented by one when a call is sent to Final Handling Treatment because a return is made from the local call intercept translation that indicates that the dialed number is unauthorized for CAMA (for example, operator codes).

TABLE 19

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

```
MSC 19  CAMA
OMS 0
                        SRV
                  SZRE    USAGE   USAGE   OVFL    ABAN     DCONN
POSITION             0        0       0       -       -         0
OP QUEUE             0        -       0       0       0         -
DP ANI QUEUE         0        -       0       -       0         -

   CALLS      ONI  ANI MP  ONI PROCESSED  5-SEC TOUT
       0        0       0              0           0
     ANF      AIF     AOF
       0        0       0

OMS 1
      AMA MATCH      AMA WRONG
       CHK FAIL    CALLING CODE
              0               0

OMS 2
      EA ANI      EA ANI      EA ANI        CALL          TAPE/3B
        FAIL      FL-RTE        SUCC    RCD LOST           BLOCKS
           0           0           0           0                0
```

Description of Measurements for MSC 19

OMS 0

Total CAMA Positions Seizure Peg Count
(POSITION SZRE)

This counter is incremented by one each time an occupied (manned) and idle CAMA operator position is made service busy. This is done by changing the first busy idle bit associated with a position's keying trunk from 1 to 0.

Total CAMA Positions Service Usage
(POSITION SRV USAGE)

After each ten second scan, this counter is incremented by the number of CAMA operator positions that are found occupied and service busy. This data is converted into CCS by the traffic program before output.

CAMA Positions Usage
(POSITION USAGE)

This counter is incremented by the number of CAMA positions found occupied after each ten second scan. This data is converted into CCS by the traffic program before output.

CAMA Position Disconnect Peg Count
(POSITION DCONN)

This counter is incremented by one each time an operator depresses the position disconnect key or unplugs between the time seizure is sent and valid ONI digits are received. (Same as MSC 18 OMS 0.)

CAMA Operator Queue Seizure Peg Count
(OP QUEUE SZRE)

When a Call Register is linked on the CAMA operator queue, this counter is incremented by one.

CAMA Operator Queue Usage
(OP QUEUE USAGE)

After each ten second scan, this counter is incremented by the number of call registers linked on the CAMA operator queue. This data is converted to CCS by the traffic program before output.

CAMA Operator Queue Overflow Peg Count
(OP QUEUE OVFL)

When an attempt to link a Call Register on the CAMA operator queue fails because the queue is full, this counter is incremented by one. (Same as MSC 18 OMS 0.)

TABLE 19 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

CAMA Operator Queue Abandon Peg Count
(OP QUEUE ABAN)

This counter is incremented by one when the Call Register of a call that has been abandoned is unlinked from the CAMA operator queue. (Same as MSC 18 OMS 0.)

DP ANI MF Receiver Queue Seizure
Peg Count
(DP ANI QUEUE SZRE)

This counter is incremented by one when a Call Register associated with a DP ANI call is linked on the DP ANI MF Receiver queue. This link to the queue is necessary while waiting for a receiver to collect the information digit and the calling number (Same as MSC 18 OMS 0).

DP ANI MF Receiver Queue Usage
(DP ANI QUEUE USAGE)

After each ten second scan, this counter is incremented by the number of Call Registers (associated with a DP ANI call) that are linked on the DP ANI MF Receiver queue. This data is converted into CCS by the traffic program before output.

DP ANI MF Receiver Queue Abandon
Peg Count
(DP ANI QUEUE ABAN)

When the Call Register of a call that has been abandoned is unlinked from the DP ANI MF Receiver queue, this counter is incremented by one.

NOTE: The following four (4) counts are incremented at key points in the CAMA program. From these the On-Site Report System can derive the counts for offered ONI calls, offered ANI calls and ANI failure.

Total CAMA Calls Peg Count
(CALLS)

This counter is incremented by one whenever a call originates on a CAMA trunk and the called number is received for an ANI or ONI call.

ONI Calls Peg Count
(ONI)

This counter will be incremented by one each time a call is initially determined to be an ONI call to the information digit outpulsed by the ANI office indicates multi-party.

ANI Multi-Party Calls Peg Count
(ANI MP)

This count will be incremented by one each time the information digit outpulsed by an ANI office indicates the caller is on a multi-party line.

Operator Processed CAMA Calls Peg Count
(ONI PROCESSED)

This count will be incremented each time a CAMA call is sent to an operator because:

a. The call is from an ONI trunk,

b. The information digit from an ANI office indicated multi-party.

c. There was an AIF or ANF on an ANI call.

CAMA Calls Queue Over 5-Seconds Peg Count
(5-SEC TOUT)

This counter is incremented whenever a call abandons or is removed from the CAMA operator position queue and the length of time the call was queued exceeds 5-seconds.

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

On CAMA Automatic Number Identification (ANI) calls, this counter will be incremented by one when 5 seconds have elapsed between reception of an information digit and the calling party number digits. The counter will also be incremented when the ANI equipment receives invalid or non-MF calling party digits, or the ANI information digit is a non-MF tone. The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Local Office Failure
(AIF)

This counter will be incremented by one for CAMA ANI calls for which the ANI information digit is not 0 or 3 (ANI information is not forthcoming from the origination office). The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure
(AOF)

TABLE 19 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

This counter will be incremented by one for CAMA ANI calls for which a five second timeout occurs while waiting for the ANI information digit. The call is then transferred to an operator for further handling.

OMS 1

AMA Match Check Failure Peg Count
(AMA MATCH CHK FAIL)

This counter is incremented by one each time the customer gives the CAMA operator the called number instead of the calling number.

AMA Wrong Calling Code Peg Count
(AMA WRONG CALLING CODE)

This counter is incremented by one each time a CAMA operator keys in a calling number invalid for CAMA.

OMS 2

EA ANI Failure Peg Count
(EA ANI FAIL)

This counter is incremented by one each time an Equal Access (EA) Automatic Number Identification (ANI) call encounters an error in reception of the ANI digits.

EA ANI Failure - Route Peg Count
(EA ANI FL-RTE)

This counter is incremented by one each time an EA ANI call encounters an error in the reception of the ANI digits and the call was still routed.

EA ANI Success Peg Count
(EA ANI SUCC)

This count is incremented by one each time an EA ANI call either receives the correct ANI digit sequence or the ANI digit sequence fails with Far End Network (FEN) ANI Failure Action (AFA) set to a continue state.

Call Record Lost Peg Count
(CALL RCD LOST)

This counter is incremented by the number of records that were lost due to the records not being entered on the AMA tape.

Call Record Block Peg Count
(TAPE/3B BLOCKS)

This counter is incremented by one each time a block of AMA call records is written onto the AMA tape or to the 3B/APS.

TABLE 20

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

```
MSC 20 PERFORMANCE MEASUREMENTS - MAJOR MAINT RESPONSES AND ALARMS
OMS 0  INTERRUPT - TOTALS
         TOT-A  TOT-B  TOT-C  TOT-D  TOT-E  TOT-F  TOT-K
 SINGLE      0      0      0      0      0      0      0
 MULT        0      0      0      0      0      -      -

OMS 1 MAJOR MAINTENANCE RESPONSES
  INTERRUPTS
    B HIN    B PSI    B PSO   B CCSW   B BROM   B CPAR   D CSIR     D AUI
        0        0        0        0        0        0        0         0
  D AUIIR    D STK    D IVT    D PAF    D OOR  D IFBOR    D MUP   D MUPIR
        0        0        0        0        0        0        0         0
    D SSD  D SSDIR    E INR    E OOR   F PUFO   F APUF   F PUFI  INT LEVL
        0        0        0        0        0        0        0         0
TOT MTINJ   INJ,AP  INJ,DUS  OPINJPS   STFLAP  INJ,MUP  INJ,AUI   BLM,MUP
        0        0        0        0        0        0        0         0
ADDRESSING ERRORS
   DURUIR   CCMUPIR   CCMUPOR   CCAUIIR   CCAUIOR   CCSSDIR   CCSSDOR
        0         0         0         0         0         0         0
  MUPCLIR   MUPCLOR   MUPCSIR   MUPCSOR   MUPPSIR   MUPPSOR
        0         0         0         0         0         0
  AUIPSIR   AUIPSOR  AUIAPIIR  AUIAPIOR  AUIDUSIR  AUIDUSOR
        0         0         0         0         0         0
  AUICSIR   AUICSOR   CLSSDIR   CLSSDOR
        0         0         0         0
MISC MAINTENANCE RESPONSES
 CCFR,CC0  CCFR,CC1  FAN0,INH  FAN1,INH
        0         0         0         0

OMS 2  ALARMS
          CRITICAL  MAJOR   MINOR
                0       0       0
 POWER RM     -          0       0

OMS 3   HARDWARE DETECTED CGA
            0
```

Description of Measurements for MSC 20

OMS 0

Individual Totals of A through K
Level Interrupts Peg Count
(SINGLE or MULT TOT A-K)

These counters will be incremented by one each time the A through K level interrupt logic is placed in execution. The counters will be incremented by the Maintenance Restart Program (MARP) before exiting from interrupt level program execution.

Note that in 4E3 the multiple F-Level total Peg Counter is not being pegged. It will be added in the future issue. Also note that the total number of single F-Levels includes F-Levels from the MCC and IOUS. These last two sources are not shown individually in MSC 20/OMS 1.

OMS 1

B-Level Interrupts Hardware Initialization
Peg Count
(B HIN)

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

This counter will be incremented by one each time it can be determined that the B-Level interrupt is due to a processor configuration or a processor configuration accompanying a system reinitialization. The counter will be incremented by the Processor Configuration Recovery Program (PCRV).

B-Level Interrupts Pulse Source In-Range
Peg Count
(B PSI)

This counter will be incremented by one each time it can be determined that the B-Level interrupt is due to an in-range pulse source error. The counter is incremented by the Central Control Fault Recognition Program (CCFR).

B-Level Interrupts Pulse Source Out-Of-Range
Peg Count
(B PSO)

This counter will be incremented by one by the CCFR program each time it determines that the B-level interrupt is due to an out-of-range pulse source error.

B-Level Interrupt Central Control Switch
Peg Count
(B CCSW)

This counter will be incremented by one by the CCFR program each time it determines that the B-Level interrupt resulted from a Central Control Switch.

Internal B-level Boot ROM Parity Error Count
(B BROM)

This counter is pegged every time that the CCs are switched. This includes switches on base level and on interrupt.

Internal B-level Control Parity Error Count
(B CPAR)

This count is pegged every time a B-level occurs because of a Control Parity Error.

D-Level Interrupts Call Store In-Range
Peg Count
(D CSIR)

This counter will be incremented by one each time the Call Store Terminal Equipment Center Fault Recognition Program (CSFR) can determine that the D-level interrupt is due to an in-range Call Store Error.

AUI D-Level Counter
(D AUI)

This counter is incremented each time a D level error is involved with the Auxiliary Unit Interface (AUI) board. The error could occur under two types of transactions: memory mapped input output (MMIO), and Word DMA.

AUI In-Range D-Level Counter
(D AUIIR)

This counter is incremented each time an in-range D-level error is involved with the Auxiliary Unit Interface (AUI) board. The error could occur under two types of transactions: memory mapped input output (MMIO), and Word DMA.

D-Level Interrupts Stack Related Peg Count
(D STK)

This counter will be incremented by one each time the CSFR program can determine that the d-level interrupt is due to a stack related error, such as overflow or underflow.

D-Level Interrupts Invalid Transfer
Peg Count
(D IVT)

This counter will be incremented by one each time the CSFR program can determine that the D-level interrupt is due to an invalid transfer.

D-Level interrupts Protected Area Failure
Peg Count
(D PAF)

Each time the CSFR program can determine that the D-level interrupt is due to a protected area failure, this counter will be incremented by one.

D-Level Interrupts Out-Of-Range Peg Count
(D OOR)

This counter will be incremented by one each time the Maintenance Restart Program (MARP) can determine that the D-level interrupt was due to an Out-Of-Range error.

IFB Out-Of-Range D-Level
(D IFBOR)

This counter is incremented each time an invalid software access is found on the IFB. These access

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

could occur under all types of transactions: memory mapped input output (MMIO), Word or Block DMA.

MUP D-Level Counter
(D MUP)

This counter is incremented each time a D-level error is involved with the Maintenance and Utility Processor (MUP). The error could occur under all types of transactions: memory mapped input output (MMIO), client-to-client, and Word or Block DMA.

MUP In-Range D-Level Counter
(D MUPIR)

This counter is incremented each time an in-range D-level error is involved with the Maintenance and Utility Processor (MUP). The error could occur under all types of transactions: memory mapped input output (MMIO), client-to-client, and Word or Block DMA.

SSD D-Level Counter
(D SSD)

This counter is incremented each time a D-level error is involved with the Scan and Signal Distributor (SSD). The error occurred under memory mapped input output (MMIO) when CC tried to access it.

SSD In-Range D-Level Counter
(D SSDIR)

This counter is incremented each time a D-level error is involved with the Scan and Signal Distributor (SSD). The error occurred under memory mapped input output (MMIO) when CC tried to access it.

E-Level Interrupts In-Range Peg Count
(E INR)

Each time that the Program Store Fault Recognition Program (PSFR) can determine that the E-level interrupt is due to an in-range PS error, this counter will be incremented by one.

E-Level Interrupts Out-Of-Range Peg Count
(E OOR)

This counter will be incremented by one each time the PSFR program can determine that the E-level interrupt is due to an Out-Of-Range PS error.

F-Level Interrupts Peripheral Unit
Failure Out-Of-Range Peg Count
(F PUFO)

Each time the PBFR program can determine that the F-level interrupt is due to an Out-Of-Range PUF, this counter will be incremented by one.

F-Level Interrupts Autonomous
Peripheral Unit Failure Peg Count
(F APUF)

This counter will be incremented by one each time the PBFR can determine that the F-level interrupt was due to an Autonomous Peripheral Unit Failure (APUF). The units capable of this action include the SP, VIP, TSI and TMS.

F-Level Interrupts Peripheral Unit
Failure In-Range Peg Count
(F PUFI)

This counter will be incremented by one each time that the Peripheral Bus Fault Recognition Program (PBFR) can determine that the F-level interrupt is due to an in-range Peripheral Unit Failure (PUF).

Interrupt Level Duration Count
(INT LEVL)

This counter will be updated by the Maintenance Restart Program (MARP), before existing from interrupt level processing, by the amount of time, measured in tens of milliseconds, which has been spent on interrupt level. This count will reflect system outage due to interrupts.

Maintenance Interjects Voiceband Interface
Peg Count
(TOT MTINJ)

For each maintenance interject request associated with a VIF, PUC, MAS, DIF, or Signal Processor, this counter will be incremented by one.

Attached Processor Interject Peg Count
(INJ,AP)

This counter will be incremented by one by the AUFR program for each Attached Processor Maintenance Interject request.

Data Unit Selector Interject Peg Count
(INJ,DUS)

This counter will be incremented by one by the AUFR program for each Data Unit Selector Control Unit Maintenance Interject request.

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

Operational Interject Data Unit Selector
Peg Count
(OPINJPS)

This counter will be incremented by one by the AUFR program each time an operational interject is caused by a Data Unit selector.

Status Failure Attached Processor
Peg Count
(STFLAP)

Each time a status failure is caused by a Attached Processor, this counter will be incremented by one.

MUP Interject Counter
(INJ,MUP)

This counter is incremented each time an interject from the Maintenance and Utility Processor (MUP) is reported.

AUI Interject Counter
(INJ,AUI)

This counter is incremented each time an interject from the Auxiliary Unit Interface (AUI) board is reported.

MUP BLM Counter
(BLM,MUP)

This counter is incremented each time a Base Level Maintenance (BLM) request from the Maintenance and Utility Processor (MUP) is processed.

DUS to TUC In-Range Error Peg Count
(DURUIR)

This counter will be incremented by one each time the appropriate program determines that the specified addressing error has taken place.

CC to MUP In-Range Counter
(CCMUPIR)

This counter is incremented each time a D-level error of the valid in-range memory mapped input output (MMIO) access is involved with the Maintenance and Utility Processor (MUP).

CC to MUP Out-Of-Range Counter
(CCMUPOR)

This counter is incremented each time a D-level error of invalid out-of-range memory mapped input output (MMIO) access is involved with the Maintenance and Utility Processor (MUP).

CC to AUI In-Range Counter
(CCAUIIR)

This counter is incremented each time a D-level error of the valid in-range memory mapped input output (MMIO) access is involved with the Auxiliary Unit Interface (AUI) board.

CC to AUI Out-Of-Range Counter
(CCAUIOR)

This counter is incremented each time a D-level error of invalid out-of-range memory mapped input output (MMIO) access is involved with the Auxiliary Unit Interface (AUI) board.

CC to SSD In-Range Counter
(CCSSDIR)

This counter is incremented each time a D-level error of the valid in-range memory mapped input output (MMIO) access is involved with the Scan and Signal Distributor (SSD) board.

CC to SSD Out-Of-Range Counter
(CCSSDOR)

This counter is incremented each time a D-level error of invalid out-of-range memory mapped input output (MMIO) access is involved with the Scan and Signal Distributor (SSD) board.

MUP to Client In-Range Counter
(MUPCLIR)

This counter is incremented each time a D-level error of valid in-range client-to-client access is involved with the Maintenance and Utility Processor (MUP).

MUP to Client Out-Of-Range Counter
(MUPCLOR)

This counter is incremented each time a D-level error of invalid out-of-range client-to-client access is involved with the Maintenance and Utility Processor (MUP).

MUP to CS In-Range Counter
(MUPCSIR)

This counter is incremented each time a D-level error of valid in-range MUP to CS DMA is involved with the Maintenance and Utility Processor (MUP).

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

MUP to CS Out-Of-Range Counter
(MUPCSOR)

This counter is incremented each time a D-level error of invalid out-of-range MUP to CS DMA is involved with the Maintenance and Utility Processor (MUP).

MUP to PS In-Range Counter
(MUPPSIR)

This counter is incremented each time a D-level error of valid in-range MUP to PS DMA is involved with the Maintenance and Utility Processor (MUP).

MUP to PS Out-Of-Range Counter
(MUPPSOR)

This counter is incremented each time a D-level error of invalid out-of-range MUP to PS DMA is involved with the Maintenance and Utility Processor (MUP).

AUI to PS In-Range Counter
(AUIPSIR)

This counter is incremented each time a D-level error of valid in-range AUI to PS DMA is involved with the Auxiliary Unit Interface (AUI) board.

AUI to PS Out-Of-Range Counter
(AUIPSOR)

This counter is incremented each time a D-level error of invalid out-of-range AUI to PS DMA is involved with the Auxiliary Unit Interface (AUI) board.

AUI to API In-Range Counter
(AUIAPIIR)

This counter is incremented each time an interject error on a valid in-range AUI to API access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to API Out-Of-Range Counter
(AUIAPIOR)

This counter is incremented each time an interject error on an invalid out-of-range AUI to API access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to DUS In-Range Counter
(AUIDUSIR)

This counter is incremented each time an interject error on a valid in-range AUI to DUS access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to DUS Out-Of-Range Counter
(AUIDUSOR)

This counter is incremented each time an interject error on an invalid out-of-range AUI to DUS access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to CS In-Range Counter
(AUICSIR)

This counter is incremented each time a D-level error of valid in-range AUI to CS DMA is involved with the Auxiliary Unit Interface (AUI) board.

AUI to CS Out-Of-Range Counter
(AUICSOR)

This counter is incremented each time a D-level error of invalid out-of-range AUI to CS DMA is involved with the Auxiliary Unit Interface (AUI) board.

SSD to Client In-Range Counter
(CLSSDIR)

This counter is incremented each time a D-level error of valid in-range client-to-client access is involved with the Scan and Signal Distributor (SSD).

SSD to Client Out-Of-Range Counter
(CLSSDOR)

This counter is incremented each time a D-level error of invalid out-of-range client-to-client access is involved with the Scan and Signal Distributor (SSD).

External CCFR Entry When
CC 0 Was Active Simplex
(CCFR,CC0)

This count is pegged every time the CCFR program is called by D/E/F-level.

External CCFR Entry When
CC 1 Was Active Simplex
(CCFR,CC1)

This count is pegged every time the CCFR program is called by D/E/F-level.

Fan Controller 0 Inhibited Counter
(FAN0,INH)

This counter is incremented each time 1B overrides Fan Controller 0’ control when software receives an invalid response from it.

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

Fan Controller 1 Inhibited Counter
(FAN1,INH)

This counter is incremented each time 1B overrides Fan Controller 0' control when software receives an invalid response from it.

OMS 2

Alarms Peg Count
(ALARMS CRITICAL, MAJOR, or MINOR)

Within the 4ESS Switch there are three categories of alarms-critical, major and minor. A counter will exist for each one of these categories individually. Each time an alarm is announced the appropriate counter will be incremented by one to produce a total Peg Count for each alarm.

Power Room Alarms Peg Count
(POWER RM MAJOR-MINOR)

Power Room Alarm Peg Counts are counts of major and minor alarms sounded for power failures in power rooms remote from the switching equipment.

OMS 3

Hardware Detected CGA Peg Count
(HARDWARE DETECTED CGA)

This counter will be incremented by one each time a carrier failure is detected by hardware.

TABLE 21

OUTPUT MEASUREMENT SETS FOR MSC 21
(PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES)

```
MSC 21 PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES
OMS 0  SYSTEM RECOVERY - PHASES
  PH1PRG  PH1MAN  PH2PRG  PH2MAN  PH3PRG  PH3MAN  PH4MAN   PHTIME
       0       0       0       0       0       0       0        0

OMS 1  RECENT CHANGE MEASUREMENTS
 NO. RC ACTIVATED       0
 TYPE 2 ROLLBACKS       0

OMS 2  NM MEASUREMENTS

  CONTROL       SILC
  INVOKED     CONTROL    ROLLBACKS
        0           0            0

OMS 3  MACHINE CONGESTION

     MC1        REAL TIME        MF        DP      CCIS
  PEG COUNT             0         0         0         0
  TIME(10 MSEC)         0         0         0         0

     MC2        REAL TIME        MF        DP      CCIS
  PEG COUNT             0         0         0         0
  TIME (10 MSEC)        0         0         0         0
```

Description of Measurements for MSC 21

OMS 0

Phase 1 Program Initiated Peg Count
(PH1PRG)

This counter will be incremented by one by the Software Initialization Program (SINT) each time a phase 1 software initialization is initiated by the System Integrity Control (SICO) due to a program request.

Phase 1 Manually Initiated Peg Count
(PH1MAN)

Each time a phase 1 software initialization is initiated by SICO due to a manual request, this counter will be incremented by one by SINT.

Phase 2 Program Initiated Peg Count
(PH2PRG)

This counter will be incremented by one by the SINT program each time the SICO program initiates a phase 2 software initialization due to a program request.

Phase 2 Manually Initiated Peg Count
(PH2MAN)

Each time a phase 2 software initialization is initiated by the SICO program due to a manual request, this counter will be incremented by one by the SINT program.

Phase 3 Program Initiated Peg Count
(PH3PRG)

This counter will be incremented by one by the SINT program each time the SICO program initiated a phase 3 software initialization due to a program request.

Phase 3 Manually Initiated Peg Count
(PH3MAN)

Each time a phase 3 software initialization is initiated by the SICO program due to a manual request, this counter will be incremented by one by the SINT program.

Phase 4 Manually Initiated Peg Count
(PH4MAN)

This counter will be incremented by one by the SINT program each time the SICO initiates a phase 4 software initialization due to a manual request.

TABLE 21 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 21
(PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES)

Phase Level Duration Count
(PHTIME)

This counter will be updated by the Maintenance Restart Program (MARP) with the amount of time, measured in tens of milliseconds, that the system spends in a phase level recovery of any type. This count will include only the time spent in the phase and not time spent on interrupt processing due to a phase or as part of a phase.

OMS 1

Number Of Recent Changes Activated
Peg Count
(NO. RC ACTIVATED)

This counter is incremented by one each time a Recent Change is Activated.

Total Type 2 Rollbacks Peg Count
(TYPE 2 ROLLBACKS)

This counter will be incremented by one each time a Type 2 Recent Change rollback occurs. A Type 2 rollback is manually activated with a phase.

OMS 2

Network Management Controls Invoked
Peg Count
(CONTROL INVOKED)

This counter is incremented by one each time a Network Management control is instituted by the Network Manager.

Selective Incoming Load Control Peg Count
(SILC CONTROL)

This count is incremented by one when an incoming bid for service is denied due to Network Management Selective Incoming Load Control.

Network Management Control Rollbacks
Peg Count
(ROLLBACKS)

This counter is incremented by one each time the reinstatement of TSG control is inhibited as a result of a system reinitialization. The count relates to the number of phases when this occurs, not to the number of TSGs affected.

OMS 3

Dynamic Overload Control Peg Count
and Duration Measurement

This counter is incremented by the Network Management program whenever a request is made by overload or phase control programs to transmit a particular level and type of Dynamic Overload Control on order to reduce incoming call pressure. There are 4 types of control per level and 2 levels MC1 and MC2 (no counts are kept for MC3). The types are MF, DP, CCIS and Real Time, which determine the types of trunks for which DOC signals are sent. The Real Time control implies all signaling types.

The duration measurement for each level and type of control is given in tens of milliseconds. The measurement is maintained by recording the time a control was instituted, calculating elapsed time when the control is removed and summing that time into a counter. The specified counts are:

1. MC1 Real Time Peg Count
2. MC1 MF Peg Count
3. MC1 DP Peg Count
4. MC1 CCIS Peg Count
5. MC1 Real Time Duration
6. MC1 MF Duration
7. MC1 DP Duration
8. MC1 CCIS Duration
9. MC2 Real Time Peg Count
10. MC2 MF Peg Count
11. MC2 DP Peg Count
12. MC2 CCIS Peg Count
13. MC2 Real Time Duration
14. MC2 MF Duration
15. MC2 DP Duration
16. MC2 CCIS Duration

TABLE 22

OUTPUT MEASUREMENT SETS FOR MSC 22
(PERFORMANCE MEASUREMENTS - AUDIT TYPE)

```
MSC 22 PERFORMANCE MEASUREMENTS - AUDIT TYPE
OMS 0 AUDIT COMPLT
  ROUTINE-     0
  DEMAND -     0
OMS 1 AUDIT ERRORS
  ROUTINE-     0
  DEMAND -     0
```

Description of Measurements for MSC 22

OMS 0

Total Routine Audits Completed Peg Count
(AUDIT COMPLT-ROUTINE)

This counter will be incremented by one by the Audit Control Program (AUDS) each time any audit type (00-127) that is routinely requested by the program is completed.

Total Demand Audits Completed Peg Count
(AUDIT COMPLT-DEMAND)

Each time any audit type (00-127) that is manually requested is completed, this counter will be incremented by one by the AUDS program.

OMS 1

Total Routine Audits Errors Found
Peg Count
(AUDIT ERRORS-ROUTINE)

This counter will be incremented by one by the AUDS program each time an error is found by an audit type (00-127) that is routinely requested by the program.

Total Demand Audits Errors Found
Peg Count
(AUDIT ERRORS-DEMAND)

Each time any audit type (00-127) that is manually requested finds an error, this counter will be incremented by one by the AUDS program.

TABLE 23

OUTPUT MEASUREMENT SETS FOR MSC 23
(PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR)

```
MSC 23 PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR
OMS 0  MAINTENANCE OCCUPANCIES
  PROCESSOR  NETWORK  SERV CIRC
          0        0         0

OMS 1  MTCE USAGE
     CC     PS     CS    MUP    AUI
      0      0      0      0      0
    AUB    PSB    CSB    PUB   XPWR
      0      0      0      0      0
   IOUS   IOUC    API    IFB
      0      0      0      0
    DUS    TUC    PDF    SSD
      0      0      0      0

OMS 2 PERIPHERAL UNIT MTCE USAGE AND OUTAGE
                 TSI     TMS     TGR     TER    NCLK    SCLK    NCSU
  MTCE USAGE      0       0       0       0       0       0       0
  OUTAGE          0       0       0       0       0       0       0
                 D3U
  MTCE USAGE      0
  OUTAGE          0

OMS 3  PER CALL SERVICE CIRCUITS ACCUM MAINT OCC
    MF RCVR  DTMF RCVR  MF XMTR  DTMF XMTR
         0         0         0         0
     NSCXS     MSFHA   CCIS XMTR
         0         0         0

OMS 4  VFL ACCUM MAINT OCC
   DOM       0
   INT       0
```

Description of Measurements for MSC 23

OMS 0

Processor Accumulated Maintenance Usage (PROCESSOR)

This counter will accumulate total maintenance usage for all units listed separately under OMS 1.

Network Accumulated Maintenance Usage (NETWORK)

This counter will accumulate total maintenance usage for all units listed separately under OMS 2.

Service Circuits Accumulated Maintenance Usage (SERV CIRC)

This counter will accumulate total maintenance usage for all units listed separately under OMS 3.

OMS 1

Accumulated Maintenance Usage

The maintenance status for each of the specified units is determined every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register for the following unit types will reflect, in CCS, the amount of time the units were maintenance busy.

1. Central Control (CC)

TABLE 23 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 23
(PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR)

2. Program Store (PS)
3. Call Store (CS)
4. Maintenance and Utility Processor (MUP)
5. Auxiliary Unit Interface (AUI)
6. Auxiliary Unit Bus (AUB)
7. Program Store Bus (PSB)
8. Call Store Bus (CSB)
9. Peripheral Unit Bus (PUB)
10. Miscellaneous Power Board (XPWR)
11. Input-Output Unit Selector (IOUS)
12. Input-Output Unit Controller (IOUC)
13. Attached Processor Interface (API)
14. Interface Bus (IFB)
15. Data Unit Selector (DUS)
16. Tape Unit Controller (TUC)
17. Power Distribution Frame (PDF)
18. Scan and Signal Distributor (SSD)

OMS 2

Accumulated Maintenance Usage

The status table for each of the specified peripheral unit types is scanned every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus, the printout of each register for the following unit types will reflect in CCS, the amount of time the units were maintenance busy.

1. Time-Slot Interchange frame (TSI)
2. Time-Multiplex Switching Pair (TMS)
3. CCIS Terminal Group (TGR)
4. CCIS Terminal (TER)
5. Network Clock (NCLK)
6. System Clock (SCLK)
7. Network Clock Synchronization Unit (NCSU)
8. DS3 Unit (D3U)

Outage

The Service Degrading Conditions Table is scanned every 10 seconds to determine the number of each of the following unit types that are unavailable for service. The output, in CCS, is service outage time due to the condition specified for each unit type. Only primary outage times are reported. When a failure of one type causes the failure of another, only the first is recorded. (See MSC 24 for other outage measurements.)

9. TSI - Duplex Controller OOS
10. TMS - Duplex Controller OOS
11. TGR - Duplex Controller OOS
12. TER - Terminal Pair OOS
13. NCLK - 4 Clock Chains OOS
14. SCLK - Duplex Controller OOS
15. NCSU - 4 Clock Chains OOS
16. D3U - OOS unit not protection switched

OMS 3

Accumulated Maintenance Usage

The occupancy counter for each of the specified service circuits is scanned every 180 seconds. After each scan, the accumulating register for the service circuit type is incremented by the number of units found to be maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register for the following service circuit type will reflect, in CCS, the amount of time the units were maintenance busy.

1. MF Receivers (MF RCVR)
2. DTMF Receivers (DTMF RCVR)
3. MF Transmitters (MF XMTR)
4. DTMF Transmitters (DTMF XMTR)
5. NSCX Set S (NSCXS)
6. MAS and Expanded Announcements (MSFHA)
7. CCIS Transceivers (CCIS XCVR)

OMS 4

Domestic VFL Accumulated Maintenance Occupancy
(DOM VFL ACCUM MAINT OCC)

This counter contains the accumulated maintenance occupancy for all Domestic VFL circuits and is obtained via a 180 second scan of Trunk Subgroup head cells for VFL's. The output is in CCS.

International VFL Accumulated Maintenance Occupancy
(INT VFL ACCUM MAINT OCC)

This counter contains the accumulated maintenance occupancy for all International VFL circuits. It is obtained via a 180 second scan of Trunk Subgroup head cells for VFLs. The output is in CCS.

TABLE 24

OUTPUT MEASUREMENT SETS FOR MSC 24
(PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT)

```
MSC 24 PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT
OMS 0  TOTAL ACCUMULATED MAINTENANCE OCCUPANCY
  TERMINAL EQUIPMENT
         0

OMS 1  TERMINAL EQUIPMENT MAINT USAGE AND OUTAGE
          SP     VIC    VIU    DTC    DTU    DIF    DIU    SCS    SCU
USAGE      0       0      0      0      0      0      0      0      0
OUTAGE     0       0      0      0      0      0      0      0      0

OMS 2  TERMINAL EQUIPMENT
          UNIT     LOC     NONLOC   ---DIAG REQ----   ---DIAG ATP----
         ERRORS   FAULTS   FAULTS    PROG    MANUAL    PROG    MANUAL

 SP          0        0        0        0        0        0        0
 VIC         0        0        0        0        0        0        0
 VIU         0        0        0        0        0        0        0
 DTC         0        0        0        0        0        0        0
 DTU         0        0        0        0        0        0        0
 DIF         0        0        0        0        0        0        0
 DIU         0        0        0        0        0        0        0
 SCS         0        0        0        0        0        0        0
 SCU         0        0        0        0        0        0        0
```

Description of Measurements for MSC 24

OMS 0

Terminal Equipment Accumulated
Maintenance Usage
(TERMINAL EQUIPMENT)

This counter will accumulate total maintenance usage for all units associated with the MOC, and TEC 1 through 5. These units are listed individually under OMS 1.

OMS 1

Accumulated Maintenance Usage
(USAGE)

For Administration purposes, each of the units specified is assigned, via CMS 1A, to a Terminal Equipment Center (TEC 1 to 5). All maintenance usage for units assigned to TEC 1 to 5 will be combined and accumulated in a register assigned to the Maintenance Operations Center (MOC). The occupancy counter for each of the specified units is scanned every 180 seconds. After each scan, the accumulating register for each unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units before output. Thus, the printout of each register for a specified unit type will reflect in CCS, the amount of time the units were maintenance busy.

The units are SP, VIC, VIU, DTC, DTU, DIF, DIU, SCS, and SCU. No maintenance usage is charged against units (VIU, DTU, DIU, SCU) resident in a frame that is duplex failed.

Accumulated Outage
(OUTAGE)

These counters contain the time in CCS that the specified terminal units are not available for service. The Service Degrading Conditions Table is scanned every 10 seconds and the number of units found failed in each category is added to the plant counters. Outage is defined as follows:

a. SP, VIF, DT, DIF and SCS - Duplex controller failure

b. VIU, DTU, DIU, SCU - Out-Of-Service unit is not protection switched. No outage is counted against units resident in a duplex failed frame.

TABLE 24 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 24
(PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT)

OMS 2

The counts described below (with the SP as an example unit) are outputted for the following units:

Signal Processor (SP)
Voiceband Interface Controller (VIC)
Voiceband Interface Unit (VIU)
Digroup Terminal Controller (DTC)
Digroup Terminal Unit (DTU)
Digital Interface Frame (DIF)
Digital Interface Unit (DIU)
Service Circuit System (SCS)
Service Circuit Unit (SCU)

Signal Processor Errors Peg Count
(SP UNIT ERRORS)

The entries in this counter are defined as malfunctions, the symptoms of which cannot be reproduced under program control. An interrupt associated with a Signal Processor causes this counter to be incremented by one. The Unit Fault Recognition (FR) program will increment this Peg Counter.

Signal Processor Located Faults Peg Count
(SP LOC FAULTS)

This item is defined as a fault occurrence that can be resolved through analysis, to a replaceable equipment unit. This counter will be incremented by one when an interrupt causes execution of the FR program, which requests that the unit be diagnosed, and the diagnostic finds the trouble source.

Signal Processor Non-located Faults
Peg Counts
(SP NONLOC FAULTS)

This register will be incremented by one when a fault occurs that cannot be resolved through analysis to a replaceable equipment unit. It is incremented only when the diagnostic was requested by a fault recognition program. (The unit diagnostic would complete with an All Test Pass "ATP" result.)

Signal Processor Diagnostics Program
Requested Peg Count
(SP DIAG REQ PROG)

This counter will be incremented by one each time the unit diagnostic program is executed, unless its execution has been manually requested.

Signal Processor Diagnostic Manually
Requested Peg Count
(SP DIAG REQ MAN)

Each time the unit diagnostic program is executed by a manual request, this counter will be incremented by one.

Signal Processor Diagnostics Program
Requested - All Tests Passed Peg Count
(SP DIAG ATP PROG)

This counter will be incremented by one each time the unit diagnostic program is executed with an ATP result. This does not include diagnostics requested manually.

Signal Processor Diagnostics Manually
Requested - All Tests Passed Peg Count
(SP DIAG ATP MAN)

This counter will be incremented by one each time the unit diagnostic program is executed by a manual request with an ATP result.

TABLE 25

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
MSC 25  CONTROL AREA ZERO
OMS 0  CONTROL AREA SUMMATION
  TOTAL IMAS     TRK MTC OCC
          0               0

OMS 1  INCOMING IMAS
         MF EQ  DP EQ   Q931   ISUP   ITUP   INUP  DTMF   IOC
  PST        0      0      0      0      0      0     0     0
  FSA        0      0      0      0      0      0     0     0
  PDA        0      0      0      0      0      0     0     0
  PDT        0      0      0      0      0      0     0     0
  PER        0      0      0      0      0      0     0     0
  ANF        0      0      -      -      -      -     -     -
  AIF        0      0      -      -      -      -     -     -
  AOF        0      0      -      -      -      -     -     -

OMS 2  INCOMING IMAS
         MF EQ  DP EQ   Q931   ISUP   ITUP   INUP  DTMF   IOC
  MAB        0      0      0      0      0      0     0     0
  CST        0      0      -      -      -      -     -     -
  CDT        0      0      -      -      -      -     -     -

OMS 3    OUTGOING IMAS AND GLARE FAILURES
          MF EQ   DP EQ    Q931    ISUP    ITUP   INUP   DTMF
  UXS         0       0       0       0       0      0      0
  IKF         0       0       0       0       0      0      -
  CPF         0       0       0       0       0      0      0
  NSD         0       0       0       0       0      0      0
  XST         0       0       0       0       0      0      -
  GLR         0       0       0       0       0      0      0
  GLC         0       0       0       0       0      0      0

OMS 4  OOS PEG COUNTS
      RR       OTF        MAN      EASF      CGA
       0         0          0         0        0
     NIU       TSF        BLK       CCF      HAW
       0         0          0         0        0

ERR ANAL SUSP FLT(NOT OOS)
                  0

OMS 5  ATTEMPTS AND MAINTENANCE USAGE
 ATT      MF EQ     DP EQ     Q931     ISUP    CCIS
  IN          0         0        0        0       0
  OUT         0         0        0        0       0
  MTC         0         0        0        0       0

OMS 6  CCIS INEFFECTIVE ATTEMPTS

                    ------- VPA TESTS -------
     CKF      CLF      ATT     COMP      FAIL
       0        0        0        0         0
```

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
OMS 7  ROTL
                TEST    TEST
                 ATT     COMP
  CODE 100         0       0
  CODE 102         0       0
  CODE 105         0       0

OMS 8  TERMINATING TEST LINES
  ATTEMPTS
     100     102      103     104      105      106
       0       0        0       0        0        0
     107     108      109     110     SYNCHR   DATA
       0       0        0       0        0        0
  OVERFLOWS
     100     102      103     104      105      106
       0       0        0       0        0        0
     107     108      109     110     SYNCHR   DATA
       0       0        0       0        0        0

OMS 9  ROUTINE OPERATIONAL TESTS
              TEST    TEST    TEST
               ATT    PASS    FAIL
  CODE 103       0       0       0
  QIC            0       0       0
  SYNCHR         0       0       0
  CENTREX 2      0       0       0
  CENTREX 3      0       0       0
  SXS            0       0       0
  FTT            0       0       0

OMS 10  TEST ACCESS CIRCUIT
  ORIG   101 ORIG  INC ATT  101 FTB  INC OVF  101 XFR
      0       0         0        0        0        0
  TOTAL   101   INC 101  MAINT
  USAGE  USAGE   USAGE   USAGE
      0      0       0       0

OMS 11  INTERNATIONAL ATTEMPTS AND MAINT. USAGE
                CCITT5     CCITT6     ITUP      INUP
INC ATTEMPTS         0          0        0         0
OUT ATTEMPTS         0          0        0         0
MAINT USAGE          0          0        0         0

OMS 12  OOS PEG COUNTS
  ATME-B    ATME-C
       0         0

OMS13 INTERNATIONAL TRUNK TESTS-DIRECTOR
        ATTEMPTS      PASS      FAIL
ATME-B         0         0         0
ATME-C         0         0         0
```

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
OMS 14  INTERNATIONAL TRUNK TESTS-RESPONDER
        ATTEMPTS      OVFL
ATME-A         0         0
ATME-B         0         0
ATME-C         0         -

OMS 15  ATME FAILURES
INV INC TC          0
DIR/RES IRREG       0

OMS 16  CCITT5 CALL IRREGULARITIES
--INCOMING--
IDLE-URS      FS-TO     PST-TO     SOP-TO     IAD-TO      URS  PLS-ERR
       1          0          0          0          0        0        0
--OUTGOING--
  DS-CLF     DS-URS      DS-TO     PTS-TO
       0          0          0          0
  TX-ERR        URS         BF     PS-PTS
       0          0          0          0
--WAITING FOR ANSWER--
      TO    URS-ICT    URS-OGT     BF-OGT     ANS-TO  ANS-ACK-TO
       0          0          0          0          0         0
--ANSWERED--
 URS-ICT    URS-OGT
       0          0
--DISCONNECTED--
  CLB-TO     NO-CLF      PS-CB     NO-RLG     CLF-TO    PS-RLG
       0          0          0          0          0         0
--ABANDONS--
     ISA        IAD        MAB
       0          0          0
--OTHERS--
 MULT SP       URS-CCITT6
       0               0
FIRST TRIAL - CCITT5
  GLARE              0
  NSD                0
  OUTPULSING         0
  SIG IRREG          0

OMS 17  CCITT6 ACKNOWLEDGEMENT TIMEOUTS
     BLA     UBA
       0       0
```

Description of Measurements for MSC 25

These performance measurements are associated with trunks and they will be kept on a Control Area basis. The number of Control Areas is office dependent. The number of counter blocks is also office dependent, one for each Control Area. Each block will correspond to a Control Area or Administration Area within the Circuit Maintenance System CMS 1A. Each Trunk Subgroup in the office is assigned to one and only one Control Area. The counters associated with the data block 0, corresponding to Control Area 0, will be the performance measures of all Trunk Subgroups assigned to Control Area 0. So, Plant Maintenance performance data on a per Trunk Subgroup basis will not be available. However, the ability will be provided

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

whereby at most, 31 individual Trunk Subgroups can be monitored for ineffective attempts, total attempts, and maintenance usage, using one or all of the Control and Administrative.

All the following counts listed with the exceptions of the total attempts counts and the accumulated maintenance usage, will be incremented by the Trunk Maintenance Administration Program (TMAD). This program is responsible for removing trunks from service and has available to it the data about signaling characteristics and reasons for removal. TMAD is aware of all trunks undergoing error analysis. This program is entered whenever there is an ineffective call attempt and has the identity and signaling characteristics of the trunk involved. The total attempts counts and the accumulated maintenance occupancy are calculated by the Traffic and Plant Measurement program.

OMS 0

Total Ineffective Machine Attempts
Peg Count
(TOTAL IMAS)

This register contains the combined counts of all registers in OMS 1 and OMS 2. All these counts are considered Ineffective Machine Attempts.

Trunk Maintenance Usage
(TRK MTC OCC)

This counter will record the combined accumulated maintenance usage of all trunks assigned to the Control Area. The trunks are scanned every 180 seconds and the program will convert this counter to CCS units before it is printed out.

OMS 1

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing
h. IOC

Permanent Signal Timeout Peg Count
(PST)

These counters will be incremented by one each time a bid for service is received on an incoming trunk, but no digits are received within the permanent signal time out interval.

False Start Abandon Peg Count
(FSA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk but no digits are received, and the call is abandoned before permanent signal timeout.

Partial Dial Abandon Peg Count
(PDA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk and at least one digit but less than the expected number of digits is received, and the bid is removed before partial dial timeout.

Partial Dial Timeout Peg Count
(PDT)

Each time at least one but less than the expected number of digits is received before timeout on an incoming trunk, one of these counters will be incremented by one.

Pulsing Error Peg Count
(PER)

These counters will be incremented by one each time one or more of the received digits is in error as defined by one of the following:

a. Mutilated Digit (MTD) - on MF pulsing calls, a single frequency or more than two frequencies are received in a digit pulse.

b. Misplaced Start (MPS) - on MF pulsing calls, an ST signal is received in an improper position.

c. False Key Pulse (FKP) - on MF pulsing calls, a second KP signal is received.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

d. Extra Digit (EXD) - More digits are received than expected.

e. Extra Pulse (EXP) - on DP calls, an 11th pulse is received for a single digit.

f. Pulsing Error Other (PEO) - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above.

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

These counters will be incremented by one for CAMA ANI calls when 5-seconds have elapsed between reception of an information digit and the calling party number digits. These counters will also be incremented when the ANI equipment receives invalid or non-MF calling party digits, or the ANI information digit is non-MF tone. The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure Peg Count
(AIF)

These counters will be incremented by one for CAMA ANI calls that exceed 5 seconds waiting for the ANI information digit, or the ANI information is not:

a. 0 - ANI OK
b. 3 - ANI OK - Service Observing
c. 1 - ANI Multi-party
d. 4 - ANI Multi-party - Service Observing

The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure Peg Count
(AOF)

These counters will be incremented by one for CAMA ANI calls for which a five second timeout occurs while waiting for the ANI information digit. The call is then transferred to an operator for further handling.

OMS 2

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing
h. IOC

Miscellaneous Abandon Peg Count
(MAB)

These counters will be incremented by one each time a bid for service is abandoned before completion of outpulsing and after the completion of inpulsing and no other abandon register is pegged.

CAMA Seizure Timeout Peg Count
(CST)

With each occurrence of the following situation, these counters will be incremented by one. When the CAMA operator position circuit automatically recognizes a seizure, the circuit returns an on-hook on the keying trunk, and the keying trunk fails to go on-hook within 5-seconds of when the seizure was sent.

CAMA Disconnect Timeout Peg Count
(CDT)

This counter is incremented when more than 5-seconds elapses between the sending of a disconnect signal to a CAMA operator position and the receipt of off-hook on the keying trunk.

OMS 3

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Unexpected Stop
(UXS)

These counters will be incremented by one each time an unexpected stop dial signal is received. This includes the following:

a. Any stop dial during pulsing on an MF trunk.

b. Any stop dial during pulsing on a DP trunk that does not have expect stop-go class.

c. A second stop dial during pulsing on a DP trunk that does not expect stop-go class.

d. On DP, expect stop-go trunks, a stop dial at an invalid time.

Integrity Check Failure
(IKF)

These counters will be incremented by one each time there is a failure to receive a delay dial signal on a delay dial start dial trunk within 4-seconds of trunk seizure.

Continuity/Polarity Test Failure
(CPF)

These counters are incremented by one each time one of the following conditions occur:

a. An incoming seizure is processed on a one way outgoing trunk.

b. An off-hook on an operator no-outpulsing trunk occurs where the operator fails to hang up within a 1-second timeout interval.

c. An off-hook on maintenance test trunks and service circuits occur.

No Start Dial
(NSD)

These counters will be incremented by one each time there is a failure to receive a wink start signal within 4-seconds of a trunk seizure, a failure to receive on-hook on a one way outgoing trunk, and failure of the far end office to relinquish the trunk within the 4-second timeout interval when glare occurred on a trunk that the near end office has control of.

Expected Stop Timeout
(XST)

This counter is incremented by one each time, on any DP trunk with expected stop-go class, an unexpected stop dial signal is received during outpulsing and persists beyond the transmitter timeout interval.

Glare Condition - Far End in Control
(GLR)

These counters will be incremented by one each time the 4ESS Switch and the far end office simultaneously attempt to seize the same trunk, and the 4ESS Switch relinquishes control. The 4ESS Switch backs down if the far end office has control of the trunk and if a check to determine whether the outgoing trunk is on-hook before seizure indicates that the trunk is off-hook and when for a given call, the TSN of the outgoing trunk had to be retrieved from disk memory for 3 different trunks and on each successful retrieval the trunk was found busy.

Glare Condition - 4ESS Switch in Control
(GLC)

This counter is incremented by one each time the 4ESS Switch and a far end office simultaneously attempt to seize the same trunk, and the 4ESS Switch is in control.

OMS 4

Out-Of-Service Peg Counts are kept for trunks as they are removed from service. These Peg Counts indicate the reason for removal from service.

Out-Of-Service ROTL Request Peg Count
(OOS - RR)

Out-Of-Service Operational Test Failure
Peg Count
(OOS - OTF)

Out-Of-Service Manual Request Peg Count
(OOS - MAN)

Out-Of-Service Error Analysis Suspected
Failure Peg Count
(OOS - EASF)

Out-Of-Service Carrier Group Alarm
Peg Count
(OOS - CGA)

Out-Of-Service Equipment Failure, VIU,
DTU, ESU Peg Count
(OOS - NIU)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Out-Of-Service Total Signaling Failure
Peg Count (CCIS trunk only)
(OOS - TSF)

Out-Of-Service Blocking Received (CCIS
Trunks) from Far End Office Peg Count
(OOS - BLK)

Out-Of-Service Continuity Check Retest
Failure Peg Count
(OOS - CCF)

Out-Of-Service High and Wet Peg Count
(OOS - HAW)

Error Analysis Suspected Failure Peg Count
(ERR ANAL SUSP FLT - NOY OOS)

Each time the error analysis encounters a suspected failure and leaves the trunk in service, this counter is incremented by one.

OMS 5

The performance measurements for each of the following measurements will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. CCIS trunks

Incoming Attempts
(ATTEMPTS IN)

These counts will be calculated by accumulating the incoming seizures for which at least one digit was received on message Trunk Subgroups. This count will not include false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Outgoing Attempts
(ATTEMPTS OUT)

These counts will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing message Trunk Subgroups. Since there is only one seizure Peg Count for outgoing call attempts, these counts will be off by the number of retrials attempted.

Maintenance Usage
(MTC USAGE)

These counters will accumulate maintenance usage of all message trunks assigned to this Control Area.

OMS 6

Continuity Check Failure (CKF) Peg Count
(CKF)

Each time a failure of the continuity test of a CCIS trunk that is made before a voice path cut through occurs, this register will be incremented by one.

Clear-Forward Received Peg Count
(CLF)

This counter is incremented each time a Clear-Forward signal is received on an incoming trunk in the transient state.

Voice Path Assurance (VPA) Test Attempted
Peg Count
(VPA TESTS ATT)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

Voice Path Assurance (VPA) Test Completed
Peg Count
(VPA TESTS COMP)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

Voice Path Assurance (VPA) Test Failure
Peg Count
(VPA TESTS FAIL)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

OMS 7

Code 10X Test Attempted Peg Count
(TEST ATT)

Code 10X Test Completed Peg Count
(TEST COMP)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

These counters, by test type, will be incremented by one each time ROTL attempts or completes a transmission test on a trunk. The following codes identify the types of transmission tests:

1. CODE 100
2. CODE 102
3. CODE 105

OMS 8

Terminating Test Line Tests Attempts
(ATTEMPTS)

Terminating Test Line Tests Overflows
(OVERFLOWS)

These counters will record the total number of call attempts made to the following terminating test lines and the total attempts that overflow.

1. 100
2. 102
3. 103
4. 104
5. 105
6. 106
7. 107
8. 108
9. 109
10. 110
11. SYNCHRONOUS (SYNCHR)
12. DATA

OMS 9

Routine Operational Tests Attempted
(TEST ATT)

Routine Operational Tests Passed
(TEST PASS)

Routine Operational Tests Failed
(TEST FAIL)

These counters will record total test attempts, test passed and test failures for types of outgoing operational tests.

1. CODE 103
2. Quick Integrity Check (QIC)
3. Synchronous Test (SYNCHR)
4. Centrex 2 Test (CENTREX 2)
5. Centrex 3 Test (CENTREX 3)
6. Step by Step Test (SXS)
7. Functional Trunk Test (FTT)

OMS 10

Test Access Circuit Origination Peg Count
(ORIG)

Each time a Test Access Circuit is seized for originating a maintenance request, this counter is incremented by one.

Code 101 Origination Peg Count
(101 ORIG)

This counter will be incremented by one each time a Test Access Circuit is seized to originate a code 101 test call.

Incoming Code 101 Peg Count
(INC ATT)

This counter will be incremented by one each time an attempted seizure is made on a Code 101 Test Access Circuit. The count is incremented based on the Control Area that is assigned to the incoming trunk through translation data. This count also includes test attempts that are aborted.

Code 101 First Trial Busy Peg Count
(101 FTB)

When an incoming code 101 test call attempts to terminate at a test position, which is determined by the trunk or by a request for a test position through the digits received, and this first choice test position cannot be seized, this counter will be incremented by one.

Incoming Code 101 Overflow Peg Count
(INC OVF)

This counter is incremented by one each time an incoming 101 test call is unable to be terminated.

Code 101 Transfer Peg Count
(101 XFR)

This counter will be incremented by one each time the Test Access Circuit transfer facility is utilized. The counter is incremented based on the Control Area that is assigned to the incoming trunk through translation data.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Total Test Access Circuit Usage
(TOTAL USAGE)

This counter will be incremented by the number of Test Access Circuits found busy after each 180 second scan. This count does not include maintenance usage. The program will convert the data to CCS units before output.

Code 101 Usage
(101 USAGE)

This counter will record the accumulated Test Access Circuit Usage attributable to outgoing code 101 test calls.

Incoming Code 101 Usage
(INC 101 USAGE)

This counter will record the accumulated Test Access Circuit Usage attributable to incoming code 101 code test calls.

Maintenance Test Access Circuit Usage
(MAINT USAGE)

This counter will record the accumulated Test Access Circuit maintenance busy usage.

OMS 11

CCITT No. 5, CCITT No. 6, ITUP and INUP
Incoming Attempts
(INC ATTEMPTS)

These counts will be calculated by accumulating the incoming seizures for which at least one digit was received on CCITT No. 5, CCITT No. 6, ITUP or INUP Trunk Subgroups. These counts do not include false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

CCITT No. 5, CCITT No. 6, ITUP and INUP
Outgoing Attempts
(OUT ATTEMPTS)

These counts will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing message Trunk Subgroups. Since there is only one seizure Peg Count for CCITT No. 5, CCITT No. 6, ITUP or INUP outgoing call attempts, respectively, these counts will be off by the number of retrials attempted.

CCITT No. 5, CCITT No. 6, ITUP and INUP
Maintenance Usage
(MAINT USAGE)

After each 180 second scan period, these counts will be incremented by the number of CCITT No. 5, CCITT No. 6, ITUP or INUP trunks found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

OMS 12

ATME-B Out-Of-Service Peg Count
(ATME-B OOS)

This counter is incremented by one each time a trunk is taken out-of-service because it failed either a hardware or software requested ATME-B Director Test.

ATME-C Out-Of-Service Peg Count
(ATME-C OOS)

This counter is incremented by one each time a trunk is taken out-of-service because it failed either a hardware or software requested ATME-C Director Test.

OMS 13

ATME-B Director Tests Attempted Peg Count
(ATME-B ATTEMPTS)

This count is incremented by one each time an ATME-B Director is seized as a result of a hardware or software request for testing.

ATME-B Director Tests Passed Peg Count
(ATME-B PASS)

This count is incremented by one each time an ATME-B director successfully passes the Director test requested.

ATME-B Director Tests Failed Peg Count
(ATME-B FAIL)

This count is incremented by one each time an ATME-B Director fails to pass the Director test requested.

ATME-C Director Tests Attempted
Peg Count
(ATME-C ATTEMPTS)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

This count is incremented by one each time an ATME-C Director is seized as a result of a hardware or software test request.

ATME-C Director Tests Passed Peg Count
(ATME-C PASS)

This count is incremented by one when an ATME-C Director passes successfully the Director tests required.

ATME-C Director Tests Failed Peg Count
(ATME-C FAIL)

This count is incremented by one each time an ATME-C Director fails to pass the Director test.

OMS 14

ATME-A Responder Tests Attempted
Peg Count
(ATME-A ATTEMPTS)

This count is incremented by one each time an ATME-A Responder is seized from a distant office for testing.

ATME-A Responder Tests Overflowed
Peg Count
(ATME-A OVFL)

This count is incremented by one when a request is made by a distant office to seize an ATME-A Responder for testing and none is available.

ATME-B Responder Tests Attempted
Peg Count
(ATME-B ATTEMPTS)

This count is incremented by one each time an ATME-B Responder is seized from a distant office for testing.

ATME-B Responder Tests Overflowed
Peg Count
(ATME-B OVFL)

This count is incremented by one when a request is made by a distant office to seize an ATME-B Responder for testing and none is available.

ATME-C Responder Tests Attempted
Peg Count
(ATME-C ATTEMPTS)

This count is incremented by one each time an ATME-C Responder is seized from a distant office for testing.

OMS 15

Invalid Incoming ATME Test Call Peg Count
(INV INC TC)

This counter is incremented by one when an inbound call on a CCITT No. 5 or CCITT No. 6 trunk has been determined to be invalid.

ATME Director/Responder Irregularities
Peg Count
(DIR/RES IRREG)

This counter is incremented by one when a signaling irregularity has been detected on an inbound or outbound automatic trunk measuring equipment (ATME) test call on a CCITT No. 5 or CCITT No. 6 trunk.

OMS 16

INCOMING

Unreasonable Signal Peg Count
(IDLE-URS)

This counter is incremented by one if one of the following frequencies is received on an idle circuit:

a. (F1+F2)
b. (F2)
c. (F1) on an idle one-way Outgoing Trunk

False Seizure Timeout Peg Count
(FS-TO)

This counter is incremented by one if a Clear-Forward signal is not received on an incoming trunk within a 40-second timing interval after the loss of a seizing signal (F1), and before a Proceed-To-Send signal was sent.

Proceed-To-Send Signal Timeout Peg Count
(PST-TO)

This counter is incremented by one when a seizing signal (F1), is not removed within 6-seconds of transmitting a Proceed-To-Send signal.

Start of Pulsing Timeout Peg Count
(SOP-TO)

This counter is incremented by one when the KP-signal is not received within 2-seconds after the Proceed-To-

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Send signal is removed.

Incomplete Address Timeout Peg Count
(IAD-TO)

This counter is incremented by one when an ST-signal is not received within 5-seconds after receipt of the KP-signal.

Unreasonable Signal Peg Count
(URS)

This counter is incremented by one when an (F1) or (F2) signal is received during register timing on an incoming call.

Pulsing Error Peg Count
(PLS-ERR)

This counter is incremented by one each time one or more of the following digits is in error as defined by one of the following:

a. Mutilated Digit (MTD) - On MF pulsing calls, a single frequency or more than two frequencies are received in a digit pulse.

b. Misplaced Start (MPS) - On MF outpulsing calls, an ST-signal is received in an improper position.

c. False Key Pulse (FKP) - On MF pulsing calls, a second KP-signal is received.

d. Extra Digit (EXD) - More digits are received than are expected.

OUTGOING

Double Seizure - Clear-Forward Peg Count
(DS-CLF)

This count is incremented by one if a Clear-Forward (F1+F2) signal is received instead of a Proceed-To-Send signal.

Double Seizure - Unreasonable Signal
Peg Count
(DS-URS)

This count is incremented by one if an (F2) signal is received on the outgoing trunk during the 850-millisecond double seizure (Glare) timing interval.

Double Seizure Timeout Peg Count
(DS-TO)

This counter is incremented by one if an incoming seizure signal persists for 20-seconds after the terminating seizure is released following an 850-millisecond glare timeout.

Seizing Signal Timeout Peg Count
(PTS-TO)

This counter is incremented by one if the Proceed-To-Send signal is not received within 20-seconds after sending the seizure signal (F1).

Transmitter Error Peg Count
(TX-ERR)

This counter is incremented by one if an MF Transmitter fails during outpulsing.

Unreasonable Signal Peg Count
(URS)

This counter is incremented by one if an (F1) or (F1+F2) signal is received during outpulsing.

Busy-Flash Peg Count
(BF)

This counter is incremented by one if a Busy-Flash (F2) signal is received during outpulsing.

Persisting Proceed-To-Send Signal Peg Count
(PS-PTS)

This counter is incremented by one if the Proceed-To-Send signal is not removed from the outgoing trunk within 20-seconds after the completion of outpulsing.

WAITING FOR ANSWER

Timeout Peg Count
(TO)

This counter is incremented by one if an answer signal is not received within 4-minutes after outpulsing is completed.

Unreasonable Signal on the Incoming Trunk
Peg Count
(URS-ICT)

This counter is incremented by one if a seizure signal (F1) is received on the incoming trunk during the 4-minute waiting-for-answer.

Unreasonable Signal on the Outgoing Trunk

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Peg Count
(URS-OGT)

This counter is incremented by one if an (F1,F2) signal is received on an outgoing trunk that is in the waiting-for-answer stage.

Busy-Flash on the Outgoing Trunk Peg Count
(BF-OGT)

This counter is incremented by one if a Busy-Flash (F2) signal is received on the outgoing trunk while in the waiting-for-answer stage.

Answer Signal Timeout Peg Count
(ANS-TO)

This counter is incremented by one if an answer acknowledgement signal (F1) is not received within 15-seconds of sending an answer signal (F1) on the incoming trunk.

Answer-Acknowledgement Signal Timeout
Peg Count
(ANS-ACK-TO)

This counter is incremented by one if the answer acknowledgement signal (F1) is not stopped on the outgoing trunk within 6-seconds of sending the answer-acknowledgement signal (F1).

ANSWERED

Unreasonable Signal on the Incoming Trunk
Peg Count
(URS-ICT)

This counter is incremented by one if an (F1) signal is not received on an incoming trunk in the answered call state.

Unreasonable Signal on the Outgoing Trunk
Peg Count
(URS-OGT)

This counter is incremented by one if an (F1+F2) or an (F1) signal is received on an outgoing trunk in the answered call state.

DISCONNECTED

Clear-Back/Busy-Flash Signal Timeout
Peg Count
(CLB-TO)

This counter is incremented by one when an acknowledgement signal (F1) is not received within 15-seconds of sending a Clear-Back or Busy-Flash (F2) signal.

Failure to Receive Clear-Forward Peg Count
(NO-CLF)

This counter is incremented by one if a Clear-Forward signal is not received within 60-seconds after receipt of a Clear-Back or Busy-Flash acknowledgement (4-minutes if it is a transit call).

Clear-Back and Busy-Flash Acknowledgement
Signal Timeout Peg Count
(PS-CB)

This counter is incremented by one if the Clear-Back or Busy-Flash signal is not removed within 6-seconds after sending Clear-Back or Busy-Flash acknowledgement.

Release-Guard Signal Timeout Peg Count
(NO-RLG)

This counter is incremented by one if on sending a Release-Guard (F1+F2) signal on the incoming trunk, the Clear-Forward signal is not removed within 6-seconds.

Clear-Forward Signal Timeout Peg Count
(CLF-TO)

This counter is incremented by one if on sending a Clear-Forward (F1,F2) signal on an outgoing trunk, a Release-Guard (F1+F2) signal is not received within the Clear-Forward timing interval.

Persisting Release Guard Signal Peg Count
(PS-RLG)

This counter is incremented by one if a Release-Guard signal is not removed within 15-seconds of removing Clear-Forward.

ABANDONS

Incoming Seizure Abandon Peg Count
(ISA)

This counter is incremented by one if:

a. The seizing signal (F1) on an incoming trunk stops before a Proceed-To-Send signal is sent, and a Clear-Forward (F1+F2) signal is received before a 40-second timeout occurs.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

b. If a Clear-Forward signal is received the Proceed-To-Send signal is sent but before the reception of a KP-signal.

Incomplete Address Abandon Peg Count
(IAD)

This counter is incremented by one if a Clear-Forward signal is received on an incoming call after a KP-signal has been received but before receiving the ST-signal.

Miscellaneous Abandon Peg Count
(MAB)

This counter is incremented by one if a Clear-Forward signal is received on the incoming trunk before completion of outpulsing on a CCITT No. 5 outgoing trunk.

OTHERS

Multiple Scan Points Active Peg Count
(MULT SP)

This count is incremented by one when more than one scan point is active at the same time on a CCITT No. 5 circuit.

Unreasonable Signal on an Idle
CCITT No. 6 Trunk Peg Count
(URS-CCITT6)

This counter is incremented by one when an unreasonable signal is received on an idle CCITT No. 6 trunk.

First Trial Glare Fail CCITT No. 5 Trunk
Peg Count
(FIRST TRIAL-CCITT5-GLARE)

This counter is incremented by one when a first trial glare condition has been encountered on a CCITT No. 5 outgoing trunk.

First Trial No. Start Dial (NSD) -
CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-NSD)

This counter is incremented by one when an outbound call encounters a first trial proceed to send timeout on a CCITT No. 5 trunk.

First Trial Outpulsing Fail
CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-OUTPULSING)

This counter is incremented by one when an outbound call encounters a first trial outpulsing failure on a CCITT No. 5 trunk.

Incoming Signal Irregularities Before
Answer CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-SIG IRREG)

This counter is incremented by one when a signaling irregularity occurs before answer on a CCITT No. 5 outgoing trunk.

OMS 17

Blocking Acknowledgement Timeout
Peg Count
(BLA)

This count is incremented by one if on sending a blocking signal a blocking acknowledgement signal is not received within 6-minutes.

Unblocking Acknowledgement Timeout
Peg Count
(UBA)

This count is incremented by one if on sending an unblocking signal, an unblocking acknowledgement signal is not received within 6-minutes.

TABLE 26

OUTPUT MEASUREMENT SETS FOR MSC 26
(CONTROL AREA ONE)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area One.
```

TABLE 27

OUTPUT MEASUREMENT SETS FOR MSC 27
(CONTROL AREA TWO)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Two.

TABLE 28

OUTPUT MEASUREMENT SETS FOR MSC 28
(CONTROL AREA THREE)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Three.
```

TABLE 29

OUTPUT MEASUREMENT SETS FOR MSC 29
(CONTROL AREA FOUR)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Four.

TABLE 30

OUTPUT MEASUREMENT SETS FOR MSC 30
(CONTROL AREA FIVE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Five.

TABLE 31

OUTPUT MEASUREMENT SETS FOR MSC 31
(CONTROL AREA SIX)

The layout and count definitions of this MSC are identical to MSC 25. This MSC provides data for Control Area Six.

TABLE 32

OUTPUT MEASUREMENT SETS FOR MSC 32
(CONTROL AREA SEVEN)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Seven.
```

TABLE 33

OUTPUT MEASUREMENT SETS FOR MSC 33
(CONTROL AREA EIGHT)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Eight.

TABLE 34

OUTPUT MEASUREMENT SETS FOR MSC 34
(CONTROL AREA NINE)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Nine.
```

TABLE 35

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

```
MSC 35  SERVICE CIRCUITS
OMS 0 MAINTENANCE SERVICE CIRCUITS MAINTENANCE OCCUPANCIES

      RA      RT    ROTL  MF RCVR TST  MF XMTR TST   CSTD    XCVR TEST
       0       0       0           0            0       0            0

OMS 1  MAINTENANCE SERVICE CIRCUITS MEASUREMENTS
         LOC   NONLOC    SEIZ  SEIZ   TOTAL
  UNIT  FLTS    FLTS     ATT   OVFL   USAGE   SCF
  RA       0       0       -      -       -      -
  RT       0       0       -      -       -      -
  ROTL     -       -       0      0       0      0
  MRCT     -       -       -      -       0      -
  MXMT     -       -       -      -       0      0
  CSTD     0       0       0      0       0      -
  XCVR     0       0       -      -       0      -

OMS 2  ATME-A
               SZRE     USAGE  MTC USAGE
RESPONDER         0         0          0

OMS 3  TMR SEIZURES
              ATT        OVFL
                0         0
```

Description of Measurements for MSC 35

OMS 0

Maintenance Busy Occupancy

The occupancy counter for each of the specified units is scanned every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register will reflect, in CCS, the amount of time each of the following types of units were maintenance busy.

1. Recorded Announcement Machine (RA)
2. Ringing and Tone Plant (RT)
3. Remote Office Test Line (ROTL)
4. MF Receiver Test Circuit (MF RCVR TST)
5. MF Transmitter Test Circuit (MF XMTR TST)
6. Common System Tone Detector (CSTD)
7. CCIS Transceiver Test Circuit (XCVR TEST)

OMS 1

Recorded Announcement Machine Located
Faults Peg Count
(RA LOC FLTS)

This counter is incremented by one each time the Recorded Announcement machine diagnostic locates a fault.

Recorded Announcement Machine Non-located
Faults Peg Count
(RA NONLOC FLTS)

This counter is incremented by one each time the Recorded Announcement machine diagnostic is run and no fault is found.

Ringing and Tone Plant Located Faults
Peg Counts
(RT LCO FLTS)

This counter is incremented by one each time the ringing and tone plant diagnostic locates a fault.

Ringing and Tone Plant Non-located Faults
Peg Count
(RT NONLOC FLTS)

TABLE 35 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

This counter is incremented by one each time the ringing and tone plant diagnostic is run and no fault is found.

Remote Office Test Line Seizure
Attempts Peg Count
(ROTL SEIZ ATT)

Each time a 4ESS Switch program attempts to seize a ROTL port, this counter is incremented by one.

Remote Office Test Line Seizure Overflow
Peg Count
(ROTL SEIZ OVFL)

This counter is incremented by one each time a 4ESS Switch program attempts to seize a ROTL port but none are available.

Remote Office Test Line Total Usage
(ROTL TOTAL USAGE)

This counter will record the accumulated usage for ROTL ports. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

Remote Office Test Line Self-Check Fail
Peg Count
(ROTL SCF)

This counter will be incremented by one each time either the ROTL Responder or the 105 responder fails its self-check.

MF Receiver Test Circuit Total Usage
(MRCT TOTAL USAGE)

This counter will record the accumulated usage for MF Receiver tests sets. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

MF Transmitter Test Circuit Total Usage
(MXMT TOTAL USAGE)

This counter will record the accumulated usage for MF Transmitter test sets. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

MF Transmitter Test Self-Check Fail
Peg Count
(MXMT SCF)

Each time an MF Transmitter or MF Receiver fails its self-check, this counter will be incremented by one.

Common System Tone Detector (CSTD)
Located Faults Peg Count
(CSTD LOC FLTS)

This counter will be incremented by one each time the CSTD diagnostic is executed and a fault is found.

Common System Tone Detector (CSTD)
Non-located Faults Peg Count
(CSTD NONLOC FLTS)

Each time the CSTD diagnostic is executed and no fault is found, this counter will be incremented by one.

Common System Tone Detector (CSTD)
Seizure Attempts Peg Count
(CSTD SEIZ ATT)

This counter is incremented by one each time an attempt is made to seize a CSTD.

Common System Tone Detector (CSTD)
Seizure Overflow Peg Count
(CSTD SEIZ OVFL)

This counter is incremented by one each time an attempt is made to seize a CSTD and none is available.

Common System Tone Detector (CSTD)
Total Usage
(CSTD TOTAL USAGE)

This counter will record the accumulated usage for all CSTDs. This count does not include maintenance usage.

CCIS Transceiver Test Circuit
Located Faults Peg Count
(XCVR LOC FLTS)

This counter is incremented by one each time the CCIS Transceiver diagnostic locates a fault.

CCIS Transceiver Test Circuit
Non-located Faults Peg Count
(XCVR NONLOC FLTS)

This counter is incremented by one each time the CCIS Transceiver diagnostic is run and no fault is found.

CCIS Transceiver Test Circuit Total Usage
(XCVR TOTAL USAGE)

TABLE 35 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

This counter will record the accumulated usage for CCIS Transceiver test circuits. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

OMS 2

ATME-A Responder Incoming Seizures
Peg Count
(RESPONDER SZRE)

This counter is incremented by one each time an ATME-A responder is seized by the office for testing.

ATME-A Responder Total Usage
(RESPONDER USAGE)

This counter will record the accumulating usage for ATME-A responder test circuits. This count does not include maintenance usage. The scan rate is 180 seconds and the data is converted to CCS by the traffic program before output.

ATME-A Responder Maintenance Usage
(RESPONDER MTC USAGE)

This counter will record the accumulated maintenance usage for ATME-A responder test circuits. This count does not include service usage. The scan rate is 180 seconds and the data is converted to CCS by the traffic program before output.

OMS 3

Trunk Maintenance Register Seizure
Attempts Peg Count
(TMR SEIZURES ATT)

Each time an attempt is made to seize a TMR, this register is incremented by one.

Trunk Maintenance Register Seizure
Overflow Peg Count
(TMR SEIZURES OVFL)

Each time an attempt is made to seize a TMR and there are none available this register is incremented by one.

TABLE 36

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

```
MSC 36  SERVICE MEASUREMENTS
OMS 0 INCOMING IA, CCIS, ISUP, ITUP, INUP AND Q931
  INC ADRS   COT SIG    ISUP IAD  ISUP COT  ISUP COT  ITUP COT
    DET        T/O         DET      FAIL      T/O       FAIL
      0          0           0         0         0          0

  ITUP COT    INUP        INUP    INUP COT    Q931      Q931
    T/O        IAD         COT      T/O     INC ADRS    INFO
      0          0           0         0         0          0

    Q931      ISUP        ISUP      ITU       ITUP      INUP
     URS       URS        MISC       UR       MISC       URS
    RCVD      RCVD         T/O      RCVD       T/O      RCVD
      0          0           0         0         0          0

  INUP MSC  ITUP IRR    ITUP OUT  INUP IRR  INUP OUT
    T/O       B4ANS     IRR B4ANS   B4ANS   IRR B4ANS
      0          0           0         0         0

OMS 1  INCOMING IAS,BEFORE ADDR SIGNALING
         MF EQ  DP EQ   Q931   ISUP   ITUP  INUP  DTMF  IOC
  PST       0      0      0      0      0     0     0    0
  FSA       0      0      0      0      0     0     0    0

OMS 2  INCOMING IAS,DURING ADDRESS SIGNALING
         MF EQ  DP EQ   Q931   ISUP   ITUP  INUP  DTMF  IOC
  PDA       0      0      0      0      0     0     0    0
  PDT       0      0      0      0      0     0     0    0
  PER       0      0      0      0      0     0     0    0

OMS 3  INCOMING IAS,CALLING PARTY SIGNALING
         MF EQ  DP EQ
  ANF       0      0
  AIF       0      0
  AOF       0      0

OMS 4  OUTGOING IAS
         MF EQ  DP EQ    Q931    ISUP    ITUP    INUP  DTMF   IOC
  MAB         0      0       0       0       0       0     0     0

  OVERLOAD RETRY CANCEL       0
  CCIS
   CALL FAIL DETECTION        0
   SGNLING NWK FAILURE        0
   ADC SGN TIMEOUT            0
  ITUP
   ADC SGN TIMEOUT            0
  INUP
   ADC SGN TIMEOUT            0

  FINAL TRIAL GROUP
    CKF  TUPCKF  NUPCKF   UXS     IKF     NSD     XST   GLARE
      0       0       0    0       0       0       0       0
```

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

```
 MFT ERR
      0
 OTHER ERRORS
MFT OPLS    CPF    NO XCVR FTF
      0       0           0
OMS 5  CAMA POSITION IRREGULARITIES
  FREE CLS  POS REPT
        0         0
OMS 6  CALLS LOST DUE TO MACHINE IRREG
                                                          RCPT
            PHASE    VIU    DTU    DIU     ESU  SCS   TRNK OR BAND
TRANSIENT       0      0      0      0       0    0           -
STABLE          0      0      0      0       0    0           0
             D3U
TRANSIENT       0
STABLE          0
OMS 7  CCITT6 FINAL TRIAL FAILURES
     CCF     MCI     GLR     SNF
       0       0       0       0
OMS 8  CCITT5 FINAL TRIAL FAILURES-OUTGOING STAGE
  DS-CLF  PTS-TO  TX-ERR     URS      BF     GLR
       0       0       0       0       0       0
OMS 9  CCITT6 INEFFECTIVE ATTEMPTS
INCOMING    COT-TO
                 0
OUTGOING    ADC-TO
                 0
ABANDONS     MISC
                 0
WAIT ANS        CF      TO
                 0       0
DISCONNECT  CLF-TO  RLG-TO
                 0       0
OMS 10  CUSTOMER CALL TO MAS FTF
  XLATE LOOP         0
  DATA ON DISK       0
  PATH HUNT          0
  NO VAC ANN         0
  HARDWARE OOS       0
OMS 11  ADJUNCT TIMEOUTS
------------------------ ADJUNCT T303 TIMEOUTS -------------------------
        0      1      2      3      4      5      6      7      8      9
00      0      0      0      0      0      0      0      0      0      0
01      0      0      0      0      0      0
------------------------ ADJUNCT TADJ TIMEOUTS -------------------------
        0      1      2      3      4      5      6      7      8      9
00      0      0      0      0      0      0      0      0      0      0
01      0      0      0      0      0      0
```

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

Descriptions of measurements for MSC 36

OMS 0

Incomplete Address Detection Peg Count
(INC ADRS DET)

The Trunk Maintenance Administration Program (TMAD) will increment this counter by one each time a call is sent to Final Handling due to the detection of an incomplete address.

Continuity Signal Timeout Peg Count
(COT SIG T/O)

This counter is incremented by one each time a continuity (COT) timeout signal is not received within the timeout interval following the receipt of an Initial Address Message (IAM). The call will be sent to Final Handling.

ISUP Incomplete Address Detected Peg Count
(ISUP IAD DET)

On detection of an illegal digit in an ISUP IAM, this counter will be incremented by one via TMAD.

ISUP Continuity Failure Peg Count
(ISUP COT FAIL)

This counter is incremented by one when an ISUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to Final Handling.

ISUP Continuity Timeout Peg Count
(ISUP COT T/O)

This counter is incremented by one when an ISUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to Final Handling.

ITUP Continuity Failure Peg Count
(ITUP COT FAIL)

This counter is incremented by one when an ITUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to final handling.

ITUP Continuity Timeout Peg Count
(ITUP COT T/O)

This counter is incremented by one when an ITUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to final handling.

INUP Incomplete Address Detected Peg Count
(INUP IAD)

On detection of an illegal digit in an INUP IAM, this counter will be incremented by one via TMAD.

INUP Continuity Failure Peg Count
(INUP COT)

This counter is incremented by one when an INUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to final handling.

INUP Continuity Timeout Peg Count
(INUP COT T/O)

This counter is incremented by one when an INUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to final handling.

Q.931 Incomplete Address Detected
Peg Count
(Q931 INC ADRS)

An invalid address, e.g., unacceptable digit count, illegal digit in setup message on a Q.931 call, will increment this counter by one. The call will be sent to Final Handling.

Q.931 Information Element Error Detected
Peg Count
(Q931 INFO)

This counter is incremented by one when an error involving the information element field is detected on a Q.931 call. The call is sent to Final Handling.

Q.931 Unreasonable Signal Received
Peg Count
(Q931 URS RCVD)

This counter is incremented by one when an unreasonable signal, e.g., release, disconnect is received during Q.931 call setup.

ISUP Unreasonable Signal Received
Peg Count
(ISUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an ISUP call is in the setup state.

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

ISUP Miscellaneous Timeout Peg Count
(ISUP MISC T/O)

This counter is incremented by one when an ISUP test call timed out waiting for a released message.

ITUP Unreasonable Signal Received Peg Count
(ITUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an ITUP call is in the setup state.

ITUP Miscellaneous Timeout Peg Count
(ITUP MISC T/O)

This counter is incremented by one when an ITUP test call timed out waiting for a clearforward message.

INUP Unreasonable Signal Received
Peg Count
(INUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an INUP call is in setup state.

INUP Miscellaneous Timeout Peg Count
(INUP MSC T/O)

This counter is incremented by one when an INUP test call timeout waiting for a release message.

ITUP Incoming Irregularity Before Answer
Peg Count
(ITUP IRR B4ANS)

This counter is incremented by one when an irregularity such as an ADC message was returned on an ITUP call in a stable state.

ITUP Outgoing Irregularity Before Answer
Peg Count
(ITUP OUT IRR B4ANS)

This counter is incremented by one when an irregularity such as a clearing message received during setup.

INUP Incoming Irregularity Before Answer
Peg Count
(INUP IRR B4ANS)

This counter is incremented by one when an irregularity such as an ADC message returned on a stable call occurs.

INUP Outgoing Irregularity Before Answer
Peg Count
(INUP OUT IRR B4ANS)

This counter is incremented by one when an irregularity such as receiving an invalid or out of sequence message occurs.

OMS 1

Permanent Signal Timeout Peg Count
(PST)

These counters will record the total number of Permanent Signal Timeouts for the office, categorized by signaling type. These counters are a summation of the per Control Area counters.

False Start Abandon Peg Count
(FSA)

The total number of False Start Abandons for the office, categorized by signaling type, is recorded with this counter. The counters will reflect a summation of the per Control Area counters.

OMS 2

Partial Dial Abandon Peg Count
(PDA)

These total office counts of Partial Dial Abandons, categorized by signaling type, will be the summation of the per Control Area counters for PDA.

Partial Dial Timeout Peg Count
(PDT)

These total office counts of Partial Dial Timeouts categorized by signaling type, will equal the summation of the per Control Area counters for PDTO.

Pulsing Error Peg Count
(PER)

These total office counts of Pulsing Errors, categorized by signaling type, will equal the summation of the per Control Area counters for Pulsing Errors.

OMS 3

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

These counts of total office ANF will reflect the summation of the per Control Area counters for ANF.

CAMA Automatic Number Identification
Office Failure Peg Count
(AIF)

These counts of total office AIF will reflect the summation of the per Control Area Counters for AIF.

CAMA Automatic Number Identification
Office Failure Peg Count
(AOF)

These counts of total office AOF will reflect the summation of the per Control Area Counters for AOF.

OMS 4

Miscellaneous Abandon Peg Count
(MAB)

These total counts of Miscellaneous Abandons, categorized by signaling type, reflect the summations of the per Control Area Counts.

Real-Time Overload Retry Cancel Peg Count
(OVERLOAD RETRY CANCEL)

This counter is incremented by one when a call attempt retry is canceled by the real-time overload function.

CCIS Call Fail Detection Peg Count
(CCIS CALL FAIL DETECTION)

This counter is incremented by one each time a COF, RLG, and RST signal is received for a call that is sent to final Handling.

CCIS Signaling Network Failure Peg Count
(CCIS SIGNLING NWK FAILURE)

This counter is incremented by one each time a call is sent to Final Handling because of a failure to send an IAM or COT for an outgoing trunk or an ADC for an incoming trunk because of a signaling network failure and each time a Message Refusal (MRF) signal is received for an outgoing CCIS call attempt.

CCIS Address Complete Signal Timeout
Peg Count
(CCIS ADC SGN TIMEOUT)

This counter is incremented by one each time a CCIS call times out while waiting for the ADC signal from the succeeding office.

ITUP Address Complete Signal Timeout
Peg Count
(ITUP ADC SGN TIMEOUT)

This counter is incremented by one each time an ITUP call times out while waiting for the ADC message from the succeeding office.

INUP Address Complete Signal Timeout
Peg Count
(INUP ADC SGN TIMEOUT)

This counter is incremented by one each time an INUP call times out while waiting for the ADC message from the succeeding office.

Final Trial Group Peg Count
(FINAL TRIAL GROUP)

These counters will be incremented by one each time a call is lost due to an ineffective attempt on the final trial. One counter exists for each of the following outgoing ineffective attempt type.

1. CCIS Continuity Check Failure (CKF)
2. ITUP Continuity Check Failure (TUPCKF)
3. INUP Continuity Check Failure (NUPCKF)
4. Unexpected Stop Failures (UXS)
5. Integrity Check Failures (IKF)
6. No Start Dial (NSD)
7. Expected Stop Timeout (XST)
8. Glare
9. MF Transmitter Errors (MFT ERR)

Other Errors - MF Transmitter
Outpulsing Errors Peg Count
(MFT OPLS)

This counter will be incremented by one each time a MF Transmitter reports a failure while outpulsing. This count will be maintained on a Control Area basis.

Other Errors - Continuity/Polarity
Test Failures Peg Count
(CPF)

This counter will be incremented by one each time there is a failure on a Continuity and Polarity test, indicating an off-hook on a one-way outgoing trunk.

Other Errors - No XCVR, Final Trial Failure
(NO XCVR FTF)

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

This counter will be incremented by one each time a CCIS call is sent to Final Handling because no CCIS Transceiver is available to do a Voice Path Assurance test.

OMS 5

CAMA Free Calls Peg Count
(FREE CLS)

This counter is incremented by one each time a CAMA call is allowed to complete free because ONI suspension is active.

CAMA Position Report (CPR) Peg Count
(POS REPT)

This counter is incremented by one each time CAMA determines that a trouble condition has taken place and the operator keys a predetermined seven digit trouble code rather than a calling party number and the call is aborted. (Same as MSC 18 OMS 0.)

OMS 6

Transient Calls Lost Peg Count
(TRANSIENT CALLS LOST)

Each time a call is lost during software initialization, a recovery phase, or because of the failure of a VIU, DTU, DIU, ESU, SCS, or D3U, this counter will be incremented by one. Note that this count is concerned with those calls that have not progressed to the "waiting-for-answer" state or beyond.

Established Calls Lost Peg Count
(STABLE CALLS LOST)

This count will be incremented by one each time a call is lost during software initialization, a recovery phase or because of the failure of a VIU, DTU, DIU, ESU, SCS, or D3U and the call had progressed to or beyond the "waiting-for-answer" state.

CCIS Calls Lost Due to Trunk or
Band Reset Peg Count
(STABLE RCPT TRNK OR BAND)

Each time a CCIS call is lost due to a trunk or band reset, this counter is incremented by one.

OMS 7

Continuity Check Failure Final Trial Failure
Peg Count
(CCF)

This count is incremented by one on final trial failure if a transceiver has not detected the receipt of the check tone within acceptable timing limits after sending IAM.

Miscellaneous call Irregularities
Final Trial Failure Peg Count
(MCI)

This count is incremented by one on final failure on the receipt of confusion (COF) or Release-Guard (RLG) signals during setup of an outgoing IAM but before any backward signal has been received.

Double Seizures (GLARE) Final Trial Failures
Peg Count
(GLR)

This count is incremented by one on final trial failure by the non-control office on detection of a double seizure.

Signaling Network Final Trial Failures
Peg Count
(SNF)

This count is incremented by one on the final trial failure on receipt of a Message Refusal (MRF) signal or loss of signaling capability on all signaling paths to which a trunk is assigned during an outgoing call setup (before receipt of the ADC signal).

OMS 8

Double Seizure - Clear Forward Final
Trial Failure Peg Count
(DS-CLF)

This count is incremented by one on final trial failure if a (F1+F2) signal is received instead of a Proceed-To-Send signal.

Seizing Signal Timeout Final Trial Failure
Peg Count
(PTS-TO)

This count is incremented by one on final trial failure if the Proceed--To-Send signal is not received within 20-seconds after sending seizure (F1).

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

Transmitter Error Final Trial Failure Peg Count
(TX-ERR)

This counter is incremented by one on final trial failure if an MF Transmitter fails during outpulsing.

Unreasonable Signal Final Trial Failure Peg Count
(URS)

This counter is incremented by one on final trial failure if an (F1) or (F1+F2) signal is received during outpulsing.

Busy-Flash Final Trial Failure Peg Count
(BF)

This counter is incremented by one on final trial failure if a Busy-Flash (F2) signal is received during outpulsing.

Glare Final Trial Failure Peg Count
(GLR)

This counter is incremented by one on final trial failure by the non-control office on detection of a double seizure.

OMS 9

Incoming Continuity Signal Timeout Peg Count
(INCOMING COT-TO)

This counter is incremented by one when an initial message (IAM) is not followed within the accepted timing interval by a COT signal or a blocking signal followed by Clear-Forward.

Outgoing Address Complete Signal Timeout Peg Count
(OUTGOING ADC-TO)

This counter is incremented by one when the CCITT No. 6 office that sent an address message and a COT message has not received an address complete signal within the accepted timing interval.

Miscellaneous Abandon Peg Count
(ABANDONS MISC)

This count is incremented by one if a CLF signal is received subsequent to a COT signal but before receipt of an address complete signal (or early answer).

Waiting-for-Answer Call Failure Peg Count
(WAIT ANS CF)

This count is incremented by one on receipt of a Call Failure (CFL) signal for an outgoing CCITT No. 6 trunk during the "waiting-for-answer" stage.

Waiting-for-Answer Timeout Peg Count
(WAIT ANS TO)

This count is incremented by one if an outgoing CCITT No. 6 trunk does not receive an answer signal or other appropriate signal within 4-minutes of receipt of ADC.

Disconnect Stage Failure to Receive Clear-Forward Peg Count
(DISCONNECT CLF-TO)

This count is incremented by one if when Clear-Back or any failure signal is transmitted for an incoming CCITT No. 6 trunk, a Clear-Forward signal is not received with 40 to 60-seconds for the failure signals.

Disconnect Stage Failure to Receive Release Guard Peg Count
(DISCONNECT RLG-TO)

This count is incremented by one when a Release-Guard signal is not received within acceptable timing limits of sending Clear-Forward.

OMS 10

MAS - Looping Through Translate All Digits Peg Count
(XLATE LOOP)

This counter keeps track of the number of customer calls to MAS that fail because the digit reception program (DIRE) is looping through translate all digits due to multiple cut-throughs and/or INWATS routing.

MAS - Data On Disk Peg Count
(DATA ON DISK)

This counter keeps track of the number of customer calls to MAS that fail because DIRE has found MAS call data on disk.

MAS - Path Hunt Peg Count
(PATH HUNT)

This counter keeps track of the number of customer calls to MAS that fail because all path hunt attempts failed.

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

MAS - No Vacant Announcement Peg Count
(NO VAC ANN)

This counter keeps track of the number of customer calls to MAS that fail because they are routed to a MAS vacant code or service inactive announcement and the vacant code/service inactive announcement is not available.

MAS - Hardware Duplex Failed Peg Count
(HARDWARE OOS)

This counter keeps track of the number of customer calls to MAS that fail because the MAS hardware is duplex failed, the two dedicated TSI SPCS serving the announcement are duplex failed, or two consecutive announcement phases are on tested TSI ports.

OMS 11

Adjunct Logical Address T303 Timeouts Peg Count
(ADJUNCT T303 TIMEOUTS)

These are the per Adjunct Logical Address T303 expiration counts that are pegged on timeout for response after sending a setup message on a CPA Q931 (B1) outgoing trunk. The count is reported for each of the 16 possible adjuncts.

Adjunct Logical Address TADJ Timeouts
Peg Count
(ADJUNCT TADJ TIMEOUTS)

These are the per Adjunct Logical Address T_ADJ expiration counts that are pegged on timeout while waiting for a message after a PROGRESS message has been received on a CPA Q931 (B1) outgoing trunk. The count is reported for each of the 16 possible adjuncts.

TABLE 37

OUTPUT MEASUREMENT SETS FOR MSC 37
(BASE MEASUREMENTS)

```
MSC 37  BASE MEASUREMENTS
OMS 0  DOM ATTEMPTS-TOTAL OFFICE
 ATT      MF EQ     DP EQ     Q931      ISUP    CCIS
   IN          0         0         0         0       0
   OUT         0         0         0         0       0
OMS 1  INTL ATTEMPTS-TOTAL OFFICE
 ATT    CCITT5    CCITT6     ITUP      INUP
   IN          0         0         0         0
   OUT         0         0         0         0
```

Description of Measurements for MSC 37

OMS 0

Incoming Domestic MF Call Attempts
(IN ATT MF EQ)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on MF Trunk Subgroups at 15 minute intervals. This count will not include those false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic DP Call Attempts
(IN ATT DP EQ)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on DP Trunk Subgroups at 15 minute intervals. This count will not include those false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic Q.931 Call Attempts
(IN ATT Q931)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on Q.931 Trunk Subgroups at 15 minute intervals. This count will not include those false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic ISUP Call Attempts
(IN ATT ISUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute intervals.

Incoming Domestic CCIS Call Attempts
(IN ATT CCIS)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute intervals.

Outgoing Domestic MF Call Attempts
(OUT ATT MF EQ)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing MF Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic DP Call Attempts
(OUT ATT DP EQ)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing DP Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic Q.931 Call Attempts
(OUT ATT Q931)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing Q.931 Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic ISUP Call Attempts
(OUT ATT ISUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute

TABLE 37 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 37
(BASE MEASUREMENTS)

intervals.

Outgoing Domestic CCIS Call Attempts
(OUT ATT CCIS)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCIS Trunk Subgroups at 15 minute intervals.

OMS 1

Incoming International CCITT No. 5
Call Attempts
(IN ATT CCITT5)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 5 Trunk Subgroups at 15 minute intervals.

Incoming International CCITT No. 6
Call Attempts
(IN ATT CCITT6)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 6 Trunk Subgroups at 15 minute intervals.

Incoming International ITUP Call Attempts
(IN ATT ITUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ITUP Trunk Subgroups at 15 minute intervals.

Incoming International INUP Call Attempts
(IN ATT INUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the INUP Trunk Subgroups at 15 minute intervals.

Outgoing International CCITT No. 5
Call Attempts
(OUT ATT CCITT5)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 5 Trunk Subgroups at 15 minute intervals.

Outgoing International CCITT No. 6
Call Attempts
(OUT ATT CCITT6)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 6 Trunk Subgroups at 15 minute intervals.

Outgoing International ITUP Call Attempts
(OUT ATT ITUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the ITUP Trunk Subgroups at 15 minute intervals.

Outgoing International INUP Call Attempts
(OUT ATT INUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the INUP Trunk Subgroups at 15 minute intervals.

TABLE 38

OUTPUT MEASUREMENT SETS FOR MSC 38
(ADMINISTRATIVE AREA ZERO)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Administrative Area Zero.

TABLE 39

OUTPUT MEASUREMENT SETS FOR MSC 39
(ADMINISTRATIVE AREA ONE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Administrative Area One.

TABLE 40

OUTPUT MEASUREMENTS SETS FOR MSC 40
(PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE)

MSC 40 PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE

OMS 0	AUDIT	IMPLICATOR	CODES								
000	0	001	0	002	0	003	0	004	0	005	0
006	0	007	0	008	0	009	0	010	0	011	0
012	0	013	0	014	0	015	0	016	0	017	0
018	0	019	0	020	0	021	0	022	0	023	0
024	0	025	0	026	0	027	0	028	0	029	0
030	0	031	0	032	0	033	0	034	0	035	0
036	0	037	0	038	0	039	0	040	0	041	0
042	0	043	0	044	0	045	0	046	0	047	0
048	0	049	0	050	0	051	0	052	0	053	0
054	0	055	0	056	0	057	0	058	0	059	0
060	0	061	0	062	0	063	0				
OMS 1	AUDIT	IMPLICATOR	CODES								
064	0	065	0	066	0	067	0	068	0	069	0
070	0	071	0	072	0	073	0	074	0	075	0
076	0	077	0	078	0	079	0	080	0	081	0
082	0	083	0	084	0	085	0	086	0	087	0
088	0	089	0	090	0	091	0	092	0	093	0
094	0	095	0	096	0	097	0	098	0	099	0
100	0	101	0	102	0	103	0	104	0	105	0
106	0	107	0	108	0	109	0	110	0	111	0
112	0	113	0	114	0	115	0	116	0	117	0
118	0	119	0	120	0	121	0	122	0	123	0
124	0	125	0	126	0	127	0				
OMS 2	AUDIT	IMPLICATOR	CODES								
128	0	129	0	130	0	131	0	132	0	133	0
134	0	135	0	136	0	137	0	138	0	139	0
140	0	141	0	142	0	143	0	144	0	145	0
146	0	147	0	148	0	149	0	150	0	151	0
152	0	153	0	154	0	155	0	156	0	157	0
158	0	159	0	160	0	161	0	162	0	163	0
164	0	165	0	166	0	167	0	168	0	169	0
170	0	171	0	172	0	173	0	174	0	175	0
176	0	177	0	178	0	179	0	180	0	181	0
182	0	183	0	184	0	185	0	186	0	187	0
188	0	189	0	190	0	191	0				
OMS 3	AUDIT	IMPLICATOR	CODES								
192	0	193	0	194	0	195	0	196	0	197	0
198	0	199	0	200	0	201	0	202	0	203	0
204	0	205	0	206	0	207	0	208	0	209	0
210	0	211	0	212	0	213	0	214	0	215	0
216	0	217	0	218	0	219	0	220	0	221	0
222	0	223	0	224	0	225	0	226	0	227	0
228	0	229	0	230	0	231	0	232	0	233	0
234	0	235	0	236	0	237	0	238	0	239	0
240	0	241	0	242	0	243	0	244	0	245	0
246	0	247	0	248	0	249	0	250	0	251	0
252	0	253	0	254	0	255	0				

TABLE 40 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 40
(PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE)

Description of Measurements for MSC 40

OMS 0-3

Audit Implicator Codes Peg Count

Each of these OMS have a total of 64 registers, one for each of the audit implicator codes within the specified OMS. Audit implicator codes point to memory structures and error types involved in defensive check failures.

TABLE 41

OUTPUT MEASUREMENT SETS FOR MSC 41
(AUDITS BY CLIENT)

```
MSC 41  AUDITS BY CLIENT
OMS 0 AUDIT CALLS BY CLIENT, ERRORS FOUND
    AUDITS  OPER   MAINT  MAN
     SYST   PRGMS  PRGMS  REQ
        0       0      0      0
```

Description of Measurements for MSC 41

OMS 0

Errors Found By Audit System Peg Count
(AUDITS SYST)

Each time an error is found by the audit system this register is incremented by one.

Errors Found By Operational Programs
Peg Count
(OPER PRGMS)

This counter will be incremented by one each time an error is found by an operational program.

Errors Found By Maintenance Programs
Peg Count
(MAINT PRGMS)

Each time an error is found by a maintenance program this register is incremented by one.

Errors Found By Manual Request
Peg Count
(MAN REQ)

This counter is incremented by one each time an error is found by an audit program that was initiated by manual request.

TABLE 42

OUTPUT MEASUREMENT SETS FOR MSC 42
(TRUNK ERROR ANALYSIS - SECOND STAGE FILTERS)

```
MSC 42  TRUNK ERROR ANALYSIS COUNTS

                    SECOND STAGE
          SP          FILTER
       NUMBER      OVERFLOWS

  OMS 0                    0
  OMS 1                    0
  OMS 2                    0
  OMS 3                    0
  OMS 4                    0
  OMS 5                    0
  OMS 6                    0
  OMS 7                    0
  OMS 8                    0
  OMS 9                    0
  OMS 10                   0
  OMS 11                   0
  OMS 12                   0
  OMS 13                   0
  OMS 14                   0
  OMS 15                   0
  OMS 16                   0
  OMS 17                   0
  OMS 18                   0
  OMS 19                   0
  OMS 20                   0
  OMS 21                   0
  OMS 22                   0
  OMS 23                   0
  OMS 24                   0
  OMS 25                   0
  OMS 26                   0
  OMS 27                   0
  OMS 28                   0
  OMS 29                   0
  OMS 30                   0
  OMS 31                   0
```

Description of Measurements for MSC 42

OMS 0-31

Trunk Error Analysis Second Stage Filter Overflow For Signal Processor Peg Count (SECOND STAGE FILTER OVERFLOWS)

Each OMS has one counter for a signal processor of the same number (i.e., OMS 0 = SP Member 0, ..., OMS 31 = SP Member 31). These registers will be incremented by one for each trunk error analysis second stage filter overflow. This overflow will occur when an SP has received the maximum number of trunk requests it can handle and another request is received.

TABLE 43

OUTPUT MEASUREMENT SETS FOR MSC 43
(TRUNK ERROR ANALYSIS - LONG TERM TABLE)

MSC 43 TRUNK ERROR ANALYSIS COUNTS

SP NUMBER	LONG TERM TABLE OVERFLOWS
OMS 0	0
OMS 1	0
OMS 2	0
OMS 3	0
OMS 4	0
OMS 5	0
OMS 6	0
OMS 7	0
OMS 8	0
OMS 9	0
OMS 10	0
OMS 11	0
OMS 12	0
OMS 13	0
OMS 14	0
OMS 15	0
OMS 16	0
OMS 17	0
OMS 18	0
OMS 19	0
OMS 20	0
OMS 21	0
OMS 22	0
OMS 23	0
OMS 24	0
OMS 25	0
OMS 26	0
OMS 27	0
OMS 28	0
OMS 29	0
OMS 30	0
OMS 31	0

Description of Measurements for MSC 43

OMS 0-31

Trunk Error Analysis Long Term Table
Overflow For Signal Processor Peg Count
(LONG TERM TABLE OVERFLOWS)

Each OMS has one counter for a signal processor of the same number (i.e., OMS 0 = SP Member 0, ..., OMS 31 = SP Member 31). These registers will be incremented by one for each long term table overflow. This type of overflow will occur when the long term table is full and an attempt is made to place another trunk is on the table.

TABLE 44

OUTPUT MEASUREMENT SETS FOR MSC 44
(TRUNK ERROR ANALYSIS - REPORT BUFFER OVERFLOW)

```
MSC 44  TRUNK ERROR ANALYSIS - REPORT BUFFER OVERFLOW
OMS 0                   0
```

Description of Measurements for MSC 44

OMS 0

Trunk Error Analysis Report Buffer
Overflow Peg Count

This counter will be incremented by one each time an attempt is made to place a report to be printed out in the report buffer and the buffer is full to capacity.

TABLE 45

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

```
MSC 45 SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS
OMS 0
IAM IRR     0
        RESET    NSC    NTC    VNN    ADI    COF    CFL    UQL   UNRES
  RCVD      0      0      0      0      0      0      0      0       0
  XMIT      0      0      0      0      0      0      0      0

        IN CNI RING   OUT CNI RING   UBM    OUT   RESET   -CONFUSION-
        FAIL   OVFL   FAIL   OVFL   RCVD   UNEXP  RCVD   RCVD   XMIT
  Q931      0      0      0      0      -      -      0       0      0
  ISUP      0      0      0      0      0      0      0       -      -
  ITUP      0      0      0      0      0      0      0       -      -
  INUP      0      0      0      0      0      0      0       -      -

                SENT     RCVD
  ISUP CFN         0        0
  DNHR CRB         0        0
  RTNR EBCRB       0        0
  RTNR QUERY       0        0

  PROCESSOR INTERFACES DOWN
   CNI STRM    API   1B FILE
         0        0        0

OMS 1 CCIS SOFTWARE CARRIER GROUP ALARM
                   PASS         FAIL
       INITIAL        0            0
       MONITOR        0            -
       RESTORAL       0            0

OMS 2  TRKS BLOCKED FAR END EQUIP PROB
                   0

OMS 3  CCITT6 PERFORMANCE SIGNALS RECEIVED
     SEC     ADI     CFL     VNN     CGC     NNC
       0       0       0       0       0       0
     LOS     SSB    CONG
       0       0       0

       ITUP PERFORMANCE SIGNALS RECEIVED
     SEC  CGC WFA  CFL WFA   CGC     NNC  NNC WFA
       0       0       0       0       0       0
     LOS     SSB
       0       0

       INUP SIGNALLING IRREGULARITIES
     SEC  SEC WFA    NCA  NCA WFA  TFL WFA
       0       0       0       0       0
     LOS  SSB WFA
       0       0
       CCITT7 SAM IGNORED
              0
```

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

```
OMS 4  CCITT6 PERFORMANCE SIGNALS TRANSMITTED
     SEC     ADI     CFL     VNN     CGC     NNC
       0       0       0       0       0       0

     COF     SSB     SST     LOS     BLO
       0       0       0       0       0

OMS 5  CCITT6 SIGNALLING IRREGULARITIES
     IAD     IAM     ISA     CCF     MCI     SNF     GLR
       0       0       0       0       0       0       0

       ITUP SIGNALLING IRREGULARITIES
     IAD     ISA  IAM GLR  CCR GLR   GLR
       0       0       0       0       0

       INUP SIGNALLING IRREGULARITIES
     ISA  IAM GLR  CCR GLR   GLR
      0       0       0       0

OMS 6  ISUP UUI AND ATP DROPPED
     UUI  UUI INT    ATP  ATP INT
       0       0       0       0

OMS 7  CALL MERGE
------------------ CALL MERGE ------------------
    RQST    SUCC  ADJ NA  INV CS  INV CN  MFRQST
       0       0       0       0       0       0

OMS 8 E&M SOFTWARE CARRIER GROUP ALARM
        ALARM  RESTORAL  NON-CON  QIC-PASS  QIC-FAIL
  TPF       0         0        0         0         0
  RPF       0         0        -         -         -
```

Descriptions of Measurements for MSC 45

OMS 0

Initial Address Message (IAM)
Irregularity (IRR) Peg Count
(IAM IRR)

This counter will be incremented by one for each of the following initial address irregularities:

a. Invalid Initial Address Message (IAM) data - An example of an IAM containing invalid data is an invalid digit such as digit 14.

b. IAM length check failure - A CCIS office is unable to complete a length check on a received IAM because, for example, one or more subsequent signaling units of the IAM are missing.

c. Receipt of a nonmatching second IAM - If during the call setup a CCIS office receives a second IAM, a comparison is made to the first IAM and the two are different.

CCIS Trunk Or Band Reset Received
Peg Count
(RESET RCVD)

Each time a trunk or band Reset signal (RST) from the incoming direction is received during call set-up, this counter is incremented by one.

CCIS National Switching Congestion (NSC)
Signals Received Peg Count
(NSC RCVD)

This counter is incremented by one when a National Switching Congestion (NSC) signal is received for an outgoing CCIS call attempt because common control facilities in a subsequent office were not available or a network path hunt failed in a subsequent office.

CCIS National Trunk Congestion (NTC)
Signals Received Peg Count

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

(NTC RCVD)

This counter is incremented by one each time a National Trunk Congestion signal (NTC) is received for an outgoing CCIS call attempt because of an outgoing trunk congestion condition (no circuit) in a subsequent office.

CCIS Vacant National Number (VNN)
Signals Received Peg Count
(VNN RCVD)

When a succeeding CCIS office has examined the digits received on a CCIS call and determined that it has received a vacant code, and this office received a Vacant National Number (VNN) signal, this counter is incremented by one.

CCIS Address Incomplete (ADI) Signals
Received Peg Count
(ADI RCVD)

This counter is incremented by one when a succeeding CCIS office determined that the address received on an incoming call does not contain the proper number of digits and this office received an Address Incomplete (ADI) signal.

CCIS Confusion (COF) Signals Received
Peg Count
(COF RCVD)

Each time a Confusion Signal (COF) is received because the forward office detected an invalid Initial Address Message (IAM) irregularity, this counter is incremented by one.

CCIS Call Failure (CFL) Signals Received
Peg Count
(CFL RCVD)

This counter is incremented by one each time a forward CCIS office experienced Continuity (COT) Timeout signal or Address Complete (ADC) signal timeout and this office received a Call Failure (CFL) signal.

CCIS Unequipped Label Signals Received
Peg Count
(UQL RCVD)

This counter is incremented by one each time an Unequipped Label (UQL) signal is received from a forward office that had been sent an IAM.

CCIS Unreasonable Message (UNRES)
Signals Received Peg Count
(UNRES RCVD)

This counter is incremented by one each time the CCIS office receives an unreasonable backward message that causes retrial. Such messages include receipt of Release Guard (RLG) signal or Reset (RST) signal after an IAM or IAM plus COT has been sent.

CCIS Trunk Or Band Reset Signals
Transmitted Peg Count
(RESET XMIT)

Each time a band or trunk Reset signal is sent in the outgoing direction during call setup, this counter is incremented by one.

CCIS National Switching Congestion (NSC)
Signals Transmitted Peg Count
(NSC XMIT)

This counter is incremented by one each time a National Switching Congestion signal (NSC) is returned for an incoming call because insufficient common control facilities were available for the CCIS call or because a failure occurred while hunting a network path.

CCIS National Trunk Congestion (NTC)
Signals Transmitted Peg Count
(NTC XMIT)

Each time a National Trunk Congestion signal is returned for a CCIS incoming call because of an outgoing trunk congestion condition (no circuit), this counter is incremented by one.

CCIS Vacant National Number (VNN)
Signals Transmitted Peg Count
(VNN XMIT)

This counter is incremented by one each time the digits received have been examined and determined to be a vacant code and a Vacant National Number (VNN) signal has been sent to the CCIS office that sent the digits.

CCIS Address Incomplete (ADI) Signals
Transmitted Peg Count
(ADI XMIT)

Each time the address received on an incoming call does not contain the proper number of digits and an Address Incomplete (ADI) signal is sent to the CCIS office that transmitted the IAM, this counter will be incremented by one.

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

CCIS Confusion (COF) Signals Transmitted Peg Count
(COF XMIT)

This counter is incremented by one each time a Confusion (COF) signal is transmitted because an invalid Initial Address Message (IAM) irregularity has been received.

CCIS Call Failure (CFL) Signals Transmitted Peg Count
(CFL XMIT)

Each time a Continuity (COT) Timeout or an Address Complete (ADC) timeout occurs and a Call Failure (CFL) signal has been transmitted to the sending office, this counter will be incremented by one.

CCIS Unequipped Label Signals Transmitted Peg Count
(UQL XMIT)

This counter is incremented by one each time an Unequipped Label response (UQL) is sent to an office as a result of an invalid label found in an IAM.

Q.931 Incoming CNI Ring Failure Peg Count
(Q931 IN CNI RING FAIL)

This counter is incremented by one when an incoming Q.931 call is sent to Final Handling due to Customer Network Interface (CNI) ring failure.

Q.931 Incoming CNI Ring Buffer Overflow Peg Count
(Q931 IN CNI RING OVFL)

This counter is incremented by one when an incoming Q.931 call fails due to an inability to send messages caused by CNI buffer overflow.

Q.931 Outgoing CNI Ring Failure Peg Count
(Q931 OUT CNI RING FAIL)

This counter is incremented by one when an outgoing Q.931 call is sent to Final Handling due to CNI ring failure.

Q.931 Outgoing CNI Ring Overflow Peg Count
(Q931 OUT CNI RING OVFL)

This counter is incremented by one when an outgoing Q.931 call fails due to an inability to send messages caused by CNI buffer overflow.

Q.931 Resets Received Peg Count
(Q931 RESET RCVD)

This counter is incremented by one when a reset message is received on a Q.931 trunk that is on queue for or busy to a CR.

Q.931 Confusion Received Peg Count
(Q931 CONFUSION RCVD)

This counter is incremented by one when an incoming Q.931 fails due to a call state mismatch in a setup or post-setup state.

Q.931 Confusion Transmitted Peg Count
(Q931 CONFUSION XMIT)

This counter is incremented by one when a call state mismatch is detected on an outgoing Q.931 call in either setup or post setup state.

ISUP Incoming CNI Ring Failure Peg Count
(ISUP IN CNI RING FAIL)

This counter is incremented by one when an incoming ISUP call is sent to Final Handling due to CNI ring failure.

ISUP Incoming CNI Ring Overflow Peg Count
(ISUP IN CNI RING OVFL)

This counter is incremented by one when an incoming ISUP call fails due to an inability to send messages caused by CNI buffer overflow.

ISUP Outgoing CNI Ring Failure Peg Count
(ISUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing ISUP call is sent to Final Handling due to CNI ring failure.

ISUP Outgoing CNI Ring Overflow Peg Count
(ISUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing ISUP call fails due to an inability to send messages caused by CNI buffer overflow.

ISUP Unsuccessful Backward Setup Received Peg Count
(ISUP UBM RCVD)

This counter is incremented by one when an ISUP release message is received in setup.

ISUP Outgoing Unexpected Message

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Peg Count
(ISUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR occurs.

ISUP Resets Received Peg Count
(ISUP RESET RCVD)

This counter is incremented by one when an incoming ISUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

ITUP Incoming CNI Ring Failure Peg Count
(ITUP IN CNI RING FAIL)

This counter is incremented by one when an incoming ITUP call is sent to Final Handling due to CNI ring failure.

ITUP Incoming CNI Ring Overflow Peg Count
(ITUP IN CNI RING OVFL)

This counter is incremented by one when an incoming ITUP call fails due to an inability to send messages caused by CNI buffer overflow.

ITUP Outgoing CNI Ring Failure Peg Count
(ITUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing ITUP call is sent to Final Handling due to CNI ring failure.

ITUP Outgoing CNI Ring Overflow Peg Count
(ITUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing ITUP call fails due to an inability to send messages caused by CNI buffer overflow.

ITUP Unblocking Message Received
Peg Count
(ITUP UBM RCVD)

This counter is incremented by one when an unblocking message is received on an ITUP call that is busy to a call register.

ITUP Outgoing Unexpected Message
Peg Count
(ITUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR occurs.

ITUP Resets Received Peg Count
(ITUP RESET RCVD)

This counter is incremented by one when an incoming ITUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

INUP Incoming CNI Ring Failure Peg Count
(INUP IN CNI RING FAIL)

This counter is incremented by one when an incoming INUP call is sent to Final Handling due to CNI ring failure.

INUP Incoming CNI Ring Overflow Peg Count
(INUP IN CNI RING OVFL)

This counter is incremented by one when an incoming INUP call fails due to an inability to send messages caused by CNI buffer overflow.

INUP Outgoing CNI Ring Failure Peg Count
(INUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing INUP call is sent to Final Handling due to CNI ring failure.

INUP Outgoing CNI Ring Overflow Peg Count
(INUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing INUP call is sent to Final Handling due to CNI ring overflow.

INUP Unblocking Message Received
Peg Count
(INUP UBM RCVD)

This counter is incremented by one when an unblocking message is received on an INUP call that is busy to a call register.

INUP Outgoing Unexpected Message
Peg Count
(INUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR.

INUP Resets Received Peg Count
(INUP RESET RCVD)

This counter is incremented by one when an incoming INUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

ISUP Confusion Message Sent Peg Count
(ISUP CFN SENT)

This counter is incremented by one when a Confusion message is sent in response to an unimplemented message.

ISUP Confusion Message Received Peg Count
(ISUP CFN RCVD)

This counter is incremented by one when a Confusion message is received.

DNHR Crank Backs Sent Peg Count
(DNHR CRB SENT)

This counter is incremented by one when a crank back is sent from the Via Toll Switch.

DNHR Crank Backs Received Peg Count
(DNHR CRB RCVD)

This counter is incremented by one when a crank back is received at the Originating Toll Switch.

RTNR Egress Busy Crankbacks Sent
Peg Count
(RTNR EBCRB SENT)

This counter is incremented by one when a crankback is sent at a Terminating Access Switch.

RTNR Egress Busy Crankback Received
Peg Count
(RTNR EBCRB RCVD)

This counter is incremented by one when a crankback is received at an Originating Access Switch.

RTNR Queries Sent Peg Count
(RTNR QUERY SENT)

This counter is incremented by one when a TSG bit-map query is sent from an Originating Access Switch (OAS).

RTNR Queries Received Peg Count
(RTNR QUERY RCVD)

This counter is incremented by one when a TSG bit-map query is received at a Terminating Access Switch (TAS).

CNI Stream Processor Interface Down
(CNI STRM PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the CNI data stream has been down.

API Processor Interface Down
(API PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the API is down.

1B File Processor Interface Down
(1B FILE PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the 1B File Store is down.

OMS 1

These counters are incremented by the Software Carrier Group Alarm program from statistical tests on the Carrier Group believed to have failed. An initial continuity test is run when a suspected failure is first encountered. A monitor test is run at periodic intervals after the failure of an initial test. A restoral test is run after a monitor test pass.

1. Initial Tests Pass Peg Count
2. Initial Tests Failure Peg Count
3. Monitor Tests Pass Peg Count
4. Restoral Tests Pass Peg Count
5. Restoral Tests Failure Peg Count

OMS 2

Trunks Blocked Due To Far End
Equipment Problems Peg Count
(TRKS BLOCKED FAR END EQUIP PROB)

This counter is incremented by one for each trunk that is blocked and taken out of service due to far end switching equipment problems.

OMS 3

CCITT No. 6 Switching Equipment Congestion
(SEC) Signals Received Peg Count
(CCITT6 SEC)

This count is incremented by one when a Switching Equipment Congestion signal is received from a forward CCITT No. 6 office or when there is some

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

congestion in the office itself, such as no transceivers available for an outgoing CCITT No. 6 call.

CCITT No. 6 Address Incomplete (ADI) Signals Received Peg Count (CCITT6 ADI)

This counter is incremented by one when a succeeding CCITT No. 6 office determined that the address received on an incoming call does not contain the proper number of digits and this office received an Address Incomplete signal.

CCITT No. 6 Call Failure (CFL) Signals Received Peg Count (CCITT6 CFL)

This counter is incremented by one each time a forward CCITT No. 6 office experienced Continuity (COT) Timeout signal or Address Complete (ADC) signal timeout and this office received a Call Failure (CFL) signal.

CCITT No. 6 Vacant National Number (VNN) Signals Received Peg Count (CCITT6 VNN)

This counter is incremented by one when a succeeding CCITT No. 6 office has examined the digits received on a CCITT No. 6 call and determined that it has received a Vacant National Number signal.

CCITT No. 6 Circuit Group Congestion (CGC) Signals Received Peg Count (CCITT6 CGC)

This count is incremented by one each time a Circuit Group Congestion signal is received for an outgoing CCITT No. 6 call attempt because of an outgoing trunk congestion (no circuit) condition is a subsequent office.

CCITT No. 6 National Network Congestion (NNC) Signals Received Peg Count (CCITT6 NNC)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing CCITT No. 6 call attempt because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

CCITT No. 6 Line Out-of-Service Signals Received Peg Count (CCITT6 LOS)

This counter is incremented by one when a LOS fail signal is received on a CCITT6 outgoing trunk.

CCITT No. 6 Subscriber Busy Signals Received Peg Count (CCITT6 SSB)

This counter is incremented by one when an SSB fail signal is received on a CCITT6 outgoing trunk.

CCITT No. 6 Terminal Congestion Peg Count (CCITT6 CONG)

This counter is incremented by one when a CCITT6 call is final handled due to terminal congestion that cancels IAMs to a terminal.

ITUP Switching Equipment Congestion (SEC) Signals Received Peg Count (ITUP SEC)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received from a forward ITUP office or when there is some congestion in the office itself, such as no transceivers available for an outgoing ITUP call.

ITUP Circuit Group Congestion (CGC) Received While Waiting For Answer Peg Count (ITUP CGC WFA)

This counter is incremented by one when a Circuit Group Congestion (CGC) signal is received on an outgoing ITUP call attempt while waiting for answer because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP Call Failure (CFL) Received While Waiting For Answer Peg Count (ITUP CFL WFA)

This counter is incremented by one when a Call Failure (CFL) signal is received on an outgoing ITUP call attempt while waiting for answer.

ITUP Circuit Group Congestion (CGC) Signals Received Peg Count (ITUP CGC)

This count is incremented by one each time a Circuit Group Congestion signal is received for an outgoing ITUP call attempt because of outgoing trunk congestion (CGC) condition in a subsequent office.

ITUP National Network Congestion (NNC)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Signals Received Peg Count
(ITUP NNC)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing ITUP call attempt because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP National Network Congestion (NNC)
While Waiting For Answer Peg Count
(ITUP NNC WFA)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing ITUP call attempt while waiting for answer because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP Line Out-of-Service (LOS) Signals
Received Peg Count
(ITUP LOS)

This counter is incremented by one when a LOS fail signal is received on an ITUP outgoing trunk.

ITUP Subscriber Busy (SSB) Signals
Received Peg Count
(ITUP SSB)

This counter is incremented by one when an SSB fail signal is received on an ITUP outgoing trunk.

INUP Switching Equipment Congestion (SEC)
Signals Received Peg Count
(INUP SEC)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received from a forward INUP office or when there is some congestion in the office itself, such as no transceivers available for an outgoing INUP call.

INUP Switching Equipment Congestion (SEC)
Signals Received While Waiting For Answer
Peg Count
(INUP SEC WFA)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received while waiting for answer from a forward INUP office or when there is some congestion in the office itself, such as no transceivers available for an INUP call.

INUP No Circuit Available (NCA) Signals
Received Peg Count
(INUP NCA)

This counter is incremented by one when a REL message is received with a cause of No Circuit Available from a forward INUP office.

INUP No Circuit Available (NCA) Signals
Received While Waiting For Answer
Peg Count
(INUP NCA WFA)

This counter is incremented by one when a REL message is received with a cause of No Circuit Available while waiting for answer from a forward INUP office.

INUP Temporary Failure (TFL) Signals
Received While Waiting For Answer
Peg Count
(INUP TFL WFA)

This counter is incremented by one when a REL message is received with a cause of Temporary Failure while waiting for answer from a forward INUP office.

INUP Line Out-of-Service (LOS) Signals
Received Peg Count
(INUP LOS)

This counter is incremented by one when a LOS fail signal is received on an INUP outgoing trunk.

INUP Subscriber Busy (SB) Signals Received
While Waiting For Answer Peg Count
(INUP SSB WFA)

This counter is incremented by one when a Subscriber Busy fail signal is received while waiting for answer on an INUP outgoing trunk.

CCITT No. 7 Subsequent Address
Message Ignored Peg Count
(CCITT7 SAM IGNORED)

This is a count of the number of Subsequent Address Messages (SAM) ignored in the incoming setup post routing state.

OMS 4

CCITT No. 6 Switching Equipment Congestion
(SEC) Signals Transmitted Peg Count
(SEC)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

This counter is incremented by one when there is some congestion in the office such as no transceiver available for an outgoing CCITT No. 6 call or when a Switching Equipment Congestion signal is received from a forward office.

CCITT No. 6 Address Incomplete (ADI) Signals Transmitted Peg Count (ADI)

This counter is incremented by one when an Address Incomplete signal is received by the office or if the CCITT No. 6 office determined that the address received on an incoming call does not contain the proper number of digits.

CCITT No. 6 Call Failure (CFL) Signals Transmitted Peg Count (CFL)

This counter is incremented by one when this office received a Call Failure signal from a forward CCITT No. 6 office or if the outgoing trunk fails on a final trial.

CCITT No. 6 Vacant National Number (VNN) Signals Transmitted Peg Count (VNN)

This counter is incremented by one each time the digits received have been examined and determined to be a vacant code and a Vacant National Number (VNN) signal has been sent to the CCITT No. 6 office that sent the digits.

CCITT No. 6 Circuit Group Congestion (CGC) Signals Transmitted Peg Count (CGC)

This counter is incremented by one each time a Circuit Group Congestion is received from a forward office or when an incoming CCITT No. 6 call encounters outgoing trunk congestion (no circuit).

CCITT No. 6 National Network Congestion (NNC) Signals Transmitted Peg Count (NNC)

This counter is incremented by one each time a National Network Congestion signal is returned for a CCITT No. 6 incoming call because of an outgoing trunk congestion problem (no circuit).

CCITT No. 6 Confusion (COF) Signals Transmitted Peg Count (COF)

This counter is incremented by one each time a Confusion signal is transmitted because an invalid Initial Address Message (IAM) irregularity has been received.

CCITT No. 6 Subscriber Busy (SSB) Signals Transmitted Peg Count (SSB)

This counter is incremented by one each time a Subscriber Busy (SSB) signal is received from the sending office.

CCITT No. 6 Subscriber Transferred (SST) Signals Transmitted Peg Count (SST)

This counter is incremented by one each time a Subscriber Transferred (SST) signal is received from the sending office.

CCITT No. 6 Line Out-Of-Service (LOS) Signal Transmitted Peg Count (LOS)

This counter is incremented by one each time a Line Out-Of-Service signal is received from the sending office.

CCITT No. 6 Blocking (BLO) Signal Transmitted Peg Count (BLO)

This counter is incremented by one on the receipt of Confusion (COF) and Release-Guard (RLG) signals during set-up of an outgoing CCITT No. 6 call, or the receipt of a Blocking (BLO) signal after sending an Initial Address Message (IAM) but before any backward signal has been received.

OMS 5

CCITT No. 6 Incomplete Address Detected Call Irregularity Peg Count (CCITT6 IAD)

This count is incremented by one when it is determined on an incoming CCITT No. 6 call that a received address does not contain the proper number of digits for setting up the call and an Address Incomplete (ADI) signal is sent in the backward direction for the incoming trunk.

CCITT No. 6 Initial Address Message (IAM)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Call Irregularity Peg Count
(CCITT6 IAM)

This counter is incremented by one when the Initial Address Message (IAM) or Subsequent Address Message (SAM) data is invalid, or if the IAM or SAM length checks fail, or if a second nonmatching IAM or SAM signal is received. Detecting any of these failures, the office will send a Confusion (COF) signal in the backward direction for the incoming trunk.

CCITT No. 6 Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(CCITT6 ISA)

This counter is incremented by one each time a Clear-Forward (CLF) signal is received on an incoming CCITT No. 6 trunk (not preceded by a blocking signal) while timing for the receipt of the Continuity (COT) signal.

CCITT No. 6 Continuity Check Failure (CCF)
Signaling Irregularity Peg Count
(CCITT6 CCF)

This counter is incremented by one each time a transceiver has not detected the receipt of the check tone within acceptable transmission and time limits. Four reattempts are allowed in the event of successive continuity check failures.

CCITT No. 6 Miscellaneous Call Irregularity
Peg Count
(CCITT6 MCI)

This counter is incremented by one when a CCITT No. 6 outgoing call attempt receives a Confusion or Blocking message in response to an IAM.

CCITT No. 6 Signaling Network Failures
(SNF) Call Irregularities Peg Count
(CCITT6 SNF)

This counter is incremented by one on receipt of a Message Refusal (MRF) signal or loss of signaling capability on all signaling paths to which a trunk is assigned at a CCITT No. 6 office.

CCITT No. 6 Double Seizure (GLR) Call
Irregularity Peg Count
(CCITT6 GLR)

This counter is incremented by one by the non-control office on detection of a double seizure.

ITUP Incomplete Address Detected (IAD)
Call Irregularity Peg Count
(ITUP IAD)

This count is incremented by one when it is determined on an incoming ITUP call that a received address does not contain the proper number of digits for setting up a call and an Address Incomplete (ADI) signal is sent in the backward direction for the incoming trunk.

ITUP Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(ITUP ISA)

This counter is incremented by one each time a Reset (RST) message is received on an incoming ITUP trunk that is either on queue for or busy to a CR.

ITUP Initial Address Message (IAM) Glare
Peg Count
(ITUP IAM GLR)

This counter is incremented by one on an ITUP outgoing attempt when an IAM is received on the outgoing trunk that the far end controls while either doing a continuity check request or in setup.

ITUP Continuity Check Request (CCR) Glare
Peg Count
(ITUP CCR GLR)

This counter is incremented by one when a CCR is received on an ITUP outgoing trunk after a CCR was successfully sent, which is a glare condition in a non-control office.

ITUP Glare Peg Count
(ITUP GLR)

This counter is incremented by one when an outgoing ITUP trunk detects a double seizure is detected in a non-control office.

INUP Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(INUP ISA)

This counter is incremented by one each time a Reset (RST) message is received on an incoming INUP trunk that is either on queue for or busy to a CR.

INUP Initial Address Message (IAM) Glare
Peg Count
(INUP IAM GLR)

This counter is incremented by one on an INUP outgoing attempt when an IAM is received on the

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

outgoing trunk that the far end controls while either doing a continuity check request or in setup.

INUP Continuity Check Request (CCR) Glare Peg Count
(INUP CCR GLR)

This counter is incremented by one when a CCR is received on an INUP outgoing trunk after a CCR was successfully sent, which is a glare condition in a non-control office.

INUP Glare Peg Count
(INUP GLR)

This counter is incremented by one when an outgoing INUP trunk detects a double seizure is detected in a non-control office.

OMS 6

ISUP UUI Dropped Due to Length Peg Count
(ISUP UUI)

This is a count of the number of times User-to-User Information (UUI) was dropped due to length considerations and maximum ISUP length restrictions.

ISUP UUI Dropped Due to Internal Loss Peg Count
(ISUP UUI INT)

This is a count of the number of times User-to-User Information (UUI) is dropped due to lack of internal buffer space.

ISUP ATP Dropped Due to Length Peg Count
(ISUP ATP)

This is a count of the number of times Access Transport data (ATP) was dropped due to length considerations and maximum ISUP length restrictions.

ISUP ATP Dropped Due to Internal Loss Peg Count
(ISUP ATP INT)

This is a count of the number of times Access Transport data (ATP) is dropped due to lack of internal buffer space.

OMS 7

Call Merge Requests Peg Count
(CALL MERGE RQST)

This is a count of call merge requests to connect two calls set up through a PRI interface as a single call into the switch.

Call Merge Success Peg Count
(CALL MERGE SUCC)

This is a count of successfully completed call merge operations.

Call Merge Denials - Adjunct Not Allowed Peg Count
(CALL MERGE ADJ NA)

This is the count of call merge denials because the adjunct is prohibited from merging calls.

Call Merge Denials - Invalid Call States Peg Count
(CALL MERGE INV CS)

This is the count of call merge denials because the calls to be merged were in invalid states.

Call Merge Denials - Invalid Channel ID Peg Count
(CALL MERGE INV CN)

This is the count of call merge denials because of an invalid channel ID.

Call Merge Denials - Multi-Feature Request Peg Count
(CALL MERGE MFRQST)

This is the count of call merge denials because of multiple feature requests in one facility message.

OMS 8

Confirmed Transmit Path Failure Carrier Alarm Peg Count
(TPF ALARM)

This counter will be incremented by one each time a Confirmed Transmit Path Failure Carrier Alarm is detected.

Confirmed Transmit Path Failure Carrier Restoral Peg Count
(TPF RESTORAL)

This counter will be incremented by one each time a retest quick test verifies that a Transmit Path Failure

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Carrier Restoral has passed and the carrier alarm will be deactivated.

Non-Confirmed Transmit Path Failure Carrier Alarm Peg Count (TPF NON-CON)

This counter will be incremented by one each time a Non-Confirmed Transmit Path Failure Carrier Alarm has been detected.

Monitor QIC Passed - Suspected Transmit Path Failure Restoral Peg Count (TPF QIC-PASS)

This counter will be incremented by one each time a transmit path failure monitor test has passed and the carrier alarm will be deactivated.

Retest QIC Failed - Non-Confirmed Transmit Path Failure Restoral Peg Count (TPF QUIC-FAIL)

This counter will be incremented by one each time a retest quick test has failed.

Confirmed Receive Path Failure Carrier Alarm Peg Count (RPF ALARM)

This counter will be incremented by one each time a Confirmed Receive Path Failure Carrier Alarm has been detected.

Confirmed Receive Path Failure Carrier Restoral Peg Count (RPF RESTORAL)

This counter will be incremented by one each time a successful Receive Path Failure Carrier Restoral has been detected.

TABLE 46

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

MSC 46 SWITCHING AREA EQUIPMENT COUNTS

OMS 0 PROCESSOR

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ	ATP
CC	0	0	0	0	0	0	0	
PS	0	0	0	0	0	0	0	
MUP	0	0	0	0	0	0	0	
CS	0	0	0	0	0	0	0	
API	0	0	0	0	0	0	0	
DUS	0	0	0	0	0	0	0	
TUC	0	0	0	0	0	0	0	
PDF	0	0	0	0	0	0	0	
AUI	0	0	0	0	0	0	0	
SSD	0	0	0	0	0	0	0	
XPWR	0	0	0	0	0	0	0	

OMS 1 I/O

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ	ATP
IOUS	0	0	0	0	0	0	0	
IOUC	0	0	0	0	0	0	0	

OMS 2 BUS SYSTEM

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ	ATP
PSB	0	0	0	0	0	0	0	
CSB	0	0	0	0	0	0	0	
AUB	0	0	0	0	0	0	0	
PUB	0	0	0	0	0	0	0	
IFB	0	0	0	0	0	0	0	

OMS 3 NETWORK

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ	ATP
TSI	0	0	0	0	0	0	0	
D3U	0	0	0	0	0	0	0	
TMSP	0	0	0	0	0	0	0	

OMS 4 SIGNALING EQUIPMENT

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ	ATP
TGR CONTR	0	0	0	0	0	0	0	
DOM TER	0	0	0	0	0	0	0	
DOM VFL	-	0	0	-	-	-	-	
INT TER	0	0	0	0	0	0	0	
INT VFL	-	0	0	-	-	-	-	

OMS 5 CLOCKS

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ	ATP
NCLK	0	0	0	0	0	0	0	
SCLK	0	0	0	0	0	0	0	
NCSU	0	0	0	0	0	0	0	

TABLE 46 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

```
OMS 6  PER CALL SERVICE CIRCUIT MEASUREMENTS
           UNIT LOC  UNIT NON
            FAULTS   LOC FLTS
  MF RCVR        0      0
  MF XMTR        0      0
  CCIS XCVR      0      0
  DTMF RCVR      0      0
  DTMF XMTR      0      0
```

Descriptions of Measurements for MSC 46

The following seven counts will be taken for the entire office, for all members of each Unit Type, that is specified as being associated with OMS 0 through OMS 7.

Unit Errors Peg Count
(UNIT ERRORS)

Defined as a malfunction, the symptoms of which cannot be reproduced under program control. The initial stimulus leading to this counter being incremented by one is an interrupt associated with the particular Unit Type. The fault recognition program, of the unit will increment this counter.

Unit Located Fault Peg Count
(UNIT-LOC FAULTS)

This is a fault occurrence that can be resolved through analysis to a replaceable equipment unit. The general situation leading to this counter being incremented by one, is an interrupt causing execution of the fault Recognition program and the FR program finds the suspected trouble, requests that the unit be diagnosed and the diagnostic finds the trouble source.

Non-located Faults
(NONLOC FAULTS)

This register will be incremented by one when a fault occurs that cannot be resolved through analysis to a replaceable equipment unit. The unit diagnostic would compete with an All Tests Pass (ATP) result.

Diagnostics Program Requested
(DIAG EXC PROG REQ)

This counter will be incremented by one each time the particular unit diagnostic program is executed, unless its execution has been manually requested.

Diagnostics Manually Requested
(DIAG EXC MAN REQ)

Each time the unit diagnostic program is executed by requesting a manual or routine exercise request, this counter will be incremented by one.

Diagnostics ATP Program Requested
(DIAG ATP PROG REQ)

This counter will be incremented by one each time the unit diagnostic program is executed with an ATP result. This does not include diagnostics requested manually or by routine exercise.

Diagnostics ATP Manually Requested
(DIAG ATP MAN REQ)

This counter will be incremented by one each time the unit diagnostic program is executed by a manual request or routine exercise with an ATP result.

OMS 0

The counts described above are outputted for the following units:

Central Control (CC)
Program Store (PS)
Maintenance and Utility Processor (MUP)
Call Store (CS)
Attached Processor Interface (API)
Data Unit Selector (DUS)
Tape Unit Controller (TUC)
Power Distribution Frame (PDF)
Auxiliary Unit Interface (AUI)
Scan and Signal Distributor (SSD)
Miscellaneous Power Board (XPWR)

OMS 1

The counts described above are outputted for the

TABLE 46 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

following units:

Input/Output Unit Selector (IOUS)
Input/Output Unit Controller (IOUC)

OMS 2

The counts described above are outputted for the following units:

Program Store Bus (PSB)
Call Store Bus (CSB)
Auxiliary Unit Bus (AUB)
Peripheral Unit Bus (PUB)
Interface Bus (IFB)

OMS 3

The counts described above are outputted for the following units:

Time-Slot Interchange (TSI)
DS3 Unit (D3U)
Time-Multiplexed Switching Pair (TMSP)

OMS 4

The counts described above are outputted for the following units:

CCIS Terminal Group (CONTR)
Domestic CCIS Terminal (DOM TER)
Domestic VFL (DOM VFL)
International CCIS Terminal (INT TER)
International VFL (INT VFL)

OMS 5

The counts described above are outputted for the following units:

Network Clock (NCLK)
System Clock (SCLK)
Network Clock Synchronization Unit (NCSU)

OMS 6

The two counts described below are output for each of the following service circuits:

MF Receiver (MF RCVR)
MF Transmitter (MF XMTR)
CCIS Transceiver (CCIS XCVR)
DTMF Receiver (DTMF RCVR)
DTMF Transmitter (DTMF XMTR)

Located Faults Peg Count
(UNIT LOC FAULTS)

This counter will be incremented by one each time the service circuit is diagnosed and a fault is found, or each time the unit undergoes error analysis and is deemed to be faulty.

Non-located Faults Peg Count
(UNIT NON LOC FLTS)

Each time the service circuit is either diagnosed and no trouble is found or the unit undergoes error analysis and no fault is found, this counter is incremented by one.

TABLE 47

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENTS - AUDITS BY TYPE)

MSC 47 PERFORMANCE MEASUREMENTS - AUDITS BY TYPE

OMS 0 ROUTINE AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

OMS 1 ROUTINE AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 2 ROUTINE AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

OMS 3 DEMAND AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

OMS 4 DEMAND AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 5 DEMAND AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

OMS 6 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

TABLE 47 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENTS - AUDITS BY TYPE)

OMS 7 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 8 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

OMS 9 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

OMS 10 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 11 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

Description of Measurements for MSC 47

OMS 0

Audit 00 through 49 Routine Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit that is routinely requested by the program is completed.

OMS 1

Audit 50 through 99 Routine Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit that is routinely requested by the program is completed.

OMS 2

Audit 100 through 127 Routine Request
Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is routinely requested by the program is completed.

TABLE 47 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENTS - AUDITS BY TYPE)

OMS 3

Audit 00 through 49 Demand Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is requested by a manual or routine exercise is completed.

OMS 4

Audit 50 through 99 Demand Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit that is requested by a manual or routine exercise is completed.

OMS 5

Audit 100 through 127 Demand Request
Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit that is requested by a manual or routine exercise is completed.

OMS 6

Audit 00 through 49 Routine Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 7

Audit 50 through 99 Routine Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 8

Audit 100 through 127 Routine Request
Errors Found Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 9

Audit 00 through 49 Demand Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

OMS 10

Audit 50 through 99 Demand Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

OMS 11

Audit 100 through 127 Demand Request
Errors Found Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

TABLE 48

OUTPUT MEASUREMENT SETS FOR MSC 48
(ADMINISTRATIVE AREA TWO)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Administrative Area Two.

TABLE 49

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

```
MSC 49  INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI
OMS 0  CCIS INWATS
  TOT CLS   QUERIES  SUCCESS  NM MSGS     MSGS
   TO OSO     SENT   REPLIES    RCVD       SSB
        0         0        0        0        0

   ------------------ BSSP DATA BASE FAILURES -----------------
   CBVNCP   CBSCP  CBMASS   CBSMS  QFSTRM  QFOVFL   SCPTO  SCPREJ
        0       0       0       0       0       0       0       0
   SCPRTE  RESPER   PLAYA  800DCE  TCPUDS  TCPHDR  TCPCPE  EXRPTS
        0       0       0       0       0       0       0       0
   EXRPTF  TRANID  CLABND  NOCLID  LATMSG   10D6D
        0       0       0       0       0       0

   ----- Q.931 CHANNEL NEGOTIATION REQUESTS -----
   ORGTSG   TATSG   FATSG  FOOTSG  FTATSG  FFOTSG
        0       0       0       0       0       0

   ----------- INWATS FAILURES ----------
   NM6DCC  NM10DCC  NM-DSC     SLC  NO-AUX
        0        0       0       0       0

   -------------------- DATA BASE FAILURES --------------------
      ALB    OVLD  UA-NXX  NE-NPA  NP-NPA      VL  V-NXX       TO
        0       0       0       0       0       0      0        0

-DIRECT SIGNALING FAILURE -
   NW-BLK  NW-CON  NO-XLT
        0       0       0

    OUTWATS
  NON-PUR NPA
         0
  -------------------- NETWORK CALL DENIAL -------------------
      IQ  BQOVLD  BQCSC  BQCONG     RDC    RDBA    RDAA   QRBLK
       0       0      0       0       0       0       0       0
   QROVLD   QRNRD QNOVLD   QNMSC     INV
        0       0      0       0       0
```

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

```
OMS 1  AIN CALLS TOTAL COUNTS
  ORIG INC
       0

    QRYS   NMBLK   FAIL-CP-BIQ   UNAVAIL-BIQ
       0       0             0             0

  RSP-MSG   PLAY-ANN   RETREJ   SIG-FAIL-TD
        0          0        0             0

  ABDNBO   ABDNAO        TN-REC
       0        0             0

  INVLD   INVLD-CMD   TRIG-OVFL   FAIL-CP-AIQ   UNAVAIL-AIQ
     0           0           0             0             0

    ANU     TICAC
      0         0

OMS 2  AIN CALLS - TOLLFREE COUNTS
  ORIG INC
       0

    QRYS   NMBLK   FAIL-CP-BIQ   UNAVAIL-BIQ
       0       0             0             0

  RSP-MSG   PLAY-ANN   RETREJ   SIG-FAIL-TD
        0          0        0             0

  ABDNBO   ABDNAO        TN-REC
       0        0             0

  INVLD   INVLD-CMD   TRIG-OVFL   FAIL-CP-AIQ   UNAVAIL-AIQ
     0           0           0             0             0

    ANU     TICAC
      0         0
```

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

```
OMS 3  DIRECT SIGNALING
  MISROUTED
  MSGS RCVD
         0
- SADC MESSAGES -
   TOTAL     UNX
       0       0

  TERM NTFY
  MSGS LOST
         0
  1B-3B AMA RECORDS
    SENT    LOST
       0       0

  AIN TN INFO
    TN-RET  TF-TN-RET
         0          0
```

Output Measurement Sets for MSC 49

OMS 0

Total INWATS Calls Reaching CCIS OSO
Peg Count
(TOT CLS TO OSO)

This counter will be incremented by one each time a "Query Data Base" return is received from the initial digit translation. Before an office becomes a CCIS OSO, this count will always be 0. This count will be maintained by DIRE or translations.

INWATS Queries Sent Peg Count
(QUERIES SENT)

This counter will be incremented by one each time a query is sent to the Data Base. This count will be maintained by call processing.

Successful INWATS Replies Peg Count
(SUCCESS REPLIES)

This counter is incremented by one each time a successful INWATS reply is received from the Data Base. This count is kept by the CCIS dispenser program.

INWATS Network Management Messages
Received Peg Count
(NM MSGS RCVD)

This counter will be incremented by one each time a Network Management Message is received from the INWATS Data Base. This count will be maintained by Network Management.

CCIS Message Subscriber Busy Peg Count
(MSGS SSB)

This counter will be incremented by one each time an SSB message will be sent from the terminating end. This count is kept by the CCIS Dispenser Program.

Vacant Code/Non-Purchased NPA
BOC-Service Switch Point (SSP) Calls
Blocked Due To Excess Calling Peg Count
(CBVNCP BSSP DATA BASE FAILURES)

This counter is incremented by one each time a BOC SSP call is blocked via vacant code controls.

SCP Overload Blocked BOC-SSP Calls
Peg Count
(CBSCP BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked due to NM implementation of Service Control Point Overload controls.

MAS - BOC-SSP Calls Blocked Peg Count
(CBMASS BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked due to NM implementation of MAS calling controls.

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

SMS Blocked BOC-SSP Call Peg Count
(CBSMS BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked via NM Service Management Position (SMS) controls.

Initial Query Failure Due to CNI
Stream Down Peg Count
(QFSTRM BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is unable to complete due to Initial query failure caused by the CNI stream being down.

Initial Query Failure Due to CNI
Buffer Overflow Peg Count
(QFOVFL BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is unable to complete due to Initial query failure caused by the CNI Buffer overflowing.

Timeout Waiting for SCP Response Peg Count
(SCPTO BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt times out waiting for a response from the SCP data base.

Reject Message Returned from SCP Peg Count
(SCPREJ BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to the SCP returning a Reject Message.

Return Error Returned from SCP Peg Count
(SCPRTE BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to Return Error Message from the SCP.

Fatal Protocol Error Response from SCP
Peg Count
(RESPER DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to the SCP response containing Fatal Protocol Errors.

Play Announcement Message from SCP
Peg Count
(PLAYA BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails with the SCP indicating that an announcement should be played.

800 Number Services (NS) Attempts Failed
Due to Unacceptable Digit Count Peg Count
(800DCE BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP 800 number services call is finaled due to an insufficient number of dialed digits (10).

Unit Data Service Messages Returned by STP
Peg Count
(TCPUDS BSSP DATA BASE FAILURES)

This is a total count of CCS7 Transaction Capability (TCAP) Unit Data Service Messages returned by the Signal Transfer Point (STP).

Fatal Errors in SCCP Header Peg Count
(TCPHDR BSSP DATA BASE FAILURES)

This is a total count of Signaling Connection Control Point (SCCP) fatal header errors on CCS7 TCAP messages.

Discrepancy in Number of Components
and End Address of TCAP Message
Peg Count
(TCPCPE BSSP DATA BASE FAILURES)

This is a count of CCS7 TCAP messages that have a discrepancy in the number of components versus end address.

Exception Reports Sent to the SCP Peg Count
(EXRPTS BSSP DATA BASE FAILURES)

This is a count of Exception Reports sent to the SCP.

Exception Reports Failed to Send to the SCP
Peg Count
(EXRPTF BSSP DATA BASE FAILURES)

This is a count of exception reports that should have been sent to the SCP but were not.

Transaction ID in SCP Response Was Invalid
Peg Count
(TRANID BSSP DATA BASE FAILURES)

This is a count of responses from the SCP that contained an invalid transaction ID.

Caller Abandon Before Response from SCP

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

Peg Count
(CLABND BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP caller abandons before a response has been received from the SCP.

Undetermined Call ID in a Response from the SCP Which Contained Protocol Errors Peg Count
(NOCLID BSSP DATA BASE FAILURES)

This is a count of SCP responses that contained fatal protocol errors where the call ID could not be determined.

Response from SCP After Query Timer Timeout Peg Count
(LATMSG BSSP DATA BASE FAILURES)

This counter is incremented by one when a query to the SCP results in a response after Timer timeout.

Failure to Place NM 10/6 Digit Controls on ACG Control List Peg Count
(10D6D BSSP DATA BASE FAILURES)

This counter is incremented by one each time a NM Automatic Call Gap (ACG) control received in the response from the SCP cannot be placed on the ACG control list because the list is full.

Q.931 Channel Negotiation (CN) Requests on Original TSG
(ORGTSG Q931 CN REQUESTS)

This is the number of CN requests that resulted in the originally hunted trunk being selected.

Q.931 Channel Negotiation (CN) Requests to Another TSG
(TATSG Q931 CN REQUESTS)

This is the number of CN requests where the egress call is to be diverted to the PBX specified TSG.

Q.931 Channel Negotiation (CN) Requests From Other TSG
(FATSG Q931 CN REQUESTS)

This is the number of CN requests where the egress call is requested to complete on the non-originally hunted TSG.

Q.931 Channel Negotiation (CN) Failures On Originating TSG
(FOOTSG Q931 CN REQUESTS)

This is the number of times a CN request on the originating TSG failed to connect.

Q.931 Channel Negotiation (CN) Request Failures To Another TSG
(FTATSG Q931 CN REQUESTS)

This is the number of times a CN request to another specified TSG failed.

Q.931 Channel Negotiation (CN) Request Failures From Other TSG
(FFOTSG Q931 CN REQUESTS)

This is the number of times a CN request from another TSG failed.

Network Management Blocked: INWATS 6-digit Code Control
(NM6DCC INWATS FAILURES)

This counter will be incremented by one each time an INWATS call is blocked by 6-digit INWATS Code Control. This count will be maintained by Final Handling.

Network Management Blocked: INWATS 10-digit Code Control
(NM10DCC INWATS FAILURES)

This counter will be incremented by one each time an INWATS call is blocked by 10-digit INWATS Code Control. This count will be maintained by Final Handling.

Network Management Blocked: Direct Signaling Control
(NM-DSC INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS call is blocked by 6-digit INWATS Direct Signaling Control. This count will be maintained by Final Handling.

INWATS Blocked by Signaling Link Congestion
(SLC INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS Call Failure is received because of one or more of the following reasons:

a. Terminal Buffer Overflow

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

b. Signaling Link Failure

c. Receipt of Processor Switching Congestions (PSC) signal prevented the INWATS query from being sent

This count will be maintained by Final Handling.

No Auxiliary Call Register
(NO-AUX INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS failure is received because an Auxiliary Call Register is not available. This count will be maintained by Final Handling.

Data Base Failure Reply: All Lines Busy
(ALB DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base because all lines are busy to the INWATS subscriber. This count will be maintained by Final Handling.

Data Base Failure Reply: Data Base Overload
(OVLD DATA BASE FAILURES)

This counter will be incremented by one each time a Data Base Failure is received that specifies that Data Base Overload is the reason for failure. This count will be maintained by Final Handling.

Data Base Failure Reply: Unassigned NXX
(UA-NXX DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base because an unassigned NXX was the reason for the failure. This indicates that the CCIS network routed the query to the wrong Data Base and implies bad translation data at the STP. This count will be maintained by Final Handling.

Data Base Failure Reply: Non-Existent NPA
(NE-NPA DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specifies Non-Existent NPA as the reason for failure. This implies bad translation data either at the OSO (trunk block or 3-digit translator) or at the Data Base. This count will be maintained by Final Handling.

Data Base Failure Reply: Non-Purchased NPA
(NP-NPA DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specifies non-purchased NPA as the reason for failure. This is analogous to zonal band exceeded in conventional INWATS. This count will be maintained by Final Handling.

Data Base Failure Reply: Vacant Line
(VL DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specifies Vacant Line Number as the reason for failure. This count will be maintained by Final Handling.

Data Base Failure Reply: Vacant NXX
(V-NXX DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specified vacant NXX as the reason for failure. This count will be maintained by Final Handling.

Data Base Query Timeout
(TO DATA BASE FAILURES)

This counter will be incremented by one each time an INWATS call failure is received because the Data Base query timed out before a response was received. Here, it is likely that the replies are being misrouted in the CCIS network. This count will be maintained by Final Handling.

INWATS CCIS Failure: Network Blockage
(NW-BLK)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return specified as network blockage failure. This count will be maintained by Final Handling.

INWATS CCIS Failure: Network Congestion
(NW-CON)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return specified as network congestion failure. This count will be maintained by Final Handling.

INWATS CCIS Failure: No Translation Data
(NO-XLT)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return being specified as no translation data

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

at the STP to route the query failure. This count will be maintained by Final Handling.

OUTWATS Non-purchased NPA Peg Count
(OUTWATS NON-PUR NPA)

This counter will be incremented when an OUTWATS customer attempts to call an NPA that has not been contracted for.

Network Call Denial Initial Query Peg Count
(NETWORK CALL DENIAL IQ)

This counter is incremented when an attempt is made to send a query to the Network Call Denial (NCD) data base.

Network Call Denial Blocked Queries
From Overload Peg Count
(NETWORK CALL DENIAL BQOVLD)

This counter is incremented when an NCD query is blocked at the Action Point (AP) due to NCD/Network Control Point (NCP) overload control.

Network Call Denial Blocked Queries From
CCS Abnormal Replies Control Peg Count
(NETWORK CALL DENIAL BQCSC)

This counter is incremented when an NCD query is blocked at the AP due to CCIS Network Abnormal replies control.

Network Call Denial Blocked Queries
From Congestion Peg Count
(NETWORK CALL DENIAL BQCONG)

This counter is incremented when an NCD query is blocked at the AP due to congestion signals received at the AP.

Network Call Denial Replies With Deny Codes
Peg Count
(NETWORK CALL DENIAL RDC)

This counter is incremented when an NCD reply is received with a call deny code.

Network Call Denial Replies With Deny Code
Before Answer Supervision Peg Count
(NETWORK CALL DENIAL RDBA)

This counter is incremented when NCD reply is received with a call deny code before Answer Supervision has been received.

Network Call Denial Replies With Deny
Code After Answer Supervision Peg Count
(NETWORK CALL DENIAL RDAA)

This counter is incremented when an NCD reply is received with a call deny code after Answer Supervision has been received.

Network Call Denial Queries Returned
Due to CCS Network Block Replies Peg Count
(NETWORK CALL DENIAL QRBLK)

This counter is incremented when an NCD query is returned due to CCIS Network Block replies.

Network Call Denial Queries Returned
Due to CCS Network Overload Replies
(NETWORK CALL DENIAL QROVLD)

This counter is incremented when an NCD query is returned due to CCIS Network Overload replies.

Network Call Denial Queries Returned
Due to No Routing Data Peg Count
(NETWORK CALL DENIAL QRNRD)

This counter is incremented when an NCD query is returned due to lack of routing data for destination reply code.

Network Call Denial Queries Returned
Due to Overload Peg Count
(NETWORK CALL DENIAL QNOVLD)

This counter is incremented when an NCD query is returned due to data base overload reply condition.

Network Call Denial Queries Returned
Due to Miscellaneous Replies Peg Count
(NETWORK CALL DENIAL QNMSC)

This counter is incremented when an NCD query is returned due to miscellaneous reply reasons.

Network Call Denial Replies With
Invalid Data Peg Count
(NETWORK CALL DENIAL INV)

This counter is incremented when an NCD reply is interpreted to have invalid data.

OMS 1

AIN Total Calls Received from Another Switch
Peg Count

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

(ORIG INC)

The Advanced Intelligent Network (AIN) Calls Received From Another Switch count is pegged for all AIN calls that have been received from another switch (that is, the AIN call did not originate on this Service Switching Point (SSP) switch).

AIN Queries to the SCP Peg Count
(QRYS)

The AIN Queries Sent to the SCP count is pegged for each query that is sent to the Service Control Point (SCP). This is the total number of queries sent and can be incremented more than once for each AIN call attempt.

Network Management Control Blocks Call
Peg Count
(NMBLK)

Regardless of the type of NM control, the Network Management (NM) Control Blocks Call count is pegged on every occurrence of an AIN query blocked at the SSP due to an NM control. This count can be pegged due to one of the following reasons:

1. An SCP overload automatic code gap (ACG) control.
2. An SCP overload manual automatic code gap (MACG) control.
3. An SMS originated code control (SOCC).
4. A POTS destination code control.

This count is not pegged when a call is blocked after the SCP has provided routing instructions.

Call Processing Failure Before Initial Query
Peg Count
(FAIL-CP-BIQ)

The Call Processing Failure Before Initial Query count is pegged when an AIN call is terminated before the query to the SCP is sent. The reason for an AIN call being terminated could either be because of a hardware or software initialization, or because of a failure in the normal call processing routine. Any call processing failure that can be detected by the SSP is counted under this failure.

Resource Unavailable Before Initial Query
Peg Count
(UNAVAIL-BIQ)

The Resource Unavailable Before Initial Query count is pegged when an AIN call fails because a resource, which is normally provided by the SSP, is unavailable because of maintenance or engineering reasons before the query to the SCP is sent. The resources might either be engineerable, or might be fixed internally via the switch software release. This count is also pegged when a failure to send a query occurs on the initial leg of a call due to buffer overflow or stream down.

Normal Route Response Message Received
Peg Count
(RSP-MSG)

The Normal Route Response Message Received count is pegged when a route response is received from the SCP on AIN calls.

Play Announcement Message from the SCP
Peg Count
(PLAY-ANN)

The Play Announcement Message from the SCP count is pegged when a play announcement message is received from the SCP.

Return Error or Reject Message Peg Count
(RETREJ)

The Return Error or Reject Message count is pegged when the SSP receives a Return Error message or a Reject message in response to a Query or Conversation message. A Return Error message is returned from the SCP for an invalid command sent from the SSP. The Reject message is returned from the SCP for a valid command sent from the SSP that is either incomplete or out of sequence.

Signaling Failure - Time-out at SSP
Peg Count
(SIG-FAIL-TD)

The Signaling Failure - Time-out at SSP count is pegged when the SSP times-out while waiting for a reply from the SCP.

Abandon - Before Outpulsing Peg Count
(ABDNBO)

The Abandon - Before Outpulsing count is pegged when an on-hook is received from the calling party before the SSP receives and interprets a routing response. This includes the case where the caller abandons during a play announcement and collect digits operation.

Abandon - After Outpulsing Peg Count

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

(ABDNAO)

The Abandon - After Outpulsing count is pegged when an on-hook is received from the calling party while the SSP is processing an SCP route response.

Termination Notification Requests Received
Peg Count
(TN-REC)

The Termination Notification Requests Received count represents the number of Termination Notification requests received from the SCP.

Invalid Command Sequence Peg Count
(INVLD)

The Invalid Command Sequence count is pegged when the SSP receives a response from the SCP that contains an incomplete or out of sequence valid command. In other words, the SSP receives a valid command from the SCP, but its order or completeness, with reference to the current dialogue sequence is incorrect.

Invalid Command Message Peg Count
(INVLD-CMD)

The Invalid Command Message count is pegged when the SSP receives a response from the SCP that is undecipherable or has bad data.

Serial-Triggering Limit Overflow
Peg Count
(TRIG-OVFL)

The Serial-Triggering Limit Overflowed measurement represents the number of times the office-administrable serial-triggering limit has been overflowed or exhausted.

Call Processing Failure After Initial Query
Peg Count
(FAIL-CP-AIQ)

The Call Processing Failure After Initial Query count is pegged when an AIN call is terminated after the query is sent. The reason for an AIN call being terminated could either be because of a hardware or software initialization, or because of a failure in the normal call processing routine. A call processing failure that can be detected by the SSP is counted under this failure. This counter is also pegged when a unit data service message, DLN returned message, or CNI returned message is received. This count indicates a more serious event than the FAIL-CP-BIQ one because of the waste in resources.

Resource Unavailable After Initial Query
Peg Count
(UNAVAIL-AIQ)

The Resource Unavailable After Initial Query count is pegged when an AIN call fails because a resource, which is normally provided by the SSP, is unavailable because of maintenance or engineering reasons after the query to the SCP is sent. This count is also pegged when a failure to send a query occurs on other than the initial leg of a call due to buffer overflow or stream down. This count indicates a more serious event than the UNAVAIL-BIQ one because of the waste in resources.

Announcement Number Unavailable
Peg Count
(ANU)

This is the Announcement Number Unavailable count for AIN calls. This count is pegged whenever the Announcement Number included in the Send_To_Resource (STR) message is not defined.

Total Incoming Completed AIN Calls
Peg Count
(TICAC)

This is the Total Incoming Completed AIN Calls count. This count is the total number of incoming AIN calls which are successfully completed (i.e., the call enters the waiting for answer state).

OMS 2

AIN Tollfree Calls Received from Another Switch
Peg Count
(ORIG INC)

The Advanced Intelligent Network (AIN) Tollfree Calls Received From Another Switch count is pegged for all AIN calls that have been received from another switch (that is, the AIN call did not originate on this Service Switching Point (SSP) switch).

AIN Tollfree Queries to the SCP Peg Count
(QRYS)

The AIN Tollfree Queries Sent to the SCP count is pegged for each query that is sent to the Service Control Point (SCP). This is the total number of queries sent and can be incremented more than once for each AIN Tollfree call attempt.

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

Network Management Control Blocks Call Peg Count
(NMBLK)

Regardless of the type of NM control, the Network Management (NM) Control Blocks Call count is pegged on every occurrence of an AIN Tollfree query blocked at the SSP due to an NM control. This count can be pegged due to one of the following reasons:

1. An SCP overload automatic code gap (ACG) control.
2. An SCP overload manual automatic code gap (MACG) control.
3. An SMS originated code control (SOCC).
4. A POTS destination code control.

This count is not pegged when a call is blocked after the SCP has provided routing instructions.

Call Processing Failure Before Initial Query Peg Count
(FAIL-CP-BIQ)

The Call Processing Failure Before Initial Query count is pegged when an AIN Tollfree call is terminated before the query to the SCP is sent. The reason for an AIN Tollfree call being terminated could either be because of a hardware or software initialization, or because of a failure in the normal call processing routine. Any call processing failure that can be detected by the SSP is counted under this failure.

Resource Unavailable Before Initial Query Peg Count
(UNAVAIL-BIQ)

The Resource Unavailable Before Initial Query count is pegged when an AIN Tollfree call fails because a resource, which is normally provided by the SSP, is unavailable because of maintenance or engineering reasons before the query to the SCP is sent. The resources might either be engineerable, or might be fixed internally via the switch software release. This count is also pegged when a failure to send a query occurs on the initial leg of a call due to buffer overflow or stream down.

Normal Route Response Message Received Peg Count
(RSP-MSG)

The Normal Route Response Message Received count is pegged when a route response is received from the SCP on AIN Tollfree calls.

Play Announcement Message from the SCP Peg Count
(PLAY-ANN)

The Play Announcement Message from the SCP count is pegged when a play announcement message is received from the SCP for AIN Tollfree.

Return Error or Reject Message Peg Count
(RETREJ)

The Return Error or Reject Message count is pegged when the SSP receives a Return Error message or a Reject message in response to a Query or Conversation message for AIN Tollfree. A Return Error message is returned from the SCP for an invalid command sent from the SSP. The Reject message is returned from the SCP for a valid command sent from the SSP that is either incomplete or out of sequence.

Signaling Failure - Time-out at SSP Peg Count
(SIG-FAIL-TD)

The Signaling Failure - Time-out at SSP count is pegged when the SSP times-out while waiting for a reply from the SCP for AIN Tollfree.

Abandon - Before Outpulsing Peg Count
(ABDNBO)

The Abandon - Before Outpulsing count is pegged when an on-hook is received from the calling party before the SSP receives and interprets a routing response for AIN Tollfree. This includes the case where the caller abandons during a play announcement and collect digits operation.

Abandon - After Outpulsing Peg Count
(ABDNAO)

The Abandon - After Outpulsing count is pegged when an on-hook is received from the calling party while the SSP is processing an SCP route response for AIN Tollfree.

Termination Notification Requests Received Peg Count
(TN-REC)

The Termination Notification Requests Received count represents the number of Termination Notification requests received from the SCP for AIN Tollfree.

Invalid Command Sequence Peg Count
(INVLD)

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

The Invalid Command Sequence count is pegged when the SSP receives a response from the SCP that contains an incomplete or out of sequence valid command for AIN Tollfree. In other words, the SSP receives a valid command from the SCP, but its order or completeness, with reference to the current dialogue sequence is incorrect.

Invalid Command Message Peg Count
(INVLD-CMD)

The Invalid Command Message count is pegged when the SSP receives a response from the SCP that is undecipherable or has bad data for AIN Tollfree.

Serial-Triggering Limit Overflow
Peg Count
(TRIG-OVFL)

The Serial-Triggering Limit Overflowed measurement represents the number of times the office-administrable serial-triggering limit has been overflowed or exhausted for AIN Tollfree.

Call Processing Failure After Initial Query
Peg Count
(FAIL-CP-AIQ)

The Call Processing Failure After Initial Query count is pegged when an AIN Tollfree call is terminated after the query is sent. The reason for an AIN Tollfree call being terminated could either be because of a hardware or software initialization, or because of a failure in the normal call processing routine. A call processing failure that can be detected by the SSP is counted under this failure. This counter is also pegged when a unit data service message, DLN returned message, or CNI returned message is received. This count indicates a more serious event than the FAIL-CP-BIQ one because of the waste in resources.

Resource Unavailable After Initial Query
Peg Count
(UNAVAIL-AIQ)

The Resource Unavailable After Initial Query count is pegged when an AIN Tollfree call fails because a resource, which is normally provided by the SSP, is unavailable because of maintenance or engineering reasons after the query to the SCP is sent. This count is also pegged when a failure to send a query occurs on other than the initial leg of a call due to buffer overflow or stream down. This count indicates a more serious event than the UNAVAIL-BIQ one because of the waste in resources.

Announcement Number Unavailable
Peg Count
(ANU)

This is the Announcement Number Unavailable count for AIN Tollfree calls. This count is pegged whenever the Announcement Number included in the Send_To_Resource (STR) message is not defined.

Total Incoming Completed AIN Calls
Peg Count
(TICAC)

This is the Total Incoming Completed AIN Tollfree Calls count. This count is the total number of incoming AIN Tollfree calls which are successfully completed (i.e., the call enters the waiting for answer state).

OMS 3

Misrouted Direct Signaling Messages
Received Peg Count
(MISROUTED MSGS RCVD)

This counter will be incremented by one each time a Direct Signaling Message is received in which the address is not valid for the office that received the message. This implies that one or both of the office's home STP's has bad translation data or that the office data is incorrect. This count is kept by the CCIS dispenser program.

Direct Access Data Channel (DADC)
Total Messages Peg Count
(SADC MESSAGES TOTAL)

This counter reflects the total number of messages sent and received between the 1B and the 3B Processors.

Direct Access Data Channel (DADC)
Unexpected Messages Peg Count
(SADC MESSAGES UNX)

This counter reflects the total number of unexpected messages, including both invalid and out of sequence types.

Termination Notification Messages Lost
Peg Count
(TERM NTFY MSGS LOST)

This count is incremented by one when Termination Notification messages are lost due to 3B problems.

1B-3B AMA Records Sent Peg Count

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

(1B-3B AMA RECORDS SENT)

This counter reflects the total number of all AMA record types (e.g.: CAMA, INWATS, DSD, etc.) that were made by the 3B Processor.

1B-3B AMA Records Lost Peg Count
(1B-3B AMA RECORDS LOST)

This counter reflects the total number of AMA record types sent by 1B to the 3B Processor that were mutilated or unauthorized.

Termination Notification Response
Peg Count
(TN-RET)

The Termination Notification Response (TN-RET) count represents the number of Termination Notification responses sent to the SCP for AIN calls.

Tollfree Termination Notification Response
Peg Count
(TF-TN-RET)

The Termination Notification Response (TN-RET) count represents the number of Termination Notification responses sent to the SCP for AIN Tollfree calls.

TABLE 50

OUTPUT MEASUREMENT SETS FOR MSC 50
(MAS PER ANNOUNCEMENT MEASUREMENTS)

MSC 50 MAS PER ANNOUNCEMENT MEASUREMENTS

OMS	EAID	ANNSEP	ATT	CONNECT TO AUDIO	OVFL	SEC
0	0000000000000	00	000000	000000	000000	000000
1	0000000000000	00	000000	000000	000000	000000
2	0000000000000	00	000000	000000	000000	000000
3	0000000000000	00	000000	000000	000000	000000
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
508	0000000000000	00	000000	000000	000000	000000
509	0000000000000	00	000000	000000	000000	000000
510	0000000000000	00	000000	000000	000000	000000
511	0000000000000	00	000000	000000	000000	000000

Description of Measurements for MSC 50

All per-announcement measurements will be labeled with the External Announcement Identifier (EAID) for the announcement. The OMS for a particular office must be less than <OD4DNUM28H0> * 64. The EAID is a 12-digit identifier with the format:

VVVVVAAAAAAA

where VVVVV is the VSSID identifier (VSSID) if this service is updatable from VSS and is all zeros, otherwise,

AAAAAA is the service identifier.

There will be 64 OMSs for each frame in use in the office (maximum of 8 frames).

OMS 0-511

MAS - Per-Announcement Attempts
Peg Count
(ATT)

When an attempt is made to reach a PAS announcement, this counter is incremented by one. This counter includes all PAS with TELEVOTE and PAS with cut-through calls that are routed to an announcement but not those routed to a cut-through number.

MAS - Per-Announcement Connect To Audio
Peg Count
(CONNECT TO AUDIO)

When a call is successfully connected to announcement audio, this counter is incremented by one.

MAS - Per-Announcement Overflow Peg Count
(OVFL)

When a call cannot be connected to a given announcement because one or both dedicated TSI SPCs serving the announcement have overflowed, this counter is incremented by one.

MAS - Per-Announcement Usage
(SEC)

This counter provides the occupancy count of calls connected to a given announcement and audible ring preceding that announcement. This count is converted to CCS before output.

TABLE 51

OUTPUT MEASUREMENT SETS FOR MSC 51
(CALL GAPPING/CUT-THRU)

```
MSC 51 CALL GAPPING/CUT-THRU
 OMS DIALED NUM  CUTHRU  TO-ANN
   0 0000000000       0       0
   1 0000000000       0       0
   2 0000000000       0       0
   3 0000000000       0       0
   .     .            .       .
   .     .            .       .
   .     .            .       .
  60 0000000000       0       0
  61 0000000000       0       0
  62 0000000000       0       0
  63 0000000000       0       0
```

Description of Measurements for MSC 51

OMS 0-63

The following counts will be outputted per 10-digit dialed number via OMS 0-63.

MAS - Calls Routed To A Cut-Through Number Peg Count
(CUTHRU)

When a PAS with cut-through call is routed to a cut-through number, this counter is incremented by one. This counter also includes the number of calls routed to the called number, for any dialed number that has a network management call gapping control applied to it.

MAS - Calls Routed To An Announcement Peg Count
(TO-ANN)

When a PAS with cut-through call is routed to the specific announcement, this counter is incremented by one. This counter also includes the number of calls routed by network management to a final handling announcement in the office, for any dialed number that has a network management call gapping control applied to it.

TABLE 52

OUTPUT MEASUREMENT SETS FOR MSC 52
(TELEVOTE MASTER DIALED NUMBER)

MSC 52 TELEVOTE MASTER DIALED NUMBER

OMS	MAPN	LINE	VOTES
0	00	0000	0
1	00	0000	0
2	00	0000	0
3	00	0000	0
.	.	.	.
.	.	.	.
.	.	.	.
124	00	0000	0
125	00	0000	0
126	00	0000	0
127	00	0000	0

Description of Measurements for MSC 52

OMS 0-127

MAS - Totals of the TELEVOTE Counts
Received Peg Count
(VOTES)

MSC 52, OMS 0-127, contain cumulative totals of the TELEVOTE counts received from the TELEVOTE slaves reporting to a particular master. These counts are labeled with a 2-digit Master Application Number (MAPN) from 0-63 and a 4-digit line number that identifies a voting option within a TELEVOTE application. This MSC should be scheduled for a 15 minute accumulation interval only, because the counts are cumulative.

TABLE 53

OUTPUT MEASUREMENT SETS FOR MSC 53
(TELEVOTE SLAVE DIALED NUMBER)

MSC 53 TELEVOTE SLAVE DIALED NUMBER		
OMS	NUMBER	VOTES
0	0000000000	0
1	0000000000	0
2	0000000000	0
3	0000000000	0
.	.	.
.	.	.
.	.	.
124	0000000000	0
125	0000000000	0
126	0000000000	0
127	0000000000	0

Description of Measurements for MSC 53

OMS 0-127

MAS - Total Calls (Votes) to a TELEVOTE Slave Dialed Number Peg Count (VOTES)

MSC 53, OMS 0-127, contains a count of the number of calls to a given 10-digit number. The 10-digit number is the number called by a customer to reach the TELEVOTE service. Each 10-digit number is specified by an OMS. The count is incremented by one when a call to a given TELEVOTE number is successfully connected to an audible ringing preceding the appropriate announcement. It also includes PAS with TELEVOTE and cut-through type calls that are routed to the cut-through number.

TABLE 54

OUTPUT MEASUREMENT SETS FOR MSC 54
(GEOGRAPHIC ATTEMPTS MATRIX)

```
MSC 54 GEOGRAPHIC ATTEMPTS MATRIX
OMS-0-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
OMS-1-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
OMS-2-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000

     .
     .
     .

OMS-31-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
```

Description of Measurements for MSC 54

In order to add any OMSs in this MSC to a schedule, the ODA parameter OD4DNUMMGO0 must not be zero. If it is zero, this MSC can not be scheduled.

OMS 0-31

MAS - Geographic Attempts Matrix
Completion Peg Count

The Geographic Attempts Matrix contains 32 OMSs (0-31) containing completion Peg Counts based on incoming Trunk Subgroup and announcement called. There is a separate OMS for each of 32 announcement operations.

TABLE 55

OUTPUT MEASUREMENT SETS FOR MSC 55
(reserved for future use)

```
This table reserved for MSC 55.
```

TABLE 56

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

MSC 56 ANI DELIVERY SERVICE COUNTS
OMS 0 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
1	0	0	0	0	0
	0	0	0	0	0
2	0	0	0	0	0
	0	0	0	0	0
3	0	0	0	0	0
	0	0	0	0	0
4	0	0	0	0	0
	0	0	0	0	0
5	0	0	0	0	0
	0	0	0	0	0
6	0	0	0	0	0
	0	0	0	0	0

OMS 1 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
7	0	0	0	0	0
	0	0	0	0	0
8	0	0	0	0	0
	0	0	0	0	0
9	0	0	0	0	0
	0	0	0	0	0
10	0	0	0	0	0
	0	0	0	0	0
11	0	0	0	0	0
	0	0	0	0	0
12	0	0	0	0	0
	0	0	0	0	0

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

OMS 2 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
13	0	0	0	0	0
	0	0	0	0	0
14	0	0	0	0	0
	0	0	0	0	0
15	0	0	0	0	0
	0	0	0	0	0
16	0	0	0	0	0
	0	0	0	0	0

OMS 3 DIAL-A-VIEW MESSAGE REGISTER MEASUREMENTS

	-------LINK 1-------		-------LINK 2-------	
ADSI	MSG REGS RETURNED	RREG THLD LINK SKPD	MSG REGS RETURNED	RREG THLD LINK SKPD
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
15	0	0	0	0
16	0	0	0	0

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

```
OMS 4  PER CALL CONTROL OF USEC
  TOT ORD   SOC ORD  TEST ORD   REG MSG     UNACK  SADC CON  REG FAIL
        0         0         0         0         0         0         0

  CRC ERR     FRAME   BAD PKT   ERRORED  GOOD PKT  LOST MSG  PORT CRC
        0         0         0         0         0         0         0

 SADC PRT    IG CRC  SEC GATE  MSG QOVF   IG LINK  NO RCMSG
        0         0         0         0         0         0

 TVON/OFF   TVON/ON  TVOFF/OFF  64C/64C  ODAT   NMT      FSUS      FRES
        0         0          0        0     0     0         0         0

     TVON     TVOFF        64C  MSG/UNK
        0         0          0        0

   NO ACKS   NO ACK DUR    NO ACK CHANS      ALARMS      TVOFF ALL CHAN
        0         0                   0           0                   0

     SPR6      SPR7      SPR8
        0         0         0


OMS 5  TRANSMITTED NOISE REDUCTION (TNR) COUNTS
  TNR SOC   TNR TOT
        0         0
```

Description of Measurements for MSC 56

OMS 0-2

MAS Attempts Peg Count
(MAS ATT)

This counter is incremented by one each time a Dial-A-View network transaction is attempted. This counter is maintained by the DTSCADMN Program.

MAS Cutthru Peg Count
(MAS CUT)

This counter is incremented by one each time a Dial-A-View network transaction results in a cut-through to an operator. Such a situation occurs when the customers' ANI is not available. This counter is maintained by the DTSCADMN Program.

ANI Sent Peg Count
(ANI SNT)

This counter is incremented by one each time a Dial-A-View REGister message containing the ANI and the Event digits is sent to the vendor. This counter is maintained by the ADJSCNTL Program.

Registers From Attendant Peg Count
(REG ATD)

This counter is incremented by one each time a Dial-A-View REGister message is received from an Attendant CPE. This scenario will result following a cut-through to an operator. This counter is maintained by the ADJSCNTL Program.

Attendant Failures Peg Count
(ATD FL)

This counter is incremented by one each time an attendant transaction failure occurs. This counter is maintained by the ADJSCNTL PIDENT.

Timeouts Peg Count
(TIMEOUT)

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

This counter is incremented by one each time a Dial-A-View network transaction experiences a time out. This occurs when the vendor does not acknowledge a REGister message within 6 seconds. This counter is maintained by the DTSCADMN Program.

Gapped Peg Count
(GAPPED)

This counter is incremented by one each time a network or an attendant transaction experiences congestion due to either too many timeouts per minute or too many REGister messages sent to a given vendor per second. This counter is maintained by the ADJSCNTL Program.

Vendor Rejection Peg Count
(VENDREJ)

This counter is incremented by one each time a Dial-A-View network or attendant transaction experiences a Vendor Rejection message (RELease COMPlete message). This counter is maintained by the ADJSCNTL Program.

Facility Received Indicating Caller Hung-Up
Peg Count
(FCRVHUP)

This counter is incremented by one each time a Dial-A-View network transaction receives a FACility message from the vendor and the caller has hung up. This counter is maintained by the ADJSCNTL Program.

Total Final Handled Calls Peg Count
(TOT FH)

This counter is incremented by one each time a network handled transaction is final handled. This counter is maintained by the ADJSCNTL and DTSCADMN Programs.

OMS 3

Link 1 Message Register Returned
Peg Count
(MSG REGS RETURNED LINK 1)

This counter is incremented by one each time a message is registered by the CNI ring. This counter is maintained by ADJSCNTL programs.

Link 1 Return Register Threshold Exceeded
Peg Count
(RREG THLD LINK SKPD LINK 1)

This counter is incremented by one each time the Return Register Threshold is exceeded. This counter specifies the number of times a SADC link is considered to be "POSSIBLY" going out of service. MSGs will not be routed over this link. This counter is maintained by ADJSCNTL program.

Link 2 Message Register Returned
Peg Count
(MSG REGS RETURNED LINK 2)

Same as above except for Link 2.

Link 2 Return Register Threshold Exceeded
Peg Count
(RREG THLD LINK SKPD LINK 2)

Same as above except for Link 2.

OMS 4

Total Number of Orders Peg Count
(TOT ORD)

The total number of orders contained in the REGISTER messages (Event Digits = 0001), irrespective of indicators in the order, sent to the Gateway.

Total Number of Orders with Start of Call
Indicator Set Peg Count
(SOC ORD)

The total number of operational USEC orders and test orders sent to the Gateway in a REGISTER message (Event Digits = 0001) with the start/end indicator set to "start" irrespective of other indicators.

Total Number of Test Orders Sent
Peg Count
(TEST ORD)

The total number of test orders sent to the Gateway with the Maintenance indicator set to "on" in a REGISTER message irrespective of other indicators.

Total Number of Register Messages
Peg Count
(REG MSG)

The total number of REGISTER messages (Event Digits = 0001) sent to the Gateway. This counter is incremented by one each time a REGISTER message is

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

sent irrespective of the number of orders in the message.

Total Number of Unacknowledged Register Messages Peg Count (UNACK)

The total number of unacknowledged REGISTER messages sent to the Gateway. This counter is incremented by one each time a 2 second timeout occurs while waiting for a Release Complete message from the Gateway. This counter is only incremented for REGISTER messages with Event Digits = 0001 or 2222.

Total Number of Register Messages Not Sent due to Congestion Peg Count (SADC CON)

The total number of REGISTER messages (irrespective of the value in the Event Digits field) *not* sent to the Gateway due to SADC node congestion.

Total Number of Register Messages Failed to be Sent Peg Count (REG FAIL)

The total number of REGISTER messages failed to be sent to the Gateway and the cause is anything other than SADC congestion *or* timeout of the REGISTER message. Examples of conditions that cause this count to be incremented are: 1) both SADC links are out-of-service, and 2) no USEC translation data can be retrieved.

Total Number of Packets with CRC Errors Peg Count (CRC ERR)

The total number of Gateway Type 1 and Type 2 packets received since the last valid Type 2 packet that has the correct number of bytes but has a cyclic redundancy check (CRC) 6 error shall be collected by the 4ESS switch for all USECs connected to the Gateway.

Total Number of Framing and Overrun Errors Peg Count (FRAME)

The total number of framing and overrun errors at the USEC IPCC port UART since the last valid Gateway Type 2 packet was received. This count is for all USECs connected to the Gateway. A framing error is defined as a received byte with an invalid stop bit. An overrun error is defined as a new byte received at the UART before the previous byte is read.

Total Number of Bad Packets Received Peg Count (BAD PKT)

The total number of bad packets received since the last valid Gateway Type 2 packet was received. This count is for all USECs connected to the Gateway. The number of bad packets is determined by the USEC by counting the number of Type 1 and Type 2 packets that did not have the correct number of bytes, did not have an all ones Header byte, did not have a correct Message Type byte, or had a CRC 6 error. An incorrect number of bytes may due to many factors including, but not limited to, UART overrun errors on the CP (defined as a new byte received at the UART before the previous byte is read), UART framing errors (count given in the fourth byte), and the Gateway not sending the correct number of bytes.

Total Number of Errored Commands Peg Count (ERRORED)

The total number of errored two byte 4ESS-USEC-PCC (IPCC) commands (which are found inside each Type 1 packet) received since the last valid Type 2 packet. This count is for all USECs connected to the Gateway. An 4ESS-USEC-PCC (IPCC) command is in error when at least one of the following occurs:

- An invalid channel address is received. An invalid channel address is defined as being outside the range of 0 to 6 for the shelf number, 0 to 7 for the digroup number, or 1 to 24 for the channel number.
- The "Enhancement off" bit and/or the "End USEC" bit is set when the "Maintenance bit" is set.

Total Number of Good Packets Received Peg Count (GOOD PKT)

The total number of good packets received by the Gateway since the last Type 2 packet was received. This count is for all USECs connected to the Gateway. This count is determined by the USEC by counting the number of Type 1 packets that have the correct number of bytes, correct header, message type, and CRC 6. Errors in the 10 bytes of data, which is considered to be part of the application message, will be reflected in the sixth byte of this Type 2 acknowledgment packet (i.e., the invalid 4ESS-USEC-PCC (IPCC) command count). The seventh byte contains the most significant byte and

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

the eighth byte contains the least significant byte.

Total Number of Lost Messages
Peg Count
(LOST MSG)

The number of messages that the Gateway attempted to send to the USEC(s) but were lost. This count will be calculated by the Gateway by subtracting the number of good packets received by the USEC(s) and the number of bad packets received by the USEC(s) from the total number of packets that the Gateway attempted to send to the USEC(s).

Total Number of USEC CRC Errors
Peg Count
(PORT CRC)

The total number of USEC port cyclic redundancy check (CRC) errors detected by the Gateway.

Total Number of SADC Port Errors
Peg Count
(SADC PRT)

The total number of SADC port errors detected by the Gateway.

Total Number of Inter-Gateway CRC Errors
Peg Count
(IG CRC)

The total number of Inter-Gateway port CRC errors detected by the Gateway.

Total Number of Times the Secondary
Gateway was Used Peg Count
(SEC GATE)

The total number of times that the secondary Gateway was used during the fifteen minute report interval.

Total Number of Times That Message
Queue Overflowed Peg Count
(MSG QOVF)

The total number of times that the Gateway message queue overflowed during the fifteen minute report interval.

Total Number of Messages Not Sent
Between Gateways Peg Count
(IG LINK)

The total number of messages that could not be sent from the Primary Gateway to the Secondary Gateway due to Inter-Gateway link problems during the fifteen minute report interval.

Total Number of Register Messages That Did
Not Receive a Release Complete Peg Count
(NO RCMSG)

The number of Register messages sent by the Gateway that did not receive a Release Complete message from the 4ESS Switch during the fifteen minute report interval. The Gateway will peg this count when a Release Complete is not returned by the 4ESS Switch within an expected time interval.

TVON Messages Throttled Following TVOFF
Peg Count
(TVON/OFF)

The number of TVON messages (True Voice on iPCC message) throttled following TVOFF message (True Voice off iPCC start-of-call message).

TVON Messages Throttled Following TVON
Peg Count
(TVON/ON)

The number of TVON messages throttled following TVON.

TVOFF Messages Throttled Following TVOFF
Peg Count
(TVOFF/OFF)

The number of TVOFF messages throttled following TVOFF.

64C Messages Throttled Following 64C
Peg Count
(64C/64C)

The number of 64C messages (iPCC 64clear start-of-call message) throttled following 64C.

ODA IPCC Message Queue Threshold
Value in Effect
(ODAT)

This is the latest ODA IPCC message queue threshold value in effect for the 15-minute interval. It is updated every 6 seconds. If the report interval is greater than 15 minutes, then this value is the sum of each of the 15-minute values in the report interval.

Latest IPCC Message Queue NEMOS
Override Threshold Value
(NMT)

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

This is the latest non-zero IPCC message queue NEMOS override threshold value in effect for the 15 minute interval. It is updated every 6 seconds but if it is non-zero at any time during the interval, it will not be reset to zero. If the report interval is greater than 15 minutes, then this value is the sum of each of the 15-minute values in the report interval.

USEC Frame Suspend Event Peg Count
(FSUS)

USEC frame suspend event count.

Individual USEC Frame Resume Event
Peg Count
(FRES)

Individual USEC frame resume event count.

TVON Messages Sent During Throttling,
Not Due to Unknown Peg Count
(TVON)

The number of TVON messages sent during throttling, not due to unknown.

TVOFF Messages Sent During Throttling,
Not Due to Unknown Peg Count
(TVOFF)

The number of TVOFF messages sent during throttling, not due to unknown.

64C Messages Sent During Throttling,
Not Due to Unknown Peg Count
(64C)

The number of 64C messages sent during throttling, not due to unknown.

TVON/TVOFF/64C Messages Sent
During Throttling Due to Unknown Peg Count
(MSG/UNK)

The number of TVON/TVOFF/64C messages sent during throttling due to unknown.

iPCC No Acknowledgement Received
Peg Count
(NO ACKS)

The number of occurrences for which the iPCC Gateway did not receive an acknowledgement message from the 4ESS Switch for two consecutive heartbeats.

iPCC No Acknowledgement Received Duration
In Seconds
(NO ACKS DUR)

The duration in seconds of the occurrences for which the iPCC Gateway did not receive an acknowledgement signal from the 4ESS Switch for two consecutive heartbeats.

iPCC Number of Channels With NO ACK signal
Peg Count
(NO ACKS CHANS)

The number of channels to which the iPCC Gateway sent a TVOFF message after not receiving an acknowledgement signal from the 4ESS Switch to two consecutive heartbeats.

iPCC Alarms After Two Errored Packets
In 15 Seconds Peg Count
(ALARMS)

The number of occurrences an alarm is generated by the iPCC Gateway to the 4ESS Switch after two errored packets have occurred within 15 seconds.

iPCC TVOFF Messages to all Channels
Peg Count
(TVOFF ALL CHANS)

The number of times the iPCC Gateway sends TVOFF messages to all channels that were used in the last minute after 5 errored packets.

Spare 6 Peg Count
(SPR6)

This is a spare peg count provided for future use.

Spare 7 Peg Count
(SPR7)

This is a spare peg count provided for future use.

Spare 8 Peg Count
(SPR8)

This is a spare peg count provided for future use.

OMS 5

Total Number of TNR Operational Orders
for Start of Call Peg Count
(TNR SOC)

The total number of operational TNR USEC orders sent for egress trunks to the iPCC Gateway in a REGISTER

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

message (Event Digits = 0001) with the Start/End indicator set to "start".

Total Number of TNR Orders Peg Count
(TNR TOT)

The total number of TNR USEC orders sent to the iPCC Gateway in REGISTER messages (Event Digits = 0001) for access/egress trunks, regardless of the setting of the Start/End of Call indicator.

TABLE 57

OUTPUT MEASUREMENT SETS FOR MSC 57
(POSITIVE CALL PROCESSING)

```
MSC 57  POSITIVE CALL PROCESSING
OMS 0  PCP IA & PERF COUNTS
0
0
0
.
.
.
0
```

Description of Measurements for MSC 57

[As this MSC is intended as a report for use by a computer system, no description of the counts is printed on the output.]

OMS 0

(1) PCP DTMF Queue Seizure Peg Count
(2) PCP DTMF Queue Accumulated Occupancy Count
(3) PCP DTMF Queue Abandon Peg Count
(4) CPA Call Register Seizures Peg Count
(5) CPA Call Register Accumulated Occupancy Count
(6) CPA Call Register Overflow Peg Count
(7) PCP Receiver Holding Time in Sec for SAN
(8) PCP Receiver Holding Time in Sec for 1+SACDS
(9) PCP Receiver Holding Time in Sec for MUVF
(10) PCP Receiver Holding Time in Sec for FAX S&F
(11) PCP Call Killed Due to DTMF Receiver Queue Overload Count
(12) PCP Call Subjected to Excessive Delay Count (i.e., Wait on DTMF Receiver Queue >= 2 seconds)
(13) PCP SAB Call Denied Due to Improper Collection for LDS
(14) PCP SAB Call Denied Due to Improper Collection for SA WATS
(15) PCP SAB Call Denied Due to Improper Collection for MEGACOM and DC WATS
(16) PCP Call Denied Due to MUVF CTI Improper Collection for LDS
(17) PCP Call Denied Due to MUVF CTI Improper Collection for SA WATS
(18) PCP Call Denied Due to MUVF CTI Improper Collection for MEGACOM and DC WATS
(19) PCP FAX S&F Call Denied Due to Invalid Service Code Received for LDS
(20) PCP FAX S&F Call Denied Due to Invalid Service Code Received for SA WATS
(21) PCP FAX S&F Call Denied Due to Invalid Service Code Received for MEGACOM and DC WATS
(22) PCP Subaccount Number Initial Attempt Failed Count (TMAD0002 pegs for call irregularity report.)
(23) PCP 1+SACDS Initial Attempt Failed in Receipt of Service Code
(24) PCP MUVF Initial Attempt Failed in Receipt of CTI
(25) PCP Total SAN Account Code Verification Failures
(26) PCP SAN Denied - none entered and was mandatory
(27) PCP FAX S&F Initial Attempt Fail in Receipt of Service Code
(28) PCP 1+SACDS Due to Invalid Service Code Received
(29) PCP CDS Attempts for Which Failure to Reseize Receiver Occurred
(30) PCP FAX S&F Attempts for Which Failure to Seize Receiver Occurs
(31) PCP FAX S&F DTMF Receiver Timeout in Wait for ANS State
(32) PCP BN(ANI) Query Attempt CNT for DC and SA LDS
(33) PCP BN(ANI) Query Attempt CNT for SA WATS
(34) PCP BN(ANI) Query Attempt Count for MEGACOM and DC WATS
(35) PCP BN(ANI) Subscribed to Some PCP Feature for DC and SA LDS

TABLE 57 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 57
(POSITIVE CALL PROCESSING)

(36) PCP BN(ANI) Subscribed to Some PCP Feature for SA WATS
(37) PCP BN(ANI) Subscribed to Some PCP Feature for MEGACOM and DC WATS
(38) PCP Handled Customer Specific Recording Successfully for LDS
(39) PCP Handled Customer Specific Recording Successfully for SA WATS
(40) PCP Handled Customer Specific Recording Successfully for MEGACOM and DC WATS
(41) PCP Subaccount Number Collected Successfully for LDS
(42) PCP Subaccount Number Collected Successfully for SA WATS
(43) PCP Subaccount Number Collected Successfully for MEGACOM and DC WATS
(44) PCP Handled Dedicated FAX ID Successfully for LDS
(45) PCP Handled Dedicated FAX ID Successfully for SA WATS
(46) PCP Handled Dedicated FAX ID Successfully for MEGACOM and DC WATS
(47) PCP MUVF CTI Collected Successfully for LDS
(48) PCP MUVF CTI Collected Successfully for SA WATS
(49) PCP MUVF CTI Collected Successfully for MEGACOM and DC WATS
(50) PCP SAB Calls Allowed to Complete with No SAN Received
(51) PCP SAB Calls Allowed to Complete with SAN Received and it was Optional
(52) PCP SAB Calls Allowed to Complete with SAN Received and it was Mandatory
(53) PCP Calls with SAN Account Code Validation Successful
(54) PCP TOTAL 1+SACDS Attempts to Seize a Receiver
(55) PCP TOTAL 1+SACDS Successfully Attempted Routing to VMOC
(56) PCP Total MUVF Calls Identified as Being FAX
(57) PCP FAX ID Calls Identified as Using FAX FPR
(58) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for LDS
(59) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for SA WATS
(60) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for MEGACOM and DC WATS
(61) PCP FAX S&F Successfully Attempted Routing to a FAX S&F Node
(62) PCP SAN Validation Success Peg Count
(63) PCP 1B to DLN Failure to Send Query Peg Count
(64) PCP DLN to 1B No Reply From DLN Peg Count
(65) PCP SAN No Data in DLN Peg Count
(66) CAS-NCP Unrecognized Info Received Peg Count
(67) CPA BN(ANI) Trigger Table Query Attempt Peg Count for All Applicable Services
(68) CPA BN(ANI) Trigger Table Data Found Peg Count for All Applicable Services
(69) CPA Destination Number Trigger Table Query Attempt Peg Count for FAX Calls
(70) CPA Destination Number Trigger Table Data Found Peg Count for FAX Calls
(71) PCP Using 2NCP/NSCX Peg Count

The total number of calls for which an ABC ANI trigger table record was matched, for which the Feature Processing Data Type Indicator was set to "FI", and the "PCP Using 2NCP/NSCX" Indicator is "on."

TABLE 58

OUTPUT MEASUREMENT SETS FOR MSC 58
(reserved for future use)

```
This table reserved for MSC 58.
```

TABLE 59

OUTPUT MEASUREMENT SETS FOR MSC 59
(reserved for future use)

```
This table reserved for MSC 59.
```

TABLE 60

OUTPUT MEASUREMENT SETS FOR MSC 60
(reserved for future use)

```
This table reserved for MSC 60.
```

TABLE 61

OUTPUT MEASUREMENT SETS FOR MSC 61
(reserved for future use)

```
This table reserved for MSC 61.
```

TABLE 62

OUTPUT MEASUREMENT SETS FOR MSC 62
(reserved for future use)

```
This table reserved for MSC 62.
```

TABLE 63

OUTPUT MEASUREMENT SETS FOR MSC 63
(reserved for future use)

```
This table reserved for MSC 63.
```

FIGURE 1

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
0	-	60	MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD
	0	15	MF XMTR, IDTS RCVR, AND ODTMFWK XMTR QUEUE-DOMESTIC
	1	1	CCITT5 QUEUE-INTERNATIONAL
	2	21	MF, DTMF XMTRS, NSCX AND MASFH CKTS
	3	6	BLUE BOX FRAUD
	4	21	CCS MESSAGE TABLE
1	-	6	MF RCVR AND DTMF RCVR
	0	6	
2	-	8	CCIS, ISUP, ITUP AND INUP XCVR
	0	8	
3	-	192	ANNOUNCEMENT CIRCUITS AND DEDICATED TSI
	0-31	1	
	32	32	DEDICATED TSI
	33-160	1	
4	-	5	NETWORK
	0	4	
	1	1	SERVICE OBSERVING
5	-	87	OFFICE TOTALS
	0	7	
	1	26	
	2	3	
	3	1	
	4	9	INTERNATIONAL INCOMING
	5	10	INTERNATIONAL OUTGOING
	6	25	NETWORK CLOCK SYNCHRONIZATION UNIT
	7	2	SERVICE OBSERVING
	8	2	CALLS ORIGINATING AND TERMINATING
	9	2	MAS IRREGULARITIES
6	-	65	BOC SSP MEASUREMENTS
	0	65	
7	-	37	INCOMING IRREGULARITIES
	0	32	
	1	5	
8	-	-	Reserved For Future Use
9	-	10	PROCESSOR LOAD
	0	2	
	1	8	BASE LEVEL PEG COUNTS
10	-	2048	TRAFFIC SEPARATIONS
	0-1023	2	TRAFFIC SEPARATIONS BASED ON DESEP AND INSEP
11	-	67	INEFFECTIVE ATTEMPTS
	0	3	
	1	8	
	2	8	
	3	16	NETWORK MANAGEMENT BLOCKED
	4	26	MISCELLANEOUS INEFFECTIVE ATTEMPTS
	5	2	

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	6	4	
12	-	16	TSI USAGE
	0	16	
13	-	-	TRUNK SUB-GROUPS (MAX OF 64)
	-	-	OUTPUT IS BY CIN (MAX OF 16 COUNTS PER CIN)
14	-	8192	CCIS/CCITT NO. 6 TERMINALS
	0-255	32	
15	-	59	INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS
	0	7	SECOND STAGE
	1	6	IOC OPERATOR ATTEMPTS
	2	34	INTERNATIONAL INEFFECTIVE ATTEMPTS
	3	1	ORIGINATING INTL CALL-DOMESTIC SATELLITE INCOMING
	4	11	TWO STAGE SWITCHING ERRORS
16	-	36	IO, FILE STORE, TAPE UNIT AND DATA LINK
	0	5	
	1	31	APS COMMUNITY
17	-	62	ENGINEERED MEMORY
	0	46	DOMESTIC MEMORY
	1	11	MEMORY FOR INTERNATIONAL
	2	2	CALL DETAIL RECORDING REGISTERS
	3	3	
18	-	10	CAMA INEFFECTIVE ATTEMPTS
	0	10	
19	-	26	CAMA
	0	19	
	1	2	
	2	5	
20	-	77	PERFORMANCE MEASUREMENTS-MAJOR MAINT RESPONSES AND ALARMS
	0	12	INTERRUPT TOTALS
	1	59	MAJOR MAINTENANCE RESPONSES
	2	5	ALARMS
	3	1	HARDWARE DETECTED CGA
21	-	29	PERFORMANCE MEASUREMENTS- SYSTEM RECOVERY- PHASES
	0	8	SYSTEM RECOVERY-PHASES
	1	2	RECENT CHANGE MEASUREMENTS
	2	3	NETWORK MANAGEMENT MEASUREMENTS
	3	16	MACHINE CONGESTION
22	-	4	PERFORMANCE MEASUREMENTS - AUDIT TYPE
	0	2	AUDIT COMPLETE
	1	2	AUDIT ERRORS
23	-	46	PERFORMANCE MEASUREMENTS-EQUIPMENT TYPE - PROCESSOR
	0	3	MAINTENANCE OCCUPANCIES
	1	18	MAINTENANCE USAGE
	2	16	PERIPHERAL UNIT MAINTENANCE USAGE AND OUTAGE
	3	7	PER CALL SERVICE CKTS ACCUMULATED MAINT OCCUPANCY
	4	2	VFL ACCUMULATED MAINTENANCE OCCUPANCY

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
24	-	82	PERFORMANCE MEASUREMENTS-TERMINAL EQUIPMENT
	0	1	TOTAL ACCUMULATED MAINTENANCE OCCUPANCY
	1	18	TERMINAL EQUIPMENT MAINTENANCE USAGE AND OUTAGE
	2	63	TERMINAL EQUIPMENT
25	-	293	CONTROL AREA ZERO
	0	2	CONTROL AREA SUMMATION
	1	61	INCOMING IMAS
	2	22	INCOMING IMAS
	3	49	OUTGOING IMAS AND GLARE FAILURES
	4	11	OUT-OF-SERVICE PEG COUNTS
	5	15	ATTEMPTS AND MAINTENANCE USAGE
	6	5	CCIS INEFFECTIVE ATTEMPTS
	7	6	ROTL
	8	24	TERMINATING TEST LINES
	9	21	ROUTINE OPERATIONAL TESTS
	10	10	TEST ACCESS CIRCUIT
	11	12	INTERNATIONAL ATTEMPTS AND MAINTENANCE USAGE
	12	2	OUT-OF-SERVICE PEG COUNTS
	13	6	INTERNATIONAL TRUNK TESTS-DIRECTOR
	14	5	INTERNATIONAL TRUNK TESTS-RESPONDER
	15	2	ATME FAILURES
	16	38	CCITT #5 CALL IRREGULARITIES
	17	2	CCITT #6 ACKNOWLEDGEMENT TIMEOUTS
26	-	293	CONTROL AREA ONE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
27	-	293	CONTROL AREA TWO
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
28	-	293	CONTROL AREA THREE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
29	-	293	CONTROL AREA FOUR
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
30	-	293	CONTROL AREA FIVE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
31	-	293	CONTROL AREA SIX
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
32	-	293	CONTROL AREA SEVEN
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
33	-	293	CONTROL AREA EIGHT
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
34	-	293	CONTROL AREA NINE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
35	-	31	SERVICE CIRCUITS
	0	7	MAINTENANCE SERVICE CKTS MAINTENANCE OCCUPANCIES
	1	19	MAINTENANCE SERVICE CIRCUITS MEASUREMENTS
	2	3	ATME-A
	3	2	TMR SEIZURES
36	-	181	SERVICE MEASUREMENTS

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	0	23	INCOMING IA, CCIS, ISUP, ITUP, INUP AND Q931
	1	16	INCOMING INEFFECTIVE ATTEMPTS, BEFORE ADDR SIGNALING
	2	24	INCOMING INEFFECTIVE ATTEMPTS, DURING ADDR SIGNALING
	3	21	INCOMING INEFFECTIVE ATTEMPTS, CALLING PARTY SIGNALING
	4	26	OUTGOING INEFFECTIVE ATTEMPTS
	5	2	CAMA POSITION IRREGULARITIES
	6	15	CALLS LOST DUE TO MACHINE IRREGULARITIES
	7	4	CCITT #6 FINAL TRIAL FAILURES
	8	6	CCITT #5 FINAL TRIAL FAILURES-OUTGOING STAGE
	9	7	CCITT #6 INEFFECTIVE ATTEMPTS
	10	5	CUSTOMER CALL TO MAS FTF
	11	32	ADJUNCT TIMEOUTS
37	-	18	BASE MEASUREMENTS
	0	10	DOM ATTEMPTS-TOTAL OFFICE
	1	8	INTL ATTEMPTS-TOTAL OFFICE
38	-	293	ADMINISTRATIVE AREA ZERO
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
39	-	293	ADMINISTRATIVE AREA ONE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
40	-	256	PERFORMANCE MEASUREMENTS-AUDIT IMPLICATOR CODE
	0	64	AUDIT IMPLICATOR CODE (000-063)
	1	64	AUDIT IMPLICATOR CODE (064-127)
	2	64	AUDIT IMPLICATOR CODE (128-191)
	3	64	AUDIT IMPLICATOR CODE (192-255)
41	-	4	AUDITS BY CLIENT
	0	4	AUDIT CALLS BY CLIENT, ERRORS FOUND
42	-	32	TRUNK ERROR ANALYSIS COUNTS - SECOND STAGE FILTERS
	0-31	1	SECOND STAGE FILTER OVERFLOWS BY SP NUMBER
43	-	32	TRUNK ERROR ANALYSIS COUNTS - LONG TERM TABLE
	0-31	1	LONG TERM TABLE OVERFLOWS BY SP NUMBER
44	-	1	TRUNK ERROR ANALYSIS-REPORT BUFFER OVERFLOW
	0	1	
45	-	132	SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS
	0	57	
	1	5	CCIS SOFTWARE CARRIER GROUP ALARM
	2	1	TRUNKS BLOCKED FAR END EQUIPMENT PROBLEMS
	3	25	CCITT #6 PERFORMANCE SIGNALS RECEIVED
	4	11	CCITT #6 PERFORMANCE SIGNALS TRANSMITTED
	5	16	CCITT #6 SIGNALING IRREGULARITIES
	6	4	ISUP UUI AND ATP DROPPED
	7	6	CALL MERGE
	8	7	E&M SOFTWARE CARRIER GROUP ALARM
46	-	203	SWITCHING AREA EQUIPMENT COUNTS
	0	77	PROCESSOR
	1	14	I/O
	2	35	BUS SYSTEM
	3	21	NETWORK

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	4	25	SIGNALING EQUIPMENT
	5	21	CLOCKS
	6	10	PER CALL SERVICE CIRCUIT MEASUREMENTS
47	-	512	PERFORMANCE MEASUREMENTS-AUDITS BY TYPE
	0	50	ROUTINE AUDIT COMPLETIONS NO. 00-49
	1	50	ROUTINE AUDIT COMPLETIONS NO. 50-99
	2	28	ROUTINE AUDIT COMPLETIONS NO. 100-127
	3	50	DEMAND AUDIT COMPLETIONS NO. 00-49
	4	50	DEMAND AUDIT COMPLETIONS NO. 50-99
	5	28	DEMAND AUDIT COMPLETIONS NO. 100-127
	6	50	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 00-49
	7	50	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 50-99
	8	28	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 100-127
	9	50	ERRORS - DEMAND AUDIT COMPLETIONS NO. 00-49
	10	50	ERRORS - DEMAND AUDIT COMPLETIONS NO. 50-99
	11	28	ERRORS - DEMAND AUDIT COMPLETIONS NO. 100-127
48	-	293	ADMINISTRATIVE AREA TWO
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
49	-	87	INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI
	0	63	CCIS INWATS
	1	19	AIN CALLS
	2	19	AIN TOLLFREE CALLS
	3	8	DIRECT SIGNALING
50	-	2048	MAS PER ANNOUNCEMENT MEASUREMENTS
	0-511	4	
51	-	128	CALL GAPPING/CUT THRU
	0-63	2	
52	-	128	TELEVOTE MASTER DIALED NUMBER
	0-127	1	
53	-	128	TELEVOTE SLAVE DIALED NUMBER
	0-127	1	
54	-	1024	GEOGRAPHIC ATTEMPTS MATRIX
	0-31	32	ANNOUNCEMENT SEPARATION
56	-	260	ANI DELIVERY SERVICE
	0	60	DIAL-A-VIEW PERFORMANCE MEASUREMENTS - ADSI 01-06
	1	60	DIAL-A-VIEW PERFORMANCE MEASUREMENTS - ADSI 07-12
	2	40	DIAL-A-VIEW PERFORMANCE MEASUREMENTS - ADSI 13-16
	3	64	DIAL-A-VIEW MESSAGE REGISTER MEASUREMENTS
	4	40	PER CALL CONTROL OF USEC
	5	2	TRANSMITTED NOISE REDUCTION (TNR) COUNTS
57	-	71	POSITIVE CALL PROCESSING
	0	71	PCP IA & PERF COUNTS
58	-	-	Reserved For Future Use
59	-	-	Reserved For Future Use
60	-	-	Reserved For Future Use
61	-	-	Reserved For Future Use
62	-	-	Reserved For Future Use
63	-	-	Reserved For Future Use

FIGURE 2

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
1B Communication Buffer Usage	16/1
1B DMA Job Buffer Overflow Peg Count	16/1
1B DMA Job Buffer Seizures Peg Count	16/1
1B DMA Job Buffer Timeout Peg Count	16/1
1B DMA Job Buffer Usage	16/1
1B DMA Job Buffers Entered into the Reserved State Peg Count	16/1
1B File Processor Interface Down	45/0
1B Messages Sent to the 3B Peg Count	16/1
1B Read Messages Sent to the 3B Peg Count	16/1
1B Write Messages Sent to the 3B Peg Count	16/1
1B-3B AMA Records Lost Peg Count	49/3
1B-3B AMA Records Sent Peg Count	49/3
1B-3B Communication Send Buffer Overflows Peg Count	16/1
1B-3B Communication Send Buffer Seizures Peg Count	16/1
3B Communication Send Buffer Usage	16/1
3B DMA Job Buffer Overflow Peg Count	16/1
3B DMA Job Buffer Seizures Peg Count	16/1
3B DMA Job Buffer Timeout Peg Count	16/1
3B DMA Job Buffer Usage	16/1
3B DMA Job Buffers Entered into the Reserved State Peg Count	16/1
3B File Manager Buffer Overflows Peg Count	16/1
3B File Manager Buffer Seizures Peg Count	16/1
3B File Manager Buffer Usage	16/1
3B Messages Sent to the 1B Peg Count	16/1
3B Read Messages Sent to the 1B Peg Count	16/1
3B Write Messages Sent to the 1B Peg Count	16/1
3B-1B Communication Send Buffer Overflows Peg Count	16/1
3B-1B Communication Send Buffer Seizures Peg Count	16/1
4ESS Switch Originated Outgoing Attempts	5/8
64C Messages Sent During Throttling, Not Due to Unknown Peg Count	56/4
64C Messages Throttled Following 64C Peg Count	56/4
800 Number Services (NS) Attempts Failed Due to Unacceptable Digit Count Peg Count	49/0
Abandon - After Outpulsing Peg Count	49/1
Abandon - After Outpulsing Peg Count	49/2
Abandon - Before Outpulsing Peg Count	49/1
Abandon - Before Outpulsing Peg Count	49/2
Abandon During Second Stage International - No Digits Received	15/0
Abandon During Second Stage International - Some Digits Received	15/0
Abandon During Second Stage VSS - No Digits Received	15/0
Abandon During Second Stage VSS - Some Digits Received	15/0
Access Tandem Post Acknowledgement Wink Timeout	11/4
Access Transport Received Peg Count	13/CIN
Adjunct Logical Address T303 Timeouts Peg Count	36/11
Adjunct Logical Address TADJ Timeouts Peg Count	36/11
AIN Queries to the SCP Peg Count	49/1
AIN Tollfree Calls Received from Another Switch Peg Count	49/2
AIN Tollfree Queries to the SCP Peg Count	49/2
AIN Total Calls Received from Another Switch Peg Count	49/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
AMA Match Check Failure Peg Count	19/1
AMA Wrong Calling Code Peg Count	19/1
ANI Multi-Party Calls Peg Count	19/0
ANI Sent Peg Count	56/0-2
Announcement Number Unavailable Peg Count	49/1
Announcement Number Unavailable Peg Count	49/2
Announcement or Tone Group Seizure Peg Count	3/0-31
Announcement or Tone Group Seizure Peg Count	3/33-160
Answer Signal Timeout Peg Count	25/16
Answer-Acknowledgement Signal Timeout Peg Count	25/16
API Accumulated Maintenance Usage	23/1
API Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
API Diagnostics Manually Requested Peg Count	46/0
API Diagnostics Program Requested - All Tests Passed Peg Count	46/0
API Diagnostics Program Requested Peg Count	46/0
API Errors Peg Count	46/0
API Located Faults Peg Count	46/0
API Non-located Peg Count	46/0
API Processor Interface Down	45/0
ATME Director/Responder Irregularities Peg Count	25/15
ATME-A Responder Incoming Seizures Peg Count	35/2
ATME-A Responder Maintenance Usage	35/2
ATME-A Responder Tests Attempted Peg Count	25/14
ATME-A Responder Tests Overflowed Peg Count	25/14
ATME-A Responder Total Usage	35/2
ATME-B Director Tests Attempted Peg Count	25/13
ATME-B Director Tests Failed Peg Count	25/13
ATME-B Director Tests Passed Peg Count	25/13
ATME-B Out-Of-Service Peg Count	25/12
ATME-B Responder Tests Attempted Peg Count	25/14
ATME-B Responder Tests Overflowed Peg Count	25/14
ATME-C Director Tests Attempted Peg Count	25/13
ATME-C Director Tests Failed Peg Count	25/13
ATME-C Director Tests Passed Peg Count	25/13
ATME-C Out-Of-Service Peg Count	25/12
ATME-C Responder Tests Attempted Peg Count	25/14
Attached Processor Interject Peg Count	20/1
Attendant Failures Peg Count	56/0-2
AUB Accumulated Maintenance Usage	23/1
AUB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
AUB Diagnostics Manually Requested Peg Count	46/2
AUB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
AUB Diagnostics Program Requested Peg Count	46/2
AUB Errors Peg Count	46/2
AUB Located Faults Peg Count	46/2
AUB Non-located Peg Count	46/2
Audit 00 through 49 Demand Request Errors Found Peg Count	47/9

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Audit 00 through 49 Demand Request Peg Count	47/3
Audit 00 through 49 Routine Request Errors Found Peg Count	47/6
Audit 00 through 49 Routine Request Peg Count	47/0
Audit 100 through 127 Demand Request Errors Found Peg Count	47/11
Audit 100 through 127 Demand Request Peg Count	47/5
Audit 100 through 127 Routine Request Errors Found Peg Count	47/8
Audit 100 through 127 Routine Request Peg Count	47/2
Audit 50 through 99 Demand Request Errors Found Peg Count	47/10
Audit 50 through 99 Demand Request Peg Count	47/4
Audit 50 through 99 Routine Request Errors Found Peg Count	47/7
Audit 50 through 99 Routine Request Peg Count	47/1
Audit Implicator Codes Peg Count	40/0-3
AUI Accumulated Maintenance Usage	23/1
AUI Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
AUI Diagnostics Manually Requested Peg Count	46/0
AUI Diagnostics Program Requested - All Tests Passed Peg Count	46/0
AUI Diagnostics Program Requested Peg Count	46/0
AUI D-Level Counter	20/1
AUI Errors Peg Count	46/0
AUI In-Range D-Level Counter	20/1
AUI Interject Counter	20/1
AUI Located Faults Peg Count	46/0
AUI Non-located Peg Count	46/0
AUI to API In-Range Counter	20/1
AUI to API Out-Of-Range Counter	20/1
AUI to CS In-Range Counter	20/1
AUI to CS Out-Of-Range Counter	20/1
AUI to DUS In-Range Counter	20/1
AUI to DUS Out-Of-Range Counter	20/1
AUI to PS In-Range Counter	20/1
AUI to PS Out-Of-Range Counter	20/1
Automatic Network Management Controls	13/CIN
Average Base Level Cycle Length In Milliseconds	9/0
Billing Number Gap Peg Count	11/3
Black Box Fraud Prevention Canceled	0/4
Black Box Fraud Ring Forwards Received	0/4
B-Level Interrupt Central Control Switch Peg Count	20/1
B-Level Interrupts Hardware Initialization Peg Count	20/1
B-Level Interrupts Pulse Source In-Range Peg Count	20/1
B-Level Interrupts Pulse Source Out-Of-Range Peg Count	20/1
Blocking Acknowledgement Timeout Peg Count	25/17
Blue Box Fraud Attempts	0/3
Blue Box Fraud Detected	0/3
Blue Box Fraud MF Receiver Occupancy	0/3
Blue Box Fraud MF Receiver Seizure	0/3
Blue Box Fraud Overload	0/3
Blue Box Fraud Persisting	0/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
BOC SSP Initial Queries	6/0
BOC SSP MF Incoming Seizures	5/1
BOC SSP MF Outgoing Seizures	5/1
BOC SSP Seizures	6/0
Broadband Call 24 - Data Calls Received From an IEC Peg Count	5/1
Broadband Call 24 - Originating Data Attempts From a PRI Peg Count	5/1
Broadband Call 24-Trunk Incoming Seizures	5/1
Broadband Call 24-Trunk Outgoing Seizures	5/1
Broadband Call 6 - Data Calls Received From an IEC Peg Count	5/1
Broadband Call 6 - Originating Data Attempts From a PRI Peg Count	5/1
Broadband Call 6-Trunk Incoming Seizures	5/1
Broadband Call 6-Trunk Outgoing Seizures	5/1
Broadband Call Failure Peg Count	11/4
Buffer Overflow Peg Count	14/0-255
Busy-Flash Final Trial Failure Peg Count	36/8
Busy-Flash on the Outgoing Trunk Peg Count	25/16
Busy-Flash Peg Count	25/16
Call Denial Screening Peg Count	11/4
Call Merge Denials - Adjunct Not Allowed Peg Count	45/7
Call Merge Denials - Invalid Call States Peg Count	45/7
Call Merge Denials - Invalid Channel ID Peg Count	45/7
Call Merge Denials - Multi-Feature Request Peg Count	45/7
Call Merge Failure - Resource Limitations Peg Count	11/1
Call Merge Requests Peg Count	45/7
Call Merge Success Peg Count	45/7
Call Processing Failure After Initial Query Peg Count	49/1
Call Processing Failure After Initial Query Peg Count	49/2
Call Processing Failure Before Initial Query Peg Count	49/1
Call Processing Failure Before Initial Query Peg Count	49/2
Call Record Block Peg Count	19/2
Call Record Lost Peg Count	19/2
Call Register (CR) Usage	17/0
Caller Abandon Before Response from SCP Peg Count	49/0
Calls Blocked by Go-No Go Screening Peg Count	11/2
CAMA Automatic Number Identification Failure Peg Count	19/0
CAMA Automatic Number Identification Local Office Failure	19/0
CAMA Automatic Number Identification Office Failure	19/0
CAMA Calls Queue Over 5-Seconds Peg Count	19/0
CAMA Free Calls Peg Count	36/5
CAMA Operator Queue Abandon Peg Count	18/0
CAMA Operator Queue Abandon Peg Count	19/0
CAMA Operator Queue Overflow Peg Count	18/0
CAMA Operator Queue Overflow Peg Count	19/0
CAMA Operator Queue Seizure Peg Count	19/0
CAMA Operator Queue Usage	19/0
CAMA Position Attached Timeout Peg Count	18/0
CAMA Position Disconnect Peg Count	18/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CAMA Position Disconnect Peg Count	19/0
CAMA Position Disconnect Timeout Peg Count	18/0
CAMA Position Report (CPR) Peg Count	18/0
CAMA Position Report (CPR) Peg Count	36/5
CAMA Position Timeout Peg Count	18/0
CAMA Positions Usage	19/0
Cancel Overload in Effect Peg Count	9/1
Cancel-From Control Blocked Peg Count	11/3
Cancel-To Control Blocked Peg Count	11/3
Carrier Group Failure Peg Count	11/1
CAS-NCP Unrecognized Info Received Peg Count	57/0
CC Accumulated Maintenance Usage	23/1
CC Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
CC Diagnostics Manually Requested Peg Count	46/0
CC Diagnostics Program Requested - All Tests Passed Peg Count	46/0
CC Diagnostics Program Requested Peg Count	46/0
CC Errors Peg Count	46/0
CC Located Faults Peg Count	46/0
CC Non-located Peg Count	46/0
CC to AUI In-Range Counter	20/1
CC to AUI Out-Of-Range Counter	20/1
CC to MUP In-Range Counter	20/1
CC to MUP Out-Of-Range Counter	20/1
CC to SSD In-Range Counter	20/1
CC to SSD Out-Of-Range Counter	20/1
CCIS 2-Wire Incoming Seizure Peg Count	5/1
CCIS Address Complete Signal Timeout Peg Count	36/4
CCIS Address Incomplete (ADI) Signals Received Peg Count	45/0
CCIS Address Incomplete (ADI) Signals Transmitted Peg Count	45/0
CCIS Call Fail Detection Peg Count	36/4
CCIS Call Failure (CFL) Signals Received Peg Count	45/0
CCIS Call Failure (CFL) Signals Transmitted Peg Count	45/0
CCIS Calls Lost Due to Trunk or Band Reset Peg Count	36/6
CCIS Confusion (COF) Signals Received Peg Count	45/0
CCIS Confusion (COF) Signals Transmitted Peg Count	45/0
CCIS Continuity Check Failure Final Trial Group Peg Count	36/4
CCIS CR Seizure Peg Count	17/0
CCIS Incoming Attempts Peg Count	25/5
CCIS Incoming Calls Peg Count	5/1
CCIS Maintenance Usage	25/5
CCIS Message Subscriber Busy Peg Count	49/0
CCIS National Switching Congestion (NSC) Signals Received Peg Count	45/0
CCIS National Switching Congestion (NSC) Signals Transmitted Peg Count	45/0
CCIS National Trunk Congestion (NTC) Signals Received Peg Count	45/0
CCIS National Trunk Congestion (NTC) Signals Transmitted Peg Count	45/0
CCIS Origination CR Queue Abandon Peg Count	11/6
CCIS Origination CR Queue Abandon Peg Count	17/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CCIS Origination CR Queue Overflow Peg Count	11/6
CCIS Origination CR Queue Overflow Peg Count	17/0
CCIS Origination CR Queue Seizure Peg Count	17/0
CCIS Origination CR Queue Usage	17/0
CCIS Outgoing Attempts Peg Count	25/5
CCIS Outgoing Calls Peg Count	5/2
CCIS Signaling Network Failure Peg Count	36/4
CCIS Terminal Group Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
CCIS Terminal Group Diagnostics Manually Requested Peg Count	46/4
CCIS Terminal Group Diagnostics Program Requested - All Tests Passed Peg Count	46/4
CCIS Terminal Group Diagnostics Program Requested Peg Count	46/4
CCIS Terminal Group Errors Peg Count	46/4
CCIS Terminal Group Located Faults Peg Count	46/4
CCIS Terminal Group Non-located Peg Count	46/4
CCIS Transceiver Accumulated Maintenance Usage	23/3
CCIS Transceiver Located Faults Peg Count	46/6
CCIS Transceiver Maintenance Usage	2/0
CCIS Transceiver Non-located Peg Count	46/6
CCIS Transceiver Overflow Peg Count	2/0
CCIS Transceiver Seizure Peg Count	2/0
CCIS Transceiver Service Usage	2/0
CCIS Transceiver Test Circuit Located Faults Peg Count	35/1
CCIS Transceiver Test Circuit Maintenance Busy Occupancy	35/0
CCIS Transceiver Test Circuit Non-located Faults Peg Count	35/1
CCIS Transceiver Test Circuit Total Usage	35/1
CCIS Trunk Or Band Reset Received Peg Count	45/0
CCIS Trunk Or Band Reset Signals Transmitted Peg Count	45/0
CCIS Unequipped Label Signals Received Peg Count	45/0
CCIS Unequipped Label Signals Transmitted Peg Count	45/0
CCIS Unreasonable Message (UNRES) Signals Received Peg Count	45/0
CCIS Vacant National Number (VNN) Signals Received Peg Count	45/0
CCIS Vacant National Number (VNN) Signals Transmitted Peg Count	45/0
CCIS VPA Cancellation and Path Hunt Peg Count	2/0
CCITT No. 5 Call Register Queue Seizure Peg Count	17/1
CCITT No. 5 Control Area Incoming Attempts Peg Count	25/11
CCITT No. 5 Control Area Outgoing Attempts Peg Count	25/11
CCITT No. 5 Maintenance Usage	25/11
CCITT No. 5 Miscellaneous Abandon Peg Count	25/16
CCITT No. 5 Originating Queue Seizure Peg Count	17/1
CCITT No. 5 Originating Queue Usage	17/1
CCITT No. 5 Queue Entry Failure Peg Count	0/1
CCITT No. 5 Total Office Incoming Attempts Peg Count	5/4
CCITT No. 5 Total Office Outgoing Attempts Peg Count	5/5
CCITT No. 6 Address Incomplete (ADI) Signals Received Peg Count	45/3
CCITT No. 6 Address Incomplete (ADI) Signals Transmitted Peg Count	45/4
CCITT No. 6 Blocking (BLO) Signal Transmitted Peg Count	45/4
CCITT No. 6 Call Failure (CFL) Signals Received Peg Count	45/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CCITT No. 6 Call Failure (CFL) Signals Transmitted Peg Count	45/4
CCITT No. 6 Call Register Queue Seizure Peg Count	17/1
CCITT No. 6 Circuit Group Congestion (CGC) Signals Received Peg Count	45/3
CCITT No. 6 Circuit Group Congestion (CGC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Confusion (COF) Signals Transmitted Peg Count	45/4
CCITT No. 6 Continuity Check Failure (CCF) Signaling Irregularity Peg Count	45/5
CCITT No. 6 Control Area Incoming Attempts Peg Count	25/11
CCITT No. 6 Control Area Outgoing Attempts Peg Count	25/11
CCITT No. 6 Double Seizure (GLR) Call Irregularity Peg Count	45/5
CCITT No. 6 Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
CCITT No. 6 Incomplete Address Detected Call Irregularity Peg Count	45/5
CCITT No. 6 Initial Address Message (IAM) Call Irregularity Peg Count	45/5
CCITT No. 6 Line Out-Of-Service (LOS) Signal Transmitted Peg Count	45/4
CCITT No. 6 Line Out-of-Service Signals Received Peg Count	45/3
CCITT No. 6 Maintenance Usage	25/11
CCITT No. 6 Miscellaneous Abandon Peg Count	36/9
CCITT No. 6 Miscellaneous Call Irregularity Peg Count	45/5
CCITT No. 6 National Network Congestion (NNC) Signals Received Peg Count	45/3
CCITT No. 6 National Network Congestion (NNC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Originating Queue Abandon Peg Count	17/1
CCITT No. 6 Originating Queue Overflow Peg Count	17/1
CCITT No. 6 Originating Queue Seizure Peg Count	17/1
CCITT No. 6 Originating Queue Usage	17/1
CCITT No. 6 Signaling Network Failures (SNF) Call Irregularities Peg Count	45/5
CCITT No. 6 Subscriber Busy Signals Received Peg Count	45/3
CCITT No. 6 Subscriber Busy (SSB) Signals Transmitted Peg Count	45/4
CCITT No. 6 Subscriber Transferred (SST) Signals Transmitted Peg Count	45/4
CCITT No. 6 Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
CCITT No. 6 Switching Equipment Congestion (SEC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Terminal Congestion Peg Count	45/3
CCITT No. 6 Total Office Incoming Attempts Peg Count	5/4
CCITT No. 6 Total Office Outgoing Attempts Peg Count	5/5
CCITT No. 6 Vacant National Number (VNN) Signals Received Peg Count	45/3
CCITT No. 6 Vacant National Number (VNN) Signals Transmitted Peg Count	45/4
CCITT No. 7 Subsequent Address Message Ignored Peg Count	45/3
CCS Message Table Blue Box Attempts Peg Count	0/4
CCS Message Table Overflow Peg Count	0/4
CCS Message Table Success Peg Count	0/4
CCS Message Table Timeout Peg Count	0/4
Centrex 2 Test Routine Operational Tests Attempted Peg Count	25/9
Centrex 2 Test Routine Operational Tests Failed Peg Count	25/9
Centrex 2 Test Routine Operational Tests Passed Peg Count	25/9
Centrex 3 Test Routine Operational Tests Attempted Peg Count	25/9
Centrex 3 Test Routine Operational Tests Failed Peg Count	25/9
Centrex 3 Test Routine Operational Tests Passed Peg Count	25/9
Clear-Back and Busy-Flash Acknowledgement Signal Timeout Peg Count	25/16
Clear-Back/Busy-Flash Signal Timeout Peg Count	25/16

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Clear-Forward Received Peg Count	25/6
Clear-Forward Signal Timeout Peg Count	25/16
CNI Stream Processor Interface Down	45/0
Code 100 Test Attempted Peg Count	25/7
Code 100 Test Completed Peg Count	25/7
Code 101 First Trial Busy Peg Count	25/10
Code 101 Origination Peg Count	25/10
Code 101 Transfer Peg Count	25/10
Code 101 Usage	25/10
Code 102 Test Attempted Peg Count	25/7
Code 102 Test Completed Peg Count	25/7
Code 103 Routine Operational Tests Attempted Peg Count	25/9
Code 103 Routine Operational Tests Failed Peg Count	25/9
Code 103 Routine Operational Tests Passed Peg Count	25/9
Code 105 Test Attempted Peg Count	25/7
Code 105 Test Completed Peg Count	25/7
Code Block Control Blocked Peg Count	11/3
Common System Tone Detector (CSTD) Located Faults Peg Count	35/1
Common System Tone Detector (CSTD) Maintenance Busy Occupancy	35/0
Common System Tone Detector (CSTD) Non-located Faults Peg Count	35/1
Common System Tone Detector (CSTD) Seizure Attempts Peg Count	35/1
Common System Tone Detector (CSTD) Seizure Overflow Peg Count	35/1
Common System Tone Detector (CSTD) Total Usage	35/1
Confirmed Receive Path Failure Carrier Alarm Peg Count	45/8
Confirmed Receive Path Failure Carrier Restoral Peg Count	45/8
Confirmed Transmit Path Failure Carrier Alarm Peg Count	45/8
Confirmed Transmit Path Failure Carrier Restoral Peg Count	45/8
Continuity Check Failure (CKF) Peg Count	25/6
Continuity Check Failure Final Trial Failure Peg Count	36/7
Continuity Signal Timeout Peg Count	36/0
Control Area Pulsing Error Peg Count	25/16
CPA BN(ANI) Trigger Table Data Found Peg Count for All Applicable Services	57/0
CPA BN(ANI) Trigger Table Query Attempt Peg Count for All Applicable Services	57/0
CPA Call Register Accumulated Occupancy Count	57/0
CPA Call Register Overflow Peg Count	57/0
CPA Call Register Seizures Peg Count	57/0
CPA Destination Number Trigger Table Data Found Peg Count for FAX Calls	57/0
CPA Destination Number Trigger Table Query Attempt Peg Count for FAX Calls	57/0
Critical Alarms Peg Count	20/2
CS Accumulated Maintenance Usage	23/1
CS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
CS Diagnostics Manually Requested Peg Count	46/0
CS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
CS Diagnostics Program Requested Peg Count	46/0
CS Errors Peg Count	46/0
CS Located Faults Peg Count	46/0
CS Non-located Peg Count	46/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CSB Accumulated Maintenance Usage	23/1
CSB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
CSB Diagnostics Manually Requested Peg Count	46/2
CSB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
CSB Diagnostics Program Requested Peg Count	46/2
CSB Errors Peg Count	46/2
CSB Located Faults Peg Count	46/2
CSB Non-located Peg Count	46/2
Customer Calls To MAS - Supervision Not Returned Due To CCIS Terminal Congestion	5/9
D3U Accumulated Maintenance Usage	23/2
D3U Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
D3U Diagnostics Manually Requested Peg Count	46/3
D3U Diagnostics Program Requested - All Tests Passed Peg Count	46/3
D3U Diagnostics Program Requested Peg Count	46/3
D3U Errors Peg Count	46/3
D3U Located Faults Peg Count	46/3
D3U Non-located Peg Count	46/3
D3U Service Outage Usage	23/2
Data Base Failure Reply: All Lines Busy	49/0
Data Base Failure Reply: Data Base Overload	49/0
Data Base Failure Reply: Non-Existent NPA	49/0
Data Base Failure Reply: Non-Purchased NPA	49/0
Data Base Failure Reply: Unassigned NXX	49/0
Data Base Failure Reply: Vacant Line	49/0
Data Base Failure Reply: Vacant NXX	49/0
Data Base Query Timeout	49/0
Data Call Attempts Peg Count	13/CIN
Data Call Overflow Peg Count	13/CIN
Data Unit Selector Interject Peg Count	20/1
D-Cancel Killed Calls	11/3
Dedicated TSI Overflow Peg Count	3/32
Dedicated TSI Usage	3/32
DIF Accumulated Maintenance Usage	24/1
DIF Accumulated Outage	24/1
DIF Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DIF Diagnostics Manually Requested Peg Count	24/2
DIF Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DIF Diagnostics Program Requested Peg Count	24/2
DIF Errors Peg Count	24/2
DIF Located Faults Peg Count	24/2
DIF Non-located Faults Peg Count	24/2
Direct Access Data Channel (DADC) Total Messages Peg Count	49/3
Direct Access Data Channel (DADC) Unexpected Messages Peg Count	49/3
Disconnect Stage Failure to Receive Clear-Forward Peg Count	36/9
Disconnect Stage Failure to Receive Release Guard Peg Count	36/9
Discrepancy in Number of Components and End Address of TCAP Message Peg Count	49/0
Disk Requests Accepted Peg Count	16/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Disk Requests Canceled Peg Count	16/1
Disk Requests Completed Peg Count	16/1
Disk Requests Failed Peg Count	16/1
Disk Requests Rejected Peg Count	16/1
DIU Accumulated Maintenance Usage	24/1
DIU Accumulated Outage	24/1
DIU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DIU Diagnostics Manually Requested Peg Count	24/2
DIU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DIU Diagnostics Program Requested Peg Count	24/2
DIU Errors Peg Count	24/2
DIU Located Faults Peg Count	24/2
DIU Non-located Faults Peg Count	24/2
D-Level Interrupts Call Store In-Range Peg Count	20/1
D-Level Interrupts Invalid Transfer Peg Count	20/1
D-Level Interrupts Out-Of-Range Peg Count	20/1
D-Level interrupts Protected Area Failure Peg Count	20/1
D-Level Interrupts Stack Related Peg Count	20/1
DNHR Crank Backs Received Peg Count	45/0
DNHR Crank Backs Sent Peg Count	45/0
Domestic CCIS Terminal Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
Domestic CCIS Terminal Diagnostics Manually Requested Peg Count	46/4
Domestic CCIS Terminal Diagnostics Program Requested - All Tests Passed Peg Count	46/4
Domestic CCIS Terminal Diagnostics Program Requested Peg Count	46/4
Domestic CCIS Terminal Errors Peg Count	46/4
Domestic CCIS Terminal Located Faults Peg Count	46/4
Domestic CCIS Terminal Non-located Peg Count	46/4
Domestic IOC Originated Vacant Code	15/2
Domestic IOTC Originated Vacant Code	15/2
Domestic VFL Accumulated Maintenance Occupancy	23/4
Domestic VFL Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
Domestic VFL Diagnostics Manually Requested Peg Count	46/4
Domestic VFL Diagnostics Program Requested - All Tests Passed Peg Count	46/4
Domestic VFL Diagnostics Program Requested Peg Count	46/4
Domestic VFL Errors Peg Count	46/4
Domestic VFL Located Faults Peg Count	46/4
Domestic VFL Non-located Peg Count	46/4
Double Seizure - Clear Forward Final Trial Failure Peg Count	36/8
Double Seizure - Clear-Forward Peg Count	25/16
Double Seizure - Unreasonable Signal Peg Count	25/16
Double Seizure Timeout Peg Count	25/16
Double Seizures (GLARE) Final Trial Failures Peg Count	36/7
DP ANI MF Receiver Queue Abandon Peg Count	18/0
DP ANI MF Receiver Queue Abandon Peg Count	19/0
DP ANI MF Receiver Queue Seizure Peg Count	19/0
DP ANI MF Receiver Queue Usage	19/0
DP CR Queue Abandon Peg Count	11/6

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DP CR Queue Abandon Peg Count	17/0
DP CR Queue Overflow Peg Count	11/6
DP CR Queue Overflow Peg Count	17/0
DP CR Queue Seizure Peg Count	17/0
DP CR Queue Usage	17/0
DP CR Seizure Peg Count	17/0
DP Delay Dial Incoming Seizure Peg Count	5/1
DP Digit Lost Peg Count	7/1
DP Equipment CAMA ANI Failure - Information Digit Error Peg Count	25/1
DP Equipment CAMA ANI Failure Peg Count	25/1
DP Equipment CAMA ANI Office Failure Peg Count	25/1
DP Equipment CAMA Disconnect Timeout Peg Count	25/2
DP Equipment CAMA Seizure Timeout Peg Count	25/2
DP Equipment Continuity/Polarity Test Failure Peg Count	25/3
DP Equipment Control Area False Start Abandon Peg Count	25/1
DP Equipment Control Area Partial Dial Abandon Peg Count	25/1
DP Equipment Control Area Partial Dial Timeout Peg Count	25/1
DP Equipment Control Area Permanent Signal Timeout Peg Count	25/1
DP Equipment Control Area Summation False Start Abandon Peg Count	36/1
DP Equipment Control Area Summation Miscellaneous Abandon Peg Count	36/4
DP Equipment Control Area Summation Partial Dial Abandon Peg Count	36/2
DP Equipment Control Area Summation Partial Dial Timeout Peg Count	36/2
DP Equipment Control Area Summation Permanent Signal Timeout Peg Count	36/1
DP Equipment Control Area Summation Pulsing Error Peg Count	36/2
DP Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
DP Equipment Glare Condition - Far End in Control Peg Count	25/3
DP Equipment Incoming Attempts Peg Count	25/5
DP Equipment Integrity Check Failure Peg Count	25/3
DP Equipment Maintenance Usage	25/5
DP Equipment Miscellaneous Abandon Peg Count	25/2
DP Equipment No Start Dial Peg Count	25/3
DP Equipment Outgoing Attempts Peg Count	25/5
DP Equipment Pulsing Error Peg Count	25/1
DP Equipment Total Office CAMA ANI Failure - Information Digit Error Peg Count	36/3
DP Equipment Total Office CAMA ANI Failure Peg Count	36/3
DP Equipment Total Office CAMA ANI Office Failure Peg Count	36/3
DP Equipment Total Office False Start Abandon Peg Count	7/0
DP Equipment Total Office Partial Dial Abandon Peg Count	7/0
DP Equipment Total Office Partial Dial Timeout Peg Count	7/0
DP Equipment Total Office Permanent Signal Timeout Peg Count	7/0
DP Equipment Unexpected Stop Peg Count	25/3
DP Equipment Unexpected Stop Timeout Peg Count	25/3
DP Immediate Start Incoming Seizure Peg Count	5/1
DP Outpulsing Attempts Peg Count	5/2
DP Outpulsing Work List Full Peg Count	7/1
D-Reroute Killed Calls	11/3
DTC Accumulated Maintenance Usage	24/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DTC Accumulated Outage	24/1
DTC Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DTC Diagnostics Manually Requested Peg Count	24/2
DTC Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DTC Diagnostics Program Requested Peg Count	24/2
DTC Errors Peg Count	24/2
DTC Located Faults Peg Count	24/2
DTC Non-located Faults Peg Count	24/2
DTMF Control Area Summation False Start Abandon Peg Count	36/1
DTMF Control Area Summation Miscellaneous Abandon Peg Count	36/4
DTMF Control Area Summation Partial Dial Abandon Peg Count	36/2
DTMF Control Area Summation Partial Dial Timeout Peg Count	36/2
DTMF Control Area Summation Permanent Signal Timeout Peg Count	36/1
DTMF Control Area Summation Pulsing Error Peg Count	36/2
DTMF CR Seizure Peg Count	17/0
DTMF Equipment Continuity/Polarity Test Failure Peg Count	25/3
DTMF Equipment Control Area False Start Abandon Peg Count	25/1
DTMF Equipment Control Area Partial Dial Abandon Peg Count	25/1
DTMF Equipment Control Area Partial Dial Timeout Peg Count	25/1
DTMF Equipment Control Area Permanent Signal Timeout Peg Count	25/1
DTMF Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
DTMF Equipment Glare Condition - Far End in Control Peg Count	25/3
DTMF Equipment Miscellaneous Abandon Peg Count	25/2
DTMF Equipment No Start Dial Peg Count	25/3
DTMF Equipment Pulsing Error Peg Count	25/1
DTMF Equipment Unexpected Stop Peg Count	25/3
DTMF Miscellaneous Ineffective Attempts Peg Count	11/4
DTMF Receiver Accumulated Maintenance Usage	23/3
DTMF Receiver Located Faults Peg Count	46/6
DTMF Receiver Maintenance Usage	1/0
DTMF Receiver Non-located Peg Count	46/6
DTMF Receiver Seizure Peg Count	1/0
DTMF Receiver Service Circuit Usage	1/0
DTMF Total Office False Start Abandon Peg Count	7/0
DTMF Total Office Partial Dial Abandon Peg Count	7/0
DTMF Total Office Partial Dial Timeout Peg Count	7/0
DTMF Total Office Permanent Signal Timeout Peg Count	7/0
DTMF Transmitter Accumulated Maintenance Usage	23/3
DTMF Transmitter Located Faults Peg Count	46/6
DTMF Transmitter Maintenance Usage	0/2
DTMF Transmitter Non-located Peg Count	46/6
DTMF Transmitter Seizure Peg Count	0/2
DTMF Transmitter Service Usage	0/2
DTU Accumulated Maintenance Usage	24/1
DTU Accumulated Outage	24/1
DTU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DTU Diagnostics Manually Requested Peg Count	24/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DTU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DTU Diagnostics Program Requested Peg Count	24/2
DTU Errors Peg Count	24/2
DTU Located Faults Peg Count	24/2
DTU Non-located Faults Peg Count	24/2
DUS Accumulated Maintenance Usage	23/1
DUS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
DUS Diagnostics Manually Requested Peg Count	46/0
DUS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
DUS Diagnostics Program Requested Peg Count	46/0
DUS Errors Peg Count	46/0
DUS Located Faults Peg Count	46/0
DUS Non-located Peg Count	46/0
DUS to TUC In-Range Error Peg Count	20/1
Dynamic Overload Control Peg Count and Duration Measurement	21/3
EA ANI Failure - Route Peg Count	19/2
EA ANI Failure Peg Count	19/2
EA ANI Success Peg Count	19/2
Egress Busy Crankbacks Sent	13/CIN
Eighth Digit No Call Register Peg Count	7/1
E-Level Interrupts In-Range Peg Count	20/1
E-Level Interrupts Out-Of-Range Peg Count	20/1
Emergency Restart Peg Count	14/0-255
Error Analysis Suspected Failure Peg Count	25/4
Errors Found By Audit System Peg Count	41/0
Errors Found By Maintenance Programs Peg Count	41/0
Errors Found By Manual Request Peg Count	41/0
Errors Found By Operational Programs Peg Count	41/0
Exception Reports Failed to Send to the SCP Peg Count	49/0
Exception Reports Sent to the SCP Peg Count	49/0
Expected Stop Timeout Final Trial Group Peg Count	36/4
External CCFR Entry When CC 0 Was Active Simplex	20/1
External CCFR Entry When CC 1 Was Active Simplex	20/1
Facility Received Indicating Caller Hung-Up Peg Count	56/0-2
Failure to Place NM 10/6 Digit Controls on ACG Control List Peg Count	49/0
Failure to Receive Clear-Forward Peg Count	25/16
False Seizure Timeout Peg Count	25/16
False Start Abandon Peg Count	7/0
Fan Controller 0 Inhibited Counter	20/1
Fan Controller 1 Inhibited Counter	20/1
Fatal Errors in SCCP Header Peg Count	49/0
Fatal Protocol Error Response from SCP Peg Count	49/0
Final Trial Network Path Hunt Failure Peg Count	11/1
First Trial Glare Fail CCITT No. 5 Trunk Peg Count	25/16
First Trial No. Start Dial (NSD) - CCITT No. 5 Trunk Peg Count	25/16
First Trial Outpulsing Fail CCITT No. 5 Trunk Peg Count	25/16
F-Level Interrupts Autonomous Peripheral Unit Failure Peg Count	20/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
F-Level Interrupts Peripheral Unit Failure In-Range Peg Count	20/1
F-Level Interrupts Peripheral Unit Failure Out-Of-Range Peg Count	20/1
Functional Trunk Test Routine Operational Tests Attempted Peg Count	25/9
Functional Trunk Test Routine Operational Tests Failed Peg Count	25/9
Functional Trunk Test Routine Operational Tests Passed Peg Count	25/9
Gapped Peg Count	56/0-2
Glare Final Trial Failure Peg Count	36/8
Glare Final Trial Group Peg Count	36/4
Glare Peg Counter	11/0
Group Signaling Congestion Skipped	11/3
Hardware Detected CGA Peg Count	20/3
IDTMFWK CR Queue Abandon Peg Count	17/0
IDTMFWK CR Queue Seizure Peg Count	17/0
IDTMFWK CR Queue Usage	17/0
IDTMFWK Incoming Seizure Peg Count	5/1
IDTS CR Queue Abandon Peg Count	17/0
IDTS CR Queue Overflow Peg Count	17/0
IDTS CR Queue Seizure Peg Count	17/0
IDTS CR Queue Usage	17/0
IDTS DP Incoming Seizure Peg Count	5/1
IDTS Incoming Seizure Peg Count	5/1
IDTS Receiver Dial Tone Delay Time Peg Count	0/0
IDTS Receiver Queue Abandon Peg Count	0/0
IDTS Receiver Queue Seizure Peg Count	0/0
IDTS Receiver Queue Usage	0/0
IFB Accumulated Maintenance Usage	23/1
IFB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
IFB Diagnostics Manually Requested Peg Count	46/2
IFB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
IFB Diagnostics Program Requested Peg Count	46/2
IFB Errors Peg Count	46/2
IFB Located Faults Peg Count	46/2
IFB Non-located Peg Count	46/2
IFB Out-Of-Range D-Level	20/1
Incoming Answer Signal Units Peg Count	14/0-255
Incoming Code 101 Overflow Peg Count	25/10
Incoming Code 101 Peg Count	25/10
Incoming Code 101 Usage	25/10
Incoming Continuity Signal Timeout Peg Count	36/9
Incoming Direct Signaling Signal Units Peg Count	14/0-255
Incoming Domestic CCIS Call Attempts	37/0
Incoming Domestic DP Call Attempts	37/0
Incoming Domestic ISUP Call Attempts	37/0
Incoming Domestic MF Call Attempts	37/0
Incoming Domestic Q.931 Call Attempts	37/0
Incoming DP Early Digit Peg Count	7/1
Incoming DP Work List Full Peg Count	7/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Incoming IAM Peg Count	14/0-255
Incoming International CCITT No. 5 Call Attempts	37/1
Incoming International CCITT No. 6 Call Attempts	37/1
Incoming International INUP Call Attempts	37/1
Incoming International ITUP Call Attempts	37/1
Incoming Miscellaneous Ineffective Attempts Peg Count	11/4
Incoming Seizure Abandon Peg Count	25/16
Incoming Seizure Peg Count	13/CIN
Incoming Signal Irregularities Before Answer CCITT No. 5 Trunk Peg Count	25/16
Incoming Transitions Peg Count	14/0-255
Incomplete Address Abandon Peg Count	25/16
Incomplete Address Detection Peg Count	36/0
Incomplete Address Timeout Peg Count	25/16
Individual USEC Frame Resume Event Peg Count	56/4
Initial Address Message (IAM) Irregularity (IRR) Peg Count	45/0
Initial Address Messages Transferred Per Terminal	14/0-255
Initial Query Failure Due to CNI Buffer Overflow Peg Count	49/0
Initial Query Failure Due to CNI Stream Down Peg Count	49/0
Integrity Check Failures Final Trial Group Peg Count	36/4
Internal B-level Boot ROM Parity Error Count	20/1
Internal B-level Control Parity Error Count	20/1
International Call Detail Recording Register Buffer Block Occupancy Peg Count	17/2
International Call Detail Recording Registers Total Records Lost Peg Count	17/2
International Calls Block by Network Management Controls	15/2
International Calls Blocked by Screening	15/2
International CCIS Terminal Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
International CCIS Terminal Diagnostics Manually Requested Peg Count	46/4
International CCIS Terminal Diagnostics Program Requested - All Tests Passed Peg Count	46/4
International CCIS Terminal Diagnostics Program Requested Peg Count	46/4
International CCIS Terminal Errors Peg Count	46/4
International CCIS Terminal Located Faults Peg Count	46/4
International CCIS Terminal Non-located Peg Count	46/4
International Customer Dialed Vacant Code	15/2
International Inbound Customer Dialed Vacant Code	15/2
International Inbound Operator Dialed Vacant Code	15/2
International Incoming Customer Dialed Calls Peg Count	5/4
International Incoming Operator Dialed Calls Peg Count	5/4
International Incoming Screened-Invalid Call	15/2
International Incoming Screened-Invalid Language Digit	15/2
International Incoming Test Calls Peg Count	5/4
International Incoming Transit Calls Peg Count	5/4
International ISUP Outbound Overflow Peg Count	5/5
International No Circuit Peg Count	11/1
International Operator Dialed Vacant Code	15/2
International Originating Attempts To The Local IOC Operator That Overflow	15/1
International Originating Attempts To The Local IOC Operator	15/1
International Outbound Customer Dialed Call Encountered No Circuit	15/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
International Outbound Operator Dialed Call Peg Count	5/5
International Outbound Overflow Received from Alternate Office Peg Count	5/5
International Outbound Overflow Sent to Alternate Office Peg Count	5/5
International Outgoing Customer Dialed Calls Peg Count	5/5
International Overlap to Enblock Signaling Peg Count	5/4
International Translation Fail - Too Few/Too Many Digits CCITT No. 5 Incoming Trunk	15/2
International Translation Fail - Too Few/Too Many Digits CCITT No. 6 Incoming Trunk	15/2
International Translation Fail - Too Few/Too Many Digits IOC ITC	15/2
International Translation Fail - Too Few/Too Many Digits TSPC	15/2
International VFL Accumulated Maintenance Occupancy	23/4
International VFL Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
International VFL Diagnostics Manually Requested Peg Count	46/4
International VFL Diagnostics Program Requested - All Tests Passed Peg Count	46/4
International VFL Diagnostics Program Requested Peg Count	46/4
International VFL Errors Peg Count	46/4
International VFL Located Faults Peg Count	46/4
International VFL Non-located Peg Count	46/4
Interrupt Level Duration Count	20/1
INUP Address Complete Signal Timeout Peg Count	36/4
INUP Continuity Check Failure Final Trial Group Peg Count	36/4
INUP Continuity Check Request (CCR) Glare Peg Count	45/5
INUP Continuity Failure Peg Count	36/0
INUP Continuity Timeout Peg Count	36/0
INUP Continuity/Polarity Test Failure Peg Count	25/3
INUP Control Area False Start Abandon Peg Count	25/1
INUP Control Area Incoming Attempts Peg Count	25/11
INUP Control Area Miscellaneous Abandon Peg Count	25/2
INUP Control Area Outgoing Attempts Peg Count	25/11
INUP Control Area Partial Dial Abandon Peg Count	25/1
INUP Control Area Partial Dial Timeout Peg Count	25/1
INUP Control Area Permanent Signal Timeout Peg Count	25/1
INUP Control Area Summation False Start Abandon Peg Count	36/1
INUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
INUP Control Area Summation Partial Dial Abandon Peg Count	36/2
INUP Control Area Summation Partial Dial Timeout Peg Count	36/2
INUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
INUP Control Area Summation Pulsing Error Peg Count	36/2
INUP CR Queue Overflow Peg Count	17/0
INUP CR Seizure Peg Count	17/0
INUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
INUP Glare Condition - Far End in Control Peg Count	25/3
INUP Glare Peg Count	45/5
INUP Inbound Customer Dialed Vacant Code	15/2
INUP Inbound Operator Dialed Vacant Code	15/2
INUP Incoming CNI Ring Failure Peg Count	45/0
INUP Incoming CNI Ring Overflow Peg Count	45/0
INUP Incoming Irregularity Before Answer Peg Count	36/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
INUP Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
INUP Incomplete Address Detected Peg Count	36/0
INUP Initial Address Message (IAM) Glare Peg Count	45/5
INUP Integrity Check Failure Peg Count	25/3
INUP Line Out-of-Service (LOS) Signals Received Peg Count	45/3
INUP Maintenance Usage	25/11
INUP Miscellaneous Ineffective Attempts Peg Count	11/4
INUP Miscellaneous Timeout Peg Count	36/0
INUP No Circuit Available (NCA) Signals Received Peg Count	45/3
INUP No Circuit Available (NCA) Signals Received While Waiting For Answer Peg Count	45/3
INUP No Start Dial Peg Count	25/3
INUP Origination CR Queue Abandon Peg Count	17/0
INUP Origination CR Queue Seizure Peg Count	17/0
INUP Origination CR Queue Usage	17/0
INUP Other Abandons Peg Count	11/4
INUP Outgoing CNI Ring Failure Peg Count	45/0
INUP Outgoing CNI Ring Overflow Peg Count	45/0
INUP Outgoing Irregularity Before Answer Peg Count	36/0
INUP Outgoing Miscellaneous Failure Peg Count	11/4
INUP Outgoing Unexpected Message Peg Count	45/0
INUP Pulsing Error Peg Count	25/1
INUP Resets Received Peg Count	45/0
INUP Subscriber Busy (SB) Signals Received While Waiting For Answer Peg Count	45/3
INUP Switching Equipment Congestion Peg Count	11/4
INUP Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
INUP Switching Equipment Congestion (SEC) Signals Received While Waiting For Answer Peg Count	45/3
INUP Temporary Failure (TFL) Signals Received While Waiting For Answer Peg Count	45/3
INUP Total Office False Start Abandon Peg Count	7/0
INUP Total Office Incoming Attempts Peg Count	5/4
INUP Total Office Miscellaneous Abandon Peg Count	11/4
INUP Total Office Outgoing Attempts Peg Count	5/5
INUP Total Office Partial Dial Abandon Peg Count	7/0
INUP Total Office Partial Dial Timeout Peg Count	7/0
INUP Total Office Permanent Signal Timeout Peg Count	7/0
INUP Transceiver Overflow Peg Count	2/0
INUP Transit Vacant Code	15/2
INUP Unblocking Message Received Peg Count	45/0
INUP Unexpected Stop Peg Count	25/3
INUP Unexpected Stop Timeout Peg Count	25/3
INUP Unreasonable Signal Received Peg Count	36/0
Invalid Command Message Peg Count	49/1
Invalid Command Message Peg Count	49/2
Invalid Command Sequence Peg Count	49/1
Invalid Command Sequence Peg Count	49/2
Invalid Incoming ATME Test Call Peg Count	25/15
INWATS Band Check Peg Count	11/2
INWATS Blocked by Signaling Link Congestion	49/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
INWATS CCIS Failure: Network Blockage	49/0
INWATS CCIS Failure: Network Congestion	49/0
INWATS CCIS Failure: No Translation Data	49/0
INWATS Network Management Messages Received Peg Count	49/0
INWATS Queries Sent Peg Count	49/0
IOC Control Area False Start Abandon Peg Count	25/1
IOC Control Area Partial Dial Abandon Peg Count	25/1
IOC Control Area Partial Dial Timeout Peg Count	25/1
IOC Control Area Permanent Signal Timeout Peg Count	25/1
IOC Control Area Summation False Start Abandon Peg Count	36/1
IOC Control Area Summation Miscellaneous Abandon Peg Count	36/4
IOC Control Area Summation Partial Dial Abandon Peg Count	36/2
IOC Control Area Summation Partial Dial Timeout Peg Count	36/2
IOC Control Area Summation Permanent Signal Timeout Peg Count	36/1
IOC Control Area Summation Pulsing Error Peg Count	36/2
IOC Miscellaneous Abandon Peg Count	25/2
IOC Operator No Circuit-Domestic	15/1
IOC Operator No Circuit-International	15/1
IOC Operator Outgoing Attempts	15/1
IOC Pulsing Error Peg Count	25/1
IOC Total Office False Start Abandon Peg Count	7/0
IOC Total Office Partial Dial Abandon Peg Count	7/0
IOC Total Office Partial Dial Timeout Peg Count	7/0
IOC Total Office Permanent Signal Timeout Peg Count	7/0
IOUC Accumulated Maintenance Usage	23/1
IOUC Diagnostics Manually Requested - All Tests Passed Peg Count	46/1
IOUC Diagnostics Manually Requested Peg Count	46/1
IOUC Diagnostics Program Requested - All Tests Passed Peg Count	46/1
IOUC Diagnostics Program Requested Peg Count	46/1
IOUC Errors Peg Count	46/1
IOUC Located Faults Peg Count	46/1
IOUC Non-located Peg Count	46/1
IOUS Accumulated Maintenance Usage	23/1
IOUS Diagnostics Manually Requested - All Tests Passed Peg Count	46/1
IOUS Diagnostics Manually Requested Peg Count	46/1
IOUS Diagnostics Program Requested - All Tests Passed Peg Count	46/1
IOUS Diagnostics Program Requested Peg Count	46/1
IOUS Errors Peg Count	46/1
IOUS Located Faults Peg Count	46/1
IOUS Non-located Peg Count	46/1
iPCC Alarms After Two Errored Packets In 15 Seconds Peg Count	56/4
iPCC No Acknowledgement Received Duration In Seconds	56/4
iPCC No Acknowledgement Received Peg Count	56/4
iPCC Number of Channels With NO ACK signal Peg Count	56/4
iPCC TVOFF Messages to all Channels Peg Count	56/4
ISUP 2-Wire Incoming Seizures	5/1
ISUP 4-Wire Incoming Seizures	5/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ISUP ATP Dropped Due to Internal Loss Peg Count	45/6
ISUP ATP Dropped Due to Length Peg Count	45/6
ISUP Completion of Transmission Path CR Release Peg Count	17/0
ISUP Completion of Transmission Path CR Seize Peg Count	17/0
ISUP Confusion Message Received Peg Count	45/0
ISUP Confusion Message Sent Peg Count	45/0
ISUP Continuity Failure Peg Count	36/0
ISUP Continuity Timeout Peg Count	36/0
ISUP Continuity/Polarity Test Failure Peg Count	25/3
ISUP Control Area False Start Abandon Peg Count	25/1
ISUP Control Area Miscellaneous Abandon Peg Count	25/2
ISUP Control Area Partial Dial Abandon Peg Count	25/1
ISUP Control Area Partial Dial Timeout Peg Count	25/1
ISUP Control Area Permanent Signal Timeout Peg Count	25/1
ISUP Control Area Summation False Start Abandon Peg Count	36/1
ISUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
ISUP Control Area Summation Partial Dial Abandon Peg Count	36/2
ISUP Control Area Summation Partial Dial Timeout Peg Count	36/2
ISUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
ISUP Control Area Summation Pulsing Error Peg Count	36/2
ISUP CR Seizure Peg Count	17/0
ISUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
ISUP Glare Condition - Far End in Control Peg Count	25/3
ISUP Incoming Attempts Peg Count	25/5
ISUP Incoming CNI Ring Failure Peg Count	45/0
ISUP Incoming CNI Ring Overflow Peg Count	45/0
ISUP Incomplete Address Detected Peg Count	36/0
ISUP Integrity Check Failure Peg Count	25/3
ISUP Maintenance Usage	25/5
ISUP Miscellaneous Ineffective Attempts Peg Count	11/4
ISUP Miscellaneous Timeout Peg Count	36/0
ISUP No Start Dial Peg Count	25/3
ISUP Origination CR Queue Abandon Peg Count	17/0
ISUP Origination CR Queue Overflow Peg Count	17/0
ISUP Origination CR Queue Seizure Peg Count	17/0
ISUP Origination CR Queue Usage	17/0
ISUP Other Abandons Peg Count	11/4
ISUP Outgoing Attempts Peg Count	25/5
ISUP Outgoing CNI Ring Failure Peg Count	45/0
ISUP Outgoing CNI Ring Overflow Peg Count	45/0
ISUP Outgoing Seizures	5/1
ISUP Outgoing Unexpected Message Peg Count	45/0
ISUP Pulsing Error Peg Count	25/1
ISUP Resets Received Peg Count	45/0
ISUP Switching Equipment Congestion Peg Count	11/4
ISUP Total Office False Start Abandon Peg Count	7/0
ISUP Total Office Miscellaneous Abandon Peg Count	11/4

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ISUP Total Office Partial Dial Abandon Peg Count	7/0
ISUP Total Office Partial Dial Timeout Peg Count	7/0
ISUP Total Office Permanent Signal Timeout Peg Count	7/0
ISUP Transceiver Overflow Peg Count	2/0
ISUP Unexpected Stop Peg Count	25/3
ISUP Unexpected Stop Timeout Peg Count	25/3
ISUP Unreasonable Signal Received Peg Count	36/0
ISUP Unsuccessful Backward Setup Received Peg Count	45/0
ISUP UUI Dropped Due to Internal Loss Peg Count	45/6
ISUP UUI Dropped Due to Length Peg Count	45/6
ITUP Address Complete Signal Timeout Peg Count	36/4
ITUP Call Failure (CFL) Received While Waiting For Answer Peg Count	45/3
ITUP Circuit Group Congestion (CGC) Received While Waiting For Answer Peg Count	45/3
ITUP Circuit Group Congestion (CGC) Signals Received Peg Count	45/3
ITUP Continuity Check Failure Final Trial Group Peg Count	36/4
ITUP Continuity Check Request (CCR) Glare Peg Count	45/5
ITUP Continuity Failure Peg Count	36/0
ITUP Continuity Timeout Peg Count	36/0
ITUP Continuity/Polarity Test Failure Peg Count	25/3
ITUP Control Area False Start Abandon Peg Count	25/1
ITUP Control Area Incoming Attempts Peg Count	25/11
ITUP Control Area Miscellaneous Abandon Peg Count	25/2
ITUP Control Area Outgoing Attempts Peg Count	25/11
ITUP Control Area Partial Dial Abandon Peg Count	25/1
ITUP Control Area Partial Dial Timeout Peg Count	25/1
ITUP Control Area Permanent Signal Timeout Peg Count	25/1
ITUP Control Area Summation False Start Abandon Peg Count	36/1
ITUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
ITUP Control Area Summation Partial Dial Abandon Peg Count	36/2
ITUP Control Area Summation Partial Dial Timeout Peg Count	36/2
ITUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
ITUP Control Area Summation Pulsing Error Peg Count	36/2
ITUP CR Queue Overflow Peg Count	17/0
ITUP CR Seizure Peg Count	17/0
ITUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
ITUP Glare Condition - Far End in Control Peg Count	25/3
ITUP Glare Peg Count	45/5
ITUP Inbound Customer Dialed Vacant Code	15/2
ITUP Inbound Operator Dialed Vacant Code	15/2
ITUP Incoming CNI Ring Failure Peg Count	45/0
ITUP Incoming CNI Ring Overflow Peg Count	45/0
ITUP Incoming Irregularity Before Answer Peg Count	36/0
ITUP Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
ITUP Incomplete Address Detected (IAD) Call Irregularity Peg Count	45/5
ITUP Initial Address Message (IAM) Glare Peg Count	45/5
ITUP Integrity Check Failure Peg Count	25/3
ITUP Line Out-of-Service (LOS) Signals Received Peg Count	45/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ITUP Maintenance Usage	25/11
ITUP Miscellaneous Ineffective Attempts Peg Count	11/4
ITUP Miscellaneous Timeout Peg Count	36/0
ITUP National Network Congestion (NNC) Signals Received Peg Count	45/3
ITUP National Network Congestion (NNC) While Waiting For Answer Peg Count	45/3
ITUP No Start Dial Peg Count	25/3
ITUP Origination CR Queue Abandon Peg Count	17/0
ITUP Origination CR Queue Seizure Peg Count	17/0
ITUP Origination CR Queue Usage	17/0
ITUP Other Abandons Peg Count	11/4
ITUP Outgoing CNI Ring Failure Peg Count	45/0
ITUP Outgoing CNI Ring Overflow Peg Count	45/0
ITUP Outgoing Irregularity Before Answer Peg Count	36/0
ITUP Outgoing Miscellaneous Failure Peg Count	11/4
ITUP Outgoing Unexpected Message Peg Count	45/0
ITUP Pulsing Error Peg Count	25/1
ITUP Resets Received Peg Count	45/0
ITUP Subscriber Busy (SSB) Signals Received Peg Count	45/3
ITUP Switching Equipment Congestion Peg Count	11/4
ITUP Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
ITUP Total Office False Start Abandon Peg Count	7/0
ITUP Total Office Incoming Attempts Peg Count	5/4
ITUP Total Office Miscellaneous Abandon Peg Count	11/4
ITUP Total Office Outgoing Attempts Peg Count	5/5
ITUP Total Office Partial Dial Abandon Peg Count	7/0
ITUP Total Office Partial Dial Timeout Peg Count	7/0
ITUP Total Office Permanent Signal Timeout Peg Count	7/0
ITUP Transceiver Overflow Peg Count	2/0
ITUP Transit Vacant Code	15/2
ITUP Unblocking Message Received Peg Count	45/0
ITUP Unexpected Stop Peg Count	25/3
ITUP Unexpected Stop Timeout Peg Count	25/3
ITUP Unreasonable Signal Received Peg Count	36/0
Large Scale Nail-Up Intra-Buffer Count	4/0
LATA/STATE Screening Index Failure Peg Count	11/2
Latest IPCC Message Queue NEMOS Override Threshold Value	56/4
Link 1 Message Register Returned Peg Count	56/3
Link 1 Return Register Threshold Exceeded Peg Count	56/3
Link 2 Message Register Returned Peg Count	56/3
Link 2 Return Register Threshold Exceeded Peg Count	56/3
Load Level 1 Overload Control Peg Count	9/1
Load Level 2 Overload Control Peg Count	9/1
Load Level 3 Overload Control Peg Count	9/1
Local IOC Originating Operator Incoming Attempts Going To Domestic or International Domain	15/1
Maintenance Interjects Voiceband Interface Peg Count	20/1
Maintenance Test Access Circuit Usage	25/10
Major Alarms Peg Count	20/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Manual Network Management Controls	13/CIN
MAS - BOC-SSP Calls Blocked Peg Count	49/0
MAS - Calls Routed To A Cut-Through Number Peg Count	51/0-63
MAS - Calls Routed To An Announcement Peg Count	51/0-63
MAS - Data On Disk Peg Count	36/10
MAS - Geographic Attempts Matrix Completion Peg Count	54/0-31
MAS - Hardware Duplex Failed Peg Count	36/10
MAS - Looping Through Translate All Digits Peg Count	36/10
MAS - No Vacant Announcement Peg Count	36/10
MAS - Path Hunt Peg Count	36/10
MAS - Per-Announcement Attempts Peg Count	50/0-511
MAS - Per-Announcement Connect To Audio Peg Count	50/0-511
MAS - Per-Announcement Overflow Peg Count	50/0-511
MAS - Per-Announcement Usage	50/0-511
MAS - TELEVOTE Slave Dialed Number	53/0-127
MAS - Total Calls (Votes) to a TELEVOTE Slave Dialed Number Peg Count	53/0-127
MAS - Totals of the TELEVOTE Counts Received Peg Count	52/0-127
MAS and Expanded Announcements Accumulated Maintenance Usage	23/3
MAS Attempts Peg Count	56/0-2
MAS Cutthru Peg Count	56/0-2
MAS or Expanded Ann. A Overflow Peg Count	0/2
MAS or Expanded Ann. A Seizure Peg Count	0/2
MAS or Expanded Ann. A Service Usage	0/2
MAS or Expanded Ann. B Overflow Peg Count	0/2
MAS or Expanded Ann. B Seizure Peg Count	0/2
MAS or Expanded Ann. B Service Usage	0/2
MAS or Expanded Ann. Maintenance Usage	0/2
MC1 CCIS Duration	21/3
MC1 CCIS Peg Count	21/3
MC1 DP Duration	21/3
MC1 DP Peg Count	21/3
MC1 MF Duration	21/3
MC1 MF Peg Count	21/3
MC1 Real Time Duration	21/3
MC1 Real Time Peg Count	21/3
MC2 CCIS Duration	21/3
MC2 CCIS Peg Count	21/3
MC2 DP Duration	21/3
MC2 DP Peg Count	21/3
MC2 MF Duration	21/3
MC2 MF Peg Count	21/3
MC2 Real Time Duration	21/3
MC2 Real Time Peg Count	21/3
MF CR Seizure Peg Count	17/0
MF Equipment CAMA ANI Failure - Information Digit Error Peg Count	25/1
MF Equipment CAMA ANI Failure Peg Count	25/1
MF Equipment CAMA ANI Office Failure Peg Count	25/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MF Equipment CAMA Disconnect Timeout Peg Count	25/2
MF Equipment CAMA Seizure Timeout Peg Count	25/2
MF Equipment Continuity/Polarity Test Failure Peg Count	25/3
MF Equipment Control Area False Start Abandon Peg Count	25/1
MF Equipment Control Area Partial Dial Abandon Peg Count	25/1
MF Equipment Control Area Partial Dial Timeout Peg Count	25/1
MF Equipment Control Area Permanent Signal Timeout Peg Count	25/1
MF Equipment Control Area Summation False Start Abandon Peg Count	36/1
MF Equipment Control Area Summation Miscellaneous Abandon Peg Count	36/4
MF Equipment Control Area Summation Partial Dial Abandon Peg Count	36/2
MF Equipment Control Area Summation Partial Dial Timeout Peg Count	36/2
MF Equipment Control Area Summation Permanent Signal Timeout Peg Count	36/1
MF Equipment Control Area Summation Pulsing Error Peg Count	36/2
MF Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
MF Equipment Glare Condition - Far End in Control Peg Count	25/3
MF Equipment Incoming Attempts Peg Count	25/5
MF Equipment Integrity Check Failure Peg Count	25/3
MF Equipment Maintenance Usage	25/5
MF Equipment Miscellaneous Abandon Peg Count	25/2
MF Equipment No Start Dial Peg Count	25/3
MF Equipment Outgoing Attempts Peg Count	25/5
MF Equipment Pulsing Error Peg Count	25/1
MF Equipment Total Office CAMA ANI Failure - Information Digit Error Peg Count	36/3
MF Equipment Total Office CAMA ANI Failure Peg Count	36/3
MF Equipment Total Office CAMA ANI Office Failure Peg Count	36/3
MF Equipment Total Office False Start Abandon Peg Count	7/0
MF Equipment Total Office Partial Dial Abandon Peg Count	7/0
MF Equipment Total Office Partial Dial Timeout Peg Count	7/0
MF Equipment Total Office Permanent Signal Timeout Peg Count	7/0
MF Equipment Unexpected Stop Peg Count	25/3
MF Equipment Unexpected Stop Timeout Peg Count	25/3
MF Incoming Seizure Peg Count	5/1
MF Origination Queue Abandon Peg Count	17/0
MF Origination Queue Seizure Peg Count	17/0
MF Origination Queue Usage	17/0
MF Outpulsing Attempts Peg Count	5/2
MF Receiver Accumulated Maintenance Usage	23/3
MF Receiver Located Faults Peg Count	46/6
MF Receiver Maintenance Usage	1/0
MF Receiver Non-located Peg Count	46/6
MF Receiver Seizure Peg Count	1/0
MF Receiver Service Usage	1/0
MF Receiver Test Circuit Maintenance Busy Occupancy	35/0
MF Receiver Test Circuit Total Usage	35/1
MF Transmitter Accumulated Maintenance Usage	23/3
MF Transmitter Errors Final Trial Group Peg Count	36/4
MF Transmitter Located Faults Peg Count	46/6

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MF Transmitter Maintenance Usage	0/2
MF Transmitter Non-located Peg Count	46/6
MF Transmitter Queue Entry Attempts Peg Count	0/0
MF Transmitter Queue Entry Failure Peg Count	0/0
MF Transmitter Queue Entry Failure Peg Count	11/5
MF Transmitter Queue Entry Time Usage	0/0
MF Transmitter Queue Overflow Peg Count	11/5
MF Transmitter Queue Seizure Peg Count	0/0
MF Transmitter Queue Usage	0/0
MF Transmitter Seizure Peg Count	0/2
MF Transmitter Service Usage	0/2
MF Transmitter Test Circuit Maintenance Busy Occupancy	35/0
MF Transmitter Test Circuit Total Usage	35/1
MF Transmitter Test Self-Check Fail Peg Count	35/1
Minor Alarms Peg Count	20/2
Miscellaneous call Irregularities Final Trial Failure Peg Count	36/7
Miscellaneous Connecting Ineffective Attempts Peg Count	11/4
Miscellaneous CR Seizure Peg Count	17/0
Miscellaneous Outgoing Ineffective Attempts Peg Count	11/4
Misrouted CAMA Peg Count	18/0
Misrouted Direct Signaling Messages Received Peg Count	49/3
Missed 3B Collections Peg Count	16/1
Monitor QIC Passed - Suspected Transmit Path Failure Restoral Peg Count	45/8
Multiple Scan Points Active Peg Count	25/16
MUP Accumulated Maintenance Usage	23/1
MUP BLM Counter	20/1
MUP Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
MUP Diagnostics Manually Requested Peg Count	46/0
MUP Diagnostics Program Requested - All Tests Passed Peg Count	46/0
MUP Diagnostics Program Requested Peg Count	46/0
MUP D-Level Counter	20/1
MUP Errors Peg Count	46/0
MUP In-Range D-Level Counter	20/1
MUP Interject Counter	20/1
MUP Located Faults Peg Count	46/0
MUP Non-located Peg Count	46/0
MUP to Client In-Range Counter	20/1
MUP to Client Out-Of-Range Counter	20/1
MUP to CS In-Range Counter	20/1
MUP to CS Out-Of-Range Counter	20/1
MUP to PS In-Range Counter	20/1
MUP to PS Out-Of-Range Counter	20/1
NCLK Accumulated Maintenance Usage	23/2
NCLK Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
NCLK Diagnostics Manually Requested Peg Count	46/5
NCLK Diagnostics Program Requested - All Tests Passed Peg Count	46/5
NCLK Diagnostics Program Requested Peg Count	46/5

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
NCLK Errors Peg Count	46/5
NCLK Located Faults Peg Count	46/5
NCLK Non-located Peg Count	46/5
NCLK Service Outage Usage	23/2
NCSU Accumulated Maintenance Usage	23/2
NCSU Alternate Frequency Offset Peg Count	5/6
NCSU Alternate Phase Errors Peg Count	5/6
NCSU Alternate Phase Hits Peg Count	5/6
NCSU Alternate Reference OOS Duration	5/6
NCSU Alternate Reference OOS Peg Count	5/6
NCSU Alternate Reference Outage Duration	5/6
NCSU Alternate Reference Outage Peg Count	5/6
NCSU Alternate Transmission Slips Peg Count	5/6
NCSU Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
NCSU Diagnostics Manually Requested Peg Count	46/5
NCSU Diagnostics Program Requested - All Tests Passed Peg Count	46/5
NCSU Diagnostics Program Requested Peg Count	46/5
NCSU Errors Peg Count	46/5
NCSU Free Run Duration	5/6
NCSU Free Run Less Than 10 Minutes Peg Count	5/6
NCSU Free Run Peg Count	5/6
NCSU Located Faults Peg Count	46/5
NCSU Non-located Peg Count	46/5
NCSU Regular Frequency Offset Peg Count	5/6
NCSU Regular Phase Errors Peg Count	5/6
NCSU Regular Phase Hits Peg Count	5/6
NCSU Regular Reference OOS Duration	5/6
NCSU Regular Reference OOS Peg Count	5/6
NCSU Regular Reference Outage Duration	5/6
NCSU Regular Reference Outage Peg Count	5/6
NCSU Regular Transmission Slips Peg Count	5/6
NCSU Service Outage Usage	23/2
NCSU Total Fast Start Timeout Peg Count	5/6
NCSU Total Fast Starts Duration	5/6
NCSU Total Fast Starts Peg Count	5/6
NCSU Total Phase Hits Peg Count	5/6
NCSU Total Transfer to Alternate Duration	5/6
NCSU Total Transfer to Alternate Peg Count	5/6
Network Accumulated Maintenance Usage	23/0
Network Call Denial Blocked Queries From CCS Abnormal Replies Control Peg Count	49/0
Network Call Denial Blocked Queries From Congestion Peg Count	49/0
Network Call Denial Blocked Queries From Overload Peg Count	49/0
Network Call Denial Initial Query Peg Count	49/0
Network Call Denial Queries Returned Due to CCS Network Block Replies Peg Count	49/0
Network Call Denial Queries Returned Due to CCS Network Overload Replies	49/0
Network Call Denial Queries Returned Due to Miscellaneous Replies Peg Count	49/0
Network Call Denial Queries Returned Due to No Routing Data Peg Count	49/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Network Call Denial Queries Returned Due to Overload Peg Count	49/0
Network Call Denial Replies With Deny Code After Answer Supervision Peg Count	49/0
Network Call Denial Replies With Deny Code Before Answer Supervision Peg Count	49/0
Network Call Denial Replies With Deny Codes Peg Count	49/0
Network Call Denial Replies With Invalid Data Peg Count	49/0
Network Management Blocked: Direct Signaling Control	49/0
Network Management Blocked: INWATS 10-digit Code Control	49/0
Network Management Blocked: INWATS 6-digit Code Control	49/0
Network Management Control Blocks Call Peg Count	49/1
Network Management Control Blocks Call Peg Count	49/2
Network Management Control Rollbacks Peg Count	21/2
Network Management Controls Invoked Peg Count	21/2
Network Path Hunt Failure Peg Count	4/0
Network Path Hunt Success Peg Count	4/0
Network Total Usage	4/0
No Auxiliary Call Register	49/0
No Circuit Intertoll Peg Count	11/1
No Circuit Private Branch Exchange Peg Count	11/1
No Circuit Single Trunk Customer Peg Count	11/1
No Circuit Toll Completing Peg Count	11/1
No Start Dial Final Trial Group Peg Count	36/4
No Trunks Hunted	9/1
Non-Call Associated Temporary Signaling Connection (TSC) Attempt	5/1
Non-Call Associated Temporary Signaling Connection (TSC) Successes	5/0
Non-Confirmed Transmit Path Failure Carrier Alarm Peg Count	45/8
Non-Load MAC Overload Control Peg Count	9/1
Non-Load No Overload Control Peg Count	9/1
Non-Load Segment Overload Control Peg Count	9/1
Normal Route Response Message Received Peg Count	49/1
Normal Route Response Message Received Peg Count	49/2
NSC Received on International Outbound Call Using CCIS Overflow Trunk Subgroup	15/2
NSCX Maintenance Usage	0/2
NSCX Overflow Peg Count	0/2
NSCX Seizure Peg Count	0/2
NSCX Service Usage	0/2
NSCX Set S Accumulated Maintenance Usage	23/3
NTC Received on International Outbound Call Using CCIS Overflow Trunk Subgroup	15/2
Number Of Recent Changes Activated Peg Count	21/1
ODA IPCC Message Queue Threshold Value in Effect	56/4
ODTMF Transmitter Queue Entry Failures	0/0
ODTMF Transmitter Queue Seizure Peg Count	0/0
ODTMF Transmitter Queue Usage	0/0
ODTMF Transmitter Queue Wait	0/0
ODTMFWK Outgoing Seizure Peg Count	5/1
OMR Overflow Peg Count	16/0
OMR Seizure Peg Count	16/0
OMR Usage	16/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ONI Calls Peg Count	19/0
Operational Interject Data Unit Selector Peg Count	20/1
Operator Processed CAMA Calls Peg Count	19/0
Originating International Call Incoming From a Domestic Satellite	15/3
Originating INWATS Denied Peg Count	11/2
Other Errors - Continuity/Polarity Test Failures Peg Count	36/4
Other Errors - MF Transmitter Outpulsing Errors Peg Count	36/4
Other Errors - No XCVR, Final Trial Failure	36/4
Outbound Customer Dialed Call Peg Count	15/2
Outbound Customer Dialed Call, Voice Path Cancellation Peg Count	15/2
Outbound International Operator Peg Count	15/2
Outbound International Operator, Voice Path Cancellation Peg Count	15/2
Outbound International Teleconferencing Peg Count	15/2
Outbound International Teleconferencing, Voice Path Cancellation Peg Count	15/2
Outbound International Toll-Free Peg Count	15/2
Outbound International Toll-Free, Voice Path Cancellation Peg Count	15/2
Outgoing Address Complete Signal Timeout Peg Count	36/9
Outgoing Answer Signal Units Peg Count	14/0-255
Outgoing Attempts Peg Count	13/CIN
Outgoing Direct Signaling Signal Units Peg Count	14/0-255
Outgoing Domestic CCIS Call Attempts	37/0
Outgoing Domestic DP Call Attempts	37/0
Outgoing Domestic ISUP Call Attempts	37/0
Outgoing Domestic MF Call Attempts	37/0
Outgoing Domestic Q.931 Call Attempts	37/0
Outgoing IAM Peg Count	14/0-255
Outgoing International CCITT No. 5 Call Attempts	37/1
Outgoing International CCITT No. 6 Call Attempts	37/1
Outgoing International INUP Call Attempts	37/1
Outgoing International ITUP Call Attempts	37/1
Outgoing Transitions Peg Count	14/0-255
Out-of-Chain Routed Calls Failed	11/3
Out-of-Chain Routed Calls Received	11/3
Out-Of-Service Blocking Received (CCIS Trunks) from Far End Office Peg Count	25/4
Out-Of-Service Carrier Group Alarm Peg Count	25/4
Out-Of-Service Continuity Check Retest Failure Peg Count	25/4
Out-Of-Service Equipment Failure, VIU, DTU, ESU Peg Count	25/4
Out-Of-Service Error Analysis Suspected Failure Peg Count	25/4
Out-Of-Service High and Wet Peg Count	25/4
Out-Of-Service Manual Request Peg Count	25/4
Out-Of-Service Operational Test Failure Peg Count	25/4
Out-Of-Service ROTL Request Peg Count	25/4
Out-Of-Service Total Signaling Failure Peg Count (CCIS trunk only)	25/4
Outpulsing Failures Peg Count	11/0
Output Message Failure Peg Count	16/0
Output Message Success Peg Count	16/0
OUTWATS Non-purchased NPA Peg Count	49/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
OUTWATS Originating Calls Peg Count	5/0
Overflow Peg Count	13/CIN
Partial Dial Abandon Peg Count	7/0
Partial Dial Timeout Peg Count	7/0
PBX Reorders Peg Count	11/4
PCP 1B to DLN Failure to Send Query Peg Count	57/0
PCP 1+SACDS Due to Invalid Service Code Received	57/0
PCP 1+SACDS Initial Attempt Failed in Receipt of Service Code	57/0
PCP BN(ANI) Query Attempt CNT for DC and SA LDS	57/0
PCP BN(ANI) Query Attempt CNT for SA WATS	57/0
PCP BN(ANI) Query Attempt Count for MEGACOM and DC WATS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for DC and SA LDS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for MEGACOM and DC WATS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for SA WATS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for LDS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for MEGACOM and DC WATS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for SA WATS	57/0
PCP Call Killed Due to DTMF Receiver Queue Overload Count	57/0
PCP Call Subjected to Excessive Delay Count (i.e., Wait on DTMF Receiver Queue >= 2 seconds)	57/0
PCP Calls with SAN Account Code Validation Successful	57/0
PCP CDS Attempts for Which Failure to Reseize Receiver Occurred	57/0
PCP DLN to 1B No Reply From DLN Peg Count	57/0
PCP DTMF Queue Abandon Peg Count	57/0
PCP DTMF Queue Accumulated Occupancy Count	57/0
PCP DTMF Queue Seizure Peg Count	57/0
PCP FAX ID Calls Identified as Using FAX FPR	57/0
PCP FAX S&F Attempts for Which Failure to Seize Receiver Occurs	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for LDS	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for MEGACOM and DC WATS	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for SA WATS	57/0
PCP FAX S&F DTMF Receiver Timeout in Wait for ANS State	57/0
PCP FAX S&F Initial Attempt Fail in Receipt of Service Code	57/0
PCP FAX S&F Successfully Attempted Routing to a FAX S&F Node	57/0
PCP Handled Customer Specific Recording Successfully for LDS	57/0
PCP Handled Customer Specific Recording Successfully for MEGACOM and DC WATS	57/0
PCP Handled Customer Specific Recording Successfully for SA WATS	57/0
PCP Handled Dedicated FAX ID Successfully for LDS	57/0
PCP Handled Dedicated FAX ID Successfully for MEGACOM and DC WATS	57/0
PCP Handled Dedicated FAX ID Successfully for SA WATS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for LDS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for MEGACOM and DC WATS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for SA WATS	57/0
PCP MUVF CTI Collected Successfully for LDS	57/0
PCP MUVF CTI Collected Successfully for MEGACOM and DC WATS	57/0
PCP MUVF CTI Collected Successfully for SA WATS	57/0
PCP MUVF Initial Attempt Failed in Receipt of CTI	57/0
PCP Receiver Holding Time in Sec for 1+SACDS	57/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
PCP Receiver Holding Time in Sec for FAX S&F	57/0
PCP Receiver Holding Time in Sec for MUVF	57/0
PCP Receiver Holding Time in Sec for SAN	57/0
PCP SAB Call Denied Due to Improper Collection for LDS	57/0
PCP SAB Call Denied Due to Improper Collection for MEGACOM and DC WATS	57/0
PCP SAB Call Denied Due to Improper Collection for SA WATS	57/0
PCP SAB Calls Allowed to Complete with No SAN Received	57/0
PCP SAB Calls Allowed to Complete with SAN Received and it was Mandatory	57/0
PCP SAB Calls Allowed to Complete with SAN Received and it was Optional	57/0
PCP SAN Denied - none entered and was mandatory	57/0
PCP SAN No Data in DLN Peg Count	57/0
PCP SAN Validation Success Peg Count	57/0
PCP Subaccount Number Collected Successfully for LDS	57/0
PCP Subaccount Number Collected Successfully for MEGACOM and DC WATS	57/0
PCP Subaccount Number Collected Successfully for SA WATS	57/0
PCP Subaccount Number Initial Attempt Failed Count	57/0
PCP TOTAL 1+SACDS Attempts to Seize a Receiver	57/0
PCP TOTAL 1+SACDS Successfully Attempted Routing to VMOC	57/0
PCP Total MUVF Calls Identified as Being FAX	57/0
PCP Total SAN Account Code Verification Failures	57/0
PCP Using 2NCP/NSCX Peg Count	57/0
PDF Accumulated Maintenance Usage	23/1
PDF Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
PDF Diagnostics Manually Requested Peg Count	46/0
PDF Diagnostics Program Requested - All Tests Passed Peg Count	46/0
PDF Diagnostics Program Requested Peg Count	46/0
PDF Errors Peg Count	46/0
PDF Located Faults Peg Count	46/0
PDF Non-located Peg Count	46/0
Permanent Signal Timeout Peg Count	7/0
Persisting Proceed-To-Send Signal Peg Count	25/16
Persisting Release Guard Signal Peg Count	25/16
Phase 1 Manually Initiated Peg Count	21/0
Phase 1 Program Initiated Peg Count	21/0
Phase 2 Manually Initiated Peg Count	21/0
Phase 2 Program Initiated Peg Count	21/0
Phase 3 Manually Initiated Peg Count	21/0
Phase 3 Program Initiated Peg Count	21/0
Phase 4 Manually Initiated Peg Count	21/0
Phase Level Duration Count	21/0
Play Announcement Message from SCP Peg Count	49/0
Play Announcement Message from the SCP Peg Count	49/1
Play Announcement Message from the SCP Peg Count	49/2
Power Room Major Alarms Peg Count	20/2
Power Room Minor Alarms Peg Count	20/2
Preferred Call Attempts Peg Count	13/CIN
Proceed-To-Send Signal Timeout Peg Count	25/16

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Processor Accumulated Maintenance Usage	23/0
PS Accumulated Maintenance Usage	23/1
PS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
PS Diagnostics Manually Requested Peg Count	46/0
PS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
PS Diagnostics Program Requested Peg Count	46/0
PS Errors Peg Count	46/0
PS Located Faults Peg Count	46/0
PS Non-located Peg Count	46/0
PSB Accumulated Maintenance Usage	23/1
PSB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
PSB Diagnostics Manually Requested Peg Count	46/2
PSB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
PSB Diagnostics Program Requested Peg Count	46/2
PSB Errors Peg Count	46/2
PSB Located Faults Peg Count	46/2
PSB Non-located Peg Count	46/2
Pseudo Country Code No Good Peg Count	5/5
PUB Accumulated Maintenance Usage	23/1
PUB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
PUB Diagnostics Manually Requested Peg Count	46/2
PUB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
PUB Diagnostics Program Requested Peg Count	46/2
PUB Errors Peg Count	46/2
PUB Located Faults Peg Count	46/2
PUB Non-located Peg Count	46/2
Q.931 Channel Negotiation (CN) Failures On Originating TSG	49/0
Q.931 Channel Negotiation (CN) Request Failures From Other TSG	49/0
Q.931 Channel Negotiation (CN) Request Failures To Another TSG	49/0
Q.931 Channel Negotiation (CN) Requests From Other TSG	49/0
Q.931 Channel Negotiation (CN) Requests on Original TSG	49/0
Q.931 Channel Negotiation (CN) Requests to Another TSG	49/0
Q.931 Channel Negotiation Setup	5/1
Q.931 Confusion Received Peg Count	45/0
Q.931 Confusion Transmitted Peg Count	45/0
Q.931 Continuity/Polarity Test Failure Peg Count	25/3
Q.931 Control Area False Start Abandon Peg Count	25/1
Q.931 Control Area Partial Dial Abandon Peg Count	25/1
Q.931 Control Area Partial Dial Timeout Peg Count	25/1
Q.931 Control Area Permanent Signal Timeout Peg Count	25/1
Q.931 Control Area Summation False Start Abandon Peg Count	36/1
Q.931 Control Area Summation Miscellaneous Abandon Peg Count	36/4
Q.931 Control Area Summation Partial Dial Abandon Peg Count	36/2
Q.931 Control Area Summation Partial Dial Timeout Peg Count	36/2
Q.931 Control Area Summation Permanent Signal Timeout Peg Count	36/1
Q.931 Control Area Summation Pulsing Error Peg Count	36/2
Q.931 CR Seizure Peg Count	17/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Q.931 Glare Condition - 4ESS Switch in Control Peg Count	25/3
Q.931 Glare Condition - Far End in Control Peg Count	25/3
Q.931 Incoming Attempts Peg Count	25/5
Q.931 Incoming CNI Ring Buffer Overflow Peg Count	45/0
Q.931 Incoming CNI Ring Failure Peg Count	45/0
Q.931 Incoming Seizures	5/1
Q.931 Incomplete Address Detected Peg Count	36/0
Q.931 Information Element Error Detected Peg Count	36/0
Q.931 Integrity Check Failure Peg Count	25/3
Q.931 Maintenance Usage	25/5
Q.931 Miscellaneous Abandon Peg Count	25/2
Q.931 Miscellaneous Ineffective Attempts Peg Count	11/4
Q.931 No Start Dial Peg Count	25/3
Q.931 Origination CR Queue Abandon Peg Count	17/0
Q.931 Origination CR Queue Overflow Peg Count	17/0
Q.931 Origination CR Queue Seizure Peg Count	17/0
Q.931 Origination CR Queue Usage	17/0
Q.931 Other Abandons Peg Count	11/4
Q.931 Outgoing Attempts Peg Count	25/5
Q.931 Outgoing CNI Ring Failure Peg Count	45/0
Q.931 Outgoing CNI Ring Overflow Peg Count	45/0
Q.931 Outgoing Seizures	5/1
Q.931 Pulsing Error Peg Count	25/1
Q.931 Resets Received Peg Count	45/0
Q.931 Switching Cutoffs Peg Count	11/4
Q.931 Total Office False Start Abandon Peg Count	7/0
Q.931 Total Office Partial Dial Abandon Peg Count	7/0
Q.931 Total Office Partial Dial Timeout Peg Count	7/0
Q.931 Total Office Permanent Signal Timeout Peg Count	7/0
Q.931 Unexpected Stop Peg Count	25/3
Q.931 Unexpected Stop Timeout Peg Count	25/3
Q.931 Unreasonable Signal Received Peg Count	36/0
Quick Integrity Check Routine Operational Tests Attempted Peg Count	25/9
Quick Integrity Check Routine Operational Tests Failed Peg Count	25/9
Quick Integrity Check Routine Operational Tests Passed Peg Count	25/9
Real-Time Overload Retry Cancel Peg Count	36/4
Received Repeated ACU Peg Count	14/0-255
Received Skipped ACU Peg Count	14/0-255
Recorded Announcement Machine Located Faults Peg Count	35/1
Recorded Announcement Machine Maintenance Busy Occupancy	35/0
Recorded Announcement Machine Non-located Faults Peg Count	35/1
Registers From Attendant Peg Count	56/0-2
Reject Message Returned from SCP Peg Count	49/0
Release-Guard Signal Timeout Peg Count	25/16
Remote Office Test Line Maintenance Busy Occupancy	35/0
Remote Office Test Line Seizure Attempts Peg Count	35/1
Remote Office Test Line Seizure Overflow Peg Count	35/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Remote Office Test Line Self-Check Fail Peg Count	35/1
Remote Office Test Line Total Usage	35/1
Reroute To Seizure Peg Count	13/CIN
Resource Unavailable After Initial Query Peg Count	49/1
Resource Unavailable After Initial Query Peg Count	49/2
Resource Unavailable Before Initial Query Peg Count	49/1
Resource Unavailable Before Initial Query Peg Count	49/2
Response from SCP After Query Timer Timeout Peg Count	49/0
Retest QIC Failed - Non-Confirmed Transmit Path Failure Restoral Peg Count	45/8
Return Error or Reject Message Peg Count	49/1
Return Error or Reject Message Peg Count	49/2
Return Error Returned from SCP Peg Count	49/0
Ringing and Tone Plant Located Faults Peg Counts	35/1
Ringing and Tone Plant Maintenance Busy Occupancy	35/0
Ringing and Tone Plant Non-located Faults Peg Count	35/1
Route Selection Index Screening Failure Peg Count	11/2
Routing Data Error	11/4
RTNR Egress Busy Crankback Received Peg Count	45/0
RTNR Egress Busy Crankbacks Sent Peg Count	45/0
RTNR Queries Received Peg Count	45/0
RTNR Queries Sent Peg Count	45/0
SCLK Accumulated Maintenance Usage	23/2
SCLK Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
SCLK Diagnostics Manually Requested Peg Count	46/5
SCLK Diagnostics Program Requested - All Tests Passed Peg Count	46/5
SCLK Diagnostics Program Requested Peg Count	46/5
SCLK Errors Peg Count	46/5
SCLK Located Faults Peg Count	46/5
SCLK Non-located Peg Count	46/5
SCLK Service Outage Usage	23/2
SCP Overload Blocked BOC-SSP Calls Peg Count	49/0
SCS Accumulated Maintenance Usage	24/1
SCS Accumulated Outage	24/1
SCS Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
SCS Diagnostics Manually Requested Peg Count	24/2
SCS Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SCS Diagnostics Program Requested Peg Count	24/2
SCS Errors Peg Count	24/2
SCS Located Faults Peg Count	24/2
SCS Non-located Faults Peg Count	24/2
SCSB Maintenance Usage	0/2
SCSB Overflow Peg Count	0/2
SCSB Seizure Peg Count	0/2
SCSB Service Usage	0/2
SCU Accumulated Maintenance Usage	24/1
SCU Accumulated Outage	24/1
SCU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
SCU Diagnostics Manually Requested Peg Count	24/2
SCU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SCU Diagnostics Program Requested Peg Count	24/2
SCU Errors Peg Count	24/2
SCU Located Faults Peg Count	24/2
SCU Non-located Faults Peg Count	24/2
Second Stage Equal Access Failure Peg Count	15/0
Second Stage International Attempts	15/0
Second Stage International Vacant Codes	15/0
Second Stage MF Receiver Queue Abandon Peg Count	17/1
Second Stage MF Receiver Queue Seizure Peg Count	17/1
Second Stage MF Receiver Queue Usage	17/1
Seizing Signal Timeout Final Trial Failure Peg Count	36/8
Seizing Signal Timeout Peg Count	25/16
Selective Dynamic Overload Control Blocked Peg Count	11/3
Selective Dynamic Overload Control Canceled Peg Count	11/3
Selective Dynamic Overload Control Skipped Peg Count	11/3
Selective Incoming Load Control Peg Count	21/2
Selective Incoming Load Control	13/CIN
Selective Trunk Reservation Canceled Peg Count	11/3
Selective Trunk Reservation Control Blocked Peg Count	11/3
Selective Trunk Reservation Skipped Peg Count	11/3
Serial-Triggering Limit Overflow Peg Count	49/1
Serial-Triggering Limit Overflow Peg Count	49/2
Service Circuits Accumulated Maintenance Usage	23/0
Service Observing Network Usage	4/1
Service Observing Trunk A Seizure Peg Count	5/7
Service Observing Trunk A Usage	5/7
Signaling Failure - Time-out at SSP Peg Count	49/1
Signaling Failure - Time-out at SSP Peg Count	49/2
Signaling Network Final Trial Failures Peg Count	36/7
SMS Blocked BOC-SSP Call Peg Count	49/0
Software CGA Initial Tests Failure Peg Count	45/1
Software CGA Initial Tests Pass Peg Count	45/1
Software CGA Monitor Tests Pass Peg Count	45/1
Software CGA Restoral Tests Failure Peg Count	45/1
Software CGA Restoral Tests Pass Peg Count	45/1
SP Accumulated Maintenance Usage	24/1
SP Accumulated Outage	24/1
SP Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
SP Diagnostics Manually Requested Peg Count	24/2
SP Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SP Diagnostics Program Requested Peg Count	24/2
SP Errors Peg Count	24/2
SP Located Faults Peg Count	24/2
SP Non-located Faults Peg Count	24/2
Spare 6 Peg Count	56/4

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Spare 7 Peg Count	56/4
Spare 8 Peg Count	56/4
SPC Number	12/0
Spray Reroute Attempts	13/CIN
Spray Reroute Calls Received	13/CIN
Spray Reroute Failures	13/CIN
SSD Accumulated Maintenance Usage	23/1
SSD Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
SSD Diagnostics Manually Requested Peg Count	46/0
SSD Diagnostics Program Requested - All Tests Passed Peg Count	46/0
SSD Diagnostics Program Requested Peg Count	46/0
SSD D-Level Counter	20/1
SSD Errors Peg Count	46/0
SSD In-Range D-Level Counter	20/1
SSD Located Faults Peg Count	46/0
SSD Non-located Peg Count	46/0
SSD to Client In-Range Counter	20/1
SSD to Client Out-Of-Range Counter	20/1
Stable Calls Lost, Carrier Group Failure Peg Count	5/3
Stable Calls Lost Due to a Phase Peg Count	36/6
Stable Calls Lost Due to D3U Peg Count	36/6
Stable Calls Lost Due to DIU Peg Count	36/6
Stable Calls Lost Due to DTU Peg Count	36/6
Stable Calls Lost Due to ESU Peg Count	36/6
Stable Calls Lost Due to SCS Peg Count	36/6
Stable Calls Lost Due to VIU Peg Count	36/6
Start of Pulsing Timeout Peg Count	25/16
Status Failure Attached Processor Peg Count	20/1
Step by Step Test Routine Operational Tests Attempted Peg Count	25/9
Step by Step Test Routine Operational Tests Failed Peg Count	25/9
Step by Step Test Routine Operational Tests Passed Peg Count	25/9
Successful INWATS Replies Peg Count	49/0
Synchronous Test Routine Operational Tests Attempted Peg Count	25/9
Synchronous Test Routine Operational Tests Failed Peg Count	25/9
Synchronous Test Routine Operational Tests Passed Peg Count	25/9
TELEVOTE CCIS Direct Signaling Counts Not Updated	5/9
TER Accumulated Maintenance Usage	23/2
TER Service Outage Usage	23/2
Terminal Equipment Accumulated Maintenance Usage	24/0
Terminal Maintenance Occupancy	14/0-255
Terminal Pair Outage	14/0-255
Terminal Type Identifier	14/0-255
Termination Notification Messages Lost Peg Count	49/3
Termination Notification Requests Received Peg Count	49/1
Termination Notification Requests Received Peg Count	49/2
Termination Notification Response Peg Count	49/3
Test Access Circuit Origination Peg Count	25/10

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
TGR Accumulated Maintenance Usage	23/2
TGR Service Outage Usage	23/2
Threshold Exceeded Peg Counts	14/0-255
Threshold Exceeded Time in Seconds	14/0-255
Timeout Peg Count	25/16
Timeout Waiting for SCP Response Peg Count	49/0
Timeouts Peg Count	56/0-2
TMS Accumulated Maintenance Usage	23/2
TMS Service Outage Usage	23/2
TMSP Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
TMSP Diagnostics Manually Requested Peg Count	46/3
TMSP Diagnostics Program Requested - All Tests Passed Peg Count	46/3
TMSP Diagnostics Program Requested Peg Count	46/3
TMSP Errors Peg Count	46/3
TMSP Located Faults Peg Count	46/3
TMSP Non-located Peg Count	46/3
Tollfree Termination Notification Response Peg Count	49/3
Total Attempts That Overflow to Terminating Test Line 100	25/8
Total Attempts That Overflow to Terminating Test Line 102	25/8
Total Attempts That Overflow to Terminating Test Line 103	25/8
Total Attempts That Overflow to Terminating Test Line 104	25/8
Total Attempts That Overflow to Terminating Test Line 105	25/8
Total Attempts That Overflow to Terminating Test Line 106	25/8
Total Attempts That Overflow to Terminating Test Line 107	25/8
Total Attempts That Overflow to Terminating Test Line 108	25/8
Total Attempts That Overflow to Terminating Test Line 109	25/8
Total Attempts That Overflow to Terminating Test Line 110	25/8
Total Attempts That Overflow to Terminating Test Line DATA	25/8
Total Attempts That Overflow to Terminating Test Line SYNCHRONOUS	25/8
Total Attempts to PAS Announcements	5/8
Total Attempts to Terminating Test Line 100	25/8
Total Attempts to Terminating Test Line 102	25/8
Total Attempts to Terminating Test Line 103	25/8
Total Attempts to Terminating Test Line 104	25/8
Total Attempts to Terminating Test Line 105	25/8
Total Attempts to Terminating Test Line 106	25/8
Total Attempts to Terminating Test Line 107	25/8
Total Attempts to Terminating Test Line 108	25/8
Total Attempts to Terminating Test Line 109	25/8
Total Attempts to Terminating Test Line 110	25/8
Total Attempts to Terminating Test Line DATA	25/8
Total Attempts to Terminating Test Line SYNCHRONOUS	25/8
Total CAMA Calls Peg Count	19/0
Total CAMA Positions Seizure Peg Count	19/0
Total CAMA Positions Service Usage	19/0
Total Demand Audits Completed Peg Count	22/0
Total Demand Audits Errors Found Peg Count	22/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Total Final Handled Calls Peg Count	56/0-2
Total Incoming Calls Peg Count	5/0
Total Incoming Completed AIN Calls Peg Count	49/1
Total Incoming Completed AIN Calls Peg Count	49/2
Total Incoming Data Filled Signal Units Peg Count	14/0-255
Total Incoming Messages Peg Count	14/0-255
Total Ineffective Machine Attempts Peg Count	25/0
Total INWATS Calls Reaching CCIS OSO Peg Count	49/0
Total Number of Bad Packets Received Peg Count	56/4
Total Number of Errored Commands Peg Count	56/4
Total Number of Framing and Overrun Errors Peg Count	56/4
Total Number of Good Packets Received Peg Count	56/4
Total Number of Inter-Gateway CRC Errors Peg Count	56/4
Total Number of Lost Messages Peg Count	56/4
Total Number of Messages Not Sent Between Gateways Peg Count	56/4
Total Number of Orders Peg Count	56/4
Total Number of Orders with Start of Call Indicator Set Peg Count	56/4
Total Number of Packets with CRC Errors Peg Count	56/4
Total Number of Register Messages Failed to be Sent Peg Count	56/4
Total Number of Register Messages Not Sent due to Congestion Peg Count	56/4
Total Number of Register Messages Peg Count	56/4
Total Number of Register Messages That Did Not Receive a Release Complete Peg Count	56/4
Total Number of SADC Port Errors Peg Count	56/4
Total Number of Test Orders Sent Peg Count	56/4
Total Number of Times That Message Queue Overflowed Peg Count	56/4
Total Number of Times the Secondary Gateway was Used Peg Count	56/4
Total Number of TNR Operational Orders for Start of Call Peg Count	56/5
Total Number of TNR Orders Peg Count	56/5
Total Number of Unacknowledged Register Messages Peg Count	56/4
Total Number of USEC CRC Errors Peg Count	56/4
Total of Multiple A-Level Interrupts Peg Count	20/0
Total of Multiple B-Level Interrupts Peg Count	20/0
Total of Multiple C-Level Interrupts Peg Count	20/0
Total of Multiple D-Level Interrupts Peg Count	20/0
Total of Multiple E-Level Interrupts Peg Count	20/0
Total of Single A-Level Interrupts Peg Count	20/0
Total of Single B-Level Interrupts Peg Count	20/0
Total of Single C-Level Interrupts Peg Count	20/0
Total of Single D-Level Interrupts Peg Count	20/0
Total of Single E-Level Interrupts Peg Count	20/0
Total of Single F-Level Interrupts Peg Count	20/0
Total of Single K-Level Interrupts Peg Count	20/0
Total Office Pulsing Error Peg Count	11/0
Total Outgoing Data Filled Signal Units Peg Count	14/0-255
Total Outgoing Intertoll Trunk Seizure Peg Count	5/0
Total Outgoing Messages Peg Count	14/0-255
Total Outgoing Toll Completing Trunk Seizure Peg Count	5/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Total Routine Audits Completed Peg Count	22/0
Total Routine Audits Errors Found Peg Count	22/1
Total Terminating Toll Switch Calls	5/0
Total Test Access Circuit Usage	25/10
Total Type 2 Rollbacks Peg Count	21/1
Total Usage Measurement	13/CIN
Total Via Toll Switch Calls	5/0
Traffic Separation Class Seizure Peg Count	10/0-1023
Traffic Separation Class Usage	10/0-1023
Transaction ID in SCP Response Was Invalid Peg Count	49/0
Transient Calls Lost Due to a Phase Peg Count	36/6
Transient Calls Lost Due to D3U Peg Count	36/6
Transient Calls Lost Due to DIU Peg Count	36/6
Transient Calls Lost Due to DTU Peg Count	36/6
Transient Calls Lost Due to ESU Peg Count	36/6
Transient Calls Lost Due to SCS Peg Count	36/6
Transient Calls Lost Due to VIU Peg Count	36/6
Transmitter Error Final Trial Failure Peg Count	36/8
Transmitter Error Peg Count	25/16
Trunk Error Analysis Long Term Table Overflow For Signal Processor Peg Count	43/0-31
Trunk Error Analysis Report Buffer Overflow Peg Count	44/0
Trunk Error Analysis Second Stage Filter Overflow For Signal Processor Peg Count	42/0-31
Trunk Maintenance Register Overflow Peg Count	17/3
Trunk Maintenance Register Seizure Attempts Peg Count	35/3
Trunk Maintenance Register Seizure Overflow Peg Count	35/3
Trunk Maintenance Register Seizure Peg Count	17/3
Trunk Maintenance Register Usage	17/3
Trunk Maintenance Usage	25/0
Trunks Blocked Due To Far End Equipment Problems Peg Count	45/2
TSG Access Restriction Peg Count	11/3
TSI Accumulated Maintenance Usage	23/2
TSI Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
TSI Diagnostics Manually Requested Peg Count	46/3
TSI Diagnostics Program Requested - All Tests Passed Peg Count	46/3
TSI Diagnostics Program Requested Peg Count	46/3
TSI Errors Peg Count	46/3
TSI Located Faults Peg Count	46/3
TSI Non-located Peg Count	46/3
TSI Number	12/0
TSI Service Outage Usage	23/2
TSI Usage Measurement	12/0
TUC Accumulated Maintenance Usage	23/1
TUC Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
TUC Diagnostics Manually Requested Peg Count	46/0
TUC Diagnostics Program Requested - All Tests Passed Peg Count	46/0
TUC Diagnostics Program Requested Peg Count	46/0
TUC Errors Peg Count	46/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
TUC Located Faults Peg Count	46/0
TUC Non-located Peg Count	46/0
TVOFF Messages Sent During Throttling, Not Due to Unknown Peg Count	56/4
TVOFF Messages Throttled Following TVOFF Peg Count	56/4
TVON Messages Sent During Throttling, Not Due to Unknown Peg Count	56/4
TVON Messages Throttled Following TVOFF Peg Count	56/4
TVON Messages Throttled Following TVON Peg Count	56/4
TVON/TVOFF/64C Messages Sent During Throttling Due to Unknown Peg Count	56/4
Two Stage EA Pulsing Errors	15/4
Two Stage MF Permanent Signal Timeout	15/4
Two Stage MF Receiver Not Found	15/4
Two Stage Partial Dial Timeout	15/4
Two Stage Permanent Signal Timeout	15/4
Two Stage Pulsing Errors	15/4
Two Stage VSS MF Receiver Not Found	15/4
Two Stage VSS Pulsing Errors	15/4
Unauthorized CAMA Peg Count	18/0
Unblocking Acknowledgement Timeout Peg Count	25/17
Undetermined Call ID in a Response from the SCP Which Contained Protocol Errors Peg Count	49/0
Unexpected Stop Failures Final Trial Group Peg Count	36/4
Unit Data Service Messages Returned by STP Peg Count	49/0
Unreasonable Signal Final Trial Failure Peg Count	36/8
Unreasonable Signal on an Idle CCITT No. 6 Trunk Peg Count	25/16
Unreasonable Signal on the Incoming Trunk Peg Count	25/16
Unreasonable Signal on the Outgoing Trunk Peg Count	25/16
Unreasonable Signal Peg Count	25/16
USEC Frame Suspend Event Peg Count	56/4
Vacant Code Announcement Peg Count	11/2
Vacant Code Announcement Private Branch Exchange Peg Count	11/2
Vacant Code Announcement Q.931 Peg Count	11/2
Vacant Code/Non-Purchased NPA BOC-SSP Calls Blocked Due To Excess Calling Peg Count	49/0
Vendor Rejection Peg Count	56/0-2
VFL-1 Far-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-1 Near-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-1 Quarter Hour in Service Peg Count	14/0-255
VFL-1 Retransmission Requests Peg Count	14/0-255
VFL-1 Signal Units in Error Peg Count	14/0-255
VFL-2 Far-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-2 Near-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-2 Quarter Hour in Service Peg Count	14/0-255
VFL-2 Retransmission Requests Peg Count	14/0-255
VFL-2 Signal Units in Error Peg Count	14/0-255
VIC Accumulated Maintenance Usage	24/1
VIC Accumulated Outage	24/1
VIC Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
VIC Diagnostics Manually Requested Peg Count	24/2
VIC Diagnostics Program Requested - All Tests Passed Peg Count	24/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
VIC Diagnostics Program Requested Peg Count	24/2
VIC Errors Peg Count	24/2
VIC Located Faults Peg Count	24/2
VIC Non-located Faults Peg Count	24/2
VIU Accumulated Maintenance Usage	24/1
VIU Accumulated Outage	24/1
VIU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
VIU Diagnostics Manually Requested Peg Count	24/2
VIU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
VIU Diagnostics Program Requested Peg Count	24/2
VIU Errors Peg Count	24/2
VIU Located Faults Peg Count	24/2
VIU Non-located Faults Peg Count	24/2
Voice Path Assurance (VPA) Test Attempted Peg Count	25/6
Voice Path Assurance (VPA) Test Completed Peg Count	25/6
Voice Path Assurance (VPA) Test Failure Peg Count	25/6
Waiting-for-Answer Call Failure Peg Count	36/9
Waiting-for-Answer Timeout Peg Count	36/9
XPWR Accumulated Maintenance Usage	23/1
XPWR Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
XPWR Diagnostics Manually Requested Peg Count	46/0
XPWR Diagnostics Program Requested - All Tests Passed Peg Count	46/0
XPWR Diagnostics Program Requested Peg Count	46/0
XPWR Errors Peg Count	46/0
XPWR Located Faults Peg Count	46/0
XPWR Non-located Peg Count	46/0

GENERAL DESCRIPTION
4ESS SWITCH TRAFFIC/PLANT MEASUREMENTS
4E24 GENERIC PROGRAM

1. INTRODUCTION

1.01 The 4ESS Switch traffic/plant measurement system is concerned with measuring the effects of the telephone traffic presented to the switching system and the effects of the maintenance condition of the system as they effect service provided to the customer. These measurements are used by engineering to verify that existing equipage is adequate for present needs and to predict future needs. These measurements are also used by Network Management to determine the control actions necessary to efficiently utilize the nationwide network and to evaluate the effects of the various control strategies. Finally, these measurements are used to locate equipment irregularities and evaluate the effectiveness of the office's maintenance procedures as compared to other toll switching systems.

1.02 This section is primarily intended to define the counts and measurements provided by the traffic/plant measurement system. Each Measurement Subclass (MSC) and all Output Measurement Sets (OMS) associated with the MSC are defined and tabled for easy reference.

2. TERMS and DEFINITIONS

2.01 The basic terms used with the 4ESS Switch traffic/plant measurement system are described in the following paragraphs.

2.02 Count - A count is the instantaneous value of a counter that is available for change by the main information processing programs of the switch. (For example, the contents of the outgoing Peg Count register for a specific Trunk Subgroup).

2.03 Measurement - a measurement is a function of a count that is obtained from the switch. An example would be the total usage measurement for one hour on a specified Trunk Subgroup. The function may be a count accumulated over a prescribed interval or an arithmetic combination of several counts accumulated over a prescribed interval.

2.04 Peg Count - A Peg Count is the count of the number of times a given event occurs.

2.05 Peg Counter - A Peg Counter is a register to which the number one is added each time a given event occurs.

2.06 Occupancy Count - An occupancy count is the count of the number of devices of a specified class that are busy (in service - in use - occupied) at any particular instant of time.

2.07 Occupancy Counter - An occupancy counter is the register to which the number 1 is added each time a device of a specified class is made busy, and from which the number 1 is subtracted each time a device of the same specified class is made idle. This counter reflects the occupancy count of the device group.

2.08 Idle Count - An idle count is the count of the number of devices of a specified class that are available for use at any particular instant of time. The idle count of a device group subtracted from the total number of devices in the group is the occupancy count of the group.

2.09 Idle Counter - An idle counter is a register from which the number 1 is subtracted each time a device of a specified class is made busy and to which the number 1 is added each time a device of the same class is made idle. This counter reflects the idle count of the device group.

2.10 Seizure and Release Peg Counters - The seizure Peg Counter is incremented by one each time a device of a specified class is seized for a service function. The release Peg Counter is incremented by one each time a device of the same specified class is made idle. Seizure and release Peg Counters are used to maintain the occupancy count of a device group. The release Peg Count of a device group subtracted from the seizure Peg Count of the same device group equals the occupancy count of that device group.

2.11 Peg Count Measurement - A Peg Count measurement is the Peg Count accumulated over a known interval.

2.12 Usage Measurement - A usage measurement is the total accumulated time the devices of a specified class have been in services (in use-busy) during a prescribed interval. Scan intervals for usage measurements are 10, 100 or 180 seconds, and usage is output in CCS.

2.13 CCS - 100 Call Seconds - This is the standard measurement unit for usage measurements in the 4ESS Switch. For example, five trunks busy for 30 minutes (1800 seconds) would be equal to a total usage of 9000 seconds or 90 CCS.

2.14 Accumulating Registers - This register has the contents of a counter added to it periodically to form a cumulative total over a prescribed interval of time.

2.15 Holding Registers - Measurements are stored in holding registers for fixed time periods. Extended interval accumulation and/or outputting of the measurement occurs from these registers.

2.16 Extended Interval Accumulating Registers - The contents of a set of holding registers is summed in this register periodically to form a cumulative total of a measurement over an extended interval of time.

3. THE TRAFFIC/PLANT PROGRAM

3.01 The traffic/plant program routines can be divided into two classes, measuring routines and data collection routines. The measuring routines generate the data from which the various measurements will be obtained. Data collection routines process this data into the measurements required by the users. The basic interval that these two classes of routines use to perform their tasks is 15 minutes (900 seconds). This is the smallest measuring interval available to the users.

The measuring routines are actively obtaining data on the traffic presented to the 4ESS Switch and the equipment in the office during a 15 minute interval. This activity is called the measuring phase of the traffic/plant program's execution. During the next 15 minute interval, the data collection routines process the data obtained during the previous interval into measurements and prepares them for output. This activity is the collection phase of the traffic/plant program's execution. To insure that all data presented to the 4ESS Switch is measured, measuring routines for the present interval and collection routines for the previous interval must execute concurrently.

3.02 Measuring Routines - Practically all the 4ESS Switch programs must, at some time, adjust Peg Counters, occupancy counters and idle counters. These programs are classified as measuring routines. It is not economical to time the busy period of each device requiring usage measurements. The usage is estimated by periodically sampling the occupancy counter or idle counter of the device group, and compiling this count in an accumulating register (during the measuring interval).

This produces an estimate of the actual usage because the measurements obtained assume that the average number of devices that are busy at each sampling is equal to the actual average number busy.

The accuracy of this usage estimate is dependent on the scanning interval, the size of the device group, the average holding time of the devices in the group, and the traffic offered to the group. Since these characteristics vary widely among the devices requiring usage measurements in the 4ESS Switch, and because there are different accuracy requirements for the devices, two scanning intervals have been provided. These intervals are 10 seconds and 180 seconds. They have been chosen to provide the accuracy required while remaining compatible with the rest of the traffic/plant measurement system.

In addition to usage, it is necessary to accumulate certain Peg Counts. Normally, Peg Counters are allowed to accumulate for the entire 15 minutes of measurement interval. However, in some instances, the sizes of the Peg Counters are not large enough to contain counts accumulated over this long an interval. Consequently, it is necessary to recycle those periodically during the measurement interval and transfer the count to larger accumulating registers. To allow for the accumulation of idle, occupancy and Peg Counts, 10 and 180 second accumulating scan routines and accumulating registers are provided.

3.03 Data Collection Routines

A. Measurement Data Collection Routine

To prepare a measurement output, it is first necessary to obtain a data base. This data base has been generated by the measuring routines, and resides in the various counters and accumulating registers. At the end of each measurement interval, the measurement data collection routines will read these counters and accumulating registers, store their contents in one of four blocks of holding registers (on disk) and then recycle the counters and accumulating registers to zero. The holding registers now contain one hours data in four quarter hour blocks that will be further processed into the measurement output.

B. Measurement Data Extended Interval Accumulation Routines

For users requiring measurements accumulated over extended intervals (intervals greater than one hour) it is necessary to provide additional data bases. This is done by accumulating the required data in extended interval accumulating registers provided for these users. This accumulation function is performed by the measurement data extended interval accumulation routines.

C. Measurement Data Output Routines

The data from which an output is generated is contained in the holding registers and in the users' extended interval accumulating registers. The 4ESS Switch measurement data output routines will process this data into a format that can be easily interpreted by the users, and will output the data on TTY, magnetic tape, and/or eventually over Data Link.

4. TRAFFIC/PLANT MEASUREMENT CLASSES

4.01 The Measurement Class - To help with the internal manipulation of data, the set of all traffic/plant measurements has been partitioned into Measurement Classes (MC). Related measurements are, in general, assigned to the same MC. For example, all the Trunk Subgroup measurements make up one MC. Associated with the MCs where required, are blocks of accumulating registers and holding registers on disk.

These MCs, and the associated measurements, are primary sources of data for the Measurement Subclasses (MSCs) and the Output Measurement Sets (OMSs). The MCs are internal and, as such, are not specified for output on the traffic/plant measurement report. All measurements that are available may be scheduled for output by specifying the MSC and the OMS. The minimum output that can be specified is one OMS. All the measurements in that OMS will be output.

4.02 Measurement Class Counter Blocks (MC-CBs) - The counters needed to generate the required measurements for a device group sometimes reside in the memory that is associated with the particular group. For example, many of the Trunk Subgroup (TSG) counters are located in the TSG head cell. However, in many instances there is no associated memory or the memory is not adequate to accommodate all the required counters. For these cases, separate memory blocks are provided for the counters. These memory blocks are assigned to particular MCs and contain only counters used to obtain measurements in a given MC. The memory blocks reside in core and are called MC Counter Blocks (MC-CB). When an MC-CB is generic and fixed in length, the starting address of the block is Compool (predefined by the program). Otherwise, the starting address is contained in a one word head table.

4.03 Measurement Class Accumulating Register Blocks (MC-ARBs) - Accumulating registers must be provided where usage estimates are desired and where Peg Counters are too small to cycle over the complete 15 minute measurement interval. MC Accumulating Register Blocks (MC-ARB's) are provided for those MCs where many accumulating registers are required. Five traffic MC-ARBs are required in the 4ESS Switch. Those blocks that are generic in length reside in the Compool defined section of disk. Those blocks whose length are office dependent reside in the measurements section of disk and are accessed by head tables.

4.04 Measurement Class Holding Register Blocks (MC-HRBs) - At the end of each measurement interval (15 minutes), the measurement data in accumulating registers and counters is stored in holding registers, and then the counters and accumulating registers are recycled to zero. In general, the holding registers are organized into blocks on disk. The blocks are arranged such that the measurement data needed to generate all the measurements in a particular MC accumulated over one 15 minute interval, is contained in one block. These blocks are called MC Holding Register Blocks (MC-HRB). Those blocks, which are generic in length, reside in Compool defined sections (predefined by the Generic Program) of disk. Those blocks whose length is office dependent are located in the measurements section of disk and are accessed by head tables.

There are four MC-HRBs (MC-HRB-0, MC-HRB-1, MC-HRB-2 and MC-HRB-3) associated with each MC. These four MC-HRBs are identical in layout and are used so that, at any instant, they will contain measurement data obtained by the measuring routines during the previous four measurement intervals. This allows measurement data to be recovered for the previous one hour. This organization provides the flexibility needed to accommodate the users' requirements for various measurement accumulation intervals.

Any user may request measurements accumulated over intervals of 15 minutes, 30 minutes, 45 minutes, or 60 minutes without the need of providing accumulating registers since the holding registers effectively do this function. Further information on traffic/plant output schedules will be contained in the section dealing with input and output schedules.

4.05 The Measurement Subclass - To simplify measurement accumulation and output processing and to conserve memory, all the Measurement Classes (MCs) are divided into subsets (which may, or may not, be used to form some of the same measurements) called Measurement Subclasses (MSCs). Within an MSC, all the measurements associated with a particular facility or entity are called an Output Measurement Set (OMS). When a user requests an output of measurements, he identifies those measurements by specifying an OMS within a MSC. The MSCs are defined to meet the users' needs and each has a specific output format for each type of output device used. The subclasses used in the 4ESS Switch and their output formats are described later in this section. The set of OMSs a user wished to accumulate and output make up a traffic schedule. An output schedule is specified by the accumulation interval, the output times, and a set of OMSs. The schedule parameters are input by the user via various traffic input messages.

All the measurements appearing on a particular schedule are accumulated over the same interval. Since the data in the MC-HRB is sufficient to generate measurements accumulated over periods of up to one

hour (in multiples of 15 minutes), extended interval accumulating registers need only be provided when accumulation intervals of greater than one hour are required. To ensure the independence of the schedules requiring them, extended interval accumulating registers are provided for their private use. Only enough extended interval accumulating registers are provided to accommodate the OMSs that a given schedule is designed to output.

5. MEASUREMENT SUBCLASS (MSC) DEFINITIONS

5.01 MSC-OMS Definitions

In the following Tables (00-63), all measurements available are identified by MSC and OMS. Each measurement is specifically defined in the order that it appears in the particular MSC and OMS. Also included is Figure 1, a listing of all the MSCs and OMSs with their titles and the number of counts in each. Figure 2 is an alphabetized listing of all the TRAFFIC/PLANT measurements and their appropriate MSC and OMS.

TABLE 00

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

```
MSC 0  MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD
OMS 0   MF XMTR, IDTS RCVR, AND ODTMFWK XMTR QUEUE-DOMESTIC
               ATT      FAIL      TIME     SZRE     ABAN     USAGE    Q-WAIT
MF XT            0         0         0        0        -         0         -
IDTS             -         -         0        0        0         0         -
ODTMF            -         0         -        0        -         0         0

OMS 1  CCITT5 QUEUE-INTERNATIONAL
Q  ENTRY FAIL         0

OMS 2  MF, DTMF XMTRS, NSCX AND MASFH CKTS
          SEIZURE   SVC USAGE   OVERFLOW
MF              0           0          -
DTMF XMTR       0           0          -
NSCX            0           0          0
MSFHA           0           0          0
MSFHB           0           0          0
SCSB            0           0          0
SETA            0           0          0
SETC            0           0          0
SETD            0           0          0
SETE            0           0          0
SETF            0           0          0
SETG            0           0          0

        MTC USAGE
MF              0
DTMF XMTR       0
NSCX            0
MSFHA           0
MSFHB           -
SCSB            0
SETA            0
SETC            0
SETD            0
SETE            0
SETF            0
SETG            0

OMS 3 BLUE BOX FRAUD
  OVERLOAD  ATTEMPTS  DETECTED   PERSIST    MFR SZ   MFR CCS
         0         0         0         0         0         0
```

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

```
OMS 4  CCS MESSAGE TABLE
  BLUE BOX  OVERFLOW   TIMEOUT   SUCCESS
         0         0         0         0
  BLACK BOX FRAUD
    FEN   RF RCVD
      0         0
      1         0
      2         0
      3         0
      4         0
      5         0
      6         0
      7         0
      8         0
      9         0
     10         0
     11         0
     12         0
     13         0
     14         0
     15         0
    BBP CANCELLED
                0
```

Description of Measurements for MSC 0

OMS 0

MF Transmitter Queue Entry Attempts
Peg Count
(MF XT ATT)

This counter will be incremented by the number of MF calls for which checks are made to determine if there is room on the MF Transmitter Queue.

MF Transmitter Queue Entry Failure
Peg Count
(MF XT FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to be on the MF Transmitter Queue is greater than the number of non-maintenance busy MF transmitters (same count as MSC 11 OMS 5).

MF Transmitter Queue Entry Time Usage
(MF XT TIME)

This counter will be incremented by the number of MF calls that are awaiting the start dial signal after having sent a seizure on the outgoing trunk. This occupancy count will be used to generate the MF start dial usage measurement, the total amount of time MF calls wait for start dial after sending seizure.

MF Transmitter Queue Seizure Peg Count
(MF XT SZRE)

This counter is incremented by one when a Call Register (CR) is linked on the MF Transmitter Queue.

MF Transmitter Queue Usage
(MF XT USAGE)

After each 10 second scan, this counter is incremented by the number of Call Registers linked to the queue. This data will be converted to CCS units by the traffic program before output.

IDTS Receiver Dial Tone Delay Time
Peg Count
(IDTS TIME)

This counter is incremented every time a seizure is received on an IDTS trunk and we are unable to supply an IDTS receiver within 2 seconds.

IDTS Receiver Queue Seizure Peg Count
(IDTS SZRE)

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

This counter is incremented by one when a TR is linked to the IDTS Receiver Queue.

IDTS Receiver Queue Abandon Peg Count
(IDTS ABAN)

This counter is incremented by one each time the TR of a call that is abandoned is unlinked from the IDTS Receiver Queue.

IDTS Receiver Queue Usage
(IDTS USAGE)

After each 10-second scan, this counter is incremented by the number of trunk registers linked to the queue. This data will be converted to CCS units by the Traffic Program before output.

ODTMF Transmitter Queue Entry Failures
(ODTMF FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the DTMF Transmitter Queue, plus the number of calls waiting to be on the DTMF Transmitter Queue is greater than the number of non-maintenance busy DTMF Transmitters.

ODTMF Transmitter Queue Seizure Peg Count
(ODTMF SZRE)

This counter is incremented by one when a Call Register is linked to the DTMF Transmitter Queue.

ODTMF Transmitter Queue Usage
(ODTMF USAGE)

After each 10-second scan, this counter is incremented by the number of Call Registers linked to the queue. This data will be converted to CCS units by the Traffic Program before output.

ODTMF Transmitter Queue Wait
(ODTMF Q-WAIT)

This counter is incremented when a Call Register is placed in a waiting to queue state and decremented when a Call Register is taken off the state.

OMS 1

CCITT No. 5 Queue Entry Failure Peg Count
(Q ENTRY FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to be on the MF Transmitter Queue is greater than the number of non-maintenance busy MF Transmitters. This counter corresponds to the Domestic MF Transmitter queue Entry Failure. The MF Transmitter Queue is shared by both Domestic and international traffic.

OMS 2

MF Transmitter Seizure Peg Count
(MF SEIZURE)

This counter is incremented by one when an idle MF Transmitter is made service busy. This is done by writing a service busy state code in the Transmitter Trunk Register (TR). The MF Transmitter seizure Peg Count reflects not only the number of MF outgoing calls, but also the number of successful reattempts to seize an MF Transmitter for calls that have experienced ineffective attempts during outpulsing.

MF Transmitter Service Usage
(MF SVC USAGE)

After each 10 second scan, this counter will be incremented by the number of MF Transmitters found service busy. This data will be converted to CCS units by the traffic program before output.

DTMF Transmitter Seizure Peg Count
(DTMF XMTR SEIZURE)

This counter is incremented by one for each DTMF transmitter that is busy.

DTMF Transmitter Service Usage
(DTMF XMTR SVC USAGE)

This counter is incremented after each ten-second scan by the number of DTMF transmitters found service busy. This data is converted to CCS units by the traffic program before output.

NSCX Seizure Peg Count
(NSCX SEIZURE)

This counter is incremented by one when an idle NSCX SET S circuit is made service busy.

NSCX Service Usage
(NSCX SVC USAGE)

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

After each 10-second scan, this counter will be incremented by the number of NSCX SET S circuits found service busy. The data will be converted to CCS units by the traffic program before output.

NSCX Overflow Peg Count
(NSCX OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of NSCX SET S circuit requests not fulfilled.

MAS or Expanded Ann. A Seizure Peg Count
(MSFHA SEIZURE)

This counter is incremented by one when a MAS or expanded announcement "A" circuit is made busy.

MAS or Expanded Ann. A Service Usage
(MSFHA SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of MSFHA circuits found service busy. The data will be coverted to CCS units by the traffic program before output.

MAS or Expanded Ann. A Overflow
Peg Count
(MSFHA OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of MAS or expanded announcement "A" circuit requests not fulfilled.

MAS or Expanded Ann. B Seizure Peg Count
(MSFHB SEIZURE)

This counter is incremented by one when a MAS or expanded announcement "B" circuit is made busy.

MAS or Expanded Ann. B Service Usage
(MSFHB SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of MSFHB circuits found service busy. The data will be converted to CCS units by the traffic program before output.

MAS or Expanded Ann. B Overflow
Peg Count
(MSFHB OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of MAS or expanded announcement "B" circuit requests not fulfilled.

SCSB Seizure Peg Count
(SCSB SEIZURE)

This counter is incremented by one when an idle Service Circuit System (SCS) SET B circuit is made service busy.

SCSB Service Usage
(SCSB SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of SCS SET B circuits found service busy. The data will be converted to CCS units by the traffic program before output.

SCSB Overflow Peg Count
(SCSB OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of SCS SET B circuit requests not fulfilled.

SETA Seizure Peg Count
(SETA SEIZURE)

This counter is incremented by one when an idle SCS SET A on ISAIC (Improved Sevice Announcments and Information Collection) circuit is made service busy.

SETA Service Usage
(SETA SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of SCS SET A on ISAIC circuits found service busy. The data will be converted to CCS units by the traffic program before output.

SETA Overflow Peg Count
(SETA OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of SCS SET A on ISAIC circuit requests not fulfilled.

SETC Seizure Peg Count
(SETC SEIZURE)

This counter is incremented by one when an idle SCS SET C on ISAIC circuit is made service busy.

SETC Service Usage
(SETC SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of SCS SET C on ISAIC circuits found service busy. The data will be converted to CCS units by the traffic program before output.

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

SETC Overflow Peg Count
(SETC OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of SCS SET C on ISAIC circuit requests not fulfilled.

SETD Seizure Peg Count
(SETD SEIZURE)

This counter is incremented by one when an idle SCS SET D on ISAIC circuit is made service busy.

SETD Service Usage
(SETD SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of SCS SET D on ISAIC circuits found service busy. The data will be converted to CCS units by the traffic program before output.

SETD Overflow Peg Count
(SETD OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of SCS SET D on ISAIC circuit requests not fulfilled.

SETE Seizure Peg Count
(SETE SEIZURE)

This counter is incremented by one when an idle SCS SET E on ISAIC circuit is made service busy.

SETE Service Usage
(SETE SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of SCS SET E on ISAIC circuits found service busy. The data will be converted to CCS units by the traffic program before output.

SETE Overflow Peg Count
(SETE OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of SCS SET E on ISAIC circuit requests not fulfilled.

SETF Seizure Peg Count
(SETF SEIZURE)

This counter is incremented by one when an idle SCS SET F on ISAIC circuit is made service busy.

SETF Service Usage
(SETF SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of SCS SET F on ISAIC circuits found service busy. The data will be converted to CCS units by the traffic program before output.

SETF Overflow Peg Count
(SETF OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of SCS SET F on ISAIC circuit requests not fulfilled.

SETG Seizure Peg Count
(SETG SEIZURE)

This counter is incremented by one when an idle SCS SET G on ISAIC circuit is made service busy.

SETG Service Usage
(SETG SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of SCS SET G on ISAIC circuits found service busy. The data will be converted to CCS units by the traffic program before output.

SETG Overflow Peg Count
(SETG OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of SCS SET G on ISAIC circuit requests not fulfilled.

MF Transmitter Maintenance Usage
(MF MTC USAGE)

After each 10 second scan period, this counter will be incremented by the number of MF Transmitters found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

DTMF Transmitter Maintenance Usage
(DTMF MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of DTMF transmitters found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

NSCX Maintenance Usage
(NSCX MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of NSCX SET S circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

MAS or Expanded Ann. Maintenance Usage
(MSFHA MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of MAS or expanded announcement "A" circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

SCSB Maintenance Usage
(SCSB MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of SCS SET B circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

SETA Maintenance Usage
(SETA MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of SCS SET A on ISAIC circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

SETC Maintenance Usage
(SETC MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of SCS SET C on ISAIC circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

SETD Maintenance Usage
(SETD MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of SCS SET D on ISAIC circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

SETE Maintenance Usage
(SETE MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of SCS SET E on ISAIC circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

SETF Maintenance Usage
(SETF MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of SCS SET F on ISAIC circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

SETG Maintenance Usage
(SETG MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of SCS SET G on ISAIC circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

OMS 3

Blue Box Fraud Overload
(OVERLOAD)

This counter will be incremented if the Blue Box MF Receiver queue is full, or no receivers are allocated.

Blue Box Fraud Attempts
(ATTEMPTS)

This counter is incremented whenever a fraud call is suspected (i.e., on reception of an unexpected post address wink).

Blue Box Fraud Detected
(DETECTED)

This counter is incremented when on a suspect call, four MF digits are received.

Blue Box Fraud Persisting
(PERSIST)

This count is incremented when an attempted fraud call persists for five minutes.

Blue Box Fraud MF Receiver Seizure
(MFR SZ)

This count is incremented when an MF Receiver is to be used by fraud prevention.

Blue Box Fraud MF Receiver Occupancy
(MFR CCS)

This count is updated every 10 seconds to give Fraud MF Receiver usage.

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

OMS 4

CCS Message Table Blue Box Attempts Peg Count
(BLUE BOX)

This counter is incremented whenever a fraud call is suspected on a Teleconferencing request (i.e, when the second stage call identification cannot be found in the Common Channel Signaling (CCS) message table.

CCS Message Table Overflow Peg Count
(OVERFLOW)

This counter is incremented whenever a CCS message is received from TSPS to load into the CCS Message Table and no room is available.

CCS Message Table Timeout Peg Count
(TIMEOUT)

This counter is incremented when an entry in the CCS Message Table does not receive the subsequent second stage MF digit ID within 15 seconds.

CCS Message Table Success Peg Count
(SUCCESS)

This counter is incremented when the second stage MF digit ID is found in the CCS Message Table.

Black Box Fraud Ring Forwards Received
(RF RCVD)

These counters, which are broken down by the Far End Network (FEN), are incremented each time a ring forward signal is received.

Black Box Fraud Prevention Canceled
(BBP CANCELLED)

On receipt of a ring forward signal from an operator, black box fraud prevention is canceled to allow the operator to service a call.

TABLE 01

OUTPUT MEASUREMENT SETS FOR MSC 1
(MF RCVR AND DTMF RCVR)

```
MSC 1 MF RCVR AND DTMF RCVR
OMS 0
                MF RCVR    DTMF RCVR
SZRE                  0            0
SVC USAGE             0            0
MTCE USAGE            0            0
```

Description of Measurements for MSC 1

OMS 0

MF Receiver Seizure Peg Count
(MF RCVR SZRE)

This counter is incremented by one when an idle MF Receiver is made busy. This is done by writing a service busy state code in the receiver's Trunk Register (TR).

DTMF Receiver Seizure Peg Count
(DTMF SZRE)

This counter is incremented by one when an idle DTMF Receiver is made busy. This is done by writing a service busy code in the Receiver Trunk Register.

MF Receiver Service Usage
(MF RCVR SCV USAGE)

This counter is incremented, after each 10 second scan, by the number of MF Receivers found service busy. This data will be converted to CCS units by the traffic program before output.

DTMF Receiver Service Circuit Usage
(DTMF SVC USAGE)

This counter is incremented, after each 10-second scan, by the number of DTMF Receivers found service busy. This data will be converted to CCS units by the traffic program before output.

MF Receiver Maintenance Usage
(MF RCVR MTCE USAGE)

After each 10 second scan this counter will be incremented by the number of MF Receivers found maintenance busy. This data will be converted to CCS units by the traffic program before output.

DTMF Receiver Maintenance Usage
(DTMF RCVR MTCE USAGE)

After each 10-second scan, this counter will be incremented by the number of DTMF receivers found maintenance busy. This data will be converted to CCS units by the traffic program before output.

TABLE 02

OUTPUT MEASUREMENT SETS FOR MSC 2
(CCIS, ISUP, ITUP AND INUP XCVR)

```
MSC 2  CCIS, ISUP, ITUP AND INUP XCVR
OMS 0
                    SVC       MTCE
          SZRE      USAGE     USAGE     OVFL
XCVR           0         0         0         0

VPA CANC  ISUP XCVR OVFL  ITUP XCVR OVFL  INUP XCVR OVFL
       0          0               0               0
```

Description of Measurements for MSC 2

OMS 0

CCIS Transceiver Seizure Peg Count
(XCVR SZRE)

This counter is incremented by one when an idle CCIS Transceiver is made busy by writing a service state code in the transceivers Trunk Register (TR).

CCIS Transceiver Service Usage
(XCVR SVC USAGE)

After each 10 second scan, this register is incremented by the number of CCIS Transceivers found service busy. This data will be converted to CCS units by the traffic program before output.

CCIS Transceiver Maintenance Usage
(XCVR MTCE USAGE)

This counter is incremented by the number of CCIS Transceivers found maintenance busy after each 10 second scan period. This data will be converted to CCS units by the traffic program before output.

CCIS Transceiver Overflow Peg Count
(XCVR OVFL)

This counter is incremented by one when a hunt for an idle CCIS Transceiver fails because there are no idle Transceivers in the group.

CCIS VPA Cancellation and Path Hunt
Peg Count
(VPA CANC)

Each call will increment this counter by one when the Voice Path Assurance (VPA) test on a CCIS outgoing trunk is canceled because of the current level of overload control. This counter is also incremented when a network path between the CCIS Transceiver and the outgoing trunk can not be found.

ISUP Transceiver Overflow Peg Count
(ISUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle CCS7 Transceiver fails because there are no idle transceivers in the group.

ITUP Transceiver Overflow Peg Count
(ITUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle International Transceiver fails because there are no idle Transceivers in the group.

INUP Transceiver Overflow Peg Count
(INUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle International Transceiver fails because there are no idle transceivers in the group.

TABLE 03

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

MSC 3 OMS	ANCMT CKT TYPE	SZRE	USAGE	OVFL
0	xxx	0	-	-
1	xxx	0	-	-
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
30	xxx	0	-	-
31	xxx	0	-	-
32	TSI 0	-	0	0
	TSI 1	-	0	0
	TSI 2	-	0	0
	TSI 3	-	0	0
	TSI 4	-	0	0
	TSI 5	-	0	0
	TSI 6	-	0	0
	TSI 7	-	0	0
	TSI 8	-	0	0
	TSI 9	-	0	0
	TSI 10	-	0	0
	TSI 11	-	0	0
	TSI 12	-	0	0
	TSI 13	-	0	0
	TSI 14	-	0	0
	TSI 15	-	0	0
33	xxx	0	-	-
34	xxx	0	-	-
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
159	xxx	0	-	-
160	xxx	0	-	-

Description for Measurements for MSC 3

OMS 0-31

Announcement or Tone Group Seizure
Peg Count
(SZRE)

When a path through the network between an incoming trunk and an announcement or tone group has been seized and connected, this counter is incremented by one. The Output Measurement Set (OMS) number will be equal to the announcement or tone group number and the TYPE code is the 1-, 2-, or 3-character code shown below. The following is a list of each OMS and the associated announcement or tone type for announcements on the Recorded Announcement Frame.

OMS 0 - Unassigned (***)
OMS 1 - Audible Ring (AR)
OMS 2 - 120 IPM Tone (T)
OMS 3 - 60 IPM Busy Tone (BT)
OMS 4 - Test Progress Tone (TPT)
OMS 5 - 1000 hz. Milliwatt Test Tone (MW)
OMS 6 - No Circuit Announcement (NCA)
OMS 7 - Vacant Code Announcement (VCA)
OMS 8 - Reorder Announcement (ROA)
OMS 9 - Emergency Announcement No. 1 (EA1)
OMS 10 - Emergency Announcement No. 2 (EA2)
OMS 11 - Special Announcement No. 1 (SP1)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 12 - Special Announcement No. 2 (SP2)

OMS 13 - Idle Wet (IDL)

OMS 14 - High and Wet (HW)

OMS 15 - Idle No Guard Timing (ING)

OMS 16 - 10DB 1004 HZ Test Tone (M10)

OMS 17 - Unassigned (***)

OMS 18 - Misrouted Non-CAMA (MCA)

OMS 19 - No Circuit to Carrier (NCC)

OMS 20 - No Wink to Carrier (NWC)

OMS 21 - INWATS Out-Of-Band Announcement (OOB)

OMS 22 - Emergency Announcement Number 6 (EA6)

OMS 23 - Emergency Announcement Number 3 (EA3)

OMS 24 - Emergency Announcement Number 4 (EA4)

OMS 25 - Network Call Denial (NCD)

OMS 26 - Emergency Announcement Number 7 (EA7)

OMS 27 - All Circuits Busy to Foreign Country (INC)

OMS 28 - Vacant Code on International Call (IVC)

OMS 29 - Emergency Announcement Number 5 (EA5)

OMS 30 - International Foreign Failure (IFF)

OMS 31 - Unassigned (***)

OMS 32

The following two counts are maintained for each dedicated TSI. Each PAS announcement in a MAS office will be assigned to an announcement separation class from 0 to 31. At most one announcement may be assigned to each of the classes 1 to 31. Any number of announcements may be assigned to class 0.

Dedicated TSI Usage
(TSI USAGE)

Every 100 seconds the occupancy of the TSI's dedicated to announcements and tones is accumulated. This data is converted into CCS units by the traffic program before output.

Dedicated TSI Overflow Peg Count
(TSI OVFL)

This counter is incremented by one when an attempt to establish a network connection between an incoming trunk connection and an idle announcement or tone circuit fails because there is no available time slot in the TSI.

OMS 33-160

Announcement or Tone Group Seizure
Peg Count
(SZRE)

When a path through the network between an incoming trunk and an announcement or tone group has been seized and connected, this counter is incremented by one. The Output Measurement Set (OMS) number will be equal to the announcement or tone group number and the TYPE code is the 1-, 2-, or 3-character code shown below. The following is a list of each OMS and the associated announcement or tone type for announcements on the Service Circuit System (SCS) frame. (The first 32 announcements on the SCS are the same as the 32 announcements on the RAF.)

OMS 33 - Unassigned (***)

OMS 34 - Audible Ring (AR)

OMS 35 - 120 IPM Tone (T)

OMS 36 - 60 IPM Busy Tone (BT)

OMS 37 - Test Progress Tone (TPT)

OMS 38 - 1000 hz. Milliwatt Test Tone (MW)

OMS 39 - No Circuit Announcement (NCA)

OMS 40 - Vacant Code Announcement (VCA)

OMS 41 - Reorder Announcement (ROA)

OMS 42 - Emergency Announcement No. 1 (EA1)

OMS 43 - Emergency Announcement No. 2 (EA2)

OMS 44 - Special Announcement No. 1 (SP1)

OMS 45 - Special Announcement No. 2 (SP2)

OMS 46 - Idle Wet (IDL)

OMS 47 - High and Wet (HW)

OMS 48 - Idle No Guard Timing (ING)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 49 - 10DB 1004 HZ Test Tone (M10)

OMS 50 - Unassigned (***)

OMS 51 - Misrouted Non-CAMA (MCA)

OMS 52 - No Circuit to Carrier (NCC)

OMS 53 - No Wink to Carrier (NWC)

OMS 54 - INWATS Out-Of-Band Announcement (OOB)

OMS 55 - Emergency Announcement Number 6 (EA6)

OMS 56 - Emergency Announcement Number 3 (EA3)

OMS 57 - Emergency Announcement Number 4 (EA4)

OMS 58 - Network Call Denial (NCD)

OMS 59 - Emergency Announcement Number 7 (EA7)

OMS 60 - All Circuits Busy to Foreign Country (INC)

OMS 61 - Vacant Code on International Call (IVC)

OMS 62 - Emergency Announcement Number 5 (EA5)

OMS 63 - International Foreign Failure (IFF)

OMS 64 - Unassigned (***)

OMS 65 - Service Not Active (SNA)

OMS 66 - Vacant MAS Announcement (VMA)

OMS 67 - HICAP Out of Time Slot (OTS)

OMS 68 - SUN Transit Outage (STO)

OMS 69 - Vacant 800 Number (NWN)

OMS 70 - Disconnected 800 Number (DNN)

OMS 71 - Temporarily Disconnected 800 Number (TDN)

OMS 72 - INFO 1 ANI Failure (INF)

OMS 73 - LEC EGRESS Busy (NCB)

OMS 74 - Waiting For Answer Timeout (WAT)

OMS 75 - Intra-LATA Call Screening (LSA)

OMS 76 - LEC MAS Service (OOA)

OMS 77 - 700-555-4141 (LDV)

OMS 78 - Logging on Busy (LOB)

OMS 79 - SS7 (UNN)

OMS 80 - Spare (S19)

OMS 81 - SS7 (DOO)

OMS 82- International Subscriber Busy (ISB)

OMS 83 - Emergency Situation (E01)

OMS 84 - Severe Weather (E02)

OMS 85 - Facility Trouble (E03)

OMS 86 - Local Company Trouble (E04)

OMS 87 - Airplane Crash (E05)

OMS 88 - Hurricane (E06)

OMS 89 - Flood (E07)

OMS 90 - Tornado (E08)

OMS 91 - Forest Fire (E09)

OMS 92 - Earthquake (E10)

OMS 93 - Mudslide (E11)

OMS 94 - Major Network Outage (E12)

OMS 95 - Reserved Domestic Network Management (E13)

OMS 96 - Reserved Domestic Network Management (E14)

OMS 97 - Reserved Domestic Network Management (E15)

OMS 98 - Reserved Domestic Network Management (E16)

OMS 99 - Reserved Domestic Network Management (E17)

OMS 100 - Reserved Domestic Network Management (E18)

OMS 101 - Reserved Domestic Network Management (E19)

OMS 102 - Reserved Domestic Network Management (E20)

OMS 103 - Domestic (R01)

OMS 104 - Domestic (R02)

OMS 105 - Domestic (R03)

OMS 106 - Domestic (R04)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 107 - Domestic (R05)

OMS 108 - Domestic (R06)

OMS 109 - Domestic (R07)

OMS 110 - Domestic (R08)

OMS 111 - Domestic (R09)

OMS 112 - Domestic (R10)

OMS 113 - International Emergency Situation (I01)

OMS 114 - International Severe Weather (I02)

OMS 115 - International Telephone Company (I03)

OMS 116 - International Airplane Crash (I04)

OMS 117 - International Earthquake (I05)

OMS 118 - International Mudslide (I06)

OMS 119 - International Fire (I07)

OMS 120 - Reserved International Network Management (I08)

OMS 121 - International Direct Dialing Suspended (I09)

OMS 122 - International Direct Dialing Test (I10)

OMS 123 - International (I11)

OMS 124 - International (I12)

OMS 125 - International (I13)

OMS 126 - International (I14)

OMS 127 - International (I15)

OMS 128 - International (I16)

OMS 129 - International (I17)

OMS 130 - International (I18)

OMS 131 - International (I19)

OMS 132 - International (I20)

OMS 133 - International (I21)

OMS 134 - International (I22)

OMS 135 - International (I23)

OMS 136 - Reserved International Network Management (I24)

OMS 137 - Reserved International Network Management (I25)

OMS 138 - Reserved International Network Management (I26)

OMS 139 - Reserved International Network Management (I27)

OMS 140 - Reserved International Network Management (I28)

OMS 141 - Reserved International Network Management (I29)

OMS 142 - Reserved International Network Management (I30)

OMS 143 - Spare (S01)

OMS 144 - Spare (S02)

OMS 145 - Spare (S03)

OMS 146 - Spare (S04)

OMS 147 - Spare (S05)

OMS 148 - Spare (S06)

OMS 149 - Spare (S07)

OMS 150 - Spare (S08)

OMS 151 - Spare (S09)

OMS 152 - Spare (S10)

OMS 153 - Spare (S11)

OMS 154 - Spare (S12)

OMS 155 - Spare (S13)

OMS 156 - Spare (S14)

OMS 157 - Spare (S15)

OMS 158 - Spare (S16)

OMS 159 - Spare (S17)

OMS 160 - Spare (S18)

TABLE 04

OUTPUT MEASUREMENT SETS FOR MSC 4
(NETWORK)

```
MSC 4 NETWORK
OMS 0
PATH HUNT SUCS  PATH HUNT FAIL   USAGE  LSNC INTRABUF
         0               0           0           0

OMS 1  SVC OBSV
SVC OBSV NETWORK USAGE
              0
```

Description of Measurements for MSC 4

OMS 0

Network Path Hunt Success Peg Count
(PATH HUNT SUCS)

This counter is incremented by one when a path through the network has been seized by setting the appropriate bits in the time division map. This action either reserves a path between an incoming trunk and an outgoing trunk or corresponds to the connection of a service circuit to an incoming or outgoing trunk.

Network Path Hunt Failure Peg Count
(PATH HUNT FAIL)

When an attempt to seize an idle path through the network has failed because it appeared that no acceptable idle path was available, this counter is incremented by one. This counter contains the total number of network path hunt failures whereas the final trial network path hunt failure Peg counter (MSC 11 OMS 1) contains only the count of calls sent to final handling because of network path hunt failure.

Network Total Usage
(USAGE)

After every 180 second scan, the total number of occupied paths in the network is added to this counter. This data is converted to CCS by the traffic program before output.

Large Scale Nail-Up Intra-Buffer Count
(LSNC INTRABUF)

This is a count of large scale nail up (LSNC) intra-buffer connections.

OMS 1

Service Observing Network Usage
(SVC OBSV NETWORK USAGE)

This counter will show the total usage on the two service observing Trunk Subgroups. It will be used as an estimate of the network usage generated by service observing.

TABLE 05

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

```
MSC 5 OFFICE TOTALS
OMS 0
  INC    OUTWATS   OG IT   OG TC   DNHR    DNHR    NCAT
 CALL      ORIG      SZ      SZ     VTS     TTS     SUC
    0         0       0       0       0       0       0

OMS 1
   MF       DP-DD     DP-IS     CCIS    CCIS-2W     IDTS    IDTS-DP
INC SZRE  INC SZRE  INC SZRE  INC CALL  INC SZRE  INC SZRE  INC SZRE
       0         0         0         0         0         0         0

IDTMFWK   ODTMFWK     Q931      Q931      Q931    ISUP-2W   ISUP-4W
INC SZRE  OUT SZRE  INC SZRE  OUT SZRE  CN SETUP  INC SZRE  INC SZRE
       0         0         0         0         0         0         0

  ISUP     BBC-6     BBC-24    BBC-6     BBC-24     BSSP      BSSP
OUT SZRE  INC SZRE  INC SZRE  OUT SZRE  OUT SZRE  INC SZRE  OUT SZRE
       0         0         0         0         0         0         0

  NCAT     BBC-6     BBC-24    BBC-6     BBC-24
ATTEMPTS  OPRI ATT  OPRI ATT  RCVD ATT  RCVD ATT
       0         0         0         0         0

OMS 2
MF OPLS   DP OPLS    CCIS OG
ATTEMPTS  ATTEMPTS     CALLS
       0         0         0

OMS 3
STABLE CALLS LOST, CGF
            0

OMS 4  INTERNATIONAL INCOMING
           CCITT#5   CCITT#6      ITUP   INUP
ATTEMPTS         0         0         0      0
         CUSTOMER  OPERATOR      TEST   TRANSIT    EN-BLOC
CALLS            0         0         0         0          0

OMS 5 INTL OUTGOING
           CCITT#5   CCITT#6    ITUP    INUP
ATTEMPTS         0         0       0       0
              SENT       REC    ISUP
OVERFLOWS        0         0       0
              CUST   OP   PCC NG
CALLS            0    0        0
```

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

```
OMS 6   NETWORK CLOCK SYNC UNIT PERFORMANCE MEASUREMENTS
                  --- TOTAL --- ---- REG ---- ---- ALT ----
                      PC    DUR     PC    DUR     PC    DUR
FREE RUN               0      0
FREE RUN < 10 MIN      0
REFERENCE OUTAGE       -      -      0      0      0      0
PHASE HITS             0      -      0      -      0
FREQUENCY OFFSET       -      -      0      -      0
PHASE ERRORS           -      -      0      -      0
FAST START TO          0
FAST STARTS            0      0
REFERENCE OOS          -      -      0      0      0      0
TRANSFER TO ALT        0      0
TRANSMISSION SLIPS     -      -      0      -      0

OMS 7  SERVICE OBSERVING
  ---- TRUNK A ---
  SEIZURES   USAGE
        0        0

OMS 8  CALLS ORIG,TERM
    ORIG OGA            0
  TERM ATTS
    PAS                 0

OMS 9  MAS IRREGULARITIES
  MAS IRREGULARITIES
    NO ANS DUE TO CCIS              0
    TELEVOTE DIRECT SIG FAIL        0
```

Description of Measurements for MSC 5

OMS 0

Total Incoming Calls Peg Count
(INC CALL)

This counter is incremented for every incoming call for which at least one digit has been received.

OUTWATS Originating Calls Peg Count
(OUTWATS ORIG)

This count is incremented by one when an OUTWATS Call is attempted.

Total Outgoing Intertoll Trunk Seizure
Peg Count
(OG IT SZ)

This counter is set to the sum of the outgoing seizure Peg Counts collected from all outgoing intertoll TSGs at the time of the collection of TSG data.

Total Outgoing Toll Completing Trunk
Seizure Peg Count
(OG TC SZ)

This counter is set to the sum of the outgoing seizure Peg Counts collected from all outgoing toll connecting and toll completing TSGs at the time of the collection of TSG data.

Total Via Toll Switch Calls
(DNHR VTS)

This counter is incremented by one when the total number of calls entering the node from any DNHR TSG is serving as a Via Toll Switch.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

Total Terminating Toll Switch Calls
(DNHR TTS)

This counter is incremented by one when the total number of calls entering the node from any DNHR TSG is serving as a Terminating Toll Switch.

Non-Call Associated Temporary
Signaling Connection (TSC) Successes
(NCAT SUC)

This counter registers the number of successful TSC connections made through the 1B.

OMS 1

MF Incoming Seizure Peg Count
(MF INC SZRE)

This counter is incremented at the start of each base level cycle by the number of MF originations processed in the last base level cycle. This count of originations includes false starts, permanent signals, continuity test failures, as well as incoming calls.

DP Delay Dial Incoming Seizure Peg Count
(DP-DD INC SZRE)

When a DP origination is recognized on a DP delay dial trunk, this counter is incremented by one.

DP Immediate Start Incoming Seizure
Peg Count
(DP-IS INC SZRE)

When a DP origination is recognized on a DP immediate start trunk, this counter is incremented by one.

CCIS Incoming Calls Peg Count
(CCIS INC CALL)

This counter is the sum of CCIS CR seizures and CCIS CR queue overflows.

CCIS 2-Wire Incoming Seizure Peg Count
(CCIS-2W INC SZRE)

This count is incremented by one when a CCIS origination is recognized on a 2-wire incoming trunk.

IDTS Incoming Seizure Peg Count
(IDTS INC SZRE)

This counter is incremented by one for each Incoming Dial Tone Start (IDTS) seizure processing attempt.

IDTS DP Incoming Seizure Peg Count
(IDTS-DP INC SZRE)

This counter is incremented by one for each IDTS seizure processing attempt that is followed by a DP digit.

IDTMFWK Incoming Seizure Peg Count
(IDTMFWK INC SZRE)

This counter is incremented by one for each Incoming Dual-Tone Multifrequency Wink (IDTMFWK) seizure processing attempt.

ODTMFWK Outgoing Seizure Peg Count
(ODTMFWK OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing Dual-Tone Multifrequency Wink (ODTMFWK) trunk is to be seized.

Q.931 Incoming Seizures
(Q931 INC SZRE)

This counter is incremented by one for each Q.931 seizure processing attempt.

Q.931 Outgoing Seizures
(Q931 OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing Q.931 trunk is to be seized.

Q.931 Channel Negotiation Setup
(Q931 CN SETUP)

This counter is incremented by one each time a Q.931 Channel Negotiation Setup message is sent.

The CCIS incoming calls count is calculated each quarter hour. A summation of the CCIS call register seizure Peg Count, the CCIS origination call register queue Overflow Peg Count, and the CCIS origination call register queue abandon Peg Count is stored in this counter.

ISUP 2-Wire Incoming Seizures
(ISUP-2W INC SZRE)

This counter is incremented by one for each ISUP seizure processing attempt received over a 2-wire trunk.

ISUP 4-Wire Incoming Seizures
(ISUP-4W INC SZRE)

This counter is incremented by one for each ISUP seizure processing attempt received over a 4-wire trunk.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

ISUP Outgoing Seizures
(ISUP OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing ISUP trunk is to be seized.

Broadband Call 6-Trunk Incoming Seizures
(BBC-6 INC SZRE)

This counter is incremented by one for each H0 (384K bps) call seizure processing attempt received.

Broadband Call 24-Trunk Incoming Seizures
(BBC-24 INC SZRE)

This counter is incremented by one for each H11 (1536K bps) call seizure processing attempt received.

Broadband Call 6-Trunk Outgoing Seizures
(BBC-6 OUT SZRE)

This counter is incremented by one when trunk hunt determines enough trunks are available to be seized to process an H0 call.

Broadband Call 24-Trunk Outgoing Seizures
(BBC-24 OUT SZRE)

This counter is incremented by one when trunk hunt determines enough trunks are available to be seized to process an H11 call.

BOC SSP MF Incoming Seizures
(BSSP INC SZRE)

This counter is incremented by one when the first stage digit sequence on a MF trunk is translated with a result of BOC SSP Equal Access.

BOC SSP MF Outgoing Seizures
(BSSP OUT SZRE)

This counter is incremented by one when a trunk is seized for feature Group "D" or BOC SSP Equal Access call.

Non-Call Associated Temporary
Signaling Connection (TSC) Attempt
(NCAT ATTEMPTS)

This counter is incremented by one when a Non-Call Associated TSC request is received.

Broadband Call 6 - Originating Data
Attempts From a PRI Peg Count
(BBC-6 OPRI ATT)

This counter is incremented by one for each originating inter-LATA H0 (384K bps) data call attempt received from a PRI.

Broadband Call 24 - Originating Data
Attempts From a PRI Peg Count
(BBC-24 OPRI ATT)

This counter is incremented by one for each originating inter-LATA H11 (1536K bps) data call attempt received from a PRI.

Broadband Call 6 - Data Calls
Received From an IEC Peg Count
(BBC-6 RCVD ATT)

This counter is incremented by one for each H0 (384K bps) data call received from an IEC terminating through an Access Tandem.

Broadband Call 24 - Data Calls
Received From an IEC Peg Count
(BBC-24 RCVD ATT)

This counter is incremented by one for each H11 (1536K bps) data call received from an IEC terminating through an Access Tandem.

OMS 2

MF Outpulsing Attempts Peg Count
(MF OPULS ATTEMPTS)

This measurement reflects the total number of MF outgoing call attempts. This counter reflects not only the number of MF outgoing calls, but also the number of times MF outpulsing recurred for MF calls that experienced ineffective attempts during outpulsing and for which retrial trunk hunts were performed.

DP Outpulsing Attempts Peg Count
(DP OPULS ATTEMPTS)

This counter is incremented by one when DP outpulsing is first attempted for an outgoing DP call. That is, when the first digit to be outpulsed is sent to the Signal Processor. This counter reflects not only the number of DP outgoing calls, but also the number of times DP outpulsing recurred for DP calls that experienced ineffective attempts during outpulsing and for which retrial trunk hunts were performed.

CCIS Outgoing Calls Peg Count
(CCIS OG CALLS)

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

This measurement reflects the total number of all CCIS outgoing calls. Every call for which an initial address message is transmitted is included in this count. This measurement also reflects the number of times retrial trunk hunts were performed for CCIS outgoing calls for which a backward failure message is received or for which the Voice Path Assurance test fails.

OMS 3

Stable Calls Lost, Carrier Group
Failure Peg Count
(STABLE CALLS LOST, CGF)

For each call in the waiting-for-answer state or in the talking state that is lost because of a Carrier Group Failure, this counter is incremented by one.

OMS 4

CCITT No. 5 Incoming Attempts Peg Count
(CCITT#5 ATTEMPTS)

This count is incremented by one when a CCITT No. 5 incoming seizure is recognized by the system.

CCITT No. 6 Incoming Attempts Peg Count
(CCITT#6 ATTEMPTS)

This count is incremented by one when a CCITT No. 6 incoming seizure is recognized by the system.

ITUP Incoming Attempts Peg Count
(ITUP ATTEMPTS)

This counter is incremented by one for each International Telephone User Part (ITUP) seizure processing attempt received.

INUP Incoming Attempts Peg Count
(INUP ATTEMPTS)

This counter is incremented by one for each International User Part (INUP) seizure processing attempt received.

International Incoming Customer
Dialed Calls Peg Count
(CUSTOMER CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming call that was customer dialed.

International Incoming Operator
Dialed Calls Peg Count
(OPERATOR CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming call that was operator dialed.

International Incoming Test Calls Peg Count
(TEST CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming test call.

International Incoming Transit Calls
Peg Count
(TRANSIT CALLS)

This counter is incremented by one after the incoming digit was analyzed and the call was found to have been an international incoming transit call.

International Overlap to
Enblock Signaling Peg Count
(EN-BLOC CALLS)

This counter is incremented whenever the overlap to en-bloc procedure is invoked.

OMS 5

CCITT No. 5 Outgoing Attempts Peg Count
(CCITT#5 ATTEMPTS)

This count is incremented by one when a CCITT No. 5 outgoing seizure is recognized by the system.

CCITT No. 6 Outgoing Attempts Peg Count
(CCITT#6 ATTEMPTS)

This count is incremented by one when a CCITT No. 6 outgoing seizure is recognized by the system.

ITUP Outgoing Attempts Peg Count
(ITUP ATTEMPTS)

The counter is incremented by one when trunk hunt determines an outgoing ITUP trunk is to be seized.

INUP Outgoing Attempts Peg Count
(INUP ATTEMPTS)

The counter is incremented by one when trunk hunt determines an outgoing INUP trunk is to be seized.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

International Outbound Overflow Sent to Alternate Office Peg Count
(OVERFLOWS SENT)

This counter is incremented by one when the intended CCITT No. 5 or CCITT No. 6 route is in a no circuit condition and the call is passed to an alternate International Office for completion.

International Outbound Overflow Received from Alternate Office Peg Count
(OVERFLOWS REC)

This counter is incremented by one when another International Office has no CCITT No. 5 or CCITT No. 6 circuits for outbound calls and the call is passed to this International office for completion.

International ISUP Outbound Overflow Peg Count
(OVERFLOWS ISUP)

This counter is incremented by one when the intended CCITT #5 or CCITT #6 route is in a NO circuit condition and the call is passed to an alternate ISC for completion via ISUP trunks.

International Outgoing Customer Dialed Calls Peg Count
(CUST CALLS)

This is a count of the domestically originated, customer dialed calls destined for non-world zone 1 termination. This count is pegged by call processing after digit analysis.

International Outbound Operator Dialed Call Peg Count
(OP CALLS)

This counter is incremented by one on receipt of an International outbound call from an IOC or IOTC operator.

Pseudo Country Code No Good Peg Count
(PCC NG CALLS)

This counter is incremented by one when a pseudo country code is received on a one-stage call.

OMS 6

For several events in the NCSU, peg count and duration counts are kept. Peg count is defined as the number of times an event occurs. Duration is defined as the length of time the event took, in 8-second intervals.

Free Run
(FREE RUN)

Free run occurs when the NCSU is decoupled from the external reference. Total peg count and duration counters are maintained.

Free Run Less Than 10 Minutes
(FREE RUN < 10 MIN)

Total peg count of free run occurrences less than 10 minutes.

Reference Outage
(REFERENCE OUTAGE)

Reference outage is impairment of the reference. Regular and alternate reference peg counts and duration counters are maintained.

Phase Hits
(PHASE HITS)

A phase hit is defined as a step change in phase error exceeding 5 microseconds. Total, regular, and alternate reference peg counts are maintained.

Frequency Offset
(FREQUENCY OFFSET)

Frequency offset is defined as the frequency offset of the selected reference relative to the VCO (Voltage Control Oscillator) of one part in 100,000,000 or more. Regular and alternate reference peg counts are maintained.

Phase Errors
(PHASE ERRORS)

A Phase Error is one that is outside the range of about $\pm$ 60 microseconds from center of the phase comparator range. Regular and alternate reference peg counts are maintained.

Fast Start Timeout
(FAST START TO)

A fast start TO occurs when the NCSU fails to enter normal mode from fast start within 40 minutes. Total peg count is maintained.

Fast Starts
(FAST STARTS)

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

Fast starts are defined as the number of fast starts entered since the last look. Total peg count and duration counters are maintained.

Reference OOS
(REFERENCE OOS)

Reference OOS occurs when the reference is out of service. Regular and alternate reference peg counts and duration counts are maintained.

Transfer to Alternate
(TRANSFER TO ALT)

This counter keeps track of the number of times the alternate reference was made active. Total peg count and duration counts are maintained.

Transmission Slips
(TRANSMISSION SLIPS)

This counter keeps track of the number of slip impairments on the regular or alternate references. Peg counts are maintained.

OMS 7

Service Observing Trunk A Seizure Peg Count
(TRUNK A SEIZURES)

This counter is incremented by one each time an attempt is made to establish a Service Observing Trunk A connection.

Service Observing Trunk A Usage
(TRUNK A USAGE)

This measurement reflects the time, measured in CCS, that Service Observing is in effect. This count differs from MSC 4, OMS 1 which is the sum of the usage on the two Trunk Subgroups for Service Observing and results in an estimate of network occupancy due to Service Observing.

OMS 8

4ESS Switch Originated Outgoing Attempts
(ORIG OGA)

This counter keeps track of the number of attempts to seize a CR for a 4ESS Switch originated outgoing call. Noted that this count is not limited to MAS related calls. Initially it will include attempts occurring during the direct producer callback and trunk maintenance outgoing test attempts.

Total Attempts to PAS Announcements
(PAS TERM ATTS)

This counter keeps track of the number of attempts to reach PAS announcements, including PAS with TELEVOTE and with cut-through calls.

OMS 9

Customer Calls To MAS Which No Answer Supervision Is Returned Due To CCIS Terminal Congestion
(NO ANS DUE TO CCIS)

This counter keeps track of the number of customer calls to MAS on CCIS trunks that are successfully connected to announcement audio but do not have answer supervision returned because call processing detects that the CCIS terminal is overloaded.

TELEVOTE CCIS Direct Signaling Counts Not Updated
(TELEVOTE DIRECT SIG FAIL)

This counter keeps track of the number of nonzero counts received at a TELEVOTE machine in a CCIS direct signaling message, for which no counter can be located for the MAPN and line number associated with the count in the direct signaling message.

TABLE 06

OUTPUT MEASUREMENT SETS FOR MSC 6
(BOC SSP MEASUREMENTS)

```
MSC 6 BOC SSP MEASUREMENTS

OMS 0
  TOS   SEIZURES
    0       0
    1       0
    2       0
    3       0
          .
          .
          .
   28       0
   29       0
   30       0
   31       0


  TOS   INIT QUERIES
    0       0
    1       0
    2       0
    3       0
          .
          .
          .
   28       0
   29       0
   30       0
   31       0

  TOTAL INITIAL QUERIES
            0
```

Description of Measurements for MSC 6

OMS 0

BOC SSP Seizures
(SEIZURES)

Each time a BOC SSP Number Services origination is detected, a counter is incremented by one, depending on the Type Of Service (TOS).

BOC SSP Initial Queries
(INIT QUERIES)

Each time a BOC SSP Number Services Query is sent to the database, a counter is incremented by one, depending on the Type Of Service (TOS).

TABLE 07

OUTPUT MEASUREMENT SETS FOR MSC 7
(INCOMING IRREGULARITIES)

```
MSC 7 INCOMING IRREGULARITIES
OMS 0

        MF EQ  DP EQ   Q931   ISUP  ITUP  INUP  DTMF  IOC

  PST       0      0      0      0     0     0     0    0
  FSA       0      0      0      0     0     0     0    0
  PDA       0      0      0      0     0     0     0    0
  PDT       0      0      0      0     0     0     0    0

OMS 1
  INC   8 DIG   DP DIG  INC DP  OPLS DP
 DPED   NC CR    LOST   WL FULL WL FULL
    0       0       0       0       0
```

Description of Measurements for MSC 7

OMS 0

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing

b. DP trunks with equipment, operator or by-link pulsing

c. Q.931 trunks

d. ISUP trunks

e. ITUP trunks

f. INUP trunks

g. DTMF trunks with equipment or customer pulsing

h. IOC

Permanent Signal Timeout Peg Count
(PST)

These counters will be incremented by one each time a bid for service is received on an incoming trunk, but no digits are received within the permanent signal time out interval.

False Start Abandon Peg Count
(FSA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk but no digits are received, and the call is abandoned before permanent signal timeout.

Partial Dial Abandon Peg Count
(PDA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk and at least one digit but less than the expected number of digits is received, and the bid is removed before partial dial timeout.

Partial Dial Timeout Peg Count
(PDT)

Each time at least one but less than the expected number of digits is received before timeout on an incoming trunk, one of these counters will be incremented by one.

OMS 1

Incoming DP Early Digit Peg Count
(INC DPED)

This counter is incremented by one when a call is sent to final handling treatment after the reception of a digit buffer report from the Signal Processor. This report shows that a DP change of state occurred before the time when the system is ready to receive digits. This count is incremented for both immediate start and delay dial/start dial trunks.

Eighth Digit No Call Register Peg Count
(8 DIG NO CR)

TABLE 07 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 7
(INCOMING IRREGULARITIES)

This counter will be incremented by one when the eighth digit is received for a DP call waiting on the DP CR queue and no CR is available, resulting in the call being sent to final handling treatment.

DP Digit Lost Peg Count
(DP DIG LOST)

This counter will be incremented by the number of calls lost due to failure to load a DP digit into the digit buffer because of digit buffer congestion.

Incoming DP Work List Full Peg Count
(INC DP WL FULL)

This counter is incremented by one when the first call is sent to final handling treatment after the reception of a digit buffer incoming DP worklist full report from the SP. All succeeding calls trying to get on the full worklist will not be scored. A system audit is required to reset the worklist before new entries can be accepted.

DP Outpulsing Work List Full Peg Count
(OPLS DP WL FULL)

When a call is sent to final handling treatment because the Signal Processor DP outpulsing worklist is full, this counter will be incremented by one.

TABLE 08

OUTPUT MEASUREMENT SETS FOR MSC 8
(reserved for future use)

```
This table reserved for MSC 8.
```

TABLE 09

OUTPUT MEASUREMENT SETS FOR MSC 9
(PROCESSOR LOAD)

```
MSC 9 PROCESSOR LOAD
OMS 0
AVG BASE LEV MSEC
        0

OMS 1  BASE LEVEL PEG CNTS
  CANCEL OVLD          0

                     NONE       MAC       SGMT
  NONLOAD CONT          0         0          0

                   LEV(1)    LEV(2)    LEV(3)
  LOAD CONT             0         0          0

  NO TRKS HNTD          0
```

Description of Measurements for MSC 9

OMS 0

Average Base Level Cycle Length In Milliseconds
(AVG BASE LEV MSEC)

This time is calculated by multiplying the number of 10 millisecond interjects that occur in a 15 minute collection interval by 10 and dividing this product by the number of base level cycles, thus yielding average time in milliseconds. The time spent in maintenance interrupts is not included in the average length. Average base level cycle time is corrected for intervals longer than 15 minutes by summing the 15 minute averages and dividing by the number of quarter hours in the accumulation interval.

*Note: The sum of the next 7 counts equals the number of base level cycles in the accumulation interval.

OMS 1

Cancel Overload in Effect Peg Count
(CANCEL OVLD)

This counter is incremented at the beginning of each base level cycle if the cancel overload key at the MCC is activated.

Non-Load No Overload Control Peg Count
(NONLOAD CONT NONE)

This measurement reflects the number of base level cycles during which no overload controls were in effect or when cancel overload was not in effect.

Non-Load MAC Overload Control Peg Count
(NONLOAD CONT MAC)

This counter is incremented by the overload control program at the beginning of each base level cycle if it had instituted the set of state two controls in the previous base level cycle. These controls are nonload affecting, but restrict the number of segments allowed the Maintenance Administration Control (MAC) program in the base level cycle.

Non-Load Segment Overload Control Peg Count
(NONLOAD CONT SGMT)

At the beginning of each base level cycle, this counter is incremented by the overload control program if the set of state three controls had been instituted in the previous base level cycle. These controls are nonload affecting, but restrict the number of segments that are allowed for deferrable programs. In addition, a total Dynamic Overload Control (DOC) MC1 control is sent out to contiguous offices.

Load Level 1 Overload Control Peg Count
(LOAD CONT LEV 1)

This counter is incremented at the beginning of each base level cycle if the overload load control program had instituted the set of state four controls in the previous base level cycle. These controls reduce the accepted load to an overload Level 1, further reduce the number of segments that MAC can have, and restrict

TABLE 09 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 9
(PROCESSOR LOAD)

the Voice Path Assurance (VPA) test for CCIS outgoing calls.

Load Level 2 Overload Control Peg Count
(LOAD CONT LEV 2)

The overload control program will increment this counter at the beginning of each base level cycle, if the set of state five controls had been instituted in the previous cycle. These controls further reduce the accepted load to an overload level 2 and send out a total DOC, MC2, control to contiguous offices.

Load Level 3 Overload Control Peg Count
(LOAD CONT LEV 3)

This counter is incremented by the overload control program at the beginning of each base level cycle if it had instituted the set of state six controls in the previous base level cycle. These controls reduce the accepted load to zero.

No Trunks Hunted
(NO TRKS HNTD)

This counter is incremented by the number of base level cycles in which no trunks were hunted.

TABLE 10

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

MSC 10 TRAFFIC SEPARATIONS

OMS	SZRE	USAGE
0	0	0
1	0	0
2	0	0
.	.	.
.	.	.
.	.	.
1021	0	0
1022	0	0
1023	0	0

Description of Measurements for MSC 10

Traffic Separations

Measurement subclass 10 is the traffic separations and distribution measurement class. Each call successfully processed by the 4ESS Switch will fall into a traffic separations category (determined by the incoming TSG, domain and designation code of the call). The traffic separation incoming TSG class (INSEP) is specified in the trunk block translator, while the destination class (DESEP) is a code grouping translator item. There can be up to 256 traffic separations incoming TSG classes and 256 destination classes, with DESEP 0 not available for general assignment. Each (INSEP, DESEP) pair is assigned a Cell-Grouping Index. There are 1024 Cell-Grouping Indexes, each of which is associated with an OMS. The only measurements required in this MSC are the traffic separations class usage and Peg Count measurements.

The traffic separations class measurements provide the data required to facilitate divisions of revenue and to perform a variety of engineering, dial administration, and Network Management functions.

Traffic separations counts are accumulated primarily to provide breakdowns of the total toll telephone traffic. These may be based on variables such as geographic locality, Trunk Subgroup ownership (Long Lines, Associated Company or Independent Company), and type of traffic (message toll, CAMA, operator handled, local tandem, data PICTUREPHONE, and private network).

In addition to these measurement functions, the traffic separations MSC can be used, if required, to determine the quantity of "through" traffic switched by the machine. This is a count of calls that enter the system via intertoll trunks and are destined for distant toll centers. To accomplish this, it is necessary to assign the Cell Grouping Indexes so that none of these classes represent both interstate and intrastate traffic.

The traffic separations classes usage in conjunction with service circuit and trunk maintenance network usage provide an estimate of total network usage for output in usage measurement form at the MCC and on traffic schedules.

Traffic separations counters provide Peg Count and usage measurements for separations classes to which have been assigned selected destination codes or groups of codes. This facility enables the network manager to obtain a breakdown of the traffic items that may be offered to a particular route. The traffic separations class concept provides the network manager with the mechanism to analyze traffic patterns through the toll hierarchy. These patterns can be defined by categorizing traffic with respect to where it originates and terminates:

Category 1 identifies traffic from or terminating in an office that is served by a different regional center switching machine (including regional center traffic) than the 4ESS Switch.

Category 2 identifies traffic from or terminating in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes traffic to the home regional.

Category 3 identifies traffic from or terminating in an office that is lower in the hierarchical network and "homes" (i.e., is in the direct routing ladder) on the 4ESS Switch.

Category 4 identifies traffic from or terminating in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those

TABLE 10 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

end offices.

To provide data to light lamps in the traffic pattern module of the 4ESS Switch toll Network Management exception panel, the INSEP classes must be associated with one of the four incoming TSG classifications.

1. Foreign region TSGs,
2. Home region TSGs,
3. Subtending office TSGs, and
4. Home toll center area TSGs

Category 1 includes those Trunk Subgroups whose far end is in an office that is served by a different regional center switching machine (including Trunk Subgroups to that regional center) than the 4ESS Switch.

Category 2 includes Trunk Subgroups whose far end is in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes Trunk Subgroups to the home regional.

Category 3 includes Trunk Subgroups whose far end is in an office that is lower in the hierarchical network and "homes" (i.e., is in the direct routing ladder) on the 4ESS Switch.

Category 4 includes Trunk Subgroups whose far end is in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those end offices.

The 4ESS Switch office may not have representative Trunk Subgroups in all the categories. For instance, high volume tandem offices will probably not have Trunk Subgroups from the Home Toll Center area.

The DESEP classes must be associated with one of the four destination code classifications:

1. Foreign region codes,
2. Home region codes,
3. Subtending office codes, and
4. Home toll center area codes.

Category 1 includes those destination codes that terminate in an office that is served by a different regional center switching machine (including codes to that regional center) than the 4ESS Switch.

Category 2 includes destination codes that terminate in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes codes to the home regional.

Category 3 includes destination codes that terminate in an office that is lower in the hierarchical network and "homes" (i.e., in the direct routing ladder) on the 4ESS Switch.

Category 4 includes destination codes that terminate in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those end offices.

With the exception of summing the separation class usage counts to calculate one of the components of the total network usage count, no other summing over Cell Groupings will be performed by traffic measurements programs. Therefore, the "through switched traffic" Peg Count and the measurements for the four categories specified above will be computed by the Network Management program PA-1 (Traffic Pattern Overview).

Since the integrity of these seizure release counters is not infallible, audits will be necessary to insure the accuracy of the traffic separations class usage counts. This audit (number 33) is designed such that the traffic separations measurements can be maintained while it is being executed. Consequently, Cell Grouping 0 has been reserved for the traffic separations class usage count audit. Several functions are responsible for adjusting counters in addition to, or with, call processing routines. It is desirable to isolate the effects of some of these functions and, for that reason, an INSEP class (31) is generally assigned to both system integrity test call TSGs and maintenance test access trunks. All (outpulsed) trunk maintenance calls for which digit translation is done, and for which call processing sets up the connection, will be tagged with this appropriate INSEP class.

The appropriate DESEP class will be found in the digit translator. These are trunk maintenance outpulsed calls for which no digit translation is done. (The origination of a system integrity test call is an example.) For this reason, a DESEP class must be supplied to enable call processing to set up the connection. These calls will be with the appropriate INSEP class and a generically assigned DESEP class (63). Generic assignment of INSEP and a DESEP class does not preclude their assignment to other TSGs and destination codes if this is required. However, INSEP class (31) and DESEP class (63) will be generically assigned to Cell-Grouping (1).

Point-to-point distribution studies (this feature will not be available for phase 1) will be made at appropriate times to determine the distribution of the flow of traffic through an office. The data for this study is obtained by

TABLE 10 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

recording (on high speed magnetic tape in standard ASCII characters) pertinent information on a sampling of the successfully handled calls processed by the office. A successfully processed call is, by definition for the traffic system, one that goes into the "waiting-for-answer" state. After this time in the call processing sequence, some of the data required by the point-to-point studies is no longer available. For every Nth successfully processed call, this system will record the identity of the incoming trunk, the identity of the outgoing trunk to which it was connected, call area and office codes, and traveling classmark (if used to indicate domain and/or routing treatment). The value of N will be based on real time and data volume considerations. Information obtained from the sampled calls will not be available for output on the traffic schedules. This data will be processed off line.

OMS 0-1023

There are 1024 Cell Groupings, each of which corresponds to an OMS.

Traffic Separation Class Seizure Peg Count
(TRAFFIC SEPARATIONS SZRE)

This counter is incremented by one just before a call goes into the waiting-for-answer state. The Cell Grouping Index will reside in the CR, and can be retrieved to index the counter block.

Traffic Separation Class Usage
(TRAFFIC SEPARATIONS USAGE)

After each 100 second scan, this register will be incremented by the number of calls (for this Cell Grouping) that are found busy to obtain CCS.

TABLE 11

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

```
MSC 11 IA
OMS 0
          OPULS
  PER      FAIL    GLARE
     0        0        0
OMS 1
FIN NET FAIL  RSRC LMT        NCI       NCT  STC NC  PBX NC  ITL NC    CGF
        0           0           0         0       0       0       0      0
OMS 2
          Q931                          PBX       -- INWATS --
    VCA    VCA     LSIF     RSIF       VCA    TERM    ORIG   BLK-SCRN
      0       0       0        0         0       0       0       0
OMS 3 NM BLOCKED
     CB   SDOC    STR    CANT    CANF    TSAR    BNG
      0      0      0       0       0       0      0
   DSTR   DSTR  DSDOC   DSDOC     OCR     OCR    GSC
    CAN     SK    CAN      SK     RCV    FAIL     SK
      0      0      0       0       0       0      0
    DRR   DCAN
      0      0
OMS 4  MISC IA
MISC IA
  DTMF                    000000
  ISUP                    000000
  ITUP                    000000
  INUP                    000000
  Q931                    000000
  INC                     000000
  CONN                    000000
  OUT                     000000
  TUP OUT                 000000
  NUP OUT                 000000
  CALL DENIAL SCRN        000000
  AT ACK WINK T/O         000000
  ISUP MAB                000000
  ISUP EQUIP CONG         000000
  ISUP OTHER ABAN         000000
  ITUP MAB                000000
  ITUP EQUIP CONG         000000
  ITUP OTHER ABAN         000000
  INUP MAB                000000
  INUP EQUIP CONG         000000
  INUP OTHER ABAN         000000
  Q931 OTHER ABAN         000000
  Q931 SW CUTOFFS         000000
  BROADBAND FAIL          000000
  PBX REORDERS            000000
  ROUTING DATA ERR        000000
```

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

```
OMS 5
                FAIL    OVFL
TRMTR QUEUE        0       0
OMS 6
                 OVFL    ABAN
DP CR QUEUE         0       0
CCIS CR QUEUE       0       0
```

Description of Measurements for MSC 11

MSC 11 is the ineffective attempt measurement class for the nonequipment related ineffective machine attempts (NIAs). The following paragraphs define each counter for each NIA as it is referred to in a 4ESS Switch.

OMS 0

Pulsing Error Peg Count
(PER)

This register will be incremented by one each time one or more of the received digits is in error. This error may be defined by one of the following:

a. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.

b. False Key Pulse - On MF pulsing calls, when a second Key Pulse (KP) signal is received.

c. Extra Digit - When more digits are received than expected.

d. Extra Pulse - On DP calls, when an eleventh pulse is received for a single digit.

e. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Outpulsing Failures Peg Count
(OPULS FAIL)

This register will be incremented by one each time an outpulsing failure occurs for any of the following reasons:

a. Unexpected Stop - This count will be incremented by one each time an unexpected stop dial signal is received because of any of the following reasons.

1. Any stop dial during pulsing on an MF trunk.
2. Any stop dial during pulsing on a DP trunk that does not have the "expect stop-go" class.
3. A second stop dial during pulsing on a DP trunk that does have "expect stop-go" class.
4. On DP stop-go trunks, a stop dial at an invalid time.

b. Integrity Check Failure - Each time there is a failure of the trunk E&M lead integrity check (expected on delay dial-start dial trunks) this counter will be incremented by one.

c. Continuity Test Failure - This count will be incremented by one each time there is a failure of the continuity and polarity test.

d. No Start Dial - This count will be incremented by one each time the delay dial signal (off-hook) from the office persists beyond the transmitter timeout interval on MF or DP delay dial trunks. For wink start trunks, this count is also incremented if the first part of the wink (on to off-hook) is not received within the transmitter timeout interval, or the second part of the wink (off to on-hook) is not received within a specified interval of receipt of the first part of the wink.

e. Expected Stop Timeout - Each time, on any DP trunk with expected stop-go class, an unexpected stop dial signal is received during outpulsing and persists beyond the transmitter time out interval, this counter will be incremented by one.

Glare Peg Counter
(GLARE)

This counter is incremented by one when a glare condition is encountered on the second trial, and the call is sent to Final Handling Treatment (FHT).

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

OMS 1

Final Trial Network Path Hunt Failure
Peg Count
(FIN NET FAIL)

This counter is incremented when a call is sent to Final Handling Treatment because an attempt to seize an idle path through the network fails due to no acceptable idle path availability.

Call Merge Failure - Resource Limitations
Peg Count
(RSRC LMT)

This count is incremented when a call merge request fails because of the lack of resources or because of a path hunt failure.

No Circuit Intertoll Peg Count
(NCI)

When a call is sent to Final Handling Treatment because it has overflowed all the available intertoll routes in its routing chain, this counter is incremented by one.

No Circuit Toll Completing Peg Count
(NCT)

When a call is sent to Final Handling Treatment because it has overflowed all the available toll completing routes to its destination, this counter is incremented by one.

No Circuit Single Trunk Customer
Peg Count
(STC NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to an STC, this counter is incremented by one.

No Circuit Private Branch Exchange
Peg Count
(PBX NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to a PBX, this counter is incremented by one.

International No Circuit Peg Count
(ITL NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to its destination, this counter is incremented by one.

Carrier Group Failure Peg Count
(CGF)

This counter is incremented by one for every incoming seizure that is processed as an origination and is later determined to be an off-hook because of a carrier group failure.

OMS 2

Vacant Code Announcement Peg Count
(VCA)

When a call is sent to Final Handling Treatment because a return from translations is interpreted to be a vacant code (unassigned routing digits have been received for this call), this counter is incremented by one.

Vacant Code Announcement Q.931 Peg Count
(Q931 VCA)

When a call on a Q.931 trunk is sent to Final Handling treatment because a return from translations is interpreted to be a vacant code, this counter is incremented by one.

LATA/STATE Screening Index Failure
Peg Count
(LSIF)

This counter is incremented by one when a call encounters a LATA/STATE Screening Index Failure.

Route Selection Index Screening Failure
Peg Count
(RSIF)

This counter is incremented by one when a call encounters a Route Selection Index Screening Failure.

Vacant Code Announcement Private
Branch Exchange Peg Count
(PBX VCA)

When a call on a PBX trunk is sent to Final Handling treatment because a return from translations is interpreted to be a vacant code, this counter is incremented by one.

INWATS Band Check Peg Count
(INWATS TERM)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

When a call is sent to Final Handling Treatment because a return from the terminating translation indicates that the zonal band check has failed, this counter will be incremented by one.

Originating INWATS Denied Peg Count
(INWATS ORIG)

This counter is incremented by one when an originating INWATS call is sent to final handling for one of the following reasons.

a. INWATS is invalid for the incoming Trunk Subgroup.

b. The INWATS zone is unauthorized for the incoming Trunk Subgroup.

Calls Blocked by Go-No Go Screening Peg Count
(INWATS BLK-SCRN)

This count will be included in a later issue. It is not being pegged in the 4E3 Generic Program.

OMS 3

Code Block Control Blocked Peg Count
(CB)

When a call that has been blocked by a Network Management code block control is sent to Final Handling Treatment, this counter is incremented by one.
NOTE: The Code Block Control Blocked Peg Count (CB) is replaced with Killed Fraudulent SDN NRA Calls Peg Count (KF) in 4E24R3 and later generic.

Killed Fraudulent SDN NRA Calls Peg Count
(KF)

When the 4ESS cannot locate the call identified by the OAS/HAS originating transaction ID in the unidirectional message, then the 4ESS must assume that the call has completed, and this counter will be incremented by one (4E24R3 and later).

Selective Dynamic Overload Control
Blocked Peg Count
(SDOC)

This counter is incremented when a call that has been blocked by a Network Management Selective Dynamic Overload Control is sent to Final Handling Treatment.

Selective Trunk Reservation Control
Blocked Peg Count
(STR)

When a call has been blocked by a Network Management activated Selective Trunk Reservation control and sent to Final Handling Treatment, this counter is incremented by one.

Cancel-To Control Blocked Peg Count
(CANT)

This counter is incremented by one when a call that has been blocked by a Network Management "Cancel To Control" is sent to Final Handling Treatment.

Cancel-From Control Blocked Peg Count
(CANF)

When a call is blocked by a Network Management "Cancel From Control" and then sent to Final Handling Treatment, this counter is incremented by one.

TSG Access Restriction Peg Count
(TSAR)

This counter is incremented by one when a call that has been blocked by a Network Management TSAR control is sent to Final Handling.

Billing Number Gap Peg Count
(BNG)

This counter is incremented by one when a call is blocked by Network Management based on the billing number.

Selective Trunk Reservation Canceled
Peg Count
(DSTR CAN)

This counter is incremented by one when the calls are canceled at the OTS node by DSTR.

Selective Trunk Reservation Skipped
Peg Count
(DSTR SK)

This counter is incremented by one when the calls are skipped at the OTS node by DSTR.

Selective Dynamic Overload Control
Canceled Peg Count
(DSDOC CAN)

This counter is incremented by one when the calls are canceled at the node by D-SDOC.

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

Selective Dynamic Overload Control Skipped
Peg Count
(DSDOC SK)

This counter is incremented by one when the calls are skipped at the node by D-SDOC.

Out-of-Chain Routed Calls Received
(OCR RCV)

This counter is incremented by one when a rerouted call is received.

Out-of-Chain Routed Calls Failed
(OCR FAIL)

This counter is incremented by one when a rerouted call is received that failed.

Group Signaling Congestion Skipped
(GSC SK)

This counter is incremented by one when the calls are skipped at the node because of GSC.

D-Reroute Killed Calls
(DRR)

This counter is incremented by one when a D-rerouted call is killed.

D-Cancel Killed Calls
(DCAN)

This counter is incremented by one when a D-CAN call is killed.

OMS 4

DTMF Miscellaneous Ineffective Attempts
Peg Count
(DTMF MISC IA)

This counter is incremented by one when greater than 10 DTMF digits are received on an IDTS trunk.

ISUP Miscellaneous Ineffective Attempts
Peg Count
(ISUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ANI digits missing, ISUP IAM with invalid digit is detected.

ITUP Miscellaneous Ineffective Attempts
Peg Count
(ITUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ITUP IAM to LANGE to fit ITUP or QUEUE slot.

INUP Miscellaneous Ineffective Attempts
Peg Count
(INUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ICT unusable because of MB state.

Q.931 Miscellaneous Ineffective Attempts
Peg Count
(Q931 MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition, e.g., invalid message, is detected.

Incoming Miscellaneous Ineffective Attempts
Peg Count
(INC MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs.

Miscellaneous Connecting Ineffective Attempts
Peg Count
(CONN MISC IA)

This counter is incremented by one when a failure to a second MF receiver occurs.

Miscellaneous Outgoing Ineffective Attempts
Peg Count
(OUT MISC IA)

This counter is incremented by one when a Q.931 or CCS7 outgoing received a message that ended the call.

ITUP Outgoing Miscellaneous Failure
Peg Count
(TUP OUT MISC IA)

This counter is incremented by one when a miscellaneous IA occurs, e.g., OGT receives a BLO during setup on second try.

INUP Outgoing Miscellaneous Failure
Peg Count
(NUP OUT MISC IA)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

This counter is incremented by one when a miscellaneous IA occurs, e.g., OGT receives a BLO during setup on second try.

Call Denial Screening Peg Count
(CALL DENIAL SCRN)

This count is incremented when a call is denied based on incoming trunk Far End Network characteristics and Call Type data found from called digits.

Access Tandem Post Acknowledgement
Wink Timeout
(AT ACK WINK T/O)

This count is incremented whenever an access tandem call fails while waiting for a Post Acknowledgement Wink.

ISUP Miscellaneous Abandon Peg Count
(ISUP MAB MISC IA)

This counter is incremented by one when an ISUP call receives a released message or release message while busy in a call register.

ISUP Switching Equipment Congestion
Peg Count
(ISUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an ISUP continuity check request.

ISUP Other Abandons Peg Count
(ISUP OTHER ABAN MISC IA)

This counter is incremented by one when an ISUP call that is on queue for a call register receiving a released or release message.

ITUP Miscellaneous Abandon Peg Count
(ITUP MAB MISC IA)

This counter is incremented by one when an ITUP call receives a released or release message while busy in a call register.

ITUP Switching Equipment Congestion
Peg Count
(ITUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an ITUP continuity check request.

ITUP Other Abandons Peg Count
(ITUP OTHER ABAN MISC IA)

This counter is incremented by one when an ITUP call that is on queue for a call register receiving a released or release message.

INUP Miscellaneous Abandon Peg Count
(INUP MAB MISC IA)

This counter is incremented by one when an INUP call receives a release message while on queue for a CR or during call setup.

INUP Switching Equipment Congestion
Peg Count
(INUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an INUP continuity check request.

INUP Other Abandons Peg Count
(INUP OTHER ABAN MISC IA)

This counter is incremented by one when an INUP call that is on queue for a call register receiving a released or release message.

Q.931 Other Abandons Peg Count
(Q931 OTHER ABAN MISC IA)

This counter is incremented by one when a Q.931 call that is on queue for or busy to a call register receives a disconnect.

Q.931 Switching Cutoffs Peg Count
(Q931 SW CUTOFFS MISC IA)

This counter is incremented by one when a Q.931 call is in a stable or confused state and an irregularity occurs to end the call.

Broadband Call Failure Peg Count
(BROADBAND FAIL MISC IA)

This counter is incremented by one for H0 (384K bps) or H11 (1536K bps) call attempts that fail.

PBX Reorders Peg Count
(PBX REORDERS MISC IA)

This counter is incremented by one when a Q.931 call attempt encounters a reorder condition.

Routing Data Error
(ROUTING DATA ERR MISC IA)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

This counter is incremented by one when a CCIS or CCS7 outgoing trunk encounters routing problems.

OMS 5

MF Transmitter Queue Entry Failure Peg Count
(TRMTR QUEUE FAIL)

This counter is incremented by one when a call is sent to Final Handling Treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to go on the MF Transmitter Queue, is greater than the number of nonmaintenance busy MF Transmitters (same count as MSC 0 OMS 0).

MF Transmitter Queue Overflow Peg Count
(TRMTR QUEUE OVFL)

When a call attempts to link to the MF transmitter queue and no slots are available, this counter is incremented by one.

OMS 6

DP CR Queue Overflow Peg Count
(DP CR QUEUE OVFL)

When an attempt to link the trunk register of a trunk associated with a DP call to an entry on the DP Call Register queue fails because there is no free entry on the queue, this counter will be incremented by one (same count as MSC 17 OMS 0).

DP CR Queue Abandon Peg Count
(DP CR QUEUE ABAN)

This counter is incremented by one when the trunk register of a trunk associated with a DP call that has been abandoned is unlinked from the DP Call Register queue (same count as MSC 17 OMS 0).

CCIS Origination CR Queue Overflow Peg Count
(CCIS CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with a CCIS call in an entry on the CCIS origination Call Register queue fails because no free entry is available, this counter will be incremented by one (same count as MSC 17 OMS 0).

CCIS Origination CR Queue Abandon Peg Count
(CCIS CR QUEUE ABAN)

When the IAM and other identifying information for a CCIS call that has been abandoned is removed from the CCIS origination Call Register queue, this counter is incremented by one (same count as MSC 17 OMS 0).

TABLE 12

OUTPUT MEASUREMENT SETS FOR MSC 12
(TIME SLOT INTERCHANGE USAGE)

```
MSC 12 TSI USAGE
OMS 0
TSI   SPC   USAGE  TSI   SPC   USAGE
  0     0       0    0    0       0
  0     0       0    0    0       0
  0     0       0    0    0       0
  0     0       0    0    0       0
```

Description of Measurements for MSC 12

OMS 0

Measurement Subclass 12 is the Time Slot Interchange (TSI) usage measurement class. This MSC provides the capability of obtaining estimates of the Usage on up to eight selected TSIs.

TSI Number
(TSI)

This register contains the TSI number that was previously specified by an input message as requiring usage measurements. Up to eight TSI numbers can be stored. (See Division 10, Section 2a.)

SPC Number
(SPC)

This register contains the Signal Processing Circuit (SPC) number of the TSI that was previously specified by an input message as requiring usage measurements. Each TSI may have two associated SPCs (0-1). (See Division 10, Section 2a).

TSI Usage Measurement
(USAGE)

For the specified TSI and SPC requiring usage measurements, the TSI Usage (occupancy) count is determined every 180 seconds by counting the busy idle bits in the time slot memory map. The traffic measurements program will convert this count into CCS before output.

TABLE 13

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

```
MSC 13 TSG
------CIN------
  IN SZ     OCC   OG ATT   OVFL    RRTO    RRAT    RRCR    RRSU
    MAN    AUTO    PATT    ECBS    DATT    DOVF     ATP    SILC
0001LSAN CA 02 01T LAB (a 1-way incoming TSG)
  000000  000000     -       -       -       -       -       -
     -       -       -       -       -       -    000000* 000000

2001ISUP TO LL 3IC HHP (a 1-way outgoing TSG)
     -    000000  000000  000000  000000  000000  000000  000000
  000000  000000  000000  000000  000000  000000  000000*    -

1001TCFD PD DI FMF DOM (a 2-way TSG)
  000000  000000  000000  000000  000000  000000  000000  000000
  000000  000000  000000  000000  000000  000000  000000* 000000
```

* - Count ATP is only output in non-AT&T offices.

Description of Measurements for MSC 13

OMS CIN

There are three possible types of output measurement sets. These sets relate to the TSGs by directionality. That is, one-way incoming, one-way outgoing, and two-way. The OMS number will be the abbreviated Circuit Identification Number (CIN) of the TSG. Each TSG is provided with a complete set of traffic counters (irrespective of its directionality). Thus for one-way TSGs, certain counters will be unused and should always contain dashes.

1. **OMS - For One-Way Incoming Trunk Subgroups (TSG)**

Incoming Seizure Peg Count
(IN SZ)

When an incoming trunk in this TSG is represented as busy by changing the trunk's busy idle bits from one to zero, this counter is incremented by one. Note that this count represents the number of trunks associated with incoming seizures. For example, an incoming H0 (384K bps) seizure has six trunks associated with it and will cause this count to be incremented by six (6).

Total Usage Measurement
(OCC)

The Trunk Subgroups occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

Selective Incoming Load Control
(SILC)

This counter is incremented by one when a bid for service is denied on an incoming trunk because of Network Management Selective Incoming Load Control.

2. **OMS - For One-Way Outgoing Trunk Subgroups (TSG)**

Total Usage Measurement
(OCC)

The Trunk Subgroup's occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Outgoing Attempts Peg Count
(OG ATT)

This counter is incremented by one when an idle outgoing trunk in this TSG is made busy by changing

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

the trunk's busy idle bits from one to zero. Should an outgoing ineffective attempt occur on this TSG before or during outpulsing, a retrial hunt can be performed (starting with this TSG). The TSG Outgoing attempts Peg Counter, if non-zero, is decremented before the retrial trunk hunt to avoid pegging it twice for the same call. Note that the outgoing attempts printed is the sum of the TSG outgoing seizures Peg Count, and the TSG overflow Peg Count. The carried call load can be obtained by subtracting the overflow from the outgoing attempts (OG ATT). Note that the outgoing seizures count represents the number of trunks associated with outgoing seizures. For example, an outgoing H0 (384K bps) seizure has six trunks associated with it and will cause this count to be incremented by six (6).

Overflow Peg Count
(OVFL)

This counter is incremented by one when an attempt to hunt an idle trunk fails because there are no idle trunks in this TSG. Note that this count represents the number of trunks associated with calls that overflow this TSG. For example, if all six trunks needed for an H0 (384K bps) call cannot be found in this TSG, this count will be incremented by six (6) no matter how many of the six trunks are busy.

Reroute To Seizure Peg Count
(RRTO)

This counter is incremented by one whenever a call that is routed out-of-chain to this outgoing TSG seizes an idle trunk. This count includes the number of incoming calls that have been automatically or manually rerouted out-of-chain and recognized by the via office as out-of-chain routed. It also includes the number of calls that may have been rerouted in this office by either a manual reroute control or an automatic out-of-chain control. Should an outgoing ineffective attempt occur on this TSG for a call that has been routed out-of-chain to it, the TSG reroute to seizure Peg Counter, if non-zero, is decremented by one before a retrial trunk hunt.

Spray Reroute Attempts
(RRAT)

This counter is incremented by one when a reroute is attempted.

Spray Reroute Calls Received
(RRCR)

This counter is incremented by one when a reroute call is received.

Spray Reroute Failures
(RRSU)

This counter is the number of reroute successes. It is obtained by subtracting the number of reroute failures from the total number of reroute attempts.

Manual Network Management Controls
(MAN)

This counter is incremented by one any time Network Management (NM) control cancels or skips a call manually.

Automatic Network Management Controls
(AUTO)

This counter is incremented by one any time NM controls cancel or skip calls automatically.

Preferred Call Attempts Peg Count
(PATT)

This counter is incremented by one when a Preferred Call (defined to be calls with maximal revenue potential, e.g., international inboard calls) is attempted.

Egress Busy Crankbacks Sent
(ECBS)

This counter is incremented by one when an egress busy crankback is sent due to unable to complete on an outgoing TSG.

Data Call Attempts Peg Count
(DATT)

This counter is incremented by one when a data call is attempted.

Data Call Overflow Peg Count
(DOVF)

This counter is incremented by one when a data call is attempted and no idle trunk is found because there are idle trunks in the TSG.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

3. **OMS - For Two-Way Trunk Subgroups (TSG)**

Incoming Seizure Peg Count
(IN SZ)

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

When an incoming trunk in this TSG is represented as busy (by changing the trunks busy idle bits from one to zero), this counter is incremented by one. Note that this count represents the number of trunks associated with incoming seizures. For example, an incoming H0 (384K bps) seizure has six trunks associated with it and will cause this count to be incremented by six (6).

Total Usage Measurement
(OCC)

The Trunk Subgroup's occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Outgoing Attempts Peg Count
(OG ATT)

This counter is incremented by one when an idle outgoing trunk in this TSG is made busy by changing the trunks busy idle bits from one to zero. Should an outgoing ineffective attempt occur on this TSG before or during outpulsing, a retrial hunt can be performed (starting with this TSG). The TSG outgoing attempts Peg Counter, if nonzero, is decremented before the retrial trunk hunt to avoid pegging it twice for the same call. Note that the outgoing attempts printed is the sum of the TSG outgoing seizures Peg Counter and the TSG overflow Peg Count. The carried call load can be obtained by subtracting the overflow from the outgoing attempts (OG ATT). Note that the outgoing seizures count represents the number of trunks associated with outgoing seizures. For example, an outgoing H0 (384K bps) seizure has six trunks associated with it and will cause this count to be incremented by six (6).

Overflow Peg Count
(OVFL)

This counter is incremented by one when an attempt to hunt an idle trunk fails because there are no idle trunks in this TSG. Note that this count represents the number of trunks associated with calls that overflow this TSG. For example, if all six trunks needed for an H0 (384K bps) call cannot be found in this TSG, this count will be incremented by six (6) no matter how many of the six trunks are busy.

Reroute To Seizure Peg Count
(RRTO)

This counter is incremented by one whenever a call that is routed out-of-chain to this outgoing TSG seizes an idle trunk. This count includes the number of incoming calls that have been automatically or manually rerouted out-of-chain and recognized by the via office as out-of-chain routed. It also includes the number of calls that may have been rerouted in this office by either a manual reroute control or an automatic out-of-chain control. Should an outgoing ineffective attempt occur on this TSG for a call that has been routed out-of-chain to it, the TSG reroute to seizure Peg Counter, if non-zero, is decremented by one before a retrial trunk hunt.

Spray Reroute Attempts
(RRAT)

This counter is incremented by one when a reroute is attempted.

Spray Reroute Calls Received
(RRCR)

This counter is incremented by one when a reroute call is received.

Spray Reroute Failures
(RRSU)

This counter is the number of reroute successes. It is obtained by subtracting the number of reroute failures from the total number of reroute attempts.

Manual Network Management Controls
(MAN)

This counter is incremented by one any time Network Management (NM) control cancels or skips a call manually.

Automatic Network Management Controls
(AUTO)

This counter is incremented by one any time NM controls cancel or skip calls automatically.

Preferred Call Attempts Peg Count
(PATT)

This counter is incremented by one when a Preferred Call (defined to be calls with maximal revenue potential, e.g., international inboard calls) is attempted.

Egress Busy Crankbacks Sent
(ECBS)

This counter is incremented by one when an egress busy crankback is sent due to unable to complete on an outgoing TSG.

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

Data Call Attempts Peg Count
(DATT)

This counter is incremented by one when a data call is attempted.

Data Call Overflow Peg Count
(DOVF)

This counter is incremented by one when a data call is attempted and no idle trunk is found because there are idle trunks in the TSG.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

Selective Incoming Load Control
(SILC)

This counter is incremented by one when a bid for service is denied on an incoming trunk because of Network Management Selective Incoming Load Control.

TABLE 14

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

```
MSC 14 CCIS/CCITT NO.6 TERMINALS
OMS 0
                      VFL1   VFL2
NEAR AUTO CO         000000 000000
FAR  AUTO CO         000000 000000
REXMIT   REQ         000000 000000
SU IN    ERR         000000 000000
QTR HR IN SERV       000000 000000
RCV RPT ACU          000000
RCV SKP ACU          000000
IN  MSGS             000000
IN  DATA FILLED SU   000000
IN  TRANS        SU  000000
IN  IAM          SU  000000
IN  ANS          SU  000000
OUT MSGS             000000
OUT DATA FILLED SU   000000
IAM XFER PER TERM    000000
OUT TRANS        SU  000000
OUT IAM          SU  000000
OUT ANS          SU  000000
EMER RESTART         000000
THRES EXC            000000
THRES EXC(SEC)       000000
BUFFER OVFL          000000
OUTAGE(CCS)          000000
MAINT OCC(CCS)       000000
TERM TYPE            CCC
IN  DIRECT SIG   SU  000000
OUT DIRECT SIG   SU  000000
```

Description of Measurements for MSC 14

The OMS numbers for this MSC must correspond to the CCIS signaling links (CCIS/CCITT No. 6 Terminals) engineered for the 4ESS Switch office. The maximum OMS for a particular office must be less than or equal to the number of engineered CCIS signaling links (DOMTERM + INTL term specified on 406C), or the contents of OD4DNUM6HR07. Each OMS will supply the following measurements.

OMS 0-255

VFL-1 Near-end Initiated Automatic Changeovers Peg Count
(NEAR AUTO CO VFL1)

This counter is incremented by one when a signaling link is automatically relieved of its traffic load (changeover) and this event is initiated by the near end office.

VFL-2 Near-end Initiated Automatic Changeovers Peg Count
(NEAR AUTO CO VFL2)

Same as above except for VFL-2

VFL-1 Far-end Initiated Automatic Changeovers Peg Count
(FAR AUTO CO VFL1)

This counter is incremented by one when a signaling link is automatically relieved of its traffic load (changeover) and this event is initiated by the far end office.

VFL-2 Far-end Initiated Automatic Changeovers Peg Count
(FAR AUTO CO VFL2)

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

Same as above except for VFL-2

VFL-1 Retransmission Requests Peg Count
(REXMIT REQ VFL1)

This counter is maintained by the CCIS terminal and it is incremented by one each time a retransmission request is received by the terminal. If the number of changeovers for the signaling link is zero during a quarter hour, this count is read from the terminal memory and attributed to the VFL over which transmission occurred during the quarter hour. The count of transmission requests for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the retransmission requests Peg Counters for both VFLs are set to zero.

VFL-2 Retransmission Requests Peg Count
(REXMIT REQ VFL2)

Same as above except for VFL-2

VFL-1 Signal Units in Error Peg Count
(SU IN ERR VFL1)

This counter is maintained by the CCIS terminal and it is incremented by one each time a signal unit is received in error by the terminal. (A signal unit is considered in error when the 8 bit checksum over the other 20 bits in the signal unit that is transmitted, do not match the checksum over the first 20 bits in the signal unit that is computed on reception of the signal unit). If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal memory and attributed to the VFL over which transmission occurred during the quarter hour. The count of signal units in error for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the signal units in error Peg Counts for both VFLs are set to zero.

VFL-2 Signal Units in Error Peg Count
(SU IN ERR VFL2)

Same as above except for VFL-2

VFL-1 Quarter Hour in Service Peg Count
(QTR HR IN SRV VFL1)

This counter is set to one each quarter hour during which no changeovers for the signaling link occurred. The quarter hour in service Peg Counter for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the quarter hour in service Peg Counters for both VFLs are set to zero.

VFL-2 Quarter Hour in Service Peg Count
(QTR HR IN SVR VFL2)

Same as above except for VFL-2

Received Repeated ACU Peg Count
(RCV RPT ACU)

This counter is maintained by the CCIS terminal and is incremented by one each time a received Acknowledgement Signal Unit (ACU) contains a block acknowledgement number equal to the block acknowledgement number in the last ACU received. If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal. Otherwise, it is set to zero.

Received Skipped ACU Peg Count
(RCV SKP ACU)

This counter is maintained by the CCIS terminal and is incremented by one each time a received ACU contains an acknowledgement number that is more than one greater than the block acknowledgement number in the last ACU received. A retransmission request is then made for the skipped block. If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal. Otherwise it is set to zero.

Total Incoming Messages Peg Count
(IN MSGS)

This counter is maintained by the CCIS terminal and is incremented by one for each message received (a message may consist of more than one signal unit).

Total Incoming Data Filled Signal Units
Peg Count
(IN DATA FILLED SU)

This counter is maintained by the CCIS terminal and is incremented by one for each non-SYN, non-ACU signal unit that is received. This count includes retransmitted data filled signal units.

Incoming Transitions Peg Count
(IN TRANS)

This count is maintained by the CCIS terminal and is incremented by one each time an incoming data filled signal unit is followed by an SYU or preceded by an SYU, not counting the presence of ACU's.

Incoming IAM Peg Count
(IN IAM)

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

This counter is maintained by the CCIS terminal and is incremented by one for each Initial Address Message (IMA) that is received. This count includes retransmitted IAMs.

Incoming Answer Signal Units Peg Count
(IN ANS)

This count is maintained by the CCIS terminal and is incremented by one each time an answer signal is received.

Total Outgoing Messages Peg Count
(OUT MSGS)

This counter is maintained by the CCIS terminal and is incremented by one for each message transmitted (a message may consist of more than one signal unit).

Total Outgoing Data Filled Signal Units
Peg Count
(OUT DATA FILLED SU)

This counter is maintained by the CCIS terminal and is incremented by one for each non-Synchronous (SYN), non-ACU signal unit that is transmitted. This count includes retransmitted data filled signal units.

Initial Address Messages Transferred
Per Terminal
(IAM XFER PER TERM)

This counter is maintained by the number of CCITT6 IAMS forwarded at the international STP. This count is stored per receiving terminal to indicate the originating office.

Outgoing Transitions Peg Count
(OUT TRANS)

This count is maintained by the CCIS terminal and is incremented by one each time an outgoing data filled signal unit is followed by an SYU or preceded by an SYU, not counting the presence of ACU's.

Outgoing IAM Peg Count
(OUT IAM)

This counter is maintained by the CCIS terminal and is incremented by one for each IAM that is transmitted. This count includes transmitted IAMs.

Outgoing Answer Signal Units Peg Count
(OUT ANS)

This count is maintained by the CCIS terminal and is incremented by one each time an answer signal is transmitted.

Emergency Restart Peg Count
(EMER RESTART)

This count is incremented by one each time synchronization is successfully achieved after failure of all Data Links associated with a terminal pair. The count is incremented against the terminal in which synchronization first occurred. The number of restarts per terminal pair is the sum of the restarts pegged for the associated terminals.

Threshold Exceeded Peg Counts
(THRES EXC)

This count is incremented by one each time the CCIS terminal reports that it was necessary to link spare memory to the report buffer. This occurs when the number of pending incoming and outgoing messages have filled the normal buffer to capacity.

Threshold Exceeded Time in Seconds
(THRES EXC SEC)

This count contains the time in seconds that spare memory is linked to the report buffer. On initial threshold exceeded the counter is incremented once. After one second, if the contents of the buffer is not reduced to or below the capacity of the normal buffer size, the count is incremented again. One second later, if the buffer contents have not been reduced to normal capacity the terminal is removed from service.

Buffer Overflow Peg Count
(BUFFER OVFL)

This counter is incremented by one each time the buffer and the spare linked memory are full of pending messages and an incoming message for which there is no room is received. The terminal is then removed from service.

Terminal Pair Outage
(OUTAGE - CCS)

This count contains the time in CCS of duplex failure of a terminal pair. Each terminal counter contains the pair outage. The count is achieved by scanning the link security registers for the prohibit state every 10 seconds.

Terminal Maintenance Occupancy

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

(MAINT OCC - CCS)

This count contains the time in CCS that the terminal was marked maintenance busy. It does not include any time that the TGR containing the terminal was duplex failed but may include time the terminal pair was duplex failed if the terminals in the pair are in different frames.

Terminal Type Identifier
(TERM TYPE)

Three ASCII characters are used to identify the terminal as Domestic CCIS (DOM), International CCITT No. 6 (INT), or Domestic 4800 BPS (D48).

Incoming Direct Signaling Signal Units
Peg Count
(IN DIRECT SIG SU)

This counter will be incremented by the number of signaling units in the message each time a direct signaling message is received on a particular signaling link. This count is kept by the CCIS terminal program in the terminal memory.

Outgoing Direct Signaling Signal Units
Peg Count
(OUT DIRECT SIG SU)

This counter is incremented by the number of signaling units in the message each time a direct signaling message is sent on a particular signaling link. This count is kept by the CCIS terminal program in the terminal memory.

TABLE 15

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

```
MSC 15  INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS

OMS 0  SECOND STAGE
        ATTS     VCA  ABN-ND  ABN-SD    FAIL
INTL       0       0       0       0       -
EA         -       -       -       -       0
DOM        -       -       0       0       -

OMS 1  IOC OPER ATTEMPTS
    INT ONLY      0
    INT OVFL      0
    INT-DOM       0
    OUT           0
    NC-DOM        0
    NC-INTL       0

OMS 2  INTL IA
    VCA
                     CUSTOMER    OPERATOR    SCREENED
      TRANSIT             0           0           0
      INBOUND             0           0           -
      ITUP                0           0           -
      INUP                0           0           -

                       ITUP        INUP
      TRANSIT             0           0

                        IOC        IOTC
      DOM OPER            0           0

    NCA CUST            0

    OUTBOUND INTERNATIONAL OVFL
      NTC        0
      NSC        0

    NM BLOCKED INTERNATIONAL
      SDOC        STR    CAN-TO     CAN-FR
         0          0         0          0
    INBOUND SCREENED
      INV CALL          0
      INV L DIG         0

    TRANSLATION FAILURE
          CCITT#5     CCITT#6      IOC         TSPC
                0           0          0           0

    OUTBOUND INTERNATIONAL SERVICE
         TC    TCVPC     OPER  OPERVPC   OUTWATS   OWVPC
          0        0        0        0         0       0
       CUST  CUSTVPC
          0        0
```

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

```
OMS 3 ORIG INTL CALL - DOM SATELLITE INCOMING
                0
OMS 4 TWO STAGE SWITCHING ERRORS
          PE  NO REC    PSTO    PDTO
INTL       0       0       0       0
DOM        0       0       0       0
EA         0       -       0       0
```

Description of Measurements for MSC 15

OMS 0

Second Stage International Attempts
(SECOND STAGE INTL ATTS)

This count is incremented by one when a call on an international incoming trunk requires two stage pulsing. It does not include calls for which only second stage pulsing formats are used.

Second Stage International Vacant Codes
(SECOND STAGE INTL VCA)

This count is incremented by one when a vacant code is recognized during second stage impulsing. It does not include the cases where second stage only impulsing is used as in operator and inter-ISC overflow calls. The latter are considered international vacant codes.

Abandon During Second Stage International -
No Digits Received
(SECOND STAGE INTL ABN-ND)

This counter is incremented by one when an international incoming trunk abandons while second stage impulsing is taking place and no digits have been received.

Abandon During Second Stage International -
Some Digits Received
(SECOND STAGE INTL ABN-SD)

This counter is incremented by one when an international incoming trunk abandons while second stage impulsing is taking place and some digits have been received.

Second Stage Equal Access Failure Peg Count
(SECOND STAGE EA FAIL)

This counter is incremented by one when the second stage of an EA call is not received.

Abandon During Second Stage VSS -
No Digits Received
(SECOND STAGE DOM ABN-ND)

This counter is incremented by one when a VSS incoming trunk abandons while second stage impulsing is taking place and no digits have been received.

Abandon During Second Stage VSS -
Some Digits Received
(SECOND STAGE DOM ABN-SD)

This counter is incremented by one when a VSS incoming trunk abandons while second stage impulsing is taking place and some digits have been received.

OMS 1

International Originating Attempts To
The Local IOC Operator
(INT ONLY)

This count is incremented by the number of incoming international originating calls offered to local IOC operators, by a 4ESS Switch machine. It is the summation of trunk subgroup head cell counts that represent successful trunk hunts.

International Originating Attempts To
The Local IOC Operator That Overflow
(INT OVFL)

This count is incremented by the number of incoming international originating calls offered to local IOC operators that overflow. It is the summation of Trunk Subgroup head cell counts that represent successful trunk hunts.

Local IOC Originating Operator Incoming
Attempts Going To Domestic or International
Domain
(INT-DOM)

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

This count is incremented by the number of incoming international and domestic calls attempted by local IOC operators to go to the domestic or international domain. It is the summation of Trunk Subgroup head cell counts that represent successful trunk hunts.

IOC Operator Outgoing Attempts
(OUT)

This count is incremented by the number of outgoing calls (domestic or international originating) offered to local IOC operators. It is the summation of Trunk Subgroup head cell counts that represent successful trunk hunts.

IOC Operator No Circuit-Domestic
(NC-DOM)

This counter is incremented by one when a call originated by a local IOC operator fails to find an idle trunk in the domestic domain.

IOC Operator No Circuit-International
(NC-INTL)

This counter is incremented by one when a call originated by an IOC operator fails to find an idle trunk in the international domain.

OMS 2

International Customer Dialed Vacant Code
(CUSTOMER-TRANSIT VCA)

This counter is incremented by one when a vacant code is recognized on an international call that was customer dialed.

International Operator Dialed Vacant Code
(OPERATOR-TRANSIT VCA)

This counter is incremented by one when a vacant code is recognized on an international call that was operator dialed.

International Calls Blocked by Screening
(SCREENED-TRANSIT VCA)

This counter is incremented by one when an international customer originated call attempts to reach a number not reachable by direct dialing. This would include INWATS numbers and domestic directory information numbers.

International Inbound Customer Dialed
Vacant Code
(CUSTOMER-INBOUND VCA)

This counter is incremented by one when an inbound customer dialed call on a CCITT No. 5 or CCITT No. 6 trunk is determined to be a vacant code.

International Inbound Operator Dialed
Vacant Code
(OPERATOR-INBOUND VCA)

This counter is incremented by one when an inbound operator dialed call on a CCITT No. 5 or CCITT No. 6 trunk is determined to be a vacant code.

ITUP Inbound Customer Dialed
Vacant Code
(CUSTOMER-ITUP VCA)

This counter is incremented by one when an inbound customer dialed call on an ITUP trunk is determined to be a vacant code.

ITUP Inbound Operator Dialed
Vacant Code
(OPERATOR-ITUP VCA)

This counter is incremented by one when an inbound operator dialed call on an ITUP trunk is determined to be vacant code.

INUP Inbound Customer Dialed
Vacant Code
(CUSTOMER-INUP VCA)

This counter is incremented by one when an inbound customer dialed call on an INUP trunk is determined to be a vacant code.

INUP Inbound Operator Dialed
Vacant Code
(OPERATOR-INUP VCA)

This counter is incremented by one when an inbound operator dialed call on an INUP trunk is determined to be vacant code.

ITUP Transit Vacant Code
(ITUP TRANSIT VCA)

This counter is incremented by one when a transit call on an ITUP trunk fails on what is determined to be a vacant code.

INUP Transit Vacant Code
(INUP TRANSIT VCA)

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

This counter is incremented by one when a transit call on an INUP trunk fails on what is determined to be a vacant code.

Domestic IOC Originated Vacant Code
(IOC-DOM OPER VCA)

This counter is incremented by one when a domestic IOC dialed outbound call is determined to be a vacant code.

Domestic IOTC Originated Vacant Code
(IOTC-DOM OPER VCA)

This counter is incremented by one when a domestic IOTC dialed outbound call is determined to be a vacant code.

International Outbound Customer
Dialed Call Encountered No Circuit
(NCA CUST)

This counter is incremented by one when a customer dialed international outbound call encounters no circuit.

NTC Received on International Outbound
Call Using CCIS Overflow Trunk Subgroup
(OUTBOUND INTERNATIONAL OVFL-NTC)

This counter is incremented by one when National trunk congestion (NTC) has been received for an outbound call placed on an International overflow Trunk Subgroup.

NSC Received on International Outbound
Call Using CCIS Overflow Trunk Subgroup
(OUTBOUND INTERNATIONAL OVFL-NSC)

This counter is incremented by one when National Switching Congestion (NSC) has been received for an outbound call placed on an International Overflow Trunk Subgroup.

International Calls Block by Network
Management Controls
(NM BLOCKED INTERNATIONAL)

The four controls used by Network Management to block calls domestically, as explained plained in TABLE 11 for MSC 11/OMS 3, are also used to control International traffic. The counters used to maintain this data are maintained similar to the Domestic equivalent, but the International Blocking Control counters are separate counters.

International Incoming Screened-Invalid Call
(INBOUND SCREENED-INV CALL)

This counter is incremented by one when translation determines that an International inbound call is invalid.

International Incoming Screened-Invalid
Language Digit
(INBOUND SCREENED-INV L DIG)

This counter is incremented by one when translation determines that an International inbound call contains an invalid language digit.

International Translation Fail -
Too Few/Too Many Digits
CCITT No. 5 Incoming Trunk
(TRANSLATION FAILURE-CCITT#5)

This counter is incremented by one when an incoming transit call on a CCITT No. 5 trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits
CCITT No. 6 Incoming Trunk
(TRANSLATION FAILURE-CCITT#6)

This counter is incremented by one when an incoming transit call on a CCITT No. 6 trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits IOC ITC
(TRANSLATION FAILURE-IOC)

This counter is incremented by one when an outbound transit call on an International Operator Center (IOC) incoming trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits TSPC
(TRANSLATION FAILURE-TSPC)

This counter is incremented by one when an International outbound call has too few/too many second stage digits for further International translation.

Outbound International Teleconferencing
Peg Count
(TC)

This register is incremented by one when an outbound international teleconferencing call is attempted.

Outbound International Teleconferencing,

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

Voice Path Cancellation Peg Count
(TCVPC)

This register is incremented by one when an outbound international teleconferencing call with voice path assurance cancellation is attempted.

Outbound International Operator Peg Count
(OPER)

This register is incremented by one when an operator originated international outbound call is attempted.

Outbound International Operator,
Voice Path Cancellation Peg Count
(OPERVPC)

This register is incremented by one when an operator originated international outbound call with voice path assurance cancellation is attempted.

Outbound International Toll-Free
Peg Count
(OUTWATS)

This register is incremented by one when an outbound international toll-free call is attempted by a customer.

Outbound International Toll-Free,
Voice Path Cancellation Peg Count
(OWVPC)

This register is incremented by one when an outbound international toll-free call, with voice path assurance cancellation, is attempted by a customer.

Outbound Customer Dialed Call Peg Count
(CUST)

This register is incremented by one when an outbound international customer dialed call is attempted.

Outbound Customer Dialed Call, Voice
Path Cancellation Peg Count
(CUSTVPC)

This register is incremented by one when an outbound international customer dialed call with voice path cancellation is attempted.

OMS 3

Originating International Call
Incoming From a Domestic Satellite
(DOM SATELLITE INCOMING)

This counter is incremented by one when a call destined for non-world zone 1 is sent via a Domestic Satellite link from a world zone 1 office.

OMS 4

Two Stage Pulsing Errors
(TWO STAGE INTL PE)

This count is incremented by one each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Two Stage MF Receiver Not Found
(TWO STAGE INTL NO REC)

This counter is incremented by one when there is no available MF Receiver for a call requiring second stage pulsing after a previously selected receiver cannot be connected.

Two Stage MF Permanent Signal Timeout
(TWO STAGE INTL PSTO)

This counter is incremented by one each time a bid for service is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE INTL PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) is received before partial dial timeout on a trunk requiring two stage pulsing.

Two Stage VSS Pulsing Errors
(TWO STAGE DOM PE)

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

This count is incremented by one on a VSS call each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Two Stage VSS MF Receiver Not Found
(TWO STAGE DOM NO REC)

This counter is incremented by one when there is no available MF Receiver for a VSS call requiring second stage pulsing after a previously selected receiver cannot be connected.

Two Stage Permanent Signal Timeout
(TWO STAGE DOM PSTO)

This counter is incremented by one each time a bid for service for a VSS call is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE DOM PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) for a VSS call is received before partial dial timeout on a trunk requiring two stage pulsing.

Two Stage EA Pulsing Errors
(TWO STAGE EA PE)

This count is incremented by one on an EA call each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Two Stage Permanent Signal Timeout
(TWO STAGE EA PSTO)

This counter is incremented by one each time a bid for service for an EA call is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE EA PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) for an EA call is received before partial dial timeout on a trunk requiring two stage pulsing.

TABLE 16

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

```
MSC 16 IO,FS,TU,AND DLK
OMS 0
OUTMSG  OUTMSG    OMR      OMR      OMR
 SUCS    FAIL    SZRE     USAGE    OVFL
     0       0       0        0        0

OMS 1  APS COMM
MISSED 3B COLLECTIONS 0
DKADI REQ   ACCEPTED      REJ     COMPL   CANCELED   FAILED
                  0        0         0          0        0
DMA JOB BUFF  SZRE     RSV ST     OVFL       CCS    TIMEOUT
1B               0          0         0          0         0
3B               0          0         0          0         0
COM BUFFER    SZRE       CCS      OVFL
1B               0          0         0
3B               0          0         0
MESSAGES      MSGS      READS    WRITES
1B               0          0         0
3B               0          0         0
FMI BUFFERS   SZRE       CCS      OVFL
3B               0          0         0
```

Description of Measurements for MSC 16

OMS 0

Output Message Success Peg Count
(OUTMSG SUCS)

When an output message is successfully loaded and placed on the translate link list, this counter is incremented by one.

Output Message Failure Peg Count
(OUTMSG FAIL)

This counter is incremented by one when an output message is not successfully loaded due to: incorrect input data in the PRINT call; or to a filed attempt to remove Output Message Register (OMRs) from the OMR idle link list (insufficient OMRs available); or the idle link list is found in an invalid state.

OMR Seizure Peg Count
(OMR SZRE)

Each time an output message is loaded into one or more Output Message Registers (OMRs) this counter is incremented by the number of OMRs removed from the OMR idle link list.

OMR Usage
(OMR USAGE)

The OMR occupancy counter is scanned every ten seconds for the number of OMRs that are busy. This number is accumulated over the measurement interval and it is converted to CCS units before output.

OMR Overflow Peg Count
(OMR OVFL)

When an attempt to remove OMRs from the OMR idle link list for an output message fails because enough OMRs are not available, this counter is incremented by the number of OMRs requested for the output message.

OMS 1

Missed 3B Collections Peg Count
(MISSED 3B COLLECTIONS)

This count reflects the number of times the 1B processor failed to collect 3B AP driver counts. The collection is performed once every 15 minutes.

Disk Requests Accepted Peg Count
(DKADI REQ ACCEPTED)

This count is incremented each time the disk administration program accepts a client request to make a disk request.

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

Disk Requests Rejected Peg Count
(DKADI REQ REJ)

This count is incremented each time the disk administration program does not accept a client disk request. These type of failures result from software range checks on input parameters.

Disk Requests Completed Peg Count
(DKADI REQ COMPL)

This count is incremented each time the disk administration program completes the transfer of data requested by a client.

Disk Requests Canceled Peg Count
(DKADI REQ CANCELED)

This count is incremented by the disk administration program each time a disk request is canceled.

Disk Requests Failed Peg Count
(DKADI REQ FAILED)

This count is incremented each time the disk administration program determines a request failed after being accepted. This does not include the number of requests canceled.

1B DMA Job Buffer Seizures Peg Count
(DMA JOB BUFF SZRE 1B)

This count is incremented each time the attached processor message handler program seizes a direct memory access job buffer. DMA buffers control memory transfers between the 1B and 3B processors.

1B DMA Job Buffers Entered into the
Reserved State Peg Count
(DMA JOB BUFF RSV ST 1B)

This count is incremented each time the attached processor message handler program changes a direct memory access job buffer state to reserved. The buffer is in the reserved state until the DMA transfer is ready in each processor.

1B DMA Job Buffer Overflow Peg Count
(DMA JOB BUFF OVFL 1B)

This count is incremented whenever the attached processor message handler program needed a direct memory access job buffer and none was available.

1B DMA Job Buffer Usage
(DMA JOB BUFF CCS 1B)

This number represents the 1B direct memory access job buffers usage in units of CCS, over the measurement interval.

1B DMA Job Buffer Timeout Peg Count
(DMA JOB BUFF TIMEOUT 1B)

This count is incremented whenever the attached processor message handler program determines a direct memory access job buffer has timed out waiting for a block transfer to take place.

3B DMA Job Buffer Seizures Peg Count
(DMA JOB BUFF SZRE 3B)

This count is incremented whenever the 3B AP driver program seizes a direct memory access job buffer. DMA buffers control memory transfers between the 1B and 3B processors.

3B DMA Job Buffers Entered into the
Reserved State Peg Count
(DMA JOB BUFF RSV ST 3B)

This count is incremented whenever the 3B AP driver program changes a direct memory access job buffer state to reserved. The buffer is in the reserved state until the DMA transfer is ready in each processor.

3B DMA Job Buffer Overflow Peg Count
(DMA JOB BUFF OVFL 3B)

This count is incremented whenever the 3B AP driver program needs a direct memory access job buffer and none is available.

3B DMA Job Buffer Usage
(DMA JOB BUFF CCS 3B)

This number represents the 3B direct memory access job buffer usage, in units of CCS, over the measurement interval.

3B DMA Job Buffer Timeout Peg Count
(DMA JOB BUFF TIMEOUT 3B)

This count is incremented whenever the 3B AP driver program determines a direct memory access job buffer has timed out waiting for a block transfer to take place.

1B-3B Communication Send Buffer Seizures
Peg Count
(COM BUFFER SZRE 1B)

When the 1B attached processor message handler program enters a message into the 3B communication

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

send buffer this count is incremented. The communication buffer is a mechanism that enables programs in the 1B and in the 3B to communicate. The 3B AP driver delivers the message to the proper 3B client.

1B Communication Buffer Usage
(COM BUFFER CCS 1B)

This number represents the usage, in CCS, of the 1B resident 3B communications send buffer, over the measurement interval.

1B-3B Communication Send Buffer Overflows
Peg Count
(COM BUFFER OVFL 1B)

When the 1B attached processor message handler program cannot load a message into the 3B communication send buffer because there is no room, this count is incremented.

3B-1B Communication Send Buffer Seizures
Peg Count
(COM BUFFER SZRE 3B)

When the 3B AP driver program enters a message into the 3B communication send buffer this count is incremented. The communication buffer is a mechanism that enables programs in the 1B and in the 3B to communicate. The 1B attached processor message handler program delivers the message to the proper 1B client.

3B Communication Send Buffer Usage
(COM BUFFER CCS 3B)

This number represents the usage, in CCS, of the 3B resident 1B communication send buffer, over the measurement interval.

3B-1B Communication Send Buffer Overflows
Peg Count
(COM BUFFER OVFL 3B)

When the 3B AP driver program cannot load a message into the 1B communication send buffer because there is no room, this count is incremented.

1B Messages Sent to the 3B Peg Count
(MESSAGES MSGS 1B)

This is a count of the number of times the 1B attached processor message handler program loaded a message of type MSG into the 3B communication send buffer. There are around 13 different message types.

1B Read Messages Sent to the 3B Peg Count
(MESSAGES READS 1B)

This is a count of the number of times the 1B attached processor message handler program loaded a message of type READ into the 3B communication send buffer.

1B Write Messages Sent to the 3B Peg Count
(MESSAGES WRITES 1B)

This is a count of the number of times the 1B attached processor message handler program loaded a message of type WRITE into the 3B communication send buffer.

3B Messages Sent to the 1B Peg Count
(MESSAGES MSGS 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type MSG into the 1B communication send buffer. There are around 13 different message types.

3B Read Messages Sent to the 1B Peg Count
(MESSAGES READS 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type READ Into the 1B communication send buffer.

3B Write Messages Sent to the 1B Peg Count
(MESSAGES WRITES 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type WRITE into the 1B communication send buffer.

3B File Manager Buffer Seizures
Peg Count
(FMI BUFFERS SZRE 3B)

This count is incremented each time a FMI buffer is required by the file manager interface. FMI buffers hold data for transfer to or from the 1B section of the 3B disk. The file manager interface is part of the 3B AP driver program.

3B File Manager Buffer Usage
(FMI BUFFERS CCS 3B)

This number is the FMI buffer usage, in CCS, over the measurement interval.

3B File Manager Buffer Overflows Peg Count
(FMI BUFFERS OVFL 3B)

This count is incremented each time a FMI buffer is required by the file manager interface and none is

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

available. FMI buffers hold data for transfer to or from the 1B section of the 3B disk. The file manager interface is part of the 3B AP driver program.

TABLE 17

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

```
MSC 17 ENGINEERED MEMORY
OMS 0  DOMESTIC MEMORY
                 SZRE     RLS
ISUP CTP CR         0       0
                 SZRE    USAGE    OVFL    ABAN
MF CR               0       -        -       -
DP CR               0       -        -       -
CCIS CR             0       -        -       -
MISC CR             0       -        -       -
Q931 CR             0       -        -       -
ISUP CR             0       -        -       -
ITUP CR             0       -        -       -
INUP CR             0       -        -       -
Q931 CR QUEUE       0       0        0       0
ISUP CR QUEUE       0       0        0       0
ITUP CR QUEUE       0       0        0       0
INUP CR QUEUE       0       0        0       0
CR                  -       0        -       -
INR                 0       0        0       -
DP CR QUEUE         0       0        0       0
CCIS CR QUEUE       0       0        0       0
MF ORIG QUEUE       0       0        -       0
DTMF CR             0       -        -       -
IDTMFWK CR Q        0       0        -       0
IDTS CR QUEUE       0       0        0       0

OMS 1  MEMORY FOR INTERNATIONAL
                       SZRE      USAGE      OVFL      ABAN
CCITT5 CR                 0          -         -         -
CCITT6 CR                 0          -         -         -
CCITT5 ORIG Q             0          0         -         -
CCITT6 ORIG Q             0          0         0         0
2ND STAGE MF REC Q        0          0         -         0

OMS 2  CALL DETAIL REC. BUFFERS
TOTAL RECORDS LOST       0
BUFFER OCCUPANCY         0

OMS 3  SZRE     CCS    OVFL
TMR       0       0       0
```

Description of Measurements for MSC 17

OMS 0

ISUP Completion of Transmission Path
CR Seize Peg Count
(ISUP CTP CR SZRE)

This count is for data calls where neither the Backward Call Indicator (BCI) nor the Optional Backward Call Indicator (OBCI) in the address complete message says to cut-through the transmission path.

ISUP Completion of Transmission Path
CR Release Peg Count
(ISUP CTP CR RLS)

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

This release count is pegged when an Answer message is received while in the timing for answer states.

MF CR Seizure Peg Count
(MF CR SZRE)

When a Call Register (CR) is removed from the link list of idle CRs and initialized for an MF call or for a test call, this counter will be incremented by one.

DP CR Seizure Peg Count
(DP CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a DP call, this counter will be incremented by one.

CCIS CR Seizure Peg Count
(CCIS CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a CCIS call, this count will be incremented by one.

Miscellaneous CR Seizure Peg Count
(MISC CR SZRE)

This count is incremented by one when a CR is removed from the link list of idle CRs and initialized for a test call.

Q.931 CR Seizure Peg Count
(Q931 CR SZRE)

When a Call Register (CR) is removed from the link list of idle CRs and initialized for a Q.931 call, this counter is incremented by one.

ISUP CR Seizure Peg Count
(ISUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an ISUP call, this counter is incremented by one.

ITUP CR Seizure Peg Count
(ITUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an ITUP call, this counter is incremented by one.

INUP CR Seizure Peg Count
(INUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an INUP call, this counter is incremented by one.

Q.931 Origination CR Queue Seizure
Peg Count
(Q931 CR QUEUE SZRE)

When an incoming Q.931 call fails to obtain a CR by overload, the setup message is placed on queue for a CR, with this counter being incremented by one.

Q.931 Origination CR Queue Usage
(Q931 CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

Q.931 Origination CR Queue Overflow
Peg Count
(Q931 CR QUEUE OVFL)

When a Q.931 call fails to obtain a queue entry due to lack of a free entry, this counter is incremented by one.

Q.931 Origination CR Queue Abandon
Peg Count
(Q931 CR QUEUE ABAN)

When the setup message for a Q.931 call that has been abandoned has been removed from the Q.931 CR queue, this counter is incremented by one.

ISUP Origination CR Queue Seizure
Peg Count
(ISUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received via the CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

ISUP Origination CR Queue Usage
(ISUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. The number is accumulated over the measurement interval and then converted to CCS units before output.

ISUP Origination CR Queue Overflow
Peg Count
(ISUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an ISUP call in an entry on

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

the ISUP origination CR queue fails because no free entry is available, this counter is incremented by one.

ISUP Origination CR Queue Abandon Peg Count
(ISUP CR QUEUE ABAN)

When the IAM and other identifying information for an ISUP call that has been abandoned is removed from the ISUP origination call register queue, this counter is incremented by one.

ITUP Origination CR Queue Seizure Peg Count
(ITUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received on an ITUP CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

ITUP Origination CR Queue Usage
(ITUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This is accumulated over the measurement interval and then converted to CCS units before output.

ITUP CR Queue Overflow Peg Count
(ITUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an ITUP call in an entry on the ITUP origination CR queue fails because no free entry is available, this counter is incremented by one.

ITUP Origination CR Queue Abandon Peg Count
(ITUP CR QUEUE ABAN)

When the IAM and other identifying information for an ITUP call that has been abandoned is removed from the ITUP origination call register queue, this counter is incremented by one.

INUP Origination CR Queue Seizure Peg Count
(INUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received on an INUP CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

INUP Origination CR Queue Usage
(INUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This is accumulated over the measurement interval and then converted to CCS units before output.

INUP CR Queue Overflow Peg Count
(INUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an INUP call in an entry on the INUP origination CR queue fails because no free entry is available, this counter is incremented by one.

INUP Origination CR Queue Abandon Peg Count
(INUP CR QUEUE ABAN)

When the IAM and other identifying information for an INUP call that has been abandoned is removed from the INUP origination call register queue, this counter is incremented by one.

Call Register (CR) Usage
(CR USAGE)

The Call Register occupancy count is scanned every ten seconds for the number of CRs that are busy. This number is accumulated over the measurement interval and then converted to CCS units before output.

INR Seizure Peg Count
(INR SZRE)

When the Intelligent Network Register (INR) is removed from the link list of idle INRs and initialized for an INR call, this counter will be incremented by one.

INR Usage

The INR occupancy count is scanned every 10 seconds for the number of INRs that are busy. This number is accumulated over the measurement interval and then converted to CCS units before output.

INR Overflow Peg Count

When an attempt to place information associated with an IN call in an entry on an INR fails because no free entry is available, this counter is incremented by one.

DP CR Queue Seizure Peg Count
(DP CR QUEUE SZRE)

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

When the Trunk Register (TR) of a trunk associated with an incoming DP call is linked to an entry on the DP CR queue, this counter will be incremented by one.

DP CR Queue Usage
(DP CR QUEUE USAGE)

The DP CR queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and it is converted to CCS units before output.

DP CR Queue Overflow Peg Count
(DP CR QUEUE OVFL)

This counter is incremented by one when an attempt to link the Trunk Register of a trunk handling a DP call with an entry on the DP CR queue fails because there is no free entry on the queue. (same count as MSC 11 OMS 6).

DP CR Queue Abandon Peg Count
(DP CR QUEUE ABAN)

When the Trunk Register of a trunk associated with a DP call that has been abandoned is unlinked from the DP CR queue, this counter is incremented by one. (same count as MSC 11 OMS 6).

CCIS Origination CR Queue Seizure
Peg Count
(CCIS CR QUEUE SZRE)

This counter is incremented by one each time an Initial Address Message (IAM) is read from a terminal for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

CCIS Origination CR Queue Usage
(CCIS CR QUEUE USAGE)

The queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCIS Origination CR Queue Overflow
Peg Count
(CCIS CR QUEUE OVFL)

When an attempt to place an IAM, and other identifying information associated with a CCIS call, in an entry on the CCIS origination CR queue fails because no free entry is available, this counter is incremented by one. (same count as MSC 11 OMS 6).

CCIS Origination CR Queue Abandon
Peg Count
(CCIS CR QUEUE ABAN)

When the IAM and other identifying information for a CCIS call that has been abandoned is removed from the CCIS origination Call Register queue, this counter is incremented by one. (same count as MSC 11 OMS 6).

MF Origination Queue Seizure Peg Count
(MF ORIG QUEUE SZRE)

When the Trunk Register of a trunk with an MF origination is linked to the MF origination queue, this counter will be incremented by one.

MF Origination Queue Usage
(MF ORIG QUEUE USAGE)

The MF origination queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

MF Origination Queue Abandon Peg Count
(MF ORIG QUEUE ABAN)

When the Trunk Register of a trunk with an MF origination in unlinked from the MF origination queue after the origination is abandoned, this counter is incremented by one.

DTMF CR Seizure Peg Count
(DTMF CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a DTMF call, the counter will be incremented by one.

IDTMFWK CR Queue Seizure Peg Count
(IDTMFWK CR Q SZRE)

When the TR of a trunk associated with an incoming DTMF call is linked to an entry on the incoming DTMF wink (IDTMFWK) CR queue, this counter will be incremented by one.

IDTMFWK CR Queue Usage
(IDTMFWK CR Q USAGE)

The IDTMFWK CR Queue occupancy count is scanned every 10 seconds for the number of entries on the queue. The number is accumulated over the measurement interval and it is converted to CCS units before output.

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

IDTMFWK CR Queue Abandon Peg Count
(IDTMFWK CR Q ABAN)

When the TR of a trunk associated with a DTMF call that has been abandoned is unlinked from the IDTMFWK CR queue, this counter is incremented by one.

IDTS CR Queue Seizure Peg Count
(IDTS CR QUEUE SZRE)

When the TR of a trunk associated with an Incoming Dial Tone Start (IDTS) call is linked to an entry on the IDTS CR queue, this counter will be incremented by one.

IDTS CR Queue Usage
(IDTS CR QUEUE USAGE)

The IDTS CR Queue occupancy count is scanned every 10 seconds for the number of entries on the queue. The number is accumulated over the measurement interval and it is converted to CCS units before output.

IDTS CR Queue Overflow Peg Count
(IDTS CR QUEUE OVFL)

This counter is incremented by one when an attempt to link the TR of a trunk handling an IDTS call to an entry on the IDTS CR queue fails because there is no free entry on the queue.

IDTS CR Queue Abandon Peg Count
(IDTS CR QUEUE ABAN)

When the TR of a trunk associated with an IDTS call that has been abandoned is unlinked from the IDTS CR queue, this counter is incremented by one.

OMS 1

CCITT No. 5 Call Register Queue Seizure
Peg Count
(CCITT5 CR SZRE)

When a Call Register is removed from the link list of idle CRs and initialized for a CCITT No. 5 call, this counter will be incremented by one.

CCITT No. 6 Call Register Queue Seizure
Peg Count
(CCITT6 CR SZRE)

This count will be incremented by one when a CR is removed from the link list of idle CRs and initialized for a CCITT No. 6 call.

CCITT No. 5 Originating Queue Seizure
Peg Count
(CCITT5 ORIG Q SZRE)

This count is incremented by one when the Trunk Register of a trunk with a CCITT No. 5 origination is linked to the CCITT No. 5 origination queue.

CCITT No. 5 Originating Queue Usage
(CCITT5 ORIG Q USAGE)

The CCITT No. 5 originating queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCITT No. 6 Originating Queue Seizure
Peg Count
(CCITT6 ORIG Q SZRE)

This counter is incremented by one when a CCITT No. 6 call goes on queue for a Call Register.

CCITT No. 6 Originating Queue Usage
(CCITT6 ORIG Q USAGE)

The CCITT No. 6 originating queue usage count is scanned every ten seconds the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCITT No. 6 Originating Queue Overflow
Peg Count
(CCITT6 ORIG Q OVFL)

This count is incremented by one when an attempt to link the Trunk Register of a trunk handling a CCITT No. 6 call with an entry on the CCITT No. 6 CR queue fails because there is no free entry on the queue.

CCITT No. 6 Originating Queue Abandon
Peg Count
(CCITT6 ORIG Q ABAN)

This counter is incremented by one when a CCITT No. 6 call goes off the originating queue for any abnormal reason. The count is pegged via Final Handling.

Second Stage MF Receiver Queue Seizure
Peg Count
(2ND STAGE MF REC Q SZRE)

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

This count is incremented by one when a call requiring second stage is removed from the CR link list and canceled to a second stage MF Receiver.

Second Stage MF Receiver Queue Usage
(2ND STAGE MF REC Q USAGE)

The second stage MF Receiver queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS before output.

Second Stage MF Receiver Queue Abandon
Peg Count
(2ND STAGE MF REC Q ABAN)

This count is incremented by one when a call on the second stage MF Receiver queue leaves the queue for any abnormal reason. The count is incremented via Final Handling.

OMS 2

International Call Detail Recording
Registers Total Records Lost Peg Count
(TOTAL RECORDS LOST)

This count is incremented by one every time a request is made to write a record into the buffer block but there are no buffer blocks available.

International Call Detail Recording
Register Buffer Block Occupancy Peg Count
(BUFFER OCCUPANCY)

The buffer occupancy counter is an up/down counter that reflects how many records are in the buffer at any time.

OMS 3

Trunk Maintenance Register Seizure
Peg Count
(TMR SZRE)

When a Trunk Maintenance Register (TMR) is removed from the link list of idle TMRs and initialized for a trunk maintenance test, this counter will be incremented by one.

Trunk Maintenance Register Usage
(TMR CCS)

The TMR occupancy count is scanned every ten seconds for the number of registers that are busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Trunk Maintenance Register Overflow
Peg Count
(TMR OVFL)

This counter is incremented by one when an attempt to seize an idle TMR fails because there are no idle TMRs on the TMR idle link list.

TABLE 18

OUTPUT MEASUREMENT SETS FOR MSC 18
(CAMA INEFFECTIVE ATTEMPTS)

```
MSC 18 CAMA IA
OMS 0
    CAMA         CAMA    CAMA POS              CAMA
   POS TO         CDT     ATT TO       CPR   POS DISC
        0           0          0         0          0
                          OVFL     ABAN
  OPERATOR QUEUE           0        0
  DP ANI RCVR QUEUE        -        0
     MCA        UCA
       0          0
```

Description of Measurements for MSC 18

OMS 0

CAMA Position Timeout Peg Count
(CAMA POS TO)

This register will be incremented when an occupied and idle CAMA operator position is seized, but remains unassigned until it times out.

CAMA Position Disconnect Timeout
Peg Count
(CAMA CDT)

This counter will be incremented by one whenever more than 5 seconds elapse between sending a disconnect signal to a CAMA operator position and receipt of off-hook from the operator on the keying trunk.

CAMA Position Attached Timeout Peg Count
(CAMA POS ATT TO)

This counter is incremented by one each time the CAMA position fails to provide a position attached signal within 30 seconds of seizure.

CAMA Position Report (CPR) Peg Count
(CPR)

This register will be incremented by one when a trouble condition is reported by the operator. An example might be poor transmission. This results in a predetermined seven digit trouble code being keyed (rather than a calling party number) and the call is aborted. (Same as MSC 36 OMS 5.)

CAMA Position Disconnect Peg Count
(CAMA POS DISC)

This counter is incremented by one each time an operator depresses the position disconnect key or unplugs between the time seizure is sent out and valid ONI digits are received. (Same as MSC 19 OMS 0.)

CAMA Operator Queue Overflow Peg Count
(OPERATOR QUEUE OVFL)

When an attempt to link a Call Register on the CAMA operator queue fails because the queue is full, this counter is incremented by one. (Same as MSC 19 OMS 0.)

CAMA Operator Queue Abandon Peg Count
(OPERATOR QUEUE ABAN)

This counter is incremented when the Call Register of a call that has been abandoned is unlinked from the CAMA operator queue (Same as MSC 19 OMS 0).

DP ANI MF Receiver Queue Abandon
Peg Count
(DP ANI RCVR QUEUE ABAN)

When the Call Register of a call that has been abandoned is unlinked from the DP ANI MF receiver queue, this counter is incremented by one. (Same as MSC 19 OMS 0.)

Misrouted CAMA Peg Count
(MCA)

This counter is incremented by one when a call is sent to Final Handling Treatment because a return is made from the local call intercept translation that says the call should have been completed locally.

Unauthorized CAMA Peg Count
(UCA)

This counter is incremented by one when a call is sent to Final Handling Treatment because a return is made from the local call intercept translation that indicates that the dialed number is unauthorized for CAMA (for example, operator codes).

TABLE 19

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

```
MSC 19  CAMA
OMS 0
                        SRV
                  SZRE    USAGE   USAGE   OVFL    ABAN     DCONN
POSITION             0        0       0       -       -         0
OP QUEUE             0        -       0       0       0         -
DP ANI QUEUE         0        -       0       -       0         -

   CALLS      ONI  ANI MP  ONI PROCESSED  5-SEC TOUT
       0        0       0              0           0
     ANF      AIF     AOF
       0        0       0

OMS 1
      AMA MATCH      AMA WRONG
       CHK FAIL    CALLING CODE
              0               0

OMS 2
      EA ANI      EA ANI      EA ANI        CALL          TAPE/3B
        FAIL      FL-RTE        SUCC    RCD LOST           BLOCKS
           0           0           0           0                0
```

Description of Measurements for MSC 19

OMS 0

Total CAMA Positions Seizure Peg Count
(POSITION SZRE)

This counter is incremented by one each time an occupied (manned) and idle CAMA operator position is made service busy. This is done by changing the first busy idle bit associated with a position's keying trunk from 1 to 0.

Total CAMA Positions Service Usage
(POSITION SRV USAGE)

After each ten second scan, this counter is incremented by the number of CAMA operator positions that are found occupied and service busy. This data is converted into CCS by the traffic program before output.

CAMA Positions Usage
(POSITION USAGE)

This counter is incremented by the number of CAMA positions found occupied after each ten second scan. This data is converted into CCS by the traffic program before output.

CAMA Position Disconnect Peg Count
(POSITION DCONN)

This counter is incremented by one each time an operator depresses the position disconnect key or unplugs between the time seizure is sent and valid ONI digits are received. (Same as MSC 18 OMS 0.)

CAMA Operator Queue Seizure Peg Count
(OP QUEUE SZRE)

When a Call Register is linked on the CAMA operator queue, this counter is incremented by one.

CAMA Operator Queue Usage
(OP QUEUE USAGE)

After each ten second scan, this counter is incremented by the number of call registers linked on the CAMA operator queue. This data is converted to CCS by the traffic program before output.

CAMA Operator Queue Overflow Peg Count
(OP QUEUE OVFL)

When an attempt to link a Call Register on the CAMA operator queue fails because the queue is full, this counter is incremented by one. (Same as MSC 18 OMS 0.)

TABLE 19 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

CAMA Operator Queue Abandon Peg Count
(OP QUEUE ABAN)

This counter is incremented by one when the Call Register of a call that has been abandoned is unlinked from the CAMA operator queue. (Same as MSC 18 OMS 0.)

DP ANI MF Receiver Queue Seizure
Peg Count
(DP ANI QUEUE SZRE)

This counter is incremented by one when a Call Register associated with a DP ANI call is linked on the DP ANI MF Receiver queue. This link to the queue is necessary while waiting for a receiver to collect the information digit and the calling number (Same as MSC 18 OMS 0).

DP ANI MF Receiver Queue Usage
(DP ANI QUEUE USAGE)

After each ten second scan, this counter is incremented by the number of Call Registers (associated with a DP ANI call) that are linked on the DP ANI MF Receiver queue. This data is converted into CCS by the traffic program before output.

DP ANI MF Receiver Queue Abandon
Peg Count
(DP ANI QUEUE ABAN)

When the Call Register of a call that has been abandoned is unlinked from the DP ANI MF Receiver queue, this counter is incremented by one.

NOTE: The following four (4) counts are incremented at key points in the CAMA program. From these the On-Site Report System can derive the counts for offered ONI calls, offered ANI calls and ANI failure.

Total CAMA Calls Peg Count
(CALLS)

This counter is incremented by one whenever a call originates on a CAMA trunk and the called number is received for an ANI or ONI call.

ONI Calls Peg Count
(ONI)

This counter will be incremented by one each time a call is initially determined to be an ONI call to the information digit outpulsed by the ANI office indicates multi-party.

ANI Multi-Party Calls Peg Count
(ANI MP)

This count will be incremented by one each time the information digit outpulsed by an ANI office indicates the caller is on a multi-party line.

Operator Processed CAMA Calls Peg Count
(ONI PROCESSED)

This count will be incremented each time a CAMA call is sent to an operator because:

a. The call is from an ONI trunk,

b. The information digit from an ANI office indicated multi-party.

c. There was an AIF or ANF on an ANI call.

CAMA Calls Queue Over 5-Seconds Peg Count
(5-SEC TOUT)

This counter is incremented whenever a call abandons or is removed from the CAMA operator position queue and the length of time the call was queued exceeds 5-seconds.

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

On CAMA Automatic Number Identification (ANI) calls, this counter will be incremented by one when 5 seconds have elapsed between reception of an information digit and the calling party number digits. The counter will also be incremented when the ANI equipment receives invalid or non-MF calling party digits, or the ANI information digit is a non-MF tone. The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Local Office Failure
(AIF)

This counter will be incremented by one for CAMA ANI calls for which the ANI information digit is not 0 or 3 (ANI information is not forthcoming from the origination office). The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure
(AOF)

TABLE 19 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

This counter will be incremented by one for CAMA ANI calls for which a five second timeout occurs while waiting for the ANI information digit. The call is then transferred to an operator for further handling.

OMS 1

AMA Match Check Failure Peg Count
(AMA MATCH CHK FAIL)

This counter is incremented by one each time the customer gives the CAMA operator the called number instead of the calling number.

AMA Wrong Calling Code Peg Count
(AMA WRONG CALLING CODE)

This counter is incremented by one each time a CAMA operator keys in a calling number invalid for CAMA.

OMS 2

EA ANI Failure Peg Count
(EA ANI FAIL)

This counter is incremented by one each time an Equal Access (EA) Automatic Number Identification (ANI) call encounters an error in reception of the ANI digits.

EA ANI Failure - Route Peg Count
(EA ANI FL-RTE)

This counter is incremented by one each time an EA ANI call encounters an error in the reception of the ANI digits and the call was still routed.

EA ANI Success Peg Count
(EA ANI SUCC)

This count is incremented by one each time an EA ANI call either receives the correct ANI digit sequence or the ANI digit sequence fails with Far End Network (FEN) ANI Failure Action (AFA) set to a continue state.

Call Record Lost Peg Count
(CALL RCD LOST)

This counter is incremented by the number of records that were lost due to the records not being entered on the AMA tape.

Call Record Block Peg Count
(TAPE/3B BLOCKS)

This counter is incremented by one each time a block of AMA call records is written onto the AMA tape or to the 3B/APS.

TABLE 20

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

```
MSC 20 PERFORMANCE MEASUREMENTS - MAJOR MAINT RESPONSES AND ALARMS
OMS 0  INTERRUPT - TOTALS
         TOT-A  TOT-B  TOT-C  TOT-D  TOT-E  TOT-F  TOT-K
 SINGLE      0      0      0      0      0      0      0
 MULT        0      0      0      0      0      -      -

OMS 1 MAJOR MAINTENANCE RESPONSES
  INTERRUPTS
    B HIN    B PSI    B PSO   B CCSW   B BROM   B CPAR   D CSIR     D AUI
        0        0        0        0        0        0        0         0
  D AUIIR    D STK    D IVT    D PAF    D OOR  D IFBOR    D MUP   D MUPIR
        0        0        0        0        0        0        0         0
    D SSD  D SSDIR    E INR    E OOR   F PUFO   F APUF   F PUFI  INT LEVL
        0        0        0        0        0        0        0         0
 TOT MINJ   INJ,AP  INJ,DUS  OPINJPS   STFLAP  INJ,MUP  INJ,AUI   BLM,MUP
        0        0        0        0        0        0        0         0
ADDRESSING ERRORS
   DURUIR   CCMUPIR   CCMUPOR   CCAUIIR   CCAUIOR   CCSSDIR   CCSSDOR
        0         0         0         0         0         0         0
  MUPCLIR   MUPCLOR   MUPCSIR   MUPCSOR   MUPPSIR   MUPPSOR
        0         0         0         0         0         0
  AUIPSIR   AUIPSOR  AUIAPIIR  AUIAPIOR  AUIDUSIR  AUIDUSOR
        0         0         0         0         0         0
  AUICSIR   AUICSOR   CLSSDIR   CLSSDOR
        0         0         0         0
MISC MAINTENANCE RESPONSES
 CCFR,CC0  CCFR,CC1  FAN0,INH  FAN1,INH
        0         0         0         0

OMS 2  ALARMS
          CRITICAL  MAJOR   MINOR
                0       0       0
 POWER RM     -          0       0

OMS 3   HARDWARE DETECTED CGA
            0
```

Description of Measurements for MSC 20

OMS 0

Individual Totals of A through K
Level Interrupts Peg Count
(SINGLE or MULT TOT A-K)

These counters will be incremented by one each time the A through K level interrupt logic is placed in execution. The counters will be incremented by the Maintenance Restart Program (MARP) before exiting from interrupt level program execution.

Note that in 4E3 the multiple F-Level total Peg Counter is not being pegged. It will be added in the future issue. Also note that the total number of single F-Levels includes F-Levels from the MCC and IOUS. These last two sources are not shown individually in MSC 20/OMS 1.

OMS 1

B-Level Interrupts Hardware Initialization
Peg Count
(B HIN)

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

This counter will be incremented by one each time it can be determined that the B-Level interrupt is due to a processor configuration or a processor configuration accompanying a system reinitialization. The counter will be incremented by the Processor Configuration Recovery Program (PCRV).

B-Level Interrupts Pulse Source In-Range
Peg Count
(B PSI)

This counter will be incremented by one each time it can be determined that the B-Level interrupt is due to an in-range pulse source error. The counter is incremented by the Central Control Fault Recognition Program (CCFR).

B-Level Interrupts Pulse Source Out-Of-Range
Peg Count
(B PSO)

This counter will be incremented by one by the CCFR program each time it determines that the B-level interrupt is due to an out-of-range pulse source error.

B-Level Interrupt Central Control Switch
Peg Count
(B CCSW)

This counter will be incremented by one by the CCFR program each time it determines that the B-Level interrupt resulted from a Central Control Switch.

Internal B-level Boot ROM Parity Error Count
(B BROM)

This counter is pegged every time that the CCs are switched. This includes switches on base level and on interrupt.

Internal B-level Control Parity Error Count
(B CPAR)

This count is pegged every time a B-level occurs because of a Control Parity Error.

D-Level Interrupts Call Store In-Range
Peg Count
(D CSIR)

This counter will be incremented by one each time the Call Store Terminal Equipment Center Fault Recognition Program (CSFR) can determine that the D-level interrupt is due to an in-range Call Store Error.

AUI D-Level Counter
(D AUI)

This counter is incremented each time a D level error is involved with the Auxiliary Unit Interface (AUI) board. The error could occur under two types of transactions: memory mapped input output (MMIO), and Word DMA.

AUI In-Range D-Level Counter
(D AUIIR)

This counter is incremented each time an in-range D-level error is involved with the Auxiliary Unit Interface (AUI) board. The error could occur under two types of transactions: memory mapped input output (MMIO), and Word DMA.

D-Level Interrupts Stack Related Peg Count
(D STK)

This counter will be incremented by one each time the CSFR program can determine that the d-level interrupt is due to a stack related error, such as overflow or underflow.

D-Level Interrupts Invalid Transfer
Peg Count
(D IVT)

This counter will be incremented by one each time the CSFR program can determine that the D-level interrupt is due to an invalid transfer.

D-Level interrupts Protected Area Failure
Peg Count
(D PAF)

Each time the CSFR program can determine that the D-level interrupt is due to a protected area failure, this counter will be incremented by one.

D-Level Interrupts Out-Of-Range Peg Count
(D OOR)

This counter will be incremented by one each time the Maintenance Restart Program (MARP) can determine that the D-level interrupt was due to an Out-Of-Range error.

IFB Out-Of-Range D-Level
(D IFBOR)

This counter is incremented each time an invalid software access is found on the IFB. These access

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

could occur under all types of transactions: memory mapped input output (MMIO), Word or Block DMA.

MUP D-Level Counter
(D MUP)

This counter is incremented each time a D-level error is involved with the Maintenance and Utility Processor (MUP). The error could occur under all types of transactions: memory mapped input output (MMIO), client-to-client, and Word or Block DMA.

MUP In-Range D-Level Counter
(D MUPIR)

This counter is incremented each time an in-range D-level error is involved with the Maintenance and Utility Processor (MUP). The error could occur under all types of transactions: memory mapped input output (MMIO), client-to-client, and Word or Block DMA.

SSD D-Level Counter
(D SSD)

This counter is incremented each time a D-level error is involved with the Scan and Signal Distributor (SSD). The error occurred under memory mapped input output (MMIO) when CC tried to access it.

SSD In-Range D-Level Counter
(D SSDIR)

This counter is incremented each time a D-level error is involved with the Scan and Signal Distributor (SSD). The error occurred under memory mapped input output (MMIO) when CC tried to access it.

E-Level Interrupts In-Range Peg Count
(E INR)

Each time that the Program Store Fault Recognition Program (PSFR) can determine that the E-level interrupt is due to an in-range PS error, this counter will be incremented by one.

E-Level Interrupts Out-Of-Range Peg Count
(E OOR)

This counter will be incremented by one each time the PSFR program can determine that the E-level interrupt is due to an Out-Of-Range PS error.

F-Level Interrupts Peripheral Unit
Failure Out-Of-Range Peg Count
(F PUFO)

Each time the PBFR program can determine that the F-level interrupt is due to an Out-Of-Range PUF, this counter will be incremented by one.

F-Level Interrupts Autonomous
Peripheral Unit Failure Peg Count
(F APUF)

This counter will be incremented by one each time the PBFR can determine that the F-level interrupt was due to an Autonomous Peripheral Unit Failure (APUF). The units capable of this action include the SP, VIP, TSI and TMS.

F-Level Interrupts Peripheral Unit
Failure In-Range Peg Count
(F PUFI)

This counter will be incremented by one each time that the Peripheral Bus Fault Recognition Program (PBFR) can determine that the F-level interrupt is due to an in-range Peripheral Unit Failure (PUF).

Interrupt Level Duration Count
(INT LEVL)

This counter will be updated by the Maintenance Restart Program (MARP), before existing from interrupt level processing, by the amount of time, measured in tens of milliseconds, which has been spent on interrupt level. This count will reflect system outage due to interrupts.

Maintenance Interjects Voiceband Interface
Peg Count
(TOT MTINJ)

For each maintenance interject request associated with a VIF, PUC, MAS, DIF, or Signal Processor, this counter will be incremented by one.

Attached Processor Interject Peg Count
(INJ,AP)

This counter will be incremented by one by the AUFR program for each Attached Processor Maintenance Interject request.

Data Unit Selector Interject Peg Count
(INJ,DUS)

This counter will be incremented by one by the AUFR program for each Data Unit Selector Control Unit Maintenance Interject request.

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

Operational Interject Data Unit Selector
Peg Count
(OPINJPS)

This counter will be incremented by one by the AUFR program each time an operational interject is caused by a Data Unit selector.

Status Failure Attached Processor
Peg Count
(STFLAP)

Each time a status failure is caused by a Attached Processor, this counter will be incremented by one.

MUP Interject Counter
(INJ,MUP)

This counter is incremented each time an interject from the Maintenance and Utility Processor (MUP) is reported.

AUI Interject Counter
(INJ,AUI)

This counter is incremented each time an interject from the Auxiliary Unit Interface (AUI) board is reported.

MUP BLM Counter
(BLM,MUP)

This counter is incremented each time a Base Level Maintenance (BLM) request from the Maintenance and Utility Processor (MUP) is processed.

DUS to TUC In-Range Error Peg Count
(DURUIR)

This counter will be incremented by one each time the appropriate program determines that the specified addressing error has taken place.

CC to MUP Out-Of-Range Counter
(CCMUPOR)

This counter is incremented each time a D-level error of invalid out-of-range memory mapped input output (MMIO) access is involved with the Maintenance and Utility Processor (MUP).

CC to AUI In-Range Counter
(CCAUIIR)

This counter is incremented each time a D-level error of the valid in-range memory mapped input output (MMIO) access is involved with the Auxiliary Unit Interface (AUI) board.

CC to AUI Out-Of-Range Counter
(CCAUIOR)

This counter is incremented each time a D-level error of invalid out-of-range memory mapped input output (MMIO) access is involved with the Auxiliary Unit Interface (AUI) board.

CC to SSD In-Range Counter
(CCSSDIR)

This counter is incremented each time a D-level error of the valid in-range memory mapped input output (MMIO) access is involved with the Scan and Signal Distributor (SSD) board.

CC to SSD Out-Of-Range Counter
(CCSSDOR)

This counter is incremented each time a D-level error of invalid out-of-range memory mapped input output (MMIO) access is involved with the Scan and Signal Distributor (SSD) board.

MUP to Client In-Range Counter
(MUPCLIR)

This counter is incremented each time a D-level error of valid in-range client-to-client access is involved with the Maintenance and Utility Processor (MUP).

MUP to Client Out-Of-Range Counter
(MUPCLOR)

This counter is incremented each time a D-level error of invalid out-of-range client-to-client access is involved with the Maintenance and Utility Processor (MUP).

MUP to CS In-Range Counter
(MUPCSIR)

This counter is incremented each time a D-level error of valid in-range MUP to CS DMA is involved with the Maintenance and Utility Processor (MUP).

MUP to CS Out-Of-Range Counter
(MUPCSOR)

This counter is incremented each time a D-level error of invalid out-of-range MUP to CS DMA is involved with the Maintenance and Utility Processor (MUP).

MUP to PS In-Range Counter

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

(MUPPSIR)

This counter is incremented each time a D-level error of valid in-range MUP to PS DMA is involved with the Maintenance and Utility Processor (MUP).

MUP to PS Out-Of-Range Counter
(MUPPSOR)

This counter is incremented each time a D-level error of invalid out-of-range MUP to PS DMA is involved with the Maintenance and Utility Processor (MUP).

AUI to PS In-Range Counter
(AUIPSIR)

This counter is incremented each time a D-level error of valid in-range AUI to PS DMA is involved with the Auxiliary Unit Interface (AUI) board.

AUI to PS Out-Of-Range Counter
(AUIPSOR)

This counter is incremented each time a D-level error of invalid out-of-range AUI to PS DMA is involved with the Auxiliary Unit Interface (AUI) board.

AUI to API In-Range Counter
(AUIAPIIR)

This counter is incremented each time an interject error on a valid in-range AUI to API access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to API Out-Of-Range Counter
(AUIAPIOR)

This counter is incremented each time an interject error on an invalid out-of-range AUI to API access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to DUS In-Range Counter
(AUIDUSIR)

This counter is incremented each time an interject error on a valid in-range AUI to DUS access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to DUS Out-Of-Range Counter
(AUIDUSOR)

This counter is incremented each time an interject error on an invalid out-of-range AUI to DUS access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to CS In-Range Counter

(AUICSIR)

This counter is incremented each time a D-level error of valid in-range AUI to CS DMA is involved with the Auxiliary Unit Interface (AUI) board.

AUI to CS Out-Of-Range Counter
(AUICSOR)

This counter is incremented each time a D-level error of invalid out-of-range AUI to CS DMA is involved with the Auxiliary Unit Interface (AUI) board.

SSD to Client In-Range Counter
(CLSSDIR)

This counter is incremented each time a D-level error of valid in-range client-to-client access is involved with the Scan and Signal Distributor (SSD).

SSD to Client Out-Of-Range Counter
(CLSSDOR)

This counter is incremented each time a D-level error of invalid out-of-range client-to-client access is involved with the Scan and Signal Distributor (SSD).

External CCFR Entry When
CC 0 Was Active Simplex
(CCFR,CC0)

This count is pegged every time the CCFR program is called by D/E/F-level.

External CCFR Entry When
CC 1 Was Active Simplex
(CCFR,CC1)

This count is pegged every time the CCFR program is called by D/E/F-level.

Fan Controller 0 Inhibited Counter
(FAN0,INH)

This counter is incremented each time 1B overrides Fan Controller 0’ control when software receives an invalid response from it.

Fan Controller 1 Inhibited Counter
(FAN1,INH)

This counter is incremented each time 1B overrides Fan Controller 0’ control when software receives an invalid response from it.

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

OMS 2

Alarms Peg Count
(ALARMS CRITICAL, MAJOR, or MINOR)

Within the 4ESS Switch there are three categories of alarms-critical, major and minor. A counter will exist for each one of these categories individually. Each time an alarm is announced the appropriate counter will be incremented by one to produce a total Peg Count for each alarm.

Power Room Alarms Peg Count
(POWER RM MAJOR-MINOR)

Power Room Alarm Peg Counts are counts of major and minor alarms sounded for power failures in power rooms remote from the switching equipment.

OMS 3

Hardware Detected CGA Peg Count
(HARDWARE DETECTED CGA)

This counter will be incremented by one each time a carrier failure is detected by hardware.

TABLE 21

OUTPUT MEASUREMENT SETS FOR MSC 21
(PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES)

```
MSC 21 PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES
OMS 0  SYSTEM RECOVERY - PHASES
  PH1PRG  PH1MAN  PH2PRG  PH2MAN  PH3PRG  PH3MAN  PH4MAN   PHTIME
       0       0       0       0       0       0       0        0

OMS 1  RECENT CHANGE MEASUREMENTS
 NO. RC ACTIVATED       0
 TYPE 2 ROLLBACKS       0

OMS 2  NM MEASUREMENTS

  CONTROL       SILC
  INVOKED     CONTROL    ROLLBACKS
        0           0            0

OMS 3  MACHINE CONGESTION

     MC1        REAL TIME        MF        DP      CCIS
  PEG COUNT             0         0         0         0
  TIME(10 MSEC)         0         0         0         0

     MC2        REAL TIME        MF        DP      CCIS
  PEG COUNT             0         0         0         0
  TIME (10 MSEC)        0         0         0         0
```

Description of Measurements for MSC 21

OMS 0

Phase 1 Program Initiated Peg Count
(PH1PRG)

This counter will be incremented by one by the Software Initialization Program (SINT) each time a phase 1 software initialization is initiated by the System Integrity Control (SICO) due to a program request.

Phase 1 Manually Initiated Peg Count
(PH1MAN)

Each time a phase 1 software initialization is initiated by SICO due to a manual request, this counter will be incremented by one by SINT.

Phase 2 Program Initiated Peg Count
(PH2PRG)

This counter will be incremented by one by the SINT program each time the SICO program initiates a phase 2 software initialization due to a program request.

Phase 2 Manually Initiated Peg Count
(PH2MAN)

Each time a phase 2 software initialization is initiated by the SICO program due to a manual request, this counter will be incremented by one by the SINT program.

Phase 3 Program Initiated Peg Count
(PH3PRG)

This counter will be incremented by one by the SINT program each time the SICO program initiated a phase 3 software initialization due to a program request.

Phase 3 Manually Initiated Peg Count
(PH3MAN)

Each time a phase 3 software initialization is initiated by the SICO program due to a manual request, this counter will be incremented by one by the SINT program.

Phase 4 Manually Initiated Peg Count
(PH4MAN)

This counter will be incremented by one by the SINT program each time the SICO initiates a phase 4 software initialization due to a manual request.

TABLE 21 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 21
(PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES)

Phase Level Duration Count
(PHTIME)

This counter will be updated by the Maintenance Restart Program (MARP) with the amount of time, measured in tens of milliseconds, that the system spends in a phase level recovery of any type. This count will include only the time spent in the phase and not time spent on interrupt processing due to a phase or as part of a phase.

OMS 1

Number Of Recent Changes Activated
Peg Count
(NO. RC ACTIVATED)

This counter is incremented by one each time a Recent Change is Activated.

Total Type 2 Rollbacks Peg Count
(TYPE 2 ROLLBACKS)

This counter will be incremented by one each time a Type 2 Recent Change rollback occurs. A Type 2 rollback is manually activated with a phase.

OMS 2

Network Management Controls Invoked
Peg Count
(CONTROL INVOKED)

This counter is incremented by one each time a Network Management control is instituted by the Network Manager.

Selective Incoming Load Control Peg Count
(SILC CONTROL)

This count is incremented by one when an incoming bid for service is denied due to Network Management Selective Incoming Load Control.

Network Management Control Rollbacks
Peg Count
(ROLLBACKS)

This counter is incremented by one each time the reinstatement of TSG control is inhibited as a result of a system reinitialization. The count relates to the number of phases when this occurs, not to the number of TSGs affected.

OMS 3

Dynamic Overload Control Peg Count
and Duration Measurement

This counter is incremented by the Network Management program whenever a request is made by overload or phase control programs to transmit a particular level and type of Dynamic Overload Control on order to reduce incoming call pressure. There are 4 types of control per level and 2 levels MC1 and MC2 (no counts are kept for MC3). The types are MF, DP, CCIS and Real Time, which determine the types of trunks for which DOC signals are sent. The Real Time control implies all signaling types.

The duration measurement for each level and type of control is given in tens of milliseconds. The measurement is maintained by recording the time a control was instituted, calculating elapsed time when the control is removed and summing that time into a counter. The specified counts are:

1. MC1 Real Time Peg Count
2. MC1 MF Peg Count
3. MC1 DP Peg Count
4. MC1 CCIS Peg Count
5. MC1 Real Time Duration
6. MC1 MF Duration
7. MC1 DP Duration
8. MC1 CCIS Duration
9. MC2 Real Time Peg Count
10. MC2 MF Peg Count
11. MC2 DP Peg Count
12. MC2 CCIS Peg Count
13. MC2 Real Time Duration
14. MC2 MF Duration
15. MC2 DP Duration
16. MC2 CCIS Duration

TABLE 22

OUTPUT MEASUREMENT SETS FOR MSC 22
(PERFORMANCE MEASUREMENTS - AUDIT TYPE)

```
MSC 22 PERFORMANCE MEASUREMENTS - AUDIT TYPE
OMS 0 AUDIT COMPLT
  ROUTINE-     0
  DEMAND -     0
OMS 1 AUDIT ERRORS
  ROUTINE-     0
  DEMAND -     0
```

Description of Measurements for MSC 22

OMS 0

Total Routine Audits Completed Peg Count
(AUDIT COMPLT-ROUTINE)

This counter will be incremented by one by the Audit Control Program (AUDS) each time any audit type (00-127) that is routinely requested by the program is completed.

Total Demand Audits Completed Peg Count
(AUDIT COMPLT-DEMAND)

Each time any audit type (00-127) that is manually requested is completed, this counter will be incremented by one by the AUDS program.

OMS 1

Total Routine Audits Errors Found
Peg Count
(AUDIT ERRORS-ROUTINE)

This counter will be incremented by one by the AUDS program each time an error is found by an audit type (00-127) that is routinely requested by the program.

Total Demand Audits Errors Found
Peg Count
(AUDIT ERRORS-DEMAND)

Each time any audit type (00-127) that is manually requested finds an error, this counter will be incremented by one by the AUDS program.

TABLE 23

OUTPUT MEASUREMENT SETS FOR MSC 23
(PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR)

```
MSC 23 PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR
OMS 0  MAINTENANCE OCCUPANCIES
  PROCESSOR  NETWORK  SERV CIRC
          0        0         0

OMS 1  MTCE USAGE
     CC     PS     CS    MUP    AUI
      0      0      0      0      0
    AUB    PSB    CSB    PUB   XPWR
      0      0      0      0      0
   IOUS   IOUC    API    IFB    DUS
      0      0      0      0      0
    TUC    PDF    SSD
      0      0      0

OMS 2 PERIPHERAL UNIT MTCE USAGE AND OUTAGE
                 TSI     TMS     TGR     TER    NCLK    SCLK    NCSU
  MTCE USAGE      0       0       0       0       0       0       0
  OUTAGE          0       0       0       0       0       0       0
                 D3U
  MTCE USAGE      0
  OUTAGE          0

OMS 3  PER CALL SERVICE CIRCUITS ACCUM MAINT OCC
    MF RCVR  DTMF RCVR  MF XMTR  DTMF XMTR
         0         0         0         0
     NSCXS     MSFHA      SCSB      SETA      SETC
         0         0         0         0         0
      SETD      SETE      SETF      SETG   CCIS XMTR
         0         0         0         0         0

OMS 4  VFL ACCUM MAINT OCC
   DOM       0
   INT       0
```

Description of Measurements for MSC 23

OMS 0

Processor Accumulated Maintenance Usage
(PROCESSOR)

This counter will accumulate total maintenance usage for all units listed separately under OMS 1.

Network Accumulated Maintenance Usage
(NETWORK)

This counter will accumulate total maintenance usage for all units listed separately under OMS 2.

Service Circuits Accumulated
Maintenance Usage
(SERV CIRC)

This counter will accumulate total maintenance usage for all units listed separately under OMS 3.

OMS 1

Accumulated Maintenance Usage

The maintenance status for each of the specified units is determined every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before

TABLE 23 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 23
(PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR)

output. Thus the printout of each register for the following unit types will reflect, in CCS, the amount of time the units were maintenance busy.

1. Central Control (CC)
2. Program Store (PS)
3. Call Store (CS)
4. Maintenance and Utility Processor (MUP)
5. Auxiliary Unit Interface (AUI)
6. Auxiliary Unit Bus (AUB)
7. Program Store Bus (PSB)
8. Call Store Bus (CSB)
9. Peripheral Unit Bus (PUB)
10. Miscellaneous Power Board (XPWR)
11. Input-Output Unit Selector (IOUS)
12. Input-Output Unit Controller (IOUC)
13. Attached Processor Interface (API)
14. Interface Bus (IFB)
15. Data Unit Selector (DUS)
16. Tape Unit Controller (TUC)
17. Power Distribution Frame (PDF)
18. Scan and Signal Distributor (SSD)

OMS 2

Accumulated Maintenance Usage

The status table for each of the specified peripheral unit types is scanned every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus, the printout of each register for the following unit types will reflect in CCS, the amount of time the units were maintenance busy.

1. Time-Slot Interchange frame (TSI)
2. Time-Multiplex Switching Pair (TMS)
3. CCIS Terminal Group (TGR)
4. CCIS Terminal (TER)
5. Network Clock (NCLK)
6. System Clock (SCLK)
7. Network Clock Synchronization Unit (NCSU)
8. DS3 Unit (D3U)

Outage

The Service Degrading Conditions Table is scanned every 10 seconds to determine the number of each of the following unit types that are unavailable for service. The output, in CCS, is service outage time due to the condition specified for each unit type. Only primary outage times are reported. When a failure of one type causes the failure of another, only the first is recorded. (See MSC 24 for other outage measurements.)

9. TSI - Duplex Controller OOS
10. TMS - Duplex Controller OOS
11. TGR - Duplex Controller OOS
12. TER - Terminal Pair OOS
13. NCLK - 4 Clock Chains OOS
14. SCLK - Duplex Controller OOS
15. NCSU - 4 Clock Chains OOS
16. D3U - OOS unit not protection switched

OMS 3

Accumulated Maintenance Usage

The occupancy counter for each of the specified service circuits is scanned every 180 seconds. After each scan, the accumulating register for the service circuit type is incremented by the number of units found to be maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register for the following service circuit type will reflect, in CCS, the amount of time the units were maintenance busy.

1. MF Receivers (MF RCVR)
2. DTMF Receivers (DTMF RCVR)
3. MF Transmitters (MF XMTR)
4. DTMF Transmitters (DTMF XMTR)
5. NSCX Set S (NSCXS)
6. MAS and Expanded Announcements (MSFHA)
7. Set B on SCS (SCSB)
8. Set A on ISAIC (SETA)
9. Set C on ISAIC (SETC)
10. Set D on ISAIC (SETD)
11. Set E on ISAIC (SETE)
12. Set F on ISAIC (SETF)
13. Set G on ISAIC (SETG)
14. CCIS Transceivers (CCIS XCVR)

OMS 4

Domestic VFL Accumulated Maintenance Occupancy
(DOM VFL ACCUM MAINT OCC)

This counter contains the accumulated maintenance occupancy for all Domestic VFL circuits and is obtained via a 180 second scan of Trunk Subgroup head cells for VFL's. The output is in CCS.

International VFL Accumulated Maintenance Occupancy

TABLE 23 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 23
(PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR)

(INT VFL ACCUM MAINT OCC)	
This counter contains the accumulated maintenance occupancy for all International VFL circuits. It is obtained via a 180 second scan of Trunk Subgroup head cells for VFLs. The output is in CCS.	

TABLE 24

OUTPUT MEASUREMENT SETS FOR MSC 24
(PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT)

```
MSC 24 PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT
OMS 0  TOTAL ACCUMULATED MAINTENANCE OCCUPANCY
  TERMINAL EQUIPMENT
         0

OMS 1  TERMINAL EQUIPMENT MAINT USAGE AND OUTAGE
          SP     VIC    VIU    DTC    DTU    DIF    DIU
USAGE        0      0      0      0      0      0      0
         SCS    SCU     IBU
USAGE        0      0      0

          SP     VIC    VIU    DTC    DTU    DIF    DIU
OUTAGE       0      0      0      0      0      0      0
         SCS    SCU     IBU
OUTAGE       0      0      0

OMS 2  TERMINAL EQUIPMENT
          UNIT     LOC     NONLOC   ---DIAG REQ----   ---DIAG ATP----
         ERRORS   FAULTS   FAULTS    PROG    MANUAL    PROG    MANUAL

 SP          0        0        0        0        0        0        0
 VIC         0        0        0        0        0        0        0
 VIU         0        0        0        0        0        0        0
 DTC         0        0        0        0        0        0        0
 DTU         0        0        0        0        0        0        0
 DIF         0        0        0        0        0        0        0
 DIU         0        0        0        0        0        0        0
 SCS         0        0        0        0        0        0        0
 SCU         0        0        0        0        0        0        0
 IBU         0        0        0        0        0        0        0
```

Description of Measurements for MSC 24

OMS 0

Terminal Equipment Accumulated
Maintenance Usage
(TERMINAL EQUIPMENT)

This counter will accumulate total maintenance usage for all units associated with the MOC, and TEC 1 through 5. These units are listed individually under OMS 1.

OMS 1

Accumulated Maintenance Usage
(USAGE)

For Administration purposes, each of the units specified is assigned, via CMS 1A, to a Terminal Equipment Center (TEC 1 to 5). All maintenance usage for units assigned to TEC 1 to 5 will be combined and accumulated in a register assigned to the Maintenance Operations Center (MOC). The occupancy counter for each of the specified units is scanned every 180 seconds. After each scan, the accumulating register for each unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units before output. Thus, the printout of each register for a specified unit type will reflect in CCS, the amount of time the units were maintenance busy.

The units are SP, VIC, VIU, DTC, DTU, DIF, DIU, SCS, SCU, and IBU. No maintenance usage is charged against units (VIU, DTU, DIU, SCU, IBU) resident in a frame that is duplex failed.

Accumulated Outage
(OUTAGE)

TABLE 24 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 24
(PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT)

These counters contain the time in CCS that the specified terminal units are not available for service. The Service Degrading Conditions Table is scanned every 10 seconds and the number of units found failed in each category is added to the plant counters. Outage is defined as follows:

a. SP, VIF, DT, DIF and SCS - Duplex controller failure

b. VIU, DTU, DIU, SCU, IBU - Out-Of-Service unit is not protection switched. No outage is counted against units resident in a duplex failed frame.

OMS 2

The counts described below (with the SP as an example unit) are outputted for the following units:

Signal Processor (SP)
Voiceband Interface Controller (VIC)
Voiceband Interface Unit (VIU)
Digroup Terminal Controller (DTC)
Digroup Terminal Unit (DTU)
Digital Interface Frame (DIF)
Digital Interface Unit (DIU)
Service Circuit System (SCS)
Service Circuit Unit (SCU)
In-Band Unit (IBU)

Signal Processor Errors Peg Count
(SP UNIT ERRORS)

The entries in this counter are defined as malfunctions, the symptoms of which cannot be reproduced under program control. An interrupt associated with a Signal Processor causes this counter to be incremented by one. The Unit Fault Recognition (FR) program will increment this Peg Counter.

Signal Processor Located Faults Peg Count
(SP LOC FAULTS)

This item is defined as a fault occurrence that can be resolved through analysis, to a replaceable equipment unit. This counter will be incremented by one when an interrupt causes execution of the FR program, which requests that the unit be diagnosed, and the diagnostic finds the trouble source.

Signal Processor Non-located Faults
Peg Counts
(SP NONLOC FAULTS)

This register will be incremented by one when a fault occurs that cannot be resolved through analysis to a replaceable equipment unit. It is incremented only when the diagnostic was requested by a fault recognition program. (The unit diagnostic would complete with an All Test Pass "ATP" result.)

Signal Processor Diagnostics Program
Requested Peg Count
(SP DIAG REQ PROG)

This counter will be incremented by one each time the unit diagnostic program is executed, unless its execution has been manually requested.

Signal Processor Diagnostic Manually
Requested Peg Count
(SP DIAG REQ MAN)

Each time the unit diagnostic program is executed by a manual request, this counter will be incremented by one.

Signal Processor Diagnostics Program
Requested - All Tests Passed Peg Count
(SP DIAG ATP PROG)

This counter will be incremented by one each time the unit diagnostic program is executed with an ATP result. This does not include diagnostics requested manually.

Signal Processor Diagnostics Manually
Requested - All Tests Passed Peg Count
(SP DIAG ATP MAN)

This counter will be incremented by one each time the unit diagnostic program is executed by a manual request with an ATP result.

TABLE 25

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
MSC 25  CONTROL AREA ZERO
OMS 0  CONTROL AREA SUMMATION
  TOTAL IMAS     TRK MTC OCC
          0               0

OMS 1  INCOMING IMAS
         MF EQ  DP EQ   Q931   ISUP   ITUP   INUP  DTMF   IOC
  PST        0      0      0      0      0      0     0      0
  FSA        0      0      0      0      0      0     0      0
  PDA        0      0      0      0      0      0     0      0
  PDT        0      0      0      0      0      0     0      0
  PER        0      0      0      0      0      0     0      0
  ANF        0      0      -      -      -      -     -      -
  AIF        0      0      -      -      -      -     -      -
  AOF        0      0      -      -      -      -     -      -

OMS 2  INCOMING IMAS
         MF EQ  DP EQ   Q931   ISUP   ITUP   INUP  DTMF   IOC
  MAB        0      0      0      0      0      0     0      0
  CST        0      0      -      -      -      -     -      -
  CDT        0      0      -      -      -      -     -      -

OMS 3    OUTGOING IMAS AND GLARE FAILURES
          MF EQ   DP EQ    Q931    ISUP    ITUP   INUP   DTMF
  UXS         0       0       0       0       0      0      0
  IKF         0       0       0       0       0      0      -
  CPF         0       0       0       0       0      0      0
  NSD         0       0       0       0       0      0      0
  XST         0       0       0       0       0      0      -
  GLR         0       0       0       0       0      0      0
  GLC         0       0       0       0       0      0      0

OMS 4  OOS PEG COUNTS
      RR       OTF        MAN      EASF      CGA
       0         0          0         0        0
     NIU       TSF        BLK       CCF      HAW
       0         0          0         0        0

ERR ANAL SUSP FLT(NOT OOS)
                  0

OMS 5  ATTEMPTS AND MAINTENANCE USAGE
 ATT      MF EQ     DP EQ     Q931     ISUP    CCIS
  IN          0         0        0        0       0
  OUT         0         0        0        0       0
  MTC         0         0        0        0       0

OMS 6  CCIS INEFFECTIVE ATTEMPTS

                    ------- VPA TESTS -------
     CKF      CLF      ATT     COMP      FAIL
       0        0        0        0         0
```

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
OMS 7  ROTL
                TEST    TEST
                 ATT     COMP
  CODE 100         0       0
  CODE 102         0       0
  CODE 105         0       0

OMS 8  TERMINATING TEST LINES
  ATTEMPTS
     100     102      103     104      105      106
       0       0        0       0        0        0
     107     108      109     110     SYNCHR   DATA
       0       0        0       0        0        0
  OVERFLOWS
     100     102      103     104      105      106
       0       0        0       0        0        0
     107     108      109     110     SYNCHR   DATA
       0       0        0       0        0        0

OMS 9  ROUTINE OPERATIONAL TESTS
               TEST    TEST    TEST
                ATT    PASS    FAIL
  CODE 103       0       0       0
  QIC            0       0       0
  SYNCHR         0       0       0
  CENTREX 2      0       0       0
  CENTREX 3      0       0       0
  SXS            0       0       0
  FTT            0       0       0

OMS 10  TEST ACCESS CIRCUIT
  ORIG   101 ORIG  INC ATT  101 FTB  INC OVF  101 XFR
      0       0         0        0        0        0
  TOTAL   101   INC 101  MAINT
  USAGE  USAGE   USAGE   USAGE
      0      0       0       0

OMS 11  INTERNATIONAL ATTEMPTS AND MAINT. USAGE
                 CCITT5     CCITT6     ITUP      INUP
INC ATTEMPTS          0          0        0         0
OUT ATTEMPTS          0          0        0         0
MAINT USAGE           0          0        0         0

OMS 12  OOS PEG COUNTS
  ATME-B    ATME-C
       0         0

OMS13 INTERNATIONAL TRUNK TESTS-DIRECTOR
        ATTEMPTS      PASS      FAIL
ATME-B         0         0         0
ATME-C         0         0         0
```

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
OMS 14  INTERNATIONAL TRUNK TESTS-RESPONDER
        ATTEMPTS      OVFL
ATME-A         0         0
ATME-B         0         0
ATME-C         0         -

OMS 15  ATME FAILURES
INV INC TC          0
DIR/RES IRREG       0

OMS 16  CCITT5 CALL IRREGULARITIES
--INCOMING--
IDLE-URS      FS-TO     PST-TO     SOP-TO     IAD-TO      URS  PLS-ERR
       1          0          0          0          0        0        0
--OUTGOING--
  DS-CLF     DS-URS      DS-TO     PTS-TO
       0          0          0          0
  TX-ERR        URS         BF     PS-PTS
       0          0          0          0
--WAITING FOR ANSWER--
      TO    URS-ICT    URS-OGT     BF-OGT     ANS-TO  ANS-ACK-TO
       0          0          0          0          0         0
--ANSWERED--
 URS-ICT    URS-OGT
       0          0
--DISCONNECTED--
  CLB-TO     NO-CLF      PS-CB     NO-RLG     CLF-TO    PS-RLG
       0          0          0          0          0         0
--ABANDONS--
     ISA        IAD        MAB
       0          0          0
--OTHERS--
 MULT SP       URS-CCITT6
       0               0
FIRST TRIAL - CCITT5
  GLARE              0
  NSD                0
  OUTPULSING         0
  SIG IRREG          0

OMS 17  CCITT6 ACKNOWLEDGEMENT TIMEOUTS
     BLA     UBA
       0       0
```

Description of Measurements for MSC 25

These performance measurements are associated with trunks and they will be kept on a Control Area basis. The number of Control Areas is office dependent. The number of counter blocks is also office dependent, one for each Control Area. Each block will correspond to a Control Area or Administration Area within the Circuit Maintenance System CMS 1A. Each Trunk Subgroup in the office is assigned to one and only one Control Area. The counters associated with the data block 0, corresponding to Control Area 0, will be the performance measures of all Trunk Subgroups assigned to Control Area 0. So, Plant Maintenance performance data on a per Trunk Subgroup basis will not be available. However, the ability will be provided

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

whereby at most, 31 individual Trunk Subgroups can be monitored for ineffective attempts, total attempts, and maintenance usage, using one or all of the Control and Administrative.

All the following counts listed with the exceptions of the total attempts counts and the accumulated maintenance usage, will be incremented by the Trunk Maintenance Administration Program (TMAD). This program is responsible for removing trunks from service and has available to it the data about signaling characteristics and reasons for removal. TMAD is aware of all trunks undergoing error analysis. This program is entered whenever there is an ineffective call attempt and has the identity and signaling characteristics of the trunk involved. The total attempts counts and the accumulated maintenance occupancy are calculated by the Traffic and Plant Measurement program.

OMS 0

Total Ineffective Machine Attempts
Peg Count
(TOTAL IMAS)

This register contains the combined counts of all registers in OMS 1 and OMS 2. All these counts are considered Ineffective Machine Attempts.

Trunk Maintenance Usage
(TRK MTC OCC)

This counter will record the combined accumulated maintenance usage of all trunks assigned to the Control Area. The trunks are scanned every 180 seconds and the program will convert this counter to CCS units before it is printed out.

OMS 1

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing
h. IOC

Permanent Signal Timeout Peg Count
(PST)

These counters will be incremented by one each time a bid for service is received on an incoming trunk, but no digits are received within the permanent signal time out interval.

False Start Abandon Peg Count
(FSA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk but no digits are received, and the call is abandoned before permanent signal timeout.

Partial Dial Abandon Peg Count
(PDA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk and at least one digit but less than the expected number of digits is received, and the bid is removed before partial dial timeout.

Partial Dial Timeout Peg Count
(PDT)

Each time at least one but less than the expected number of digits is received before timeout on an incoming trunk, one of these counters will be incremented by one.

Pulsing Error Peg Count
(PER)

These counters will be incremented by one each time one or more of the received digits is in error as defined by one of the following:

a. Mutilated Digit (MTD) - on MF pulsing calls, a single frequency or more than two frequencies are received in a digit pulse.

b. Misplaced Start (MPS) - on MF pulsing calls, an ST signal is received in an improper position.

c. False Key Pulse (FKP) - on MF pulsing calls, a second KP signal is received.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

d. Extra Digit (EXD) - More digits are received than expected.

e. Extra Pulse (EXP) - on DP calls, an 11th pulse is received for a single digit.

f. Pulsing Error Other (PEO) - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above.

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

These counters will be incremented by one for CAMA ANI calls when 5-seconds have elapsed between reception of an information digit and the calling party number digits. These counters will also be incremented when the ANI equipment receives invalid or non-MF calling party digits, or the ANI information digit is non-MF tone. The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure Peg Count
(AIF)

These counters will be incremented by one for CAMA ANI calls that exceed 5 seconds waiting for the ANI information digit, or the ANI information is not:

a. 0 - ANI OK
b. 3 - ANI OK - Service Observing
c. 1 - ANI Multi-party
d. 4 - ANI Multi-party - Service Observing

The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure Peg Count
(AOF)

These counters will be incremented by one for CAMA ANI calls for which a five second timeout occurs while waiting for the ANI information digit. The call is then transferred to an operator for further handling.

OMS 2

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing
h. IOC

Miscellaneous Abandon Peg Count
(MAB)

These counters will be incremented by one each time a bid for service is abandoned before completion of outpulsing and after the completion of inpulsing and no other abandon register is pegged.

CAMA Seizure Timeout Peg Count
(CST)

With each occurrence of the following situation, these counters will be incremented by one. When the CAMA operator position circuit automatically recognizes a seizure, the circuit returns an on-hook on the keying trunk, and the keying trunk fails to go on-hook within 5-seconds of when the seizure was sent.

CAMA Disconnect Timeout Peg Count
(CDT)

This counter is incremented when more than 5-seconds elapses between the sending of a disconnect signal to a CAMA operator position and the receipt of off-hook on the keying trunk.

OMS 3

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Unexpected Stop
(UXS)

These counters will be incremented by one each time an unexpected stop dial signal is received. This includes the following:

a. Any stop dial during pulsing on an MF trunk.

b. Any stop dial during pulsing on a DP trunk that does not have expect stop-go class.

c. A second stop dial during pulsing on a DP trunk that does not expect stop-go class.

d. On DP, expect stop-go trunks, a stop dial at an invalid time.

Integrity Check Failure
(IKF)

These counters will be incremented by one each time there is a failure to receive a delay dial signal on a delay dial start dial trunk within 4-seconds of trunk seizure.

Continuity/Polarity Test Failure
(CPF)

These counters are incremented by one each time one of the following conditions occur:

a. An incoming seizure is processed on a one way outgoing trunk.

b. An off-hook on an operator no-outpulsing trunk occurs where the operator fails to hang up within a 1-second timeout interval.

c. An off-hook on maintenance test trunks and service circuits occur.

No Start Dial
(NSD)

These counters will be incremented by one each time there is a failure to receive a wink start signal within 4-seconds of a trunk seizure, a failure to receive on-hook on a one way outgoing trunk, and failure of the far end office to relinquish the trunk within the 4-second timeout interval when glare occurred on a trunk that the near end office has control of.

Expected Stop Timeout
(XST)

This counter is incremented by one each time, on any DP trunk with expected stop-go class, an unexpected stop dial signal is received during outpulsing and persists beyond the transmitter timeout interval.

Glare Condition - Far End in Control
(GLR)

These counters will be incremented by one each time the 4ESS Switch and the far end office simultaneously attempt to seize the same trunk, and the 4ESS Switch relinquishes control. The 4ESS Switch backs down if the far end office has control of the trunk and if a check to determine whether the outgoing trunk is on-hook before seizure indicates that the trunk is off-hook and when for a given call, the TSN of the outgoing trunk had to be retrieved from disk memory for 3 different trunks and on each successful retrieval the trunk was found busy.

Glare Condition - 4ESS Switch in Control
(GLC)

This counter is incremented by one each time the 4ESS Switch and a far end office simultaneously attempt to seize the same trunk, and the 4ESS Switch is in control.

OMS 4

Out-Of-Service Peg Counts are kept for trunks as they are removed from service. These Peg Counts indicate the reason for removal from service.

Out-Of-Service ROTL Request Peg Count
(OOS - RR)

Out-Of-Service Operational Test Failure
Peg Count
(OOS - OTF)

Out-Of-Service Manual Request Peg Count
(OOS - MAN)

Out-Of-Service Error Analysis Suspected
Failure Peg Count
(OOS - EASF)

Out-Of-Service Carrier Group Alarm
Peg Count
(OOS - CGA)

Out-Of-Service Equipment Failure, VIU,
DTU, ESU Peg Count
(OOS - NIU)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Out-Of-Service Total Signaling Failure
Peg Count (CCIS trunk only)
(OOS - TSF)

Out-Of-Service Blocking Received (CCIS
Trunks) from Far End Office Peg Count
(OOS - BLK)

Out-Of-Service Continuity Check Retest
Failure Peg Count
(OOS - CCF)

Out-Of-Service High and Wet Peg Count
(OOS - HAW)

Error Analysis Suspected Failure Peg Count
(ERR ANAL SUSP FLT - NOY OOS)

Each time the error analysis encounters a suspected failure and leaves the trunk in service, this counter is incremented by one.

OMS 5

The performance measurements for each of the following measurements will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. CCIS trunks

Incoming Attempts
(ATTEMPTS IN)

These counts will be calculated by accumulating the incoming seizures for which at least one digit was received on message Trunk Subgroups. This count will not include false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Outgoing Attempts
(ATTEMPTS OUT)

These counts will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing message Trunk Subgroups. Since there is only one seizure Peg Count for outgoing call attempts, these counts will be off by the number of retrials attempted.

Maintenance Usage
(MTC USAGE)

These counters will accumulate maintenance usage of all message trunks assigned to this Control Area.

OMS 6

Continuity Check Failure (CKF) Peg Count
(CKF)

Each time a failure of the continuity test of a CCIS trunk that is made before a voice path cut through occurs, this register will be incremented by one.

Clear-Forward Received Peg Count
(CLF)

This counter is incremented each time a Clear-Forward signal is received on an incoming trunk in the transient state.

Voice Path Assurance (VPA) Test Attempted
Peg Count
(VPA TESTS ATT)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

Voice Path Assurance (VPA) Test Completed
Peg Count
(VPA TESTS COMP)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

Voice Path Assurance (VPA) Test Failure
Peg Count
(VPA TESTS FAIL)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

OMS 7

Code 10X Test Attempted Peg Count
(TEST ATT)

Code 10X Test Completed Peg Count
(TEST COMP)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

These counters, by test type, will be incremented by one each time ROTL attempts or completes a transmission test on a trunk. The following codes identify the types of transmission tests:

1. CODE 100
2. CODE 102
3. CODE 105

OMS 8

Terminating Test Line Tests Attempts
(ATTEMPTS)

Terminating Test Line Tests Overflows
(OVERFLOWS)

These counters will record the total number of call attempts made to the following terminating test lines and the total attempts that overflow.

1. 100
2. 102
3. 103
4. 104
5. 105
6. 106
7. 107
8. 108
9. 109
10. 110
11. SYNCHRONOUS (SYNCHR)
12. DATA

OMS 9

Routine Operational Tests Attempted
(TEST ATT)

Routine Operational Tests Passed
(TEST PASS)

Routine Operational Tests Failed
(TEST FAIL)

These counters will record total test attempts, test passed and test failures for types of outgoing operational tests.

1. CODE 103
2. Quick Integrity Check (QIC)
3. Synchronous Test (SYNCHR)
4. Centrex 2 Test (CENTREX 2)
5. Centrex 3 Test (CENTREX 3)
6. Step by Step Test (SXS)
7. Functional Trunk Test (FTT)

OMS 10

Test Access Circuit Origination Peg Count
(ORIG)

Each time a Test Access Circuit is seized for originating a maintenance request, this counter is incremented by one.

Code 101 Origination Peg Count
(101 ORIG)

This counter will be incremented by one each time a Test Access Circuit is seized to originate a code 101 test call.

Incoming Code 101 Peg Count
(INC ATT)

This counter will be incremented by one each time an attempted seizure is made on a Code 101 Test Access Circuit. The count is incremented based on the Control Area that is assigned to the incoming trunk through translation data. This count also includes test attempts that are aborted.

Code 101 First Trial Busy Peg Count
(101 FTB)

When an incoming code 101 test call attempts to terminate at a test position, which is determined by the trunk or by a request for a test position through the digits received, and this first choice test position cannot be seized, this counter will be incremented by one.

Incoming Code 101 Overflow Peg Count
(INC OVF)

This counter is incremented by one each time an incoming 101 test call is unable to be terminated.

Code 101 Transfer Peg Count
(101 XFR)

This counter will be incremented by one each time the Test Access Circuit transfer facility is utilized. The counter is incremented based on the Control Area that is assigned to the incoming trunk through translation data.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Total Test Access Circuit Usage
(TOTAL USAGE)

This counter will be incremented by the number of Test Access Circuits found busy after each 180 second scan. This count does not include maintenance usage. The program will convert the data to CCS units before output.

Code 101 Usage
(101 USAGE)

This counter will record the accumulated Test Access Circuit Usage attributable to outgoing code 101 test calls.

Incoming Code 101 Usage
(INC 101 USAGE)

This counter will record the accumulated Test Access Circuit Usage attributable to incoming code 101 code test calls.

Maintenance Test Access Circuit Usage
(MAINT USAGE)

This counter will record the accumulated Test Access Circuit maintenance busy usage.

OMS 11

CCITT No. 5, CCITT No. 6, ITUP and INUP
Incoming Attempts
(INC ATTEMPTS)

These counts will be calculated by accumulating the incoming seizures for which at least one digit was received on CCITT No. 5, CCITT No. 6, ITUP or INUP Trunk Subgroups. These counts do not include false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

CCITT No. 5, CCITT No. 6, ITUP and INUP
Outgoing Attempts
(OUT ATTEMPTS)

These counts will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing message Trunk Subgroups. Since there is only one seizure Peg Count for CCITT No. 5, CCITT No. 6, ITUP or INUP outgoing call attempts, respectively, these counts will be off by the number of retrials attempted.

CCITT No. 5, CCITT No. 6, ITUP and INUP
Maintenance Usage
(MAINT USAGE)

After each 180 second scan period, these counts will be incremented by the number of CCITT No. 5, CCITT No. 6, ITUP or INUP trunks found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

OMS 12

ATME-B Out-Of-Service Peg Count
(ATME-B OOS)

This counter is incremented by one each time a trunk is taken out-of-service because it failed either a hardware or software requested ATME-B Director Test.

ATME-C Out-Of-Service Peg Count
(ATME-C OOS)

This counter is incremented by one each time a trunk is taken out-of-service because it failed either a hardware or software requested ATME-C Director Test.

OMS 13

ATME-B Director Tests Attempted Peg Count
(ATME-B ATTEMPTS)

This count is incremented by one each time an ATME-B Director is seized as a result of a hardware or software request for testing.

ATME-B Director Tests Passed Peg Count
(ATME-B PASS)

This count is incremented by one each time an ATME-B director successfully passes the Director test requested.

ATME-B Director Tests Failed Peg Count
(ATME-B FAIL)

This count is incremented by one each time an ATME-B Director fails to pass the Director test requested.

ATME-C Director Tests Attempted
Peg Count
(ATME-C ATTEMPTS)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

This count is incremented by one each time an ATME-C Director is seized as a result of a hardware or software test request.

ATME-C Director Tests Passed Peg Count
(ATME-C PASS)

This count is incremented by one when an ATME-C Director passes successfully the Director tests required.

ATME-C Director Tests Failed Peg Count
(ATME-C FAIL)

This count is incremented by one each time an ATME-C Director fails to pass the Director test.

OMS 14

ATME-A Responder Tests Attempted
Peg Count
(ATME-A ATTEMPTS)

This count is incremented by one each time an ATME-A Responder is seized from a distant office for testing.

ATME-A Responder Tests Overflowed
Peg Count
(ATME-A OVFL)

This count is incremented by one when a request is made by a distant office to seize an ATME-A Responder for testing and none is available.

ATME-B Responder Tests Attempted
Peg Count
(ATME-B ATTEMPTS)

This count is incremented by one each time an ATME-B Responder is seized from a distant office for testing.

ATME-B Responder Tests Overflowed
Peg Count
(ATME-B OVFL)

This count is incremented by one when a request is made by a distant office to seize an ATME-B Responder for testing and none is available.

ATME-C Responder Tests Attempted
Peg Count
(ATME-C ATTEMPTS)

This count is incremented by one each time an ATME-C Responder is seized from a distant office for testing.

OMS 15

Invalid Incoming ATME Test Call Peg Count
(INV INC TC)

This counter is incremented by one when an inbound call on a CCITT No. 5 or CCITT No. 6 trunk has been determined to be invalid.

ATME Director/Responder Irregularities
Peg Count
(DIR/RES IRREG)

This counter is incremented by one when a signaling irregularity has been detected on an inbound or outbound automatic trunk measuring equipment (ATME) test call on a CCITT No. 5 or CCITT No. 6 trunk.

OMS 16

INCOMING

Unreasonable Signal Peg Count
(IDLE-URS)

This counter is incremented by one if one of the following frequencies is received on an idle circuit:

a. (F1+F2)
b. (F2)
c. (F1) on an idle one-way Outgoing Trunk

False Seizure Timeout Peg Count
(FS-TO)

This counter is incremented by one if a Clear-Forward signal is not received on an incoming trunk within a 40-second timing interval after the loss of a seizing signal (F1), and before a Proceed-To-Send signal was sent.

Proceed-To-Send Signal Timeout Peg Count
(PST-TO)

This counter is incremented by one when a seizing signal (F1), is not removed within 6-seconds of transmitting a Proceed-To-Send signal.

Start of Pulsing Timeout Peg Count
(SOP-TO)

This counter is incremented by one when the KP-signal is not received within 2-seconds after the Proceed-To-

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Send signal is removed.

Incomplete Address Timeout Peg Count
(IAD-TO)

This counter is incremented by one when an ST-signal is not received within 5-seconds after receipt of the KP-signal.

Unreasonable Signal Peg Count
(URS)

This counter is incremented by one when an (F1) or (F2) signal is received during register timing on an incoming call.

Pulsing Error Peg Count
(PLS-ERR)

This counter is incremented by one each time one or more of the following digits is in error as defined by one of the following:

a. Mutilated Digit (MTD) - On MF pulsing calls, a single frequency or more than two frequencies are received in a digit pulse.

b. Misplaced Start (MPS) - On MF outpulsing calls, an ST-signal is received in an improper position.

c. False Key Pulse (FKP) - On MF pulsing calls, a second KP-signal is received.

d. Extra Digit (EXD) - More digits are received than are expected.

OUTGOING

Double Seizure - Clear-Forward Peg Count
(DS-CLF)

This count is incremented by one if a Clear-Forward (F1+F2) signal is received instead of a Proceed-To-Send signal.

Double Seizure - Unreasonable Signal
Peg Count
(DS-URS)

This count is incremented by one if an (F2) signal is received on the outgoing trunk during the 850-millisecond double seizure (Glare) timing interval.

Double Seizure Timeout Peg Count
(DS-TO)

This counter is incremented by one if an incoming seizure signal persists for 20-seconds after the terminating seizure is released following an 850-millisecond glare timeout.

Seizing Signal Timeout Peg Count
(PTS-TO)

This counter is incremented by one if the Proceed-To-Send signal is not received within 20-seconds after sending the seizure signal (F1).

Transmitter Error Peg Count
(TX-ERR)

This counter is incremented by one if an MF Transmitter fails during outpulsing.

Unreasonable Signal Peg Count
(URS)

This counter is incremented by one if an (F1) or (F1+F2) signal is received during outpulsing.

Busy-Flash Peg Count
(BF)

This counter is incremented by one if a Busy-Flash (F2) signal is received during outpulsing.

Persisting Proceed-To-Send Signal Peg Count
(PS-PTS)

This counter is incremented by one if the Proceed-To-Send signal is not removed from the outgoing trunk within 20-seconds after the completion of outpulsing.

WAITING FOR ANSWER

Timeout Peg Count
(TO)

This counter is incremented by one if an answer signal is not received within 4-minutes after outpulsing is completed.

Unreasonable Signal on the Incoming Trunk
Peg Count
(URS-ICT)

This counter is incremented by one if a seizure signal (F1) is received on the incoming trunk during the 4-minute waiting-for-answer.

Unreasonable Signal on the Outgoing Trunk

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Peg Count
(URS-OGT)

This counter is incremented by one if an (F1,F2) signal is received on an outgoing trunk that is in the waiting-for-answer stage.

Busy-Flash on the Outgoing Trunk Peg Count
(BF-OGT)

This counter is incremented by one if a Busy-Flash (F2) signal is received on the outgoing trunk while in the waiting-for-answer stage.

Answer Signal Timeout Peg Count
(ANS-TO)

This counter is incremented by one if an answer acknowledgement signal (F1) is not received within 15-seconds of sending an answer signal (F1) on the incoming trunk.

Answer-Acknowledgement Signal Timeout
Peg Count
(ANS-ACK-TO)

This counter is incremented by one if the answer acknowledgement signal (F1) is not stopped on the outgoing trunk within 6-seconds of sending the answer-acknowledgement signal (F1).

ANSWERED

Unreasonable Signal on the Incoming Trunk
Peg Count
(URS-ICT)

This counter is incremented by one if an (F1) signal is not received on an incoming trunk in the answered call state.

Unreasonable Signal on the Outgoing Trunk
Peg Count
(URS-OGT)

This counter is incremented by one if an (F1+F2) or an (F1) signal is received on an outgoing trunk in the answered call state.

DISCONNECTED

Clear-Back/Busy-Flash Signal Timeout
Peg Count
(CLB-TO)

This counter is incremented by one when an acknowledgement signal (F1) is not received within 15-seconds of sending a Clear-Back or Busy-Flash (F2) signal.

Failure to Receive Clear-Forward Peg Count
(NO-CLF)

This counter is incremented by one if a Clear-Forward signal is not received within 60-seconds after receipt of a Clear-Back or Busy-Flash acknowledgement (4-minutes if it is a transit call).

Clear-Back and Busy-Flash Acknowledgement
Signal Timeout Peg Count
(PS-CB)

This counter is incremented by one if the Clear-Back or Busy-Flash signal is not removed within 6-seconds after sending Clear-Back or Busy-Flash acknowledgement.

Release-Guard Signal Timeout Peg Count
(NO-RLG)

This counter is incremented by one if on sending a Release-Guard (F1+F2) signal on the incoming trunk, the Clear-Forward signal is not removed within 6-seconds.

Clear-Forward Signal Timeout Peg Count
(CLF-TO)

This counter is incremented by one if on sending a Clear-Forward (F1,F2) signal on an outgoing trunk, a Release-Guard (F1+F2) signal is not received within the Clear-Forward timing interval.

Persisting Release Guard Signal Peg Count
(PS-RLG)

This counter is incremented by one if a Release-Guard signal is not removed within 15-seconds of removing Clear-Forward.

ABANDONS

Incoming Seizure Abandon Peg Count
(ISA)

This counter is incremented by one if:

a. The seizing signal (F1) on an incoming trunk stops before a Proceed-To-Send signal is sent, and a Clear-Forward (F1+F2) signal is received before a 40-second timeout occurs.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

b. If a Clear-Forward signal is received the Proceed-To-Send signal is sent but before the reception of a KP-signal.

Incomplete Address Abandon Peg Count
(IAD)

This counter is incremented by one if a Clear-Forward signal is received on an incoming call after a KP-signal has been received but before receiving the ST-signal.

Miscellaneous Abandon Peg Count
(MAB)

This counter is incremented by one if a Clear-Forward signal is received on the incoming trunk before completion of outpulsing on a CCITT No. 5 outgoing trunk.

OTHERS

Multiple Scan Points Active Peg Count
(MULT SP)

This count is incremented by one when more than one scan point is active at the same time on a CCITT No. 5 circuit.

Unreasonable Signal on an Idle
CCITT No. 6 Trunk Peg Count
(URS-CCITT6)

This counter is incremented by one when an unreasonable signal is received on an idle CCITT No. 6 trunk.

First Trial Glare Fail CCITT No. 5 Trunk
Peg Count
(FIRST TRIAL-CCITT5-GLARE)

This counter is incremented by one when a first trial glare condition has been encountered on a CCITT No. 5 outgoing trunk.

First Trial No. Start Dial (NSD) -
CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-NSD)

This counter is incremented by one when an outbound call encounters a first trial proceed to send timeout on a CCITT No. 5 trunk.

First Trial Outpulsing Fail
CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-OUTPULSING)

This counter is incremented by one when an outbound call encounters a first trial outpulsing failure on a CCITT No. 5 trunk.

Incoming Signal Irregularities Before
Answer CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-SIG IRREG)

This counter is incremented by one when a signaling irregularity occurs before answer on a CCITT No. 5 outgoing trunk.

OMS 17

Blocking Acknowledgement Timeout
Peg Count
(BLA)

This count is incremented by one if on sending a blocking signal a blocking acknowledgement signal is not received within 6-minutes.

Unblocking Acknowledgement Timeout
Peg Count
(UBA)

This count is incremented by one if on sending an unblocking signal, an unblocking acknowledgement signal is not received within 6-minutes.

TABLE 26

OUTPUT MEASUREMENT SETS FOR MSC 26
(CONTROL AREA ONE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area One.

TABLE 27

OUTPUT MEASUREMENT SETS FOR MSC 27
(CONTROL AREA TWO)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Two.
```

TABLE 28

OUTPUT MEASUREMENT SETS FOR MSC 28
(CONTROL AREA THREE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Three.

TABLE 29

OUTPUT MEASUREMENT SETS FOR MSC 29
(CONTROL AREA FOUR)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Four.

TABLE 30

OUTPUT MEASUREMENT SETS FOR MSC 30
(CONTROL AREA FIVE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Five.

TABLE 31

OUTPUT MEASUREMENT SETS FOR MSC 31
(CONTROL AREA SIX)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Six.
```

TABLE 32

OUTPUT MEASUREMENT SETS FOR MSC 32
(CONTROL AREA SEVEN)

The layout and count definitions of this MSC are identical to MSC 25. This MSC provides data for Control Area Seven.

TABLE 33

OUTPUT MEASUREMENT SETS FOR MSC 33
(CONTROL AREA EIGHT)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Eight.

TABLE 34

OUTPUT MEASUREMENT SETS FOR MSC 34
(CONTROL AREA NINE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Nine.

TABLE 35

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

```
MSC 35  SERVICE CIRCUITS
OMS 0 MAINTENANCE SERVICE CIRCUITS MAINTENANCE OCCUPANCIES

      RA      RT    ROTL  MF RCVR TST  MF XMTR TST   CSTD    XCVR TEST
       0       0       0           0            0       0            0

OMS 1  MAINTENANCE SERVICE CIRCUITS MEASUREMENTS
         LOC   NONLOC    SEIZ  SEIZ   TOTAL
  UNIT  FLTS    FLTS     ATT   OVFL   USAGE   SCF
  RA       0       0       -      -       -      -
  RT       0       0       -      -       -      -
  ROTL     -       -       0      0       0      0
  MRCT     -       -       -      -       0      -
  MXMT     -       -       -      -       0      0
  CSTD     0       0       0      0       0      -
  XCVR     0       0       -      -       0      -

OMS 2  ATME-A
               SZRE     USAGE  MTC USAGE
RESPONDER         0         0          0

OMS 3  TMR SEIZURES
              ATT        OVFL
                0         0
```

Description of Measurements for MSC 35

OMS 0

Maintenance Busy Occupancy

The occupancy counter for each of the specified units is scanned every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register will reflect, in CCS, the amount of time each of the following types of units were maintenance busy.

1. Recorded Announcement Machine (RA)
2. Ringing and Tone Plant (RT)
3. Remote Office Test Line (ROTL)
4. MF Receiver Test Circuit (MF RCVR TST)
5. MF Transmitter Test Circuit (MF XMTR TST)
6. Common System Tone Detector (CSTD)
7. CCIS Transceiver Test Circuit (XCVR TEST)

OMS 1

Recorded Announcement Machine Located
Faults Peg Count
(RA LOC FLTS)

This counter is incremented by one each time the Recorded Announcement machine diagnostic locates a fault.

Recorded Announcement Machine Non-located
Faults Peg Count
(RA NONLOC FLTS)

This counter is incremented by one each time the Recorded Announcement machine diagnostic is run and no fault is found.

Ringing and Tone Plant Located Faults
Peg Counts
(RT LCO FLTS)

This counter is incremented by one each time the ringing and tone plant diagnostic locates a fault.

Ringing and Tone Plant Non-located Faults
Peg Count
(RT NONLOC FLTS)

TABLE 35 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

This counter is incremented by one each time the ringing and tone plant diagnostic is run and no fault is found.

Remote Office Test Line Seizure
Attempts Peg Count
(ROTL SEIZ ATT)

Each time a 4ESS Switch program attempts to seize a ROTL port, this counter is incremented by one.

Remote Office Test Line Seizure Overflow
Peg Count
(ROTL SEIZ OVFL)

This counter is incremented by one each time a 4ESS Switch program attempts to seize a ROTL port but none are available.

Remote Office Test Line Total Usage
(ROTL TOTAL USAGE)

This counter will record the accumulated usage for ROTL ports. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

Remote Office Test Line Self-Check Fail
Peg Count
(ROTL SCF)

This counter will be incremented by one each time either the ROTL Responder or the 105 responder fails its self-check.

MF Receiver Test Circuit Total Usage
(MRCT TOTAL USAGE)

This counter will record the accumulated usage for MF Receiver tests sets. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

MF Transmitter Test Circuit Total Usage
(MXMT TOTAL USAGE)

This counter will record the accumulated usage for MF Transmitter test sets. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

MF Transmitter Test Self-Check Fail
Peg Count
(MXMT SCF)

Each time an MF Transmitter or MF Receiver fails its self-check, this counter will be incremented by one.

Common System Tone Detector (CSTD)
Located Faults Peg Count
(CSTD LOC FLTS)

This counter will be incremented by one each time the CSTD diagnostic is executed and a fault is found.

Common System Tone Detector (CSTD)
Non-located Faults Peg Count
(CSTD NONLOC FLTS)

Each time the CSTD diagnostic is executed and no fault is found, this counter will be incremented by one.

Common System Tone Detector (CSTD)
Seizure Attempts Peg Count
(CSTD SEIZ ATT)

This counter is incremented by one each time an attempt is made to seize a CSTD.

Common System Tone Detector (CSTD)
Seizure Overflow Peg Count
(CSTD SEIZ OVFL)

This counter is incremented by one each time an attempt is made to seize a CSTD and none is available.

Common System Tone Detector (CSTD)
Total Usage
(CSTD TOTAL USAGE)

This counter will record the accumulated usage for all CSTDs. This count does not include maintenance usage.

CCIS Transceiver Test Circuit
Located Faults Peg Count
(XCVR LOC FLTS)

This counter is incremented by one each time the CCIS Transceiver diagnostic locates a fault.

CCIS Transceiver Test Circuit
Non-located Faults Peg Count
(XCVR NONLOC FLTS)

This counter is incremented by one each time the CCIS Transceiver diagnostic is run and no fault is found.

CCIS Transceiver Test Circuit Total Usage
(XCVR TOTAL USAGE)

TABLE 35 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

This counter will record the accumulated usage for CCIS Transceiver test circuits. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

OMS 2

ATME-A Responder Incoming Seizures
Peg Count
(RESPONDER SZRE)

This counter is incremented by one each time an ATME-A responder is seized by the office for testing.

ATME-A Responder Total Usage
(RESPONDER USAGE)

This counter will record the accumulating usage for ATME-A responder test circuits. This count does not include maintenance usage. The scan rate is 180 seconds and the data is converted to CCS by the traffic program before output.

ATME-A Responder Maintenance Usage
(RESPONDER MTC USAGE)

This counter will record the accumulated maintenance usage for ATME-A responder test circuits. This count does not include service usage. The scan rate is 180 seconds and the data is converted to CCS by the traffic program before output.

OMS 3

Trunk Maintenance Register Seizure
Attempts Peg Count
(TMR SEIZURES ATT)

Each time an attempt is made to seize a TMR, this register is incremented by one.

Trunk Maintenance Register Seizure
Overflow Peg Count
(TMR SEIZURES OVFL)

Each time an attempt is made to seize a TMR and there are none available this register is incremented by one.

TABLE 36

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

```
MSC 36  SERVICE MEASUREMENTS
OMS 0 INCOMING IA, CCIS, ISUP, ITUP, INUP AND Q931
  INC ADRS   COT SIG    ISUP IAD  ISUP COT  ISUP COT  ITUP COT
    DET        T/O         DET      FAIL      T/O       FAIL
      0          0           0         0         0          0

  ITUP COT    INUP        INUP    INUP COT    Q931      Q931
    T/O        IAD         COT      T/O     INC ADRS    INFO
      0          0           0         0         0          0

    Q931      ISUP        ISUP      ITU       ITUP      INUP
     URS       URS        MISC       UR       MISC       URS
    RCVD      RCVD         T/O      RCVD       T/O      RCVD
      0          0           0         0         0          0

  INUP MSC  ITUP IRR    ITUP OUT  INUP IRR  INUP OUT
    T/O       B4ANS     IRR B4ANS   B4ANS   IRR B4ANS
      0          0           0         0         0

OMS 1  INCOMING IAS,BEFORE ADDR SIGNALING
         MF EQ  DP EQ   Q931   ISUP   ITUP  INUP  DTMF  IOC
  PST       0      0      0      0      0     0     0    0
  FSA       0      0      0      0      0     0     0    0

OMS 2  INCOMING IAS,DURING ADDRESS SIGNALING
         MF EQ  DP EQ   Q931   ISUP   ITUP  INUP  DTMF  IOC
  PDA       0      0      0      0      0     0     0    0
  PDT       0      0      0      0      0     0     0    0
  PER       0      0      0      0      0     0     0    0

OMS 3  INCOMING IAS,CALLING PARTY SIGNALING
         MF EQ  DP EQ
  ANF       0      0
  AIF       0      0
  AOF       0      0

OMS 4  OUTGOING IAS
         MF EQ  DP EQ    Q931    ISUP    ITUP    INUP  DTMF   IOC
  MAB         0      0       0       0       0       0     0     0

  OVERLOAD RETRY CANCEL       0
  CCIS
   CALL FAIL DETECTION        0
   SGNLING NWK FAILURE        0
   ADC SGN TIMEOUT            0
  ITUP
   ADC SGN TIMEOUT            0
  INUP
   ADC SGN TIMEOUT            0

  FINAL TRIAL GROUP
    CKF  TUPCKF  NUPCKF   UXS     IKF     NSD     XST   GLARE
      0       0       0    0       0       0       0       0
```

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

```
 MFT ERR
      0
 OTHER ERRORS
MFT OPLS    CPF    NO XCVR FTF
      0       0           0
OMS 5  CAMA POSITION IRREGULARITIES
  FREE CLS  POS REPT
        0         0
OMS 6  CALLS LOST DUE TO MACHINE IRREG
                                                          RCPT
            PHASE    VIU    DTU    DIU     ESU  SCS   TRNK OR BAND
TRANSIENT       0      0      0      0       0    0           -
STABLE          0      0      0      0       0    0           0
              D3U    IBU
TRANSIENT       0      0
STABLE          0      -
OMS 7  CCITT6 FINAL TRIAL FAILURES
     CCF     MCI     GLR     SNF
       0       0       0       0
OMS 8  CCITT5 FINAL TRIAL FAILURES-OUTGOING STAGE
  DS-CLF  PTS-TO  TX-ERR     URS      BF     GLR
       0       0       0       0       0       0
OMS 9  CCITT6 INEFFECTIVE ATTEMPTS
INCOMING    COT-TO
                 0
OUTGOING    ADC-TO
                 0
ABANDONS     MISC
                 0
WAIT ANS        CF      TO
                 0       0
DISCONNECT  CLF-TO  RLG-TO
                 0       0
OMS 10  CUSTOMER CALL TO MAS FTF
  XLATE LOOP         0
  DATA ON DISK       0
  PATH HUNT          0
  NO VAC ANN         0
  HARDWARE OOS       0
OMS 11  ADJUNCT TIMEOUTS
------------------------ ADJUNCT T303 TIMEOUTS -------------------------
        0      1      2      3      4      5      6      7      8      9
00      0      0      0      0      0      0      0      0      0      0
01      0      0      0      0      0      0
------------------------ ADJUNCT TADJ TIMEOUTS -------------------------
        0      1      2      3      4      5      6      7      8      9
00      0      0      0      0      0      0      0      0      0      0
01      0      0      0      0      0      0
```

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

Descriptions of measurements for MSC 36

OMS 0

Incomplete Address Detection Peg Count
(INC ADRS DET)

The Trunk Maintenance Administration Program (TMAD) will increment this counter by one each time a call is sent to Final Handling due to the detection of an incomplete address.

Continuity Signal Timeout Peg Count
(COT SIG T/O)

This counter is incremented by one each time a continuity (COT) timeout signal is not received within the timeout interval following the receipt of an Initial Address Message (IAM). The call will be sent to Final Handling.

ISUP Incomplete Address Detected Peg Count
(ISUP IAD DET)

On detection of an illegal digit in an ISUP IAM, this counter will be incremented by one via TMAD.

ISUP Continuity Failure Peg Count
(ISUP COT FAIL)

This counter is incremented by one when an ISUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to Final Handling.

ISUP Continuity Timeout Peg Count
(ISUP COT T/O)

This counter is incremented by one when an ISUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to Final Handling.

ITUP Continuity Failure Peg Count
(ITUP COT FAIL)

This counter is incremented by one when an ITUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to final handling.

ITUP Continuity Timeout Peg Count
(ITUP COT T/O)

This counter is incremented by one when an ITUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to final handling.

INUP Incomplete Address Detected Peg Count
(INUP IAD)

On detection of an illegal digit in an INUP IAM, this counter will be incremented by one via TMAD.

INUP Continuity Failure Peg Count
(INUP COT)

This counter is incremented by one when an INUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to final handling.

INUP Continuity Timeout Peg Count
(INUP COT T/O)

This counter is incremented by one when an INUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to final handling.

Q.931 Incomplete Address Detected
Peg Count
(Q931 INC ADRS)

An invalid address, e.g., unacceptable digit count, illegal digit in setup message on a Q.931 call, will increment this counter by one. The call will be sent to Final Handling.

Q.931 Information Element Error Detected
Peg Count
(Q931 INFO)

This counter is incremented by one when an error involving the information element field is detected on a Q.931 call. The call is sent to Final Handling.

Q.931 Unreasonable Signal Received
Peg Count
(Q931 URS RCVD)

This counter is incremented by one when an unreasonable signal, e.g., release, disconnect is received during Q.931 call setup.

ISUP Unreasonable Signal Received
Peg Count
(ISUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an ISUP call is in the setup state.

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

ISUP Miscellaneous Timeout Peg Count
(ISUP MISC T/O)

This counter is incremented by one when an ISUP test call timed out waiting for a released message.

ITUP Unreasonable Signal Received Peg Count
(ITUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an ITUP call is in the setup state.

ITUP Miscellaneous Timeout Peg Count
(ITUP MISC T/O)

This counter is incremented by one when an ITUP test call timed out waiting for a clearforward message.

INUP Unreasonable Signal Received
Peg Count
(INUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an INUP call is in setup state.

INUP Miscellaneous Timeout Peg Count
(INUP MSC T/O)

This counter is incremented by one when an INUP test call timeout waiting for a release message.

ITUP Incoming Irregularity Before Answer
Peg Count
(ITUP IRR B4ANS)

This counter is incremented by one when an irregularity such as an ADC message was returned on an ITUP call in a stable state.

ITUP Outgoing Irregularity Before Answer
Peg Count
(ITUP OUT IRR B4ANS)

This counter is incremented by one when an irregularity such as a clearing message received during setup.

INUP Incoming Irregularity Before Answer
Peg Count
(INUP IRR B4ANS)

This counter is incremented by one when an irregularity such as an ADC message returned on a stable call occurs.

INUP Outgoing Irregularity Before Answer
Peg Count
(INUP OUT IRR B4ANS)

This counter is incremented by one when an irregularity such as receiving an invalid or out of sequence message occurs.

OMS 1

Permanent Signal Timeout Peg Count
(PST)

These counters will record the total number of Permanent Signal Timeouts for the office, categorized by signaling type. These counters are a summation of the per Control Area counters.

False Start Abandon Peg Count
(FSA)

The total number of False Start Abandons for the office, categorized by signaling type, is recorded with this counter. The counters will reflect a summation of the per Control Area counters.

OMS 2

Partial Dial Abandon Peg Count
(PDA)

These total office counts of Partial Dial Abandons, categorized by signaling type, will be the summation of the per Control Area counters for PDA.

Partial Dial Timeout Peg Count
(PDT)

These total office counts of Partial Dial Timeouts categorized by signaling type, will equal the summation of the per Control Area counters for PDTO.

Pulsing Error Peg Count
(PER)

These total office counts of Pulsing Errors, categorized by signaling type, will equal the summation of the per Control Area counters for Pulsing Errors.

OMS 3

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

These counts of total office ANF will reflect the summation of the per Control Area counters for ANF.

CAMA Automatic Number Identification
Office Failure Peg Count
(AIF)

These counts of total office AIF will reflect the summation of the per Control Area Counters for AIF.

CAMA Automatic Number Identification
Office Failure Peg Count
(AOF)

These counts of total office AOF will reflect the summation of the per Control Area Counters for AOF.

OMS 4

Miscellaneous Abandon Peg Count
(MAB)

These total counts of Miscellaneous Abandons, categorized by signaling type, reflect the summations of the per Control Area Counts.

Real-Time Overload Retry Cancel Peg Count
(OVERLOAD RETRY CANCEL)

This counter is incremented by one when a call attempt retry is canceled by the real-time overload function.

CCIS Call Fail Detection Peg Count
(CCIS CALL FAIL DETECTION)

This counter is incremented by one each time a COF, RLG, and RST signal is received for a call that is sent to final Handling.

CCIS Signaling Network Failure Peg Count
(CCIS SIGNLING NWK FAILURE)

This counter is incremented by one each time a call is sent to Final Handling because of a failure to send an IAM or COT for an outgoing trunk or an ADC for an incoming trunk because of a signaling network failure and each time a Message Refusal (MRF) signal is received for an outgoing CCIS call attempt.

CCIS Address Complete Signal Timeout
Peg Count
(CCIS ADC SGN TIMEOUT)

This counter is incremented by one each time a CCIS call times out while waiting for the ADC signal from the succeeding office.

ITUP Address Complete Signal Timeout
Peg Count
(ITUP ADC SGN TIMEOUT)

This counter is incremented by one each time an ITUP call times out while waiting for the ADC message from the succeeding office.

INUP Address Complete Signal Timeout
Peg Count
(INUP ADC SGN TIMEOUT)

This counter is incremented by one each time an INUP call times out while waiting for the ADC message from the succeeding office.

Final Trial Group Peg Count
(FINAL TRIAL GROUP)

These counters will be incremented by one each time a call is lost due to an ineffective attempt on the final trial. One counter exists for each of the following outgoing ineffective attempt type.

1. CCIS Continuity Check Failure (CKF)
2. ITUP Continuity Check Failure (TUPCKF)
3. INUP Continuity Check Failure (NUPCKF)
4. Unexpected Stop Failures (UXS)
5. Integrity Check Failures (IKF)
6. No Start Dial (NSD)
7. Expected Stop Timeout (XST)
8. Glare
9. MF Transmitter Errors (MFT ERR)

Other Errors - MF Transmitter
Outpulsing Errors Peg Count
(MFT OPLS)

This counter will be incremented by one each time a MF Transmitter reports a failure while outpulsing. This count will be maintained on a Control Area basis.

Other Errors - Continuity/Polarity
Test Failures Peg Count
(CPF)

This counter will be incremented by one each time there is a failure on a Continuity and Polarity test, indicating an off-hook on a one-way outgoing trunk.

Other Errors - No XCVR, Final Trial Failure
(NO XCVR FTF)

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

This counter will be incremented by one each time a CCIS call is sent to Final Handling because no CCIS Transceiver is available to do a Voice Path Assurance test.

OMS 5

CAMA Free Calls Peg Count
(FREE CLS)

This counter is incremented by one each time a CAMA call is allowed to complete free because ONI suspension is active.

CAMA Position Report (CPR) Peg Count
(POS REPT)

This counter is incremented by one each time CAMA determines that a trouble condition has taken place and the operator keys a predetermined seven digit trouble code rather than a calling party number and the call is aborted. (Same as MSC 18 OMS 0.)

OMS 6

Transient Calls Lost Peg Count
(TRANSIENT CALLS LOST)

Each time a call is lost because of the failure of a VIU, DTU, DIU, ESU, SCS, D3U, or IBU this counter will be incremented by one. Note that this count is concerned with those calls that have not progressed to the "waiting-for-answer" state or beyond.

Established Calls Lost Peg Count
(STABLE CALLS LOST)

This count will be incremented by one each time a call is lost because of the failure of a VIU, DTU, DIU, ESU, SCS, or D3U and the call had progressed to or beyond the "waiting-for-answer" state.

CCIS Calls Lost Due to Trunk or
Band Reset Peg Count
(STABLE RCPT TRNK OR BAND)

Each time a CCIS call is lost due to a trunk or band reset, this counter is incremented by one.

OMS 7

Continuity Check Failure Final Trial Failure
Peg Count
(CCF)

This count is incremented by one on final trial failure if a transceiver has not detected the receipt of the check tone within acceptable timing limits after sending IAM.

Miscellaneous call Irregularities
Final Trial Failure Peg Count
(MCI)

This count is incremented by one on final failure on the receipt of confusion (COF) or Release-Guard (RLG) signals during setup of an outgoing IAM but before any backward signal has been received.

Double Seizures (GLARE) Final Trial Failures
Peg Count
(GLR)

This count is incremented by one on final trial failure by the non-control office on detection of a double seizure.

Signaling Network Final Trial Failures
Peg Count
(SNF)

This count is incremented by one on the final trial failure on receipt of a Message Refusal (MRF) signal or loss of signaling capability on all signaling paths to which a trunk is assigned during an outgoing call setup (before receipt of the ADC signal).

OMS 8

Double Seizure - Clear Forward Final
Trial Failure Peg Count
(DS-CLF)

This count is incremented by one on final trial failure if a (F1+F2) signal is received instead of a Proceed-To-Send signal.

Seizing Signal Timeout Final Trial Failure
Peg Count
(PTS-TO)

This count is incremented by one on final trial failure if the Proceed--To-Send signal is not received within 20-seconds after sending seizure (F1).

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

Transmitter Error Final Trial Failure Peg Count
(TX-ERR)

This counter is incremented by one on final trial failure if an MF Transmitter fails during outpulsing.

Unreasonable Signal Final Trial Failure Peg Count
(URS)

This counter is incremented by one on final trial failure if an (F1) or (F1+F2) signal is received during outpulsing.

Busy-Flash Final Trial Failure Peg Count
(BF)

This counter is incremented by one on final trial failure if a Busy-Flash (F2) signal is received during outpulsing.

Glare Final Trial Failure Peg Count
(GLR)

This counter is incremented by one on final trial failure by the non-control office on detection of a double seizure.

OMS 9

Incoming Continuity Signal Timeout Peg Count
(INCOMING COT-TO)

This counter is incremented by one when an initial message (IAM) is not followed within the accepted timing interval by a COT signal or a blocking signal followed by Clear-Forward.

Outgoing Address Complete Signal Timeout Peg Count
(OUTGOING ADC-TO)

This counter is incremented by one when the CCITT No. 6 office that sent an address message and a COT message has not received an address complete signal within the accepted timing interval.

Miscellaneous Abandon Peg Count
(ABANDONS MISC)

This count is incremented by one if a CLF signal is received subsequent to a COT signal but before receipt of an address complete signal (or early answer).

Waiting-for-Answer Call Failure Peg Count
(WAIT ANS CF)

This count is incremented by one on receipt of a Call Failure (CFL) signal for an outgoing CCITT No. 6 trunk during the "waiting-for-answer" stage.

Waiting-for-Answer Timeout Peg Count
(WAIT ANS TO)

This count is incremented by one if an outgoing CCITT No. 6 trunk does not receive an answer signal or other appropriate signal within 4-minutes of receipt of ADC.

Disconnect Stage Failure to Receive Clear-Forward Peg Count
(DISCONNECT CLF-TO)

This count is incremented by one if when Clear-Back or any failure signal is transmitted for an incoming CCITT No. 6 trunk, a Clear-Forward signal is not received with 40 to 60-seconds for the failure signals.

Disconnect Stage Failure to Receive Release Guard Peg Count
(DISCONNECT RLG-TO)

This count is incremented by one when a Release-Guard signal is not received within acceptable timing limits of sending Clear-Forward.

OMS 10

MAS - Looping Through Translate All Digits Peg Count
(XLATE LOOP)

This counter keeps track of the number of customer calls to MAS that fail because the digit reception program (DIRE) is looping through translate all digits due to multiple cut-throughs and/or INWATS routing.

MAS - Data On Disk Peg Count
(DATA ON DISK)

This counter keeps track of the number of customer calls to MAS that fail because DIRE has found MAS call data on disk.

MAS - Path Hunt Peg Count
(PATH HUNT)

This counter keeps track of the number of customer calls to MAS that fail because all path hunt attempts failed.

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

MAS - No Vacant Announcement Peg Count
(NO VAC ANN)

This counter keeps track of the number of customer calls to MAS that fail because they are routed to a MAS vacant code or service inactive announcement and the vacant code/service inactive announcement is not available.

MAS - Hardware Duplex Failed Peg Count
(HARDWARE OOS)

This counter keeps track of the number of customer calls to MAS that fail because the MAS hardware is duplex failed, the two dedicated TSI SPCS serving the announcement are duplex failed, or two consecutive announcement phases are on tested TSI ports.

OMS 11

Adjunct Logical Address T303 Timeouts Peg Count
(ADJUNCT T303 TIMEOUTS)

These are the per Adjunct Logical Address T303 expiration counts that are pegged on timeout for response after sending a setup message on a CPA Q931 (B1) outgoing trunk. The count is reported for each of the 16 possible adjuncts.

Adjunct Logical Address TADJ Timeouts
Peg Count
(ADJUNCT TADJ TIMEOUTS)

These are the per Adjunct Logical Address T_ADJ expiration counts that are pegged on timeout while waiting for a message after a PROGRESS message has been received on a CPA Q931 (B1) outgoing trunk. The count is reported for each of the 16 possible adjuncts.

TABLE 37

OUTPUT MEASUREMENT SETS FOR MSC 37
(BASE MEASUREMENTS)

```
MSC 37  BASE MEASUREMENTS
OMS 0  DOM ATTEMPTS-TOTAL OFFICE
 ATT      MF EQ     DP EQ     Q931      ISUP    CCIS
   IN          0         0         0         0       0
   OUT         0         0         0         0       0
OMS 1  INTL ATTEMPTS-TOTAL OFFICE
 ATT    CCITT5    CCITT6     ITUP      INUP
   IN          0         0         0         0
   OUT         0         0         0         0
```

Description of Measurements for MSC 37

OMS 0

Incoming Domestic MF Call Attempts
(IN ATT MF EQ)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on MF Trunk Subgroups at 15 minute intervals. This count will not include those false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic DP Call Attempts
(IN ATT DP EQ)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on DP Trunk Subgroups at 15 minute intervals. This count will not include those false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic Q.931 Call Attempts
(IN ATT Q931)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on Q.931 Trunk Subgroups at 15 minute intervals. This count will not include those false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic ISUP Call Attempts
(IN ATT ISUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute intervals.

Incoming Domestic CCIS Call Attempts
(IN ATT CCIS)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute intervals.

Outgoing Domestic MF Call Attempts
(OUT ATT MF EQ)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing MF Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic DP Call Attempts
(OUT ATT DP EQ)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing DP Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic Q.931 Call Attempts
(OUT ATT Q931)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing Q.931 Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic ISUP Call Attempts
(OUT ATT ISUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute

TABLE 37 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 37
(BASE MEASUREMENTS)

intervals.

Outgoing Domestic CCIS Call Attempts
(OUT ATT CCIS)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCIS Trunk Subgroups at 15 minute intervals.

OMS 1

Incoming International CCITT No. 5
Call Attempts
(IN ATT CCITT5)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 5 Trunk Subgroups at 15 minute intervals.

Incoming International CCITT No. 6
Call Attempts
(IN ATT CCITT6)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 6 Trunk Subgroups at 15 minute intervals.

Incoming International ITUP Call Attempts
(IN ATT ITUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ITUP Trunk Subgroups at 15 minute intervals.

Incoming International INUP Call Attempts
(IN ATT INUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the INUP Trunk Subgroups at 15 minute intervals.

Outgoing International CCITT No. 5
Call Attempts
(OUT ATT CCITT5)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 5 Trunk Subgroups at 15 minute intervals.

Outgoing International CCITT No. 6
Call Attempts
(OUT ATT CCITT6)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 6 Trunk Subgroups at 15 minute intervals.

Outgoing International ITUP Call Attempts
(OUT ATT ITUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the ITUP Trunk Subgroups at 15 minute intervals.

Outgoing International INUP Call Attempts
(OUT ATT INUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the INUP Trunk Subgroups at 15 minute intervals.

TABLE 38

OUTPUT MEASUREMENT SETS FOR MSC 38
(ADMINISTRATIVE AREA ZERO)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Administrative Area Zero.

TABLE 39

OUTPUT MEASUREMENT SETS FOR MSC 39
(ADMINISTRATIVE AREA ONE)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Administrative Area One.
```

TABLE 40

OUTPUT MEASUREMENTS SETS FOR MSC 40
(PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE)

MSC 40 PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE

OMS 0	AUDIT	IMPLICATOR	CODES									
000	0	001	0	002	0	003	0	004	0	005	0	
006	0	007	0	008	0	009	0	010	0	011	0	
012	0	013	0	014	0	015	0	016	0	017	0	
018	0	019	0	020	0	021	0	022	0	023	0	
024	0	025	0	026	0	027	0	028	0	029	0	
030	0	031	0	032	0	033	0	034	0	035	0	
036	0	037	0	038	0	039	0	040	0	041	0	
042	0	043	0	044	0	045	0	046	0	047	0	
048	0	049	0	050	0	051	0	052	0	053	0	
054	0	055	0	056	0	057	0	058	0	059	0	
060	0	061	0	062	0	063	0					
OMS 1	AUDIT	IMPLICATOR	CODES									
064	0	065	0	066	0	067	0	068	0	069	0	
070	0	071	0	072	0	073	0	074	0	075	0	
076	0	077	0	078	0	079	0	080	0	081	0	
082	0	083	0	084	0	085	0	086	0	087	0	
088	0	089	0	090	0	091	0	092	0	093	0	
094	0	095	0	096	0	097	0	098	0	099	0	
100	0	101	0	102	0	103	0	104	0	105	0	
106	0	107	0	108	0	109	0	110	0	111	0	
112	0	113	0	114	0	115	0	116	0	117	0	
118	0	119	0	120	0	121	0	122	0	123	0	
124	0	125	0	126	0	127	0					
OMS 2	AUDIT	IMPLICATOR	CODES									
128	0	129	0	130	0	131	0	132	0	133	0	
134	0	135	0	136	0	137	0	138	0	139	0	
140	0	141	0	142	0	143	0	144	0	145	0	
146	0	147	0	148	0	149	0	150	0	151	0	
152	0	153	0	154	0	155	0	156	0	157	0	
158	0	159	0	160	0	161	0	162	0	163	0	
164	0	165	0	166	0	167	0	168	0	169	0	
170	0	171	0	172	0	173	0	174	0	175	0	
176	0	177	0	178	0	179	0	180	0	181	0	
182	0	183	0	184	0	185	0	186	0	187	0	
188	0	189	0	190	0	191	0					
OMS 3	AUDIT	IMPLICATOR	CODES									
192	0	193	0	194	0	195	0	196	0	197	0	
198	0	199	0	200	0	201	0	202	0	203	0	
204	0	205	0	206	0	207	0	208	0	209	0	
210	0	211	0	212	0	213	0	214	0	215	0	
216	0	217	0	218	0	219	0	220	0	221	0	
222	0	223	0	224	0	225	0	226	0	227	0	
228	0	229	0	230	0	231	0	232	0	233	0	
234	0	235	0	236	0	237	0	238	0	239	0	
240	0	241	0	242	0	243	0	244	0	245	0	
246	0	247	0	248	0	249	0	250	0	251	0	
252	0	253	0	254	0	255	0					

TABLE 40 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 40
(PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE)

Description of Measurements for MSC 40

OMS 0-3

Audit Implicator Codes Peg Count

Each of these OMS have a total of 64 registers, one for each of the audit implicator codes within the specified OMS. Audit implicator codes point to memory structures and error types involved in defensive check failures.

TABLE 41

OUTPUT MEASUREMENT SETS FOR MSC 41
(AUDITS BY CLIENT)

```
MSC 41  AUDITS BY CLIENT
OMS 0 AUDIT CALLS BY CLIENT, ERRORS FOUND
    AUDITS  OPER   MAINT  MAN
     SYST   PRGMS  PRGMS  REQ
        0       0      0      0
```

Description of Measurements for MSC 41

OMS 0

Errors Found By Audit System Peg Count
(AUDITS SYST)

Each time an error is found by the audit system this register is incremented by one.

Errors Found By Operational Programs
Peg Count
(OPER PRGMS)

This counter will be incremented by one each time an error is found by an operational program.

Errors Found By Maintenance Programs
Peg Count
(MAINT PRGMS)

Each time an error is found by a maintenance program this register is incremented by one.

Errors Found By Manual Request
Peg Count
(MAN REQ)

This counter is incremented by one each time an error is found by an audit program that was initiated by manual request.

TABLE 42

OUTPUT MEASUREMENT SETS FOR MSC 42
(TRUNK ERROR ANALYSIS - SECOND STAGE FILTERS)

```
MSC 42  TRUNK ERROR ANALYSIS COUNTS

                  SECOND STAGE
          SP        FILTER
       NUMBER     OVERFLOWS

     OMS 0                 0
     OMS 1                 0
     OMS 2                 0
     OMS 3                 0
     OMS 4                 0
     OMS 5                 0
     OMS 6                 0
     OMS 7                 0
     OMS 8                 0
     OMS 9                 0
     OMS 10                 0
     OMS 11                 0
     OMS 12                 0
     OMS 13                 0
     OMS 14                 0
     OMS 15                 0
     OMS 16                 0
     OMS 17                 0
     OMS 18                 0
     OMS 19                 0
     OMS 20                 0
     OMS 21                 0
     OMS 22                 0
     OMS 23                 0
     OMS 24                 0
     OMS 25                 0
     OMS 26                 0
     OMS 27                 0
     OMS 28                 0
     OMS 29                 0
     OMS 30                 0
     OMS 31                 0
```

Description of Measurements for MSC 42

OMS 0-31

Trunk Error Analysis Second Stage Filter Overflow For Signal Processor Peg Count (SECOND STAGE FILTER OVERFLOWS)

Each OMS has one counter for a signal processor of the same number (i.e., OMS 0 = SP Member 0, ..., OMS 31 = SP Member 31). These registers will be incremented by one for each trunk error analysis second stage filter overflow. This overflow will occur when an SP has received the maximum number of trunk requests it can handle and another request is received.

TABLE 43

OUTPUT MEASUREMENT SETS FOR MSC 43
(TRUNK ERROR ANALYSIS - LONG TERM TABLE)

```
MSC 43  TRUNK ERROR ANALYSIS COUNTS

                    LONG TERM
          SP          TABLE
       NUMBER      OVERFLOWS

  OMS 0                    0
  OMS 1                    0
  OMS 2                    0
  OMS 3                    0
  OMS 4                    0
  OMS 5                    0
  OMS 6                    0
  OMS 7                    0
  OMS 8                    0
  OMS 9                    0
  OMS 10                   0
  OMS 11                   0
  OMS 12                   0
  OMS 13                   0
  OMS 14                   0
  OMS 15                   0
  OMS 16                   0
  OMS 17                   0
  OMS 18                   0
  OMS 19                   0
  OMS 20                   0
  OMS 21                   0
  OMS 22                   0
  OMS 23                   0
  OMS 24                   0
  OMS 25                   0
  OMS 26                   0
  OMS 27                   0
  OMS 28                   0
  OMS 29                   0
  OMS 30                   0
  OMS 31                   0
```

Description of Measurements for MSC 43

OMS 0-31

Trunk Error Analysis Long Term Table Overflow For Signal Processor Peg Count (LONG TERM TABLE OVERFLOWS)

Each OMS has one counter for a signal processor of the same number (i.e., OMS 0 = SP Member 0, ..., OMS 31 = SP Member 31). These registers will be incremented by one for each long term table overflow. This type of overflow will occur when the long term table is full and an attempt is made to place another trunk is on the table.

TABLE 44

OUTPUT MEASUREMENT SETS FOR MSC 44
(TRUNK ERROR ANALYSIS - REPORT BUFFER OVERFLOW)

```
MSC 44  TRUNK ERROR ANALYSIS - REPORT BUFFER OVERFLOW
OMS 0                   0
```

Description of Measurements for MSC 44

OMS 0

Trunk Error Analysis Report Buffer
Overflow Peg Count

This counter will be incremented by one each time an attempt is made to place a report to be printed out in the report buffer and the buffer is full to capacity.

TABLE 45

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

```
MSC 45 SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS
OMS 0
IAM IRR     0
        RESET    NSC    NTC    VNN    ADI    COF    CFL    UQL   UNRES
  RCVD      0      0      0      0      0      0      0      0       0
  XMIT      0      0      0      0      0      0      0      0

        IN CNI RING   OUT CNI RING   UBM    OUT   RESET   -CONFUSION-
        FAIL   OVFL   FAIL   OVFL   RCVD   UNEXP  RCVD   RCVD   XMIT
  Q931      0      0      0      0      -      -      0       0      0
  ISUP      0      0      0      0      0      0      0       -      -
  ITUP      0      0      0      0      0      0      0       -      -
  INUP      0      0      0      0      0      0      0       -      -

                SENT     RCVD
  ISUP CFN         0        0
  DNHR CRB         0        0
  RTNR EBCRB       0        0
  RTNR QUERY       0        0

  PROCESSOR INTERFACES DOWN
   CNI STRM    API   1B FILE
         0        0        0

OMS 1 CCIS SOFTWARE CARRIER GROUP ALARM
                   PASS         FAIL
       INITIAL        0            0
       MONITOR        0            -
       RESTORAL       0            0

OMS 2  TRKS BLOCKED FAR END EQUIP PROB
                   0

OMS 3  CCITT6 PERFORMANCE SIGNALS RECEIVED
     SEC     ADI     CFL     VNN     CGC     NNC
       0       0       0       0       0       0
     LOS     SSB    CONG
       0       0       0

       ITUP PERFORMANCE SIGNALS RECEIVED
     SEC  CGC WFA  CFL WFA   CGC     NNC  NNC WFA
       0       0       0       0       0       0
     LOS     SSB
       0       0

       INUP SIGNALLING IRREGULARITIES
     SEC  SEC WFA    NCA  NCA WFA  TFL WFA
       0       0       0       0       0
     LOS  SSB WFA
       0       0
       CCITT7 SAM IGNORED
              0
```

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

```
OMS 4  CCITT6 PERFORMANCE SIGNALS TRANSMITTED
     SEC     ADI     CFL     VNN     CGC     NNC
       0       0       0       0       0       0
     COF     SSB     SST     LOS     BLO
       0       0       0       0       0
OMS 5  CCITT6 SIGNALLING IRREGULARITIES
     IAD     IAM     ISA     CCF     MCI     SNF     GLR
       0       0       0       0       0       0       0
       ITUP SIGNALLING IRREGULARITIES
     IAD     ISA  IAM GLR  CCR GLR   GLR
       0       0       0       0       0
       INUP SIGNALLING IRREGULARITIES
     ISA  IAM GLR  CCR GLR   GLR
      0       0       0       0
OMS 6  ISUP UUI AND ATP DROPPED
     UUI  UUI INT    ATP  ATP INT
       0       0       0       0
OMS 7  CALL MERGE
------------------ CALL MERGE ------------------
    RQST    SUCC  ADJ NA  INV CS  INV CN  MFRQST
       0       0       0       0       0       0
OMS 8 E&M SOFTWARE CARRIER GROUP ALARM
        ALARM  RESTORAL  NON-CON  QIC-PASS  QIC-FAIL
  TPF       0         0         0         0         0
  RPF       0         0         -         -         -
```

Descriptions of Measurements for MSC 45

OMS 0

Initial Address Message (IAM)
Irregularity (IRR) Peg Count
(IAM IRR)

This counter will be incremented by one for each of the following initial address irregularities:

a. Invalid Initial Address Message (IAM) data - An example of an IAM containing invalid data is an invalid digit such as digit 14.

b. IAM length check failure - A CCIS office is unable to complete a length check on a received IAM because, for example, one or more subsequent signaling units of the IAM are missing.

c. Receipt of a nonmatching second IAM - If during the call setup a CCIS office receives a second IAM, a comparison is made to the first IAM and the two are different.

CCIS Trunk Or Band Reset Received
Peg Count
(RESET RCVD)

Each time a trunk or band Reset signal (RST) from the incoming direction is received during call set-up, this counter is incremented by one.

CCIS National Switching Congestion (NSC)
Signals Received Peg Count
(NSC RCVD)

This counter is incremented by one when a National Switching Congestion (NSC) signal is received for an outgoing CCIS call attempt because common control facilities in a subsequent office were not available or a network path hunt failed in a subsequent office.

CCIS National Trunk Congestion (NTC)
Signals Received Peg Count

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

(NTC RCVD)

This counter is incremented by one each time a National Trunk Congestion signal (NTC) is received for an outgoing CCIS call attempt because of an outgoing trunk congestion condition (no circuit) in a subsequent office.

CCIS Vacant National Number (VNN)
Signals Received Peg Count
(VNN RCVD)

When a succeeding CCIS office has examined the digits received on a CCIS call and determined that it has received a vacant code, and this office received a Vacant National Number (VNN) signal, this counter is incremented by one.

CCIS Address Incomplete (ADI) Signals
Received Peg Count
(ADI RCVD)

This counter is incremented by one when a succeeding CCIS office determined that the address received on an incoming call does not contain the proper number of digits and this office received an Address Incomplete (ADI) signal.

CCIS Confusion (COF) Signals Received
Peg Count
(COF RCVD)

Each time a Confusion Signal (COF) is received because the forward office detected an invalid Initial Address Message (IAM) irregularity, this counter is incremented by one.

CCIS Call Failure (CFL) Signals Received
Peg Count
(CFL RCVD)

This counter is incremented by one each time a forward CCIS office experienced Continuity (COT) Timeout signal or Address Complete (ADC) signal timeout and this office received a Call Failure (CFL) signal.

CCIS Unequipped Label Signals Received
Peg Count
(UQL RCVD)

This counter is incremented by one each time an Unequipped Label (UQL) signal is received from a forward office that had been sent an IAM.

CCIS Unreasonable Message (UNRES)
Signals Received Peg Count
(UNRES RCVD)

This counter is incremented by one each time the CCIS office receives an unreasonable backward message that causes retrial. Such messages include receipt of Release Guard (RLG) signal or Reset (RST) signal after an IAM or IAM plus COT has been sent.

CCIS Trunk Or Band Reset Signals
Transmitted Peg Count
(RESET XMIT)

Each time a band or trunk Reset signal is sent in the outgoing direction during call setup, this counter is incremented by one.

CCIS National Switching Congestion (NSC)
Signals Transmitted Peg Count
(NSC XMIT)

This counter is incremented by one each time a National Switching Congestion signal (NSC) is returned for an incoming call because insufficient common control facilities were available for the CCIS call or because a failure occurred while hunting a network path.

CCIS National Trunk Congestion (NTC)
Signals Transmitted Peg Count
(NTC XMIT)

Each time a National Trunk Congestion signal is returned for a CCIS incoming call because of an outgoing trunk congestion condition (no circuit), this counter is incremented by one.

CCIS Vacant National Number (VNN)
Signals Transmitted Peg Count
(VNN XMIT)

This counter is incremented by one each time the digits received have been examined and determined to be a vacant code and a Vacant National Number (VNN) signal has been sent to the CCIS office that sent the digits.

CCIS Address Incomplete (ADI) Signals
Transmitted Peg Count
(ADI XMIT)

Each time the address received on an incoming call does not contain the proper number of digits and an Address Incomplete (ADI) signal is sent to the CCIS office that transmitted the IAM, this counter will be incremented by one.

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

CCIS Confusion (COF) Signals Transmitted Peg Count
(COF XMIT)

This counter is incremented by one each time a Confusion (COF) signal is transmitted because an invalid Initial Address Message (IAM) irregularity has been received.

CCIS Call Failure (CFL) Signals Transmitted Peg Count
(CFL XMIT)

Each time a Continuity (COT) Timeout or an Address Complete (ADC) timeout occurs and a Call Failure (CFL) signal has been transmitted to the sending office, this counter will be incremented by one.

CCIS Unequipped Label Signals Transmitted Peg Count
(UQL XMIT)

This counter is incremented by one each time an Unequipped Label response (UQL) is sent to an office as a result of an invalid label found in an IAM.

Q.931 Incoming CNI Ring Failure Peg Count
(Q931 IN CNI RING FAIL)

This counter is incremented by one when an incoming Q.931 call is sent to Final Handling due to Customer Network Interface (CNI) ring failure.

Q.931 Incoming CNI Ring Buffer Overflow Peg Count
(Q931 IN CNI RING OVFL)

This counter is incremented by one when an incoming Q.931 call fails due to an inability to send messages caused by CNI buffer overflow.

Q.931 Outgoing CNI Ring Failure Peg Count
(Q931 OUT CNI RING FAIL)

This counter is incremented by one when an outgoing Q.931 call is sent to Final Handling due to CNI ring failure.

Q.931 Outgoing CNI Ring Overflow Peg Count
(Q931 OUT CNI RING OVFL)

This counter is incremented by one when an outgoing Q.931 call fails due to an inability to send messages caused by CNI buffer overflow.

Q.931 Resets Received Peg Count
(Q931 RESET RCVD)

This counter is incremented by one when a reset message is received on a Q.931 trunk that is on queue for or busy to a CR.

Q.931 Confusion Received Peg Count
(Q931 CONFUSION RCVD)

This counter is incremented by one when an incoming Q.931 fails due to a call state mismatch in a setup or post-setup state.

Q.931 Confusion Transmitted Peg Count
(Q931 CONFUSION XMIT)

This counter is incremented by one when a call state mismatch is detected on an outgoing Q.931 call in either setup or post setup state.

ISUP Incoming CNI Ring Failure Peg Count
(ISUP IN CNI RING FAIL)

This counter is incremented by one when an incoming ISUP call is sent to Final Handling due to CNI ring failure.

ISUP Incoming CNI Ring Overflow Peg Count
(ISUP IN CNI RING OVFL)

This counter is incremented by one when an incoming ISUP call fails due to an inability to send messages caused by CNI buffer overflow.

ISUP Outgoing CNI Ring Failure Peg Count
(ISUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing ISUP call is sent to Final Handling due to CNI ring failure.

ISUP Outgoing CNI Ring Overflow Peg Count
(ISUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing ISUP call fails due to an inability to send messages caused by CNI buffer overflow.

ISUP Unsuccessful Backward Setup Received Peg Count
(ISUP UBM RCVD)

This counter is incremented by one when an ISUP release message is received in setup.

ISUP Outgoing Unexpected Message

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Peg Count
(ISUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR occurs.

ISUP Resets Received Peg Count
(ISUP RESET RCVD)

This counter is incremented by one when an incoming ISUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

ITUP Incoming CNI Ring Failure Peg Count
(ITUP IN CNI RING FAIL)

This counter is incremented by one when an incoming ITUP call is sent to Final Handling due to CNI ring failure.

ITUP Incoming CNI Ring Overflow Peg Count
(ITUP IN CNI RING OVFL)

This counter is incremented by one when an incoming ITUP call fails due to an inability to send messages caused by CNI buffer overflow.

ITUP Outgoing CNI Ring Failure Peg Count
(ITUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing ITUP call is sent to Final Handling due to CNI ring failure.

ITUP Outgoing CNI Ring Overflow Peg Count
(ITUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing ITUP call fails due to an inability to send messages caused by CNI buffer overflow.

ITUP Unblocking Message Received
Peg Count
(ITUP UBM RCVD)

This counter is incremented by one when an unblocking message is received on an ITUP call that is busy to a call register.

ITUP Outgoing Unexpected Message
Peg Count
(ITUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR occurs.

ITUP Resets Received Peg Count
(ITUP RESET RCVD)

This counter is incremented by one when an incoming ITUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

INUP Incoming CNI Ring Failure Peg Count
(INUP IN CNI RING FAIL)

This counter is incremented by one when an incoming INUP call is sent to Final Handling due to CNI ring failure.

INUP Incoming CNI Ring Overflow Peg Count
(INUP IN CNI RING OVFL)

This counter is incremented by one when an incoming INUP call fails due to an inability to send messages caused by CNI buffer overflow.

INUP Outgoing CNI Ring Failure Peg Count
(INUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing INUP call is sent to Final Handling due to CNI ring failure.

INUP Outgoing CNI Ring Overflow Peg Count
(INUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing INUP call is sent to Final Handling due to CNI ring overflow.

INUP Unblocking Message Received
Peg Count
(INUP UBM RCVD)

This counter is incremented by one when an unblocking message is received on an INUP call that is busy to a call register.

INUP Outgoing Unexpected Message
Peg Count
(INUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR.

INUP Resets Received Peg Count
(INUP RESET RCVD)

This counter is incremented by one when an incoming INUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

ISUP Confusion Message Sent Peg Count
(ISUP CFN SENT)

This counter is incremented by one when a Confusion message is sent in response to an unimplemented message.

ISUP Confusion Message Received Peg Count
(ISUP CFN RCVD)

This counter is incremented by one when a Confusion message is received.

DNHR Crank Backs Sent Peg Count
(DNHR CRB SENT)

This counter is incremented by one when a crank back is sent from the Via Toll Switch.

DNHR Crank Backs Received Peg Count
(DNHR CRB RCVD)

This counter is incremented by one when a crank back is received at the Originating Toll Switch.

RTNR Egress Busy Crankbacks Sent
Peg Count
(RTNR EBCRB SENT)

This counter is incremented by one when a crankback is sent at a Terminating Access Switch.

RTNR Egress Busy Crankback Received
Peg Count
(RTNR EBCRB RCVD)

This counter is incremented by one when a crankback is received at an Originating Access Switch.

RTNR Queries Sent Peg Count
(RTNR QUERY SENT)

This counter is incremented by one when a TSG bit-map query is sent from an Originating Access Switch (OAS).

RTNR Queries Received Peg Count
(RTNR QUERY RCVD)

This counter is incremented by one when a TSG bit-map query is received at a Terminating Access Switch (TAS).

CNI Stream Processor Interface Down
(CNI STRM PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the CNI data stream has been down.

API Processor Interface Down
(API PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the API is down.

1B File Processor Interface Down
(1B FILE PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the 1B File Store is down.

OMS 1

These counters are incremented by the Software Carrier Group Alarm program from statistical tests on the Carrier Group believed to have failed. An initial continuity test is run when a suspected failure is first encountered. A monitor test is run at periodic intervals after the failure of an initial test. A restoral test is run after a monitor test pass.

1. Initial Tests Pass Peg Count
2. Initial Tests Failure Peg Count
3. Monitor Tests Pass Peg Count
4. Restoral Tests Pass Peg Count
5. Restoral Tests Failure Peg Count

OMS 2

Trunks Blocked Due To Far End
Equipment Problems Peg Count
(TRKS BLOCKED FAR END EQUIP PROB)

This counter is incremented by one for each trunk that is blocked and taken out of service due to far end switching equipment problems.

OMS 3

CCITT No. 6 Switching Equipment Congestion
(SEC) Signals Received Peg Count
(CCITT6 SEC)

This count is incremented by one when a Switching Equipment Congestion signal is received from a forward CCITT No. 6 office or when there is some

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

congestion in the office itself, such as no transceivers available for an outgoing CCITT No. 6 call.

CCITT No. 6 Address Incomplete (ADI) Signals Received Peg Count (CCITT6 ADI)

This counter is incremented by one when a succeeding CCITT No. 6 office determined that the address received on an incoming call does not contain the proper number of digits and this office received an Address Incomplete signal.

CCITT No. 6 Call Failure (CFL) Signals Received Peg Count (CCITT6 CFL)

This counter is incremented by one each time a forward CCITT No. 6 office experienced Continuity (COT) Timeout signal or Address Complete (ADC) signal timeout and this office received a Call Failure (CFL) signal.

CCITT No. 6 Vacant National Number (VNN) Signals Received Peg Count (CCITT6 VNN)

This counter is incremented by one when a succeeding CCITT No. 6 office has examined the digits received on a CCITT No. 6 call and determined that it has received a Vacant National Number signal.

CCITT No. 6 Circuit Group Congestion (CGC) Signals Received Peg Count (CCITT6 CGC)

This count is incremented by one each time a Circuit Group Congestion signal is received for an outgoing CCITT No. 6 call attempt because of an outgoing trunk congestion (no circuit) condition is a subsequent office.

CCITT No. 6 National Network Congestion (NNC) Signals Received Peg Count (CCITT6 NNC)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing CCITT No. 6 call attempt because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

CCITT No. 6 Line Out-of-Service Signals Received Peg Count (CCITT6 LOS)

This counter is incremented by one when a LOS fail signal is received on a CCITT6 outgoing trunk.

CCITT No. 6 Subscriber Busy Signals Received Peg Count (CCITT6 SSB)

This counter is incremented by one when an SSB fail signal is received on a CCITT6 outgoing trunk.

CCITT No. 6 Terminal Congestion Peg Count (CCITT6 CONG)

This counter is incremented by one when a CCITT6 call is final handled due to terminal congestion that cancels IAMs to a terminal.

ITUP Switching Equipment Congestion (SEC) Signals Received Peg Count (ITUP SEC)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received from a forward ITUP office or when there is some congestion in the office itself, such as no transceivers available for an outgoing ITUP call.

ITUP Circuit Group Congestion (CGC) Received While Waiting For Answer Peg Count (ITUP CGC WFA)

This counter is incremented by one when a Circuit Group Congestion (CGC) signal is received on an outgoing ITUP call attempt while waiting for answer because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP Call Failure (CFL) Received While Waiting For Answer Peg Count (ITUP CFL WFA)

This counter is incremented by one when a Call Failure (CFL) signal is received on an outgoing ITUP call attempt while waiting for answer.

ITUP Circuit Group Congestion (CGC) Signals Received Peg Count (ITUP CGC)

This count is incremented by one each time a Circuit Group Congestion signal is received for an outgoing ITUP call attempt because of outgoing trunk congestion (CGC) condition in a subsequent office.

ITUP National Network Congestion (NNC)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Signals Received Peg Count
(ITUP NNC)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing ITUP call attempt because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP National Network Congestion (NNC)
While Waiting For Answer Peg Count
(ITUP NNC WFA)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing ITUP call attempt while waiting for answer because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP Line Out-of-Service (LOS) Signals
Received Peg Count
(ITUP LOS)

This counter is incremented by one when a LOS fail signal is received on an ITUP outgoing trunk.

ITUP Subscriber Busy (SSB) Signals
Received Peg Count
(ITUP SSB)

This counter is incremented by one when an SSB fail signal is received on an ITUP outgoing trunk.

INUP Switching Equipment Congestion (SEC)
Signals Received Peg Count
(INUP SEC)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received from a forward INUP office or when there is some congestion in the office itself, such as no transceivers available for an outgoing INUP call.

INUP Switching Equipment Congestion (SEC)
Signals Received While Waiting For Answer
Peg Count
(INUP SEC WFA)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received while waiting for answer from a forward INUP office or when there is some congestion in the office itself, such as no transceivers available for an INUP call.

INUP No Circuit Available (NCA) Signals
Received Peg Count
(INUP NCA)

This counter is incremented by one when a REL message is received with a cause of No Circuit Available from a forward INUP office.

INUP No Circuit Available (NCA) Signals
Received While Waiting For Answer
Peg Count
(INUP NCA WFA)

This counter is incremented by one when a REL message is received with a cause of No Circuit Available while waiting for answer from a forward INUP office.

INUP Temporary Failure (TFL) Signals
Received While Waiting For Answer
Peg Count
(INUP TFL WFA)

This counter is incremented by one when a REL message is received with a cause of Temporary Failure while waiting for answer from a forward INUP office.

INUP Line Out-of-Service (LOS) Signals
Received Peg Count
(INUP LOS)

This counter is incremented by one when a LOS fail signal is received on an INUP outgoing trunk.

INUP Subscriber Busy (SB) Signals Received
While Waiting For Answer Peg Count
(INUP SSB WFA)

This counter is incremented by one when a Subscriber Busy fail signal is received while waiting for answer on an INUP outgoing trunk.

CCITT No. 7 Subsequent Address
Message Ignored Peg Count
(CCITT7 SAM IGNORED)

This is a count of the number of Subsequent Address Messages (SAM) ignored in the incoming setup post routing state.

OMS 4

CCITT No. 6 Switching Equipment Congestion
(SEC) Signals Transmitted Peg Count
(SEC)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

This counter is incremented by one when there is some congestion in the office such as no transceiver available for an outgoing CCITT No. 6 call or when a Switching Equipment Congestion signal is received from a forward office.

CCITT No. 6 Address Incomplete (ADI) Signals Transmitted Peg Count
(ADI)

This counter is incremented by one when an Address Incomplete signal is received by the office or if the CCITT No. 6 office determined that the address received on an incoming call does not contain the proper number of digits.

CCITT No. 6 Call Failure (CFL) Signals Transmitted Peg Count
(CFL)

This counter is incremented by one when this office received a Call Failure signal from a forward CCITT No. 6 office or if the outgoing trunk fails on a final trial.

CCITT No. 6 Vacant National Number (VNN) Signals Transmitted Peg Count
(VNN)

This counter is incremented by one each time the digits received have been examined and determined to be a vacant code and a Vacant National Number (VNN) signal has been sent to the CCITT No. 6 office that sent the digits.

CCITT No. 6 Circuit Group Congestion (CGC) Signals Transmitted Peg Count
(CGC)

This counter is incremented by one each time a Circuit Group Congestion is received from a forward office or when an incoming CCITT No. 6 call encounters outgoing trunk congestion (no circuit).

CCITT No. 6 National Network Congestion (NNC) Signals Transmitted Peg Count
(NNC)

This counter is incremented by one each time a National Network Congestion signal is returned for a CCITT No. 6 incoming call because of an outgoing trunk congestion problem (no circuit).

CCITT No. 6 Confusion (COF) Signals Transmitted Peg Count
(COF)

This counter is incremented by one each time a Confusion signal is transmitted because an invalid Initial Address Message (IAM) irregularity has been received.

CCITT No. 6 Subscriber Busy (SSB) Signals Transmitted Peg Count
(SSB)

This counter is incremented by one each time a Subscriber Busy (SSB) signal is received from the sending office.

CCITT No. 6 Subscriber Transferred (SST) Signals Transmitted Peg Count
(SST)

This counter is incremented by one each time a Subscriber Transferred (SST) signal is received from the sending office.

CCITT No. 6 Line Out-Of-Service (LOS) Signal Transmitted Peg Count
(LOS)

This counter is incremented by one each time a Line Out-Of-Service signal is received from the sending office.

CCITT No. 6 Blocking (BLO) Signal Transmitted Peg Count
(BLO)

This counter is incremented by one on the receipt of Confusion (COF) and Release-Guard (RLG) signals during set-up of an outgoing CCITT No. 6 call, or the receipt of a Blocking (BLO) signal after sending an Initial Address Message (IAM) but before any backward signal has been received.

OMS 5

CCITT No. 6 Incomplete Address Detected Call Irregularity Peg Count
(CCITT6 IAD)

This count is incremented by one when it is determined on an incoming CCITT No. 6 call that a received address does not contain the proper number of digits for setting up the call and an Address Incomplete (ADI) signal is sent in the backward direction for the incoming trunk.

CCITT No. 6 Initial Address Message (IAM)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Call Irregularity Peg Count
(CCITT6 IAM)

This counter is incremented by one when the Initial Address Message (IAM) or Subsequent Address Message (SAM) data is invalid, or if the IAM or SAM length checks fail, or if a second nonmatching IAM or SAM signal is received. Detecting any of these failures, the office will send a Confusion (COF) signal in the backward direction for the incoming trunk.

CCITT No. 6 Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(CCITT6 ISA)

This counter is incremented by one each time a Clear-Forward (CLF) signal is received on an incoming CCITT No. 6 trunk (not preceded by a blocking signal) while timing for the receipt of the Continuity (COT) signal.

CCITT No. 6 Continuity Check Failure (CCF)
Signaling Irregularity Peg Count
(CCITT6 CCF)

This counter is incremented by one each time a transceiver has not detected the receipt of the check tone within acceptable transmission and time limits. Four reattempts are allowed in the event of successive continuity check failures.

CCITT No. 6 Miscellaneous Call Irregularity
Peg Count
(CCITT6 MCI)

This counter is incremented by one when a CCITT No. 6 outgoing call attempt receives a Confusion or Blocking message in response to an IAM.

CCITT No. 6 Signaling Network Failures
(SNF) Call Irregularities Peg Count
(CCITT6 SNF)

This counter is incremented by one on receipt of a Message Refusal (MRF) signal or loss of signaling capability on all signaling paths to which a trunk is assigned at a CCITT No. 6 office.

CCITT No. 6 Double Seizure (GLR) Call
Irregularity Peg Count
(CCITT6 GLR)

This counter is incremented by one by the non-control office on detection of a double seizure.

ITUP Incomplete Address Detected (IAD)
Call Irregularity Peg Count
(ITUP IAD)

This count is incremented by one when it is determined on an incoming ITUP call that a received address does not contain the proper number of digits for setting up a call and an Address Incomplete (ADI) signal is sent in the backward direction for the incoming trunk.

ITUP Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(ITUP ISA)

This counter is incremented by one each time a Reset (RST) message is received on an incoming ITUP trunk that is either on queue for or busy to a CR.

ITUP Initial Address Message (IAM) Glare
Peg Count
(ITUP IAM GLR)

This counter is incremented by one on an ITUP outgoing attempt when an IAM is received on the outgoing trunk that the far end controls while either doing a continuity check request or in setup.

ITUP Continuity Check Request (CCR) Glare
Peg Count
(ITUP CCR GLR)

This counter is incremented by one when a CCR is received on an ITUP outgoing trunk after a CCR was successfully sent, which is a glare condition in a non-control office.

ITUP Glare Peg Count
(ITUP GLR)

This counter is incremented by one when an outgoing ITUP trunk detects a double seizure is detected in a non-control office.

INUP Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(INUP ISA)

This counter is incremented by one each time a Reset (RST) message is received on an incoming INUP trunk that is either on queue for or busy to a CR.

INUP Initial Address Message (IAM) Glare
Peg Count
(INUP IAM GLR)

This counter is incremented by one on an INUP outgoing attempt when an IAM is received on the

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

outgoing trunk that the far end controls while either doing a continuity check request or in setup.

INUP Continuity Check Request (CCR) Glare Peg Count
(INUP CCR GLR)

This counter is incremented by one when a CCR is received on an INUP outgoing trunk after a CCR was successfully sent, which is a glare condition in a non-control office.

INUP Glare Peg Count
(INUP GLR)

This counter is incremented by one when an outgoing INUP trunk detects a double seizure is detected in a non-control office.

OMS 6

ISUP UUI Dropped Due to Length Peg Count
(ISUP UUI)

This is a count of the number of times User-to-User Information (UUI) was dropped due to length considerations and maximum ISUP length restrictions.

ISUP UUI Dropped Due to Internal Loss Peg Count
(ISUP UUI INT)

This is a count of the number of times User-to-User Information (UUI) is dropped due to lack of internal buffer space.

ISUP ATP Dropped Due to Length Peg Count
(ISUP ATP)

This is a count of the number of times Access Transport data (ATP) was dropped due to length considerations and maximum ISUP length restrictions.

ISUP ATP Dropped Due to Internal Loss Peg Count
(ISUP ATP INT)

This is a count of the number of times Access Transport data (ATP) is dropped due to lack of internal buffer space.

OMS 7

Call Merge Requests Peg Count
(CALL MERGE RQST)

This is a count of call merge requests to connect two calls set up through a PRI interface as a single call into the switch.

Call Merge Success Peg Count
(CALL MERGE SUCC)

This is a count of successfully completed call merge operations.

Call Merge Denials - Adjunct Not Allowed Peg Count
(CALL MERGE ADJ NA)

This is the count of call merge denials because the adjunct is prohibited from merging calls.

Call Merge Denials - Invalid Call States Peg Count
(CALL MERGE INV CS)

This is the count of call merge denials because the calls to be merged were in invalid states.

Call Merge Denials - Invalid Channel ID Peg Count
(CALL MERGE INV CN)

This is the count of call merge denials because of an invalid channel ID.

Call Merge Denials - Multi-Feature Request Peg Count
(CALL MERGE MFRQST)

This is the count of call merge denials because of multiple feature requests in one facility message.

OMS 8

Confirmed Transmit Path Failure Carrier Alarm Peg Count
(TPF ALARM)

This counter will be incremented by one each time a Confirmed Transmit Path Failure Carrier Alarm is detected.

Confirmed Transmit Path Failure Carrier Restoral Peg Count
(TPF RESTORAL)

This counter will be incremented by one each time a retest quick test verifies that a Transmit Path Failure

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Carrier Restoral has passed and the carrier alarm will be deactivated.

Non-Confirmed Transmit Path Failure Carrier Alarm Peg Count (TPF NON-CON)

This counter will be incremented by one each time a Non-Confirmed Transmit Path Failure Carrier Alarm has been detected.

Monitor QIC Passed - Suspected Transmit Path Failure Restoral Peg Count (TPF QIC-PASS)

This counter will be incremented by one each time a transmit path failure monitor test has passed and the carrier alarm will be deactivated.

Retest QIC Failed - Non-Confirmed Transmit Path Failure Restoral Peg Count (TPF QUIC-FAIL)

This counter will be incremented by one each time a retest quick test has failed.

Confirmed Receive Path Failure Carrier Alarm Peg Count (RPF ALARM)

This counter will be incremented by one each time a Confirmed Receive Path Failure Carrier Alarm has been detected.

Confirmed Receive Path Failure Carrier Restoral Peg Count (RPF RESTORAL)

This counter will be incremented by one each time a successful Receive Path Failure Carrier Restoral has been detected.

TABLE 46

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

```
MSC 46 SWITCHING AREA EQUIPMENT COUNTS
OMS 0  PROCESSOR - SET A
        UNIT  UNIT-LOC NONLOC DIAG EXC DIAG EXC DIAG ATP DIAG ATP
       ERRORS  FAULTS  FAULTS PROG REQ MAN REQ  PROG REQ MAN REQ
  CC        0       0       0       0        0        0        0
  PS        0       0       0       0        0        0        0
  MUP       0       0       0       0        0        0        0
  CS        0       0       0       0        0        0        0
  API       0       0       0       0        0        0        0
  DUS       0       0       0       0        0        0        0
  TUC       0       0       0       0        0        0        0
  PDF       0       0       0       0        0        0        0
  AUI       0       0       0       0        0        0        0
  SSD       0       0       0       0        0        0        0
OMS 1  PROCESSOR - SET B
        UNIT  UNIT-LOC NONLOC DIAG EXC DIAG EXC DIAG ATP DIAG ATP
       ERRORS  FAULTS  FAULTS PROG REQ MAN REQ  PROG REQ MAN REQ
  XPWR      0       0       0       0        0        0        0
OMS 2  BUS SYSTEM
        UNIT  UNIT-LOC NONLOC DIAG EXC DIAG EXC DIAG ATP DIAG ATP
       ERRORS  FAULTS FAULTS  PROG REQ MAN REQ  PROG REQ MAN REQ
  PSB       0       0      0        0        0        0        0
  CSB       0       0      0        0        0        0        0
  AUB       0       0      0        0        0        0        0
  PUB       0       0      0        0        0        0        0
OMS 3  BUS SYSTEM
        UNIT  UNIT-LOC NONLOC DIAG EXC DIAG EXC DIAG ATP DIAG ATP
       ERRORS  FAULTS  FAULTS PROG REQ MAN REQ  PROG REQ MAN REQ
  PSB       0       0       0       0        0        0        0
  CSB       0       0       0       0        0        0        0
  AUB       0       0       0       0        0        0        0
  PUB       0       0       0       0        0        0        0
  IFB       0       0       0       0        0        0        0
OMS 4  NETWORK
        UNIT  UNIT-LOC NONLOC DIAG EXC DIAG EXC DIAG ATP DIAG ATP
       ERRORS  FAULTS  FAULTS PROG REQ MAN REQ  PROG REQ MAN REQ
  TSI       0       0       0       0        0        0        0
  D3U       0       0       0       0        0        0        0
  TMSP      0       0       0       0        0        0        0
OMS 5  SIGNALING EQUIPMENT
        UNIT  UNIT-LOC NONLOC DIAG EXC DIAG EXC DIAG ATP DIAG ATP
       ERRORS  FAULTS  FAULTS PROG REQ MAN REQ  PROG REQ MAN REQ
 TGR
  CONTR     0       0       0       0        0        0        0
DOM TER     0       0       0       0        0        0        0
DOM VFL     -       0       0       -        -        -        -
INT TER     0       0       0       0        0        0        0
INT VFL     -       0       0       -        -        -        -
```

TABLE 46 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

```
OMS 6  CLOCKS
         UNIT  UNIT-LOC NONLOC DIAG EXC DIAG EXC DIAG ATP DIAG ATP
        ERRORS  FAULTS  FAULTS PROG REQ MAN REQ  PROG REQ MAN REQ
  NCLK       0       0       0        0        0        0        0
  SCLK       0       0       0        0        0        0        0
  NCSU       0       0       0        0        0        0        0
OMS 7  PER CALL SERVICE CIRCUIT MEASUREMENTS
           UNIT LOC  UNIT NON
            FAULTS   LOC FLTS
  MF RCVR        0      0
  MF XMTR        0      0
  CCIS XCVR      0      0
  DTMF RCVR      0      0
  DTMF XMTR      0      0
```

Descriptions of Measurements for MSC 46

The following seven counts will be taken for the entire office, for all members of each Unit Type, that is specified as being associated with OMS 0 through OMS 6.

Unit Errors Peg Count
(UNIT ERRORS)

Defined as a malfunction, the symptoms of which cannot be reproduced under program control. The initial stimulus leading to this counter being incremented by one is an interrupt associated with the particular Unit Type. The fault recognition program, of the unit will increment this counter.

Unit Located Fault Peg Count
(UNIT-LOC FAULTS)

This is a fault occurrence that can be resolved through analysis to a replaceable equipment unit. The general situation leading to this counter being incremented by one, is an interrupt causing execution of the fault Recognition program and the FR program finds the suspected trouble, requests that the unit be diagnosed and the diagnostic finds the trouble source.

Non-located Faults
(NONLOC FAULTS)

This register will be incremented by one when a fault occurs that cannot be resolved through analysis to a replaceable equipment unit. The unit diagnostic would compete with an All Tests Pass (ATP) result.

Diagnostics Program Requested
(DIAG EXC PROG REQ)

This counter will be incremented by one each time the particular unit diagnostic program is executed, unless its execution has been manually requested.

Diagnostics Manually Requested
(DIAG EXC MAN REQ)

Each time the unit diagnostic program is executed by requesting a manual or routine exercise request, this counter will be incremented by one.

Diagnostics ATP Program Requested
(DIAG ATP PROG REQ)

This counter will be incremented by one each time the unit diagnostic program is executed with an ATP result. This does not include diagnostics requested manually or by routine exercise.

Diagnostics ATP Manually Requested
(DIAG ATP MAN REQ)

This counter will be incremented by one each time the unit diagnostic program is executed by a manual request or routine exercise with an ATP result.

OMS 0

The counts described above are outputted for the following units:

Central Control (CC)
Program Store (PS)
Maintenance and Utility Processor (MUP)
Call Store (CS)

TABLE 46 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

Attached Processor Interface (API)
Data Unit Selector (DUS)
Tape Unit Controller (TUC)
Power Distribution Frame (PDF)
Auxiliary Unit Interface (AUI)
Scan and Signal Distributor (SSD)
Miscellaneous Power Board (XPWR)

OMS 1

The counts described above are outputted for the following units:

Miscellaneous Power Board (XPWR)

OMS 2

The counts described above are outputted for the following units:

Input/Output Unit Selector (IOUS)
Input/Output Unit Controller (IOUC)

OMS 3

The counts described above are outputted for the following units:

Program Store Bus (PSB)
Call Store Bus (CSB)
Auxiliary Unit Bus (AUB)
Peripheral Unit Bus (PUB)
Interface Bus (IFB)

OMS 4

The counts described above are outputted for the following units:

Time-Slot Interchange (TSI)
DS3 Unit (D3U)
Time-Multiplexed Switching Pair (TMSP)

OMS 5

The counts described above are outputted for the following units:

CCIS Terminal Group (CONTR)
Domestic CCIS Terminal (DOM TER)
Domestic VFL (DOM VFL)
International CCIS Terminal (INT TER)
International VFL (INT VFL)

OMS 6

The counts described above are outputted for the following units:

Network Clock (NCLK)
System Clock (SCLK)
Network Clock Synchronization Unit (NCSU)

OMS 7

The two counts described below are output for each of the following service circuits:

MF Receiver (MF RCVR)
MF Transmitter (MF XMTR)
CCIS Transceiver (CCIS XCVR)
DTMF Receiver (DTMF RCVR)
DTMF Transmitter (DTMF XMTR)

Located Faults Peg Count
(UNIT LOC FAULTS)

This counter will be incremented by one each time the service circuit is diagnosed and a fault is found, or each time the unit undergoes error analysis and is deemed to be faulty.

Non-located Faults Peg Count
(UNIT NON LOC FLTS)

Each time the service circuit is either diagnosed and no trouble is found or the unit undergoes error analysis and no fault is found, this counter is incremented by one.

TABLE 47

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENTS - AUDITS BY TYPE)

MSC 47 PERFORMANCE MEASUREMENTS - AUDITS BY TYPE

OMS 0 ROUTINE AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

OMS 1 ROUTINE AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 2 ROUTINE AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

OMS 3 DEMAND AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

OMS 4 DEMAND AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 5 DEMAND AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

OMS 6 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

TABLE 47 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENTS - AUDITS BY TYPE)

OMS 7 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 8 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

OMS 9 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

OMS 10 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 11 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

Description of Measurements for MSC 47

OMS 0

Audit 00 through 49 Routine Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit that is routinely requested by the program is completed.

OMS 1

Audit 50 through 99 Routine Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit that is routinely requested by the program is completed.

OMS 2

Audit 100 through 127 Routine Request
Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is routinely requested by the program is completed.

TABLE 47 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENTS - AUDITS BY TYPE)

OMS 3

Audit 00 through 49 Demand Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is requested by a manual or routine exercise is completed.

OMS 4

Audit 50 through 99 Demand Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit that is requested by a manual or routine exercise is completed.

OMS 5

Audit 100 through 127 Demand Request
Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit that is requested by a manual or routine exercise is completed.

OMS 6

Audit 00 through 49 Routine Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 7

Audit 50 through 99 Routine Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 8

Audit 100 through 127 Routine Request
Errors Found Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 9

Audit 00 through 49 Demand Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

OMS 10

Audit 50 through 99 Demand Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

OMS 11

Audit 100 through 127 Demand Request
Errors Found Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

TABLE 48

OUTPUT MEASUREMENT SETS FOR MSC 48
(ADMINISTRATIVE AREA TWO)

The layout and count definitions of this MSC are identical to MSC 25. This MSC provides data for Administrative Area Two.

TABLE 49

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

```
MSC 49  INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI
OMS 0  CCIS INWATS
  TOT CLS   QUERIES  SUCCESS  NM MSGS     MSGS
   TO OSO     SENT   REPLIES    RCVD       SSB
        0         0        0        0        0

   ------------------ BSSP DATA BASE FAILURES -----------------
   CBVNCP   CBSCP  CBMASS   CBSMS  QFSTRM  QFOVFL   SCPTO  SCPREJ
        0       0       0       0       0       0       0       0
   SCPRTE  RESPER   PLAYA  800DCE  TCPUDS  TCPHDR  TCPCPE  EXRPTS
        0       0       0       0       0       0       0       0
   EXRPTF  TRANID  CLABND  NOCLID  LATMSG   10D6D
        0       0       0       0       0       0
   ----- Q.931 CHANNEL NEGOTIATION REQUESTS -----
   ORGTSG   TATSG   FATSG  FOOTSG  FTATSG  FFOTSG
        0       0       0       0       0       0
   ----------- INWATS FAILURES ----------
   NM6DCC  NM10DCC  NM-DSC     SLC  NO-AUX
        0        0       0       0       0

   -------------------- DATA BASE FAILURES --------------------
      ALB    OVLD  UA-NXX  NE-NPA  NP-NPA      VL  V-NXX       TO
        0       0       0       0       0       0      0        0

-DIRECT SIGNALING FAILURE -
   NW-BLK  NW-CON  NO-XLT
        0       0       0
    OUTWATS
  NON-PUR NPA
          0
  ------------------- NETWORK CALL DENIAL -------------------
       IQ  BQOVLD  BQCSC  BQCONG     RDC    RDBA    RDAA   QRBLK
        0       0      0       0       0       0       0       0
   QROVLD   QRNRD QNOVLD   QNMSC     INV
        0       0      0       0       0
```

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

```
OMS 1  AIN CALLS TOTAL COUNTS
  ORIG INC
       0

    QRYS    NMBLK    FAIL-CP-BIQ    UNAVAIL-BIQ
       0        0              0              0

  RSP-MSG    PLAY-ANN    RETREJ    SIG-FAIL-TD
        0           0         0              0

  ABDNBO    ABDNAO         TN-REC
       0         0              0

  INVLD    INVLD-CMD    TRIG-OVFL    FAIL-CP-AIQ    UNAVAIL-AIQ
     0            0            0              0              0

    ANU      TICAC
      0          0

  LNP-QRYS    LNP-QRYS-SUCC    LNP-PORTED         LNP-ISUP-REL
         0           0                 0                    0

OMS 2  AIN CALLS - TOLLFREE COUNTS
  ORIG INC
       0

    QRYS    NMBLK    FAIL-CP-BIQ    UNAVAIL-BIQ
       0        0              0              0

  RSP-MSG    PLAY-ANN    RETREJ    SIG-FAIL-TD
        0           0         0              0

  ABDNBO    ABDNAO         TN-REC
       0         0              0

  INVLD    INVLD-CMD    TRIG-OVFL    FAIL-CP-AIQ    UNAVAIL-AIQ
     0            0            0              0              0

    ANU      TICAC
      0          0
```

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

```
OMS 3  NETWORK ACCESS INTERRUPTION
  QRY ATMPT   QRY BLK SO   QRY BLK NCP   MSG NOT DLV
          0            0             0             0
  DENY BANS    DENY AANS     NOMTCH ID    RPLY NRCGZ
          0            0             0             0
      RC PR     RC PRPAD       RC PRFR
          0            0             0

OMS 4  DIRECT SIGNALING
  MISROUTED
  MSGS RCVD
         0
- SADC MESSAGES -
   TOTAL     UNX
       0       0


  TERM NTFY
  MSGS LOST
         0
  1B-3B AMA RECORDS
    SENT    LOST
       0       0
  AIN TN INFO
    TN-RET  TF-TN-RET
         0          0
     NAI MEASUREMENTS
  THRSH ANS   THRSH NOANS
          0             0
```

Output Measurement Sets for MSC 49

OMS 0

Total INWATS Calls Reaching CCIS OSO Peg Count
(TOT CLS TO OSO)

This counter will be incremented by one each time a "Query Data Base" return is received from the initial digit translation. Before an office becomes a CCIS OSO, this count will always be 0. This count will be maintained by DIRE or translations.

INWATS Queries Sent Peg Count
(QUERIES SENT)

This counter will be incremented by one each time a query is sent to the Data Base. This count will be maintained by call processing.

Successful INWATS Replies Peg Count
(SUCCESS REPLIES)

This counter is incremented by one each time a successful INWATS reply is received from the Data Base. This count is kept by the CCIS dispenser program.

INWATS Network Management Messages Received Peg Count
(NM MSGS RCVD)

This counter will be incremented by one each time a Network Management Message is received from the INWATS Data Base. This count will be maintained by Network Management.

CCIS Message Subscriber Busy Peg Count
(MSGS SSB)

This counter will be incremented by one each time an SSB message will be sent from the terminating end.

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

This count is kept by the CCIS Dispenser Program.

Vacant Code/Non-Purchased NPA
BOC-Service Switch Point (SSP) Calls
Blocked Due To Excess Calling Peg Count
(CBVNCP BSSP DATA BASE FAILURES)

This counter is incremented by one each time a BOC SSP call is blocked via vacant code controls.

SCP Overload Blocked BOC-SSP Calls
Peg Count
(CBSCP BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked due to NM implementation of Service Control Point Overload controls.

MAS - BOC-SSP Calls Blocked Peg Count
(CBMASS BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked due to NM implementation of MAS calling controls.

SMS Blocked BOC-SSP Call Peg Count
(CBSMS BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked via NM Service Management Position (SMS) controls.

Initial Query Failure Due to CNI
Stream Down Peg Count
(QFSTRM BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is unable to complete due to Initial query failure caused by the CNI stream being down.

Initial Query Failure Due to CNI
Buffer Overflow Peg Count
(QFOVFL BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is unable to complete due to Initial query failure caused by the CNI Buffer overflowing.

Timeout Waiting for SCP Response Peg Count
(SCPTO BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt times out waiting for a response from the SCP data base.

Reject Message Returned from SCP Peg Count
(SCPREJ BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to the SCP returning a Reject Message.

Return Error Returned from SCP Peg Count
(SCPRTE BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to Return Error Message from the SCP.

Fatal Protocol Error Response from SCP
Peg Count
(RESPER DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to the SCP response containing Fatal Protocol Errors.

Play Announcement Message from SCP
Peg Count
(PLAYA BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails with the SCP indicating that an announcement should be played.

800 Number Services (NS) Attempts Failed
Due to Unacceptable Digit Count Peg Count
(800DCE BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP 800 number services call is finaled due to an insufficient number of dialed digits (10).

Unit Data Service Messages Returned by STP
Peg Count
(TCPUDS BSSP DATA BASE FAILURES)

This is a total count of CCS7 Transaction Capability (TCAP) Unit Data Service Messages returned by the Signal Transfer Point (STP).

Fatal Errors in SCCP Header Peg Count
(TCPHDR BSSP DATA BASE FAILURES)

This is a total count of Signaling Connection Control Point (SCCP) fatal header errors on CCS7 TCAP messages.

Discrepancy in Number of Components
and End Address of TCAP Message
Peg Count
(TCPCPE BSSP DATA BASE FAILURES)

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

This is a count of CCS7 TCAP messages that have a discrepancy in the number of components versus end address.

Exception Reports Sent to the SCP Peg Count
(EXRPTS BSSP DATA BASE FAILURES)

This is a count of Exception Reports sent to the SCP.

Exception Reports Failed to Send to the SCP
Peg Count
(EXRPTF BSSP DATA BASE FAILURES)

This is a count of exception reports that should have been sent to the SCP but were not.

Transaction ID in SCP Response Was Invalid
Peg Count
(TRANID BSSP DATA BASE FAILURES)

This is a count of responses from the SCP that contained an invalid transaction ID.

Caller Abandon Before Response from SCP
Peg Count
(CLABND BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP caller abandons before a response has been received from the SCP.

Undetermined Call ID in a Response from the
SCP Which Contained Protocol Errors
Peg Count
(NOCLID BSSP DATA BASE FAILURES)

This is a count of SCP responses that contained fatal protocol errors where the call ID could not be determined.

Response from SCP After Query
Timer Timeout Peg Count
(LATMSG BSSP DATA BASE FAILURES)

This counter is incremented by one when a query to the SCP results in a response after Timer timeout.

Failure to Place NM 10/6 Digit Controls
on ACG Control List Peg Count
(10D6D BSSP DATA BASE FAILURES)

This counter is incremented by one each time a NM Automatic Call Gap (ACG) control received in the response from the SCP cannot be placed on the ACG control list because the list is full.

Q.931 Channel Negotiation (CN) Requests
on Original TSG
(ORGTSG Q931 CN REQUESTS)

This is the number of CN requests that resulted in the originally hunted trunk being selected.

Q.931 Channel Negotiation (CN) Requests
to Another TSG
(TATSG Q931 CN REQUESTS)

This is the number of CN requests where the egress call is to be diverted to the PBX specified TSG.

Q.931 Channel Negotiation (CN) Requests
From Other TSG
(FATSG Q931 CN REQUESTS)

This is the number of CN requests where the egress call is requested to complete on the non-originally hunted TSG.

Q.931 Channel Negotiation (CN) Failures
On Originating TSG
(FOOTSG Q931 CN REQUESTS)

This is the number of times a CN request on the originating TSG failed to connect.

Q.931 Channel Negotiation (CN) Request
Failures To Another TSG
(FTATSG Q931 CN REQUESTS)

This is the number of times a CN request to another specified TSG failed.

Q.931 Channel Negotiation (CN) Request
Failures From Other TSG
(FFOTSG Q931 CN REQUESTS)

This is the number of times a CN request from another TSG failed.

Network Management Blocked: INWATS
6-digit Code Control
(NM6DCC INWATS FAILURES)

This counter will be incremented by one each time an INWATS call is blocked by 6-digit INWATS Code Control. This count will be maintained by Final Handling.

Network Management Blocked: INWATS
10-digit Code Control
(NM10DCC INWATS FAILURES)

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

This counter will be incremented by one each time an INWATS call is blocked by 10-digit INWATS Code Control. This count will be maintained by Final Handling.

Network Management Blocked: Direct Signaling Control
(NM-DSC INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS call is blocked by 6-digit INWATS Direct Signaling Control. This count will be maintained by Final Handling.

INWATS Blocked by Signaling Link Congestion
(SLC INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS Call Failure is received because of one or more of the following reasons:

a. Terminal Buffer Overflow

b. Signaling Link Failure

c. Receipt of Processor Switching Congestions (PSC) signal prevented the INWATS query from being sent

This count will be maintained by Final Handling.

No Auxiliary Call Register
(NO-AUX INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS failure is received because an Auxiliary Call Register is not available. This count will be maintained by Final Handling.

Data Base Failure Reply: All Lines Busy
(ALB DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base because all lines are busy to the INWATS subscriber. This count will be maintained by Final Handling.

Data Base Failure Reply: Data Base Overload
(OVLD DATA BASE FAILURES)

This counter will be incremented by one each time a Data Base Failure is received that specifies that Data Base Overload is the reason for failure. This count will be maintained by Final Handling.

Data Base Failure Reply: Unassigned NXX
(UA-NXX DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base because an unassigned NXX was the reason for the failure. This indicates that the CCIS network routed the query to the wrong Data Base and implies bad translation data at the STP. This count will be maintained by Final Handling.

Data Base Failure Reply: Non-Existent NPA
(NE-NPA DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specifies Non-Existent NPA as the reason for failure. This implies bad translation data either at the OSO (trunk block or 3-digit translator) or at the Data Base. This count will be maintained by Final Handling.

Data Base Failure Reply: Non-Purchased NPA
(NP-NPA DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specifies non-purchased NPA as the reason for failure. This is analogous to zonal band exceeded in conventional INWATS. This count will be maintained by Final Handling.

Data Base Failure Reply: Vacant Line
(VL DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specifies Vacant Line Number as the reason for failure. This count will be maintained by Final Handling.

Data Base Failure Reply: Vacant NXX
(V-NXX DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specified vacant NXX as the reason for failure. This count will be maintained by Final Handling.

Data Base Query Timeout
(TO DATA BASE FAILURES)

This counter will be incremented by one each time an INWATS call failure is received because the Data Base query timed out before a response was received. Here, it is likely that the replies are being misrouted in the CCIS network. This count will be maintained by Final Handling.

INWATS CCIS Failure: Network Blockage

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

(NW-BLK)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return specified as network blockage failure. This count will be maintained by Final Handling.

INWATS CCIS Failure: Network Congestion
(NW-CON)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return specified as network congestion failure. This count will be maintained by Final Handling.

INWATS CCIS Failure: No Translation Data
(NO-XLT)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return being specified as no translation data at the STP to route the query failure. This count will be maintained by Final Handling.

OUTWATS Non-purchased NPA Peg Count
(OUTWATS NON-PUR NPA)

This counter will be incremented when an OUTWATS customer attempts to call an NPA that has not been contracted for.

Network Call Denial Initial Query Peg Count
(NETWORK CALL DENIAL IQ)

This counter is incremented when an attempt is made to send a query to the Network Call Denial (NCD) data base.

Network Call Denial Blocked Queries
From Overload Peg Count
(NETWORK CALL DENIAL BQOVLD)

This counter is incremented when an NCD query is blocked at the Action Point (AP) due to NCD/Network Control Point (NCP) overload control.

Network Call Denial Blocked Queries From
CCS Abnormal Replies Control Peg Count
(NETWORK CALL DENIAL BQCSC)

This counter is incremented when an NCD query is blocked at the AP due to CCIS Network Abnormal replies control.

Network Call Denial Blocked Queries
From Congestion Peg Count
(NETWORK CALL DENIAL BQCONG)

This counter is incremented when an NCD query is blocked at the AP due to congestion signals received at the AP.

Network Call Denial Replies With Deny Codes
Peg Count
(NETWORK CALL DENIAL RDC)

This counter is incremented when an NCD reply is received with a call deny code.

Network Call Denial Replies With Deny Code
Before Answer Supervision Peg Count
(NETWORK CALL DENIAL RDBA)

This counter is incremented when NCD reply is received with a call deny code before Answer Supervision has been received.

Network Call Denial Replies With Deny
Code After Answer Supervision Peg Count
(NETWORK CALL DENIAL RDAA)

This counter is incremented when an NCD reply is received with a call deny code after Answer Supervision has been received.

Network Call Denial Queries Returned
Due to CCS Network Block Replies Peg Count
(NETWORK CALL DENIAL QRBLK)

This counter is incremented when an NCD query is returned due to CCIS Network Block replies.

Network Call Denial Queries Returned
Due to CCS Network Overload Replies
(NETWORK CALL DENIAL QROVLD)

This counter is incremented when an NCD query is returned due to CCIS Network Overload replies.

Network Call Denial Queries Returned
Due to No Routing Data Peg Count
(NETWORK CALL DENIAL QRNRD)

This counter is incremented when an NCD query is returned due to lack of routing data for destination reply code.

Network Call Denial Queries Returned
Due to Overload Peg Count
(NETWORK CALL DENIAL QNOVLD)

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

This counter is incremented when an NCD query is returned due to data base overload reply condition.

Network Call Denial Queries Returned
Due to Miscellaneous Replies Peg Count
(NETWORK CALL DENIAL QNMSC)

This counter is incremented when an NCD query is returned due to miscellaneous reply reasons.

Network Call Denial Replies With
Invalid Data Peg Count
(NETWORK CALL DENIAL INV)

This counter is incremented when an NCD reply is interpreted to have invalid data.

OMS 1

AIN Total Calls Received from Another Switch
Peg Count
(ORIG INC)

The Advanced Intelligent Network (AIN) Calls Received From Another Switch count is pegged for all AIN calls that have been received from another switch (that is, the AIN call did not originate on this Service Switching Point (SSP) switch).

AIN Queries to the SCP Peg Count
(QRYS)

The AIN Queries Sent to the SCP count is pegged for each query that is sent to the Service Control Point (SCP). This is the total number of queries sent and can be incremented more than once for each AIN call attempt.

Network Management Control Blocks Call
Peg Count
(NMBLK)

Regardless of the type of NM control, the Network Management (NM) Control Blocks Call count is pegged on every occurrence of an AIN query blocked at the SSP due to an NM control. This count can be pegged due to one of the following reasons:

1. An SCP overload automatic code gap (ACG) control.
2. An SCP overload manual automatic code gap (MACG) control.
3. An SMS originated code control (SOCC).
4. A POTS destination code control.

This count is not pegged when a call is blocked after the SCP has provided routing instructions.

Call Processing Failure Before Initial Query
Peg Count
(FAIL-CP-BIQ)

The Call Processing Failure Before Initial Query count is pegged when an AIN call is terminated before the query to the SCP is sent. The reason for an AIN call being terminated could either be because of a hardware or software initialization, or because of a failure in the normal call processing routine. Any call processing failure that can be detected by the SSP is counted under this failure.

Resource Unavailable Before Initial Query
Peg Count
(UNAVAIL-BIQ)

The Resource Unavailable Before Initial Query count is pegged when an AIN call fails because a resource, which is normally provided by the SSP, is unavailable because of maintenance or engineering reasons before the query to the SCP is sent. The resources might either be engineerable, or might be fixed internally via the switch software release. This count is also pegged when a failure to send a query occurs on the initial leg of a call due to buffer overflow or stream down.

Normal Route Response Message Received
Peg Count
(RSP-MSG)

The Normal Route Response Message Received count is pegged when a route response is received from the SCP on AIN calls.

Play Announcement Message from the SCP
Peg Count
(PLAY-ANN)

The Play Announcement Message from the SCP count is pegged when a play announcement message is received from the SCP.

Return Error or Reject Message Peg Count
(RETREJ)

The Return Error or Reject Message count is pegged when the SSP receives a Return Error message or a Reject message in response to a Query or Conversation message. A Return Error message is returned from the SCP for an invalid command sent from the SSP. The Reject message is returned from the SCP for a valid

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

command sent from the SSP that is either incomplete or out of sequence.

Signaling Failure - Time-out at SSP
Peg Count
(SIG-FAIL-TD)

The Signaling Failure - Time-out at SSP count is pegged when the SSP times-out while waiting for a reply from the SCP.

Abandon - Before Outpulsing Peg Count
(ABDNBO)

The Abandon - Before Outpulsing count is pegged when an on-hook is received from the calling party before the SSP receives and interprets a routing response. This includes the case where the caller abandons during a play announcement and collect digits operation.

Abandon - After Outpulsing Peg Count
(ABDNAO)

The Abandon - After Outpulsing count is pegged when an on-hook is received from the calling party while the SSP is processing an SCP route response.

Termination Notification Requests Received
Peg Count
(TN-REC)

The Termination Notification Requests Received count represents the number of Termination Notification requests received from the SCP.

Invalid Command Sequence Peg Count
(INVLD)

The Invalid Command Sequence count is pegged when the SSP receives a response from the SCP that contains an incomplete or out of sequence valid command. In other words, the SSP receives a valid command from the SCP, but its order or completeness, with reference to the current dialogue sequence is incorrect.

Invalid Command Message Peg Count
(INVLD-CMD)

The Invalid Command Message count is pegged when the SSP receives a response from the SCP that is undecipherable or has bad data.

Serial-Triggering Limit Overflow
Peg Count
(TRIG-OVFL)

The Serial-Triggering Limit Overflowed measurement represents the number of times the office-administrable serial-triggering limit has been overflowed or exhausted.

Call Processing Failure After Initial Query
Peg Count
(FAIL-CP-AIQ)

The Call Processing Failure After Initial Query count is pegged when an AIN call is terminated after the query is sent. The reason for an AIN call being terminated could either be because of a hardware or software initialization, or because of a failure in the normal call processing routine. A call processing failure that can be detected by the SSP is counted under this failure. This counter is also pegged when a unit data service message, DLN returned message, or CNI returned message is received. This count indicates a more serious event than the FAIL-CP-BIQ one because of the waste in resources.

Resource Unavailable After Initial Query
Peg Count
(UNAVAIL-AIQ)

The Resource Unavailable After Initial Query count is pegged when an AIN call fails because a resource, which is normally provided by the SSP, is unavailable because of maintenance or engineering reasons after the query to the SCP is sent. This count is also pegged when a failure to send a query occurs on other than the initial leg of a call due to buffer overflow or stream down. This count indicates a more serious event than the UNAVAIL-BIQ one because of the waste in resources.

Announcement Number Unavailable
Peg Count
(ANU)

This is the Announcement Number Unavailable count for AIN calls. This count is pegged whenever the Announcement Number included in the Send_To_Resource (STR) message is not defined.

Total Incoming Completed AIN Calls
Peg Count
(TICAC)

This is the Total Incoming Completed AIN Calls count. This count is the total number of incoming AIN calls which are successfully completed (i.e., the call enters the waiting for answer state).

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

LNP Queries Sent
Peg Count
(LNP-QRYS)

This count measures the number of calls encountering a Local Number Portability (LNP) Called Number Trigger (CNT) which result in sending an SCP query.

LNP Queries Successful
Peg Count
(LNP-QRYS-SUCC)

This count measures the number of calls encountering a LNP trigger that results in a successful SCP query (defined by receipt of the SCP response).

LNP Ported Calls
Peg Count
(LNP-PORTED)

This count measures the number of LNP query responses containing an Local Routing Number (LRN) (not the previous called number).

LNP ISUP Release
Peg Count
(LNP-ISUP-REL)

This count measures the number of ISUP RELease messages received which contain ANSI cause value 26.

OMS 2

AIN Tollfree Calls Received from Another Switch
Peg Count
(ORIG INC)

The Advanced Intelligent Network (AIN) Tollfree Calls Received From Another Switch count is pegged for all AIN calls that have been received from another switch (that is, the AIN call did not originate on this Service Switching Point (SSP) switch).

AIN Tollfree Queries to the SCP Peg Count
(QRYS)

The AIN Tollfree Queries Sent to the SCP count is pegged for each query that is sent to the Service Control Point (SCP). This is the total number of queries sent and can be incremented more than once for each AIN Tollfree call attempt.

Network Management Control Blocks Call
Peg Count
(NMBLK)

Regardless of the type of NM control, the Network Management (NM) Control Blocks Call count is pegged on every occurrence of an AIN Tollfree query blocked at the SSP due to an NM control. This count can be pegged due to one of the following reasons:

1. An SCP overload automatic code gap (ACG) control.
2. An SCP overload manual automatic code gap (MACG) control.
3. An SMS originated code control (SOCC).
4. A POTS destination code control.

This count is not pegged when a call is blocked after the SCP has provided routing instructions.

Call Processing Failure Before Initial Query
Peg Count
(FAIL-CP-BIQ)

The Call Processing Failure Before Initial Query count is pegged when an AIN Tollfree call is terminated before the query to the SCP is sent. The reason for an AIN Tollfree call being terminated could either be because of a hardware or software initialization, or because of a failure in the normal call processing routine. Any call processing failure that can be detected by the SSP is counted under this failure.

Resource Unavailable Before Initial Query
Peg Count
(UNAVAIL-BIQ)

The Resource Unavailable Before Initial Query count is pegged when an AIN Tollfree call fails because a resource, which is normally provided by the SSP, is unavailable because of maintenance or engineering reasons before the query to the SCP is sent. The resources might either be engineerable, or might be fixed internally via the switch software release. This count is also pegged when a failure to send a query occurs on the initial leg of a call due to buffer overflow or stream down.

Normal Route Response Message Received
Peg Count
(RSP-MSG)

The Normal Route Response Message Received count is pegged when a route response is received from the SCP on AIN Tollfree calls.

Play Announcement Message from the SCP
Peg Count
(PLAY-ANN)

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

The Play Announcement Message from the SCP count is pegged when a play announcement message is received from the SCP for AIN Tollfree.

Return Error or Reject Message Peg Count
(RETREJ)

The Return Error or Reject Message count is pegged when the SSP receives a Return Error message or a Reject message in response to a Query or Conversation message for AIN Tollfree. A Return Error message is returned from the SCP for an invalid command sent from the SSP. The Reject message is returned from the SCP for a valid command sent from the SSP that is either incomplete or out of sequence.

Signaling Failure - Time-out at SSP
Peg Count
(SIG-FAIL-TD)

The Signaling Failure - Time-out at SSP count is pegged when the SSP times-out while waiting for a reply from the SCP for AIN Tollfree.

Abandon - Before Outpulsing Peg Count
(ABDNBO)

The Abandon - Before Outpulsing count is pegged when an on-hook is received from the calling party before the SSP receives and interprets a routing response for AIN Tollfree. This includes the case where the caller abandons during a play announcement and collect digits operation.

Abandon - After Outpulsing Peg Count
(ABDNAO)

The Abandon - After Outpulsing count is pegged when an on-hook is received from the calling party while the SSP is processing an SCP route response for AIN Tollfree.

Termination Notification Requests Received
Peg Count
(TN-REC)

The Termination Notification Requests Received count represents the number of Termination Notification requests received from the SCP for AIN Tollfree.

Invalid Command Sequence Peg Count
(INVLD)

The Invalid Command Sequence count is pegged when the SSP receives a response from the SCP that contains an incomplete or out of sequence valid command for AIN Tollfree. In other words, the SSP receives a valid command from the SCP, but its order or completeness, with reference to the current dialogue sequence is incorrect.

Invalid Command Message Peg Count
(INVLD-CMD)

The Invalid Command Message count is pegged when the SSP receives a response from the SCP that is undecipherable or has bad data for AIN Tollfree.

Serial-Triggering Limit Overflow
Peg Count
(TRIG-OVFL)

The Serial-Triggering Limit Overflowed measurement represents the number of times the office-administrable serial-triggering limit has been overflowed or exhausted for AIN Tollfree.

Call Processing Failure After Initial Query
Peg Count
(FAIL-CP-AIQ)

The Call Processing Failure After Initial Query count is pegged when an AIN Tollfree call is terminated after the query is sent. The reason for an AIN Tollfree call being terminated could either be because of a hardware or software initialization, or because of a failure in the normal call processing routine. A call processing failure that can be detected by the SSP is counted under this failure. This counter is also pegged when a unit data service message, DLN returned message, or CNI returned message is received. This count indicates a more serious event than the FAIL-CP-BIQ one because of the waste in resources.

Resource Unavailable After Initial Query
Peg Count
(UNAVAIL-AIQ)

The Resource Unavailable After Initial Query count is pegged when an AIN Tollfree call fails because a resource, which is normally provided by the SSP, is unavailable because of maintenance or engineering reasons after the query to the SCP is sent. This count is also pegged when a failure to send a query occurs on other than the initial leg of a call due to buffer overflow or stream down. This count indicates a more serious event than the UNAVAIL-BIQ one because of the waste in resources.

Announcement Number Unavailable
Peg Count

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

(ANU)

This is the Announcement Number Unavailable count for AIN Tollfree calls. This count is pegged whenever the Announcement Number included in the Send_To_Resource (STR) message is not defined.

Total Incoming Completed AIN Calls
Peg Count
(TICAC)

This is the Total Incoming Completed AIN Tollfree Calls count. This count is the total number of incoming AIN Tollfree calls which are successfully completed (i.e., the call enters the waiting for answer state).

OMS 3

NAI Query Attempt
Peg Count
(QRY ATMPT)

The total number of Network Access Interrupt (NAI) queries sent. This peg count is the total number of calls that reach the switch for which an NAI query is actually performed.

NAI Query Blocked Due To Switch Overload
Peg Count
(QRY BLK SO)

The total number of NAI queries not sent due to switch overload.

NAI Query Not Sent Due to ACG Control
Peg Count
(QRY BLK NCP)

The total number of NAI queries not sent due to ACG controls from the 2LAC/2NCP, Line-number Application for Consumers (LAC).

NAI Message Not Delivered
Peg Count
(MSG NOT DLV)

The total number of NAI TCAP messages returned to the switch due to CCS abnormal network replies, plus those that were failed to be sent due to problems at the switch.

NAI Denied Prior to Answer
Peg Count
(DENY BANS)

The total number of calls denied prior to answer supervision being received at the switch. This peg count is the total number of queries blocked at the switch before the call was answered.

NAI Denied After Answer Supervision Received
Peg Count
(DENY AANS)

The total number of calls denied after answer supervision was received at the switch. This peg count is the total number of queries blocked at the switch after the call was answered.

NAI, Switch Does Not Recognize
TCAP Transaction ID Peg Count
(NOMTCH ID)

The total number of events where the switch does not recognize the TCAP Transaction ID in a message received for the NAI application.

NAI, Switch Does Not Recognize Reply Code
Peg Count
(RPLY NRCGZ)

The total number of events where the switch does not recognize a Reply Code value or a Call Disposition value in a received message with a valid TCAP Transaction ID for the NAI application.

NAI Redirect Call Instruction Received
(Pre-Ringing) Peg Count
(RC PR)

The number of calls for which a Redirect Call instruction is received in the "Pre-Ringing" interval.

NAI Redirect Call Instruction Received
(Deny-type) Peg Count
(RC PRPAD)

The number of calls for which a Redirect Call instruction is received with a Deny-type reply code after the "Pre-Ringing" interval and before answer indication.

NAI Redirect Call Instruction Received
(Friendly Reply-type) Peg Count
(RC PRFR)

The number of calls for which a Redirect Call instruction is received with a Friendly Reply-type reply code after the "Pre-Ringing" interval.

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

OMS 4

Misrouted Direct Signaling Messages
Received Peg Count
(MISROUTED MSGS RCVD)

This counter will be incremented by one each time a Direct Signaling Message is received in which the address is not valid for the office that received the message. This implies that one or both of the office's home STP's has bad translation data or that the office data is incorrect. This count is kept by the CCIS dispenser program.

Direct Access Data Channel (DADC)
Total Messages Peg Count
(SADC MESSAGES TOTAL)

This counter reflects the total number of messages sent and received between the 1B and the 3B Processors.

Direct Access Data Channel (DADC)
Unexpected Messages Peg Count
(SADC MESSAGES UNX)

This counter reflects the total number of unexpected messages, including both invalid and out of sequence types.

Termination Notification Messages Lost
Peg Count
(TERM NTFY MSGS LOST)

This count is incremented by one when Termination Notification messages are lost due to 3B problems.

1B-3B AMA Records Sent Peg Count
(1B-3B AMA RECORDS SENT)

This counter reflects the total number of all AMA record types (e.g.: CAMA, INWATS, DSD, etc.) that were made by the 3B Processor.

1B-3B AMA Records Lost Peg Count
(1B-3B AMA RECORDS LOST)

This counter reflects the total number of AMA record types sent by 1B to the 3B Processor that were mutilated or unauthorized.

Termination Notification Response
Peg Count
(TN-RET)

The Termination Notification Response (TN-RET) count represents the number of Termination Notification responses sent to the SCP for AIN calls.

Tollfree Termination Notification Response
Peg Count
(TF-TN-RET)

The Termination Notification Response (TN-RET) count represents the number of Termination Notification responses sent to the SCP for AIN Tollfree calls.

NAI Thresholded Calls Answered
Peg Count
(THRSH ANS)

The total number of calls requiring thresholding where the call is answered. This peg count is the total number of thresholded calls answered by the called party.

NAI Thresholded Calls Not Answered
Peg Count
(THRSH NOANS)

The total number of calls requiring thresholding where the call is *not* answered. This peg count is the total number of thresholded calls not answered by the called number.

TABLE 50

OUTPUT MEASUREMENT SETS FOR MSC 50
(MAS PER ANNOUNCEMENT MEASUREMENTS)

```
MSC 50 MAS PER ANNOUNCEMENT MEASUREMENTS
    OMS       EAID    ANNSEP     ATT   CONNECT    OVFL   SEC
                                        TO AUDIO
      0  000000000000    00    000000  000000  000000  000000
      1  000000000000    00    000000  000000  000000  000000
      2  000000000000    00    000000  000000  000000  000000
      3  000000000000    00    000000  000000  000000  000000
      .        .          .       .       .       .       .
      .        .          .       .       .       .       .
      .        .          .       .       .       .       .
    508  000000000000    00    000000  000000  000000  000000
    509  000000000000    00    000000  000000  000000  000000
    510  000000000000    00    000000  000000  000000  000000
    511  000000000000    00    000000  000000  000000  000000
```

Description of Measurements for MSC 50

All per-announcement measurements will be labeled with the External Announcement Identifier (EAID) for the announcement. The OMS for a particular office must be less than <OD4DNUM28H0> * 64. The EAID is a 12-digit identifier with the format:

VVVVVAAAAAA

where VVVVV is the VSSID identifier (VSSID) if this service is updatable from VSS and is all zeros, otherwise,

AAAAAA is the service identifier.

There will be 64 OMSs for each frame in use in the office (maximum of 8 frames).

OMS 0-511

MAS - Per-Announcement Attempts
Peg Count
(ATT)

When an attempt is made to reach a PAS announcement, this counter is incremented by one. This counter includes all PAS with TELEVOTE and PAS with cut-through calls that are routed to an announcement but not those routed to a cut-through number.

MAS - Per-Announcement Connect To Audio
Peg Count
(CONNECT TO AUDIO)

When a call is successfully connected to announcement audio, this counter is incremented by one.

MAS - Per-Announcement Overflow Peg Count
(OVFL)

When a call cannot be connected to a given announcement because one or both dedicated TSI SPCs serving the announcement have overflowed, this counter is incremented by one.

MAS - Per-Announcement Usage
(SEC)

This counter provides the occupancy count of calls connected to a given announcement and audible ring preceding that announcement. This count is converted to CCS before output.

TABLE 51

OUTPUT MEASUREMENT SETS FOR MSC 51
(CALL GAPPING/CUT-THRU)

```
MSC 51 CALL GAPPING/CUT-THRU
 OMS DIALED NUM  CUTHRU  TO-ANN
   0 0000000000       0       0
   1 0000000000       0       0
   2 0000000000       0       0
   3 0000000000       0       0
   .     .            .       .
   .     .            .       .
   .     .            .       .
  60 0000000000       0       0
  61 0000000000       0       0
  62 0000000000       0       0
  63 0000000000       0       0
```

Description of Measurements for MSC 51

OMS 0-63

The following counts will be outputted per 10-digit dialed number via OMS 0-63.

MAS - Calls Routed To A Cut-Through Number Peg Count
(CUTHRU)

When a PAS with cut-through call is routed to a cut-through number, this counter is incremented by one. This counter also includes the number of calls routed to the called number, for any dialed number that has a network management call gapping control applied to it.

MAS - Calls Routed To An Announcement Peg Count
(TO-ANN)

When a PAS with cut-through call is routed to the specific announcement, this counter is incremented by one. This counter also includes the number of calls routed by network management to a final handling announcement in the office, for any dialed number that has a network management call gapping control applied to it.

TABLE 52

OUTPUT MEASUREMENT SETS FOR MSC 52
(TELEVOTE MASTER DIALED NUMBER)

MSC 52 TELEVOTE MASTER DIALED NUMBER

OMS	MAPN	LINE	VOTES
0	00	0000	0
1	00	0000	0
2	00	0000	0
3	00	0000	0
.	.	.	.
.	.	.	.
.	.	.	.
124	00	0000	0
125	00	0000	0
126	00	0000	0
127	00	0000	0

Description of Measurements for MSC 52

OMS 0-127

MAS - Totals of the TELEVOTE Counts
Received Peg Count
(VOTES)

MSC 52, OMS 0-127, contain cumulative totals of the TELEVOTE counts received from the TELEVOTE slaves reporting to a particular master. These counts are labeled with a 2-digit Master Application Number (MAPN) from 0-63 and a 4-digit line number that identifies a voting option within a TELEVOTE application. This MSC should be scheduled for a 15 minute accumulation interval only, because the counts are cumulative.

TABLE 53

OUTPUT MEASUREMENT SETS FOR MSC 53
(TELEVOTE SLAVE DIALED NUMBER)

MSC 53 TELEVOTE SLAVE DIALED NUMBER		
OMS	NUMBER	VOTES
0	0000000000	0
1	0000000000	0
2	0000000000	0
3	0000000000	0
.	.	.
.	.	.
.	.	.
124	0000000000	0
125	0000000000	0
126	0000000000	0
127	0000000000	0

Description of Measurements for MSC 53

OMS 0-127

MAS - Total Calls (Votes) to a TELEVOTE Slave Dialed Number Peg Count (VOTES)

MSC 53, OMS 0-127, contains a count of the number of calls to a given 10-digit number. The 10-digit number is the number called by a customer to reach the TELEVOTE service. Each 10-digit number is specified by an OMS. The count is incremented by one when a call to a given TELEVOTE number is successfully connected to an audible ringing preceding the appropriate announcement. It also includes PAS with TELEVOTE and cut-through type calls that are routed to the cut-through number.

TABLE 54

OUTPUT MEASUREMENT SETS FOR MSC 54
(GEOGRAPHIC ATTEMPTS MATRIX)

```
MSC 54 GEOGRAPHIC ATTEMPTS MATRIX
OMS-0-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
OMS-1-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
OMS-2-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000

     .
     .
     .

OMS-31-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
```

Description of Measurements for MSC 54

In order to add any OMSs in this MSC to a schedule, the ODA parameter OD4DNUMMGO0 must not be zero. If it is zero, this MSC can not be scheduled.

OMS 0-31

MAS - Geographic Attempts Matrix
Completion Peg Count

The Geographic Attempts Matrix contains 32 OMSs (0-31) containing completion Peg Counts based on incoming Trunk Subgroup and announcement called. There is a separate OMS for each of 32 announcement operations.

TABLE 55

OUTPUT MEASUREMENT SETS FOR MSC 55
(reserved for future use)

```
This table reserved for MSC 55.
```

TABLE 56

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

MSC 56 ANI DELIVERY SERVICE COUNTS
OMS 0 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
1	0	0	0	0	0
	0	0	0	0	0
2	0	0	0	0	0
	0	0	0	0	0
3	0	0	0	0	0
	0	0	0	0	0
4	0	0	0	0	0
	0	0	0	0	0
5	0	0	0	0	0
	0	0	0	0	0
6	0	0	0	0	0
	0	0	0	0	0

OMS 1 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
7	0	0	0	0	0
	0	0	0	0	0
8	0	0	0	0	0
	0	0	0	0	0
9	0	0	0	0	0
	0	0	0	0	0
10	0	0	0	0	0
	0	0	0	0	0
11	0	0	0	0	0
	0	0	0	0	0
12	0	0	0	0	0
	0	0	0	0	0

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

OMS 2 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
13	0	0	0	0	0
	0	0	0	0	0
14	0	0	0	0	0
	0	0	0	0	0
15	0	0	0	0	0
	0	0	0	0	0
16	0	0	0	0	0
	0	0	0	0	0

OMS 3 DIAL-A-VIEW MESSAGE REGISTER MEASUREMENTS

	-------LINK 1-------		-------LINK 2-------	
ADSI	MSG REGS RETURNED	RREG THLD LINK SKPD	MSG REGS RETURNED	RREG THLD LINK SKPD
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
15	0	0	0	0
16	0	0	0	0

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

```
OMS 4  PER CALL CONTROL OF USEC
  TOT ORD   SOC ORD  TEST ORD   REG MSG     UNACK  SADC CON  REG FAIL
        0         0         0         0         0         0         0

  CRC ERR     FRAME   BAD PKT   ERRORED  GOOD PKT  LOST MSG  PORT CRC
        0         0         0         0         0         0         0

 SADC PRT    IG CRC  SEC GATE  MSG QOVF   IG LINK  NO RCMSG
        0         0         0         0         0         0

 TVON/OFF   TVON/ON  TVOFF/OFF  64C/64C  ODAT   NMT      FSUS      FRES
        0         0          0        0     0     0         0         0

     TVON     TVOFF        64C  MSG/UNK
        0         0          0        0

   NO ACKS   NO ACK DUR    NO ACK CHANS      ALARMS      TVOFF ALL CHAN
        0         0                   0           0                   0

     SPR6      SPR7      SPR8
        0         0         0


OMS 5  TRANSMITTED NOISE REDUCTION (TNR) COUNTS
  TNR SOC   TNR TOT
        0         0
```

Description of Measurements for MSC 56

OMS 0-2

MAS Attempts Peg Count
(MAS ATT)

This counter is incremented by one each time a Dial-A-View network transaction is attempted. This counter is maintained by the DTSCADMN Program.

MAS Cutthru Peg Count
(MAS CUT)

This counter is incremented by one each time a Dial-A-View network transaction results in a cut-through to an operator. Such a situation occurs when the customers' ANI is not available. This counter is maintained by the DTSCADMN Program.

ANI Sent Peg Count
(ANI SNT)

This counter is incremented by one each time a Dial-A-View REGister message containing the ANI and the Event digits is sent to the vendor. This counter is maintained by the ADJSCNTL Program.

Registers From Attendant Peg Count
(REG ATD)

This counter is incremented by one each time a Dial-A-View REGister message is received from an Attendant CPE. This scenario will result following a cut-through to an operator. This counter is maintained by the ADJSCNTL Program.

Attendant Failures Peg Count
(ATD FL)

This counter is incremented by one each time an attendant transaction failure occurs. This counter is maintained by the ADJSCNTL PIDENT.

Timeouts Peg Count
(TIMEOUT)

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

This counter is incremented by one each time a Dial-A-View network transaction experiences a time out. This occurs when the vendor does not acknowledge a REGister message within 6 seconds. This counter is maintained by the DTSCADMN Program.

Gapped Peg Count
(GAPPED)

This counter is incremented by one each time a network or an attendant transaction experiences congestion due to either too many timeouts per minute or too many REGister messages sent to a given vendor per second. This counter is maintained by the ADJSCNTL Program.

Vendor Rejection Peg Count
(VENDREJ)

This counter is incremented by one each time a Dial-A-View network or attendant transaction experiences a Vendor Rejection message (RELease COMPlete message). This counter is maintained by the ADJSCNTL Program.

Facility Received Indicating Caller Hung-Up
Peg Count
(FCRVHUP)

This counter is incremented by one each time a Dial-A-View network transaction receives a FACility message from the vendor and the caller has hung up. This counter is maintained by the ADJSCNTL Program.

Total Final Handled Calls Peg Count
(TOT FH)

This counter is incremented by one each time a network handled transaction is final handled. This counter is maintained by the ADJSCNTL and DTSCADMN Programs.

OMS 3

Link 1 Message Register Returned
Peg Count
(MSG REGS RETURNED LINK 1)

This counter is incremented by one each time a message is registered by the CNI ring. This counter is maintained by ADJSCNTL programs.

Link 1 Return Register Threshold Exceeded
Peg Count
(RREG THLD LINK SKPD LINK 1)

This counter is incremented by one each time the Return Register Threshold is exceeded. This counter specifies the number of times a SADC link is considered to be "POSSIBLY" going out of service. MSGs will not be routed over this link. This counter is maintained by ADJSCNTL program.

Link 2 Message Register Returned
Peg Count
(MSG REGS RETURNED LINK 2)

Same as above except for Link 2.

Link 2 Return Register Threshold Exceeded
Peg Count
(RREG THLD LINK SKPD LINK 2)

Same as above except for Link 2.

OMS 4

Total Number of Orders Peg Count
(TOT ORD)

The total number of orders contained in the REGISTER messages (Event Digits = 0001), irrespective of indicators in the order, sent to the Gateway.

Total Number of Orders with Start of Call
Indicator Set Peg Count
(SOC ORD)

The total number of operational USEC orders and test orders sent to the Gateway in a REGISTER message (Event Digits = 0001) with the start/end indicator set to "start" irrespective of other indicators.

Total Number of Test Orders Sent
Peg Count
(TEST ORD)

The total number of test orders sent to the Gateway with the Maintenance indicator set to "on" in a REGISTER message irrespective of other indicators.

Total Number of Register Messages
Peg Count
(REG MSG)

The total number of REGISTER messages (Event Digits = 0001) sent to the Gateway. This counter is incremented by one each time a REGISTER message is

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

sent irrespective of the number of orders in the message.

Total Number of Unacknowledged Register Messages Peg Count (UNACK)

The total number of unacknowledged REGISTER messages sent to the Gateway. This counter is incremented by one each time a 2 second timeout occurs while waiting for a Release Complete message from the Gateway. This counter is only incremented for REGISTER messages with Event Digits = 0001 or 2222.

Total Number of Register Messages Not Sent due to Congestion Peg Count (SADC CON)

The total number of REGISTER messages (irrespective of the value in the Event Digits field) *not* sent to the Gateway due to SADC node congestion.

Total Number of Register Messages Failed to be Sent Peg Count (REG FAIL)

The total number of REGISTER messages failed to be sent to the Gateway and the cause is anything other than SADC congestion *or* timeout of the REGISTER message. Examples of conditions that cause this count to be incremented are: 1) both SADC links are out-of-service, and 2) no USEC translation data can be retrieved.

Total Number of Packets with CRC Errors Peg Count (CRC ERR)

The total number of Gateway Type 1 and Type 2 packets received since the last valid Type 2 packet that has the correct number of bytes but has a cyclic redundancy check (CRC) 6 error shall be collected by the 4ESS switch for all USECs connected to the Gateway.

Total Number of Framing and Overrun Errors Peg Count (FRAME)

The total number of framing and overrun errors at the USEC IPCC port UART since the last valid Gateway Type 2 packet was received. This count is for all USECs connected to the Gateway. A framing error is defined as a received byte with an invalid stop bit. An overrun error is defined as a new byte received at the UART before the previous byte is read.

Total Number of Bad Packets Received Peg Count (BAD PKT)

The total number of bad packets received since the last valid Gateway Type 2 packet was received. This count is for all USECs connected to the Gateway. The number of bad packets is determined by the USEC by counting the number of Type 1 and Type 2 packets that did not have the correct number of bytes, did not have an all ones Header byte, did not have a correct Message Type byte, or had a CRC 6 error. An incorrect number of bytes may due to many factors including, but not limited to, UART overrun errors on the CP (defined as a new byte received at the UART before the previous byte is read), UART framing errors (count given in the fourth byte), and the Gateway not sending the correct number of bytes.

Total Number of Errored Commands Peg Count (ERRORED)

The total number of errored two byte 4ESS-USEC-PCC (IPCC) commands (which are found inside each Type 1 packet) received since the last valid Type 2 packet. This count is for all USECs connected to the Gateway. An 4ESS-USEC-PCC (IPCC) command is in error when at least one of the following occurs:

- An invalid channel address is received. An invalid channel address is defined as being outside the range of 0 to 6 for the shelf number, 0 to 7 for the digroup number, or 1 to 24 for the channel number.
- The "Enhancement off" bit and/or the "End USEC" bit is set when the "Maintenance bit" is set.

Total Number of Good Packets Received Peg Count (GOOD PKT)

The total number of good packets received by the Gateway since the last Type 2 packet was received. This count is for all USECs connected to the Gateway. This count is determined by the USEC by counting the number of Type 1 packets that have the correct number of bytes, correct header, message type, and CRC 6. Errors in the 10 bytes of data, which is considered to be part of the application message, will be reflected in the sixth byte of this Type 2 acknowledgment packet (i.e., the invalid 4ESS-USEC-PCC (IPCC) command count). The seventh byte contains the most significant byte and

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

the eighth byte contains the least significant byte.

Total Number of Lost Messages
Peg Count
(LOST MSG)

The number of messages that the Gateway attempted to send to the USEC(s) but were lost. This count will be calculated by the Gateway by subtracting the number of good packets received by the USEC(s) and the number of bad packets received by the USEC(s) from the total number of packets that the Gateway attempted to send to the USEC(s).

Total Number of USEC CRC Errors
Peg Count
(PORT CRC)

The total number of USEC port cyclic redundancy check (CRC) errors detected by the Gateway.

Total Number of SADC Port Errors
Peg Count
(SADC PRT)

The total number of SADC port errors detected by the Gateway.

Total Number of Inter-Gateway CRC Errors
Peg Count
(IG CRC)

The total number of Inter-Gateway port CRC errors detected by the Gateway.

Total Number of Times the Secondary
Gateway was Used Peg Count
(SEC GATE)

The total number of times that the secondary Gateway was used during the fifteen minute report interval.

Total Number of Times That Message
Queue Overflowed Peg Count
(MSG QOVF)

The total number of times that the Gateway message queue overflowed during the fifteen minute report interval.

Total Number of Messages Not Sent
Between Gateways Peg Count
(IG LINK)

The total number of messages that could not be sent from the Primary Gateway to the Secondary Gateway due to Inter-Gateway link problems during the fifteen minute report interval.

Total Number of Register Messages That Did
Not Receive a Release Complete Peg Count
(NO RCMSG)

The number of Register messages sent by the Gateway that did not receive a Release Complete message from the 4ESS Switch during the fifteen minute report interval. The Gateway will peg this count when a Release Complete is not returned by the 4ESS Switch within an expected time interval.

TVON Messages Throttled Following TVOFF
Peg Count
(TVON/OFF)

The number of TVON messages (True Voice on iPCC message) throttled following TVOFF message (True Voice off iPCC start-of-call message).

TVON Messages Throttled Following TVON
Peg Count
(TVON/ON)

The number of TVON messages throttled following TVON.

TVOFF Messages Throttled Following TVOFF
Peg Count
(TVOFF/OFF)

The number of TVOFF messages throttled following TVOFF.

64C Messages Throttled Following 64C
Peg Count
(64C/64C)

The number of 64C messages (iPCC 64clear start-of-call message) throttled following 64C.

ODA IPCC Message Queue Threshold
Value in Effect
(ODAT)

This is the latest ODA IPCC message queue threshold value in effect for the 15-minute interval. It is updated every 6 seconds. If the report interval is greater than 15 minutes, then this value is the sum of each of the 15-minute values in the report interval.

Latest IPCC Message Queue NEMOS
Override Threshold Value
(NMT)

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

This is the latest non-zero IPCC message queue NEMOS override threshold value in effect for the 15 minute interval. It is updated every 6 seconds but if it is non-zero at any time during the interval, it will not be reset to zero. If the report interval is greater than 15 minutes, then this value is the sum of each of the 15-minute values in the report interval.

USEC Frame Suspend Event Peg Count
(FSUS)

USEC frame suspend event count.

Individual USEC Frame Resume Event
Peg Count
(FRES)

Individual USEC frame resume event count.

TVON Messages Sent During Throttling,
Not Due to Unknown Peg Count
(TVON)

The number of TVON messages sent during throttling, not due to unknown.

TVOFF Messages Sent During Throttling,
Not Due to Unknown Peg Count
(TVOFF)

The number of TVOFF messages sent during throttling, not due to unknown.

64C Messages Sent During Throttling,
Not Due to Unknown Peg Count
(64C)

The number of 64C messages sent during throttling, not due to unknown.

TVON/TVOFF/64C Messages Sent
During Throttling Due to Unknown Peg Count
(MSG/UNK)

The number of TVON/TVOFF/64C messages sent during throttling due to unknown.

iPCC No Acknowledgement Received
Peg Count
(NO ACKS)

The number of occurrences for which the iPCC Gateway did not receive an acknowledgement message from the 4ESS Switch for two consecutive heartbeats.

iPCC No Acknowledgement Received Duration
In Seconds
(NO ACKS DUR)

The duration in seconds of the occurrences for which the iPCC Gateway did not receive an acknowledgement signal from the 4ESS Switch for two consecutive heartbeats.

iPCC Number of Channels With NO ACK signal
Peg Count
(NO ACKS CHANS)

The number of channels to which the iPCC Gateway sent a TVOFF message after not receiving an acknowledgement signal from the 4ESS Switch to two consecutive heartbeats.

iPCC Alarms After Two Errored Packets
In 15 Seconds Peg Count
(ALARMS)

The number of occurrences an alarm is generated by the iPCC Gateway to the 4ESS Switch after two errored packets have occurred within 15 seconds.

iPCC TVOFF Messages to all Channels
Peg Count
(TVOFF ALL CHANS)

The number of times the iPCC Gateway sends TVOFF messages to all channels that were used in the last minute after 5 errored packets.

Spare 6 Peg Count
(SPR6)

This is a spare peg count provided for future use.

Spare 7 Peg Count
(SPR7)

This is a spare peg count provided for future use.

Spare 8 Peg Count
(SPR8)

This is a spare peg count provided for future use.

OMS 5

Total Number of TNR Operational Orders
for Start of Call Peg Count
(TNR SOC)

The total number of operational TNR USEC orders sent for egress trunks to the iPCC Gateway in a REGISTER

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

message (Event Digits = 0001) with the Start/End indicator set to "start".

Total Number of TNR Orders Peg Count
(TNR TOT)

The total number of TNR USEC orders sent to the iPCC Gateway in REGISTER messages (Event Digits = 0001) for access/egress trunks, regardless of the setting of the Start/End of Call indicator.

TABLE 57

OUTPUT MEASUREMENT SETS FOR MSC 57
(POSITIVE CALL PROCESSING)

```
MSC 57  POSITIVE CALL PROCESSING
OMS 0  PCP IA & PERF COUNTS
0
0
0
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```

Description of Measurements for MSC 57

[As this MSC is intended as a report for use by a computer system, no description of the counts is printed on the output.]

OMS 0

(1) PCP DTMF Queue Seizure Peg Count
(2) PCP DTMF Queue Accumulated Occupancy Count
(3) PCP DTMF Queue Abandon Peg Count
(4) CPA Call Register Seizures Peg Count
(5) CPA Call Register Accumulated Occupancy Count
(6) CPA Call Register Overflow Peg Count
(7) PCP Receiver Holding Time in Sec for SAN
(8) PCP Receiver Holding Time in Sec for 1+SACDS
(9) PCP Receiver Holding Time in Sec for MUVF
(10) PCP Receiver Holding Time in Sec for FAX S&F
(11) PCP Call Killed Due to DTMF Receiver Queue Overload Count
(12) PCP Call Subjected to Excessive Delay Count (i.e., Wait on DTMF Receiver Queue >= 2 seconds)
(13) PCP SAB Call Denied Due to Improper Collection for LDS
(14) PCP SAB Call Denied Due to Improper Collection for SA WATS
(15) PCP SAB Call Denied Due to Improper Collection for MEGACOM and DC WATS
(16) PCP Call Denied Due to MUVF CTI Improper Collection for LDS
(17) PCP Call Denied Due to MUVF CTI Improper Collection for SA WATS
(18) PCP Call Denied Due to MUVF CTI Improper Collection for MEGACOM and DC WATS
(19) PCP FAX S&F Call Denied Due to Invalid Service Code Received for LDS
(20) PCP FAX S&F Call Denied Due to Invalid Service Code Received for SA WATS
(21) PCP FAX S&F Call Denied Due to Invalid Service Code Received for MEGACOM and DC WATS
(22) PCP Subaccount Number Initial Attempt Failed Count (TMAD0002 pegs for call irregularity report.)
(23) PCP 1+SACDS Initial Attempt Failed in Receipt of Service Code
(24) PCP MUVF Initial Attempt Failed in Receipt of CTI
(25) PCP Total SAN Account Code Verification Failures
(26) PCP SAN Denied - none entered and was mandatory
(27) PCP FAX S&F Initial Attempt Fail in Receipt of Service Code
(28) PCP 1+SACDS Due to Invalid Service Code Received
(29) PCP CDS Attempts for Which Failure to Reseize Receiver Occurred
(30) PCP FAX S&F Attempts for Which Failure to Seize Receiver Occurs
(31) PCP FAX S&F DTMF Receiver Timeout in Wait for ANS State
(32) PCP BN(ANI) Query Attempt CNT for DC and SA LDS
(33) PCP BN(ANI) Query Attempt CNT for SA WATS
(34) PCP BN(ANI) Query Attempt Count for MEGACOM and DC WATS
(35) PCP BN(ANI) Subscribed to Some PCP Feature for DC and SA LDS

TABLE 57 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 57
(POSITIVE CALL PROCESSING)

(36) PCP BN(ANI) Subscribed to Some PCP Feature for SA WATS
(37) PCP BN(ANI) Subscribed to Some PCP Feature for MEGACOM and DC WATS
(38) PCP Handled Customer Specific Recording Successfully for LDS
(39) PCP Handled Customer Specific Recording Successfully for SA WATS
(40) PCP Handled Customer Specific Recording Successfully for MEGACOM and DC WATS
(41) PCP Subaccount Number Collected Successfully for LDS
(42) PCP Subaccount Number Collected Successfully for SA WATS
(43) PCP Subaccount Number Collected Successfully for MEGACOM and DC WATS
(44) PCP Handled Dedicated FAX ID Successfully for LDS
(45) PCP Handled Dedicated FAX ID Successfully for SA WATS
(46) PCP Handled Dedicated FAX ID Successfully for MEGACOM and DC WATS
(47) PCP MUVF CTI Collected Successfully for LDS
(48) PCP MUVF CTI Collected Successfully for SA WATS
(49) PCP MUVF CTI Collected Successfully for MEGACOM and DC WATS
(50) PCP SAB Calls Allowed to Complete with No SAN Received
(51) PCP SAB Calls Allowed to Complete with SAN Received and it was Optional
(52) PCP SAB Calls Allowed to Complete with SAN Received and it was Mandatory
(53) PCP Calls with SAN Account Code Validation Successful
(54) PCP TOTAL 1+SACDS Attempts to Seize a Receiver
(55) PCP TOTAL 1+SACDS Successfully Attempted Routing to VMOC
(56) PCP Total MUVF Calls Identified as Being FAX
(57) PCP FAX ID Calls Identified as Using FAX FPR
(58) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for LDS
(59) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for SA WATS
(60) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for MEGACOM and DC WATS
(61) PCP FAX S&F Successfully Attempted Routing to a FAX S&F Node
(62) PCP SAN Validation Success Peg Count
(63) PCP 1B to DLN Failure to Send Query Peg Count
(64) PCP DLN to 1B No Reply From DLN Peg Count
(65) PCP SAN No Data in DLN Peg Count
(66) CAS-NCP Unrecognized Info Received Peg Count
(67) CPA BN(ANI) Trigger Table Query Attempt Peg Count for All Applicable Services
(68) CPA BN(ANI) Trigger Table Data Found Peg Count for All Applicable Services
(69) CPA Destination Number Trigger Table Query Attempt Peg Count for FAX Calls
(70) CPA Destination Number Trigger Table Data Found Peg Count for FAX Calls
(71) PCP Using 2NCP/NSCX Peg Count

The total number of calls for which an ABC ANI trigger table record was matched, for which the Feature Processing Data Type Indicator was set to "FI", and the "PCP Using 2NCP/NSCX" Indicator is "on."

TABLE 58

OUTPUT MEASUREMENT SETS FOR MSC 58
(reserved for future use)

```
This table reserved for MSC 58.
```

TABLE 59

OUTPUT MEASUREMENT SETS FOR MSC 59
(reserved for future use)

```
This table reserved for MSC 59.
```

TABLE 60

OUTPUT MEASUREMENT SETS FOR MSC 60
(reserved for future use)

```
This table reserved for MSC 60.
```

TABLE 61

OUTPUT MEASUREMENT SETS FOR MSC 61
(reserved for future use)

```
This table reserved for MSC 61.
```

TABLE 62

OUTPUT MEASUREMENT SETS FOR MSC 62
(reserved for future use)

```
This table reserved for MSC 62.
```

TABLE 63

OUTPUT MEASUREMENT SETS FOR MSC 63
(reserved for future use)

```
This table reserved for MSC 63.
```

FIGURE 1

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
0	-	88	MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD
	0	15	MF XMTR, IDTS RCVR, AND ODTMFWK XMTR QUEUE-DOMESTIC
	1	1	CCITT5 QUEUE-INTERNATIONAL
	2	45	MF, DTMF XMTRS, NSCX AND MASFH CKTS
	3	6	BLUE BOX FRAUD
	4	21	CCS MESSAGE TABLE
1	-	6	MF RCVR AND DTMF RCVR
	0	6	
2	-	8	CCIS, ISUP, ITUP AND INUP XCVR
	0	8	
3	-	192	ANNOUNCEMENT CIRCUITS AND DEDICATED TSI
	0-31	1	
	32	32	DEDICATED TSI
	33-160	1	
4	-	5	NETWORK
	0	4	
	1	1	SERVICE OBSERVING
5	-	87	OFFICE TOTALS
	0	7	
	1	26	
	2	3	
	3	1	
	4	9	INTERNATIONAL INCOMING
	5	10	INTERNATIONAL OUTGOING
	6	25	NETWORK CLOCK SYNCHRONIZATION UNIT
	7	2	SERVICE OBSERVING
	8	2	CALLS ORIGINATING AND TERMINATING
	9	2	MAS IRREGULARITIES
6	-	65	BOC SSP MEASUREMENTS
	0	65	
7	-	37	INCOMING IRREGULARITIES
	0	32	
	1	5	
8	-	-	Reserved For Future Use
9	-	10	PROCESSOR LOAD
	0	2	
	1	8	BASE LEVEL PEG COUNTS
10	-	2048	TRAFFIC SEPARATIONS
	0-1023	2	TRAFFIC SEPARATIONS BASED ON DESEP AND INSEP
11	-	67	INEFFECTIVE ATTEMPTS
	0	3	
	1	8	
	2	8	
	3	16	NETWORK MANAGEMENT BLOCKED
	4	26	MISCELLANEOUS INEFFECTIVE ATTEMPTS
	5	2	

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	6	4	
12	-	16	TSI USAGE
	0	16	
13	-	-	TRUNK SUB-GROUPS (MAX OF 64)
	-	-	OUTPUT IS BY CIN (MAX OF 16 COUNTS PER CIN)
14	-	8192	CCIS/CCITT NO. 6 TERMINALS
	0-255	32	
15	-	59	INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS
	0	7	SECOND STAGE
	1	6	IOC OPERATOR ATTEMPTS
	2	34	INTERNATIONAL INEFFECTIVE ATTEMPTS
	3	1	ORIGINATING INTL CALL-DOMESTIC SATELLITE INCOMING
	4	11	TWO STAGE SWITCHING ERRORS
16	-	36	IO, FILE STORE, TAPE UNIT AND DATA LINK
	0	5	
	1	31	APS COMMUNITY
17	-	65	ENGINEERED MEMORY
	0	49	DOMESTIC MEMORY
	1	11	MEMORY FOR INTERNATIONAL
	2	2	CALL DETAIL RECORDING REGISTERS
	3	3	
18	-	10	CAMA INEFFECTIVE ATTEMPTS
	0	10	
19	-	26	CAMA
	0	19	
	1	2	
	2	5	
20	-	77	PERFORMANCE MEASUREMENTS-MAJOR MAINT RESPONSES AND ALARMS
	0	12	INTERRUPT TOTALS
	1	59	MAJOR MAINTENANCE RESPONSES
	2	5	ALARMS
	3	1	HARDWARE DETECTED CGA
21	-	29	PERFORMANCE MEASUREMENTS- SYSTEM RECOVERY- PHASES
	0	8	SYSTEM RECOVERY-PHASES
	1	2	RECENT CHANGE MEASUREMENTS
	2	3	NETWORK MANAGEMENT MEASUREMENTS
	3	16	MACHINE CONGESTION
22	-	4	PERFORMANCE MEASUREMENTS - AUDIT TYPE
	0	2	AUDIT COMPLETE
	1	2	AUDIT ERRORS
23	-	53	PERFORMANCE MEASUREMENTS-EQUIPMENT TYPE - PROCESSOR
	0	3	MAINTENANCE OCCUPANCIES
	1	18	MAINTENANCE USAGE
	2	16	PERIPHERAL UNIT MAINTENANCE USAGE AND OUTAGE
	3	14	PER CALL SERVICE CKTS ACCUMULATED MAINT OCCUPANCY
	4	2	VFL ACCUMULATED MAINTENANCE OCCUPANCY

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
24	-	91	PERFORMANCE MEASUREMENTS-TERMINAL EQUIPMENT
	0	1	TOTAL ACCUMULATED MAINTENANCE OCCUPANCY
	1	20	TERMINAL EQUIPMENT MAINTENANCE USAGE AND OUTAGE
	2	70	TERMINAL EQUIPMENT
25	-	293	CONTROL AREA ZERO
	0	2	CONTROL AREA SUMMATION
	1	61	INCOMING IMAS
	2	22	INCOMING IMAS
	3	49	OUTGOING IMAS AND GLARE FAILURES
	4	11	OUT-OF-SERVICE PEG COUNTS
	5	15	ATTEMPTS AND MAINTENANCE USAGE
	6	5	CCIS INEFFECTIVE ATTEMPTS
	7	6	ROTL
	8	24	TERMINATING TEST LINES
	9	21	ROUTINE OPERATIONAL TESTS
	10	10	TEST ACCESS CIRCUIT
	11	12	INTERNATIONAL ATTEMPTS AND MAINTENANCE USAGE
	12	2	OUT-OF-SERVICE PEG COUNTS
	13	6	INTERNATIONAL TRUNK TESTS-DIRECTOR
	14	5	INTERNATIONAL TRUNK TESTS-RESPONDER
	15	2	ATME FAILURES
	16	38	CCITT #5 CALL IRREGULARITIES
	17	2	CCITT #6 ACKNOWLEDGEMENT TIMEOUTS
26	-	293	CONTROL AREA ONE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
27	-	293	CONTROL AREA TWO
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
28	-	293	CONTROL AREA THREE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
29	-	293	CONTROL AREA FOUR
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
30	-	293	CONTROL AREA FIVE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
31	-	293	CONTROL AREA SIX
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
32	-	293	CONTROL AREA SEVEN
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
33	-	293	CONTROL AREA EIGHT
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
34	-	293	CONTROL AREA NINE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
35	-	31	SERVICE CIRCUITS
	0	7	MAINTENANCE SERVICE CKTS MAINTENANCE OCCUPANCIES
	1	19	MAINTENANCE SERVICE CIRCUITS MEASUREMENTS
	2	3	ATME-A
	3	2	TMR SEIZURES
36	-	182	SERVICE MEASUREMENTS

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	0	23	INCOMING IA, CCIS, ISUP, ITUP, INUP AND Q931
	1	16	INCOMING INEFFECTIVE ATTEMPTS, BEFORE ADDR SIGNALING
	2	24	INCOMING INEFFECTIVE ATTEMPTS, DURING ADDR SIGNALING
	3	21	INCOMING INEFFECTIVE ATTEMPTS, CALLING PARTY SIGNALING
	4	26	OUTGOING INEFFECTIVE ATTEMPTS
	5	2	CAMA POSITION IRREGULARITIES
	6	16	CALLS LOST DUE TO MACHINE IRREGULARITIES
	7	4	CCITT #6 FINAL TRIAL FAILURES
	8	6	CCITT #5 FINAL TRIAL FAILURES-OUTGOING STAGE
	9	7	CCITT #6 INEFFECTIVE ATTEMPTS
	10	5	CUSTOMER CALL TO MAS FTF
	11	32	ADJUNCT TIMEOUTS
37	-	18	BASE MEASUREMENTS
	0	10	DOM ATTEMPTS-TOTAL OFFICE
	1	8	INTL ATTEMPTS-TOTAL OFFICE
38	-	293	ADMINISTRATIVE AREA ZERO
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
39	-	293	ADMINISTRATIVE AREA ONE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
40	-	256	PERFORMANCE MEASUREMENTS-AUDIT IMPLICATOR CODE
	0	64	AUDIT IMPLICATOR CODE (000-063)
	1	64	AUDIT IMPLICATOR CODE (064-127)
	2	64	AUDIT IMPLICATOR CODE (128-191)
	3	64	AUDIT IMPLICATOR CODE (192-255)
41	-	4	AUDITS BY CLIENT
	0	4	AUDIT CALLS BY CLIENT, ERRORS FOUND
42	-	32	TRUNK ERROR ANALYSIS COUNTS - SECOND STAGE FILTERS
	0-31	1	SECOND STAGE FILTER OVERFLOWS BY SP NUMBER
43	-	32	TRUNK ERROR ANALYSIS COUNTS - LONG TERM TABLE
	0-31	1	LONG TERM TABLE OVERFLOWS BY SP NUMBER
44	-	1	TRUNK ERROR ANALYSIS-REPORT BUFFER OVERFLOW
	0	1	
45	-	132	SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS
	0	57	
	1	5	CCIS SOFTWARE CARRIER GROUP ALARM
	2	1	TRUNKS BLOCKED FAR END EQUIPMENT PROBLEMS
	3	25	CCITT #6 PERFORMANCE SIGNALS RECEIVED
	4	11	CCITT #6 PERFORMANCE SIGNALS TRANSMITTED
	5	16	CCITT #6 SIGNALING IRREGULARITIES
	6	4	ISUP UUI AND ATP DROPPED
	7	6	CALL MERGE
	8	7	E&M SOFTWARE CARRIER GROUP ALARM
46	-	210	SWITCHING AREA EQUIPMENT COUNTS
	0	70	PROCESSOR - SET A
	1	7	PROCESSOR - SET B
	2	14	I/O
	3	35	BUS SYSTEM

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	4	21	NETWORK
	5	25	SIGNALING EQUIPMENT
	6	21	CLOCKS
	7	10	PER CALL SERVICE CIRCUIT MEASUREMENTS
47	-	512	PERFORMANCE MEASUREMENTS-AUDITS BY TYPE
	0	50	ROUTINE AUDIT COMPLETIONS NO. 00-49
	1	50	ROUTINE AUDIT COMPLETIONS NO. 50-99
	2	28	ROUTINE AUDIT COMPLETIONS NO. 100-127
	3	50	DEMAND AUDIT COMPLETIONS NO. 00-49
	4	50	DEMAND AUDIT COMPLETIONS NO. 50-99
	5	28	DEMAND AUDIT COMPLETIONS NO. 100-127
	6	50	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 00-49
	7	50	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 50-99
	8	28	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 100-127
	9	50	ERRORS - DEMAND AUDIT COMPLETIONS NO. 00-49
	10	50	ERRORS - DEMAND AUDIT COMPLETIONS NO. 50-99
	11	28	ERRORS - DEMAND AUDIT COMPLETIONS NO. 100-127
48	-	293	ADMINISTRATIVE AREA TWO
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
49	-	136	INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI
	0	63	CCIS INWATS
	1	23	AIN CALLS
	2	19	AIN TOLLFREE CALLS
	3	16	NETWORK ACCESS INTERRUPTION
	4	15	DIRECT SIGNALING
50	-	2048	MAS PER ANNOUNCEMENT MEASUREMENTS
	0-511	4	
51	-	128	CALL GAPPING/CUT THRU
	0-63	2	
52	-	128	TELEVOTE MASTER DIALED NUMBER
	0-127	1	
53	-	128	TELEVOTE SLAVE DIALED NUMBER
	0-127	1	
54	-	1024	GEOGRAPHIC ATTEMPTS MATRIX
	0-31	32	ANNOUNCEMENT SEPARATION
55	-	-	Reserved For Future Use
56	-	260	ANI DELIVERY SERVICE
	0	60	DIAL-A-VIEW PERFORMANCE MEASUREMENTS - ADSI 01-06
	1	60	DIAL-A-VIEW PERFORMANCE MEASUREMENTS - ADSI 07-12
	2	40	DIAL-A-VIEW PERFORMANCE MEASUREMENTS - ADSI 13-16
	3	64	DIAL-A-VIEW MESSAGE REGISTER MEASUREMENTS
	4	40	PER CALL CONTROL OF USEC
	5	2	TRANSMITTED NOISE REDUCTION (TNR) COUNTS
57	-	71	POSITIVE CALL PROCESSING
	0	71	PCP IA & PERF COUNTS
58	-	-	Reserved For Future Use
59	-	-	Reserved For Future Use

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
60	-	-	Reserved For Future Use
61	-	-	Reserved For Future Use
62	-	-	Reserved For Future Use
63	-	-	Reserved For Future Use

FIGURE 2

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
1B Communication Buffer Usage	16/1
1B DMA Job Buffer Overflow Peg Count	16/1
1B DMA Job Buffer Seizures Peg Count	16/1
1B DMA Job Buffer Timeout Peg Count	16/1
1B DMA Job Buffer Usage	16/1
1B DMA Job Buffers Entered into the Reserved State Peg Count	16/1
1B File Processor Interface Down	45/0
1B Messages Sent to the 3B Peg Count	16/1
1B Read Messages Sent to the 3B Peg Count	16/1
1B Write Messages Sent to the 3B Peg Count	16/1
1B-3B AMA Records Lost Peg Count	49/4
1B-3B AMA Records Sent Peg Count	49/4
1B-3B Communication Send Buffer Overflows Peg Count	16/1
1B-3B Communication Send Buffer Seizures Peg Count	16/1
3B Communication Send Buffer Usage	16/1
3B DMA Job Buffer Overflow Peg Count	16/1
3B DMA Job Buffer Seizures Peg Count	16/1
3B DMA Job Buffer Timeout Peg Count	16/1
3B DMA Job Buffer Usage	16/1
3B DMA Job Buffers Entered into the Reserved State Peg Count	16/1
3B File Manager Buffer Overflows Peg Count	16/1
3B File Manager Buffer Seizures Peg Count	16/1
3B File Manager Buffer Usage	16/1
3B Messages Sent to the 1B Peg Count	16/1
3B Read Messages Sent to the 1B Peg Count	16/1
3B Write Messages Sent to the 1B Peg Count	16/1
3B-1B Communication Send Buffer Overflows Peg Count	16/1
3B-1B Communication Send Buffer Seizures Peg Count	16/1
4ESS Switch Originated Outgoing Attempts	5/8
64C Messages Sent During Throttling, Not Due to Unknown Peg Count	56/4
64C Messages Throttled Following 64C Peg Count	56/4
800 Number Services (NS) Attempts Failed Due to Unacceptable Digit Count Peg Count	49/0
Abandon - After Outpulsing Peg Count	49/1
Abandon - After Outpulsing Peg Count	49/2
Abandon - Before Outpulsing Peg Count	49/1
Abandon - Before Outpulsing Peg Count	49/2
Abandon During Second Stage International - No Digits Received	15/0
Abandon During Second Stage International - Some Digits Received	15/0
Abandon During Second Stage VSS - No Digits Received	15/0
Abandon During Second Stage VSS - Some Digits Received	15/0
Access Tandem Post Acknowledgement Wink Timeout	11/4
Access Transport Received Peg Count	13/CIN
Adjunct Logical Address T303 Timeouts Peg Count	36/11
Adjunct Logical Address TADJ Timeouts Peg Count	36/11
AIN Queries to the SCP Peg Count	49/1
AIN Tollfree Calls Received from Another Switch Peg Count	49/2
AIN Tollfree Queries to the SCP Peg Count	49/2
AIN Total Calls Received from Another Switch Peg Count	49/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
AMA Match Check Failure Peg Count	19/1
AMA Wrong Calling Code Peg Count	19/1
ANI Multi-Party Calls Peg Count	19/0
ANI Sent Peg Count	56/0-2
Announcement Number Unavailable Peg Count	49/1
Announcement Number Unavailable Peg Count	49/2
Announcement or Tone Group Seizure Peg Count	3/0-31
Announcement or Tone Group Seizure Peg Count	3/33-160
Answer Signal Timeout Peg Count	25/16
Answer-Acknowledgement Signal Timeout Peg Count	25/16
API Accumulated Maintenance Usage	23/1
API Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
API Diagnostics Manually Requested Peg Count	46/0
API Diagnostics Program Requested - All Tests Passed Peg Count	46/0
API Diagnostics Program Requested Peg Count	46/0
API Errors Peg Count	46/0
API Located Faults Peg Count	46/0
API Non-located Peg Count	46/0
API Processor Interface Down	45/0
ATME Director/Responder Irregularities Peg Count	25/15
ATME-A Responder Incoming Seizures Peg Count	35/2
ATME-A Responder Maintenance Usage	35/2
ATME-A Responder Tests Attempted Peg Count	25/14
ATME-A Responder Tests Overflowed Peg Count	25/14
ATME-A Responder Total Usage	35/2
ATME-B Director Tests Attempted Peg Count	25/13
ATME-B Director Tests Failed Peg Count	25/13
ATME-B Director Tests Passed Peg Count	25/13
ATME-B Out-Of-Service Peg Count	25/12
ATME-B Responder Tests Attempted Peg Count	25/14
ATME-B Responder Tests Overflowed Peg Count	25/14
ATME-C Director Tests Attempted Peg Count	25/13
ATME-C Director Tests Failed Peg Count	25/13
ATME-C Director Tests Passed Peg Count	25/13
ATME-C Out-Of-Service Peg Count	25/12
ATME-C Responder Tests Attempted Peg Count	25/14
Attached Processor Interject Peg Count	20/1
Attendant Failures Peg Count	56/0-2
AUB Accumulated Maintenance Usage	23/1
AUB Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
AUB Diagnostics Manually Requested Peg Count	46/3
AUB Diagnostics Program Requested - All Tests Passed Peg Count	46/3
AUB Diagnostics Program Requested Peg Count	46/3
AUB Errors Peg Count	46/3
AUB Located Faults Peg Count	46/3
AUB Non-located Peg Count	46/3
Audit 00 through 49 Demand Request Errors Found Peg Count	47/9

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Audit 00 through 49 Demand Request Peg Count	47/3
Audit 00 through 49 Routine Request Errors Found Peg Count	47/6
Audit 00 through 49 Routine Request Peg Count	47/0
Audit 100 through 127 Demand Request Errors Found Peg Count	47/11
Audit 100 through 127 Demand Request Peg Count	47/5
Audit 100 through 127 Routine Request Errors Found Peg Count	47/8
Audit 100 through 127 Routine Request Peg Count	47/2
Audit 50 through 99 Demand Request Errors Found Peg Count	47/10
Audit 50 through 99 Demand Request Peg Count	47/4
Audit 50 through 99 Routine Request Errors Found Peg Count	47/7
Audit 50 through 99 Routine Request Peg Count	47/1
Audit Implicator Codes Peg Count	40/0-3
AUI Accumulated Maintenance Usage	23/1
AUI Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
AUI Diagnostics Manually Requested Peg Count	46/0
AUI Diagnostics Program Requested - All Tests Passed Peg Count	46/0
AUI Diagnostics Program Requested Peg Count	46/0
AUI D-Level Counter	20/1
AUI Errors Peg Count	46/0
AUI In-Range D-Level Counter	20/1
AUI Interject Counter	20/1
AUI Located Faults Peg Count	46/0
AUI Non-located Peg Count	46/0
AUI to API In-Range Counter	20/1
AUI to API Out-Of-Range Counter	20/1
AUI to CS In-Range Counter	20/1
AUI to CS Out-Of-Range Counter	20/1
AUI to DUS In-Range Counter	20/1
AUI to DUS Out-Of-Range Counter	20/1
AUI to PS In-Range Counter	20/1
AUI to PS Out-Of-Range Counter	20/1
Automatic Network Management Controls	13/CIN
Average Base Level Cycle Length In Milliseconds	9/0
Billing Number Gap Peg Count	11/3
Black Box Fraud Prevention Canceled	0/4
Black Box Fraud Ring Forwards Received	0/4
B-Level Interrupt Central Control Switch Peg Count	20/1
B-Level Interrupts Hardware Initialization Peg Count	20/1
B-Level Interrupts Pulse Source In-Range Peg Count	20/1
B-Level Interrupts Pulse Source Out-Of-Range Peg Count	20/1
Blocking Acknowledgement Timeout Peg Count	25/17
Blue Box Fraud Attempts	0/3
Blue Box Fraud Detected	0/3
Blue Box Fraud MF Receiver Occupancy	0/3
Blue Box Fraud MF Receiver Seizure	0/3
Blue Box Fraud Overload	0/3
Blue Box Fraud Persisting	0/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
BOC SSP Initial Queries	6/0
BOC SSP MF Incoming Seizures	5/1
BOC SSP MF Outgoing Seizures	5/1
BOC SSP Seizures	6/0
Broadband Call 24 - Data Calls Received From an IEC Peg Count	5/1
Broadband Call 24 - Originating Data Attempts From a PRI Peg Count	5/1
Broadband Call 24-Trunk Incoming Seizures	5/1
Broadband Call 24-Trunk Outgoing Seizures	5/1
Broadband Call 6 - Data Calls Received From an IEC Peg Count	5/1
Broadband Call 6 - Originating Data Attempts From a PRI Peg Count	5/1
Broadband Call 6-Trunk Incoming Seizures	5/1
Broadband Call 6-Trunk Outgoing Seizures	5/1
Broadband Call Failure Peg Count	11/4
Buffer Overflow Peg Count	14/0-255
Busy-Flash Final Trial Failure Peg Count	36/8
Busy-Flash on the Outgoing Trunk Peg Count	25/16
Busy-Flash Peg Count	25/16
Call Denial Screening Peg Count	11/4
Call Merge Denials - Adjunct Not Allowed Peg Count	45/7
Call Merge Denials - Invalid Call States Peg Count	45/7
Call Merge Denials - Invalid Channel ID Peg Count	45/7
Call Merge Denials - Multi-Feature Request Peg Count	45/7
Call Merge Failure - Resource Limitations Peg Count	11/1
Call Merge Requests Peg Count	45/7
Call Merge Success Peg Count	45/7
Call Processing Failure After Initial Query Peg Count	49/1
Call Processing Failure After Initial Query Peg Count	49/2
Call Processing Failure Before Initial Query Peg Count	49/1
Call Processing Failure Before Initial Query Peg Count	49/2
Call Record Block Peg Count	19/2
Call Record Lost Peg Count	19/2
Call Register (CR) Usage	17/0
Caller Abandon Before Response from SCP Peg Count	49/0
Calls Blocked by Go-No Go Screening Peg Count	11/2
CAMA Automatic Number Identification Failure Peg Count	19/0
CAMA Automatic Number Identification Local Office Failure	19/0
CAMA Automatic Number Identification Office Failure	19/0
CAMA Calls Queue Over 5-Seconds Peg Count	19/0
CAMA Free Calls Peg Count	36/5
CAMA Operator Queue Abandon Peg Count	18/0
CAMA Operator Queue Abandon Peg Count	19/0
CAMA Operator Queue Overflow Peg Count	18/0
CAMA Operator Queue Overflow Peg Count	19/0
CAMA Operator Queue Seizure Peg Count	19/0
CAMA Operator Queue Usage	19/0
CAMA Position Attached Timeout Peg Count	18/0
CAMA Position Disconnect Peg Count	18/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CAMA Position Disconnect Peg Count	19/0
CAMA Position Disconnect Timeout Peg Count	18/0
CAMA Position Report (CPR) Peg Count	18/0
CAMA Position Report (CPR) Peg Count	36/5
CAMA Position Timeout Peg Count	18/0
CAMA Positions Usage	19/0
Cancel Overload in Effect Peg Count	9/1
Cancel-From Control Blocked Peg Count	11/3
Cancel-To Control Blocked Peg Count	11/3
Carrier Group Failure Peg Count	11/1
CAS-NCP Unrecognized Info Received Peg Count	57/0
CC Accumulated Maintenance Usage	23/1
CC Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
CC Diagnostics Manually Requested Peg Count	46/0
CC Diagnostics Program Requested - All Tests Passed Peg Count	46/0
CC Diagnostics Program Requested Peg Count	46/0
CC Errors Peg Count	46/0
CC Located Faults Peg Count	46/0
CC Non-located Peg Count	46/0
CC to AUI In-Range Counter	20/1
CC to AUI Out-Of-Range Counter	20/1
CC to MUP Out-Of-Range Counter	20/1
CC to SSD In-Range Counter	20/1
CC to SSD Out-Of-Range Counter	20/1
CCIS 2-Wire Incoming Seizure Peg Count	5/1
CCIS Address Complete Signal Timeout Peg Count	36/4
CCIS Address Incomplete (ADI) Signals Received Peg Count	45/0
CCIS Address Incomplete (ADI) Signals Transmitted Peg Count	45/0
CCIS Call Fail Detection Peg Count	36/4
CCIS Call Failure (CFL) Signals Received Peg Count	45/0
CCIS Call Failure (CFL) Signals Transmitted Peg Count	45/0
CCIS Calls Lost Due to Trunk or Band Reset Peg Count	36/6
CCIS Confusion (COF) Signals Received Peg Count	45/0
CCIS Confusion (COF) Signals Transmitted Peg Count	45/0
CCIS Continuity Check Failure Final Trial Group Peg Count	36/4
CCIS CR Seizure Peg Count	17/0
CCIS Incoming Attempts Peg Count	25/5
CCIS Incoming Calls Peg Count	5/1
CCIS Maintenance Usage	25/5
CCIS Message Subscriber Busy Peg Count	49/0
CCIS National Switching Congestion (NSC) Signals Received Peg Count	45/0
CCIS National Switching Congestion (NSC) Signals Transmitted Peg Count	45/0
CCIS National Trunk Congestion (NTC) Signals Received Peg Count	45/0
CCIS National Trunk Congestion (NTC) Signals Transmitted Peg Count	45/0
CCIS Origination CR Queue Abandon Peg Count	11/6
CCIS Origination CR Queue Abandon Peg Count	17/0
CCIS Origination CR Queue Overflow Peg Count	11/6

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CCIS Origination CR Queue Overflow Peg Count	17/0
CCIS Origination CR Queue Seizure Peg Count	17/0
CCIS Origination CR Queue Usage	17/0
CCIS Outgoing Attempts Peg Count	25/5
CCIS Outgoing Calls Peg Count	5/2
CCIS Signaling Network Failure Peg Count	36/4
CCIS Terminal Group Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
CCIS Terminal Group Diagnostics Manually Requested Peg Count	46/5
CCIS Terminal Group Diagnostics Program Requested - All Tests Passed Peg Count	46/5
CCIS Terminal Group Diagnostics Program Requested Peg Count	46/5
CCIS Terminal Group Errors Peg Count	46/5
CCIS Terminal Group Located Faults Peg Count	46/5
CCIS Terminal Group Non-located Peg Count	46/5
CCIS Transceiver Accumulated Maintenance Usage	23/3
CCIS Transceiver Located Faults Peg Count	46/7
CCIS Transceiver Maintenance Usage	2/0
CCIS Transceiver Non-located Peg Count	46/7
CCIS Transceiver Overflow Peg Count	2/0
CCIS Transceiver Seizure Peg Count	2/0
CCIS Transceiver Service Usage	2/0
CCIS Transceiver Test Circuit Located Faults Peg Count	35/1
CCIS Transceiver Test Circuit Maintenance Busy Occupancy	35/0
CCIS Transceiver Test Circuit Non-located Faults Peg Count	35/1
CCIS Transceiver Test Circuit Total Usage	35/1
CCIS Trunk Or Band Reset Received Peg Count	45/0
CCIS Trunk Or Band Reset Signals Transmitted Peg Count	45/0
CCIS Unequipped Label Signals Received Peg Count	45/0
CCIS Unequipped Label Signals Transmitted Peg Count	45/0
CCIS Unreasonable Message (UNRES) Signals Received Peg Count	45/0
CCIS Vacant National Number (VNN) Signals Received Peg Count	45/0
CCIS Vacant National Number (VNN) Signals Transmitted Peg Count	45/0
CCIS VPA Cancellation and Path Hunt Peg Count	2/0
CCITT No. 5 Call Register Queue Seizure Peg Count	17/1
CCITT No. 5 Control Area Incoming Attempts Peg Count	25/11
CCITT No. 5 Control Area Outgoing Attempts Peg Count	25/11
CCITT No. 5 Maintenance Usage	25/11
CCITT No. 5 Miscellaneous Abandon Peg Count	25/16
CCITT No. 5 Originating Queue Seizure Peg Count	17/1
CCITT No. 5 Originating Queue Usage	17/1
CCITT No. 5 Queue Entry Failure Peg Count	0/1
CCITT No. 5 Total Office Incoming Attempts Peg Count	5/4
CCITT No. 5 Total Office Outgoing Attempts Peg Count	5/5
CCITT No. 6 Address Incomplete (ADI) Signals Received Peg Count	45/3
CCITT No. 6 Address Incomplete (ADI) Signals Transmitted Peg Count	45/4
CCITT No. 6 Blocking (BLO) Signal Transmitted Peg Count	45/4
CCITT No. 6 Call Failure (CFL) Signals Received Peg Count	45/3
CCITT No. 6 Call Failure (CFL) Signals Transmitted Peg Count	45/4

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CCITT No. 6 Call Register Queue Seizure Peg Count	17/1
CCITT No. 6 Circuit Group Congestion (CGC) Signals Received Peg Count	45/3
CCITT No. 6 Circuit Group Congestion (CGC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Confusion (COF) Signals Transmitted Peg Count	45/4
CCITT No. 6 Continuity Check Failure (CCF) Signaling Irregularity Peg Count	45/5
CCITT No. 6 Control Area Incoming Attempts Peg Count	25/11
CCITT No. 6 Control Area Outgoing Attempts Peg Count	25/11
CCITT No. 6 Double Seizure (GLR) Call Irregularity Peg Count	45/5
CCITT No. 6 Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
CCITT No. 6 Incomplete Address Detected Call Irregularity Peg Count	45/5
CCITT No. 6 Initial Address Message (IAM) Call Irregularity Peg Count	45/5
CCITT No. 6 Line Out-Of-Service (LOS) Signal Transmitted Peg Count	45/4
CCITT No. 6 Line Out-of-Service Signals Received Peg Count	45/3
CCITT No. 6 Maintenance Usage	25/11
CCITT No. 6 Miscellaneous Abandon Peg Count	36/9
CCITT No. 6 Miscellaneous Call Irregularity Peg Count	45/5
CCITT No. 6 National Network Congestion (NNC) Signals Received Peg Count	45/3
CCITT No. 6 National Network Congestion (NNC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Originating Queue Abandon Peg Count	17/1
CCITT No. 6 Originating Queue Overflow Peg Count	17/1
CCITT No. 6 Originating Queue Seizure Peg Count	17/1
CCITT No. 6 Originating Queue Usage	17/1
CCITT No. 6 Signaling Network Failures (SNF) Call Irregularities Peg Count	45/5
CCITT No. 6 Subscriber Busy Signals Received Peg Count	45/3
CCITT No. 6 Subscriber Busy (SSB) Signals Transmitted Peg Count	45/4
CCITT No. 6 Subscriber Transferred (SST) Signals Transmitted Peg Count	45/4
CCITT No. 6 Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
CCITT No. 6 Switching Equipment Congestion (SEC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Terminal Congestion Peg Count	45/3
CCITT No. 6 Total Office Incoming Attempts Peg Count	5/4
CCITT No. 6 Total Office Outgoing Attempts Peg Count	5/5
CCITT No. 6 Vacant National Number (VNN) Signals Received Peg Count	45/3
CCITT No. 6 Vacant National Number (VNN) Signals Transmitted Peg Count	45/4
CCITT No. 7 Subsequent Address Message Ignored Peg Count	45/3
CCS Message Table Blue Box Attempts Peg Count	0/4
CCS Message Table Overflow Peg Count	0/4
CCS Message Table Success Peg Count	0/4
CCS Message Table Timeout Peg Count	0/4
Centrex 2 Test Routine Operational Tests Attempted Peg Count	25/9
Centrex 2 Test Routine Operational Tests Failed Peg Count	25/9
Centrex 2 Test Routine Operational Tests Passed Peg Count	25/9
Centrex 3 Test Routine Operational Tests Attempted Peg Count	25/9
Centrex 3 Test Routine Operational Tests Failed Peg Count	25/9
Centrex 3 Test Routine Operational Tests Passed Peg Count	25/9
Clear-Back and Busy-Flash Acknowledgement Signal Timeout Peg Count	25/16
Clear-Back/Busy-Flash Signal Timeout Peg Count	25/16
Clear-Forward Received Peg Count	25/6

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Clear-Forward Signal Timeout Peg Count	25/16
CNI Stream Processor Interface Down	45/0
Code 100 Test Attempted Peg Count	25/7
Code 100 Test Completed Peg Count	25/7
Code 101 First Trial Busy Peg Count	25/10
Code 101 Origination Peg Count	25/10
Code 101 Transfer Peg Count	25/10
Code 101 Usage	25/10
Code 102 Test Attempted Peg Count	25/7
Code 102 Test Completed Peg Count	25/7
Code 103 Routine Operational Tests Attempted Peg Count	25/9
Code 103 Routine Operational Tests Failed Peg Count	25/9
Code 103 Routine Operational Tests Passed Peg Count	25/9
Code 105 Test Attempted Peg Count	25/7
Code 105 Test Completed Peg Count	25/7
Code Block Control Blocked Peg Count	11/3
Common System Tone Detector (CSTD) Located Faults Peg Count	35/1
Common System Tone Detector (CSTD) Maintenance Busy Occupancy	35/0
Common System Tone Detector (CSTD) Non-located Faults Peg Count	35/1
Common System Tone Detector (CSTD) Seizure Attempts Peg Count	35/1
Common System Tone Detector (CSTD) Seizure Overflow Peg Count	35/1
Common System Tone Detector (CSTD) Total Usage	35/1
Confirmed Receive Path Failure Carrier Alarm Peg Count	45/8
Confirmed Receive Path Failure Carrier Restoral Peg Count	45/8
Confirmed Transmit Path Failure Carrier Alarm Peg Count	45/8
Confirmed Transmit Path Failure Carrier Restoral Peg Count	45/8
Continuity Check Failure (CKF) Peg Count	25/6
Continuity Check Failure Final Trial Failure Peg Count	36/7
Continuity Signal Timeout Peg Count	36/0
Control Area Pulsing Error Peg Count	25/16
CPA BN(ANI) Trigger Table Data Found Peg Count for All Applicable Services	57/0
CPA BN(ANI) Trigger Table Query Attempt Peg Count for All Applicable Services	57/0
CPA Call Register Accumulated Occupancy Count	57/0
CPA Call Register Overflow Peg Count	57/0
CPA Call Register Seizures Peg Count	57/0
CPA Destination Number Trigger Table Data Found Peg Count for FAX Calls	57/0
CPA Destination Number Trigger Table Query Attempt Peg Count for FAX Calls	57/0
Critical Alarms Peg Count	20/2
CS Accumulated Maintenance Usage	23/1
CS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
CS Diagnostics Manually Requested Peg Count	46/0
CS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
CS Diagnostics Program Requested Peg Count	46/0
CS Errors Peg Count	46/0
CS Located Faults Peg Count	46/0
CS Non-located Peg Count	46/0
CSB Accumulated Maintenance Usage	23/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CSB Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
CSB Diagnostics Manually Requested Peg Count	46/3
CSB Diagnostics Program Requested - All Tests Passed Peg Count	46/3
CSB Diagnostics Program Requested Peg Count	46/3
CSB Errors Peg Count	46/3
CSB Located Faults Peg Count	46/3
CSB Non-located Peg Count	46/3
Customer Calls To MAS - Supervision Not Returned Due To CCIS Terminal Congestion	5/9
D3U Accumulated Maintenance Usage	23/2
D3U Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
D3U Diagnostics Manually Requested Peg Count	46/4
D3U Diagnostics Program Requested - All Tests Passed Peg Count	46/4
D3U Diagnostics Program Requested Peg Count	46/4
D3U Errors Peg Count	46/4
D3U Located Faults Peg Count	46/4
D3U Non-located Peg Count	46/4
D3U Service Outage Usage	23/2
Data Base Failure Reply: All Lines Busy	49/0
Data Base Failure Reply: Data Base Overload	49/0
Data Base Failure Reply: Non-Existent NPA	49/0
Data Base Failure Reply: Non-Purchased NPA	49/0
Data Base Failure Reply: Unassigned NXX	49/0
Data Base Failure Reply: Vacant Line	49/0
Data Base Failure Reply: Vacant NXX	49/0
Data Base Query Timeout	49/0
Data Call Attempts Peg Count	13/CIN
Data Call Overflow Peg Count	13/CIN
Data Unit Selector Interject Peg Count	20/1
D-Cancel Killed Calls	11/3
Dedicated TSI Overflow Peg Count	3/32
Dedicated TSI Usage	3/32
DIF Accumulated Maintenance Usage	24/1
DIF Accumulated Outage	24/1
DIF Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DIF Diagnostics Manually Requested Peg Count	24/2
DIF Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DIF Diagnostics Program Requested Peg Count	24/2
DIF Errors Peg Count	24/2
DIF Located Faults Peg Count	24/2
DIF Non-located Faults Peg Count	24/2
Direct Access Data Channel (DADC) Total Messages Peg Count	49/4
Direct Access Data Channel (DADC) Unexpected Messages Peg Count	49/4
Disconnect Stage Failure to Receive Clear-Forward Peg Count	36/9
Disconnect Stage Failure to Receive Release Guard Peg Count	36/9
Discrepancy in Number of Components and End Address of TCAP Message Peg Count	49/0
Disk Requests Accepted Peg Count	16/1
Disk Requests Canceled Peg Count	16/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Disk Requests Completed Peg Count	16/1
Disk Requests Failed Peg Count	16/1
Disk Requests Rejected Peg Count	16/1
DIU Accumulated Maintenance Usage	24/1
DIU Accumulated Outage	24/1
DIU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DIU Diagnostics Manually Requested Peg Count	24/2
DIU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DIU Diagnostics Program Requested Peg Count	24/2
DIU Errors Peg Count	24/2
DIU Located Faults Peg Count	24/2
DIU Non-located Faults Peg Count	24/2
D-Level Interrupts Call Store In-Range Peg Count	20/1
D-Level Interrupts Invalid Transfer Peg Count	20/1
D-Level Interrupts Out-Of-Range Peg Count	20/1
D-Level interrupts Protected Area Failure Peg Count	20/1
D-Level Interrupts Stack Related Peg Count	20/1
DNHR Crank Backs Received Peg Count	45/0
DNHR Crank Backs Sent Peg Count	45/0
Domestic CCIS Terminal Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
Domestic CCIS Terminal Diagnostics Manually Requested Peg Count	46/5
Domestic CCIS Terminal Diagnostics Program Requested - All Tests Passed Peg Count	46/5
Domestic CCIS Terminal Diagnostics Program Requested Peg Count	46/5
Domestic CCIS Terminal Errors Peg Count	46/5
Domestic CCIS Terminal Located Faults Peg Count	46/5
Domestic CCIS Terminal Non-located Peg Count	46/5
Domestic IOC Originated Vacant Code	15/2
Domestic IOTC Originated Vacant Code	15/2
Domestic VFL Accumulated Maintenance Occupancy	23/4
Domestic VFL Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
Domestic VFL Diagnostics Manually Requested Peg Count	46/5
Domestic VFL Diagnostics Program Requested - All Tests Passed Peg Count	46/5
Domestic VFL Diagnostics Program Requested Peg Count	46/5
Domestic VFL Errors Peg Count	46/5
Domestic VFL Located Faults Peg Count	46/5
Domestic VFL Non-located Peg Count	46/5
Double Seizure - Clear Forward Final Trial Failure Peg Count	36/8
Double Seizure - Clear-Forward Peg Count	25/16
Double Seizure - Unreasonable Signal Peg Count	25/16
Double Seizure Timeout Peg Count	25/16
Double Seizures (GLARE) Final Trial Failures Peg Count	36/7
DP ANI MF Receiver Queue Abandon Peg Count	18/0
DP ANI MF Receiver Queue Abandon Peg Count	19/0
DP ANI MF Receiver Queue Seizure Peg Count	19/0
DP ANI MF Receiver Queue Usage	19/0
DP CR Queue Abandon Peg Count	11/6
DP CR Queue Abandon Peg Count	17/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DP CR Queue Overflow Peg Count	11/6
DP CR Queue Overflow Peg Count	17/0
DP CR Queue Seizure Peg Count	17/0
DP CR Queue Usage	17/0
DP CR Seizure Peg Count	17/0
DP Delay Dial Incoming Seizure Peg Count	5/1
DP Digit Lost Peg Count	7/1
DP Equipment CAMA ANI Failure - Information Digit Error Peg Count	25/1
DP Equipment CAMA ANI Failure Peg Count	25/1
DP Equipment CAMA ANI Office Failure Peg Count	25/1
DP Equipment CAMA Disconnect Timeout Peg Count	25/2
DP Equipment CAMA Seizure Timeout Peg Count	25/2
DP Equipment Continuity/Polarity Test Failure Peg Count	25/3
DP Equipment Control Area False Start Abandon Peg Count	25/1
DP Equipment Control Area Partial Dial Abandon Peg Count	25/1
DP Equipment Control Area Partial Dial Timeout Peg Count	25/1
DP Equipment Control Area Permanent Signal Timeout Peg Count	25/1
DP Equipment Control Area Summation False Start Abandon Peg Count	36/1
DP Equipment Control Area Summation Miscellaneous Abandon Peg Count	36/4
DP Equipment Control Area Summation Partial Dial Abandon Peg Count	36/2
DP Equipment Control Area Summation Partial Dial Timeout Peg Count	36/2
DP Equipment Control Area Summation Permanent Signal Timeout Peg Count	36/1
DP Equipment Control Area Summation Pulsing Error Peg Count	36/2
DP Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
DP Equipment Glare Condition - Far End in Control Peg Count	25/3
DP Equipment Incoming Attempts Peg Count	25/5
DP Equipment Integrity Check Failure Peg Count	25/3
DP Equipment Maintenance Usage	25/5
DP Equipment Miscellaneous Abandon Peg Count	25/2
DP Equipment No Start Dial Peg Count	25/3
DP Equipment Outgoing Attempts Peg Count	25/5
DP Equipment Pulsing Error Peg Count	25/1
DP Equipment Total Office CAMA ANI Failure - Information Digit Error Peg Count	36/3
DP Equipment Total Office CAMA ANI Failure Peg Count	36/3
DP Equipment Total Office CAMA ANI Office Failure Peg Count	36/3
DP Equipment Total Office False Start Abandon Peg Count	7/0
DP Equipment Total Office Partial Dial Abandon Peg Count	7/0
DP Equipment Total Office Partial Dial Timeout Peg Count	7/0
DP Equipment Total Office Permanent Signal Timeout Peg Count	7/0
DP Equipment Unexpected Stop Peg Count	25/3
DP Equipment Unexpected Stop Timeout Peg Count	25/3
DP Immediate Start Incoming Seizure Peg Count	5/1
DP Outpulsing Attempts Peg Count	5/2
DP Outpulsing Work List Full Peg Count	7/1
D-Reroute Killed Calls	11/3
DTC Accumulated Maintenance Usage	24/1
DTC Accumulated Outage	24/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DTC Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DTC Diagnostics Manually Requested Peg Count	24/2
DTC Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DTC Diagnostics Program Requested Peg Count	24/2
DTC Errors Peg Count	24/2
DTC Located Faults Peg Count	24/2
DTC Non-located Faults Peg Count	24/2
DTMF Control Area Summation False Start Abandon Peg Count	36/1
DTMF Control Area Summation Miscellaneous Abandon Peg Count	36/4
DTMF Control Area Summation Partial Dial Abandon Peg Count	36/2
DTMF Control Area Summation Partial Dial Timeout Peg Count	36/2
DTMF Control Area Summation Permanent Signal Timeout Peg Count	36/1
DTMF Control Area Summation Pulsing Error Peg Count	36/2
DTMF CR Seizure Peg Count	17/0
DTMF Equipment Continuity/Polarity Test Failure Peg Count	25/3
DTMF Equipment Control Area False Start Abandon Peg Count	25/1
DTMF Equipment Control Area Partial Dial Abandon Peg Count	25/1
DTMF Equipment Control Area Partial Dial Timeout Peg Count	25/1
DTMF Equipment Control Area Permanent Signal Timeout Peg Count	25/1
DTMF Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
DTMF Equipment Glare Condition - Far End in Control Peg Count	25/3
DTMF Equipment Miscellaneous Abandon Peg Count	25/2
DTMF Equipment No Start Dial Peg Count	25/3
DTMF Equipment Pulsing Error Peg Count	25/1
DTMF Equipment Unexpected Stop Peg Count	25/3
DTMF Miscellaneous Ineffective Attempts Peg Count	11/4
DTMF Receiver Accumulated Maintenance Usage	23/3
DTMF Receiver Located Faults Peg Count	46/7
DTMF Receiver Maintenance Usage	1/0
DTMF Receiver Non-located Peg Count	46/7
DTMF Receiver Seizure Peg Count	1/0
DTMF Receiver Service Circuit Usage	1/0
DTMF Total Office False Start Abandon Peg Count	7/0
DTMF Total Office Partial Dial Abandon Peg Count	7/0
DTMF Total Office Partial Dial Timeout Peg Count	7/0
DTMF Total Office Permanent Signal Timeout Peg Count	7/0
DTMF Transmitter Accumulated Maintenance Usage	23/3
DTMF Transmitter Located Faults Peg Count	46/7
DTMF Transmitter Maintenance Usage	0/2
DTMF Transmitter Non-located Peg Count	46/7
DTMF Transmitter Seizure Peg Count	0/2
DTMF Transmitter Service Usage	0/2
DTU Accumulated Maintenance Usage	24/1
DTU Accumulated Outage	24/1
DTU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DTU Diagnostics Manually Requested Peg Count	24/2
DTU Diagnostics Program Requested - All Tests Passed Peg Count	24/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DTU Diagnostics Program Requested Peg Count	24/2
DTU Errors Peg Count	24/2
DTU Located Faults Peg Count	24/2
DTU Non-located Faults Peg Count	24/2
DUS Accumulated Maintenance Usage	23/1
DUS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
DUS Diagnostics Manually Requested Peg Count	46/0
DUS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
DUS Diagnostics Program Requested Peg Count	46/0
DUS Errors Peg Count	46/0
DUS Located Faults Peg Count	46/0
DUS Non-located Peg Count	46/0
DUS to TUC In-Range Error Peg Count	20/1
Dynamic Overload Control Peg Count and Duration Measurement	21/3
EA ANI Failure - Route Peg Count	19/2
EA ANI Failure Peg Count	19/2
EA ANI Success Peg Count	19/2
Egress Busy Crankbacks Sent	13/CIN
Eighth Digit No Call Register Peg Count	7/1
E-Level Interrupts In-Range Peg Count	20/1
E-Level Interrupts Out-Of-Range Peg Count	20/1
Emergency Restart Peg Count	14/0-255
Error Analysis Suspected Failure Peg Count	25/4
Errors Found By Audit System Peg Count	41/0
Errors Found By Maintenance Programs Peg Count	41/0
Errors Found By Manual Request Peg Count	41/0
Errors Found By Operational Programs Peg Count	41/0
Exception Reports Failed to Send to the SCP Peg Count	49/0
Exception Reports Sent to the SCP Peg Count	49/0
Expected Stop Timeout Final Trial Group Peg Count	36/4
External CCFR Entry When CC 0 Was Active Simplex	20/1
External CCFR Entry When CC 1 Was Active Simplex	20/1
Facility Received Indicating Caller Hung-Up Peg Count	56/0-2
Failure to Place NM 10/6 Digit Controls on ACG Control List Peg Count	49/0
Failure to Receive Clear-Forward Peg Count	25/16
False Seizure Timeout Peg Count	25/16
False Start Abandon Peg Count	7/0
Fan Controller 0 Inhibited Counter	20/1
Fan Controller 1 Inhibited Counter	20/1
Fatal Errors in SCCP Header Peg Count	49/0
Fatal Protocol Error Response from SCP Peg Count	49/0
Final Trial Network Path Hunt Failure Peg Count	11/1
First Trial Glare Fail CCITT No. 5 Trunk Peg Count	25/16
First Trial No. Start Dial (NSD) - CCITT No. 5 Trunk Peg Count	25/16
First Trial Outpulsing Fail CCITT No. 5 Trunk Peg Count	25/16
F-Level Interrupts Autonomous Peripheral Unit Failure Peg Count	20/1
F-Level Interrupts Peripheral Unit Failure In-Range Peg Count	20/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
F-Level Interrupts Peripheral Unit Failure Out-Of-Range Peg Count	20/1
Functional Trunk Test Routine Operational Tests Attempted Peg Count	25/9
Functional Trunk Test Routine Operational Tests Failed Peg Count	25/9
Functional Trunk Test Routine Operational Tests Passed Peg Count	25/9
Gapped Peg Count	56/0-2
Glare Final Trial Failure Peg Count	36/8
Glare Final Trial Group Peg Count	36/4
Glare Peg Counter	11/0
Group Signaling Congestion Skipped	11/3
Hardware Detected CGA Peg Count	20/3
IBU Accumulated Maintenance Usage	24/1
IBU Accumulated Outage	24/1
IBU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
IBU Diagnostics Manually Requested Peg Count	24/2
IBU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
IBU Diagnostics Program Requested Peg Count	24/2
IBU Errors Peg Count	24/2
IBU Located Faults Peg Count	24/2
IBU Non-located Faults Peg Count	24/2
IDTMFWK CR Queue Abandon Peg Count	17/0
IDTMFWK CR Queue Seizure Peg Count	17/0
IDTMFWK CR Queue Usage	17/0
IDTMFWK Incoming Seizure Peg Count	5/1
IDTS CR Queue Abandon Peg Count	17/0
IDTS CR Queue Overflow Peg Count	17/0
IDTS CR Queue Seizure Peg Count	17/0
IDTS CR Queue Usage	17/0
IDTS DP Incoming Seizure Peg Count	5/1
IDTS Incoming Seizure Peg Count	5/1
IDTS Receiver Dial Tone Delay Time Peg Count	0/0
IDTS Receiver Queue Abandon Peg Count	0/0
IDTS Receiver Queue Seizure Peg Count	0/0
IDTS Receiver Queue Usage	0/0
IFB Accumulated Maintenance Usage	23/1
IFB Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
IFB Diagnostics Manually Requested Peg Count	46/3
IFB Diagnostics Program Requested - All Tests Passed Peg Count	46/3
IFB Diagnostics Program Requested Peg Count	46/3
IFB Errors Peg Count	46/3
IFB Located Faults Peg Count	46/3
IFB Non-located Peg Count	46/3
IFB Out-Of-Range D-Level	20/1
Incoming Answer Signal Units Peg Count	14/0-255
Incoming Code 101 Overflow Peg Count	25/10
Incoming Code 101 Peg Count	25/10
Incoming Code 101 Usage	25/10
Incoming Continuity Signal Timeout Peg Count	36/9

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Incoming Direct Signaling Signal Units Peg Count	14/0-255
Incoming Domestic CCIS Call Attempts	37/0
Incoming Domestic DP Call Attempts	37/0
Incoming Domestic ISUP Call Attempts	37/0
Incoming Domestic MF Call Attempts	37/0
Incoming Domestic Q.931 Call Attempts	37/0
Incoming DP Early Digit Peg Count	7/1
Incoming DP Work List Full Peg Count	7/1
Incoming IAM Peg Count	14/0-255
Incoming International CCITT No. 5 Call Attempts	37/1
Incoming International CCITT No. 6 Call Attempts	37/1
Incoming International INUP Call Attempts	37/1
Incoming International ITUP Call Attempts	37/1
Incoming Miscellaneous Ineffective Attempts Peg Count	11/4
Incoming Seizure Abandon Peg Count	25/16
Incoming Seizure Peg Count	13/CIN
Incoming Signal Irregularities Before Answer CCITT No. 5 Trunk Peg Count	25/16
Incoming Transitions Peg Count	14/0-255
Incomplete Address Abandon Peg Count	25/16
Incomplete Address Detection Peg Count	36/0
Incomplete Address Timeout Peg Count	25/16
Individual USEC Frame Resume Event Peg Count	56/4
Initial Address Message (IAM) Irregularity (IRR) Peg Count	45/0
Initial Address Messages Transferred Per Terminal	14/0-255
Initial Query Failure Due to CNI Buffer Overflow Peg Count	49/0
Initial Query Failure Due to CNI Stream Down Peg Count	49/0
INR Overflow Peg Count	17/0
INR Seizure Peg Count	17/0
INR Usage	17/0
Integrity Check Failures Final Trial Group Peg Count	36/4
Internal B-level Boot ROM Parity Error Count	20/1
Internal B-level Control Parity Error Count	20/1
International Call Detail Recording Register Buffer Block Occupancy Peg Count	17/2
International Call Detail Recording Registers Total Records Lost Peg Count	17/2
International Calls Block by Network Management Controls	15/2
International Calls Blocked by Screening	15/2
International CCIS Terminal Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
International CCIS Terminal Diagnostics Manually Requested Peg Count	46/5
International CCIS Terminal Diagnostics Program Requested - All Tests Passed Peg Count	46/5
International CCIS Terminal Diagnostics Program Requested Peg Count	46/5
International CCIS Terminal Errors Peg Count	46/5
International CCIS Terminal Located Faults Peg Count	46/5
International CCIS Terminal Non-located Peg Count	46/5
International Customer Dialed Vacant Code	15/2
International Inbound Customer Dialed Vacant Code	15/2
International Inbound Operator Dialed Vacant Code	15/2
International Incoming Customer Dialed Calls Peg Count	5/4

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
International Incoming Operator Dialed Calls Peg Count	5/4
International Incoming Screened-Invalid Call	15/2
International Incoming Screened-Invalid Language Digit	15/2
International Incoming Test Calls Peg Count	5/4
International Incoming Transit Calls Peg Count	5/4
International ISUP Outbound Overflow Peg Count	5/5
International No Circuit Peg Count	11/1
International Operator Dialed Vacant Code	15/2
International Originating Attempts To The Local IOC Operator That Overflow	15/1
International Originating Attempts To The Local IOC Operator	15/1
International Outbound Customer Dialed Call Encountered No Circuit	15/2
International Outbound Operator Dialed Call Peg Count	5/5
International Outbound Overflow Received from Alternate Office Peg Count	5/5
International Outbound Overflow Sent to Alternate Office Peg Count	5/5
International Outgoing Customer Dialed Calls Peg Count	5/5
International Overlap to Enblock Signaling Peg Count	5/4
International Translation Fail - Too Few/Too Many Digits CCITT No. 5 Incoming Trunk	15/2
International Translation Fail - Too Few/Too Many Digits CCITT No. 6 Incoming Trunk	15/2
International Translation Fail - Too Few/Too Many Digits IOC ITC	15/2
International Translation Fail - Too Few/Too Many Digits TSPC	15/2
International VFL Accumulated Maintenance Occupancy	23/4
International VFL Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
International VFL Diagnostics Manually Requested Peg Count	46/5
International VFL Diagnostics Program Requested - All Tests Passed Peg Count	46/5
International VFL Diagnostics Program Requested Peg Count	46/5
International VFL Errors Peg Count	46/5
International VFL Located Faults Peg Count	46/5
International VFL Non-located Peg Count	46/5
Interrupt Level Duration Count	20/1
INUP Address Complete Signal Timeout Peg Count	36/4
INUP Continuity Check Failure Final Trial Group Peg Count	36/4
INUP Continuity Check Request (CCR) Glare Peg Count	45/5
INUP Continuity Failure Peg Count	36/0
INUP Continuity Timeout Peg Count	36/0
INUP Continuity/Polarity Test Failure Peg Count	25/3
INUP Control Area False Start Abandon Peg Count	25/1
INUP Control Area Incoming Attempts Peg Count	25/11
INUP Control Area Miscellaneous Abandon Peg Count	25/2
INUP Control Area Outgoing Attempts Peg Count	25/11
INUP Control Area Partial Dial Abandon Peg Count	25/1
INUP Control Area Partial Dial Timeout Peg Count	25/1
INUP Control Area Permanent Signal Timeout Peg Count	25/1
INUP Control Area Summation False Start Abandon Peg Count	36/1
INUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
INUP Control Area Summation Partial Dial Abandon Peg Count	36/2
INUP Control Area Summation Partial Dial Timeout Peg Count	36/2
INUP Control Area Summation Permanent Signal Timeout Peg Count	36/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
INUP Control Area Summation Pulsing Error Peg Count	36/2
INUP CR Queue Overflow Peg Count	17/0
INUP CR Seizure Peg Count	17/0
INUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
INUP Glare Condition - Far End in Control Peg Count	25/3
INUP Glare Peg Count	45/5
INUP Inbound Customer Dialed Vacant Code	15/2
INUP Inbound Operator Dialed Vacant Code	15/2
INUP Incoming CNI Ring Failure Peg Count	45/0
INUP Incoming CNI Ring Overflow Peg Count	45/0
INUP Incoming Irregularity Before Answer Peg Count	36/0
INUP Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
INUP Incomplete Address Detected Peg Count	36/0
INUP Initial Address Message (IAM) Glare Peg Count	45/5
INUP Integrity Check Failure Peg Count	25/3
INUP Line Out-of-Service (LOS) Signals Received Peg Count	45/3
INUP Maintenance Usage	25/11
INUP Miscellaneous Ineffective Attempts Peg Count	11/4
INUP Miscellaneous Timeout Peg Count	36/0
INUP No Circuit Available (NCA) Signals Received Peg Count	45/3
INUP No Circuit Available (NCA) Signals Received While Waiting For Answer Peg Count	45/3
INUP No Start Dial Peg Count	25/3
INUP Origination CR Queue Abandon Peg Count	17/0
INUP Origination CR Queue Seizure Peg Count	17/0
INUP Origination CR Queue Usage	17/0
INUP Other Abandons Peg Count	11/4
INUP Outgoing CNI Ring Failure Peg Count	45/0
INUP Outgoing CNI Ring Overflow Peg Count	45/0
INUP Outgoing Irregularity Before Answer Peg Count	36/0
INUP Outgoing Miscellaneous Failure Peg Count	11/4
INUP Outgoing Unexpected Message Peg Count	45/0
INUP Pulsing Error Peg Count	25/1
INUP Resets Received Peg Count	45/0
INUP Subscriber Busy (SB) Signals Received While Waiting For Answer Peg Count	45/3
INUP Switching Equipment Congestion Peg Count	11/4
INUP Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
INUP Switching Equipment Congestion (SEC) Signals Received While Waiting For Answer Peg Count	45/3
INUP Temporary Failure (TFL) Signals Received While Waiting For Answer Peg Count	45/3
INUP Total Office False Start Abandon Peg Count	7/0
INUP Total Office Incoming Attempts Peg Count	5/4
INUP Total Office Miscellaneous Abandon Peg Count	11/4
INUP Total Office Outgoing Attempts Peg Count	5/5
INUP Total Office Partial Dial Abandon Peg Count	7/0
INUP Total Office Partial Dial Timeout Peg Count	7/0
INUP Total Office Permanent Signal Timeout Peg Count	7/0
INUP Transceiver Overflow Peg Count	2/0
INUP Transit Vacant Code	15/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
INUP Unblocking Message Received Peg Count	45/0
INUP Unexpected Stop Peg Count	25/3
INUP Unexpected Stop Timeout Peg Count	25/3
INUP Unreasonable Signal Received Peg Count	36/0
Invalid Command Message Peg Count	49/1
Invalid Command Message Peg Count	49/2
Invalid Command Sequence Peg Count	49/1
Invalid Command Sequence Peg Count	49/2
Invalid Incoming ATME Test Call Peg Count	25/15
INWATS Band Check Peg Count	11/2
INWATS Blocked by Signaling Link Congestion	49/0
INWATS CCIS Failure: Network Blockage	49/0
INWATS CCIS Failure: Network Congestion	49/0
INWATS CCIS Failure: No Translation Data	49/0
INWATS Network Management Messages Received Peg Count	49/0
INWATS Queries Sent Peg Count	49/0
IOC Control Area False Start Abandon Peg Count	25/1
IOC Control Area Partial Dial Abandon Peg Count	25/1
IOC Control Area Partial Dial Timeout Peg Count	25/1
IOC Control Area Permanent Signal Timeout Peg Count	25/1
IOC Control Area Summation False Start Abandon Peg Count	36/1
IOC Control Area Summation Miscellaneous Abandon Peg Count	36/4
IOC Control Area Summation Partial Dial Abandon Peg Count	36/2
IOC Control Area Summation Partial Dial Timeout Peg Count	36/2
IOC Control Area Summation Permanent Signal Timeout Peg Count	36/1
IOC Control Area Summation Pulsing Error Peg Count	36/2
IOC Miscellaneous Abandon Peg Count	25/2
IOC Operator No Circuit-Domestic	15/1
IOC Operator No Circuit-International	15/1
IOC Operator Outgoing Attempts	15/1
IOC Pulsing Error Peg Count	25/1
IOC Total Office False Start Abandon Peg Count	7/0
IOC Total Office Partial Dial Abandon Peg Count	7/0
IOC Total Office Partial Dial Timeout Peg Count	7/0
IOC Total Office Permanent Signal Timeout Peg Count	7/0
IOUC Accumulated Maintenance Usage	23/1
IOUC Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
IOUC Diagnostics Manually Requested Peg Count	46/2
IOUC Diagnostics Program Requested - All Tests Passed Peg Count	46/2
IOUC Diagnostics Program Requested Peg Count	46/2
IOUC Errors Peg Count	46/2
IOUC Located Faults Peg Count	46/2
IOUC Non-located Peg Count	46/2
IOUS Accumulated Maintenance Usage	23/1
IOUS Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
IOUS Diagnostics Manually Requested Peg Count	46/2
IOUS Diagnostics Program Requested - All Tests Passed Peg Count	46/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
IOUS Diagnostics Program Requested Peg Count	46/2
IOUS Errors Peg Count	46/2
IOUS Located Faults Peg Count	46/2
IOUS Non-located Peg Count	46/2
iPCC Alarms After Two Errored Packets In 15 Seconds Peg Count	56/4
iPCC No Acknowledgement Received Duration In Seconds	56/4
iPCC No Acknowledgement Received Peg Count	56/4
iPCC Number of Channels With NO ACK signal Peg Count	56/4
iPCC TVOFF Messages to all Channels Peg Count	56/4
ISUP 2-Wire Incoming Seizures	5/1
ISUP 4-Wire Incoming Seizures	5/1
ISUP ATP Dropped Due to Internal Loss Peg Count	45/6
ISUP ATP Dropped Due to Length Peg Count	45/6
ISUP Completion of Transmission Path CR Release Peg Count	17/0
ISUP Completion of Transmission Path CR Seize Peg Count	17/0
ISUP Confusion Message Received Peg Count	45/0
ISUP Confusion Message Sent Peg Count	45/0
ISUP Continuity Failure Peg Count	36/0
ISUP Continuity Timeout Peg Count	36/0
ISUP Continuity/Polarity Test Failure Peg Count	25/3
ISUP Control Area False Start Abandon Peg Count	25/1
ISUP Control Area Miscellaneous Abandon Peg Count	25/2
ISUP Control Area Partial Dial Abandon Peg Count	25/1
ISUP Control Area Partial Dial Timeout Peg Count	25/1
ISUP Control Area Permanent Signal Timeout Peg Count	25/1
ISUP Control Area Summation False Start Abandon Peg Count	36/1
ISUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
ISUP Control Area Summation Partial Dial Abandon Peg Count	36/2
ISUP Control Area Summation Partial Dial Timeout Peg Count	36/2
ISUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
ISUP Control Area Summation Pulsing Error Peg Count	36/2
ISUP CR Seizure Peg Count	17/0
ISUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
ISUP Glare Condition - Far End in Control Peg Count	25/3
ISUP Incoming Attempts Peg Count	25/5
ISUP Incoming CNI Ring Failure Peg Count	45/0
ISUP Incoming CNI Ring Overflow Peg Count	45/0
ISUP Incomplete Address Detected Peg Count	36/0
ISUP Integrity Check Failure Peg Count	25/3
ISUP Maintenance Usage	25/5
ISUP Miscellaneous Ineffective Attempts Peg Count	11/4
ISUP Miscellaneous Timeout Peg Count	36/0
ISUP No Start Dial Peg Count	25/3
ISUP Origination CR Queue Abandon Peg Count	17/0
ISUP Origination CR Queue Overflow Peg Count	17/0
ISUP Origination CR Queue Seizure Peg Count	17/0
ISUP Origination CR Queue Usage	17/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ISUP Other Abandons Peg Count	11/4
ISUP Outgoing Attempts Peg Count	25/5
ISUP Outgoing CNI Ring Failure Peg Count	45/0
ISUP Outgoing CNI Ring Overflow Peg Count	45/0
ISUP Outgoing Seizures	5/1
ISUP Outgoing Unexpected Message Peg Count	45/0
ISUP Pulsing Error Peg Count	25/1
ISUP Resets Received Peg Count	45/0
ISUP Switching Equipment Congestion Peg Count	11/4
ISUP Total Office False Start Abandon Peg Count	7/0
ISUP Total Office Miscellaneous Abandon Peg Count	11/4
ISUP Total Office Partial Dial Abandon Peg Count	7/0
ISUP Total Office Partial Dial Timeout Peg Count	7/0
ISUP Total Office Permanent Signal Timeout Peg Count	7/0
ISUP Transceiver Overflow Peg Count	2/0
ISUP Unexpected Stop Peg Count	25/3
ISUP Unexpected Stop Timeout Peg Count	25/3
ISUP Unreasonable Signal Received Peg Count	36/0
ISUP Unsuccessful Backward Setup Received Peg Count	45/0
ISUP UUI Dropped Due to Internal Loss Peg Count	45/6
ISUP UUI Dropped Due to Length Peg Count	45/6
ITUP Address Complete Signal Timeout Peg Count	36/4
ITUP Call Failure (CFL) Received While Waiting For Answer Peg Count	45/3
ITUP Circuit Group Congestion (CGC) Received While Waiting For Answer Peg Count	45/3
ITUP Circuit Group Congestion (CGC) Signals Received Peg Count	45/3
ITUP Continuity Check Failure Final Trial Group Peg Count	36/4
ITUP Continuity Check Request (CCR) Glare Peg Count	45/5
ITUP Continuity Failure Peg Count	36/0
ITUP Continuity Timeout Peg Count	36/0
ITUP Continuity/Polarity Test Failure Peg Count	25/3
ITUP Control Area False Start Abandon Peg Count	25/1
ITUP Control Area Incoming Attempts Peg Count	25/11
ITUP Control Area Miscellaneous Abandon Peg Count	25/2
ITUP Control Area Outgoing Attempts Peg Count	25/11
ITUP Control Area Partial Dial Abandon Peg Count	25/1
ITUP Control Area Partial Dial Timeout Peg Count	25/1
ITUP Control Area Permanent Signal Timeout Peg Count	25/1
ITUP Control Area Summation False Start Abandon Peg Count	36/1
ITUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
ITUP Control Area Summation Partial Dial Abandon Peg Count	36/2
ITUP Control Area Summation Partial Dial Timeout Peg Count	36/2
ITUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
ITUP Control Area Summation Pulsing Error Peg Count	36/2
ITUP CR Queue Overflow Peg Count	17/0
ITUP CR Seizure Peg Count	17/0
ITUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
ITUP Glare Condition - Far End in Control Peg Count	25/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ITUP Glare Peg Count	45/5
ITUP Inbound Customer Dialed Vacant Code	15/2
ITUP Inbound Operator Dialed Vacant Code	15/2
ITUP Incoming CNI Ring Failure Peg Count	45/0
ITUP Incoming CNI Ring Overflow Peg Count	45/0
ITUP Incoming Irregularity Before Answer Peg Count	36/0
ITUP Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
ITUP Incomplete Address Detected (IAD) Call Irregularity Peg Count	45/5
ITUP Initial Address Message (IAM) Glare Peg Count	45/5
ITUP Integrity Check Failure Peg Count	25/3
ITUP Line Out-of-Service (LOS) Signals Received Peg Count	45/3
ITUP Maintenance Usage	25/11
ITUP Miscellaneous Ineffective Attempts Peg Count	11/4
ITUP Miscellaneous Timeout Peg Count	36/0
ITUP National Network Congestion (NNC) Signals Received Peg Count	45/3
ITUP National Network Congestion (NNC) While Waiting For Answer Peg Count	45/3
ITUP No Start Dial Peg Count	25/3
ITUP Origination CR Queue Abandon Peg Count	17/0
ITUP Origination CR Queue Seizure Peg Count	17/0
ITUP Origination CR Queue Usage	17/0
ITUP Other Abandons Peg Count	11/4
ITUP Outgoing CNI Ring Failure Peg Count	45/0
ITUP Outgoing CNI Ring Overflow Peg Count	45/0
ITUP Outgoing Irregularity Before Answer Peg Count	36/0
ITUP Outgoing Miscellaneous Failure Peg Count	11/4
ITUP Outgoing Unexpected Message Peg Count	45/0
ITUP Pulsing Error Peg Count	25/1
ITUP Resets Received Peg Count	45/0
ITUP Subscriber Busy (SSB) Signals Received Peg Count	45/3
ITUP Switching Equipment Congestion Peg Count	11/4
ITUP Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
ITUP Total Office False Start Abandon Peg Count	7/0
ITUP Total Office Incoming Attempts Peg Count	5/4
ITUP Total Office Miscellaneous Abandon Peg Count	11/4
ITUP Total Office Outgoing Attempts Peg Count	5/5
ITUP Total Office Partial Dial Abandon Peg Count	7/0
ITUP Total Office Partial Dial Timeout Peg Count	7/0
ITUP Total Office Permanent Signal Timeout Peg Count	7/0
ITUP Transceiver Overflow Peg Count	2/0
ITUP Transit Vacant Code	15/2
ITUP Unblocking Message Received Peg Count	45/0
ITUP Unexpected Stop Peg Count	25/3
ITUP Unexpected Stop Timeout Peg Count	25/3
ITUP Unreasonable Signal Received Peg Count	36/0
Killed Fraudulent SDN NRA Calls Peg Count	11/3
Large Scale Nail-Up Intra-Buffer Count	4/0
LATA/STATE Screening Index Failure Peg Count	11/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Latest IPCC Message Queue NEMOS Override Threshold Value	56/4
Link 1 Message Register Returned Peg Count	56/3
Link 1 Return Register Threshold Exceeded Peg Count	56/3
Link 2 Message Register Returned Peg Count	56/3
Link 2 Return Register Threshold Exceeded Peg Count	56/3
LNP ISUP Release Peg Count	49/1
LNP Ported Calls Peg Count	49/1
LNP Queries Sent Peg Count	49/1
LNP Queries Successful Peg Count	49/1
Load Level 1 Overload Control Peg Count	9/1
Load Level 2 Overload Control Peg Count	9/1
Load Level 3 Overload Control Peg Count	9/1
Local IOC Originating Operator Incoming Attempts Going To Domestic or International Domain	15/1
Maintenance Interjects Voiceband Interface Peg Count	20/1
Maintenance Test Access Circuit Usage	25/10
Major Alarms Peg Count	20/2
Manual Network Management Controls	13/CIN
MAS - BOC-SSP Calls Blocked Peg Count	49/0
MAS - Calls Routed To A Cut-Through Number Peg Count	51/0-63
MAS - Calls Routed To An Announcement Peg Count	51/0-63
MAS - Data On Disk Peg Count	36/10
MAS - Geographic Attempts Matrix Completion Peg Count	54/0-31
MAS - Hardware Duplex Failed Peg Count	36/10
MAS - Looping Through Translate All Digits Peg Count	36/10
MAS - No Vacant Announcement Peg Count	36/10
MAS - Path Hunt Peg Count	36/10
MAS - Per-Announcement Attempts Peg Count	50/0-511
MAS - Per-Announcement Connect To Audio Peg Count	50/0-511
MAS - Per-Announcement Overflow Peg Count	50/0-511
MAS - Per-Announcement Usage	50/0-511
MAS - TELEVOTE Slave Dialed Number	53/0-127
MAS - Total Calls (Votes) to a TELEVOTE Slave Dialed Number Peg Count	53/0-127
MAS - Totals of the TELEVOTE Counts Received Peg Count	52/0-127
MAS and Expanded Announcements Accumulated Maintenance Usage	23/3
MAS Attempts Peg Count	56/0-2
MAS Cutthru Peg Count	56/0-2
MAS or Expanded Ann. A Overflow Peg Count	0/2
MAS or Expanded Ann. A Seizure Peg Count	0/2
MAS or Expanded Ann. A Service Usage	0/2
MAS or Expanded Ann. B Overflow Peg Count	0/2
MAS or Expanded Ann. B Seizure Peg Count	0/2
MAS or Expanded Ann. B Service Usage	0/2
MAS or Expanded Ann. Maintenance Usage	0/2
MC1 CCIS Duration	21/3
MC1 CCIS Peg Count	21/3
MC1 DP Duration	21/3
MC1 DP Peg Count	21/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MC1 MF Duration	21/3
MC1 MF Peg Count	21/3
MC1 Real Time Duration	21/3
MC1 Real Time Peg Count	21/3
MC2 CCIS Duration	21/3
MC2 CCIS Peg Count	21/3
MC2 DP Duration	21/3
MC2 DP Peg Count	21/3
MC2 MF Duration	21/3
MC2 MF Peg Count	21/3
MC2 Real Time Duration	21/3
MC2 Real Time Peg Count	21/3
MF CR Seizure Peg Count	17/0
MF Equipment CAMA ANI Failure - Information Digit Error Peg Count	25/1
MF Equipment CAMA ANI Failure Peg Count	25/1
MF Equipment CAMA ANI Office Failure Peg Count	25/1
MF Equipment CAMA Disconnect Timeout Peg Count	25/2
MF Equipment CAMA Seizure Timeout Peg Count	25/2
MF Equipment Continuity/Polarity Test Failure Peg Count	25/3
MF Equipment Control Area False Start Abandon Peg Count	25/1
MF Equipment Control Area Partial Dial Abandon Peg Count	25/1
MF Equipment Control Area Partial Dial Timeout Peg Count	25/1
MF Equipment Control Area Permanent Signal Timeout Peg Count	25/1
MF Equipment Control Area Summation False Start Abandon Peg Count	36/1
MF Equipment Control Area Summation Miscellaneous Abandon Peg Count	36/4
MF Equipment Control Area Summation Partial Dial Abandon Peg Count	36/2
MF Equipment Control Area Summation Partial Dial Timeout Peg Count	36/2
MF Equipment Control Area Summation Permanent Signal Timeout Peg Count	36/1
MF Equipment Control Area Summation Pulsing Error Peg Count	36/2
MF Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
MF Equipment Glare Condition - Far End in Control Peg Count	25/3
MF Equipment Incoming Attempts Peg Count	25/5
MF Equipment Integrity Check Failure Peg Count	25/3
MF Equipment Maintenance Usage	25/5
MF Equipment Miscellaneous Abandon Peg Count	25/2
MF Equipment No Start Dial Peg Count	25/3
MF Equipment Outgoing Attempts Peg Count	25/5
MF Equipment Pulsing Error Peg Count	25/1
MF Equipment Total Office CAMA ANI Failure - Information Digit Error Peg Count	36/3
MF Equipment Total Office CAMA ANI Failure Peg Count	36/3
MF Equipment Total Office CAMA ANI Office Failure Peg Count	36/3
MF Equipment Total Office False Start Abandon Peg Count	7/0
MF Equipment Total Office Partial Dial Abandon Peg Count	7/0
MF Equipment Total Office Partial Dial Timeout Peg Count	7/0
MF Equipment Total Office Permanent Signal Timeout Peg Count	7/0
MF Equipment Unexpected Stop Peg Count	25/3
MF Equipment Unexpected Stop Timeout Peg Count	25/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MF Incoming Seizure Peg Count	5/1
MF Origination Queue Abandon Peg Count	17/0
MF Origination Queue Seizure Peg Count	17/0
MF Origination Queue Usage	17/0
MF Outpulsing Attempts Peg Count	5/2
MF Receiver Accumulated Maintenance Usage	23/3
MF Receiver Located Faults Peg Count	46/7
MF Receiver Maintenance Usage	1/0
MF Receiver Non-located Peg Count	46/7
MF Receiver Seizure Peg Count	1/0
MF Receiver Service Usage	1/0
MF Receiver Test Circuit Maintenance Busy Occupancy	35/0
MF Receiver Test Circuit Total Usage	35/1
MF Transmitter Accumulated Maintenance Usage	23/3
MF Transmitter Errors Final Trial Group Peg Count	36/4
MF Transmitter Located Faults Peg Count	46/7
MF Transmitter Maintenance Usage	0/2
MF Transmitter Non-located Peg Count	46/7
MF Transmitter Queue Entry Attempts Peg Count	0/0
MF Transmitter Queue Entry Failure Peg Count	0/0
MF Transmitter Queue Entry Failure Peg Count	11/5
MF Transmitter Queue Entry Time Usage	0/0
MF Transmitter Queue Overflow Peg Count	11/5
MF Transmitter Queue Seizure Peg Count	0/0
MF Transmitter Queue Usage	0/0
MF Transmitter Seizure Peg Count	0/2
MF Transmitter Service Usage	0/2
MF Transmitter Test Circuit Maintenance Busy Occupancy	35/0
MF Transmitter Test Circuit Total Usage	35/1
MF Transmitter Test Self-Check Fail Peg Count	35/1
Minor Alarms Peg Count	20/2
Miscellaneous call Irregularities Final Trial Failure Peg Count	36/7
Miscellaneous Connecting Ineffective Attempts Peg Count	11/4
Miscellaneous CR Seizure Peg Count	17/0
Miscellaneous Outgoing Ineffective Attempts Peg Count	11/4
Misrouted CAMA Peg Count	18/0
Misrouted Direct Signaling Messages Received Peg Count	49/4
Missed 3B Collections Peg Count	16/1
Monitor QIC Passed - Suspected Transmit Path Failure Restoral Peg Count	45/8
Multiple Scan Points Active Peg Count	25/16
MUP Accumulated Maintenance Usage	23/1
MUP BLM Counter	20/1
MUP Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
MUP Diagnostics Manually Requested Peg Count	46/0
MUP Diagnostics Program Requested - All Tests Passed Peg Count	46/0
MUP Diagnostics Program Requested Peg Count	46/0
MUP D-Level Counter	20/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MUP Errors Peg Count	46/0
MUP In-Range D-Level Counter	20/1
MUP Interject Counter	20/1
MUP Located Faults Peg Count	46/0
MUP Non-located Peg Count	46/0
MUP to Client In-Range Counter	20/1
MUP to Client Out-Of-Range Counter	20/1
MUP to CS In-Range Counter	20/1
MUP to CS Out-Of-Range Counter	20/1
MUP to PS In-Range Counter	20/1
MUP to PS Out-Of-Range Counter	20/1
NAI Denied After Answer Supervision Received Peg Count	49/3
NAI Denied Prior to Answer Peg Count	49/3
NAI Message Not Delivered Peg Count	49/3
NAI Query Attempt Peg Count	49/3
NAI Query Blocked Due To Switch Overload Peg Count	49/3
NAI Query Not Sent Due to ACG Control Peg Count	49/3
NAI Redirect Call Instruction Received	49/3
NAI, Switch Does Not Recognize Reply Code Peg Count	49/3
NAI, Switch Does Not Recognize TCAP Transaction ID Peg Count	49/3
NAI Thresholded Calls Answered Peg Count	49/4
NAI Thresholded Calls Not Answered Peg Count	49/4
NCLK Accumulated Maintenance Usage	23/2
NCLK Diagnostics Manually Requested - All Tests Passed Peg Count	46/6
NCLK Diagnostics Manually Requested Peg Count	46/6
NCLK Diagnostics Program Requested - All Tests Passed Peg Count	46/6
NCLK Diagnostics Program Requested Peg Count	46/6
NCLK Errors Peg Count	46/6
NCLK Located Faults Peg Count	46/6
NCLK Non-located Peg Count	46/6
NCLK Service Outage Usage	23/2
NCSU Accumulated Maintenance Usage	23/2
NCSU Alternate Frequency Offset Peg Count	5/6
NCSU Alternate Phase Errors Peg Count	5/6
NCSU Alternate Phase Hits Peg Count	5/6
NCSU Alternate Reference OOS Duration	5/6
NCSU Alternate Reference OOS Peg Count	5/6
NCSU Alternate Reference Outage Duration	5/6
NCSU Alternate Reference Outage Peg Count	5/6
NCSU Alternate Transmission Slips Peg Count	5/6
NCSU Diagnostics Manually Requested - All Tests Passed Peg Count	46/6
NCSU Diagnostics Manually Requested Peg Count	46/6
NCSU Diagnostics Program Requested - All Tests Passed Peg Count	46/6
NCSU Diagnostics Program Requested Peg Count	46/6
NCSU Errors Peg Count	46/6
NCSU Free Run Duration	5/6
NCSU Free Run Less Than 10 Minutes Peg Count	5/6

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
NCSU Free Run Peg Count	5/6
NCSU Located Faults Peg Count	46/6
NCSU Non-located Peg Count	46/6
NCSU Regular Frequency Offset Peg Count	5/6
NCSU Regular Phase Errors Peg Count	5/6
NCSU Regular Phase Hits Peg Count	5/6
NCSU Regular Reference OOS Duration	5/6
NCSU Regular Reference OOS Peg Count	5/6
NCSU Regular Reference Outage Duration	5/6
NCSU Regular Reference Outage Peg Count	5/6
NCSU Regular Transmission Slips Peg Count	5/6
NCSU Service Outage Usage	23/2
NCSU Total Fast Start Timeout Peg Count	5/6
NCSU Total Fast Starts Duration	5/6
NCSU Total Fast Starts Peg Count	5/6
NCSU Total Phase Hits Peg Count	5/6
NCSU Total Transfer to Alternate Duration	5/6
NCSU Total Transfer to Alternate Peg Count	5/6
Network Accumulated Maintenance Usage	23/0
Network Call Denial Blocked Queries From CCS Abnormal Replies Control Peg Count	49/0
Network Call Denial Blocked Queries From Congestion Peg Count	49/0
Network Call Denial Blocked Queries From Overload Peg Count	49/0
Network Call Denial Initial Query Peg Count	49/0
Network Call Denial Queries Returned Due to CCS Network Block Replies Peg Count	49/0
Network Call Denial Queries Returned Due to CCS Network Overload Replies	49/0
Network Call Denial Queries Returned Due to Miscellaneous Replies Peg Count	49/0
Network Call Denial Queries Returned Due to No Routing Data Peg Count	49/0
Network Call Denial Queries Returned Due to Overload Peg Count	49/0
Network Call Denial Replies With Deny Code After Answer Supervision Peg Count	49/0
Network Call Denial Replies With Deny Code Before Answer Supervision Peg Count	49/0
Network Call Denial Replies With Deny Codes Peg Count	49/0
Network Call Denial Replies With Invalid Data Peg Count	49/0
Network Management Blocked: Direct Signaling Control	49/0
Network Management Blocked: INWATS 10-digit Code Control	49/0
Network Management Blocked: INWATS 6-digit Code Control	49/0
Network Management Control Blocks Call Peg Count	49/1
Network Management Control Blocks Call Peg Count	49/2
Network Management Control Rollbacks Peg Count	21/2
Network Management Controls Invoked Peg Count	21/2
Network Path Hunt Failure Peg Count	4/0
Network Path Hunt Success Peg Count	4/0
Network Total Usage	4/0
No Auxiliary Call Register	49/0
No Circuit Intertoll Peg Count	11/1
No Circuit Private Branch Exchange Peg Count	11/1
No Circuit Single Trunk Customer Peg Count	11/1
No Circuit Toll Completing Peg Count	11/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
No Start Dial Final Trial Group Peg Count	36/4
No Trunks Hunted	9/1
Non-Call Associated Temporary Signaling Connection (TSC) Attempt	5/1
Non-Call Associated Temporary Signaling Connection (TSC) Successes	5/0
Non-Confirmed Transmit Path Failure Carrier Alarm Peg Count	45/8
Non-Load MAC Overload Control Peg Count	9/1
Non-Load No Overload Control Peg Count	9/1
Non-Load Segment Overload Control Peg Count	9/1
Normal Route Response Message Received Peg Count	49/1
Normal Route Response Message Received Peg Count	49/2
NSC Received on International Outbound Call Using CCIS Overflow Trunk Subgroup	15/2
NSCX Maintenance Usage	0/2
NSCX Overflow Peg Count	0/2
NSCX Seizure Peg Count	0/2
NSCX Service Usage	0/2
NSCX Set S Accumulated Maintenance Usage	23/3
NTC Received on International Outbound Call Using CCIS Overflow Trunk Subgroup	15/2
Number Of Recent Changes Activated Peg Count	21/1
ODA IPCC Message Queue Threshold Value in Effect	56/4
ODTMF Transmitter Queue Entry Failures	0/0
ODTMF Transmitter Queue Seizure Peg Count	0/0
ODTMF Transmitter Queue Usage	0/0
ODTMF Transmitter Queue Wait	0/0
ODTMFWK Outgoing Seizure Peg Count	5/1
OMR Overflow Peg Count	16/0
OMR Seizure Peg Count	16/0
OMR Usage	16/0
ONI Calls Peg Count	19/0
Operational Interject Data Unit Selector Peg Count	20/1
Operator Processed CAMA Calls Peg Count	19/0
Originating International Call Incoming From a Domestic Satellite	15/3
Originating INWATS Denied Peg Count	11/2
Other Errors - Continuity/Polarity Test Failures Peg Count	36/4
Other Errors - MF Transmitter Outpulsing Errors Peg Count	36/4
Other Errors - No XCVR, Final Trial Failure	36/4
Outbound Customer Dialed Call Peg Count	15/2
Outbound Customer Dialed Call, Voice Path Cancellation Peg Count	15/2
Outbound International Operator Peg Count	15/2
Outbound International Operator, Voice Path Cancellation Peg Count	15/2
Outbound International Teleconferencing Peg Count	15/2
Outbound International Teleconferencing, Voice Path Cancellation Peg Count	15/2
Outbound International Toll-Free Peg Count	15/2
Outbound International Toll-Free, Voice Path Cancellation Peg Count	15/2
Outgoing Address Complete Signal Timeout Peg Count	36/9
Outgoing Answer Signal Units Peg Count	14/0-255
Outgoing Attempts Peg Count	13/CIN
Outgoing Direct Signaling Signal Units Peg Count	14/0-255

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Outgoing Domestic CCIS Call Attempts	37/0
Outgoing Domestic DP Call Attempts	37/0
Outgoing Domestic ISUP Call Attempts	37/0
Outgoing Domestic MF Call Attempts	37/0
Outgoing Domestic Q.931 Call Attempts	37/0
Outgoing IAM Peg Count	14/0-255
Outgoing International CCITT No. 5 Call Attempts	37/1
Outgoing International CCITT No. 6 Call Attempts	37/1
Outgoing International INUP Call Attempts	37/1
Outgoing International ITUP Call Attempts	37/1
Outgoing Transitions Peg Count	14/0-255
Out-of-Chain Routed Calls Failed	11/3
Out-of-Chain Routed Calls Received	11/3
Out-Of-Service Blocking Received (CCIS Trunks) from Far End Office Peg Count	25/4
Out-Of-Service Carrier Group Alarm Peg Count	25/4
Out-Of-Service Continuity Check Retest Failure Peg Count	25/4
Out-Of-Service Equipment Failure, VIU, DTU, ESU Peg Count	25/4
Out-Of-Service Error Analysis Suspected Failure Peg Count	25/4
Out-Of-Service High and Wet Peg Count	25/4
Out-Of-Service Manual Request Peg Count	25/4
Out-Of-Service Operational Test Failure Peg Count	25/4
Out-Of-Service ROTL Request Peg Count	25/4
Out-Of-Service Total Signaling Failure Peg Count (CCIS trunk only)	25/4
Outpulsing Failures Peg Count	11/0
Output Message Failure Peg Count	16/0
Output Message Success Peg Count	16/0
OUTWATS Non-purchased NPA Peg Count	49/0
OUTWATS Originating Calls Peg Count	5/0
Overflow Peg Count	13/CIN
Partial Dial Abandon Peg Count	7/0
Partial Dial Timeout Peg Count	7/0
PBX Reorders Peg Count	11/4
PCP 1B to DLN Failure to Send Query Peg Count	57/0
PCP 1+SACDS Due to Invalid Service Code Received	57/0
PCP 1+SACDS Initial Attempt Failed in Receipt of Service Code	57/0
PCP BN(ANI) Query Attempt CNT for DC and SA LDS	57/0
PCP BN(ANI) Query Attempt CNT for SA WATS	57/0
PCP BN(ANI) Query Attempt Count for MEGACOM and DC WATS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for DC and SA LDS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for MEGACOM and DC WATS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for SA WATS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for LDS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for MEGACOM and DC WATS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for SA WATS	57/0
PCP Call Killed Due to DTMF Receiver Queue Overload Count	57/0
PCP Call Subjected to Excessive Delay Count (i.e., Wait on DTMF Receiver Queue >= 2 seconds)	57/0
PCP Calls with SAN Account Code Validation Successful	57/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
PCP CDS Attempts for Which Failure to Reseize Receiver Occurred	57/0
PCP DLN to 1B No Reply From DLN Peg Count	57/0
PCP DTMF Queue Abandon Peg Count	57/0
PCP DTMF Queue Accumulated Occupancy Count	57/0
PCP DTMF Queue Seizure Peg Count	57/0
PCP FAX ID Calls Identified as Using FAX FPR	57/0
PCP FAX S&F Attempts for Which Failure to Seize Receiver Occurs	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for LDS	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for MEGACOM and DC WATS	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for SA WATS	57/0
PCP FAX S&F DTMF Receiver Timeout in Wait for ANS State	57/0
PCP FAX S&F Initial Attempt Fail in Receipt of Service Code	57/0
PCP FAX S&F Successfully Attempted Routing to a FAX S&F Node	57/0
PCP Handled Customer Specific Recording Successfully for LDS	57/0
PCP Handled Customer Specific Recording Successfully for MEGACOM and DC WATS	57/0
PCP Handled Customer Specific Recording Successfully for SA WATS	57/0
PCP Handled Dedicated FAX ID Successfully for LDS	57/0
PCP Handled Dedicated FAX ID Successfully for MEGACOM and DC WATS	57/0
PCP Handled Dedicated FAX ID Successfully for SA WATS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for LDS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for MEGACOM and DC WATS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for SA WATS	57/0
PCP MUVF CTI Collected Successfully for LDS	57/0
PCP MUVF CTI Collected Successfully for MEGACOM and DC WATS	57/0
PCP MUVF CTI Collected Successfully for SA WATS	57/0
PCP MUVF Initial Attempt Failed in Receipt of CTI	57/0
PCP Receiver Holding Time in Sec for 1+SACDS	57/0
PCP Receiver Holding Time in Sec for FAX S&F	57/0
PCP Receiver Holding Time in Sec for MUVF	57/0
PCP Receiver Holding Time in Sec for SAN	57/0
PCP SAB Call Denied Due to Improper Collection for LDS	57/0
PCP SAB Call Denied Due to Improper Collection for MEGACOM and DC WATS	57/0
PCP SAB Call Denied Due to Improper Collection for SA WATS	57/0
PCP SAB Calls Allowed to Complete with No SAN Received	57/0
PCP SAB Calls Allowed to Complete with SAN Received and it was Mandatory	57/0
PCP SAB Calls Allowed to Complete with SAN Received and it was Optional	57/0
PCP SAN Denied - none entered and was mandatory	57/0
PCP SAN No Data in DLN Peg Count	57/0
PCP SAN Validation Success Peg Count	57/0
PCP Subaccount Number Collected Successfully for LDS	57/0
PCP Subaccount Number Collected Successfully for MEGACOM and DC WATS	57/0
PCP Subaccount Number Collected Successfully for SA WATS	57/0
PCP Subaccount Number Initial Attempt Failed Count	57/0
PCP TOTAL 1+SACDS Attempts to Seize a Receiver	57/0
PCP TOTAL 1+SACDS Successfully Attempted Routing to VMOC	57/0
PCP Total MUVF Calls Identified as Being FAX	57/0
PCP Total SAN Account Code Verification Failures	57/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
PCP Using 2NCP/NSCX Peg Count	57/0
PDF Accumulated Maintenance Usage	23/1
PDF Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
PDF Diagnostics Manually Requested Peg Count	46/0
PDF Diagnostics Program Requested - All Tests Passed Peg Count	46/0
PDF Diagnostics Program Requested Peg Count	46/0
PDF Errors Peg Count	46/0
PDF Located Faults Peg Count	46/0
PDF Non-located Peg Count	46/0
Permanent Signal Timeout Peg Count	7/0
Persisting Proceed-To-Send Signal Peg Count	25/16
Persisting Release Guard Signal Peg Count	25/16
Phase 1 Manually Initiated Peg Count	21/0
Phase 1 Program Initiated Peg Count	21/0
Phase 2 Manually Initiated Peg Count	21/0
Phase 2 Program Initiated Peg Count	21/0
Phase 3 Manually Initiated Peg Count	21/0
Phase 3 Program Initiated Peg Count	21/0
Phase 4 Manually Initiated Peg Count	21/0
Phase Level Duration Count	21/0
Play Announcement Message from SCP Peg Count	49/0
Play Announcement Message from the SCP Peg Count	49/1
Play Announcement Message from the SCP Peg Count	49/2
Power Room Major Alarms Peg Count	20/2
Power Room Minor Alarms Peg Count	20/2
Preferred Call Attempts Peg Count	13/CIN
Proceed-To-Send Signal Timeout Peg Count	25/16
Processor Accumulated Maintenance Usage	23/0
PS Accumulated Maintenance Usage	23/1
PS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
PS Diagnostics Manually Requested Peg Count	46/0
PS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
PS Diagnostics Program Requested Peg Count	46/0
PS Errors Peg Count	46/0
PS Located Faults Peg Count	46/0
PS Non-located Peg Count	46/0
PSB Accumulated Maintenance Usage	23/1
PSB Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
PSB Diagnostics Manually Requested Peg Count	46/3
PSB Diagnostics Program Requested - All Tests Passed Peg Count	46/3
PSB Diagnostics Program Requested Peg Count	46/3
PSB Errors Peg Count	46/3
PSB Located Faults Peg Count	46/3
PSB Non-located Peg Count	46/3
Pseudo Country Code No Good Peg Count	5/5
PUB Accumulated Maintenance Usage	23/1
PUB Diagnostics Manually Requested - All Tests Passed Peg Count	46/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
PUB Diagnostics Manually Requested Peg Count	46/3
PUB Diagnostics Program Requested - All Tests Passed Peg Count	46/3
PUB Diagnostics Program Requested Peg Count	46/3
PUB Errors Peg Count	46/3
PUB Located Faults Peg Count	46/3
PUB Non-located Peg Count	46/3
Q.931 Channel Negotiation (CN) Failures On Originating TSG	49/0
Q.931 Channel Negotiation (CN) Request Failures From Other TSG	49/0
Q.931 Channel Negotiation (CN) Request Failures To Another TSG	49/0
Q.931 Channel Negotiation (CN) Requests From Other TSG	49/0
Q.931 Channel Negotiation (CN) Requests on Original TSG	49/0
Q.931 Channel Negotiation (CN) Requests to Another TSG	49/0
Q.931 Channel Negotiation Setup	5/1
Q.931 Confusion Received Peg Count	45/0
Q.931 Confusion Transmitted Peg Count	45/0
Q.931 Continuity/Polarity Test Failure Peg Count	25/3
Q.931 Control Area False Start Abandon Peg Count	25/1
Q.931 Control Area Partial Dial Abandon Peg Count	25/1
Q.931 Control Area Partial Dial Timeout Peg Count	25/1
Q.931 Control Area Permanent Signal Timeout Peg Count	25/1
Q.931 Control Area Summation False Start Abandon Peg Count	36/1
Q.931 Control Area Summation Miscellaneous Abandon Peg Count	36/4
Q.931 Control Area Summation Partial Dial Abandon Peg Count	36/2
Q.931 Control Area Summation Partial Dial Timeout Peg Count	36/2
Q.931 Control Area Summation Permanent Signal Timeout Peg Count	36/1
Q.931 Control Area Summation Pulsing Error Peg Count	36/2
Q.931 CR Seizure Peg Count	17/0
Q.931 Glare Condition - 4ESS Switch in Control Peg Count	25/3
Q.931 Glare Condition - Far End in Control Peg Count	25/3
Q.931 Incoming Attempts Peg Count	25/5
Q.931 Incoming CNI Ring Buffer Overflow Peg Count	45/0
Q.931 Incoming CNI Ring Failure Peg Count	45/0
Q.931 Incoming Seizures	5/1
Q.931 Incomplete Address Detected Peg Count	36/0
Q.931 Information Element Error Detected Peg Count	36/0
Q.931 Integrity Check Failure Peg Count	25/3
Q.931 Maintenance Usage	25/5
Q.931 Miscellaneous Abandon Peg Count	25/2
Q.931 Miscellaneous Ineffective Attempts Peg Count	11/4
Q.931 No Start Dial Peg Count	25/3
Q.931 Origination CR Queue Abandon Peg Count	17/0
Q.931 Origination CR Queue Overflow Peg Count	17/0
Q.931 Origination CR Queue Seizure Peg Count	17/0
Q.931 Origination CR Queue Usage	17/0
Q.931 Other Abandons Peg Count	11/4
Q.931 Outgoing Attempts Peg Count	25/5
Q.931 Outgoing CNI Ring Failure Peg Count	45/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Q.931 Outgoing CNI Ring Overflow Peg Count	45/0
Q.931 Outgoing Seizures	5/1
Q.931 Pulsing Error Peg Count	25/1
Q.931 Resets Received Peg Count	45/0
Q.931 Switching Cutoffs Peg Count	11/4
Q.931 Total Office False Start Abandon Peg Count	7/0
Q.931 Total Office Partial Dial Abandon Peg Count	7/0
Q.931 Total Office Partial Dial Timeout Peg Count	7/0
Q.931 Total Office Permanent Signal Timeout Peg Count	7/0
Q.931 Unexpected Stop Peg Count	25/3
Q.931 Unexpected Stop Timeout Peg Count	25/3
Q.931 Unreasonable Signal Received Peg Count	36/0
Quick Integrity Check Routine Operational Tests Attempted Peg Count	25/9
Quick Integrity Check Routine Operational Tests Failed Peg Count	25/9
Quick Integrity Check Routine Operational Tests Passed Peg Count	25/9
Real-Time Overload Retry Cancel Peg Count	36/4
Received Repeated ACU Peg Count	14/0-255
Received Skipped ACU Peg Count	14/0-255
Recorded Announcement Machine Located Faults Peg Count	35/1
Recorded Announcement Machine Maintenance Busy Occupancy	35/0
Recorded Announcement Machine Non-located Faults Peg Count	35/1
Registers From Attendant Peg Count	56/0-2
Reject Message Returned from SCP Peg Count	49/0
Release-Guard Signal Timeout Peg Count	25/16
Remote Office Test Line Maintenance Busy Occupancy	35/0
Remote Office Test Line Seizure Attempts Peg Count	35/1
Remote Office Test Line Seizure Overflow Peg Count	35/1
Remote Office Test Line Self-Check Fail Peg Count	35/1
Remote Office Test Line Total Usage	35/1
Reroute To Seizure Peg Count	13/CIN
Resource Unavailable After Initial Query Peg Count	49/1
Resource Unavailable After Initial Query Peg Count	49/2
Resource Unavailable Before Initial Query Peg Count	49/1
Resource Unavailable Before Initial Query Peg Count	49/2
Response from SCP After Query Timer Timeout Peg Count	49/0
Retest QIC Failed - Non-Confirmed Transmit Path Failure Restoral Peg Count	45/8
Return Error or Reject Message Peg Count	49/1
Return Error or Reject Message Peg Count	49/2
Return Error Returned from SCP Peg Count	49/0
Ringing and Tone Plant Located Faults Peg Counts	35/1
Ringing and Tone Plant Maintenance Busy Occupancy	35/0
Ringing and Tone Plant Non-located Faults Peg Count	35/1
Route Selection Index Screening Failure Peg Count	11/2
Routing Data Error	11/4
RTNR Egress Busy Crankback Received Peg Count	45/0
RTNR Egress Busy Crankbacks Sent Peg Count	45/0
RTNR Queries Received Peg Count	45/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
RTNR Queries Sent Peg Count	45/0
SCLK Accumulated Maintenance Usage	23/2
SCLK Diagnostics Manually Requested - All Tests Passed Peg Count	46/6
SCLK Diagnostics Manually Requested Peg Count	46/6
SCLK Diagnostics Program Requested - All Tests Passed Peg Count	46/6
SCLK Diagnostics Program Requested Peg Count	46/6
SCLK Errors Peg Count	46/6
SCLK Located Faults Peg Count	46/6
SCLK Non-located Peg Count	46/6
SCLK Service Outage Usage	23/2
SCP Overload Blocked BOC-SSP Calls Peg Count	49/0
SCS Accumulated Maintenance Usage	24/1
SCS Accumulated Outage	24/1
SCS Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
SCS Diagnostics Manually Requested Peg Count	24/2
SCS Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SCS Diagnostics Program Requested Peg Count	24/2
SCS Errors Peg Count	24/2
SCS Located Faults Peg Count	24/2
SCS Non-located Faults Peg Count	24/2
SCSB Maintenance Usage	0/2
SCSB Overflow Peg Count	0/2
SCSB Seizure Peg Count	0/2
SCSB Service Usage	0/2
SCU Accumulated Maintenance Usage	24/1
SCU Accumulated Outage	24/1
SCU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
SCU Diagnostics Manually Requested Peg Count	24/2
SCU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SCU Diagnostics Program Requested Peg Count	24/2
SCU Errors Peg Count	24/2
SCU Located Faults Peg Count	24/2
SCU Non-located Faults Peg Count	24/2
Second Stage Equal Access Failure Peg Count	15/0
Second Stage International Attempts	15/0
Second Stage International Vacant Codes	15/0
Second Stage MF Receiver Queue Abandon Peg Count	17/1
Second Stage MF Receiver Queue Seizure Peg Count	17/1
Second Stage MF Receiver Queue Usage	17/1
Seizing Signal Timeout Final Trial Failure Peg Count	36/8
Seizing Signal Timeout Peg Count	25/16
Selective Dynamic Overload Control Blocked Peg Count	11/3
Selective Dynamic Overload Control Canceled Peg Count	11/3
Selective Dynamic Overload Control Skipped Peg Count	11/3
Selective Incoming Load Control Peg Count	21/2
Selective Incoming Load Control	13/CIN
Selective Trunk Reservation Canceled Peg Count	11/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Selective Trunk Reservation Control Blocked Peg Count	11/3
Selective Trunk Reservation Skipped Peg Count	11/3
Serial-Triggering Limit Overflow Peg Count	49/1
Serial-Triggering Limit Overflow Peg Count	49/2
Service Circuits Accumulated Maintenance Usage	23/0
Service Observing Network Usage	4/1
Service Observing Trunk A Seizure Peg Count	5/7
Service Observing Trunk A Usage	5/7
Set A on ISAIC Accumulated Maintenance Usage	23/3
Set B on SCS Accumulated Maintenance Usage	23/3
Set C on ISAIC Accumulated Maintenance Usage	23/3
Set D on ISAIC Accumulated Maintenance Usage	23/3
Set E on ISAIC Accumulated Maintenance Usage	23/3
Set F on ISAIC Accumulated Maintenance Usage	23/3
Set G on ISAIC Accumulated Maintenance Usage	23/3
SETA Maintenance Usage	0/2
SETA Overflow Peg Count	0/2
SETA Seizure Peg Count	0/2
SETA Service Usage	0/2
SETC Maintenance Usage	0/2
SETC Overflow Peg Count	0/2
SETC Seizure Peg Count	0/2
SETC Service Usage	0/2
SETD Maintenance Usage	0/2
SETD Overflow Peg Count	0/2
SETD Seizure Peg Count	0/2
SETD Service Usage	0/2
SETE Maintenance Usage	0/2
SETE Overflow Peg Count	0/2
SETE Seizure Peg Count	0/2
SETE Service Usage	0/2
SETF Maintenance Usage	0/2
SETF Overflow Peg Count	0/2
SETF Seizure Peg Count	0/2
SETF Service Usage	0/2
SETG Maintenance Usage	0/2
SETG Overflow Peg Count	0/2
SETG Seizure Peg Count	0/2
SETG Service Usage	0/2
Signaling Failure - Time-out at SSP Peg Count	49/1
Signaling Failure - Time-out at SSP Peg Count	49/2
Signaling Network Final Trial Failures Peg Count	36/7
SMS Blocked BOC-SSP Call Peg Count	49/0
Software CGA Initial Tests Failure Peg Count	45/1
Software CGA Initial Tests Pass Peg Count	45/1
Software CGA Monitor Tests Pass Peg Count	45/1
Software CGA Restoral Tests Failure Peg Count	45/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Software CGA Restoral Tests Pass Peg Count	45/1
SP Accumulated Maintenance Usage	24/1
SP Accumulated Outage	24/1
SP Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
SP Diagnostics Manually Requested Peg Count	24/2
SP Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SP Diagnostics Program Requested Peg Count	24/2
SP Errors Peg Count	24/2
SP Located Faults Peg Count	24/2
SP Non-located Faults Peg Count	24/2
Spare 6 Peg Count	56/4
Spare 7 Peg Count	56/4
Spare 8 Peg Count	56/4
SPC Number	12/0
Spray Reroute Attempts	13/CIN
Spray Reroute Calls Received	13/CIN
Spray Reroute Failures	13/CIN
SSD Accumulated Maintenance Usage	23/1
SSD Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
SSD Diagnostics Manually Requested Peg Count	46/0
SSD Diagnostics Program Requested - All Tests Passed Peg Count	46/0
SSD Diagnostics Program Requested Peg Count	46/0
SSD D-Level Counter	20/1
SSD Errors Peg Count	46/0
SSD In-Range D-Level Counter	20/1
SSD Located Faults Peg Count	46/0
SSD Non-located Peg Count	46/0
SSD to Client In-Range Counter	20/1
SSD to Client Out-Of-Range Counter	20/1
Stable Calls Lost, Carrier Group Failure Peg Count	5/3
Stable Calls Lost Due to a Phase Peg Count	36/6
Stable Calls Lost Due to D3U Peg Count	36/6
Stable Calls Lost Due to DIU Peg Count	36/6
Stable Calls Lost Due to DTU Peg Count	36/6
Stable Calls Lost Due to ESU Peg Count	36/6
Stable Calls Lost Due to SCS Peg Count	36/6
Stable Calls Lost Due to VIU Peg Count	36/6
Start of Pulsing Timeout Peg Count	25/16
Status Failure Attached Processor Peg Count	20/1
Step by Step Test Routine Operational Tests Attempted Peg Count	25/9
Step by Step Test Routine Operational Tests Failed Peg Count	25/9
Step by Step Test Routine Operational Tests Passed Peg Count	25/9
Successful INWATS Replies Peg Count	49/0
Synchronous Test Routine Operational Tests Attempted Peg Count	25/9
Synchronous Test Routine Operational Tests Failed Peg Count	25/9
Synchronous Test Routine Operational Tests Passed Peg Count	25/9
TELEVOTE CCIS Direct Signaling Counts Not Updated	5/9

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
TER Accumulated Maintenance Usage	23/2
TER Service Outage Usage	23/2
Terminal Equipment Accumulated Maintenance Usage	24/0
Terminal Maintenance Occupancy	14/0-255
Terminal Pair Outage	14/0-255
Terminal Type Identifier	14/0-255
Termination Notification Messages Lost Peg Count	49/4
Termination Notification Requests Received Peg Count	49/1
Termination Notification Requests Received Peg Count	49/2
Termination Notification Response Peg Count	49/4
Test Access Circuit Origination Peg Count	25/10
TGR Accumulated Maintenance Usage	23/2
TGR Service Outage Usage	23/2
Threshold Exceeded Peg Counts	14/0-255
Threshold Exceeded Time in Seconds	14/0-255
Timeout Peg Count	25/16
Timeout Waiting for SCP Response Peg Count	49/0
Timeouts Peg Count	56/0-2
TMS Accumulated Maintenance Usage	23/2
TMS Service Outage Usage	23/2
TMSP Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
TMSP Diagnostics Manually Requested Peg Count	46/4
TMSP Diagnostics Program Requested - All Tests Passed Peg Count	46/4
TMSP Diagnostics Program Requested Peg Count	46/4
TMSP Errors Peg Count	46/4
TMSP Located Faults Peg Count	46/4
TMSP Non-located Peg Count	46/4
Tollfree Termination Notification Response Peg Count	49/4
Total Attempts That Overflow to Terminating Test Line 100	25/8
Total Attempts That Overflow to Terminating Test Line 102	25/8
Total Attempts That Overflow to Terminating Test Line 103	25/8
Total Attempts That Overflow to Terminating Test Line 104	25/8
Total Attempts That Overflow to Terminating Test Line 105	25/8
Total Attempts That Overflow to Terminating Test Line 106	25/8
Total Attempts That Overflow to Terminating Test Line 107	25/8
Total Attempts That Overflow to Terminating Test Line 108	25/8
Total Attempts That Overflow to Terminating Test Line 109	25/8
Total Attempts That Overflow to Terminating Test Line 110	25/8
Total Attempts That Overflow to Terminating Test Line DATA	25/8
Total Attempts That Overflow to Terminating Test Line SYNCHRONOUS	25/8
Total Attempts to PAS Announcements	5/8
Total Attempts to Terminating Test Line 100	25/8
Total Attempts to Terminating Test Line 102	25/8
Total Attempts to Terminating Test Line 103	25/8
Total Attempts to Terminating Test Line 104	25/8
Total Attempts to Terminating Test Line 105	25/8
Total Attempts to Terminating Test Line 106	25/8

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Total Attempts to Terminating Test Line 107	25/8
Total Attempts to Terminating Test Line 108	25/8
Total Attempts to Terminating Test Line 109	25/8
Total Attempts to Terminating Test Line 110	25/8
Total Attempts to Terminating Test Line DATA	25/8
Total Attempts to Terminating Test Line SYNCHRONOUS	25/8
Total CAMA Calls Peg Count	19/0
Total CAMA Positions Seizure Peg Count	19/0
Total CAMA Positions Service Usage	19/0
Total Demand Audits Completed Peg Count	22/0
Total Demand Audits Errors Found Peg Count	22/1
Total Final Handled Calls Peg Count	56/0-2
Total Incoming Calls Peg Count	5/0
Total Incoming Completed AIN Calls Peg Count	49/1
Total Incoming Completed AIN Calls Peg Count	49/2
Total Incoming Data Filled Signal Units Peg Count	14/0-255
Total Incoming Messages Peg Count	14/0-255
Total Ineffective Machine Attempts Peg Count	25/0
Total INWATS Calls Reaching CCIS OSO Peg Count	49/0
Total Number of Bad Packets Received Peg Count	56/4
Total Number of Errored Commands Peg Count	56/4
Total Number of Framing and Overrun Errors Peg Count	56/4
Total Number of Good Packets Received Peg Count	56/4
Total Number of Inter-Gateway CRC Errors Peg Count	56/4
Total Number of Lost Messages Peg Count	56/4
Total Number of Messages Not Sent Between Gateways Peg Count	56/4
Total Number of Orders Peg Count	56/4
Total Number of Orders with Start of Call Indicator Set Peg Count	56/4
Total Number of Packets with CRC Errors Peg Count	56/4
Total Number of Register Messages Failed to be Sent Peg Count	56/4
Total Number of Register Messages Not Sent due to Congestion Peg Count	56/4
Total Number of Register Messages Peg Count	56/4
Total Number of Register Messages That Did Not Receive a Release Complete Peg Count	56/4
Total Number of SADC Port Errors Peg Count	56/4
Total Number of Test Orders Sent Peg Count	56/4
Total Number of Times That Message Queue Overflowed Peg Count	56/4
Total Number of Times the Secondary Gateway was Used Peg Count	56/4
Total Number of TNR Operational Orders for Start of Call Peg Count	56/5
Total Number of TNR Orders Peg Count	56/5
Total Number of Unacknowledged Register Messages Peg Count	56/4
Total Number of USEC CRC Errors Peg Count	56/4
Total of Multiple A-Level Interrupts Peg Count	20/0
Total of Multiple B-Level Interrupts Peg Count	20/0
Total of Multiple C-Level Interrupts Peg Count	20/0
Total of Multiple D-Level Interrupts Peg Count	20/0
Total of Multiple E-Level Interrupts Peg Count	20/0
Total of Single A-Level Interrupts Peg Count	20/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Total of Single B-Level Interrupts Peg Count	20/0
Total of Single C-Level Interrupts Peg Count	20/0
Total of Single D-Level Interrupts Peg Count	20/0
Total of Single E-Level Interrupts Peg Count	20/0
Total of Single F-Level Interrupts Peg Count	20/0
Total of Single K-Level Interrupts Peg Count	20/0
Total Office Pulsing Error Peg Count	11/0
Total Outgoing Data Filled Signal Units Peg Count	14/0-255
Total Outgoing Intertoll Trunk Seizure Peg Count	5/0
Total Outgoing Messages Peg Count	14/0-255
Total Outgoing Toll Completing Trunk Seizure Peg Count	5/0
Total Routine Audits Completed Peg Count	22/0
Total Routine Audits Errors Found Peg Count	22/1
Total Terminating Toll Switch Calls	5/0
Total Test Access Circuit Usage	25/10
Total Type 2 Rollbacks Peg Count	21/1
Total Usage Measurement	13/CIN
Total Via Toll Switch Calls	5/0
Traffic Separation Class Seizure Peg Count	10/0-1023
Traffic Separation Class Usage	10/0-1023
Transaction ID in SCP Response Was Invalid Peg Count	49/0
Transient Calls Lost Due to a Phase Peg Count	36/6
Transient Calls Lost Due to D3U Peg Count	36/6
Transient Calls Lost Due to DIU Peg Count	36/6
Transient Calls Lost Due to DTU Peg Count	36/6
Transient Calls Lost Due to ESU Peg Count	36/6
Transient Calls Lost Due to IBU Peg Count	36/6
Transient Calls Lost Due to SCS Peg Count	36/6
Transient Calls Lost Due to VIU Peg Count	36/6
Transmitter Error Final Trial Failure Peg Count	36/8
Transmitter Error Peg Count	25/16
Trunk Error Analysis Long Term Table Overflow For Signal Processor Peg Count	43/0-31
Trunk Error Analysis Report Buffer Overflow Peg Count	44/0
Trunk Error Analysis Second Stage Filter Overflow For Signal Processor Peg Count	42/0-31
Trunk Maintenance Register Overflow Peg Count	17/3
Trunk Maintenance Register Seizure Attempts Peg Count	35/3
Trunk Maintenance Register Seizure Overflow Peg Count	35/3
Trunk Maintenance Register Seizure Peg Count	17/3
Trunk Maintenance Register Usage	17/3
Trunk Maintenance Usage	25/0
Trunks Blocked Due To Far End Equipment Problems Peg Count	45/2
TSG Access Restriction Peg Count	11/3
TSI Accumulated Maintenance Usage	23/2
TSI Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
TSI Diagnostics Manually Requested Peg Count	46/4
TSI Diagnostics Program Requested - All Tests Passed Peg Count	46/4
TSI Diagnostics Program Requested Peg Count	46/4

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
TSI Errors Peg Count	46/4
TSI Located Faults Peg Count	46/4
TSI Non-located Peg Count	46/4
TSI Number	12/0
TSI Service Outage Usage	23/2
TSI Usage Measurement	12/0
TUC Accumulated Maintenance Usage	23/1
TUC Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
TUC Diagnostics Manually Requested Peg Count	46/0
TUC Diagnostics Program Requested - All Tests Passed Peg Count	46/0
TUC Diagnostics Program Requested Peg Count	46/0
TUC Errors Peg Count	46/0
TUC Located Faults Peg Count	46/0
TUC Non-located Peg Count	46/0
TVOFF Messages Sent During Throttling, Not Due to Unknown Peg Count	56/4
TVOFF Messages Throttled Following TVOFF Peg Count	56/4
TVON Messages Sent During Throttling, Not Due to Unknown Peg Count	56/4
TVON Messages Throttled Following TVOFF Peg Count	56/4
TVON Messages Throttled Following TVON Peg Count	56/4
TVON/TVOFF/64C Messages Sent During Throttling Due to Unknown Peg Count	56/4
Two Stage EA Pulsing Errors	15/4
Two Stage MF Permanent Signal Timeout	15/4
Two Stage MF Receiver Not Found	15/4
Two Stage Partial Dial Timeout	15/4
Two Stage Permanent Signal Timeout	15/4
Two Stage Pulsing Errors	15/4
Two Stage VSS MF Receiver Not Found	15/4
Two Stage VSS Pulsing Errors	15/4
Unauthorized CAMA Peg Count	18/0
Unblocking Acknowledgement Timeout Peg Count	25/17
Undetermined Call ID in a Response from the SCP Which Contained Protocol Errors Peg Count	49/0
Unexpected Stop Failures Final Trial Group Peg Count	36/4
Unit Data Service Messages Returned by STP Peg Count	49/0
Unreasonable Signal Final Trial Failure Peg Count	36/8
Unreasonable Signal on an Idle CCITT No. 6 Trunk Peg Count	25/16
Unreasonable Signal on the Incoming Trunk Peg Count	25/16
Unreasonable Signal on the Outgoing Trunk Peg Count	25/16
Unreasonable Signal Peg Count	25/16
USEC Frame Suspend Event Peg Count	56/4
Vacant Code Announcement Peg Count	11/2
Vacant Code Announcement Private Branch Exchange Peg Count	11/2
Vacant Code Announcement Q.931 Peg Count	11/2
Vacant Code/Non-Purchased NPA BOC-SSP Calls Blocked Due To Excess Calling Peg Count	49/0
Vendor Rejection Peg Count	56/0-2
VFL-1 Far-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-1 Near-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-1 Quarter Hour in Service Peg Count	14/0-255

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
VFL-1 Retransmission Requests Peg Count	14/0-255
VFL-1 Signal Units in Error Peg Count	14/0-255
VFL-2 Far-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-2 Near-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-2 Quarter Hour in Service Peg Count	14/0-255
VFL-2 Retransmission Requests Peg Count	14/0-255
VFL-2 Signal Units in Error Peg Count	14/0-255
VIC Accumulated Maintenance Usage	24/1
VIC Accumulated Outage	24/1
VIC Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
VIC Diagnostics Manually Requested Peg Count	24/2
VIC Diagnostics Program Requested - All Tests Passed Peg Count	24/2
VIC Diagnostics Program Requested Peg Count	24/2
VIC Errors Peg Count	24/2
VIC Located Faults Peg Count	24/2
VIC Non-located Faults Peg Count	24/2
VIU Accumulated Maintenance Usage	24/1
VIU Accumulated Outage	24/1
VIU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
VIU Diagnostics Manually Requested Peg Count	24/2
VIU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
VIU Diagnostics Program Requested Peg Count	24/2
VIU Errors Peg Count	24/2
VIU Located Faults Peg Count	24/2
VIU Non-located Faults Peg Count	24/2
Voice Path Assurance (VPA) Test Attempted Peg Count	25/6
Voice Path Assurance (VPA) Test Completed Peg Count	25/6
Voice Path Assurance (VPA) Test Failure Peg Count	25/6
Waiting-for-Answer Call Failure Peg Count	36/9
Waiting-for-Answer Timeout Peg Count	36/9
XPWR Accumulated Maintenance Usage	23/1
XPWR Diagnostics Manually Requested - All Tests Passed Peg Count	46/1
XPWR Diagnostics Manually Requested Peg Count	46/1
XPWR Diagnostics Program Requested - All Tests Passed Peg Count	46/1
XPWR Diagnostics Program Requested Peg Count	46/1
XPWR Errors Peg Count	46/1
XPWR Located Faults Peg Count	46/1
XPWR Non-located Peg Count	46/1

GENERAL DESCRIPTION
4ESS SWITCH TRAFFIC/PLANT MEASUREMENTS
4E17 GENERIC PROGRAM

1. INTRODUCTION

1.01 The 4ESS Switch traffic/plant measurement system is concerned with measuring the effects of the telephone traffic presented to the switching system and the effects of the maintenance condition of the system as they effect service provided to the customer. These measurements are used by engineering to verify that existing equipage is adequate for present needs and to predict future needs. These measurements are also used by Network Management to determine the control actions necessary to efficiently utilize the nationwide network and to evaluate the effects of the various control strategies. Finally, these measurements are used to locate equipment irregularities and evaluate the effectiveness of the office's maintenance procedures as compared to other toll switching systems.

1.02 This section is primarily intended to define the counts and measurements provided by the traffic/plant measurement system. Each Measurement Subclass (MSC) and all Output Measurement Sets (OMS) associated with the MSC are defined and tabled for easy reference.

2. TERMS and DEFINITIONS

2.01 The basic terms used with the 4ESS Switch traffic/plant measurement system are described in the following paragraphs.

2.02 Count - A count is the instantaneous value of a counter which is available for change by the main information processing programs of the switch. (For example, the contents of the outgoing Peg Count register for a specific Trunk Subgroup).

2.03 Measurement - a measurement is a function of a count that is obtained from the switch. An example would be the total usage measurement for one hour on a specified Trunk Subgroup. The function may be a count accumulated over a prescribed time interval or an arithmetic combination of several counts accumulated over a prescribed time interval.

2.04 Peg Count - A Peg Count is the count of the number of times a given event occurs.

2.05 Peg Counter - A Peg Counter is a register to which the number one is added each time a given event occurs.

2.06 Occupancy Count - An occupancy count is the count of the number of devices of a specified class that are busy (in service - in use - occupied) at any particular instant of time.

2.07 Occupancy Counter - An occupancy counter is the register to which the number 1 is added each time a device of a specified class is made busy, and from which the number 1 is subtracted each time a device of the same specified class is made idle. This counter reflects the occupancy count of the device group.

2.08 Idle Count - An idle count is the count of the number of devices of a specified class that are available for use at any particular instant of time. The idle count of a device group subtracted from the total number of devices in the group is the occupancy count of the group.

2.09 Idle Counter - An idle counter is a register from which the number 1 is subtracted each time a device of a specified class is made busy and to which the number 1 is added each time a device of the same class is made idle. This counter reflects the idle count of the device group.

2.10 Seizure and Release Peg Counters - The seizure Peg Counter is incremented by one each time a device of a specified class is seized for a service function. The release Peg Counter is incremented by one each time a device of the same specified class is made idle. Seizure and release Peg Counters are used to maintain the occupancy count of a device group. The release Peg Count of a device group subtracted from the seizure Peg Count of the same device group equals the occupancy count of that device group.

2.11 Peg Count Measurement - A Peg Count measurement is the Peg Count accumulated over a known time interval.

2.12 Usage Measurement - A usage measurement is the total accumulated time the devices of a specified class have been in services (in use-busy) during a prescribed time interval. Scan intervals for usage measurements are 10, 100 or 180 seconds, and usage is output in CCS.

2.13 CCS - 100 Call Seconds - This is the standard measurement unit for usage measurements in the 4ESS Switch. For example, five trunks busy for 30 minutes (1800 seconds) would be equal to a total usage of 9000 seconds or 90 CCS.

2.14 Accumulating Registers - This register has the contents of a counter added to it periodically to form a cumulative total over a prescribed interval of time.

2.15 Holding Registers - Measurements are stored in holding registers for fixed time periods. Extended interval accumulation and/or outputting of the measurement occurs from these registers.

2.16 Extended Interval Accumulating Registers - The contents of a set of holding registers is summed in this register periodically to form a cumulative total of a measurement over an extended interval of time.

3. THE TRAFFIC/PLANT PROGRAM

3.01 The traffic/plant program routines can be divided into two classes, measuring routines and data collection routines. The measuring routines generate the data from which the various measurements will be obtained. Data collection routines process this data into the measurements required by the users. The basic time interval that these two classes of routines use to perform their tasks is 15 minutes (900 seconds). This is the smallest measuring interval available to the users.

The measuring routines are actively obtaining data on the traffic presented to the 4ESS Switch and the equipment in the office during a 15 minute interval. This activity is called the measuring phase of the traffic/plant program's execution. During the next 15 minute interval, the data collection routines process the data obtained during the previous interval into measurements and prepares them for output. This activity is the collection phase of the traffic/plant program's execution. In order to insure that all data presented to the 4ESS Switch is measured, measuring routines for the present interval and collection routines for the previous interval must execute concurrently.

3.02 Measuring Routines - Practically all of the 4ESS Switch programs must, at some time, adjust Peg Counters, occupancy counters and idle counters. These programs are classified as measuring routines. It is not economical to time the busy period of each device requiring usage measurements. The usage is estimated by periodically sampling the occupancy counter or idle counter of the device group, and compiling this count in an accumulating register (during the measuring interval).

This produces an estimate of the actual usage because the measurements obtained assume that the average number of devices that are busy at each sampling is equal to the actual average number busy.

The accuracy of this usage estimate is dependent upon the scanning interval, the size of the device group, the average holding time of the devices in the group, and the traffic offered to the group. Since these characteristics vary widely among the devices requiring usage measurements in the 4ESS Switch, and because there are different accuracy requirements for the devices, two scanning intervals have been provided. These intervals are 10 seconds and 180 seconds. They have been chosen to provide the accuracy required while remaining compatible with the rest of the traffic/plant measurement system.

In addition to usage, it is necessary to accumulate certain Peg Counts. Normally, Peg Counters are allowed to accumulate for the entire 15 minutes of measurement interval. However, in some instances, the sizes of the Peg Counters are not large enough to contain counts accumulated over this long an interval. Consequently, it is necessary to recycle those periodically during the measurement interval and transfer the count to larger accumulating registers. To allow for the accumulation of idle, occupancy and Peg Counts, 10 and 180 second accumulating scan routines and accumulating registers are provided.

3.03 Data Collection Routines

A. Measurement Data Collection Routine

To prepare a measurement output, it is first necessary to obtain a data base. This data base has been generated by the measuring routines, and resides in the various counters and accumulating registers. At the end of each measurement interval, the measurement data collection routines will read these counters and accumulating registers, store their contents in one of four blocks of holding registers (on disk) and then recycle the counters and accumulating registers to zero. The holding registers now contain one hours data in four quarter hour blocks that will be subsequently processed into the measurement output.

B. Measurement Data Extended Interval Accumulation Routines

For users requiring measurements accumulated over extended intervals (intervals greater than one hour) it is necessary to provide additional data bases. This is accomplished by accumulating the required data in extended interval accumulating registers provided for these users. This accumulation function is performed by the measurement data extended interval accumulation routines.

C. Measurement Data Output Routines

The data from which an output is generated is contained in the holding registers and in the users' extended interval accumulating registers. The 4ESS Switch measurement data output routines will process this data into a format that can be easily interpreted by the users, and will output the data on TTY, magnetic tape, and/or eventually over Data Link.

4. TRAFFIC/PLANT MEASUREMENT CLASSES

4.01 The Measurement Class - To facilitate the internal manipulation of data, the set of all traffic/plant measurements has been partitioned into Measurement Classes (MC). Related measurements are, in general, assigned to the same MC. For example, all of the Trunk Subgroup measurements comprise one MC. Associated with the MCs where required, are blocks of accumulating registers and holding registers on disk.

These MCs, and the measurements which comprise them, are primary sources of data for the Measurement Subclasses (MSCs) and the Output Measurement Sets (OMSs). The MCs are internal and, as such, are not specified for output on the traffic/plant measurement report. All measurements that are available may be scheduled for output by specifying the MSC and the OMS. The minimum output that can be specified is one OMS. All of the measurements in that OMS will be output.

4.02 Measurement Class Counter Blocks (MC-CBs) - The counters needed to generate the required measurements for a device group sometimes reside in the memory that is associated with the particular group. For example, many of the Trunk Subgroup (TSG) counters are located in the TSG head cell. However, in many instances there is no associated memory or the memory is not adequate to accommodate all of the required counters. For these cases, separate memory blocks are provided for the counters. These memory blocks are assigned to particular MCs and contain only counters used to obtain measurements in a given MC. The memory blocks reside in core and are called MC Counter Blocks (MC-CB). When an MC-CB is generic and fixed in length, the starting address of the block is Compool (predefined by the program). Otherwise, the starting address is contained in a one word head table.

4.03 Measurement Class Accumulating Register Blocks (MC-ARBs) - Accumulating registers must be provided where usage estimates are desired and where Peg Counters are too small to cycle over the complete 15 minute measurement interval. MC Accumulating Register Blocks (MC-ARB's) are provided for those MCs where a significant number of accumulating registers are required. Five traffic MC-ARBs are required in the 4ESS Switch. Those blocks which are generic in length reside in the Compool defined section of disk. Those blocks whose length are office dependent reside in the measurements section of disk and are accessed by head tables.

4.04 Measurement Class Holding Register Blocks (MC-HRBs) - At the end of each measurement interval (15 minutes), the measurement data in accumulating registers and counters is stored in holding registers, and then the counters and accumulating registers are recycled to zero. In general, the holding registers are organized into blocks on disk. The blocks are arranged such that the measurement data needed to generate all of the measurements in a particular MC accumulated over one 15 minute interval, is contained in one block. These blocks are called MC Holding Register Blocks (MC-HRB). Those blocks which are generic in length reside in Compool defined sections (predefined by the Generic Program) of disk. Those blocks whose length is office dependent are located in the measurements section of disk and are accessed by head tables.

There are four MC-HRBs (MC-HRB-0, MC-HRB-1, MC-HRB-2 and MC-HRB-3) associated with each MC. These four MC-HRBs are identical in layout and are utilized so that, at any instant, they will contain measurement data obtained by the measuring routines during the previous four measurement intervals. This allows measurement data to be recovered for the previous one hour. This utilization provides the flexibility needed to accommodate the users' requirements for various measurement accumulation intervals.

Any user may request measurements accumulated over intervals of 15 minutes, 30 minutes, 45 minutes, or 60 minutes without the need of providing accumulating registers since the holding registers effectively perform this function. Further information on traffic/plant output schedules will be contained in the section dealing with input and output schedules.

4.05 The Measurement Subclass - To facilitate measurement accumulation and output processing and to conserve memory, all of the Measurement Classes (MCs) are divided into subsets (which may, or may not, be used to form some of the same measurements) called Measurement Subclasses (MSCs). Within an MSC, all of the measurements associated with a particular facility or entity are called an Output Measurement Set (OMS). When a user requests an output of measurements, he identifies those measurements by specifying an OMS within a MSC. The MSCs are defined to meet the users' needs and each has a specific output format for each type of output device used. The subclasses used in the 4ESS Switch and their output formats are described later in this section. The set of OMSs a user wished to accumulate and output comprise a traffic schedule. An output schedule is specified by the accumulation interval, the output times, and a set of OMSs. The schedule parameters are input by the user via various traffic input messages.

All of the measurements appearing on a particular schedule are accumulated over the same time interval. Since the data in the MC-HRB is sufficient to generate measurements accumulated over periods of up to one

hour (in multiples of 15 minutes), extended interval accumulating registers need only be provided when accumulation intervals of greater than one hour are required. To ensure the independence of the schedules requiring them, extended interval accumulating registers are provided for their private use. Only enough extended interval accumulating registers are provided to accommodate the OMSs that a given schedule is designed to output.

5. MEASUREMENT SUBCLASS (MSC) DEFINITIONS

5.01 MSC-OMS Definitions

In the following Tables (00-63), all measurements available are identified by MSC and OMS. Each measurement is specifically defined in the order that it appears in the particular MSC and OMS. Also included is Figure 1, a listing of all the MSCs and OMSs with their titles and number of counts in each. Figure 2 is an alphabetized listing of all the TRAFFIC/PLANT measurements and their appropriate MSC and OMS.

TABLE 00

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF TRANSMITTERS)

```
MSC 0  MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD
OMS 0   MF XMTR, IDTS RCVR, AND ODTMFWK XMTR QUEUE-DOMESTIC
              ATT      FAIL      TIME     SZRE     ABAN     USAGE    Q-WAIT
MF XT           0         0         0        0        -         0         -
IDTS            -         -         0        0        0         0         -
ODTMF           -         0         -        0        -         0         0

OMS 1   CCITT5 QUEUE-INTERNATIONAL
Q  ENTRY FAIL        0

OMS 2   MF, DTMF XMTRS, NSCX AND MASFH CKTS
               MF   DTMF XMTR      NSCX        MSFHA        MSFHB
SEIZURE         0           0           0           0            0
SVC USAGE       0           0           0           0            0
OVERFLOW        -           -           0           0            0
MTC USAGE       0           0           0           0            -

OMS 3   BLUE BOX FRAUD
  OVERLOAD  ATTEMPTS  DETECTED    PERSIST     MFR SZ    MFR CCS
         0         0         0           0          0          0

OMS 4   CCS MESSAGE TABLE
  BLUE BOX   OVERFLOW    TIMEOUT   SUCCESS
         0          0          0         0
  BLACK BOX FRAUD
    FEN   RF RCVD
      0         0
      1         0
      2         0
      3         0
      4         0
      5         0
      6         0
      7         0
      8         0
      9         0
     10         0
     11         0
     12         0
     13         0
     14         0
     15         0
    BBP CANCELLED
              0
```

Description of Measurements for MSC 0

OMS 0

MF Transmitter Queue Entry Attempts

Peg Count
(MF XT ATT)

This counter will be incremented by the number of MF calls for which checks are made to determine if there is room on the MF Transmitter Queue.

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF TRANSMITTERS)

MF Transmitter Queue Entry Failure
Peg Count
(MF XT FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to be on the MF Transmitter Queue is greater than the number of non-maintenance busy MF transmitters (same count as MSC 11 OMS 5).

MF Transmitter Queue Entry Time Usage
(MF XT TIME)

This counter will be incremented by the number of MF calls which are awaiting the start dial signal after having sent a seizure on the outgoing trunk. This occupancy count will be used to generate the MF start dial usage measurement, the total amount of time MF calls wait for start dial after sending seizure.

MF Transmitter Queue Seizure Peg Count
(MF XT SZRE)

This counter is incremented by one when a Call Register (CR) is linked on the MF Transmitter Queue.

MF Transmitter Queue Usage
(MF XT USAGE)

After each 10 second scan, this counter is incremented by the number of Call Registers linked to the queue. This data will be converted to CCS units by the traffic program before output.

IDTS Receiver Dial Tone Delay Time
Peg Count
(IDTS TIME)

This counter is incremented every time a seizure is received on an IDTS trunk and we are unable to supply an IDTS receiver within 2 seconds.

IDTS Receiver Queue Seizure Peg Count
(IDTS SZRE)

This counter is incremented by one when a TR is linked to the IDTS Receiver Queue.

IDTS Receiver Queue Abandon Peg Count
(IDTS ABAN)

This counter is incremented by one each time the TR of a call that is abandoned is unlinked from the IDTS Receiver Queue.

IDTS Receiver Queue Usage
(IDTS USAGE)

After each 10-second scan, this counter is incremented by the number of trunk registers linked to the queue. This data will be converted to CCS units by the Traffic Program before output.

ODTMF Transmitter Queue Entry Failures
(ODTMF FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the DTMF Transmitter Queue, plus the number of calls waiting to be on the DTMF Transmitter Queue is greater than the number of non-maintenance busy DTMF Transmitters.

ODTMF Transmitter Queue Seizure Peg
Count
(ODTMF SZRE)

This counter is incremented by one when a Call Register is linked to the DTMF Transmitter Queue.

ODTMF Transmitter Queue Usage
(ODTMF USAGE)

After each 10-second scan, this counter is incremented by the number of Call Registers linked to the queue. This data will be converted to CCS units by the Traffic Program before output.

ODTMF Transmitter Queue Wait
(ODTMF Q-WAIT)

This counter is incremented when a Call Register is placed in a waiting to queue state and decremented when a Call Register is taken off the state.

OMS 1

CCITT No. 5 Queue Entry Failure
Peg Count
(Q ENTRY FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to be on the MF Transmitter Queue is greater than the number of non-maintenance busy MF Transmitters. This counter corresponds to the Domestic MF Transmitter queue Entry Failure. The MF Transmitter Queue is shared by both Domestic and international traffic.

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF TRANSMITTERS)

OMS 2

MF Transmitter Seizure Peg Count
(MF SEIZURE)

This counter is incremented by one when an idle MF Transmitter is made service busy. This is done by writing a service busy state code in the Transmitter Trunk Register (TR). The MF Transmitter seizure Peg Count reflects not only the number of MF outgoing calls, but also the number of successful reattempts to seize an MF Transmitter for calls that have experienced ineffective attempts during outpulsing.

DTMF Transmitter Seizure Peg Count
(DTMF XMTR SEIZURE)

This counter is incremented by one for each DTMF transmitter that is busy.

NSCX Seizure Peg Count
(NSCX SEIZURE)

This counter is incremented by one when an idle NSCX SET S circuit is made service busy.

MAS or Expanded Ann. A Seizure Peg Count
(MSFHA SEIZURE)

This counter is incremented by one when a MAS or expanded announcement "A" circuit is made busy.

MAS or Expanded Ann. B Seizure Peg Count
(MSFHB SEIZURE)

This counter is incremented by one when a MAS or expanded announcement "B" circuit is made busy.

MF Transmitter Service Usage
(MF SVC USAGE)

After each 10 second scan, this counter will be incremented by the number of MF Transmitters found service busy. This data will be converted to CCS units by the traffic program before output.

DTMF Transmitter Service Usage
(DTMF XMTR SVC USAGE)

This counter is incremented after each ten-second scan by the number of DTMF transmitters found service busy. This data is converted to CCS units by the traffic program before output.

NSCX Service Usage
(NSCX SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of NSCX SET S circuits found service busy. The data will be converted to CCS units by the traffic program before output.

MAS or Expanded Ann. A Service Usage
(MSFHA SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of MSFHA circuits found service busy. The data will be coverted to CCS units by the traffic program before output.

MAS or Expanded Ann. B Service Usage
(MSFHB SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of MSFHB circuits found service busy. The data will be converted to CCS units by the traffic program before output.

NSCX Overflow Peg Count
(NSCX OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of NSCX SET S circuit requests not fulfilled.

MAS or Expanded Ann. A Overflow
Peg Count
(MSFHA OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of MAS or expanded announcement "A" circuit requests not fulfilled.

MAS or Expanded Ann. B Overflow
Peg Count
(MSFHB OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of MAS or expanded announcement "B" circuit requests not fulfilled.

MF Transmitter Maintenance Usage
(MF MTC USAGE)

After each 10 second scan period, this counter will be incremented by the number of MF Transmitters found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

DTMF Transmitter Maintenance Usage
(DTMF MTC USAGE)

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF TRANSMITTERS)

After each 10-second scan period, this counter will be incremented by the number of DTMF transmitters found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

NSCX Maintenance Usage
(NSCX MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of NSCX SET S circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

MAS or Expanded Ann. Maintenance Usage
(MSFHA MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of MAS or expanded announcement "A" circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

OMS 3

Blue Box Fraud Overload
(OVERLOAD)

This counter will be incremented if the Blue Box MF Receiver queue is full, or no receivers are allocated.

Blue Box Fraud Attempts
(ATTEMPTS)

This counter is incremented whenever a fraud call is suspected (i.e., on reception of an unexpected post address wink).

Blue Box Fraud Detected
(DETECTED)

This counter is incremented when on a suspect call, four MF digits are received.

Blue Box Fraud Persisting
(PERSIST)

This count is incremented when an attempted fraud call persists for five minutes.

Blue Box Fraud MF Receiver Seizure
(MFR SZ)

This count is incremented when an MF Receiver is to be used by fraud prevention.

Blue Box Fraud MF Receiver Occupancy
(MFR CCS)

This count is updated every 10 seconds to give Fraud MF Receiver usage.

OMS 4

CCS Message Table Blue Box Attempts
Peg Count
(BLUE BOX)

This counter is incremented whenever a fraud call is suspected on a Teleconferencing request (i.e, when the second stage call identification cannot be found in the Common Channel Signaling (CCS) message table.

CCS Message Table Overflow Peg Count
(OVERFLOW)

This counter is incremented whenever a CCS message is received from TSPS to load into the CCS Message Table and no room is available.

CCS Message Table Timeout Peg Count
(TIMEOUT)

This counter is incremented when an entry in the CCS Message Table does not receive the subsequent second stage MF digit ID within 15 seconds.

CCS Message Table Success Peg Count
(SUCCESS)

This counter is incremented when the second stage MF digit ID is found in the CCS Message Table.

Black Box Fraud Ring Forwards Received
(RF RCVD)

These counters, which are broken down by the Far End Network (FEN), are incremented each time a ring forward signal is received.

Black Box Fraud Prevention Cancelled
(BBP CANCELLED)

Upon receipt of a ring forward signal from an operator, black box fraud prevention is cancelled to allow the operator to service a call.

TABLE 01

OUTPUT MEASUREMENT SETS FOR MSC 1
(MF RECEIVERS)

```
MSC 1 MF RCVR AND DTMF RCVR
OMS 0
                        MF RCVR              DTMF RCVR
SZRE                         0                     0
SVC USAGE                    0                     0
MTCE USAGE                   0                     0
```

Description of Measurements for MSC 1

OMS 0

MF Receiver Seizure Peg Count
(MF RCVR SZRE)

This counter is incremented by one when an idle MF Receiver is made busy. This is done by writing a service busy state code in the receiver's Trunk Register (TR).

DTMF Receiver Seizure Peg Count
(DTMF SZRE)

This counter is incremented by one when an idle DTMF Receiver is made busy. This is done by writing a service busy code in the Receiver Trunk Register.

MF Receiver Service Usage
(MF RCVR SCV USAGE)

This counter is incremented, after each 10 second scan, by the number of MF Receivers found service busy. The output will be converted to CCS units by the traffic program.

DTMF Receiver Service Circuit Usage
(DTMF SVC USAGE)

This counter is incremented, after each 10-second scan, by the number of DTMF Receivers found service busy. The output is converted to CCS units by the Traffic Program.

MF Receiver Maintenance Usage
(MF RCVR MTCE USAGE)

After each 10 second scan this counter will be incremented by the number of MF Receivers found maintenance busy. This data will be converted to CCS units by the traffic program before output.

DTMF Receiver Maintenance Usage
(DTMF RCVR MTCE USAGE)

After each 10-second scan, this counter will be incremented by the number of DTMF receivers found maintenance busy. This data will be converted to CCS units by the traffic program before output.

TABLE 02

OUTPUT MEASUREMENT SETS FOR MSC 2
(CCIS TRANSCEIVERS)

```
MSC 2  CCIS, ISUP, ITUP AND INUP XCVR
OMS 0
                     SVC       MTCE
          SZRE       USAGE     USAGE     OVFL
XCVR           0         0         0         0
VPA CANC  ISUP XCVR OVFL  ITUP XCVR OVFL  INUP XCVR OVFL
       0          0               0               0
```

Description of Measurements for MSC 2

OMS 0

CCIS Transceiver Seizure Peg Count
(XCVR SZRE)

This counter is incremented by one when an idle CCIS Transceiver is made busy by writing a service state code in the transceivers Trunk Register (TR).

CCIS Transceiver Service Usage
(XCVR SVC USAGE)

After each 10 second scan, this register is incremented by the number of CCIS Transceivers found service busy. This data is converted to CCS units by the traffic program.

CCIS Transceiver Maintenance Usage
(XCVR MTCE USAGE)

This counter is incremented by the number of CCIS Transceivers found maintenance busy after each 10 second scan period. This data is converted to CCS units before output.

CCIS Transceiver Overflow Peg Count
(XCVR OVFL)

This counter is incremented by one when a hunt for an idle CCIS Transceiver fails because there are no idle Transceivers in the group.

CCIS VPA Cancellation and Path Hunt
Peg Count
(VPA CANC)

Each call will increment this counter by one when the Voice Path Assurance (VPA) test on a CCIS outgoing trunk is canceled due to the current level of overload control. This counter is also incremented when a network path between the CCIS Transceiver and the outgoing trunk can not be found.

ISUP Transceiver Overflow Peg Count
(ISUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle CCS7 Transceiver fails because there are no idle transceivers in the group.

ITUP Transceiver Overflow Peg Count
(ITUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle International Transceiver fails because there are no idle Transceivers in the group.

INUP Transceiver Overflow Peg Count
(INUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle International Transceiver fails because there are no idle transceivers in the group.

TABLE 03

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

MSC 3 OMS	ANCMT CKT TYPE	SZRE	USAGE	OVFL
0	xxx	0	-	-
1	xxx	0	-	-
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
30	xxx	0	-	-
31	xxx	0	-	-
32	TSI 0	-	0	0
	TSI 1	-	0	0
	TSI 2	-	0	0
	TSI 3	-	0	0
	TSI 4	-	0	0
	TSI 5	-	0	0
	TSI 6	-	0	0
	TSI 7	-	0	0
	TSI 8	-	0	0
	TSI 9	-	0	0
	TSI 10	-	0	0
	TSI 11	-	0	0
	TSI 12	-	0	0
	TSI 13	-	0	0
	TSI 14	-	0	0
	TSI 15	-	0	0
33	xxx	0	-	-
34	xxx	0	-	-
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
159	xxx	0	-	-
160	xxx	0	-	-

Description for Measurements for MSC 3

OMS 0-31

Announcement or Tone Group Seizure
Peg Count
(SZRE)

When a path through the network between an incoming trunk and an announcement or tone group has been seized and connected, this counter is incremented by one. The Output Measurement Set (OMS) number will be equal to the announcement or tone group number and the TYPE code is the 1-, 2-, or 3-character code shown below. The following is a list of each OMS and the associated announcement or tone type for announcements on the Recorded Announcement Frame.

OMS 0 - Unassigned (***)

OMS 1 - Audible Ring (AR)

OMS 2 - 120 IPM Tone (T)

OMS 3 - 60 IPM Busy Tone (BT)

OMS 4 - Test Progress Tone (TPT)

OMS 5 - 1000 hz. Milliwatt Test Tone (MW)

OMS 6 - No Circuit Announcement (NCA)

OMS 7 - Vacant Code Announcement (VCA)

OMS 8 - Reorder Announcement (ROA)

OMS 9 - Emergency Announcement No. 1 (EA1)

OMS 10 - Emergency Announcement No. 2 (EA2)

OMS 11 - Special Announcement No. 1 (SP1)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 12 - Special Announcement No. 2 (SP2)

OMS 13 - Idle Wet (IDL)

OMS 14 - High and Wet (HW)

OMS 15 - Idle No Guard Timing (ING)

OMS 16 - 10DB 1004 HZ Test Tone (M10)

OMS 17 - Unassigned (***)

OMS 18 - Misrouted Non-CAMA (MCA)

OMS 19 - No Circuit to Carrier (NCC)

OMS 20 - No Wink to Carrier (NWC)

OMS 21 - INWATS Out-Of-Band Announcement (OOB)

OMS 22 - Emergency Announcement Number 6 (EA6)

OMS 23 - Emergency Announcement Number 3 (EA3)

OMS 24 - Emergency Announcement Number 4 (EA4)

OMS 25 - Network Call Denial (NCD)

OMS 26 - Emergency Announcement Number 7 (EA7)

OMS 27 - All Circuits Busy to Foreign Country (INC)

OMS 28 - Vacant Code on International Call (IVC)

OMS 29 - Emergency Announcement Number 5 (EA5)

OMS 30 - International Foreign Failure (IFF)

OMS 31 - Unassigned (***)

OMS 32

The following two counts are maintained for each dedicated TSI. Each PAS announcement in an MAS office will be assigned to an announcement separation class from 0 to 31. At most one announcement may be assigned to each of the classes 1 to 31. Any number of announcements may be assigned to class 0.

Dedicated TSI Usage
(TSI USAGE)

Every 100 seconds the occupancy of the TSI's dedicated to announcements and tones is accumulated. This data is converted into CCS units by the traffic program before output.

Dedicated TSI Overflow Peg Count
(TSI OVFL)

This counter is incremented by one when an attempt to make a network connection between an incoming trunk connection and an idle announcement or tone circuit fails because there is no available time slot in the TSI.

OMS 33-160

Announcement or Tone Group Seizure
Peg Count
(SZRE)

When a path through the network between an incoming trunk and an announcement or tone group has been seized and connected, this counter is incremented by one. The Output Measurement Set (OMS) number will be equal to the announcement or tone group number and the TYPE code is the 1-, 2-, or 3-character code shown below. The following is a list of each OMS and the associated announcement or tone type for announcements on the Service Circuit System (SCS) frame. (The first 32 announcements on the SCS are the same as the 32 announcements on the RAF.)

OMS 33 - Unassigned (***)

OMS 34 - Audible Ring (AR)

OMS 35 - 120 IPM Tone (T)

OMS 36 - 60 IPM Busy Tone (BT)

OMS 37 - Test Progress Tone (TPT)

OMS 38 - 1000 hz. Milliwatt Test Tone (MW)

OMS 39 - No Circuit Announcement (NCA)

OMS 40 - Vacant Code Announcement (VCA)

OMS 41 - Reorder Announcement (ROA)

OMS 42 - Emergency Announcement No. 1 (EA1)

OMS 43 - Emergency Announcement No. 2 (EA2)

OMS 44 - Special Announcement No. 1 (SP1)

OMS 45 - Special Announcement No. 2 (SP2)

OMS 46 - Idle Wet (IDL)

OMS 47 - High and Wet (HW)

OMS 48 - Idle No Guard Timing (ING)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 49 - 10DB 1004 HZ Test Tone (M10)

OMS 50 - Unassigned (***)

OMS 51 - Misrouted Non-CAMA (MCA)

OMS 52 - No Circuit to Carrier (NCC)

OMS 53 - No Wink to Carrier (NWC)

OMS 54 - INWATS Out-Of-Band Announcement (OOB)

OMS 55 - Emergency Announcement Number 6 (EA6)

OMS 56 - Emergency Announcement Number 3 (EA3)

OMS 57 - Emergency Announcement Number 4 (EA4)

OMS 58 - Network Call Denial (NCD)

OMS 59 - Emergency Announcement Number 7 (EA7)

OMS 60 - All Circuits Busy to Foreign Country (INC)

OMS 61 - Vacant Code on International Call (IVC)

OMS 62 - Emergency Announcement Number 5 (EA5)

OMS 63 - International Foreign Failure (IFF)

OMS 64 - Unassigned (***)

OMS 65 - Service Not Active (SNA)

OMS 66 - Vacant MAS Announcement (VMA)

OMS 67 - HICAP Out of Time Slot (OTS)

OMS 68 - SUN Transit Outage (STO)

OMS 69 - Vacant 800 Number (NWN)

OMS 70 - Disconnected 800 Number (DNN)

OMS 71 - Temporarily Disconnected 800 Number (TDN)

OMS 72 - INFO 1 ANI Failure (INF)

OMS 73 - LEC EGRESS Busy (NCB)

OMS 74 - Waiting For Answer Timeout (WAT)

OMS 75 - Intra-LATA Call Screening (LSA)

OMS 76 - LEC MAS Service (OOA)

OMS 77 - 700-555-4141 (LDV)

OMS 78 - Logging on Busy (LOB)

OMS 79 - SS7 (UNN)

OMS 80 - Spare (S19)

OMS 81 - SS7 (DOO)

OMS 82- International Subscriber Busy (ISB)

OMS 83 - Emergency Situation (E01)

OMS 84 - Severe Weather (E02)

OMS 85 - Facility Trouble (E03)

OMS 86 - Local Company Trouble (E04)

OMS 87 - Airplane Crash (E05)

OMS 88 - Hurricane (E06)

OMS 89 - Flood (E07)

OMS 90 - Tornado (E08)

OMS 91 - Forest Fire (E09)

OMS 92 - Earthquake (E10)

OMS 93 - Mudslide (E11)

OMS 94 - Major Network Outage (E12)

OMS 95 - Reserved Domestic Network Management (E13)

OMS 96 - Reserved Domestic Network Management (E14)

OMS 97 - Reserved Domestic Network Management (E15)

OMS 98 - Reserved Domestic Network Management (E16)

OMS 99 - Reserved Domestic Network Management (E17)

OMS 100 - Reserved Domestic Network Management (E18)

OMS 101 - Reserved Domestic Network Management (E19)

OMS 102 - Reserved Domestic Network Management (E20)

OMS 103 - Domestic (R01)

OMS 104 - Domestic (R02)

OMS 105 - Domestic (R03)

OMS 106 - Domestic (R04)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 107 - Domestic (R05)

OMS 108 - Domestic (R06)

OMS 109 - Domestic (R07)

OMS 110 - Domestic (R08)

OMS 111 - Domestic (R09)

OMS 112 - Domestic (R10)

OMS 113 - International Emergency Situation (I01)

OMS 114 - International Severe Weather (I02)

OMS 115 - International Telephone Company (I03)

OMS 116 - International Airplane Crash (I04)

OMS 117 - International Earthquake (I05)

OMS 118 - International Mudslide (I06)

OMS 119 - International Fire (I07)

OMS 120 - Reserved International Network Management (I08)

OMS 121 - International Direct Dialing Suspended (I09)

OMS 122 - International Direct Dialing Test (I10)

OMS 123 - International (I11)

OMS 124 - International (I12)

OMS 125 - International (I13)

OMS 126 - International (I14)

OMS 127 - International (I15)

OMS 128 - International (I16)

OMS 129 - International (I17)

OMS 130 - International (I18)

OMS 131 - International (I19)

OMS 132 - International (I20)

OMS 133 - International (I21)

OMS 134 - International (I22)

OMS 135 - International (I23)

OMS 136 - Reserved International Network Management (I24)

OMS 137 - Reserved International Network Management (I25)

OMS 138 - Reserved International Network Management (I26)

OMS 139 - Reserved International Network Management (I27)

OMS 140 - Reserved International Network Management (I28)

OMS 141 - Reserved International Network Management (I29)

OMS 142 - Reserved International Network Management (I30)

OMS 143 - Spare (S01)

OMS 144 - Spare (S02)

OMS 145 - Spare (S03)

OMS 146 - Spare (S04)

OMS 147 - Spare (S05)

OMS 148 - Spare (S06)

OMS 149 - Spare (S07)

OMS 150 - Spare (S08)

OMS 151 - Spare (S09)

OMS 152 - Spare (S10)

OMS 153 - Spare (S11)

OMS 154 - Spare (S12)

OMS 155 - Spare (S13)

OMS 156 - Spare (S14)

OMS 157 - Spare (S15)

OMS 158 - Spare (S16)

OMS 159 - Spare (S17)

OMS 160 - Spare (S18)

TABLE 04

OUTPUT MEASUREMENT SETS FOR MSC 4
(NETWORK)

```
MSC 4 NETWORK
OMS 0
PATH HUNT SUCS  PATH HUNT FAIL   USAGE    LSNC INTRABUF
         0               0          0          0

OMS 1  SVC OBSV
SVC OBSV NETWORK USAGE
              0
```

Description of Measurements for MSC 4

OMS 0

Network Path Hunt Success Peg Count
(PATH HUNT SUCS)

This counter is incremented by one when a path through the network has been seized by setting the appropriate bits in the time division map. This action either reserves a path between an incoming trunk and an outgoing trunk or corresponds to the connection of a service circuit to an incoming or outgoing trunk.

Network Path Hunt Failure Peg Count
(PATH HUNT FAIL)

When an attempt to seize an idle path through the network has failed because it appeared that no acceptable idle path was available, this counter is incremented by one. This counter contains the total number of network path hunt failures whereas the final trial network path hunt failure Peg counter (MSC 11 OMS 1) contains only the count of calls sent to final handling due to network path hunt failure.

Network Total Usage
(USAGE)

After every 180 second scan, the total number of occupied paths in the network is added to this counter. This data is converted to CCS by the traffic program before output.

Large Scale Nail-Up Intra-Buffer Count
(LSNC INTRABUF)

This is a count of large scale nail up (LSNC) intra-buffer connections.

OMS 1

Service Observing Network Usage
(SVC OBSV NETWORK USAGE)

This counter will indicate the total usage on the two service observing Trunk Subgroups. It will be used as an estimate of the network usage generated by service observing.

TABLE 05

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

```
MSC 5 OFFICE TOTALS
OMS 0
    INC  OUTWATS   OG IT   OG TC   DNHR    DNHR    NCAT
   CALL    ORIG      SZ      SZ     VTS     TTS     SUC
  000000  000000  000000  000000  000000  000000  000000

OMS 1
   MF       DP-DD     DP-IS     CCIS    CCIS-2W     IDTS    IDTS-DP
INC SZRE  INC SZRE  INC SZRE  INC CALL  INC SZRE  INC SZRE  INC SZRE
       0         0         0         0         0         0         0

IDTMFWK   ODTMFWK     Q931      Q931      Q931    ISUP-2W   ISUP-4W
INC SZRE  OUT SZRE  INC SZRE  OUT SZRE  CN SETUP  INC SZRE  INC SZRE
       0         0         0         0         0         0         0

  ISUP     BBC-6     BBC-24    BBC-6     BBC-24     BSSP      BSSP
OUT SZRE  INC SZRE  INC SZRE  OUT SZRE  OUT SZRE  INC SZRE  OUT SZRE
       0         0         0         0         0         0         0

  NCAT     BBC-6     BBC-24    BBC-6     BBC-24
ATTEMPTS  OPRI ATT  OPRI ATT  RCVD ATT  RCVD ATT
       0         0         0         0         0

OMS 2
MF OPLS   DP OPLS    CCIS OG
ATTEMPTS  ATTEMPTS     CALLS
       0         0         0

OMS 3
STABLE CALLS LOST, CGF
            0

OMS 4   INTERNATIONAL INCOMING
           CCITT#5   CCITT#6      ITUP   INUP
ATTEMPTS         0         0         0      0
         CUSTOMER  OPERATOR      TEST   TRANSIT    EN-BLOC
CALLS            0         0         0         0          0

OMS 5   INTERNATIONAL OUTGOING
           CCITT#5   CCITT#6    ITUP    INUP
ATTEMPTS         0         0       0       0
              SENT       REC    ISUP
OVERFLOWS        0         0       0
         CUSTOMER         OP   PCC NG
CALLS            0          0      0
```

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

```
OMS 6   NETWORK CLOCK SYNC UNIT PERFORMANCE MEASUREMENTS
                  --- TOTAL --- ---- REG ---- ---- ALT ----
                      PC    DUR     PC    DUR     PC    DUR
FREE RUN               0      0
FREE RUN < 10 MIN      0
REFERENCE OUTAGE       -      -      0      0      0      0
PHASE HITS             0      -      0      -      0
FREQUENCY OFFSET       -      -      0      -      0
PHASE ERRORS           -      -      0      -      0
FAST START TO          0
FAST STARTS            0      0
REFERENCE OOS          -      -      0      0      0      0
TRANSFER TO ALT        0      0
TRANSMISSION SLIPS     -      -      0      -      0

OMS 7  SERVICE OBSERVING
 ---- TRUNK A ---
 SEIZURES   USAGE
       0        5

OMS 8  CALLS ORIG, TERM
   ORIG OGA              0
 TERM ATTS
   PAS                   0

OMS 9  MAS IRREGULARITIES
 MAS IRREGULARITIES
   NO ANS DUE TO CCIS              0
   TELEVOTE DIRECT SIG FAIL        0
```

Description of Measurements for MSC 5

OMS 0

Total Incoming Calls Peg Count
(INC CALL)

This counter is incremented for every incoming call for which at least one digit has been received.

OUTWATS Originating Calls Peg Count
(OUTWATS ORIG)

This count is incremented by one when an OUTWATS Call is attempted.

Total Outgoing Intertoll Trunk
Seizure Peg Count
(OG IT SZ)

This counter is set to the sum of the outgoing seizure Peg Counts collected from all outgoing intertoll TSGs at the time of the collection of TSG data.

Total Outgoing Toll Completing Trunk
Seizure Peg Count
(OG TC SZ)

This counter is set to the sum of the outgoing seizure Peg Counts collected from all outgoing toll connecting and toll completing TSGs at the time of the collection of TSG data.

Total Via Toll Switch Calls
(DNHR VTS)

This counter is incremented by one when the total number of calls entering the node from any DNHR TSG is serving as a Via Toll Switch.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

Total Terminating Toll Switch Calls
(DNHR TTS)

This counter is incremented by one when the total number of calls entering the node from any DNHR TSG is serving as a Terminating Toll Switch.

Non-Call Associated Temporary
Signaling Connection (TSC) Successes
(NCAT SUC)

This counter registers the number of successful TSC connections made through the 1A.

OMS 1

MF Incoming Seizure Peg Count
(MF INC SZRE)

This counter is incremented at the start of each base level cycle by the number of MF originations processed in the last base level cycle. This count of originations includes false starts, permanent signals, continuity test failures, as well as incoming calls.

DP Delay Dial Incoming Seizure Peg Count
(DP-DD INC SZRE)

When a DP origination is recognized on a DP delay dial trunk, this counter is incremented by one.

DP Immediate Start Incoming Seizure
Peg Count
(DP-IS INC SZRE)

When a DP origination is recognized on a DP immediate start trunk, this counter is incremented by one.

CCIS Incoming Calls Peg Count
(CCIS INC CALL)

This counter is the sum of CCIS CR seizures and CCIS CR queue overflows.

CCIS 2-Wire Incoming Seizure Peg Count
(CCIS-2W INC SZRE)

This count is incremented by one when a CCIS origination is recognized on a 2-wire incoming trunk.

IDTS Incoming Seizure Peg Count
(IDTS INC SZRE)

This counter is incremented by one for each Incoming Dial Tone Start (IDTS) seizure processing attempt.

IDTS DP Incoming Seizure Peg Count
(IDTS-DP INC SZRE)

This counter is incremented by one for each IDTS seizure processing attempt that is followed by a DP digit.

IDTMFWK Incoming Seizure Peg Count
(IDTMFWK INC SZRE)

This counter is incremented by one for each Incoming Dual-Tone Multifrequency Wink (IDTMFWK) seizure processing attempt.

ODTMFWK Outgoing Seizure Peg Count
(ODTMFWK OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing Dual-Tone Multifrequency Wink (ODTMFWK) trunk is to be seized.

Q.931 Incoming Seizures
(Q931 INC SZRE)

This counter is incremented by one for each Q.931 seizure processing attempt.

Q.931 Outgoing Seizures
(Q931 OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing Q.931 trunk is to be seized.

Q.931 Channel Negotiation Setup
(Q931 CN SETUP)

This counter is incremented by one each time a Q.931 Channel Negotiation Setup message is sent.

The CCIS incoming calls count is calculated each quarter hour. A summation of the CCIS call register seizure Peg Count, the CCIS origination call register queue Overflow Peg Count, and the CCIS origination call register queue abandon Peg Count is stored in this counter.

ISUP 2-Wire Incoming Seizures
(ISUP-2W INC SZRE)

This counter is incremented by one for each ISUP seizure processing attempt received over a 2-wire trunk.

ISUP 4-Wire Incoming Seizures
(ISUP-4W INC SZRE)

This counter is incremented by one for each ISUP seizure processing attempt received over a 4-wire trunk.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

ISUP Outgoing Seizures
(ISUP OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing ISUP trunk is to be seized.

Broadband Call 6 - Trunk Incoming
Seizures Peg Count
(BBC-6 INC SZRE)

This counter is incremented by one for each H0 (384K bps) call seizure processing attempt received.

Broadband Call 24 - Trunk Incoming
Seizures Peg Count
(BBC-24 INC SZRE)

This counter is incremented by one for each H11 (1536K bps) call seizure processing attempt received.

Broadband Call 6 - Trunk Outgoing
Seizures Peg Count
(BBC-6 OUT SZRE)

This counter is incremented by one when trunk hunt determines enough trunks are available to be seized to process an H0 call.

Broadband Call 24 - Trunk Outgoing
Seizures Peg Count
(BBC-24 OUT SZRE)

This counter is incremented by one when trunk hunt determines enough trunks are available to be seized to process an H11 call.

BOC SSP MF Incoming Seizures
Peg Count
(BSSP INC SZRE)

This counter is incremented by one when the first stage digit sequence on a MF trunk is translated with a result of BOC SSP Equal Access.

BOC SSP MF Outgoing Seizures
Peg Count
(BSSP OUT SZRE)

This counter is incremented by one when a trunk is seized for feature Group "D" or BOC SSP Equal Access call.

Non-Call Associated Temporary
Signaling Connection (TSC) Attempt
(NCAT ATTEMPTS)

This counter is incremented by one when a Non-Call Associated TSC request is received.

Broadband Call 6 - Originating Data
Attempts From a PRI Peg Count
(BBC-6 OPRI ATT)

This counter is incremented by one for each originating inter-LATA H0 (384K bps) data call attempt received from a PRI.

Broadband Call 24 - Originating Data
Attempts From a PRI Peg Count
(BBC-24 OPRI ATT)

This counter is incremented by one for each originating inter-LATA H11 (1536K bps) data call attempt received from a PRI.

Broadband Call 6 - Data Calls
Received From an IEC Peg Count
(BBC-6 RCVD ATT)

This counter is incremented by one for each H0 (384K bps) data call received from an IEC terminating through an Access Tandem.

Broadband Call 24 - Data Calls
Received From an IEC Peg Count
(BBC-24 RCVD ATT)

This counter is incremented by one for each H11 (1536K bps) data call received from an IEC terminating through an Access Tandem.

OMS 2

MF Outpulsing Attempts Peg Count
(MF OPULS ATTEMPTS)

This measurement reflects the total number of MF outgoing call attempts. This counter reflects not only the number of MF outgoing calls, but also the number of times MF outpulsing recurred for MF calls that experienced ineffective attempts during outpulsing and for which retrial trunk hunts were performed.

DP Outpulsing Attempts Peg Count
(DP OPULS ATTEMPTS)

This counter is incremented by one when DP outpulsing is first attempted for an outgoing DP call. That is, when the first digit to be outpulsed is sent to the Signal Processor. This counter reflects not only the number of DP outgoing calls, but also the number of times DP

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

outpulsing recurred for DP calls that experienced ineffective attempts during outpulsing and for which retrial trunk hunts were performed.

CCIS Outgoing Calls Peg Count
(CCIS OG CALLS)

This measurement reflects the total number of all CCIS outgoing calls. Every call for which an initial address message is transmitted is included in this count. This measurement also reflects the number of times retrial trunk hunts were performed for CCIS outgoing calls for which a backward failure message is received or for which the Voice Path Assurance test fails.

OMS 3

Stable Calls Lost, Carrier Group
Failure Peg Count
(STABLE CALLS LOST, CGF)

For each call in the waiting-for-answer state or in the talking state that is lost due to Carrier Group Failure, this counter is incremented by one.

OMS 4

CCITT No. 5 Incoming Attempts Peg Count
(CCITT#5 ATTEMPTS)

This count is incremented by one when a CCITT No. 5 incoming seizure is recognized by the system.

CCITT No. 6 Incoming Attempts Peg Count
(CCITT#6 ATTEMPTS)

This count is incremented by one when a CCITT No. 6 incoming seizure is recognized by the system.

ITUP Incoming Attempts Peg Count
(ITUP ATTEMPTS)

This counter is incremented by one for each International Telephone User Part (ITUP) seizure processing attempt received.

INUP Incoming Attempts Peg Count
(INUP ATTEMPTS)

This counter is incremented by one for each International User Part (INUP) seizure processing attempt received.

International Incoming Customer
Dialed Calls Peg Count
(CUSTOMER CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming call that was customer dialed.

International Incoming Operator
Dialed Calls Peg Count
(OPERATOR CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming call that was operator dialed.

International Incoming Test Calls
Peg Count
(TEST CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming test call.

International Incoming Transit Calls
Peg Count
(TRANSIT CALLS)

This counter is incremented by one after the incoming digit was analyzed and the call was found to have been an international incoming transit call.

International Overlap to
Enblock Signalling Peg Count
(EN-BLOC CALLS)

This counter is incremented whenever the overlap to en-bloc procedure is invoked.

OMS 5

CCITT No. 5 Outgoing Attempts
Peg Count
(CCITT#5 ATTEMPTS)

This count is incremented by one when a CCITT No. 5 outgoing seizure is recognized by the system.

CCITT No. 6 Outgoing Attempts
Peg Count
(CCITT#6 ATTEMPTS)

This count is incremented by one when a CCITT No. 6 outgoing seizure is recognized by the system.

ITUP Outgoing Attempts Peg Count

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

(ITUP ATTEMPTS)

The counter is incremented by one when trunk hunt determines an outgoing ITUP trunk is to be seized.

INUP Outgoing Attempts Peg Count
(INUP ATTEMPTS)

The counter is incremented by one when trunk hunt determines an outgoing INUP trunk is to be seized.

International Outbound Overflow Sent to
Alternate Office Peg Count
(OVERFLOWS SENT)

This counter is incremented by one when the intended CCITT No. 5 or CCITT No. 6 route is in a no circuit condition and the call is passed to an alternate International Office for completion.

International Outbound Overflow
Received from Alternate Office Peg Count
(OVERFLOWS REC)

This counter is incremented by one when another International Office has no CCITT No. 5 or CCITT No. 6 circuits for outbound calls and the call is passed to this International office for completion.

International ISUP Outbound Overflow
Peg Count
(OVERFLOWS ISUP)

This counter is incremented by one when the intended CCITT #5 or CCITT #6 route is in a NO circuit condition and the call is passed to an alternate ISC for completion via ISUP trunks.

International Outgoing Customer Dialed Calls
Peg Count
(CUST CALLS)

This is a count of the domestically originated, customer dialed calls destined for non-world zone 1 termination. This count is pegged by call processing after digit analysis.

International Outbound Operator Dialed Call
Peg Count
(OP CALLS)

This counter is incremented by one upon receipt of an International outbound call from an IOC or IOTC operator.

Pseudo Country Code No Good Peg Count
(PCC NG CALLS)

This counter is incremented by one when a pseudo country code is received on a one-stage call.

OMS 6

For several events in the NCSU, peg count and duration counts are kept. Peg count is defined as the number of times an event occurs. Duration is defined as the length of time the event took, in 8-second intervals.

Free Run
(FREE RUN)

Free run occurs when the NCSU is decoupled from the external reference. Total peg count and duration counters are maintained.

Free Run Less Than 10 Minutes
(FREE RUN < 10 MIN)

Total peg count of free run occurrences less than 10 minutes.

Reference Outage
(REFERENCE OUTAGE)

Reference outage is impairment of the reference. Regular and alternate reference peg counts and duration counters are maintained.

Phase Hits
(PHASE HITS)

A phase hit is defined as a step change in phase error exceeding 5 microseconds. Total, regular, and alternate reference peg counts are maintained.

Frequency Offset
(FREQUENCY OFFSET)

Frequency offset is defined as the frequency offset of the selected reference relative to the VCO (Voltage Control Oscillator) of one part in 100,000,000 or more. Regular and alternate reference peg counts are maintained.

Phase Errors
(PHASE ERRORS)

A Phase Error is one that is outside the range of about $\pm$ 60 microseconds from center of the phase comparator range. Regular and alternate reference peg counts are maintained.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

Fast Start Timeout
(FAST START TO)

A fast start TO occurs when the NCSU fails to enter normal mode from fast start within 40 minutes. Total peg count is maintained.

Fast Starts
(FAST STARTS)

Fast starts are defined as the number of fast starts entered since the last look. Total peg count and duration counters are maintained.

Reference OOS
(REFERENCE OOS)

Reference OOS occurs when the reference is out of service. Regular and alternate reference peg counts and duration counts are maintained.

Transfer to Alternate
(TRANSFER TO ALT)

This counter keeps track of the number of times the alternate reference was made active. Total peg count and duration counts are maintained.

Transmission Slips
(TRANSMISSION SLIPS)

This counter keeps track of the number of slip impairments on the regular or alternate references. Peg counts are maintained.

OMS 7

Service Observing Trunk A Seizure
Peg Count
(TRUNK A SEIZURES)

This counter is incremented by one each time an attempt is made to establish a Service Observing Trunk A connection.

Service Observing Trunk A Usage
(TRUNK A USAGE)

This measurement reflects the time, measured in CCS, that Service Observing is in effect. This count differs from MSC 4, OMS 1 which is the sum of the usage on the two Trunk Subgroups for Service Observing and results in an estimate of network occupancy due to Service Observing.

OMS 8

4ESS Switch Originated Outgoing Attempts
(ORIG OGA)

This counter keeps track of the number of attempts to seize a CR for a 4ESS Switch originated outgoing call. It should be noted that this count is not limited to MAS related calls. Initially it will include attempts occurring during the direct producer callback and trunk maintenance outgoing test attempts.

Total Attempts to PAS Announcements
(PAS TERM ATTS)

This counter keeps track of the number of attempts to reach PAS announcements, including PAS with TELEVOTE and with cut-through calls.

OMS 9

Customer Calls To MAS Which No Answer
Supervision Is Returned Due To CCIS
Terminal Congestion
(NO ANS DUE TO CCIS)

This counter keeps track of the number of customer calls to MAS on CCIS trunks which are successfully connected to announcement audio but which do not have answer supervision returned because call processing detects that the CCIS terminal is overloaded.

TELEVOTE CCIS Direct Signaling Counts
Not Updated
(TELEVOTE DIRECT SIG FAIL)

This counter keeps track of the number of nonzero counts received at a TELEVOTE machine in a CCIS direct signaling message, for which no counter can be located for the MAPN and line number associated with the count in the direct signaling message.

TABLE 06

OUTPUT MEASUREMENT SETS FOR MSC 6
(BOC SSP MEASUREMENTS)

```
MSC 6 BOC SSP MEASUREMENTS

OMS 0
  TOS   SEIZURES
    0       0
    1       0
    2       0
    3       0
          .
          .
          .
   28       0
   29       0
   30       0
   31       0


  TOS   INIT QUERIES
    0       0
    1       0
    2       0
    3       0
          .
          .
          .
   28       0
   29       0
   30       0
   31       0

  TOTAL INITIAL QUERIES
            0
```

Description of Measurements for MSC 6

OMS 0

BOC SSP Seizures
(SEIZURES)

Each time a BOC SSP Number Services origination is detected, a counter is incremented by one, depending upon the Type Of Service (TOS).

BOC SSP Initial Queries
(INIT QUERIES)

Each time a BOC SSP Number Services Query is sent to the database, a counter is incremented by one, depending on the Type Of Service (TOS).

TABLE 07

OUTPUT MEASUREMENT SETS FOR MSC 7
(INCOMING IRREGULARITIES)

```
MSC 7 INCOMING IRREGULARITIES
OMS 0

         MF EQ  DP EQ  Q931  ISUP  ITUP  INUP  DTMF  IOC

  PST        0      0     0     0     0     0     0    0
  FSA        0      0     0     0     0     0     0    0
  PDA        0      0     0     0     0     0     0    0
  PDT        0      0     0     0     0     0     0    0

OMS 1
  INC   8 DIG  DP DIG  INC DP   OPLS DP
 DPED   NC CR   LOST   WL FULL  WL FULL
     0       0      0       0        0

CALL MERGE FAIL - RSRC LIMIT       0
```

Description of Measurements for MSC 7

OMS 0

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing
h. IOC

Permanent Signal Timeout Peg Count
(PST)

These counters will be incremented by one each time a bid for service is received on an incoming trunk, but no digits are received within the permanent signal time out interval.

False Start Abandon Peg Count
(FSA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk but no digits are received, and the call is abandoned prior to permanent signal timeout.

Partial Dial Abandon Peg Count
(PDA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk and at least one digit but less than the expected number of digits is received, and the bid is removed prior to partial dial timeout.

Partial Dial Timeout Peg Count
(PDT)

Each time at least one but less than the expected number of digits is received prior to timeout on an incoming trunk, one of these counters will be incremented by one.

OMS 1

Incoming DP Early Digit Peg Count
(INC DPED)

This counter is incremented by one when a call is sent to final handling treatment after the reception of a digit buffer report from the Signal Processor. This report indicates that a DP change of state occurred prior to the time when the system is ready to receive digits. This count is incremented for both immediate start and delay dial/start dial trunks.

TABLE 07 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 7
(INCOMING IRREGULARITIES)

Eighth Digit No Call Register Peg Count
(8 DIG NO CR)

This counter will be incremented by one when the eighth digit is received for a DP call waiting on the DP CR queue and no CR is available, resulting in the call being sent to final handling treatment.

DP Digit Lost Peg Count
(DP DIG LOST)

This counter will be incremented by the number of calls lost due to failure to load a DP digit into the digit buffer due to digit buffer congestion.

Incoming DP Work List Full Peg Count
(INC DP WL FULL)

This counter is incremented by one when the first call is sent to final handling treatment after the reception of a digit buffer incoming DP worklist full report from the SP. All succeeding calls trying to get on the full worklist will not be scored. A system audit is required to reset the worklist before new entries can be accepted.

DP Outpulsing Work List Full Peg Count
(OPLS DP WL FULL)

When a call is sent to final handling treatment because the Signal Processor DP outpulsing worklist is full, this counter will be incremented by one.

Call Merge Failure - Resource Limitations
Peg Count
(CALL MERGE FAIL - RSRC LIMIT)

This count is incremented when a call merge request fails due to the lack of resources or because of a path hunt failure.

TABLE 08

OUTPUT MEASUREMENT SETS FOR MSC 8
(reserved for future use)

```
This table reserved for MSC 8.
```

TABLE 09

OUTPUT MEASUREMENT SETS FOR MSC 9
(PROCESSOR LOAD)

```
MSC 9 PROCESSOR LOAD
OMS 0
AVG BASE LEV MSEC
        0

 OMS 1 BASE LEVEL PEG CNTS
  CANCEL OVLD        0

                   NONE       MAC       SGMT
  NONLOAD CONT        0         0          0

                   LEV(1)    LEV(2)    LEV(3)
  LOAD CONT             0         0         0

  NO TRKS HNTD          0
```

Description of Measurements for MSC 9

OMS 0

Average Base Level Cycle Length In Milliseconds
(AVG BASE LEV MSEC)

This time is calculated by multiplying the number of 10 millisecond interjects that occur in a 15 minute collection interval by 10 and dividing this product by the number of base level cycles, thus yielding average time in milliseconds. The time spent in maintenance interrupts is not included in the average length. Average base level cycle time is corrected for intervals longer than 15 minutes by summing the 15 minute averages and dividing by the number of quarter hours in the accumulation interval.

*Note: The sum of the next 7 counts equals the number of base level cycles in the accumulation interval.

OMS 1

Cancel Overload in Effect Peg Count
(CANCEL OVLD)

This counter is incremented at the beginning of each base level cycle if the cancel overload key at the MCC is activated.

Non-Load No Overload Control Peg Count
(NONLOAD CONT NONE)

This measurement reflects the number of base level cycles during which no overload controls were in effect or when cancel overload was not in effect.

Non-Load MAC Overload Control Peg Count
(NONLOAD CONT MAC)

This counter is incremented by the overload control program at the beginning of each base level cycle if it had instituted the set of state two controls in the previous base level cycle. These controls are nonload affecting, but restrict the number of segments allowed the Maintenance Administration Control (MAC) program in the base level cycle.

Non-Load Segment Overload Control Peg Count
(NONLOAD CONT SGMT)

At the beginning of each base level cycle, this counter is incremented by the overload control program if the set of state three controls had been instituted in the previous base level cycle. These controls are nonload affecting, but restrict the number of segments that are allowed for deferrable programs. In addition, a total Dynamic Overload Control (DOC) MC1 control is sent out to contiguous offices.

Load Level 1 Overload Control Peg Count
(LOAD CONT LEV 1)

This counter is incremented at the beginning of each base level cycle if the overload load control program had instituted the set of state four controls in the previous base level cycle. These controls reduce the accepted load to an overload Level 1, further reduce the number of segments that MAC can have, and restrict

TABLE 09 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 9
(PROCESSOR LOAD)

the Voice Path Assurance (VPA) test for CCIS outgoing calls.

Load Level 2 Overload Control Peg Count
(LOAD CONT LEV 2)

The overload control program will increment this counter at the beginning of each base level cycle, if the set of state five controls had been instituted in the previous cycle. These controls further reduce the accepted load to an overload level 2 and send out a total DOC, MC2, control to contiguous offices.

Load Level 3 Overload Control Peg Count
(LOAD CONT LEV 3)

This counter is incremented by the overload control program at the beginning of each base level cycle if it had instituted the set of state six controls in the previous base level cycle. These controls reduce the accepted load to zero.

No Trunks Hunted
(NO TRKS HNTD)

This counter is incremented by the number of base level cycles in which no trunks were hunted.

TABLE 10

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

MSC 10 TRAFFIC SEPARATIONS

OMS	SZRE	USAGE
0	0	0
1	0	0
2	0	0
.	.	.
.	.	.
.	.	.
1021	0	0
1022	0	0
1023	0	0

Description of Measurements for MSC 10

Traffic Separations

Measurement subclass 10 is the traffic separations and distribution measurement class. Each call successfully processed by the 4ESS Switch will fall into a traffic separations category (determined by the incoming TSG, domain and designation code of the call). The traffic separation incoming TSG class (INSEP) is specified in the trunk block translator, while the destination class (DESEP) is a code grouping translator item. There can be up to 256 traffic separations incoming TSG classes and 256 destination classes, with DESEP 0 not available for general assignment. Each (INSEP, DESEP) pair is assigned a Cell-Grouping Index. There are 1024 Cell-Grouping Indexes, each of which is associated with an OMS. The only measurements required in this MSC are the traffic separations class usage and Peg Count measurements.

The traffic separations class measurements provide the data required to facilitate divisions of revenue and to perform a variety of engineering, dial administration, and Network Management functions.

Traffic separations counts are accumulated primarily to provide breakdowns of the total toll telephone traffic. These may be based on variables such as geographic locality, Trunk Subgroup ownership (Long Lines, Associated Company or Independent Company), and type of traffic (message toll, CAMA, operator handled, local tandem, data PICTUREPHONE, and private network).

In addition to these measurement functions, the traffic separations MSC can be used, if required, to determine the quantity of "through" traffic switched by the machine. This is a count of calls which enter the system via intertoll trunks and are destined for distant toll centers. To accomplish this, it is necessary to assign the Cell Grouping Indexes so that none of these classes represent both interstate and intrastate traffic.

The traffic separations classes usage in conjunction with service circuit and trunk maintenance network usage provide an estimate of total network usage for output in usage measurement form at the MCC and on traffic schedules.

Traffic separations counters provide Peg Count and usage measurements for separations classes to which have been assigned selected destination codes or groups of codes. This facility enables the network manager to obtain a breakdown of the traffic items that may be offered to a particular route. The traffic separations class concept provides the network manager with the mechanism to analyze traffic patterns through the toll hierarchy. These patterns can be defined by categorizing traffic in respect to where it originates and terminates:

Category 1 identifies traffic from or terminating in an office that is served by a different regional center switching machine (including regional center traffic) than the 4ESS Switch.

Category 2 identifies traffic from or terminating in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes traffic to the home regional.

Category 3 identifies traffic from or terminating in an office that is lower in the hierarchial network and "homes" (i.e., is in the direct routing ladder) on the 4ESS Switch.

Category 4 identifies traffic from or terminating in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those

TABLE 10 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

end offices.

To provide data to light lamps in the traffic pattern module of the 4ESS Switch toll Network Management exception panel, the INSEP classes must be associated with one of the four incoming TSG classifications.

1. Foreign region TSGs,
2. Home region TSGs,
3. Subtending office TSGs, and
4. Home toll center area TSGs

Category 1 includes those Trunk Subgroups whose far end is in an office that is served by a different regional center switching machine (including Trunk Subgroups to that regional center) than the 4ESS Switch.

Category 2 includes Trunk Subgroups whose far end is in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes Trunk Subgroups to the home regional.

Category 3 includes Trunk Subgroups whose far end is in an office that is lower in the hierarchial network and "homes" (i.e., is in the direct routing ladder) on the 4ESS Switch.

Category 4 includes Trunk Subgroups whose far end is in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those end offices.

The 4ESS Switch office may not have representative Trunk Subgroups in all of the categories. For instance, high volume tandem offices will probably not have Trunk Subgroups from the Home Toll Center area.

The DESEP classes must be associated with one of the four destination code classifications:

1. Foreign region codes,
2. Home region codes,
3. Subtending office codes, and
4. Home toll center area codes.

Category 1 includes those destination codes that terminate in an office that is served by a different regional center switching machine (including codes to that regional center) than the 4ESS Switch.

Category 2 includes destination codes that terminate in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes codes to the home regional.

Category 3 includes destination codes that terminate in an office that is lower in the hierarchial network and "homes" (i.e., in the direct routing ladder) on the 4ESS Switch.

Category 4 includes destination codes that terminate in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those end offices.

With the exception of summing the separation class usage counts to calculate one of the components of the total network usage count, no other summing over Cell Groupings will be performed by traffic measurements programs. Therefore, the "through switched traffic" Peg Count and the measurements for the four categories specified above will be computed by the Network Management program PA-1 (Traffic Pattern Overview).

Since the integrity of these seizure release counters is not infallible, audits will be necessary to insure the accuracy of the traffic separations class usage counts. This audit (number 33) is designed such that the traffic separations measurements can be maintained while it is being executed. Consequently, Cell Grouping 0 has been reserved for the traffic separations class usage count audit. A number of functions are responsible for adjusting counters in addition to, or in conjunction with, call processing routines. It is desirable to isolate the effects of some of these functions and, for that reason, an INSEP class (31) is generally assigned to both system integrity test call TSGs and maintenance test access trunks. All (outpulsed) trunk maintenance calls for which digit translation is done, and for which call processing sets up the connection, will be tagged with this appropriate INSEP class.

The appropriate DESEP class will be found in the digit translator. These are trunk maintenance outpulsed calls for which no digit translation is done. (The origination of a system integrity test call is an example). For this reason a DESEP class must be supplied to enable call processing to set up the connection. These calls will be with the appropriate INSEP class and a generically assigned DESEP class (63). Generic assignment of INSEP and a DESEP class does not preclude their assignment to other TSGs and destination codes if this is required. However, INSEP class (31) and DESEP class (63) will be generically assigned to Cell-Grouping (1).

Point-to-point distribution studies (this feature will not be available for phase 1) will be made at appropriate times to determine the distribution of the flow of traffic through an office. The data for this study is obtained by

TABLE 10 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

recording (on high speed magnetic tape in standard ASCII characters) pertinent information on a sampling of the successfully handled calls processed by the office. A successfully processed call is, by definition for the traffic system, one which goes into the "waiting-for-answer" state. After this time in the call processing sequence, some of the data required by the point-to-point studies is no longer available. For every Nth successfully processed call, this system will record the identity of the incoming trunk, the identity of the outgoing trunk to which it was connected, call area and office codes, and traveling classmark (if used to indicate domain and/or routing treatment). The value of N will be based on real time and data volume considerations. Information obtained from the sampled calls will not be available for output on the traffic schedules. This data will be processed off line.

OMS 0-1023

There are 1024 Cell Groupings, each of which corresponds to an OMS.

Traffic Separation Class Seizure Peg Count
(TRAFFIC SEPARATIONS SZRE)

This counter is incremented by one just before a call goes into the waiting-for-answer state. The Cell Grouping Index will reside in the CR, and can be retrieved to index the counter block.

Traffic Separation Class Usage
(TRAFFIC SEPARATIONS USAGE)

After each 100 second scan, this register will be incremented by the number of calls (for this Cell Grouping) that are found busy to obtain CCS.

TABLE 11

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

```
MSC 11 IA
OMS 0
          OPULS
  PER      FAIL    GLARE
    0         0        0

OMS 1
FIN NET FAIL     NCI     NCT      STC NC      PBX NC     ITL NC  CGF
        0          0       0           0           0          0    0
OMS 2
             Q931                    PBX         -- INWATS --
    VCA       VCA     LSIF   RSIF   VCA     TERM    ORIG   BLK-SCRN
      0         0       0      0     0        0       0       0

OMS 3    NM BLOCKED
     CB     SDOC    STR    CANT    CANF    TSAR     BNG
  00000    00000  00000   00000   00000   00000   00000

   DSTR     DSTR  DSDOC   DSDOC     OCR     OCR    GSC
    CAN       SK    CAN      SK     RCV    FAIL     SK
  00000    00000  00000   00000   00000   00000  00000

    DRR     DCAN
  00000    00000

OMS 4  MISC IA
MISC IA
  DTMF                    000000
  ISUP                    000000
  ITUP                    000000
  INUP                    000000
  Q931                    000000
  INC                     000000
  CONN                    000000
  OUT                     000000
  TUP OUT                 000000
  NUP OUT                 000000
  CALL DENIAL SCRN        000000
  AT ACK WINK T/O         000000
  ISUP MAB                000000
  ISUP EQUIP CONG         000000
  ISUP OTHER ABAN         000000
  ITUP MAB                000000
  ITUP EQUIP CONG         000000
  ITUP OTHER ABAN         000000
  INUP MAB                000000
  INUP EQUIP CONG         000000
  INUP OTHER ABAN         000000
  Q931 OTHER ABAN         000000
  Q931 SW CUTOFFS         000000
  BROADBAND FAIL          000000
  PBX REORDERS            000000
  ROUTING DATA ERR        000000
```

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

```
OMS 5
                FAIL    OVFL
TRMTR QUEUE        0       0
OMS 6
                OVFL    ABAN
DP CR QUEUE        0       0
CCIS CR QUEUE      0       0
```

Description of Measurements for MSC 11

MSC 11 is the ineffective attempt measurement class for the nonequipment related ineffective machine attempts (NIAs). The following paragraphs define each counter for each NIA as it is referred to in a 4ESS Switch.

OMS 0

Pulsing Error Peg Count
(PER)

This register will be incremented by one each time one or more of the received digits is in error. This error may be defined by one of the following:

a. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.

b. False Key Pulse - On MF pulsing calls, when a second Key Pulse (KP) signal is received.

c. Extra Digit - When more digits are received than expected.

d. Extra Pulse - On DP calls, when an eleventh pulse is received for a single digit.

e. Pulsing Error Other - This includes such things as a valid MF code which is an illegal character, or any other error not covered by one of the above definitions.

Outpulsing Failures Peg Count
(OPULS FAIL)

This register will be incremented by one each time an outpulsing failure occurs for any of the following reasons:

a. Unexpected Stop - This count will be incremented by one each time an unexpected stop dial signal is received because of any of the following reasons.

1. Any stop dial during pulsing on an MF trunk.
2. Any stop dial during pulsing on a DP trunk that does not have the "expect stop-go" class.
3. A second stop dial during pulsing on a DP trunk that does have "expect stop-go" class.
4. On DP stop-go trunks, a stop dial at an invalid time.

b. Integrity Check Failure - Each time there is a failure of the trunk E&M lead integrity check (expected on delay dial-start dial trunks) this counter will be incremented by one.

c. Continuity Test Failure - This count will be incremented by one each time there is a failure of the continuity and polarity test.

d. No Start Dial - This count will be incremented by one each time the delay dial signal (off-hook) from the office persists beyond the transmitter timeout interval on MF or DP delay dial trunks. For wink start trunks, this count is also incremented if the first part of the wink (on to off-hook) is not received within the transmitter timeout interval, or the second part of the wink (off to on-hook) is not received within a specified interval of receipt of the first part of the wink.

e. Expected Stop Timeout - Each time, on any DP trunk with expected stop-go class, an unexpected stop dial signal is received during outpulsing and persists beyond the transmitter time out interval, this counter will be incremented by one.

Glare Peg Counter
(GLARE)

This counter is incremented by one when a glare condition is encountered on the second trial, and the call is sent to Final Handling Treatment (FHT).

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

OMS 1

Final Trial Network Path Hunt Failure
Peg Count
(FIN NET FAIL)

This counter is incremented when a call is sent to Final Handling Treatment because an attempt to seize an idle path through the network fails due to no acceptable idle path availability.

No Circuit Intertoll Peg Count
(NCI)

When a call is sent to Final Handling Treatment because it has overflowed all the available intertoll routes in its routing chain, this counter is incremented by one.

No Circuit Toll Completing Peg Count
(NCT)

When a call is sent to Final Handling Treatment because it has overflowed all of the available toll completing routes to its destination, this counter is incremented by one.

No Circuit Single Trunk Customer
Peg Count
(STC NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to an STC, this counter is incremented by one.

No Circuit Private Branch Exchange
Peg Count
(PBX NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to a PBX, this counter is incremented by one.

International No Circuit Peg Count
(ITL NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to its destination, this counter is incremented by one.

Carrier Group Failure Peg Count
(CGF)

This counter is incremented by one for every incoming seizure that is processed as an origination and is later determined to be an off-hook due to a carrier group failure.

OMS 2

Vacant Code Announcement Peg Count
(VCA)

When a call is sent to Final Handling Treatment because a return from translations is interpreted to be a vacant code (unassigned routing digits have been received for this call), this counter is incremented by one.

Vacant Code Announcement Q.931 Peg Count
(Q931 VCA)

When a call on a Q.931 trunk is sent to Final Handling treatment because a return from translations is interpreted to be a vacant code, this counter is incremented by one.

LATA/STATE Screening Index Failure
Peg Count
(LSIF)

This counter is incremented by one when a call encounters a LATA/STATE Screening Index Failure.

Route Selection Index Screening Failure
Peg Count
(RSIF)

This counter is incremented by one when a call encounters a Route Selection Index Screening Failure.

Vacant Code Announcement Private
Branch Exchange Peg Count
(PBX VCA)

When a call on a PBX trunk is sent to Final Handling treatment because a return from translations is interpreted to be a vacant code, this counter is incremented by one.

INWATS Band Check Peg Count
(INWATS TERM)

When a call is sent to Final Handling Treatment because a return from the terminating translation indicates that the zonal band check has failed, this counter will be incremented by one.

Originating INWATS Denied Peg Count
(INWATS ORIG)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

This counter is incremented by one when an originating INWATS call is sent to final handling for one of the following reasons.

a. INWATS is invalid for the incoming Trunk Subgroup.

b. The INWATS zone is unauthorized for the incoming Trunk Subgroup.

Calls Blocked by Go-No Go Screening Peg Count
(INWATS BLK-SCRN)

This count will be included in a later issue. It is not presently being pegged in the 4E3 Generic Program.

OMS 3

Code Block Control Blocked Peg Count
(CB)

When a call that has been blocked by a Network Management code block control is sent to Final Handling Treatment, this counter is incremented by one.

Selective Dynamic Overload Control Blocked Peg Count
(SDOC)

This counter is incremented when a call that has been blocked by a Network Management Selective Dynamic Overload Control is sent to Final Handling Treatment.

Selective Trunk Reservation Control Blocked Peg Count
(STR)

When a call has been blocked by a Network Management activated Selective Trunk Reservation control and sent to Final Handling Treatment, this counter is incremented by one.

Cancel-To Control Blocked Peg Count
(CANT)

This counter is incremented by one when a call that has been blocked by a Network Management "Cancel To Control" is sent to Final Handling Treatment.

Cancel-From Control Blocked Peg Count
(CANF)

When a call is blocked by a Network Management "Cancel From Control" and then sent to Final Handling Treatment, this counter is incremented by one.

TSG Access Restriction Peg Count
(TSAR)

This counter is incremented by one when a call that has been blocked by a Network Management TSAR control is sent to Final Handling.

Billing Number Gap Peg Count
(BNG)

This counter is incremented by one when a call is blocked by Network Management based on the billing number.

Selective Trunk Reservation Canceled Peg Count
(DSTR CAN)

This counter is incremented by one when the calls are canceled at the OTS node by DSTR.

Selective Trunk Reservation Skipped Peg Count
(DSTR SK)

This counter is incremented by one when the calls are skipped at the OTS node by DSTR.

Selective Dynamic Overload Control Canceled Peg Count
(DSDOC CAN)

This counter is incremented by one when the calls are canceled at the node by D-SDOC.

Selective Dynamic Overload Control Skipped Peg Count
(DSDOC SK)

This counter is incremented by one when the calls are skipped at the node by D-SDOC.

Out-of-Chain Routed Calls Received
(OCR RCV)

This counter is incremented by one when a rerouted call is received.

Out-of-Chain Routed Calls Failed
(OCR FAIL)

This counter is incremented by one when a rerouted call is received that failed.

Group Signaling Congestion Skipped

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

(GSC SK)

This counter is incremented by one when the calls are skipped at the node due to GSC.

D-Reroute Killed Calls
(DRR)

This counter is incremented by one when a D-rerouted call is killed.

D-Cancel Killed Calls
(DCAN)

This counter is incremented by one when a D-CAN call is killed.

OMS 4

DTMF Miscellaneous Ineffective
Attempts Peg Count
(DTMF MISC IA)

This counter is incremented by one when greater than 10 DTMF digits are received on an IDTS trunk.

ISUP Miscellaneous Ineffective
Attempts Peg Count
(ISUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ANI digits missing, ISUP IAM with invalid digit is detected.

ITUP Miscellaneous Ineffective
Attempts Peg Count
(ITUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ITUP IAM to LANGE to fit ITUP or QUEUE slot.

INUP Miscellaneous Ineffective
Attempts Peg Count
(INUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ICT unusable due to MB state.

Q.931 Miscellaneous Ineffective
Attempts Peg Count
(Q931 MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition, e.g., invalid message, is detected.

Incoming Miscellaneous Ineffective
Attempts Peg Count
(INC MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs.

Miscellaneous Connecting Ineffective
Attempts Peg Count
(CONN MISC IA)

This counter is incremented by one when a failure to a second MF receiver occurs.

Miscellaneous Outgoing Ineffective
Attempts Peg Count
(OUT MISC IA)

This counter is incremented by one when a Q.931 or CCS7 outgoing received a message that terminated the call.

ITUP Outgoing Miscellaneous Failure
Peg Count
(TUP OUT MISC IA)

This counter is incremented by one when a miscellaneous IA occurs, e.g., OGT receives a BLO during setup on second try.

INUP Outgoing Miscellaneous Failure
Peg Count
(NUP OUT MISC IA)

This counter is incremented by one when a miscellaneous IA occurs, e.g., OGT receives a BLO during setup on second try.

Call Denial Screening Peg Count
(CALL DENIAL SCRN)

This count is incremented when a call is denied based on incoming trunk Far End Network characteristics and Call Type data found from called digits.

Access Tandem Post Acknowledgement
Wink Timeout
(AT ACK WINK T/O)

This count is incremented whenever an access tandem call fails while waiting for a Post Acknowledgement Wink.

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

ISUP Miscellaneous Abandon Peg Count
(ISUP MAB MISC IA)

This counter is incremented by one when an ISUP call receives a released message or release message while busy in a call register.

ISUP Switching Equipment Congestion Peg Count
(ISUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an ISUP continuity check request.

ISUP Other Abandons Peg Count
(ISUP OTHER ABAN MISC IA)

This counter is incremented by one when an ISUP call that is on queue for a call register receiving a released or release message.

ITUP Miscellaneous Abandon Peg Count
(ITUP MAB MISC IA)

This counter is incremented by one when an ITUP call receives a released or release message while busy in a call register.

ITUP Switching Equipment Congestion Peg Count
(ITUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an ITUP continuity check request.

ITUP Other Abandons Peg Count
(ITUP OTHER ABAN MISC IA)

This counter is incremented by one when an ITUP call that is on queue for a call register receiving a released or release message.

INUP Miscellaneous Abandon Peg Count
(INUP MAB MISC IA)

This counter is incremented by one when an INUP call receives a release message while on queue for a CR or during call setup.

INUP Switching Equipment Congestion Peg Count
(INUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an INUP continuity check request.

INUP Other Abandons Peg Count
(INUP OTHER ABAN MISC IA)

This counter is incremented by one when an INUP call that is on queue for a call register receiving a released or release message.

Q.931 Other Abandons Peg Count
(Q931 OTHER ABAN MISC IA)

This counter is incremented by one when an Q.931 call that on queue for or busy to a call register receives a disconnect.

Q.931 Switching Cutoffs Peg Count
(Q931 SW CUTOFFS MISC IA)

This counter is incremented by one when a Q.931 call is in a stable or confused state and an irregularity occurs to terminate the call.

Broadband Call Failure Peg Count
(BROADBAND FAIL MISC IA)

This counter is incremented by one for H0 (384K bps) or H11 (C1536K bps) call attempts that fail.

PBX Reorders Peg Count
(PBX REORDERS MISC IA)

This counter is incremented by one when a Q.931 call attempt encounters a reorder condition.

Routing Data Error
(ROUTING DATA ERR MISC IA)

This counter is incremented by one when a CCIS or CCS7 outgoing trunk encounters routing problems.

OMS 5

MF Transmitter Queue Entry Failure Peg Count
(TRMTR QUEUE FAIL)

This counter is incremented by one when a call is sent to Final Handling Treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to go on the MF Transmitter Queue, is greater than the number of nonmaintenance busy MF Transmitters (same count as MSC 0 OMS 0).

MF Transmitter Queue Overflow Peg Count

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

(TRMTR QUEUE OVFL)

When a call attempts to link to the MF transmitter queue and no slots are available, this counter is incremented by one.

OMS 6

DP CR Queue Overflow Peg Count
(DP CR QUEUE OVFL)

When an attempt to link the trunk register of a trunk associated with a DP call to an entry on the DP Call Register queue fails because there is no free entry on the queue, this counter will be incremented by one (same count as MSC 17 OMS 0).

DP CR Queue Abandon Peg Count
(DP CR QUEUE ABAN)

This counter is incremented by one when the trunk register of a trunk associated with a DP call that has been abandoned is unlinked from the DP Call Register queue (same count as MSC 17 OMS 0).

CCIS Origination CR Queue Overflow
Peg Count
(CCIS CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with a CCIS call in an entry on the CCIS origination Call Register queue fails because no free entry is available, this counter will be incremented by one (same count as MSC 17 OMS 0).

CCIS Origination CR Queue Abandon
Peg Count
(CCIS CR QUEUE ABAN)

When the IAM and other identifying information for a CCIS call that has been abandoned is removed from the CCIS origination Call Register queue, this counter is incremented by one (same count as MSC 17 OMS 0).

TABLE 12

OUTPUT MEASUREMENT SETS FOR MSC 12
(TIME SLOT INTERCHANGE USAGE)

```
MSC 12 TSI USAGE
OMS 0
TSI   SPC   USAGE   TSI   SPC   USAGE
  0     0       0     0     0       0
  0     0       0     0     0       0
  0     0       0     0     0       0
  0     0       0     0     0       0
```

Description of Measurements for MSC 12

OMS 0

Measurement Subclass 12 is the Time Slot Interchange (TSI) usage measurement class. This MSC provides the capability of obtaining estimates of the Usage on up to eight selected TSIs.

TSI Number
(TSI)

This register contains the TSI number that was previously specified by an input message as requiring usage measurements. Up to eight TSI numbers can be stored. (See Division 10, Section 2a).

SPC Number
(SPC)

This register contains the Signal Processing Circuit (SPC) number of the TSI that was previously specified by an input message as requiring usage measurements. Each TSI may have two associated SPCs (0-1). (See Division 10, Section 2a).

TSI Usage Measurement
(USAGE)

For the specified TSI and SPC requiring usage measurements, the TSI Usage (occupancy) count is determined every 180 seconds by counting the busy idle bits in the time slot memory map. The traffic measurements program will convert this count into CCS before output.

TABLE 13

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

```
MSC 13 TSG
------CIN------
  IN SZ     OCC   OG ATT    OVFL    RRTO    RRAT    RRCR    RRSU
    MAN    AUTO    PATT     ECBS    DATT    DOVF     ATP    SILC
0001LSAN CA 02 01T LAB (a 1-way incoming TSG)
  000000  000000     -        -       -       -       -       -
     -       -       -        -       -       -    000000* 000000

2001ISUP TO LL 3IC HHP (a 1-way outgoing TSG)
     -    000000  000000   000000  000000  000000  000000  000000
  000000  000000  000000   000000  000000  000000  000000*    -

1001TCFD PD DI FMF DOM (a 2-way TSG)
  000000  000000  000000   000000  000000  000000  000000  000000
  000000  000000  000000   000000  000000  000000  000000* 000000
```

* - Count ATP is only output in non-AT&T offices.

Description of Measurements for MSC 13

OMS CIN

There are three possible types of output measurement sets. These sets relate to the TSGs by directionality. That is, one-way incoming, one-way outgoing, and two-way. The OMS number will be the abbreviated Circuit Identification Number (CIN) of the TSG. Each TSG is provided with a complete set of traffic counters (irrespective of its directionality). Thus for one-way TSGs, certain counters will be used and should always contain dashes.

1. **OMS - For One-Way Incoming Trunk Subgroups (TSG)**

Incoming Seizure Peg Count
(IN SZ)

When an incoming trunk in this TSG is represented as busy by changing the trunk's busy idle bits from one to zero, this counter is incremented by one.

Total Usage Measurement
(OCC)

The Trunk Subgroups occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

Selective Incoming Load Control
(SILC)

This counter is incremented by one when a bid for service is denied on an incoming trunk because of Network Management Selective Incoming Load Control.

2. **OMS - For One-Way Outgoing Trunk Subgroups (TSG)**

Total Usage Measurement
(OCC)

The Trunk Subgroup's occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Outgoing Attempts Peg Count
(OG ATT)

This counter is incremented by one when an idle outgoing trunk in this TSG is made busy by changing the trunk's busy idle bits from one to zero. Should an outgoing ineffective attempt occur on this TSG prior to, or during outpulsing, a retrial hunt can be performed (starting with this TSG). The TSG Outgoing attempts

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

Peg Counter, if non-zero, is decremented prior to the retrial trunk hunt to avoid pegging it twice for the same call. Note that the outgoing attempts printed is the sum of the TSG outgoing seizures Peg Count, and the TSG overflow Peg Count. The carried call load can be obtained by subtracting the overflow from the outgoing attempts (OG ATT).

Overflow Peg Count
(OVFL)

This counter is incremented by one when an attempt to hunt an idle trunk fails because there are no idle trunks in this TSG.

Reroute To Seizure Peg Count
(RRTO)

This counter is incremented by one whenever a call which is routed out-of-chain to this outgoing TSG seizes an idle trunk. This count includes the number of incoming calls that have been automatically or manually rerouted out-of-chain and recognized by the via office as out-of-chain routed. It also includes the number of calls which may have been rerouted in this office by either a manual reroute control or an automatic out-of-chain control. Should an outgoing ineffective attempt occur on this TSG for a call that has been routed out-of-chain to it, the TSG reroute to seizure Peg Counter, if non-zero, is decremented by one prior to a retrial trunk hunt.

Spray Reroute Attempts
(RRAT)

This counter is incremented by one when a reroute is attempted.

Spray Reroute Calls Received
(RRCR)

This counter is incremented by one when a reroute call is received.

Spray Reroute Failures
(RRSU)

This counter is incremented by one when a rerouted call fails.

Manual Network Management Controls
(MAN)

This counter is incremented by one any time Network Management (NM) control cancels or skips a call manually.

Automatic Network Management Controls
(AUTO)

This counter is incremented by one any time NM controls cancel or skip calls automatically.

Preferred Call Attempts Peg Count
(PATT)

This counter is incremented by one when a Preferred Call (defined to be calls with maximal revenue potential, e.g., international inboard calls) is attempted.

Egress Busy Crankbacks Sent
(ECBS)

This counter is incremented by one when an egress busy crankback is sent due to unable to complete on an outgoing TSG.

Data Call Attempts Peg Count
(DATT)

This counter is incremented by one when a data call is attempted.

Data Call Overflow Peg Count
(DOVF)

This counter is incremented by one when a data call is attempted and no idle trunk is found because there are idle trunks in the TSG.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

3. **OMS - For Two-Way Trunk Subgroups (TSG)**

Incoming Seizure Peg Count
(IN SZ)

When an incoming trunk in this TSG is represented as busy (by changing the trunks busy idle bits from one to zero), this counter is incremented by one.

Total Usage Measurement
(OCC)

The Trunk Subgroup’s occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

Outgoing Attempts Peg Count
(OG ATT)

This counter is incremented by one when an idle outgoing trunk in this TSG is made busy by changing the trunks busy idle bits from one to zero. Should an outgoing ineffective attempt occur on this TSG prior to, or during outpulsing, a retrial hunt can be performed (starting with this TSG). The TSG outgoing attempts Peg Counter, if nonzero, is decremented prior to the retrial trunk hunt to avoid pegging it twice for the same call. Note that the outgoing attempts printed is the sum of the TSG outgoing seizures Peg Counter and the TSG overflow Peg Count. The carried call load can be obtained by subtracting the overflow from the outgoing attempts (OG ATT).

Overflow Peg Count
(OVFL)

This counter is incremented by one when an attempt to hunt an idle trunk fails because there are no idle trunks in this TSG.

Reroute To Seizure Peg Count
(RRTO)

This counter is incremented by one whenever a call which is routed out-of-chain to this outgoing TSG seizes an idle trunk. This count includes the number of incoming calls that have been automatically or manually rerouted out-of-chain and recognized by the via office as out-of-chain routed. It also includes the number of calls which may have been rerouted in this office by either a manual reroute control or an automatic out-of-chain control. Should an outgoing ineffective attempt occur on this TSG for a call that has been routed out-of-chain to it, the TSG reroute to seizure Peg Counter, if non-zero, is decremented by one prior to a retrial trunk hunt.

Spray Reroute Attempts
(RRAT)

This counter is incremented by one when a reroute is attempted.

Spray Reroute Calls Received
(RRCR)

This counter is incremented by one when a reroute call is received.

Spray Reroute Failures
(RRSU)

This counter is incremented by one when a rerouted call fails.

Manual Network Management Controls
(MAN)

This counter is incremented by one any time Network Management (NM) control cancels or skips a call manually.

Automatic Network Management Controls
(AUTO)

This counter is incremented by one any time NM controls cancel or skip calls automatically.

Preferred Call Attempts Peg Count
(PATT)

This counter is incremented by one when a Preferred Call (defined to be calls with maximal revenue potential, e.g., international inboard calls) is attempted.

Egress Busy Crankbacks Sent
(ECBS)

This counter is incremented by one when an egress busy crankback is sent due to unable to complete on an outgoing TSG.

Data Call Attempts Peg Count
(DATT)

This counter is incremented by one when a data call is attempted.

Data Call Overflow Peg Count
(DOVF)

This counter is incremented by one when a data call is attempted and no idle trunk is found because there are idle trunks in the TSG.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

Selective Incoming Load Control
(SILC)

This counter is incremented by one when a bid for service is denied on an incoming trunk because of Network Management Selective Incoming Load Control.

TABLE 14

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

```
MSC 14 CCIS/CCITT NO. 6 TERMINALS
OMS 0
                      VFL1   VFL2
NEAR AUTO CO        000000 000000
FAR  AUTO CO        000000 000000
REXMIT   REQ        000000 000000
SU IN    ERR        000000 000000
QTR HR IN SERV      000000 000000
RCV RPT ACU         000000
RCV SKP ACU         000000
IN  MSGS            000000
IN  DATA FILLED SU  000000
IN  TRANS        SU 000000
IN  IAM          SU 000000
IN  ANS          SU 000000
OUT MSGS            000000
OUT DATA FILLED SU  000000
IAM XFER PER TERM   000000
OUT TRANS        SU 000000
OUT IAM          SU 000000
OUT ANS          SU 000000
EMER RESTART        000000
THRES EXC           000000
THRES EXC(SEC)      000000
BUFFER OVFL         000000
OUTAGE(CCS)         000000
MAINT OCC(CCS)      000000
TERM TYPE           CCC
IN  DIRECT SIG   SU 000000
OUT DIRECT SIG   SU 000000
```

Description of Measurements for MSC 14

The OMS numbers for this MSC must correspond to the CCIS signaling links (CCIS/CCITT No. 6 Terminals) engineered for the 4ESS Switch office. The maximum number of OMS for a particular office must be less than or equal to the number of engineered CCIS signaling links (DOMTERM + INTL term specified on 406C), or the contents of OD4DNUM6HR07. Each OMS will supply the following measurements.

OMS 0-255

VFL-1 Near-end Initiated Automatic Changeovers Peg Count
(NEAR AUTO CO VFL1)

This counter is incremented by one when a signaling link is automatically relieved of its traffic load (changeover) and this event is initiated by the near end office.

VFL-2 Near-end Initiated Automatic Changeovers Peg Count
(NEAR AUTO CO VFL2)

Same as above except for VFL-2

VFL-1 Far-end Initiated Automatic Changeovers Peg Count
(FAR AUTO CO VFL1)

This counter is incremented by one when a signaling link is automatically relieved of its traffic load (changeover) and this event is initiated by the far end office.

VFL-2 Far-end Initiated Automatic Changeovers Peg Count
(FAR AUTO CO VFL2)

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

Same as above except for VFL-2

VFL-1 Retransmission Requests Peg Count
(REXMIT REQ VFL1)

This counter is maintained by the CCIS terminal and it is incremented by one each time a retransmission request is received by the terminal. If the number of changeovers for the signaling link is zero during a quarter hour, this count is read from the terminal memory and attributed to the VFL over which transmission occurred during the quarter hour. The count of transmission requests for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the retransmission requests Peg Counters for both VFLs are set to zero.

VFL-2 Retransmission Requests Peg Count
(REXMIT REQ VFL2)

Same as above except for VFL-2

VFL-1 Signal Units in Error Peg Count
(SU IN ERR VFL1)

This counter is maintained by the CCIS terminal and it is incremented by one each time a signal unit is received in error by the terminal. (A signal unit is considered in error when the 8 bit checksum over the other 20 bits in the signal unit that is transmitted, do not match the checksum over the first 20 bits in the signal unit that is computed upon reception of the signal unit). If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal memory and attributed to the VFL over which transmission occurred during the quarter hour. The count of signal units in error for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the signal units in error Peg Counts for both VFLs are set to zero.

VFL-2 Signal Units in Error Peg Count
(SU IN ERR VFL2)

Same as above except for VFL-2

VFL-1 Quarter Hour in Service Peg Count
(QTR HR IN SRV VFL1)

This counter is set to one each quarter hour during which no changeovers for the signaling link occurred. The quarter hour in service Peg Counter for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the quarter hour in service Peg Counters for both VFLs are set to zero.

VFL-2 Quarter Hour in Service Peg Count
(QTR HR IN SVR VFL2)

Same as above except for VFL-2

Received Repeated ACU Peg Count
(RCV RPT ACU)

This counter is maintained by the CCIS terminal and is incremented by one each time a received Acknowledgement Signal Unit (ACU) contains a block acknowledgement number equal to the block acknowledgement number in the last ACU received. If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal. Otherwise, it is set to zero.

Received Skipped ACU Peg Count
(RCV SKP ACU)

This counter is maintained by the CCIS terminal and is incremented by one each time a received ACU contains an acknowledgement number that is more than one greater than the block acknowledgement number in the last ACU received. A retransmission request is then made for the skipped block. If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal. Otherwise it is set to zero.

Total Incoming Messages Peg Count
(IN MSGS)

This counter is maintained by the CCIS terminal and is incremented by one for each message received (a message may consist of more than one signal unit).

Total Incoming Data Filled Signal Units
Peg Count
(IN DATA FILLED SU)

This counter is maintained by the CCIS terminal and is incremented by one for each non-SYN, non-ACU signal unit that is received. This count includes retransmitted data filled signal units.

Incoming Transitions Peg Count
(IN TRANS)

This count is maintained by the CCIS terminal and is incremented by one each time an incoming data filled signal unit is followed lowed by an SYU or preceded by an SYU, not counting the presence of ACU's.

Incoming IAM Peg Count
(IN IAM)

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

This counter is maintained by the CCIS terminal and is incremented by one for each Initial Address Message (IMA) that is received. This count includes retransmitted IAMs.

Incoming Answer Signal Units Peg Count
(IN ANS)

This count is maintained by the CCIS terminal and is incremented by one each time an answer signal is received.

Total Outgoing Messages Peg Count
(OUT MSGS)

This counter is maintained by the CCIS terminal and is incremented by one for each message transmitted (a message may consist of more than one signal unit).

Total Outgoing Data Filled Signal Units
Peg Count
(OUT DATA FILLED SU)

This counter is maintained by the CCIS terminal and is incremented by one for each non-Synchronous (SYN), non-ACU signal unit that is transmitted. This count includes retransmitted data filled signal units.

Initial Address Messages Transferred
Per Terminal
(IAM XFER PER TERM)

This counter is maintained by the number of CCITT6 IAMS forwarded at the international STP. This count is stored per receiving terminal in order to indicate the originating office.

Outgoing Transitions Peg Count
(OUT TRANS)

This count is maintained by the CCIS terminal and is incremented by one each time an outgoing data filled signal unit is followed by an SYU or preceded by an SYU, not counting the presence of ACU's.

Outgoing IAM Peg Count
(OUT IAM)

This counter is maintained by the CCIS terminal and is incremented by one for each IAM that is transmitted. This count includes transmitted IAMs.

Outgoing Answer Signal Units Peg Count
(OUT ANS)

This count is maintained by the CCIS terminal and is incremented by one each time an answer signal is transmitted.

Emergency Restart Peg Count
(EMER RESTART)

This count is incremented by one each time synchronization is successfully achieved after failure of all Data Links associated with a terminal pair. The count is incremented against the terminal in which synchronization first occurred. The number of restarts per terminal pair is the sum of the restarts pegged for the associated terminals.

Threshold Exceeded Peg Counts
(THRES EXC)

This count is incremented by one each time the CCIS terminal reports that it was necessary to link spare memory to the report buffer. This occurs when the number of pending incoming and outgoing messages have filled the normal buffer to capacity.

Threshold Exceeded Time in Seconds
(THRES EXC SEC)

This count contains the time in seconds that spare memory is linked to the report buffer. On initial threshold exceeded the counter is incremented once. After one second, if the contents of the buffer is not reduced to or below the capacity of the normal buffer size, the count is incremented again. One second later, if the buffer contents have not been reduced to normal capacity the terminal is removed from service.

Buffer Overflow Peg Count
(BUFFER OVFL)

This counter is incremented by one each time the buffer and the spare linked memory are full of pending messages and an incoming message for which there is no room is received. The terminal is then removed from service.

Terminal Pair Outage
(OUTAGE - CCS)

This count contains the time in CCS of duplex failure of a terminal pair. Each terminal counter contains the pair outage. The count is achieved by scanning the link security registers for the prohibit state every 10 seconds.

Terminal Maintenance Occupancy

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

(MAINT OCC - CCS)

This count contains the time in CCS that the terminal was marked maintenance busy. It does not include any time that the TGR containing the terminal was duplex failed but may include time the terminal pair was duplex failed if the terminals in the pair are in different frames.

Terminal Type Identifier
(TERM TYPE)

Three ASCII characters are used to identify the terminal as Domestic CCIS (DOM), International CCITT No. 6 (INT), or Domestic 4800 BPS (D48).

Incoming Direct Signaling Signal Units
Peg Count
(IN DIRECT SIG SU)

This counter will be incremented by the number of signaling units in the message each time a direct signaling message is received on a particular signaling link. This count is kept by the CCIS terminal program in the terminal memory.

Outgoing Direct Signaling Signal Units
Peg Count
(OUT DIRECT SIG SU)

This counter is incremented by the number of signaling units in the message each time a direct signaling message is sent on a particular signaling link. This count is kept by the CCIS terminal program in the terminal memory.

TABLE 15

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTERNATIONAL CALLS)

```
MSC 15  INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS

OMS 0  SECOND STAGE
        ATTS     VCA  ABN-ND  ABN-SD    FAIL
INTL       0       0       0       0       -
EA         -       -       -       -       0
DOM        -       -       0       0       -

OMS 1  IOC OPER ATTEMPTS
    INT ONLY 000000
    INT OVFL 000000
    INT-DOM  000000
    OUT      000000
    NC-DOM   000000
    NC-INTL  000000

OMS 2  INTL IA
    VCA
                   CUSTOMER    OPERATOR    SCREENED
      TRANSIT             0           0           0
      INBOUND             0           0           -
      ITUP                0           0           -
      INUP                0           0           -
                        ITUP        INUP
      TRANSIT             0           0
                        IOC         IOTC
      DOM OPER            0           0

NCA CUST               0

OUTBOUND INTERNATIONAL OVFL
  NTC        0
  NSC        0

NM BLOCKED INTERNATIONAL
  SDOC       STR     CAN-TO     CAN-FR
     0         0          0          0
INBOUND SCREENED
  INV CALL          0
  INV L DIG         0

TRANSLATION FAILURE
      CCITT#5     CCITT#6      IOC         TSPC
            0          0          0           0

OUTBOUND INTERNATIONAL SERVICE
     TC    TCVPC     OPER  OPERVPC   OUTWATS   OWVPC
      0        0        0        0         0       0
   CUST  CUSTVPC
      0        0

OMS 3  ORIG INTL CALL - DOM SATELLITE INCOMING
               0
```

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTERNATIONAL CALLS)

OMS 4	TWO STAGE SWITCHING ERRORS			
	PE	NO REC	PSTO	PDTO
INTL	0	0	0	0
DOM	0	0	0	0
EA	0	-	0	0

Description of Measurements for MSC 15

OMS 0

Second Stage International Attempts
(SECOND STAGE INTL ATTS)

This count is incremented by one when a call on an international incoming trunk requires two stage pulsing. It does not include calls for which only second stage pulsing formats are used.

Second Stage International Vacant Codes
(SECOND STAGE INTL VCA)

This count is incremented by one when a vacant code is recognized during second stage impulsing. It does not include the cases where second stage only impulsing is used as in operator and inter-ISC overflow calls. The latter are considered international vacant codes.

Abandon During Second Stage International -
No Digits Received
(SECOND STAGE INTL ABN-ND)

This counter is incremented by one when an international incoming trunk abandons while second stage impulsing is taking place and no digits have been received.

Abandon During Second Stage International -
Some Digits Received
(SECOND STAGE INTL ABN-SD)

This counter is incremented by one when an international incoming trunk abandons while second stage impulsing is taking place and some digits have been received.

Second Stage Equal Access Failure Peg Count
(SECOND STAGE EA FAIL)

This counter is incremented by one when the second stage of an EA call is not received.

Abandon During Second Stage VSS -
No Digits Received
(SECOND STAGE DOM ABN-ND)

This counter is incremented by one when a VSS incoming trunk abandons while second stage impulsing is taking place and no digits have been received.

Abandon During Second Stage VSS -
Some Digits Received
(SECOND STAGE DOM ABN-SD)

This counter is incremented by one when a VSS incoming trunk abandons while second stage impulsing is taking place and some digits have been received.

OMS 1

International Originating Attempts To
The Local IOC Operator
(INT ONLY)

This count is incremented by the number of incoming international originating calls offered to local IOC operators, by a 4ESS Switch machine. It is the summation of trunk subgroup head cell counts which represent successful trunk hunts.

International Originating Attempts To
The Local IOC Operator That Overflow
(INT OVFL)

This count is incremented by the number of incoming international originating calls offered to local IOC operators which overflow. It is the summation of Trunk Subgroup head cell counts which represent successful trunk hunts.

Local IOC Originating Operator Incoming
Attempts Going To Domestic or International
Domain
(INT-DOM)

This count is incremented by the number of incoming international and domestic calls attempted by local IOC operators to go to the domestic or international domain. It is the summation of Trunk Subgroup head cell counts which represent successful trunk hunts.

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTERNATIONAL CALLS)

IOC Operator Outgoing Attempts
(OUT)

This count is incremented by the number of outgoing calls (domestic or international originating) offered to local IOC operators. It is the summation of Trunk Subgroup head cell counts which represent successful trunk hunts.

IOC Operator No Circuit-Domestic
(NC-DOM)

This counter is incremented by one when a call originated by a local IOC operator fails to find an idle trunk in the domestic domain.

IOC Operator No Circuit-International
(NC-INTL)

This counter is incremented by one when a call originated by an IOC operator fails to find an idle trunk in the international domain.

OMS 2

International Customer Dialed Vacant Code
(CUSTOMER-TRANSIT VCA)

This counter is incremented by one when a vacant code is recognized on an international call that was customer dialed.

International Operator Dialed Vacant Code
(OPERATOR-TRANSIT VCA)

This counter is incremented by one when a vacant code is recognized on an international call that was operator dialed.

International Calls Blocked by Screening
(SCREENED-TRANSIT VCA)

This counter is incremented by one when an international customer originated call attempts to reach a number not reachable by direct dialing. This would include INWATS numbers and domestic directory information numbers.

International Inbound Customer Dialed
Vacant Code
(CUSTOMER-INBOUND VCA)

This counter is incremented by one when an inbound customer dialed call on a CCITT No. 5 or CCITT No. 6 trunk is determined to be a vacant code.

International Inbound Operator Dialed
Vacant Code
(OPERATOR-INBOUND VCA)

This counter is incremented by one when an inbound operator dialed call on a CCITT No. 5 or CCITT No. 6 trunk is determined to be a vacant code.

ITUP Inbound Customer Dialed
Vacant Code
(CUSTOMER-ITUP VCA)

This counter is incremented by one when an inbound customer dialed call on an ITUP trunk is determined to be a vacant code.

ITUP Inbound Operator Dialed
Vacant Code
(OPERATOR-ITUP VCA)

This counter is incremented by one when an inbound operator dialed call on an ITUP trunk is determined to be vacant code.

INUP Inbound Customer Dialed
Vacant Code
(CUSTOMER-INUP VCA)

This counter is incremented by one when an inbound customer dialed call on an INUP trunk is determined to be a vacant code.

INUP Inbound Operator Dialed
Vacant Code
(OPERATOR-INUP VCA)

This counter is incremented by one when an inbound operator dialed call on an INUP trunk is determined to be vacant code.

ITUP Transit Vacant Code
(ITUP TRANSIT VCA)

This counter is incremented by one when a transit call on an ITUP trunk fails on what is determined to be a vacant code.

INUP Transit Vacant Code
(INUP TRANSIT VCA)

This counter is incremented by one when a transit call on an INUP trunk fails on what is determined to be a vacant code.

Domestic IOC Originated Vacant Code
(IOC-DOM OPER VCA)

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTERNATIONAL CALLS)

This counter is incremented by one when a domestic IOC dialed outbound call is determined to be a vacant code.

Domestic IOTC Originated Vacant Code
(IOTC-DOM OPER VCA)

This counter is incremented by one when a domestic IOTC dialed outbound call is determined to be a vacant code.

International Outbound Customer
Dialed Call Encountered No Circuit
(NCA CUST)

This counter is incremented by one when a customer dialed international outbound call encounters no circuit.

NTC Received on International Outbound
Call Using CCIS Overflow Trunk Subgroup
(OUTBOUND INTERNATIONAL OVFL-NTC)

This counter is incremented by one when National trunk congestion (NTC) has been received for an outbound call placed on an International overflow Trunk Subgroup.

NSC Received on International Outbound
Call Using CCIS Overflow Trunk Subgroup
(OUTBOUND INTERNATIONAL OVFL-NSC)

This counter is incremented by one when National Switching Congestion (NSC) has been received for an outbound call placed on an International Overflow Trunk Subgroup.

International Calls Block by Network
Management Controls
(NM BLOCKED INTERNATIONAL)

The four controls used by Network Management to block calls domestically, as explained plained in TABLE 11 for MSC 11/OMS 3, are also used to control International traffic. The counters used to maintain this data are maintained in the same manner as the Domestic equivalent, but the International Blocking Control counters are separate counters.

International Incoming Screened-Invalid Call
(INBOUND SCREENED-INV CALL)

This counter is incremented by one when translation determines that an International inbound call is invalid.

International Incoming Screened-Invalid
Language Digit
(INBOUND SCREENED-INV L DIG)

This counter is incremented by one when translation determines that an International inbound call contains an invalid language digit.

International Translation Fail -
Too Few/Too Many Digits
CCITT No. 5 Incoming Trunk
(TRANSLATION FAILURE-CCITT#5)

This counter is incremented by one when an incoming transit call on a CCITT No. 5 trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits
CCITT No. 6 Incoming Trunk
(TRANSLATION FAILURE-CCITT#6)

This counter is incremented by one when an incoming transit call on a CCITT No. 6 trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits IOC ITC
(TRANSLATION FAILURE-IOC)

This counter is incremented by one when an outbound transit call on an International Operator Center (IOC) incoming trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits TSPC
(TRANSLATION FAILURE-TSPC)

This counter is incremented by one when an International outbound call has too few/too many second stage digits for further International translation.

Outbound International Teleconferencing
Peg Count
(TC)

This register is incremented by one when an outbound international teleconferencing call is attempted.

Outbound International Teleconferencing,
Voice Path Cancellation Peg Count
(TCVPC)

This register is incremented by one when an outbound international teleconferencing call with voice path assurance cancellation is attempted.

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTERNATIONAL CALLS)

Outbound International Operator Peg Count
(OPER)

This register is incremented by one when an operator originated international outbound call is attempted.

Outbound International Operator,
Voice Path Cancellation Peg Count
(OPERVPC)

This register is incremented by one when an operator originated international outbound call with voice path assurance cancellation is attempted.

Outbound International Toll-Free
Peg Count
(OUTWATS)

This register is incremented by one when an outbound international toll-free call is attempted by a customer.

Outbound International Toll-Free,
Voice Path Cancellation Peg Count
(OWVPC)

This register is incremented by one when an outbound international toll-free call, with voice path assurance cancellation, is attempted by a customer.

Outbound Customer Dialed Call Peg Count
(CUST)

This register is incremented by one when an outbound international customer dialed call is attempted.

Outbound Customer Dialed Call, Voice
Path Cancellation Peg Count
(CUSTVPC)

This register is incremented by one when an outbound international customer dialed call with voice path cancellation is attempted.

OMS 3

Originating International Call
Incoming From a Domestic Satellite
(DOM SATELLITE INCOMING)

This counter is incremented by one when a call destined for non-world zone 1 is sent via a Domestic Satellite link from a world zone 1 office.

OMS 4

Two Stage Pulsing Errors
(TWO STAGE INTL PE)

This count is incremented by one each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code which is an illegal character, or any other error not covered by one of the above definitions.

Two Stage MF Receiver Not Found
(TWO STAGE INTL NO REC)

This counter is incremented by one when there is no available MF Receiver for a call requiring second stage pulsing after a previously selected receiver cannot be connected.

Two Stage MF Permanent Signal Timeout
(TWO STAGE INTL PSTO)

This counter is incremented by one each time a bid for service is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE INTL PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) is received prior to partial dial timeout on a trunk requiring two stage pulsing.

Two Stage VSS Pulsing Errors
(TWO STAGE DOM PE)

This count is incremented by one on a VSS call each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTERNATIONAL CALLS)

2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code which is an illegal character, or any other error not covered by one of the above definitions.

Two Stage VSS MF Receiver Not Found
(TWO STAGE DOM NO REC)

This counter is incremented by one when there is no available MF Receiver for a VSS call requiring second stage pulsing after a previously selected receiver cannot be connected.

Two Stage Permanent Signal Timeout
(TWO STAGE DOM PSTO)

This counter is incremented by one each time a bid for service for a VSS call is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE DOM PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) for a VSS call is received prior to partial dial timeout on a trunk requiring two stage pulsing.

Two Stage EA Pulsing Errors
(TWO STAGE EA PE)

This count is incremented by one on a EA call each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code which is an illegal character, or any other error not covered by one of the above definitions.

Two Stage Permanent Signal Timeout
(TWO STAGE EA PSTO)

This counter is incremented by one each time a bid for service for a EA call is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE EA PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) for a EA call is received prior to partial dial timeout on a trunk requiring two stage pulsing.

TABLE 16

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

```
MSC 16 IO,FS,TU,AND DLK
OMS 0
OUTMSG  OUTMSG    OMR      OMR      OMR
 SUCS    FAIL    SZRE     USAGE    OVFL
     0       0       0        0        0

OMS 1  APS COMM
MISSED 3B COLLECTIONS 0
DKADI REQ   ACCEPTED      REJ     COMPL   CANCELED   FAILED
                  0        0         0          0        0
DMA JOB BUFF  SZRE     RSV ST     OVFL       CCS    TIMEOUT
1A               0          0         0         0         0
3B               0          0         0         0         0
COMM BUFFER   SZRE       CCS      OVFL
1A               0          0         0
3B               0          0         0
MESSAGES      MSGS      READS    WRITES
1A               0          0         0
3B               0          0         0
FMI BUFFERS   SZRE       CCS      OVFL
3B               0          0         0
```

Description of Measurements for MSC 16

OMS 0

Output Message Success Peg Count
(OUTMSG SUCS)

When an output message is successfully loaded and placed on the translate link list, this counter is incremented by one.

Output Message Failure Peg Count
(OUTMSG FAIL)

This counter is incremented by one when an output message is not successfully loaded due to: incorrect input data in the PRINT call; or to a filed attempt to remove Output Message Register (OMRs) from the OMR idle link list (insufficient OMRs available); or the idle link list is found in an invalid state.

OMR Seizure Peg Count
(OMR SZRE)

Each time an output message is loaded into one or more Output Message Registers (OMRs) this counter is incremented by the number of OMRs removed from the OMR idle link list.

OMR Usage
(OMR USAGE)

The OMR occupancy counter is scanned every ten seconds for the number of OMRs that are busy. This number is accumulated over the measurement interval and it is converted to CCS units before output.

OMR Overflow Peg Count
(OMR OVFL)

When an attempt to remove OMRs from the OMR idle link list for an output message fails because sufficient OMRs are not available, this counter is incremented by the number of OMRs requested for the output message.

OMS 1

Missed 3B Collections Peg Count
(MISSED 3B COLLECTIONS)

This count reflects the number of times the 1A processor failed to collect 3B AP driver counts. The collection is performed once every 15 minutes.

Disk Requests Accepted Peg Count
(DKADI REQ ACCEPTED)

This count is incremented each time the disk administration program accepts a client request to make a disk request.

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

Disk Requests Rejected Peg Count
(DKADI REQ REJ)

This count is incremented each time the disk administration program does not accept a client disk request. These type of failures result from software range checks on input parameters.

Disk Requests Completed Peg Count
(DKADI REQ COMPL)

This count is incremented each time the disk administration program completes the transfer of data requested by a client.

Disk Requests Canceled Peg Count
(DKADI REQ CANCELED)

This count is incremented by the disk administration program each time a disk request is canceled.

Disk Requests Failed Peg Count
(DKADI REQ FAILED)

This count is incremented each time the disk administration program determines a request failed after being accepted. This does not include the number of requests canceled.

1A DMA Job Buffer Seizures Peg Count
(DMA JOB BUFF SZRE 1A)

This count is incremented each time the attached processor message handler program seizes a direct memory access job buffer. DMA buffers control memory transfers between the 1A and 3B processors.

1A DMA Job Buffers Entered into the
Reserved State Peg Count
(DMA JOB BUFF RSV ST 1A)

This count is incremented each time the attached processor message handler program changes a direct memory access job buffer state to reserved. The buffer is in the reserved state until the DMA transfer is ready in each processor.

1A DMA Job Buffer Overflow Peg Count
(DMA JOB BUFF OVFL 1A)

This count is incremented whenever the attached processor message handler program needed a direct memory access job buffer and none was available.

1A DMA Job Buffer Usage
(DMA JOB BUFF CCS 1A)

This number represents the 1A direct memory access job buffers usage in units of CCS, over the measurement interval.

1A DMA Job Buffer Timeout Peg Count
(DMA JOB BUFF TIMEOUT 1A)

This count is incremented whenever the attached processor message handler program determines a direct memory access job buffer has timed out waiting for a block transfer to take place.

3B DMA Job Buffer Seizures Peg Count
(DMA JOB BUFF SZRE 3B)

This count is incremented whenever the 3B AP driver program seizes a direct memory access job buffer. DMA buffers control memory transfers between the 1A and 3B processors.

3B DMA Job Buffers Entered into the
Reserved State Peg Count
(DMA JOB BUFF RSV ST 3B)

This count is incremented whenever the 3B AP driver program changes a direct memory access job buffer state to reserved. The buffer is in the reserved state until the DMA transfer is ready in each processor.

3B DMA Job Buffer Overflow Peg Count
(DMA JOB BUFF OVFL 3B)

This count is incremented whenever the 3B AP driver program needs a direct memory access job buffer and none is available.

3B DMA Job Buffer Usage
(DMA JOB BUFF CCS 3B)

This number represents the 3B direct memory access job buffer usage, in units of CCS, over the measurement interval.

3B DMA Job Buffer Timeout Peg Count
(DMA JOB BUFF TIMEOUT 3B)

This count is incremented whenever the 3B AP driver program determines a direct memory access job buffer has timed out waiting for a block transfer to take place.

1A-3B Communication Send Buffer Seizures
Peg Count
(COM BUFFER SZRE 1A)

When the 1A attached processor message handler program enters a message into the 3B communication

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

send buffer this count is incremented. The communication buffer is a mechanism that enables programs in the 1A and in the 3B to communicate. The 3B AP driver delivers the message to the proper 3B client.

1A Communication Buffer Usage
(COM BUFFER CCS 1A)

This number represents the usage, in CCS, of the 1A resident 3B communications send buffer, over the measurement interval.

1A-3B Communication Send Buffer Overflows
Peg Count
(COM BUFFER OVFL 1A)

When the 1A attached processor message handler program cannot load a message into the 3B communication send buffer because there is no room, this count is incremented.

3B-1A Communication Send Buffer Seizures
Peg Count
(COM BUFFER SZRE 3B)

When the 3B AP driver program enters a message into the 3B communication send buffer this count is incremented. The communication buffer is a mechanism that enables programs in the 1A and in the 3B to communicate. The 1A attached processor message handler program delivers the message to the proper 1A client.

3B Communication Send Buffer Usage
(COM BUFFER CCS 3B)

This number represents the usage, in CCS, of the 3B resident 1A communication send buffer, over the measurement interval.

3B-1A Communication Send Buffer Overflows
Peg Count
(COM BUFFER OVFL 3B)

When the 3B AP driver program cannot load a message into the 1A communication send buffer because there is no room, this count is incremented.

1A Messages Sent to the 3B Peg Count
(MESSAGES MSGS 1A)

This is a count of the number of times the 1A attached processor message handler program loaded a message of type MSG into the 3B communication send buffer. There are around 13 different message types.

1A Read Messages Sent to the 3B Peg Count
(MESSAGES READS 1A)

This is a count of the number of times the 1A attached processor message handler program loaded a message of type READ into the 3B communication send buffer.

1A Write Messages Sent to the 3B Peg Count
(MESSAGES WRITES 1A)

This is a count of the number of times the 1A attached processor message handler program loaded a message of type WRITE into the 3B communication send buffer.

3B Messages Sent to the 1A Peg Count
(MESSAGES MSGS 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type MSG into the 1A communication send buffer. There are around 13 different message types.

3B Read Messages Sent to the 1A Peg Count
(MESSAGES READS 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type READ Into the 1A communication send buffer.

3B Write Messages Sent to the 1A Peg Count
(MESSAGES WRITES 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type WRITE into the 1A communication send buffer.

3B File Manager Buffer Seizures
Peg Count
(FMI BUFFERS SZRE 3B)

This count is incremented each time a FMI buffer is required by the file manager interface. FMI buffers hold data for transfer to or from the 1A section of the 3B disk. The file manager interface is part of the 3B AP driver program.

3B File Manager Buffer Usage
(FMI BUFFERS CCS 3B)

This number is the FMI buffer usage, in CCS, over the measurement interval.

3B File Manager Buffer Overflows
Peg Count
(FMI BUFFERS OVFL 3B)

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

This count is incremented each time a FMI buffer is required by the file manager interface and none is available. FMI buffers hold data for transfer to or from the 1A section of the 3B disk. The file manager interface is part of the 3B AP driver program.	

TABLE 17

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

```
MSC 17 ENGINEERED MEMORY
OMS 0  DOMESTIC MEMORY
                 SZRE      RLS
ISUP CTP CR         0        0
                 SZRE     USAGE    OVFL     ABAN
MF CR               0         -       -        -
DP CR               0         -       -        -
CCIS CR             0         -       -        -
MISC CR             0         -       -        -
Q931 CR             0         -       -        -
ISUP CR             0         -       -        -
ITUP CR             0         -       -        -
INUP CR             0         -       -        -
Q931 CR QUEUE       0         0       0        0
ISUP CR QUEUE       0         0       0        0
ITUP CR QUEUE       0         0       0        0
INUP CR QUEUE       0         0       0        0
CR                  -         0       -        -
DP CR QUEUE         0         0       0        0
CCIS CR QUEUE       0         0       0        0
MF ORIG QUEUE       0         0       -        0
DTMF CR             0         -       -        -
IDTMFWK CR Q        0         0       -        0
IDTS CR QUEUE       0         0       0        0

OMS 1  MEMORY FOR INTERNATIONAL
                       SZRE      USAGE      OVFL      ABAN
CCITT5 CR                 0          -         -         -
CCITT6 CR                 0          -         -         -
CCITT5 ORIG Q             0          0         -         -
CCITT6 ORIG Q             0          0         0         0
2ND STAGE MF REC Q        0          0         -         0

OMS 2  CALL DETAIL REC. BUFFERS
TOTAL RECORDS LOST       0
BUFFER OCCUPANCY         0

OMS 3  SZRE     CCS    OVFL
TMR       0       0       0
```

Description of Measurements for MSC 17

OMS 0

ISUP Completion of Transmission Path
CR Seize Peg Count
(ISUP CTP CR SZRE)

This count is for data calls where neither the Backward Call Indicator (BCI) nor the Optional Backward Call Indicator (OBCI) in the address complete message says to cut-through the transmission path.

ISUP Completion of Transmission Path
CR Release Peg Count
(ISUP CTP CR RLS)

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

This release count is pegged when an Answer message is received while in the timing for answer states.

MF CR Seizure Peg Count
(MF CR SZRE)

When a Call Register (CR) is removed from the link list of idle CRs and initialized for an MF call or for a test call, this counter will be incremented by one.

DP CR Seizure Peg Count
(DP CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a DP call, this counter will be incremented by one.

CCIS CR Seizure Peg Count
(CCIS CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a CCIS call, this count will be incremented by one.

Miscellaneous CR Seizure Peg Count
(MISC CR SZRE)

This count is incremented by one when a CR is removed from the link list of idle CRs and initialized for a test call.

Q.931 CR Seizure Peg Count
(Q931 CR SZRE)

When a Call Register (CR) is removed from the link list of idle CRs and initialized for a Q.931 call, this counter is incremented by one.

ISUP CR Seizure Peg Count
(ISUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for a ISUP call, this counter is incremented by one.

ITUP CR Seizure Peg Count
(ITUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an ITUP call, this counter is incremented by one.

INUP CR Seizure Peg Count
(INUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an INUP call, this counter is incremented by one.

Q.931 Origination CR Queue Seizure
Peg Count
(Q931 CR QUEUE SZRE)

When an incoming Q.931 call fails to obtain a CR by overload, the setup message is placed on queue for a CR, with this counter being incremented by one.

Q.931 Origination CR Queue Usage
(Q931 CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

Q.931 Origination CR Queue Overflow
Peg Count
(Q931 CR QUEUE OVFL)

When a Q.931 call fails to obtain a queue entry due to lack of a free entry, this counter is incremented by one.

Q.931 Origination CR Queue Abandon
Peg Count
(Q931 CR QUEUE ABAN)

When the setup message for a Q.931 call that has been abandoned has been removed from the Q.931 CR queue, this counter is incremented by one.

ISUP Origination CR Queue Seizure
Peg Count
(ISUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received via the CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

ISUP Origination CR Queue Usage
(ISUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. The number is accumulated over the measurement interval and then converted to CCS units before output.

ISUP Origination CR Queue Overflow
Peg Count
(ISUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an ISUP call in an entry on

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

the ISUP origination CR queue fails because no free entry is available, this counter is incremented by one.

ISUP Origination CR Queue Abandon Peg Count
(ISUP CR QUEUE ABAN)

When the IAM and other identifying information for an ISUP call that has been abandoned is removed from the ISUP origination call register queue, this counter is incremented by one.

ITUP Origination CR Queue Seizure Peg Count
(ITUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received on an ITUP CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

ITUP Origination CR Queue Usage
(ITUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This is accumulated over the measurement interval and then converted to CCS units before output.

ITUP CR Queue Overflow Peg Count
(ITUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an ITUP call in an entry on the ITUP origination CR queue fails because no free entry is available, this counter is incremented by one.

ITUP Origination CR Queue Abandon Peg Count
(ITUP CR QUEUE ABAN)

When the IAM and other identifying information for an ITUP call that has been abandoned is removed from the ITUP origination call register queue, this counter is incremented by one.

INUP Origination CR Queue Seizure Peg Count
(INUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received on an INUP CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

INUP Origination CR Queue Usage
(INUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This is accumulated over the measurement interval and then converted to CCS units before output.

INUP CR Queue Overflow Peg Count
(INUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an INUP call in an entry on the INUP origination CR queue fails because no free entry is available, this counter is incremented by one.

INUP Origination CR Queue Abandon Peg Count
(INUP CR QUEUE ABAN)

When the IAM and other identifying information for an INUP call that has been abandoned is removed from the INUP origination call register queue, this counter is incremented by one.

Call Register (CR) Usage
(CR USAGE)

The Call Register occupancy count is scanned every ten seconds for the number of CRs that are busy. This number is accumulated over the measurement interval and then converted to CCS units before output.

DP CR Queue Seizure Peg Count
(DP CR QUEUE SZRE)

When the Trunk Register (TR) of a trunk associated with an incoming DP call is linked to an entry on the DP CR queue, this counter will be incremented by one.

DP CR Queue Usage
(DP CR QUEUE USAGE)

The DP CR queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and it is converted to CCS units before output.

DP CR Queue Overflow Peg Count
(DP CR QUEUE OVFL)

This counter is incremented by one when an attempt to link the Trunk Register of a trunk handling a DP call with an entry on the DP CR queue fails because there is no free entry on the queue. (same count as MSC 11 OMS 6).

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

DP CR Queue Abandon Peg Count
(DP CR QUEUE ABAN)

When the Trunk Register of a trunk associated with a DP call that has been abandoned is unlinked from the DP CR queue, this counter is incremented by one. (same count as MSC 11 OMS 6).

CCIS Origination CR Queue Seizure
Peg Count
(CCIS CR QUEUE SZRE)

This counter is incremented by one each time an Initial Address Message (IAM) is read from a terminal for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

CCIS Origination CR Queue Usage
(CCIS CR QUEUE USAGE)

The queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCIS Origination CR Queue Overflow
Peg Count
(CCIS CR QUEUE OVFL)

When an attempt to place an IAM, and other identifying information associated with a CCIS call, in an entry on the CCIS origination CR queue fails because no free entry is available, this counter is incremented by one. (same count as MSC 11 OMS 6).

CCIS Origination CR Queue Abandon
Peg Count
(CCIS CR QUEUE ABAN)

When the IAM and other identifying information for a CCIS call that has been abandoned is removed from the CCIS origination Call Register queue, this counter is incremented by one. (same count as MSC 11 OMS 6).

MF Origination Queue Seizure Peg Count
(MF ORIG QUEUE SZRE)

When the Trunk Register of a trunk with an MF origination is linked to the MF origination queue, this counter will be incremented by one.

MF Origination Queue Usage
(MF ORIG QUEUE USAGE)

The MF origination queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

MF Origination Queue Abandon Peg Count
(MF ORIG QUEUE ABAN)

When the Trunk Register of a trunk with an MF origination in unlinked from the MF origination queue after the origination is abandoned, this counter is incremented by one.

DTMF CR Seizure Peg Count
(DTMF CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a DTMF call, the counter will be incremented by one.

IDTMFWK CR Queue Seizure Peg Count
(IDTMFWK CR Q SZRE)

When the TR of a trunk associated with an incoming DTMF call is linked to an entry on the incoming DTMF wink (IDTMFWK) CR queue, this counter will be incremented by one.

IDTMFWK CR Queue Usage
(IDTMFWK CR Q USAGE)

The IDTMFWK CR Queue occupancy count is scanned every 10 seconds for the number of entries on the queue. The number is accumulated over the measurement interval and it is converted to CCS units before output.

IDTMFWK CR Queue Abandon Peg Count
(IDTMFWK CR Q ABAN)

When the TR of a trunk associated with a DTMF call that has been abandoned is unlinked from the IDTMFWK CR queue, this counter is incremented by one.

IDTS CR Queue Seizure Peg Count
(IDTS CR QUEUE SZRE)

When the TR of a trunk associated with an Incoming Dial Tone Start (IDTS) call is linked to an entry on the IDTS CR queue, this counter will be incremented by one.

IDTS CR Queue Usage
(IDTS CR QUEUE USAGE)

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

The IDTS CR Queue occupancy count is scanned every 10 seconds for the number of entries on the queue. The number is accumulated over the measurement interval and it is converted to CCS units before output.

IDTS CR Queue Overflow Peg Count
(IDTS CR QUEUE OVFL)

This counter is incremented by one when an attempt to link the TR of a trunk handling an IDTS call to an entry on the IDTS CR queue fails because there is no free entry on the queue.

IDTS CR Queue Abandon Peg Count
(IDTS CR QUEUE ABAN)

When the TR of a trunk associated with an IDTS call that has been abandoned is unlinked from the IDTS CR queue, this counter is incremented by one.

OMS 1

CCITT No. 5 Call Register Queue Seizure
Peg Count
(CCITT5 CR SZRE)

When a Call Register is removed from the link list of idle CRs and initialized for a CCITT No. 5 call, this counter will be incremented by one.

CCITT No. 6 Call Register Queue Seizure
Peg Count
(CCITT6 CR SZRE)

This count will be incremented by one when a CR is removed from the link list of idle CRs and initialized for a CCITT No. 6 call.

CCITT No. 5 Originating Queue Seizure
Peg Count
(CCITT5 ORIG Q SZRE)

This count is incremented by one when the Trunk Register of a trunk with a CCITT No. 5 origination is linked to the CCITT No. 5 origination queue.

CCITT No. 5 Originating Queue Usage
(CCITT5 ORIG Q USAGE)

The CCITT No. 5 originating queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCITT No. 6 Originating Queue Seizure
Peg Count
(CCITT6 ORIG Q SZRE)

This counter is incremented by one when a CCITT No. 6 call goes on queue for a Call Register.

CCITT No. 6 Originating Queue Usage
(CCITT6 ORIG Q USAGE)

The CCITT No. 6 originating queue usage count is scanned every ten seconds the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCITT No. 6 Originating Queue Overflow
Peg Count
(CCITT6 ORIG Q OVFL)

This count is incremented by one when an attempt to link the Trunk Register of a trunk handling a CCITT No. 6 call with an entry on the CCITT No. 6 CR queue fails because there is no free entry on the queue.

CCITT No. 6 Originating Queue Abandon
Peg Count
(CCITT6 ORIG Q ABAN)

This counter is incremented by one when a CCITT No. 6 call goes off of the originating queue for any abnormal reason. The count is pegged via Final Handling.

Second Stage MF Receiver Queue Seizure
Peg Count
(2ND STAGE MF REC Q SZRE)

This count is incremented by one when a call requiring second stage is removed from the CR link list and canceled to a second stage MF Receiver.

Second Stage MF Receiver Queue Usage
(2ND STAGE MF REC Q USAGE)

The second stage MF Receiver queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS before output.

Second Stage MF Receiver Queue Abandon
Peg Count
(2ND STAGE MF REC Q ABAN)

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

This count is incremented by one when a call on the second stage MF Receiver queue leaves the queue for any abnormal reason. The count is incremented via Final Handling.

OMS 2

International Call Detail Recording
Registers Total Records Lost Peg Count
(TOTAL RECORDS LOST)

This count is incremented by one every time a request is made to write a record into the buffer block but there are no buffer blocks available.

International Call Detail Recording
Register Buffer Block Occupancy Peg Count
(BUFFER OCCUPANCY)

The buffer occupancy counter is an up/down counter that reflects how many records are in the buffer at any time.

OMS 3

Trunk Maintenance Register Seizure
Peg Count
(TMR SZRE)

When a Trunk Maintenance Register (TMR) is removed from the link list of idle TMRs and initialized for a trunk maintenance test, this counter will be incremented by one.

Trunk Maintenance Register Usage
(TMR CCS)

The TMR occupancy count is scanned every ten seconds for the number of registers that are busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Trunk Maintenance Register Overflow
Peg Count
(TMR OVFL)

This counter is incremented by one when an attempt to seize an idle TMR fails because there are no idle TMRs on the TMR idle link list.

TABLE 18

OUTPUT MEASUREMENT SETS FOR MSC 18
(CAMA INEFFECTIVE ATTEMPTS)

```
MSC 18 CAMA IA
 OMS 0
    CAMA         CAMA    CAMA POS              CAMA
   POS TO         CDT     ATT TO        CPR   POS DISC
      0           0           0          0          0
                          OVFL      ABAN
  OPERATOR QUEUE            0         0
  DP ANI RCVR QUEUE         -         0
     MCA        UCA
       0          0
```

Description of Measurements for MSC 18

OMS 0

CAMA Position Timeout Peg Count
(CAMA POS TO)

This register will be incremented when an occupied and idle CAMA operator position is seized, but remains unassigned until it times out.

CAMA Position Disconnect Timeout
Peg Count
(CAMA CDT)

This counter will be incremented by one whenever more than 5 seconds elapse between sending a disconnect signal to a CAMA operator position and receipt of off-hook from the operator on the keying trunk.

CAMA Position Attached Timeout
Peg Count
(CAMA POS ATT TO)

This counter is incremented by one each time the CAMA position fails to provide a position attached signal within 30 seconds of seizure.

CAMA Position Report (CPR) Peg Count
(CPR)

This register will be incremented by one when a trouble condition is reported by the operator. An example might be poor transmission. This results in a predetermined seven digit trouble code being keyed (rather than a calling party number) and the call is aborted. (Same as MSC 36 OMS 5).

CAMA Position Disconnect Peg Count
(CAMA POS DISC)

This counter is incremented by one each time an operator depresses the position disconnect key or unplugs between the time seizure is sent out and valid ONI digits are received. (Same as MSC 19 OMS 0).

CAMA Operator Queue Overflow Peg Count
(OPERATOR QUEUE OVFL)

When an attempt to link a Call Register on the CAMA operator queue fails because the queue is full, this counter is incremented by one. (Same as MSC 19 OMS 0).

CAMA Operator Queue Abandon Peg Count
(OPERATOR QUEUE ABAN)

This counter is incremented when the Call Register of a call that has been abandoned is unlinked from the CAMA operator queue (Same as MSC 19 OMS 0).

DP ANI MF Receiver Queue Abandon Peg
Count
(DP ANI RCVR QUEUE ABAN)

When the Call Register of a call that has been abandoned is unlinked from the DP ANI MF receiver queue, this counter is incremented by one. (Same as MSC 19 OMS 0).

Misrouted CAMA Peg Count
(MCA)

This counter is incremented by one when a call is sent to Final Handling Treatment because a return is made from the local call intercept translation that says the call should have been completed locally.

Unauthorized CAMA Peg Count
(UCA)

This counter is incremented by one when a call is sent to Final Handling Treatment because a return is made from the local call intercept translation which indicates that the dialed number is unauthorized for CAMA (for example, operator codes).

TABLE 19

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

```
MSC 19  CAMA
 OMS 0
                          SRV
                 SZRE     USAGE    USAGE    OVFL      ABAN      DCONN
POSITION            0         0        0       -         -          0
OP QUEUE            0         -        0       0         0          -
DP ANI QUEUE        0         -        0       -         0          -

   CALLS      ONI  ANI MP  ONI PROCESSED  5-SEC TOUT
       0        0       0              0           0
     ANF      AIF     AOF
       0        0       0

 OMS 1
      AMA MATCH      AMA WRONG
       CHK FAIL    CALLING CODE
              0               0

 OMS 2
      EA ANI     EA ANI     EA ANI        CALL          TAPE/3B
        FAIL     FL-RTE       SUCC    RCD LOST           BLOCKS
           0          0          0           0                0
```

Description of Measurements for MSC 19

OMS 0

Total CAMA Positions Seizure Peg Count
(POSITION SZRE)

This counter is incremented by one each time an occupied (manned) and idle CAMA operator position is made service busy. This is accomplished by changing the first busy idle bit associated with a position's keying trunk from 1 to 0.

Total CAMA Positions Service Usage
(POSITION SRV USAGE)

After each ten second scan, this counter is incremented by the number of CAMA operator positions that are found occupied and service busy. This data is converted into CCS by the traffic program before output.

CAMA Positions Usage
(POSITION USAGE)

This counter is incremented by the number of CAMA positions found occupied after each ten second scan. This data is converted into CCS for output.

CAMA Position Disconnect Peg Count
(POSITION DCONN)

This counter is incremented by one each time an operator depresses the position disconnect key or unplugs between the time seizure is sent and valid ONI digits are received. (Same as MSC 18 OMS 0).

CAMA Operator Queue Seizure Peg Count
(OP QUEUE SZRE)

When a Call Register is linked on the CAMA operator queue, this counter is incremented by one.

CAMA Operator Queue Usage
(OP QUEUE USAGE)

After each ten second scan, this counter is incremented by the number of call registers linked on the CAMA operator queue. This data is converted to CCS by the traffic program before output.

CAMA Operator Queue Overflow Peg Count
(OP QUEUE OVFL)

When an attempt to link a Call Register on the CAMA operator queue fails because the queue is full, this counter is incremented by one. (Same as MSC 18 OMS 0).

TABLE 19 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

CAMA Operator Queue Abandon Peg Count
(OP QUEUE ABAN)

This counter is incremented by one when the Call Register of a call that has been abandoned is unlinked from the CAMA operator queue. (Same as MSC 18 OMS 0).

DP ANI MF Receiver Queue Seizure Peg Count
(DP ANI QUEUE SZRE)

This counter is incremented by one when a Call Register associated with a DP ANI call is linked on the DP ANI MF Receiver queue. This link to the queue is necessary while waiting for a receiver to collect the information digit and the calling number (Same as MSC 18 OMS 0).

DP ANI MF Receiver Queue Usage
(DP ANI QUEUE USAGE)

After each ten second scan, this counter is incremented by the number of Call Registers (associated with a DP ANI call) that are linked on the DP ANI MF Receiver queue. This data is converted into CCS by the traffic program before output.

DP ANI MF Receiver Queue Abandon Peg Count
(DP ANI QUEUE ABAN)

When the Call Register of a call that has been abandoned is unlinked from the DP ANI MF Receiver queue, this counter is incremented by one.

NOTE: The following four (4) counts are incremented at key points in the CAMA program. From these the On-Site Report System can derive the counts for offered ONI calls, offered ANI calls and ANI failure.

Total CAMA Calls Peg Count
(CALLS)

This counter is incremented by one whenever a call originates on a CAMA trunk and the called number is received for an ANI or ONI call.

ONI Calls Peg Count
(ONI)

This counter will be incremented by one each time a call is initially determined to be an ONI call to the information digit outpulsed by the ANI office indicates multi-party.

ANI Multi-Party Calls Peg Count
(ANI MP)

This count will be incremented by one each time the information digit outpulsed by an ANI office indicates the caller is on a multi-party line.

Operator Processed CAMA Calls Peg Count
(ONI PROCESSED)

This count will be incremented each time a CAMA call is sent to an operator because:

a. The call is from an ONI trunk,

b. The information digit from an ANI office indicated multi-party.

c. There was an AIF or ANF on an ANI call.

CAMA Calls Queue Over 5-Seconds Peg Count
(5-SEC TOUT)

This counter is incremented whenever a call abandons or is removed from the CAMA operator position queue and the length of time the call was queued exceeds 5-seconds.

CAMA Automatic Number Identification Failure Peg Count
(ANF)

On CAMA Automatic Number Identification (ANI) calls, this counter will be incremented by one when 5 seconds have elapsed between reception of an information digit and the calling party number digits. The counter will also be incremented when the ANI equipment receives invalid or non-MF calling party digits, or the ANI information digit is a non-MF tone. The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification Local Office Failure
(AIF)

This counter will be incremented by one for CAMA ANI calls for which the ANI information digit is not 0 or 3 (ANI information is not forthcoming from the origination office). The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification Office Failure
(AOF)

TABLE 19 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

This counter will be incremented by one for CAMA ANI calls for which a five second timeout occurs while waiting for the ANI information digit. The call is then transferred to an operator for further handling.

OMS 1

AMA Match Check Failure Peg Count
(AMA MATCH CHK FAIL)

This counter is incremented by one each time the customer gives the CAMA operator the called number instead of the calling number.

AMA Wrong Calling Code Peg Count
(AMA WRONG CALLING CODE)

This counter is incremented by one each time a CAMA operator keys in a calling number invalid for CAMA.

OMS 2

EA ANI Failure Peg Count
(EA ANI FAIL)

This counter is incremented by one each time an Equal Access (EA) Automatic Number Identification (ANI) call encounters an error in reception of the ANI digits.

EA ANI Failure - Route Peg Count
(EA ANI FL-RTE)

This counter is incremented by one each time an EA ANI call encounters an error in the reception of the ANI digits and the call was still routed.

EA ANI Success Peg Count
(EA ANI SUCC)

This count is incremented by one each time an EA ANI call either receives the correct ANI digit sequence or the ANI digit sequence fails with Far End Network (FEN) ANI Failure Action (AFA) set to a continue state.

Call Record Lost Peg Count
(CALL RCD LOST)

This counter is incremented by the number of records that were lost due to the records not being entered on the AMA tape.

Call Record Block Peg Count
(TAPE/3B BLOCKS)

This counter is incremented by one each time a block of AMA call records is written onto the AMA tape or to the 3B/APS.

TABLE 20

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

```
MSC 20 PERFORMANCE MEASUREMENTS - MAJOR MAINT RESPONSES AND ALARMS
OMS 0  INTERRUPT - TOTALS
         TOT-A  TOT-B  TOT-C  TOT-D  TOT-E  TOT-F  TOT-G  TOT-K
SINGLE       0      0      0      0      0      0      0      0
MULT         0      0      0      0      0      0      0  -----

OMS 1  MAJOR MAINTENANCE RESPONSES

 INTERRUPTS
   B HIN     B PSI    B PSO   B CCSW  D CSIR     D APIR
       0         0        0        0       0          0
  D DSIR     D STK    D IVT    D PAF   D OOR      D AUO     E INR     E OOR
       0         0        0        0       0          0         0         0
  INJ,AP   INJ,DUS   F PUFI    F PUFO   F APUF   INT LEVL   TOT MTINJ
       0         0        0         0        0          0           0
 DLVAP    DLVDUS   OPINJPS   STFLAP
     0         0         0        0

ADDRESSING ERRORS
  CCAPOR   CCDUOR  APCSOR  APPSOR  DUPSOR  DUCSOR  CCAPIR
       0        0       0       0       0       0       0
  CCDUIR   APCSIR  APPSIR  DUPSIR  DUTUIR
       0        0       0       0       0

OMS 2  ALARMS
         CRITICAL  MAJOR  MINOR
                0      0      0
 POWER RM   -          0      0

OMS 3  HARDWARE DETECTED CGA
       0
```

Description of Measurements for MSC 20

OMS 0

Individual Totals of A through K
Level Interrupts Peg Count
(SINGLE or MULT TOT A-K)

These counters will be incremented by one each time the A through K level interrupt logic is placed in execution. The counters will be incremented by the Maintenance Restart Program (MARP) prior to exiting from interrupt level program execution.

Note that in 4E3 the multiple F-Level total Peg Counter is not being pegged. It will be added in the future issue. Also note that the total number of single F-Levels includes F-Levels from the MCC and IOUS. These last two sources are not shown individually in MSC 20/OMS 1.

OMS 1

B-Level Interrupts Hardware
Initialization Peg Count
(B HIN)

This counter will be incremented by one each time it can be determined that the B-Level interrupt is due to a processor configuration or a processor configuration accompanying a system reinitialization. The counter will be incremented by the Processor Configuration Recovery Program (PCRV).

B-Level Interrupts Pulse Source
In-Range Peg Count

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

(B PSI)

This counter will be incremented by one each time it can be determined that the B-Level interrupt is due to an in-range pulse source error. The counter is incremented by the Central Control Fault Recognition Program (CCFR).

B-Level Interrupts Pulse Source
Out-Of-Range Peg Count
(B PSO)

This counter will be incremented by one by the CCFR program each time it determines that the B-level interrupt is due to an out-of-range pulse source error.

B-Level Interrupt Central Control
Switch Peg Count
(B CCSW)

This counter will be incremented by one by the CCFR program each time it determines that the B-Level interrupt resulted from a Central Control Switch.

D-Level Interrupts Call Store
In-Range Peg Count
(D CSIR)

This counter will be incremented by one each time the Call Store Terminal Equipment Center Fault Recognition Program (CSFR) can determine that the D-level interrupt is due to an in-range Call Store Error.

D-Level Interrupts Attached
Processor In-Range Peg Count
(D APIR)

This counter is incremented by one each time a D-level interrupt is due to an in-range Attached Processor error.

D-Level Interrupts Data Unit Selector
In-Range Peg Count
(D DSIR)

This counter is incremented by one each time a D-level interrupt is due to an in-range Data Unit Selector error.

D-Level Interrupts Stack Related
Peg Count
(D STK)

This counter will be incremented by one each time the CSFR program can determine that the d-level interrupt is due to a stack related error, such as overflow or underflow.

D-Level Interrupts Invalid Transfer
Peg Count
(D IVT)

This counter will be incremented by one each time the CSFR program can determine that the D-level interrupt is due to an invalid transfer.

D-Level interrupts Protected Area
Failure Peg Count
(D PAF)

Each time the CSFR program can determine that the D-level interrupt is due to a protected area failure, this counter will be incremented by one.

D-Level Interrupts Out-Of-Range
Peg Count
(D OOR)

This counter will be incremented by one each time the Maintenance Restart Program (MARP) can determine that the D-level interrupt terrupt was due to an Out-Of-Range error.

D-Level Interrupts Auxiliary Unit
Out-Of-Range Address Peg Count
(D AUO)

This counter is incremented by the AUFR program each time a D-level interrupt is caused by an Out-Of-Range Auxiliary Unit Address.

E-Level Interrupts In-Range Peg Count
(E INR)

Each time that the Program Store Fault Recognition Program (PSFR) can determine that the E-level interrupt is due to an in-range PS error, this counter will be incremented by one.

E-Level Interrupts Out-Of-Range
Peg Count
(E OOR)

This counter will be incremented by one each time the PSFR program can determine that the E-level interrupt is due to an Out-Of-Range PS error.

Attached Processor Interject Peg Count
(INJ,AP)

This counter will be incremented by one by the AUFR program for each Attached Processor Maintenance Interject request.

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

Data Unit Selector Interject Peg Count
(INJ,DUS)

This counter will be incremented by one by the AUFR program for each Data Unit Selector Control Unit Maintenance Interject request.

F-Level Interrupts Peripheral Unit
Failure In-Range Peg Count
(F PUFI)

This counter will be incremented by one each time that the Peripheral Bus Fault Recognition Program (PBFR) can determine that the F-level interrupt is due to an in-range Peripheral Unit Failure (PUF).

F-Level Interrupts Peripheral Unit
Failure Out-Of-Range Peg Count
(F PUFO)

Each time the PBFR program can determine that the F-level interrupt is due to an Out-Of-Range PUF, this counter will be incremented by one.

F-Level Interrupts Autonomous
Peripheral Unit Failure Peg Count
(F APUF)

This counter will be incremented by one each time the PBFR can determine that the F-level interrupt was due to an Autonomous Peripheral Unit Failure (APUF). The units capable of this action include the SP, VIP, TSI and TMS.

Interrupt Level Duration Count
(INT LEVL)

This counter will be updated by the Maintenance Restart Program (MARP), prior to existing from interrupt level processing, by the amount of time, measured in tens of milliseconds, which has been spent on interrupt level. This count will reflect system outage due to interrupts.

Maintenance Interjects Voiceband
Interface Peg Count
(TOT MTINJ)

For each maintenance interject request associated with a VIF, PUC, MAS, DIF, Signal Processor or Echo Suppressor Terminal, this counter will be incremented by one.

D-Level Interrupts Attached Processor
Peg Count
(DLVAP)

This counter will be incremented by one by the AUFR program each time a D-level interrupt is caused by a Attached Processor.

D-Level Interrupts Data Unit
Selector Peg Count
(DLVDUS)

This counter will be incremented by one by the AUFR program each time a D-level interrupt is caused by a Data Unit Selector.

Operational Interject Data Unit
Selector Peg Count
(OPINJPS)

This counter will be incremented by one by the AUFR program each time an operational interject is caused by a Data Unit selector.

Status Failure Attached Processor
Peg Count
(STFLAP)

Each time a status failure is caused by a Attached Processor, this counter will be incremented by one.

Addressing Errors

These items each have an associated counter and it will be incremented by one each time the AUFR, CSFR or APFR program determines that the specified addressing error has taken place.

OMS 2

Alarms Peg Count
(ALARMS CRITICAL, MAJOR, or MINOR)

Within the 4ESS Switch there are three categories of alarms-critical, major and minor. A counter will exist for each one of these categories individually. Each time an alarm is announced the appropriate counter will be incremented by one to produce a total Peg Count for each alarm.

Power Room Alarms Peg Count
(POWER RM MAJOR-MINOR)

Power Room Alarm Peg Counts are counts of major and minor alarms sounded for power failures in power rooms remote from the switching equipment.

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

OMS 3

Hardware Detected CGA
Peg Count
(HARDWARE DETECTED CGA)

This counter will be incremented by one each time a carrier failure is detected by hardware.

TABLE 21

OUTPUT MEASUREMENT SETS FOR MSC 21
(PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES)

```
MSC 21 PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES
OMS 0  SYSTEM RECOVERY - PHASES
  PH1PRG  PH1MAN  PH2PRG  PH2MAN  PH3PRG  PH3MAN  PH4MAN   PHTIME
       0       0       0       0       0       0       0        0

OMS 1  RECENT CHANGE MEASUREMENTS
 NO. RC ACTIVATED       0
 TYPE 2 ROLLBACKS       0

 OMS 2  NM MEASUREMENTS

  CONTROL       SILC
  INVOKED     CONTROL    ROLLBACKS
        0           0            0

 OMS 3  MACHINE CONGESTION

     MC1        REAL TIME        MF        DP      CCIS
  PEG COUNT             0         0         0         0
  TIME(10 MSEC)         0         0         0         0

     MC2        REAL TIME        MF        DP      CCIS
  PEG COUNT             0         0         0         0
  TIME (10 MSEC)        0         0         0         0
```

Description of Measurements for MSC 21

OMS 0

Phase 1 Program Initiated Peg Count
(PH1PRG)

This counter will be incremented by one by the Software Initialization Program (SINT) each time a phase 1 software initialization is initiated by the System Integrity Control (SICO) due to a program request.

Phase 1 Manually Initiated Peg Count
(PH1MAN)

Each time a phase 1 software initialization is initiated by SICO due to a manual request, this counter will be incremented by one by SINT.

Phase 2 Program Initiated Peg Count
(PH2PRG)

This counter will be incremented by one by the SINT program each time the SICO program initiates a phase 2 software initialization due to a program request.

Phase 2 Manually Initiated Peg Count
(PH2MAN)

Each time a phase 2 software initialization is initiated by the SICO program due to a manual request, this counter will be incremented by one by the SINT program.

Phase 3 Program Initiated Peg Count
(PH3PRG)

This counter will be incremented by one by the SINT program each time the SICO program initiated a phase 3 software initialization due to a program request.

Phase 3 Manually Initiated Peg Count
(PH3MAN)

Each time a phase 3 software initialization is initiated by the SICO program due to a manual request, this counter will be incremented by one by the SINT program.

Phase 4 Manually Initiated Peg Count
(PH4MAN)

This counter will be incremented by one by the SINT program each time the SICO initiates a phase 4 software initialization due to a manual request.

TABLE 21 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 21
(PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES)

Phase Level Duration Count
(PHTIME)

This counter will be updated by the Maintenance Restart Program (MARP) with the amount of time, measured in tens of milliseconds, that the system spends in a phase level recovery of any type. This count will include only the time spent in the phase and not time spent on interrupt processing due to a phase or as part of a phase.

OMS 1

Number Of Recent Changes Activated
Peg Count
(NO. RC ACTIVATED)

This counter is incremented by one each time a Recent Change is Activated.

Total Type 2 Rollbacks Peg Count
(TYPE 2 ROLLBACKS)

This counter will be incremented by one each time a Type 2 Recent Change rollback occurs. A Type 2 rollback is manually activated in conjunction with a phase.

OMS 2

Network Management Controls Invoked
Peg Count
(CONTROL INVOKED)

This counter is incremented by one each time a Network Management control is instituted by the Network Manager.

Selective Incoming Load Control
Peg Count
(SILC CONTROL)

This count is incremented by one when an incoming bid for service is denied due to Network Management Selective Incoming Load Control.

Network Management Control Rollbacks
Peg Count
(ROLLBACKS)

This counter is incremented by one each time the reinstatement of TSG control is inhibited as a result of a system reinitialization. The count relates to the number of phases when this occurs, not to the number of TSGs affected.

OMS 3

Dynamic Overload Control Peg Count
and Duration Measurement

This counter is incremented by the Network Management program whenever a request is made by overload or phase control programs to transmit a particular level and type of Dynamic Overload Control on order to reduce incoming call pressure. There are 4 types of control per level and 2 levels MC1 and MC2 (no counts are kept for MC3). The types are MF, DP, CCIS and Real Time, which determine the types of trunks for which DOC signals are sent. The Real Time control implies all signaling types.

The duration measurement for each level and type of control is given in tens of milliseconds. The measurement is maintained by recording the time a control was instituted, calculating elapsed time when the control is removed and summing that time into a counter. The specified counts are:

1. MC1 Real Time Peg Count
2. MC1 MF Peg Count
3. MC1 DP Peg Count
4. MC1 CCIS Peg Count
5. MC1 Real Time Duration
6. MC1 MF Duration
7. MC1 DP Duration
8. MC1 CCIS Duration
9. MC2 Real Time Peg Count
10. MC2 MF Peg Count
11. MC2 DP Peg Count
12. MC2 CCIS Peg Count
13. MC2 Real Time Duration
14. MC2 MF Duration
15. MC2 DP Duration
16. MC2 CCIS Duration

TABLE 22

OUTPUT MEASUREMENT SETS FOR MSC 22
(PERFORMANCE MEASUREMENTS - AUDIT TYPE)

```
MSC 22 PERFORMANCE MEASUREMENTS - AUDIT TYPE
OMS 0  AUDIT COMPLT
  ROUTINE-000000
  DEMAND -000000
OMS 1 AUDIT ERRORS
  ROUTINE-000000
  DEMAND -000000
```

Description of Measurements for MSC 22

OMS 0

Total Routine Audits Completed Peg Count
(AUDIT COMPLT-ROUTINE)

This counter will be incremented by one by the Audit Control Program (AUDS) each time any audit type (00-127) that is routinely requested by the program is completed.

Total Demand Audits Completed Peg Count
(AUDIT COMPLT-DEMAND)

Each time any audit type (00-127) that is manually requested is completed, this counter will be incremented by one by the AUDS program.

OMS 1

Total Routine Audits Errors Found
Peg Count
(AUDIT ERRORS-ROUTINE)

This counter will be incremented by one by the AUDS program each time an error is found by an audit type (00-127) that is routinely requested by the program.

Total Demand Audits Errors Found
Peg Count
(AUDIT ERRORS-DEMAND)

Each time any audit type (00-127) that is manually requested finds an error, this counter will be incremented by one by the AUDS program.

TABLE 23

OUTPUT MEASUREMENT SETS FOR MSC 23
(PERFORMANCE MEASUREMENTS-EQUIPMENT TYPE-PROCESSOR)

```
MSC 23 PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR
OMS 0  MAINTENANCE OCCUPANCIES
  PROCESSOR  NETWORK  SERV CIRC
          0        0         0

OMS 1 MTCE USAGE
   CC      PS      CS    MCC
    0       0       0      0
  AUB     PSB     CSB    PUB
    0       0       0      0
 IOUS    IOUC     API
    0       0       0
  DUS     TUC     PDF
    0       0       0

 OMS 2 PERIPHERAL UNIT MTCE USAGE AND OUTAGE
                 TSI    TMS    TGR    TER    NCLK    SCLK    NCSU
  MTCE USAGE      0      0      0      0       0       0       0
  OUTAGE          0      0      0      0       0       0       0

OMS 3  PER CALL SERVICE CIRCUITS ACCUM MAINT OCC
    MF RCVR  DTMF RCVR   MF XMTR  DTMF XMTR
         0         0          0         0
     NSCXS     MSFHA    CCIS XMTR
         0         0          0

 OMS 4  VFL ACCUM MAINT OCC

   DOM       0
   INT       0
```

Description of Measurements for MSC 23

OMS 0

Processor Accumulated Maintenance Usage
(PROCESSOR)

This counter will accumulate total maintenance usage for all units listed separately under OMS 1.

Network Accumulated Maintenance Usage
(NETWORK)

This counter will accumulate total maintenance usage for all units listed separately under OMS 2.

Service Circuits Accumulated
Maintenance Usage
(SERV CIRC)

This counter will accumulate total maintenance usage for all units listed separately under OMS 3.

OMS 1

Accumulated Maintenance Usage

The maintenance status for each of the specified units is determined every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register for the following unit types will reflect, in CCS, the amount of time the units were maintenance busy.

1. Central Control (CC)
2. Program Store (PS)
3. Call Store (CS)
4. Master Control Console (MCC)

TABLE 23 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 23
(PERFORMANCE MEASUREMENTS-EQUIPMENT TYPE-PROCESSOR)

5. Auxiliary Unit Bus (AUB)
6. Program Store Bus (PSB)
7. Call Store Bus (CSB)
8. Peripheral Unit Bus (PUB)
9. Input-Output Unit Selector (IOUS)
10. Input-Output Unit Controller (IOUC)
11. Attached Processor Interface (API)
12. Data Unit Selector (DUS)
13. Tape Unit Controller (TUC)
14. Power Distribution Frame (PDF)

OMS 2

Accumulated Maintenance Usage

The status table for each of the specified peripheral unit types is scanned every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus, the printout of each register for the following unit types will reflect in CCS, the amount of time the units were maintenance busy.

1. Time-Slot Interchange frame (TSI)
2. Time-Multiplex Switching Pair (TMS)
3. CCIS Terminal Group (TGR)
4. CCIS Terminal (TER)
5. Network Clock (NCLK)
6. System Clock (SCLK)
7. Network Clock Synchronization Unit (NCSU)

Outage

The Service Degrading Conditions Table is scanned every 10 seconds to determine the number of each of the following unit types that are unavailable for service. The output, in CCS, is service outage time due to the condition specified for each unit type. Only primary outage times are reported. When a failure of one type causes the failure of another, only the first is recorded. (See MSC 24 for other outage measurements.)

8. TSI - Duplex Controller OOS
9. TMS - Duplex Controller OOS
10. TGR - Duplex Controller OOS
11. TER - Terminal Pair OOS
12. NCLK - 4 Clock Chains OOS
13. SCLK - Duplex Controller OOS
14. NCSU - 4 Clock Chains OOS

OMS 3

Accumulated Maintenance Usage

The occupancy counter for each of the specified service circuits is scanned every 180 seconds. After each scan, the accumulating register for the service circuit type is incremented by the number of units found to be maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register for the following service circuit type will reflect, in CCS, the amount of time the units were maintenance busy.

1. MF Receivers (MF RCVR)
2. DTMF Receivers (DTMF RCVR)
3. MF Transmitters (MF XMTR)
4. DTMF Transmitters (DTMF XMTR)
5. NSCX Set S (NSCXS)
6. MAS and Expanded Announcements (MSFHA)
7. CCIS Transceivers (CCIS XCVR)

OMS 4

Domestic VFL Accumulated Maintenance Occupancy
(DOM VFL ACCUM MAINT OCC)

This counter contains the accumulated maintenance occupancy for all Domestic VFL circuits and is obtained via a 180 second scan of Trunk Subgroup head cells for VFL's, the output is in CCS.

International VFL Accumulated Maintenance Occupancy
(INT VFL ACCUM MAINT OCC)

This counter contains the accumulated maintenance occupancy for all International VFL circuits. It is obtained via a 180 second scan of Trunk Subgroup head cells for VFLs. The output is in CCS.

TABLE 24

OUTPUT MEASUREMENT SETS FOR MSC 24
(PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT)

```
MSC 24 PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT
OMS 0  TOTAL ACCUMULATED MAINTENANCE OCCUPANCY
  TERMINAL EQUIPMENT
         0

 OMS 1  TERMINAL EQUIPMENT MAINT USAGE AND OUTAGE
          SP     VIC    VIU    DTC    DTU    DIF    DIU    ESC    ESU
USAGE   00000  00000  00000  00000  00000  00000  00000  00000  00000
OUTAGE  00000  00000  00000  00000  00000  00000  00000  00000  00000

 OMS 2  TERMINAL EQUIPMENT
         UNIT     LOC     NONLOC   ---DIAG REQ----   ---DIAG ATP----
        ERRORS   FAULTS   FAULTS    PROG    MANUAL    PROG    MANUAL

 SP     000000   000000   000000   000000   000000   000000   000000
 VIC    000000   000000   000000   000000   000000   000000   000000
 VIU    000000   000000   000000   000000   000000   000000   000000
 DTC    000000   000000   000000   000000   000000   000000   000000
 DTU    000000   000000   000000   000000   000000   000000   000000
 DIF    000000   000000   000000   000000   000000   000000   000000
 DIU    000000   000000   000000   000000   000000   000000   000000
 ESC    000000   000000   000000   000000   000000   000000   000000
 ESU    000000   000000   000000   000000   000000   000000   000000
 SCS    000000        -        -        -        -        -        -
 SCU    000000        -
```

Description of Measurements for MSC 24

OMS 0

Terminal Equipment Accumulated
Maintenance Usage
(TERMINAL EQUIPMENT)

This counter will accumulate total maintenance usage for all units associated with the MOC, and TEC 1 through 5. These units are listed individually under OMS 1.

OMS 1

Accumulated Maintenance Usage

For Administration purposes, each of the units specified is assigned, via CMS 1A, to a Terminal Equipment Center (TEC 1 to 5). All maintenance usage for units assigned to TEC 1 to 5 will be combined and accumulated in a register assigned to the Maintenance Operations Center (MOC). The occupancy counter for each of the specified units is scanned every 180 seconds. After each scan the accumulating register for each unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units before output. Thus, the printout of each register for a specified unit type will reflect in CCS, the amount of time the units were maintenance busy.

The units are SP, VIC, VIU, DTC, DTU, DIF, DIU, ESC, and ESU. No maintenance usage is charged against units (VIU, DTU, DIU, ESU) resident in a frame that is duplex failed.

Accumulated Outage

These counters contain the time in CCS that the specified terminal units are not available for service. The Service Degrading Conditions Table is scanned every 10 seconds and the number of units found failed in each category is added to the plant counters. Outage is defined as follows:

a. SP, VIF, DT, DIF and EST - Duplex controller failure

b. VIU, DTU, DIU, ESU - Out-Of-Service unit is not protection switched. No outage is counted against units resident in a duplex failed frame.

TABLE 24 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 24
(PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT)

OMS 2

The counts kept for the units listed are explained below with the SP as an example.

Signal Processor Errors Peg Count
(SP UNIT ERRORS)

The entries in this counter are defined as malfunctions, the symptoms of which cannot be reproduced under program control. An interrupt associated with a Signal Processor causes this counter to be incremented by one. The Unit Fault Recognition (FR) program will increment this Peg Counter.

Signal Processor Located Faults Peg Count
(SP LOC FAULTS)

This item is defined as a fault occurrence which can be resolved through analysis, to a replaceable equipment unit. This counter will be incremented by one when an interrupt causes execution of the FR program, which requests that the unit be diagnosed, and the diagnostic finds the trouble source.

Signal Processor Non-located Faults
Peg Counts
(SP NONLOC FAULTS)

This register will be incremented by one when a fault occurs which cannot be resolved through analysis to a replaceable equipment unit. It is incremented only when the diagnostic was requested by a fault recognition program. (The unit diagnostic would complete with an All Test Pass "ATP" result).

Signal Processor Diagnostics Program
Requested Peg Count
(SP DIAG REQ PROG)

This counter will be incremented by one each time the unit diagnostic program is executed, unless its execution has been manually requested.

Signal Processor Diagnostic Manually
Requested Peg Count
(SP DIAG REQ MAN)

Each time the unit diagnostic program is executed by a manual request, this counter will be incremented by one.

Signal Processor Diagnostics Program
Requested - All Tests Passed Peg Count
(SP DIAG ATP PROG)

This counter will be incremented by one each time the unit diagnostic program is executed with an ATP result. This does not include diagnostics requested manually.

Signal Processor Diagnostics Manually
Requested - All Tests Passed Peg Count
(SP DIAG ATP MAN)

This counter will be incremented by one each time the unit diagnostic program is executed by a manual request with an ATP result.

TABLE 25

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
MSC 25  CONTROL AREA ZERO
OMS 0  CONTROL AREA SUMMATION
  TOTAL IMAS     TRK MTC OCC
          0              0

OMS 1  INCOMING IMAS
         MF EQ  DP EQ   Q931   ISUP   ITUP   INUP  DTMF   IOC
  PST        0      0      0      0      0      0     0     0
  FSA        0      0      0      0      0      0     0     0
  PDA        0      0      0      0      0      0     0     0
  PDT        0      0      0      0      0      0     0     0
  PER        0      0      0      0      0      0     0     0
  ANF        0      0      -      -      -      -     -     -
  AIF        0      0      -      -      -      -     -     -
  AOF        0      0      -

OMS 2  INCOMING IMAS
          MF EQ  DP EQ   Q931   ISUP   ITUP   INUP   DTMF   IOC
  MAB        0      0      0      0      0      0     0     0
  CST        0      0      -      -      -      -     -     -
  CDT        0      0      -

OMS 3  OUTGOING IMAS AND GLARE FAILURES
          MF EQ  DP EQ   Q931   ISUP   ITUP   INUP   DTMF
  UXS         0      0      0      0      0      0      0
  IKF         0      0      0      0      0      0      -
  CPF         0      0      0      0      0      0      0
  NSD         0      0      0      0      0      0      0
  XST         0      0      0      0      0      0      -
  GLR         0      0      0      0      0      0      0
  GLC         0      0      0      0      0      0      0

OMS 4  OOS PEG COUNTS
      RR       OTF        MAN      EASF      CGA
       0         0          0         0        0
     NIU       TSF        BLK       CCF      HAW
       0         0          0         0        0

ERR ANAL SUSP FLT(NOT OOS)
                0

OMS 5  ATTEMPTS AND MAINTENANCE USAGE
 ATT      MF EQ     DP EQ     Q931    ISUP    CCIS
  IN          0         0        0       0       0
  OUT         0         0        0       0       0
  MTC         0         0        0       0       0

 OMS 6  CCIS INEFFECTIVE ATTEMPTS
                  ------- VPA TESTS -------
    CKF       CLF     ATT     COMP     FAIL
      0         0       0        0        0
```

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
OMS 7  ROTL
                TEST    TEST
                 ATT     COMP
  CODE 100         0       0
  CODE 102         0       0
  CODE 105         0       0

OMS 8  TERMINATING TEST LINES
  ATTEMPTS
     100     102      103     104      105      106
       0       0        0       0        0        0
     107     108      109     110     SYNCHR   DATA
       0       0        0       0        0        0
  OVERFLOWS
     100     102      103     104      105      106
       0       0        0       0        0        0
     107     108      109     110     SYNCHR   DATA
       0       0        0       0        0        0

OMS 9  ROUTINE OPERATIONAL TESTS
               TEST    TEST    TEST
                ATT    PASS    FAIL
  CODE 103       0       0       0
  QIC            0       0       0
  SYNCHR         0       0       0
  CENTREX 2      0       0       0
  CENTREX 3      0       0       0
  SXS            0       0       0
  FTT            0       0       0

OMS 10 TEST ACCESS CIRCUIT
  ORIG   101 ORIG  INC ATT  101 FTB  INC OVF  101 XFR
      0       0         0        0        0        0
  TOTAL   101   INC 101  MAINT
  USAGE  USAGE   USAGE   USAGE
      0      0       0       0

OMS 11  INTERNATIONAL ATTEMPTS AND MAINT. USAGE
                 CCITT5     CCITT6     ITUP     INUP
INC ATTEMPTS          0          0        0        0
OUT ATTEMPTS          0          0        0        0
MAINT USAGE           0          0        0        0

OMS 12  OOS PEG COUNTS
  ATME-B    ATME-C
       0         0

OMS 13 INTERNATIONAL TRUNK TESTS-DIRECTOR
         ATTEMPTS      PASS      FAIL
ATME-B          0         0         0
ATME-C          0         0         0
```

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
OMS 14  INTERNATIONAL TRUNK TESTS-RESPONDER
        ATTEMPTS      OVFL
ATME-A         0         0
ATME-B         0         0
ATME-C         0         -

OMS 15  ATME FAILURES
INV INC TC          0
DIR/RES IRREG       0

OMS 16  CCITT5 CALL IRREGULARITIES
--INCOMING--
IDLE-URS      FS-TO     PST-TO     SOP-TO     IAD-TO      URS  PLS-ERR
       1          0          0          0          0        0        0
--OUTGOING--
  DS-CLF     DS-URS      DS-TO     PTS-TO
       0          0          0          0
  TX-ERR        URS         BF     PS-PTS
       0          0          0          0
--WAITING FOR ANSWER--
      TO    URS-ICT    URS-OGT     BF-OGT     ANS-TO  ANS-ACK-TO
       0          0          0          0          0         0
--ANSWERED--
 URS-ICT    URS-OGT
       0          0
--DISCONNECTED--
  CLB-TO     NO-CLF      PS-CB     NO-RLG     CLF-TO    PS-RLG
       0          0          0          0          0         0
--ABANDONS--
     ISA        IAD        MAB
       0          0          0
--OTHERS--
 MULT SP       URS-CCITT6
       0               0
FIRST TRIAL - CCITT5
  GLARE              0
  NSD                0
  OUTPULSING         0
  SIG IRREG          0

OMS 17  CCITT6 ACKNOWLEDGEMENT TIMEOUTS
     BLA     UBA
       0       0
```

Description of Measurements for MSC 25

These performance measurements are associated with trunks and they will be kept on a Control Area basis. The number of Control Areas is office dependent. The number of counter blocks is also office dependent, one for each Control Area. Each block will correspond to a Control Area or Administration Area within the Circuit Maintenance System CMS 1A. Each Trunk Subgroup in the office is assigned to one and only one Control Area. The counters associated with the data block 0, corresponding to Control Area 0, will be the performance measures of all Trunk Subgroups assigned to Control Area 0. For this reason, Plant Maintenance performance data on a per Trunk Subgroup basis will not be available. However, the ability will be provided

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

whereby at most, 31 individual Trunk Subgroups can be monitored for ineffective attempts, total attempts, and maintenance usage, using one or all of the Control and Administrative.

All of the following counts listed with the exceptions of the total attempts counts and the accumulated maintenance usage, will be incremented by the Trunk Maintenance Administration Program (TMAD). This program is responsible for removing trunks from service and has available to it the data concerning signaling characteristics and reasons for removal. TMAD is aware of all trunks undergoing error analysis. This program is entered whenever there is an ineffective call attempt and has the identity and signaling characteristics of the trunk involved. The total attempts counts and the accumulated maintenance occupancy are calculated by the Traffic and Plant Measurement program.

OMS 0

Total Ineffective Machine Attempts
Peg Count
(TOTAL IMAS)

This register contains the combined counts of all registers in OMS 1 and OMS 2. All of these counts are considered Ineffective Machine Attempts.

Trunk Maintenance Usage
(TRK MTC OCC)

This counter will record the combined accumulated maintenance usage of all trunks assigned to the Control Area. The trunks are scanned every 180 seconds and the program will convert this counter to CCS units before it is printed out.

OMS 1

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing
h. IOC

Permanent Signal Timeout Peg Count
(PST)

These counters will be incremented by one each time a bid for service is received on an incoming trunk, but no digits are received within the permanent signal time out interval.

False Start Abandon Peg Count
(FSA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk but no digits are received, and the call is abandoned prior to permanent signal timeout.

Partial Dial Abandon Peg Count
(PDA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk and at least one digit but less than the expected number of digits is received, and the bid is removed prior to partial dial timeout.

Partial Dial Timeout Peg Count
(PDT)

Each time at least one but less than the expected number of digits is received prior to timeout on an incoming trunk, one of these counters will be incremented by one.

Pulsing Error Peg Count
(PER)

These counters will be incremented by one each time one or more of the received digits is in error as defined by one of the following:

a. Mutilated Digit (MTD) - on MF pulsing calls, a single frequency or more than two frequencies are received in a digit pulse.

b. Misplaced Start (MPS) - on MF pulsing calls, an ST signal is received in an improper position.

c. False Key Pulse (FKP) - on MF pulsing calls, a second KP signal is received.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

d. Extra Digit (EXD) - More digits are received than expected.

e. Extra Pulse (EXP) - on DP calls, an 11th pulse is received for a single digit.

f. Pulsing Error Other (PEO) - This includes such things as a valid MF code which is an illegal character, or any other error not covered by one of the above.

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

These counters will be incremented by one for CAMA ANI calls when 5-seconds have elapsed between reception of an information digit and the calling party number digits. These counters will also be incremented when the ANI equipment receives invalid or non-MF calling party digits, or the ANI information digit is non-MF tone. The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure Peg Count
(AIF)

These counters will be incremented by one for CAMA ANI calls that exceed 5 seconds waiting for the ANI information digit, or the ANI information is not:

a. 0 - ANI OK
b. 3 - ANI OK - Service Observing
c. 1 - ANI Multi-party
d. 4 - ANI Multi-party - Service Observing

The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure Peg Count
(AOF)

These counters will be incremented by one for CAMA ANI calls for which a five second timeout occurs while waiting for the ANI information digit. The call is then transferred to an operator for further handling.

OMS 2

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing
h. IOC

Miscellaneous Abandon Peg Count
(MAB)

These counters will be incremented by one each time a bid for service is abandoned prior to completion of outpulsing and after the completion of inpulsing and no other abandon register is pegged.

CAMA Seizure Timeout Peg Count
(CST)

With each occurrence of the following situation, these counters will be incremented by one. When the CAMA operator position circuit automatically recognizes a seizure, the circuit returns an on-hook on the keying trunk, and the keying trunk fails to go on-hook within 5-seconds of when the seizure was sent.

CAMA Disconnect Timeout Peg Count
(CDT)

This counter is incremented when more than 5-seconds elapses between the sending of a disconnect signal to a CAMA operator position and the receipt of off-hook on the keying trunk.

OMS 3

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Unexpected Stop
(UXS)

These counters will be incremented by one each time an unexpected stop dial signal is received. This includes the following:

a. Any stop dial during pulsing on an MF trunk.

b. Any stop dial during pulsing on a DP trunk that does not have expect stop-go class.

c. A second stop dial during pulsing on a DP trunk that does not expect stop-go class.

d. On DP, expect stop-go trunks, a stop dial at an invalid time.

Integrity Check Failure
(IKF)

These counters will be incremented by one each time there is a failure to receive a delay dial signal on a delay dial start dial trunk within 4-seconds of trunk seizure.

Continuity/Polarity Test Failure
(CPF)

These counters are incremented by one each time one of the following conditions occur:

a. An incoming seizure is processed on a one way outgoing trunk.

b. An off-hook on an operator no-outpulsing trunk occurs where the operator fails to hang up within a 1-second timeout interval.

c. An off-hook on maintenance test trunks and service circuits occur.

No Start Dial
(NSD)

These counters will be incremented by one each time there is a failure to receive a wink start signal within 4-seconds of a trunk seizure, a failure to receive on-hook on a one way outgoing trunk, and failure of the far end office to relinquish the trunk within the 4-second timeout interval when glare occurred on a trunk that the near end office has control of.

Expected Stop Timeout
(XST)

This counter is incremented by one each time, on any DP trunk with expected stop-go class, an unexpected stop dial signal is received during outpulsing and persists beyond the transmitter timeout interval.

Glare Condition - Far End in Control
(GLR)

These counters will be incremented by one each time the 4ESS Switch and the far end office simultaneously attempt to seize the same trunk, and the 4ESS Switch relinquishes control. The 4ESS Switch backs down if the far end office has control of the trunk and if a check to determine whether the outgoing trunk is on-hook prior to seizure indicates that the trunk is off-hook and when for a given call, the TSN of the outgoing trunk had to be retrieved from disk memory for 3 different trunks and upon each successful retrieval the trunk was found busy.

Glare Condition - 4ESS Switch in Control
(GLC)

This counter is incremented by one each time the 4ESS Switch and a far end office simultaneously attempt to seize the same trunk, and the 4ESS Switch is in control.

OMS 4

Out-Of-Service Peg Counts are kept for trunks as they are removed from service. These Peg Counts indicate the reason for removal from service.

Out-Of-Service ROTL Request Peg Count
(OOS - RR)

Out-Of-Service Operational Test Failure
Peg Count
(OOS - OTF)

Out-Of-Service Manual Request Peg Count
(OOS - MAN)

Out-Of-Service Error Analysis Suspected
Failure Peg Count
(OOS - EASF)

Out-Of-Service Carrier Group Alarm
Peg Count
(OOS - CGA)

Out-Of-Service Equipment Failure, VIU,
DTU, ESU Peg Count
(OOS - NIU)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Out-Of-Service Total Signaling Failure
Peg Count (CCIS trunk only)
(OOS - TSF)

Out-Of-Service Blocking Received (CCIS
Trunks) from Far End Office Peg Count
(OOS - BLK)

Out-Of-Service Continuity Check Retest
Failure Peg Count
(OOS - CCF)

Out-Of-Service High and Wet Peg Count
(OOS - HAW)

Error Analysis Suspected Failure Peg Count
(ERR ANAL SUSP FLT - NOY OOS)

Each time the error analysis encounters a suspected failure and leaves the trunk in service, this counter is incremented by one.

OMS 5

The performance measurements for each of the following measurements will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. CCIS trunks

Incoming Attempts
(ATTEMPTS IN)

These counts will be calculated by accumulating the incoming seizures for which at least one digit was received on message Trunk Subgroups. This count will not include false starts which did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Outgoing Attempts
(ATTEMPTS OUT)

These counts will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing message Trunk Subgroups. Since there is only one seizure Peg Count for outgoing call attempts, these counts will be off by the number of retrials attempted.

Maintenance Usage
(MTC USAGE)

These counters will accumulate maintenance usage of all message trunks assigned to this Control Area.

OMS 6

Continuity Check Failure (CKF) Peg Count
(CKF)

Each time a failure of the continuity test of a CCIS trunk which is made prior to a voice path cut through occurs, this register will be incremented by one.

Clear-Forward Received Peg Count
(CLF)

This counter is incremented each time a Clear-Forward signal is received on an incoming trunk in the transient state.

Voice Path Assurance (VPA) Test
Attempted Peg Count
(VPA TESTS ATT)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

Voice Path Assurance (VPA) Test
Completed Peg Count
(VPA TESTS COMP)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

Voice Path Assurance (VPA) Test
Failure Peg Count
(VPA TESTS FAIL)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

OMS 7

Code 10X Test Attempted Peg Count
(TEST ATT)

Code 10X Test Completed Peg Count
(TEST COMP)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

These counters, by test type, will be incremented by one each time ROTL attempts or completes a transmission test on a trunk. The following codes identify the types of transmission tests:

1. CODE 100
2. CODE 102
3. CODE 105

OMS 8

Terminating Test Line Tests Attempts
(ATTEMPTS)

Terminating Test Line Tests Overflows
(OVERFLOWS)

These counters will record the total number of call attempts made to the following terminating test lines and the total attempts that overflow.

1. 100
2. 102
3. 103
4. 104
5. 105
6. 106
7. 107
8. 108
9. 109
10. 110
11. SYNCHRONOUS (SYNCHR)
12. DATA

OMS 9

Routine Operational Tests Attempted
(TEST ATT)

Routine Operational Tests Passed
(TEST PASS)

Routine Operational Tests Failed
(TEST FAIL)

These counters will record total test attempts, test passed and test failures for types of outgoing operational tests.

1. CODE 103
2. Quick Integrity Check (QIC)
3. Synchronous Test (SYNCHR)
4. Centrex 2 Test (CENTREX 2)
5. Centrex 3 Test (CENTREX 3)
6. Step by Step Test (SXS)
7. Functional Trunk Test (FTT)

OMS 10

Test Access Circuit Origination
Peg Count
(ORIG)

Each time a Test Access Circuit is seized for the purpose of originating a maintenance request, this counter is incremented by one.

Code 101 Origination Peg Count
(101 ORIG)

This counter will be incremented by one each time a Test Access Circuit is seized for the purpose of originating a code 101 test call.

Incoming Code 101 Peg Count
(INC ATT)

This counter will be incremented by one each time an attempted seizure is made on a Code 101 Test Access Circuit. The count is incremented based on the Control Area that is assigned to the incoming trunk through translation data. This count also includes test attempts that are aborted.

Code 101 First Trial Busy Peg Count
(101 FTB)

When an incoming code 101 test call attempts to terminate at a test position, which is determined by the trunk or by a request for a test position through the digits received, and this first choice test position cannot be seized, this counter will be incremented by one.

Incoming Code 101 Overflow Peg Count
(INC OVF)

This counter is incremented by one each time an incoming 101 test call is unable to be terminated.

Code 101 Transfer Peg Count
(101 XFR)

This counter will be incremented by one each time the Test Access Circuit transfer facility is utilized. The counter is incremented based on the Control Area that is assigned to the incoming trunk through translation data.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Total Test Access Circuit Usage
(TOTAL USAGE)

This counter will be incremented by the number of Test Access Circuits found busy after each 180 second scan. This count does not include maintenance usage. The program will convert the data to CCS units before output.

Code 101 Usage
(101 USAGE)

This counter will record the accumulated Test Access Circuit Usage attributable to outgoing code 101 test calls.

Incoming Code 101 Usage
(INC 101 USAGE)

This counter will record the accumulated Test Access Circuit Usage attributable to incoming code 101 code test calls.

Maintenance Test Access Circuit Usage
(MAINT USAGE)

This counter will record the accumulated Test Access Circuit maintenance busy usage.

OMS 11

CCITT No. 5, CCITT No. 6, ITUP and INUP
Incoming Attempts
(INC ATTEMPTS)

These counts will be calculated by accumulating the incoming seizures for which at least one digit was received on CCITT No. 5, CCITT No. 6, ITUP or INUP Trunk Subgroups. These counts do not include false starts which did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

CCITT No. 5, CCITT No. 6, ITUP and INUP
Outgoing Attempts
(OUT ATTEMPTS)

These counts will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing message Trunk Subgroups. Since there is only one seizure Peg Count for CCITT No. 5, CCITT No. 6, ITUP or INUP outgoing call attempts, respectively, these counts will be off by the number of retrials attempted.

CCITT No. 5, CCITT No. 6, ITUP and INUP
Maintenance Usage
(MAINT USAGE)

After each 180 second scan period, these counts will be incremented by the number of CCITT No. 5, CCITT No. 6, ITUP or INUP trunks found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

OMS 12

ATME-B Out-Of-Service Peg Count
(ATME-B OOS)

This counter is incremented by one each time a trunk is taken out-of-service because it failed either a hardware or software requested ATME-B Director Test.

ATME-C Out-Of-Service Peg Count
(ATME-C OOS)

This counter is incremented by one each time a trunk is taken out-of-service because it failed either a hardware or software requested ATME-C Director Test.

OMS 13

ATME-B Director Tests Attempted
Peg Count
(ATME-B ATTEMPTS)

This count is incremented by one each time an ATME-B Director is seized as a result of a hardware or software request for testing.

ATME-B Director Tests Passed
Peg Count
(ATME-B PASS)

This count is incremented by one each time an ATME-B director successfully passes the Director test requested.

ATME-B Director Tests Failed
Peg Count
(ATME-B FAIL)

This count is incremented by one each time an ATME-B Director fails to pass the Director test requested.

ATME-C Director Tests Attempted
Peg Count

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

(ATME-C ATTEMPTS)

This count is incremented by one each time an ATME-C Director is seized as a result of a hardware or software test request.

ATME-C Director Tests Passed
Peg Count
(ATME-C PASS)

This count is incremented by one when an ATME-C Director passes successfully the Director tests required.

ATME-C Director Tests Failed
Peg Count
(ATME-C FAIL)

This count is incremented by one each time an ATME-C Director fails to pass the Director test.

OMS 14

ATME-A Responder Tests Attempted
Peg Count
(ATME-A ATTEMPTS)

This count is incremented by one each time an ATME-A Responder is seized from a distant office for testing.

ATME-A Responder Tests Overflowed
Peg Count
(ATME-A OVFL)

This count is incremented by one when a request is made by a distant office to seize an ATME-A Responder for testing and none is available.

ATME-B Responder Tests Attempted
Peg Count
(ATME-B ATTEMPTS)

This count is incremented by one each time an ATME-B Responder is seized from a distant office for testing.

ATME-B Responder Tests Overflowed
Peg Count
(ATME-B OVFL)

This count is incremented by one when a request is made by a distant office to seize an ATME-B Responder for testing and none is available.

ATME-C Responder Tests Attempted
Peg Count
(ATME-C ATTEMPTS)

This count is incremented by one each time an ATME-C Responder is seized from a distant office for testing.

OMS 15

Invalid Incoming ATME Test Call
Peg Count
(INV INC TC)

This counter is incremented by one when an inbound call on a CCITT No. 5 or CCITT No. 6 trunk has been determined to be invalid.

ATME Director/Responder Irregularities
Peg Count
(DIR/RES IRREG)

This counter is incremented by one when a signaling irregularity has been detected on an inbound or outbound automatic trunk measuring equipment (ATME) test call on a CCITT No. 5 or CCITT No. 6 trunk.

OMS 16

INCOMING

Unreasonable Signal Peg Count
(IDLE-URS)

This counter is incremented by one if one of the following frequencies is received on an idle circuit:

a. (F1+F2)
b. (F2)
c. (F1) on an idle one-way Outgoing Trunk

False Seizure Timeout Peg Count
(FS-TO)

This counter is incremented by one if a Clear-Forward signal is not received on an incoming trunk within a 40-second timing interval after the loss of a seizing signal, (F1), and before a Proceed-To-Send signal was sent.

Proceed-To-Send Signal Timeout
Peg Count
(PST-TO)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

This counter is incremented by one when a seizing signal, (F1), is not removed within 6-seconds of transmitting a Proceed-To-Send signal.

Start of Pulsing Timeout Peg Count
(SOP-TO)

This counter is incremented by one when the KP-signal is not received within 2-seconds after the Proceed-To-Send signal is removed.

Incomplete Address Timeout Peg Count
(IAD-TO)

This counter is incremented by one when an ST-signal is not received within 5-seconds after receipt of the KP-signal.

Unreasonable Signal Peg Count
(URS)

This counter is incremented by one when an (F1) or (F2) signal is received during register timing on an incoming call.

Pulsing Error Peg Count
(PLS-ERR)

This counter is incremented by one each time one or more of the following digits is in error as defined by one of the following:

a. Mutilated Digit (MTD) - On MF pulsing calls, a single frequency or more than two frequencies are received in a digit pulse.

b. Misplaced Start (MPS) - On MF outpulsing calls, an ST-signal is received in an improper position.

c. False Key Pulse (FKP) - On MF pulsing calls, a second KP-signal is received.

d. Extra Digit (EXD) - More digits are received than are expected.

OUTGOING

Double Seizure - Clear-Forward
Peg Count
(DS-CLF)

This count is incremented by one if a Clear-Forward, (F1+F2), signal is received in lieu of a Proceed-To-Send signal.

Double Seizure - Unreasonable Signal
Peg Count
(DS-URS)

This count is incremented by one if an (F2) signal is received on the outgoing trunk during the 850-millisecond double seizure (Glare) timing interval.

Double Seizure Timeout Peg Count
(DS-TO)

This counter is incremented by one if an incoming seizure signal persists for 20-seconds after the terminating seizure is released following an 850-millisecond glare timeout.

Seizing Signal Timeout Peg Count
(PTS-TO)

This counter is incremented by one if the Proceed-To-Send signal is not received within 20-seconds after sending the seizure signal, (F1).

Transmitter Error Peg Count
(TX-ERR)

This counter is incremented by one if an MF Transmitter fails during outpulsing.

Unreasonable Signal Peg Count
(URS)

This counter is incremented by one if an (F1) or (F1+F2) signal is received during outpulsing.

Busy-Flash Peg Count
(BF)

This counter is incremented by one if a Busy-Flash, (F2), signal is received during outpulsing.

Persisting Proceed-To-Send Signal
Peg Count
(PS-PTS)

This counter is incremented by one if the Proceed-To-Send signal is not removed from the outgoing trunk within 20-seconds after the completion of outpulsing.

WAITING FOR ANSWER

Timeout Peg Count
(TO)

This counter is incremented by one if an answer signal is not received within 4-minutes after outpulsing is completed.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Unreasonable Signal on the Incoming Trunk
Peg Count
(URS-ICT)

This counter is incremented by one if a seizure signal, (F1), is received on the incoming trunk during the 4-minute waiting-for-answer.

Unreasonable Signal on the Outgoing Trunk
Peg Count
(URS-OGT)

This counter is incremented by one if an (F1,F2) signal is received on an outgoing trunk that is in the waiting-for-answer stage.

Busy-Flash on the Outgoing Trunk
Peg Count
(BF-OGT)

This counter is incremented by one if a Busy-Flash, (F2), signal is received on the outgoing trunk while in the waiting-for-answer stage.

Answer Signal Timeout Peg Count
(ANS-TO)

This counter is incremented by one if an answer acknowledgement signal, (F1), is not received within 15-seconds of sending an answer signal, (F1), on the incoming trunk.

Answer-Acknowledgement Signal Timeout
Peg Count
(ANS-ACK-TO)

This counter is incremented by one if the answer acknowledgement signal, (F1), is not stopped on the outgoing trunk within 6-seconds of sending the answer-acknowledgement signal, (F1).

ANSWERED

Unreasonable Signal On the Incoming Trunk
Peg Count
(URS-ICT)

This counter is incremented by one if an (F1) signal is not received on an incoming trunk in the answered call state.

Unreasonable Signal on the Outgoing Trunk
Peg Count
(URS-OGT)

This counter is incremented by one if an (F1+F2) or an (F1) signal is received on an outgoing trunk in the answered call state.

DISCONNECTED

Clear-Back/Busy-Flash Signal Timeout
Peg Count
(CLB-TO)

This counter is incremented by one when an acknowledgement signal (F1) is not received within 15-seconds of sending a Clear-Back or Busy-Flash, (F2), signal.

Failure to Receive Clear-Forward
Peg Count
(NO-CLF)

This counter is incremented by one if a Clear-Forward signal is not received within 60-seconds after receipt of a Clear-Back or Busy-Flash acknowledgement (4-minutes if it is a transit call).

Clear-Back and Busy-Flash Acknowledgement
Signal Timeout Peg Count
(PS-CB)

This counter is incremented by one if the Clear-Back or Busy-Flash signal is not removed within 6-seconds after sending Clear-Back or Busy-Flash acknowledgement.

Release-Guard Signal Timeout
Peg Count
(NO-RLG)

This counter is incremented by one if upon sending a Release-Guard, (F1+F2), signal on the incoming trunk, the Clear-Forward signal is not removed within 6-seconds.

Clear-Forward Signal Timeout
Peg Count
(CLF-TO)

This counter is incremented by one if upon sending a Clear-Forward, (F1,F2), signal on an outgoing trunk, a Release-Guard, (F1+ F2), signal is not received within the Clear-Forward timing interval.

Persisting Release Guard Signal
Peg Count
(PS-RLG)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

This counter is incremented by one if a Release-Guard signal is not removed within 15-seconds of removing Clear-Forward.

ABANDONS

Incoming Seizure Abandon Peg Count
(ISA)

This counter is incremented by one if:

a. The seizing signal, (F1), on an incoming trunk stops before a Proceed-To-Send signal is sent, and a Clear-Forward (F1+F2) signal is received before a 40-second timeout occurs.

b. If a Clear-Forward signal is received the Proceed-To-Send signal is sent but prior to the reception of a KP-signal.

Incomplete Address Abandon Peg Count
(IAD)

This counter is incremented by one if a Clear-Forward signal is received on an incoming call after a KP-signal has been received but before receiving the ST-signal.

Miscellaneous Abandon Peg Count
(MAB)

This counter is incremented by one if a Clear-Forward signal is received on the incoming trunk before completion of outpulsing on a CCITT No. 5 outgoing trunk.

OTHERS

Multiple Scan Points Active
Peg Count
(MULT SP)

This count is incremented by one when more than one scan point is active at the same time on a CCITT No. 5 circuit.

Unreasonable Signal on an Idle CCITT No. 6 Trunk
Peg Count
(URS-CCITT6)

This counter is incremented by one when an unreasonable signal is received on an idle CCITT No. 6 trunk.

First Trial Glare Fail CCITT No. 5 Trunk
Peg Count
(FIRST TRIAL-CCITT5-GLARE)

This counter is incremented by one when a first trial glare condition has been encountered on a CCITT No. 5 outgoing trunk.

First Trial No. Start Dial (NSD) -
CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-NSD)

This counter is incremented by one when an outbound call encounters a first trial proceed to send timeout on a CCITT No. 5 trunk.

First Trial Outpulsing Fail CCITT No. 5 Trunk
Peg Count
(FIRST TRIAL-CCITT5-OUTPULSING)

This counter is incremented by one when an outbound call encounters a first trial outpulsing failure on a CCITT No. 5 trunk.

Incoming Signal Irregularities Before
Answer CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-SIG IRREG)

This counter is incremented by one when a signaling irregularity occurs before answer on a CCITT No. 5 outgoing trunk.

OMS 17

Blocking Acknowledgement Timeout
Peg Count
(BLA)

This count is incremented by one if upon sending a blocking signal a blocking acknowledgement signal is not received within 6-minutes.

Unblocking Acknowledgement Timeout
Peg Count
(UBA)

This count is incremented by one if upon sending an unblocking signal, an unblocking acknowledgement signal is not received within 6-minutes.

TABLE 26

OUTPUT MEASUREMENT SETS FOR MSC 26
(CONTROL AREA ONE)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area One.
```

TABLE 27

OUTPUT MEASUREMENT SETS FOR MSC 27
(CONTROL AREA TWO)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Two.

TABLE 28

OUTPUT MEASUREMENT SETS FOR MSC 28
(CONTROL AREA THREE)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Three.
```

TABLE 29

OUTPUT MEASUREMENT SETS FOR MSC 29
(CONTROL AREA FOUR)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Four.

TABLE 30

OUTPUT MEASUREMENT SETS FOR MSC 30
(CONTROL AREA FIVE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Five.

TABLE 31

OUTPUT MEASUREMENT SETS FOR MSC 31
(CONTROL AREA SIX)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Six.

TABLE 32

OUTPUT MEASUREMENT SETS FOR MSC 32
(CONTROL AREA SEVEN)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Seven.
```

TABLE 33

OUTPUT MEASUREMENT SETS FOR MSC 33
(CONTROL AREA EIGHT)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Eight.

TABLE 34

OUTPUT MEASUREMENT SETS FOR MSC 34
(CONTROL AREA NINE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Nine.

TABLE 35

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

```
MSC 35  SERVICE CIRCUITS
 OMS 0 MAINTENANCE SERVICE CIRCUITS MAINTENANCE OCCUPANCIES

      RA      RT    ROTL  MF RCVR TST  MF XMTR TST   CSTD    XCVR TEST
       0       0       0          0            0       0            0
OMS 1  MAINTENANCE SERVICE CIRCUITS MEASUREMENTS
         LOC   NONLOC    SEIZ  SEIZ   TOTAL
  UNIT  FLTS    FLTS     ATT   OVFL   USAGE   SCF
  RA       0       0   -----  -----  -----  -----
  RT       0       0   -----  -----  -----  -----
  ROTL  -----   -----       0      0      0      0
  MRCT  -----   -----   -----  -----      0  -----
  MXMT  -----   -----   -----  -----      0      0
  CSTD      0       0       0      0      0  -----
  XCVR      0       0   -----  -----      0  -----

OMS 2  ATME-A
               SZRE     USAGE  MTC USAGE
RESPONDER         0         0          0

OMS 3  TMR SEIZURES
              ATT        OVFL
                0           0
```

Description of Measurements for MSC 35

OMS 0

Maintenance Busy Occupancy

The occupancy counter for each of the specified units is scanned every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register will reflect, in CCS, the amount of time each of the following types of units were maintenance busy.

1. Recorded Announcement Machine (RA)
2. Ringing and Tone Plant (RT)
3. Remote Office Test Line (ROTL)
4. MF Receiver Test Circuit (MF RCVR TST)
5. MF Transmitter Test Circuit (MF XMTR TST)
6. Common System Tone Detector (CSTD)
7. CCIS Transceiver Test Circuit (XCVR TEST)

OMS 1

Recorded Announcement Machine Located Faults Peg Count
(RA LOC FLTS)

This counter is incremented by one each time the Recorded Announcement machine diagnostic locates a fault.

Recorded Announcement Machine Non-located Faults Peg Count
(RA NONLOC FLTS)

This counter is incremented by one each time the Recorded Announcement machine diagnostic is run and no fault is found.

Ringing and Tone Plant Located Faults Peg Counts
(RT LCO FLTS)

This counter is incremented by one each time the ringing and tone plant diagnostic locates a fault.

Ringing and Tone Plant Non-located Faults Peg Count
(RT NONLOC FLTS)

This counter is incremented by one each time the ringing and tone plant diagnostic is run and no fault is found.

TABLE 35 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

Remote Office Test Line Seizure
Attempts Peg Count
(ROTL SEIZ ATT)

Each time a 4ESS Switch program attempts to seize a ROTL port, this counter is incremented by one.

Remote Office Test Line Seizure
Overflow Peg Count
(ROTL SEIZ OVFL)

This counter is incremented by one each time a 4ESS Switch program attempts to seize a ROTL port but none are available.

Remote Office Test Line Total Usage
(ROTL TOTAL USAGE)

This counter will record the accumulated usage for ROTL ports. This count does not include maintenance usage. The scan rate is 10 seconds but the output will be in CCS.

Remote Office Test Line Self-Check
Fail Peg Count
(ROTL SCF)

This counter will be incremented by one each time either the ROTL Responder or the 105 responder fails its self-check.

MF Receiver Test Circuit Total Usage
(MRCT TOTAL USAGE)

This counter will record the accumulated usage for MF Receiver tests sets. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

MF Transmitter Test Circuit Total Usage
(MXMT TOTAL USAGE)

This counter will record the accumulated usage for MF Transmitter test sets. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

MF Transmitter Test Self-Check Fail
Peg Count
(MXMT SCF)

Each time an MF Transmitter or MF Receiver fails its self-check, this counter will be incremented by one.

Common System Tone Detector (CSTD)
Located Faults Peg Count
(CSTD LOC FLTS)

This counter will be incremented by one each time the CSTD diagnostic is executed and a fault is found.

Common System Tone Detector (CSTD)
Non-located Faults Peg Count
(CSTD NONLOC FLTS)

Each time the CSTD diagnostic is executed and no fault is found, this counter will be incremented by one.

Common System Tone Detector (CSTD)
Seizure Attempts Peg Count
(CSTD SEIZ ATT)

This counter is incremented by one each time an attempt is made to seize a CSTD.

Common System Tone Detector (CSTD)
Seizure Overflow Peg Count
(CSTD SEIZ OVFL)

This counter is incremented by one each time an attempt is made to seize a CSTD and none is available.

Common System Tone Detector (CSTD)
Total Usage
(CSTD TOTAL USAGE)

This counter will record the accumulated usage for all CSTDs. This count does not include maintenance usage.

CCIS Transceiver Test Circuit
Located Faults Peg Count
(XCVR LOC FLTS)

This counter is incremented by one each time the CCIS Transceiver diagnostic locates a fault.

CCIS Transceiver Test Circuit
Non-located Faults Peg Count
(XCVR NONLOC FLTS)

This counter is incremented by one each time the CCIS Transceiver diagnostic is run and no fault is found.

CCIS Transceiver Test Circuit Total Usage
(XCVR TOTAL USAGE)

This counter will record the accumulated usage for CCIS Transceiver test circuits. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

TABLE 35 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

OMS 2

ATME-A Responder Incoming Seizures
Peg Count
(RESPONDER SZRE)

This counter is incremented by one each time an ATME-A responder is seized by the office for testing.

ATME-A Responder Total Usage
(RESPONDER USAGE)

This counter will record the accumulating usage for ATME-A responder test circuits. This count does not include maintenance usage. The scan rate is 180 seconds and the data is converted to CCS by the traffic program before output.

ATME-A Responder Maintenance Usage
(RESPONDER MTC USAGE)

This counter will record the accumulated maintenance usage for ATME-A responder test circuits. This count does not include service usage. The scan rate is 180 seconds and the data is converted to CCS by the traffic program before output.

OMS 3

Trunk Maintenance Register Seizure
Attempts Peg Count
(TMR SEIZURES ATT)

Each time an attempt is made to seize a TMR, this register is incremented by one.

Trunk Maintenance Register Seizure
Overflow Peg Count
(TMR SEIZURES OVFL)

Each time an attempt is made to seize a TMR and there are none available this register is incremented by one.

TABLE 36

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

```
MSC 36  SERVICE MEASUREMENTS
OMS 0 INCOMING IA, CCIS, ISUP, ITUP, INUP AND Q931
  INC ADRS   COT SIG    ISUP IAD  ISUP COT  ISUP COT  ITUP COT
    DET        T/O         DET      FAIL      T/O       FAIL
    0000      0000        0000      0000      0000      0000

  ITUP COT    INUP        INUP    INUP COT    Q931      Q931
    T/O        IAD         COT      T/O     INC ADRS    INFO
    0000      0000        0000      0000      0000      0000

    Q931      ISUP        ISUP      ITU       ITUP      INUP
     URS       URS        MISC       UR       MISC       URS
    RCVD      RCVD         T/O      RCVD       T/O      RCVD
    0000      0000        0000      0000      0000      0000

  INUP MSC  ITUP IRR    ITUP OUT  INUP IRR  INUP OUT
    T/O       B4ANS     IRR B4ANS   B4ANS   IRR B4ANS
    0000      0000        0000      0000      0000

OMS 1  INCOMING IAS,BEFORE ADDR SIGNALING
         MF EQ  DP EQ   Q931   ISUP  ITUP  INUP  DTMF  IOC
  PST       0      0      0      0     0     0     0    0
  FSA       0      0      0      0     0     0     0    0

OMS 2  INCOMING IAS,DURING ADDRESS SIGNALING
         MF EQ  DP EQ   Q931   ISUP  ITUP  INUP  DTMF  IOC
  PDA       0      0      0      0     0     0     0    0
  PDT       0      0      0      0     0     0     0    0
  PER       0      0      0      0     0     0     0    0

OMS 3  INCOMING IAS,CALLING PARTY SIGNALING
         MF EQ  DP EQ
  ANF       0      0
  AIF       0      0
  AOF       0      0

OMS 4  OUTGOING IAS
        MF EQ  DP EQ    Q931    ISUP    ITUP    INUP  DTMF   IOC
 MAB         0      0       0       0       0       0     0     0

 OVERLOAD RETRY CANCEL      0
 CCIS
  CALL FAIL DETECTION       0
  SGNLING NWK FAILURE       0
  ADC SGN TIMEOUT           0
 ITUP
  ADC SGN TIMEOUT           0
 INUP
  ADC SGN TIMEOUT           0
 FINAL TRIAL GROUP
   CKF  TUPCKF  NUPCKF   UXS     IKF     NSD     XST   GLARE
    0       0       0    0       0       0       0       0
MFT ERR
     0

 OTHER ERRORS
MFT OPLS    CPF    NO XCVR FTF
      0       0           0
```

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

```
OMS 5  CAMA POSITION IRREGULARITIES
  FREE CLS  POS REPT
        0         0

OMS 6  CALLS LOST DUE TO MACHINE IRREG
                                                              RCPT
               PHASE      VIU      DTU      DIU      ESU  SCS   TRNK OR BAND
  TRANSIENT        0        0        0        0        0    0            -
  STABLE           0        0        0        0        0    0            0

OMS 7  CCITT6 FINAL TRIAL FAILURES
     CCF     MCI     GLR        SNF
       0       0       0          0

OMS 8  CCITT5 FINAL TRIAL FAILURES-OUTGOING STAGE
  DS-CLF  PTS-TO  TX-ERR     URS      BF     GLR
       0       0       0       0       0       0

OMS 9  CCITT6 INEFFECTIVE ATTEMPTS
INCOMING    COT-TO
                 0
OUTGOING    ADC-TO
                 0
ABANDONS     MISC
                 0
WAIT ANS        CF      TO
                 0       0
DISCONNECT  CLF-TO  RLG-TO
                 0       0

OMS 10  CUSTOMER CALL TO MAS FTF
  XLATE LOOP          0
  DATA ON DISK        0
  PATH HUNT           0
  NO VAC ANN          0
  HARDWARE OOS        0
------------------------ ADJUNCT T303 TIMEOUTS -------------------------
        0      1      2      3      4      5      6      7      8      9
00      0      0      0      0      0      0      0      0      0      0
01      0      0      0      0      0      0
------------------------ ADJUNCT TADJ TIMEOUTS -------------------------
        0      1      2      3      4      5      6      7      8      9
00      0      0      0      0      0      0      0      0      0      0
01      0      0      0      0      0      0
```

Descriptions of measurements for MSC 36

OMS 0

Incomplete Address Detection Peg Count
(INC ADRS DET)

The Trunk Maintenance Administration Program (TMAD) will increment this counter by one each time a call is sent to Final Handling due to the detection of an incomplete address.

Continuity Signal Timeout Peg Count
(COT SIG T/O)

This counter is incremented by one each time a continuity (COT) timeout signal is not received within the timeout interval following the receipt of an Initial Address Message (IAM). The call will be sent to Final

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

Handling.

ISUP Incomplete Address Detected
Peg Count
(ISUP IAD DET)

Upon detection of an illegal digit in an ISUP IAM, this counter will be incremented by one via TMAD.

ISUP Continuity Failure Peg Count
(ISUP COT FAIL)

This counter is incremented by one when an ISUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to Final Handling.

ISUP Continuity Timeout Peg Count
(ISUP COT T/O)

This counter is incremented by one when an ISUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to Final Handling.

ITUP Continuity Failure Peg Count
(ITUP COT FAIL)

This counter is incremented by one when an ITUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to final handling.

ITUP Continuity Timeout Peg Count
(ITUP COT T/O)

This counter is incremented by one when an ITUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to final handling.

INUP Incomplete Address Detected
Peg Count
(INUP IAD)

Upon detection of an illegal digit in an INUP IAM, this counter will be incremented by one via TMAD.

INUP Continuity Failure Peg Count
(INUP COT)

This counter is incremented by one when an INUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to final handling.

INUP Continuity Timeout Peg Count
(INUP COT T/O)

This counter is incremented by one when an INUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to final handling.

Q.931 Incomplete Address Detected
Peg Count
(Q931 INC ADRS)

An invalid address, e.g., unacceptable digit count, illegal digit in setup message on a Q.931 call, will increment this counter by one. The call will be sent to Final Handling.

Q.931 Information Element Error
Detected Peg Count
(Q931 INFO)

This counter is incremented by one when an error involving the information element field is detected on a Q.931 call. The call is sent to Final Handling.

Q.931 Unreasonable Signal Received
Peg Count
(Q931 URS RCVD)

This counter is incremented by one when an unreasonable signal, e.g., release, disconnect is received during Q.931 call setup.

ISUP Unreasonable Signal Received
Peg Count
(ISUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an ISUP call is in the setup state.

ISUP Miscellaneous Timeout Peg Count
(ISUP MISC T/O)

This counter is incremented by one when an ISUP test call timed out waiting for a released message.

ITUP Unreasonable Signal Received Peg Count
(ITUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an ITUP call is in the setup state.

ITUP Miscellaneous Timeout Peg Count
(ITUP MISC T/O)

This counter is incremented by one when an ITUP test call timed out waiting for a clearforward message.

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

INUP Unreasonable Signal Received Peg Count
(INUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an INUP call is in setup state.

INUP Miscellaneous Timeout Peg Count
(INUP MSC T/O)

This counter is incremented by one when an INUP test call timeout waiting for a release message.

ITUP Incoming Irregularity Before Answer Peg Count
(ITUP IRR B4ANS)

This counter is incremented by one when an irregularity such as an ADC message was returned on an ITUP call in a stable state.

ITUP Outgoing Irregularity Before Answer Peg Count
(ITUP OUT IRR B4ANS)

This counter is incremented by one when an irregularity such as a clearing message received during setup.

INUP Incoming Irregularity Before Answer Peg Count
(INUP IRR B4ANS)

This counter is incremented by one when an irregularity such as an ADC message returned on a stable call occurs.

INUP Outgoing Irregularity Before Answer Peg Count
(INUP OUT IRR B4ANS)

This counter is incremented by one when an irregularity such as receiving an invalid or out of sequence message occurs.

OMS 1

Permanent Signal Timeout Peg Count
(PST)

These counters will record the total number of Permanent Signal Timeouts for the office, categorized by signaling type. These counters are a summation of the per Control Area counters.

False Start Abandon Peg Count
(FSA)

The total number of False Start Abandons for the office, categorized by signaling type, is recorded with this counter. The counters will reflect a summation of the per Control Area counters.

OMS 2

Partial Dial Abandon Peg Count
(PDA)

These total office counts of Partial Dial Abandons, categorized by signaling type, will be the summation of the per Control Area counters for PDA.

Partial Dial Timeout Peg Count
(PDT)

These total office counts of Partial Dial Timeouts categorized by signaling type, will equal the summation of the per Control Area counters for PDTO.

Pulsing Error Peg Count
(PER)

These total office counts of Pulsing Errors, categorized by signaling type, will equal the summation of the per Control Area counters for Pulsing Errors.

OMS 3

CAMA Automatic Number Identification Failure Peg Count
(ANF)

These counts of total office ANF will reflect the summation of the per Control Area counters for ANF.

CAMA Automatic Number Identification Office Failure Peg Count
(AIF)

These counts of total office AIF will reflect the summation of the per Control Area Counters for AIF.

CAMA Automatic Number Identification Office Failure Peg Count
(AOF)

These counts of total office AOF will reflect the summation of the per Control Area Counters for AOF.

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

OMS 4

Miscellaneous Abandon Peg Count
(MAB)

These total counts of Miscellaneous Abandons, categorized by signaling type, reflect the summations of the per Control Area Counts.

Real-Time Overload Retry Cancel Peg Count
(OVERLOAD RETRY CANCEL)

This counter is incremented by one when a call attempt retry is canceled by the real-time overload function.

CCIS Call Fail Detection Peg Count
(CCIS CALL FAIL DETECTION)

This counter is incremented by one each time a COF, RLG, and RST signal is received for a call that is sent to final Handling.

CCIS Signaling Network Failure Peg Count
(CCIS SIGNLING NWK FAILURE)

This counter is incremented by one each time a call is sent to Final Handling because of a failure to send an IAM or COT for an outgoing trunk or an ADC for an incoming trunk because of a signaling network failure and each time a Message Refusal (MRF) signal is received for an outgoing CCIS call attempt.

CCIS Address Complete Signal Timeout
Peg Count
(CCIS ADC SGN TIMEOUT)

This counter is incremented by one each time a CCIS call times out while waiting for the ADC signal from the succeeding office.

ITUP Address Complete Signal Timeout
Peg Count
(ITUP ADC SGN TIMEOUT)

This counter is incremented by one each time an ITUP call times out while waiting for the ADC message from the succeeding office.

INUP Address Complete Signal Timeout
Peg Count
(INUP ADC SGN TIMEOUT)

This counter is incremented by one each time an INUP call times out while waiting for the ADC message from the succeeding office.

Final Trial Group Peg Count
(FINAL TRIAL GROUP)

These counters will be incremented by one each time a call is lost due to an ineffective attempt on the final trial. One counter exists for each of the following outgoing ineffective attempt type.

1. CCIS Continuity Check Failure (CKF)
2. ITUP Continuity Check Failure (TUPCKF)
3. INUP Continuity Check Failure (NUPCKF)
4. Unexpected Stop Failures (UXS)
5. Integrity Check Failures (IKF)
6. No Start Dial (NSD)
7. Expected Stop Timeout (XST)
8. Glare
9. MF Transmitter Errors (MFT ERR)

Other Errors - MF Transmitter
Outpulsing Errors Peg Count
(MFT OPLS)

This counter will be incremented by one each time a MF Transmitter reports a failure while outpulsing. This count will be maintained on a Control Area basis.

Other Errors - Continuity/Polarity
Test Failures Peg Count
(CPF)

This counter will be incremented by one each time there is a failure on a Continuity and Polarity test, indicating an off-hook on a one-way outgoing trunk.

Other Errors - No XCVR, Final Trial Failure
(NO XCVR FTF)

This counter will be incremented by one each time a CCIS call is sent to Final Handling because no CCIS Transceiver is available to perform a Voice Path Assurance test.

OMS 5

CAMA Free Calls Peg Count
(FREE CLS)

This counter is incremented by one each time a CAMA call is allowed to complete free because ONI suspension is active.

CAMA Position Report (CPR) Peg Count
(POS REPT)

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

This counter is incremented by one each time CAMA determines that a trouble condition has taken place and the operator keys a predetermined seven digit trouble code rather than a calling party number and the call is aborted. (Same as MSC 18 OMS 0).

OMS 6

Transient Calls Lost Peg Count
(TRANSIENT CALLS LOST)

Each time a call is lost during software initialization, a recovery phase, or because of the failure of a VIU, DTU, DIU, ESU, or SCS, this counter will be incremented by one. It should be noted that this count is concerned with those calls which have not progressed to the "waiting-for-answer" state or beyond.

Established Calls Lost Peg Count
(STABLE CALLS LOST)

This count will be incremented by one each time a call is lost during software initialization, a recovery phase or because of the failure of a VIU, DTU, DIU, ESU, or SCS and the call had progressed to or beyond the "waiting-for-answer" state.

CCIS Calls Lost Due to Trunk or
Band Reset Peg Count
(STABLE RCPT TRNK OR BAND)

Each time a CCIS call is lost due to a trunk or band reset, this counter is incremented by one.

OMS 7

Continuity Check Failure Final Trial Failure
Peg Count
(CCF)

This count is incremented by one on final trial failure if a transceiver has not detected the receipt of the check tone within acceptable timing limits after sending IAM.

Miscellaneous call Irregularities
Final Trial Failure Peg Count
(MCI)

This count is incremented by one on final failure upon the receipt of confusion (COF) or Release-Guard (RLG) signals during setup of an outgoing IAM but before any backward signal has been received.

Double Seizures (GLARE) Final Trial Failures
Peg Count
(GLR)

This count is incremented by one on final trial failure by the non-control office upon detection of a double seizure.

Signaling Network Final Trial Failures
Peg Count
(SNF)

This count is incremented by one upon the final trial failure upon receipt of a Message Refusal (MRF) signal or loss of signaling capability on all signaling paths to which a trunk is assigned during an outgoing call setup (prior to receipt of the ADC signal).

OMS 8

Double Seizure - Clear Forward Final
Trial Failure Peg Count
(DS-CLF)

This count is incremented by one on final trial failure if a (F1+F2) signal is received in lieu of a Proceed-To-Send signal.

Seizing Signal Timeout Final Trial Failure
Peg Count
(PTS-TO)

This count is incremented by one on final trial failure if the Proceed--To-Send signal is not received within 20-seconds after sending seizure (F1).

Transmitter Error Final Trial Failure
Peg Count
(TX-ERR)

This counter is incremented by one on final trial failure if an MF Transmitter fails during outpulsing.

Unreasonable Signal Final Trial Failure
Peg Count
(URS)

This counter is incremented by one on final trial failure if an (F1) or (F1+F2) signal is received during outpulsing.

Busy-Flash Final Trial Failure Peg Count
(BF)

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

This counter is incremented by one on final trial failure if a Busy-Flash, (F2), signal is received during outpulsing.

Glare Final Trial Failure Peg Count
(GLR)

This counter is incremented by one on final trial failure by the non-control office upon detection of a double seizure.

OMS 9

Incoming Continuity Signal Timeout
Peg Count
(INCOMING COT-TO)

This counter is incremented by one when an initial message (IAM) is not followed within the accepted timing interval by a COT signal or a blocking signal followed by Clear-Forward.

Outgoing Address Complete Signal
Timeout Peg Count
(OUTGOING ADC-TO)

This counter is incremented by one when the CCITT No. 6 office that sent an address message and a COT message has not received an address complete signal within the accepted timing interval.

Miscellaneous Abandon Peg Count
(ABANDONS MISC)

This count is incremented by one if a CLF signal is received subsequent to a COT signal but prior to receipt of an address complete signal (or early answer).

Waiting-for-Answer Call Failure
Peg Count
(WAIT ANS CF)

This count is incremented by one upon receipt of a Call Failure (CFL) signal for an outgoing CCITT No. 6 trunk during the "waiting-for-answer" stage.

Waiting-for-Answer Timeout Peg Count
(WAIT ANS TO)

This count is incremented by one if an outgoing CCITT No. 6 trunk does not receive an answer signal or other appropriate signal within 4-minutes of receipt of ADC.

Disconnect Stage Failure to Receive
Clear-Forward Peg Count
(DISCONNECT CLF-TO)

This count is incremented by one if when Clear-Back or any failure signal is transmitted for an incoming CCITT No. 6 trunk, a Clear-Forward signal is not received with 40 to 60-seconds for the failure signals.

Disconnect Stage Failure to Receive
Release Guard Peg Count
(DISCONNECT RLG-TO)

This count is incremented by one when a Release-Guard signal is not received within acceptable timing limits of sending Clear-Forward.

OMS 10

MAS - Looping Through Translate All Digits
Peg Count
(XLATE LOOP)

This counter keeps track of the number of customer calls to MAS which fail because the digit reception program (DIRE) is looping through translate all digits due to multiple cut-throughs and/or INWATS routing.

MAS - Data On Disk Peg Count
(DATA ON DISK)

This counter keeps track of the number of customer calls to MAS which fail because DIRE has found MAS call data on disk.

MAS - Path Hunt Peg Count
(PATH HUNT)

This counter keeps track of the number of customer calls to MAS which fail because all path hunt attempts failed.

MAS - No Vacant Announcement
Peg Count
(NO VAC ANN)

This counter keeps track of the number of customer calls to MAS which fail because they are routed to a MAS vacant code or service inactive announcement and the vacant code/service inactive announcement is not available.

MAS - Hardware Duplex Failed Peg Count
(HARDWARE OOS)

This counter keeps track of the number of customer calls to MAS which fail because the MAS hardware is

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

duplex failed, the two dedicated TSI SPCS serving the announcement are duplex failed, or two consecutive announcement phases are on tested TSI ports.

Adjunct Logical Address T303 Timeouts Peg Count (ADJUNCT T303 TIMEOUTS)

These are the per Adjunct Logical Address T303 expiration counts that are pegged upon timeout for response after sending a setup message on a CPA Q931 (B1) outgoing trunk. The count is reported for each of the 16 possible adjuncts.

Adjunct Logical Address TADJ Timeouts Peg Count (ADJUNCT TADJ TIMEOUTS)

These are the per Adjunct Logical Address T_ADJ expiration counts that are pegged upon timeout while waiting for a message after a PROGRESS message has been received on a CPA Q931 (B1) outgoing trunk. The count is reported for each of the 16 possible adjuncts.

TABLE 37

OUTPUT MEASUREMENT SETS FOR MSC 37
(BASE MEASUREMENTS)

```
MSC 37  BASE MEASUREMENTS
OMS 0  DOM ATTEMPTS-TOTAL OFFICE
 ATT      MF EQ     DP EQ     Q931      ISUP    CCIS
   IN          0         0         0         0       0
   OUT         0         0         0         0       0
OMS 1  INTL ATTEMPTS-TOTAL OFFICE
 ATT    CCITT5    CCITT6     ITUP      INUP
   IN          0         0         0         0
   OUT         0         0         0         0
```

Description of Measurements for MSC 37

OMS 0

Incoming Domestic MF Call Attempts
(IN ATT MF EQ)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on MF Trunk Subgroups at 15 minute intervals. This count will not include those false starts which did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic DP Call Attempts
(IN ATT DP EQ)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on DP Trunk Subgroups at 15 minute intervals. This count will not include those false starts which did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic Q.931 Call Attempts
(IN ATT Q931)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on Q.931 Trunk Subgroups at 15 minute intervals. This count will not include those false starts which did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic ISUP Call Attempts
(IN ATT ISUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute intervals.

Incoming Domestic CCIS Call Attempts
(IN ATT CCIS)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute intervals.

Outgoing Domestic MF Call Attempts
(OUT ATT MF EQ)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing MF Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic DP Call Attempts
(OUT ATT DP EQ)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing DP Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic Q.931 Call Attempts
(OUT ATT Q931)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing Q.931 Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic ISUP Call Attempts
(OUT ATT ISUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute

TABLE 37 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 37
(BASE MEASUREMENTS)

intervals.

Outgoing Domestic CCIS Call Attempts
(OUT ATT CCIS)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCIS Trunk Subgroups at 15 minute intervals.

OMS 1

Incoming International CCITT No. 5
Call Attempts
(IN ATT CCITT5)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 5 Trunk Subgroups at 15 minute intervals.

Incoming International CCITT No. 6
Call Attempts
(IN ATT CCITT6)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 6 Trunk Subgroups at 15 minute intervals.

Incoming International ITUP Call Attempts
(IN ATT ITUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ITUP Trunk Subgroups at 15 minute intervals.

Incoming International INUP Call Attempts
(IN ATT INUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the INUP Trunk Subgroups at 15 minute intervals.

Outgoing International CCITT No. 5
Call Attempts
(OUT ATT CCITT5)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 5 Trunk Subgroups at 15 minute intervals.

Outgoing International CCITT No. 6
Call Attempts
(OUT ATT CCITT6)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 6 Trunk Subgroups at 15 minute intervals.

Outgoing International ITUP Call Attempts
(OUT ATT ITUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the ITUP Trunk Subgroups at 15 minute intervals.

Outgoing International INUP Call Attempts
(OUT ATT INUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the INUP Trunk Subgroups at 15 minute intervals.

TABLE 38

OUTPUT MEASUREMENT SETS FOR MSC 38
(ADMINISTRATIVE AREA ZERO)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Administrative Area Zero.

TABLE 39

OUTPUT MEASUREMENT SETS FOR MSC 39
(ADMINISTRATIVE AREA ONE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Administrative Area One.

TABLE 40

OUTPUT MEASUREMENTS SETS FOR MSC 40
(AUDIT IMPLICATOR CODE)

```
MSC 40  PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE
OMS 0  AUDIT IMPLICATOR CODES
  000     0  001     0  002     0  003     0  004     0  005     0
  006     0  007     0  008     0  009     0  010     0  011     0
  012     0  013     0  014     0  015     0  016     0  017     0
  018     0  019     0  020     0  021     0  022     0  023     0
  024     0  025     0  026     0  027     0  028     0  029     0
  030     0  031     0  032     0  033     0  034     0  035     0
  036     0  037     0  038     0  039     0  040     0  041     0
  042     0  043     0  044     0  045     0  046     0  047     0
  048     0  049     0  050     0  051     0  052     0  053     0
  054     0  055     0  056     0  057     0  058     0  059     0
  060     0  061     0  062     0  063     0

OMS 1  AUDIT IMPLICATOR CODES
  064     0  065     0  066     0  067     0  068     0  069     0
  070     0  071     0  072     0  073     0  074     0  075     0
  076     0  077     0  078     0  079     0  080     0  081     0
  082     0  083     0  084     0  085     0  086     0  087     0
  088     0  089     0  090     0  091     0  092     0  093     0
  094     0  095     0  096     0  097     0  098     0  099     0
  100     0  101     0  102     0  103     0  104     0  105     0
  106     0  107     0  108     0  109     0  110     0  111     0
  112     0  113     0  114     0  115     0  116     0  117     0
  118     0  119     0  120     0  121     0  122     0  123     0
  124     0  125     0  126     0  127     0

OMS 2  AUDIT IMPLICATOR CODES
  128     0  129     0  130     0  131     0  132     0  133     0
  134     0  135     0  136     0  137     0  138     0  139     0
  140     0  141     0  142     0  143     0  144     0  145     0
  146     0  147     0  148     0  149     0  150     0  151     0
  152     0  153     0  154     0  155     0  156     0  157     0
  158     0  159     0  160     0  161     0  162     0  163     0
  164     0  165     0  166     0  167     0  168     0  169     0
  170     0  171     0  172     0  173     0  174     0  175     0
  176     0  177     0  178     0  179     0  180     0  181     0
  182     0  183     0  184     0  185     0  186     0  187     0
  188     0  189     0  190     0  191     0

OMS 3  AUDIT IMPLICATOR CODES
  192     0  193     0  194     0  195     0  196     0  197     0
  198     0  199     0  200     0  201     0  202     0  203     0
  204     0  205     0  206     0  207     0  208     0  209     0
  210     0  211     0  212     0  213     0  214     0  215     0
  216     0  217     0  218     0  219     0  220     0  221     0
  222     0  223     0  224     0  225     0  226     0  227     0
  228     0  229     0  230     0  231     0  232     0  233     0
  234     0  235     0  236     0  237     0  238     0  239     0
  240     0  241     0  242     0  243     0  244     0  245     0
  246     0  247     0  248     0  249     0  250     0  251     0
  252     0  253     0  254     0  255     0
```

TABLE 40 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 40
(AUDIT IMPLICATOR CODE)

Description of Measurements for MSC 40

OMS 0-3

Audit Implicator Codes Peg Count

Each of these OMS have a total of 64 registers, one for each of the audit implicator codes within the specified OMS. Audit implicator codes point to memory structures and error types involved in defensive check failures.

TABLE 41

OUTPUT MEASUREMENT SETS FOR MSC 41
(AUDITS BY CLIENT)

```
MSC 41  AUDITS BY CLIENT
OMS 0 AUDIT CALLS BY CLIENT, ERRORS FOUND
    AUDITS  OPER   MAINT  MAN
     SYST   PRGMS  PRGMS  REQ
        0       0      0      0
```

Description of Measurements for MSC 41

OMS 0

Errors Found By Audit System Peg Count
(AUDITS SYST)

Each time an error is found by the audit system this register is incremented by one.

Errors Found By Operational Programs
Peg Count
(OPER PRGMS)

This counter will be incremented by one each time an error is found by an operational program.

Errors Found By Maintenance Programs
Peg Count
(MAINT PRGMS)

Each time an error is found by a maintenance program this register is incremented by one.

Errors Found By Manual Request
Peg Count
(MAN REQ)

This counter is incremented by one each time an error is found by an audit program that was initiated by manual request.

TABLE 42

OUTPUT MEASUREMENT SETS FOR MSC 42
(TRUNK ERROR ANALYSIS - SECOND STAGE FILTERS)

```
MSC 42  TRUNK ERROR ANALYSIS COUNTS

                    SECOND STAGE
          SP          FILTER
       NUMBER      OVERFLOWS

    OMS 0                    0
    OMS 1                    0
    OMS 2                    0
    OMS 3                    0
    OMS 4                    0
    OMS 5                    0
    OMS 6                    0
    OMS 7                    0
    OMS 8                    0
    OMS 9                    0
    OMS 10                   0
    OMS 11                   0
    OMS 12                   0
    OMS 13                   0
    OMS 14                   0
    OMS 15                   0
    OMS 16                   0
    OMS 17                   0
    OMS 18                   0
    OMS 19                   0
    OMS 20                   0
    OMS 21                   0
    OMS 22                   0
    OMS 23                   0
    OMS 24                   0
    OMS 25                   0
    OMS 26                   0
    OMS 27                   0
    OMS 28                   0
    OMS 29                   0
    OMS 30                   0
    OMS 31                   0
```

Description of Measurements for MSC 42

OMS 0-31

Trunk Error Analysis Second Stage Filter Overflow For Signal Processor Peg Count (SECOND STAGE FILTER OVERFLOWS)

Each OMS has one counter for a signal processor of the same number (i.e., OMS 0 = SP Member 0, ..., OMS 31 = SP Member 31). These registers will be incremented by one for each trunk error analysis second stage filter overflow. This overflow will occur when an SP has received the maximum number of trunk requests it can handle and another request is received.

TABLE 43

OUTPUT MEASUREMENT SETS FOR MSC 43
(TRUNK ERROR ANALYSIS - LONG TERM TABLE)

MSC 43 TRUNK ERROR ANALYSIS COUNTS

SP NUMBER	LONG TERM TABLE OVERFLOWS
OMS 0	0
OMS 1	0
OMS 2	0
OMS 3	0
OMS 4	0
OMS 5	0
OMS 6	0
OMS 7	0
OMS 8	0
OMS 9	0
OMS 10	0
OMS 11	0
OMS 12	0
OMS 13	0
OMS 14	0
OMS 15	0
OMS 16	0
OMS 17	0
OMS 18	0
OMS 19	0
OMS 20	0
OMS 21	0
OMS 22	0
OMS 23	0
OMS 24	0
OMS 25	0
OMS 26	0
OMS 27	0
OMS 28	0
OMS 29	0
OMS 30	0
OMS 31	0

Description of Measurements for MSC 43

OMS 0-31

Trunk Error Analysis Long Term Table
Overflow For Signal Processor Peg Count
(LONG TERM TABLE OVERFLOWS)

Each OMS has a counter for a signal processor with the same number as the OMS. These registers will be incremented by one for each long term table overflow. This type of overflow will occur when the long term table is full and an attempt is made to place another trunk is on the table.

TABLE 44

OUTPUT MEASUREMENT SETS FOR MSC 44
(TRUNK ERROR ANALYSIS - REPORT BUFFER OVERFLOW)

```
MSC 44  TRUNK ERROR ANALYSIS - REPORT BUFFER OVERFLOW
OMS 0                   0
```

Description of Measurements for MSC 44

OMS 0

Trunk Error Analysis Report Buffer
Overflow Peg Count

This counter will be incremented by one each time an attempt is made to place a report to be printed out in the report buffer and the buffer is full to capacity.

TABLE 45

OUTPUT MEASUREMENT SETS FOR MSC 45
(CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

```
MSC 45 SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS
OMS 0
IAM IRR 00000
        RESET    NSC    NTC    VNN    ADI    COF    CFL    UQL    UNRES
  RCVD  00000  00000  00000  00000  00000  00000  00000  00000    00000
  XMIT  00000  00000  00000  00000  00000  00000  00000  00000

        IN CNI RING   OUT CNI RING     UBM    OUT    RESET   -CONFUSION-
        FAIL   OVFL   FAIL   OVFL     RCVD   UNEXP   RCVD    RCVD   XMIT
  Q931  00000  00000  00000  00000      -      -     00000   00000  00000
  ISUP  00000  00000  00000  00000    00000  00000   00000     -      -
  ITUP  00000  00000  00000  00000    00000  00000   00000     -      -
  INUP  00000  00000  00000  00000    00000  00000   00000     -      -

                SENT     RCVD
  ISUP CFN          0        0
  DNHR CRB          0        0
  RTNR EBCRB        0        0
  RTNR QUERY        0        0

  PROCESSOR INTERFACES DOWN
   CNI STRM    API   1A FILE
         0        0        0

 OMS 1 CCIS SOFTWARE CARRIER GROUP ALARM
                   PASS         FAIL
       INITIAL        0            0
       MONITOR        0            -
       RESTORAL       0            0

 OMS 2  TRKS BLOCKED FAR END EQUIP PROB
                  0

 OMS 3   CCITT6 PERFORMANCE SIGNALS RECEIVED
      SEC     ADI      CFL     VNN     CGC     NNC
        0       0        0       0       0       0
      LOS     SSB     CONG
        0       0        0

        ITUP PERFORMANCE SIGNALS RECEIVED
      SEC  CGC WFA  CFL WFA    CGC     NNC  NNC WFA
        0       0        0       0       0       0
      LOS     SSB
        0       0

        INUP SIGNALLING IRREGULARITIES
      SEC  SEC WFA    NCA  NCA WFA  TFL WFA
        0       0       0        0       0
      LOS  SSB WFA
        0       0
        CCITT7 SAM IGNORED
                0
```

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

```
OMS 4  CCITT6 PERFORMANCE SIGNALS TRANSMITTED
     SEC     ADI     CFL     VNN     CGC     NNC
       0       0       0       0       0       0
     COF     SSB     SST     LOS     BLO
       0       0       0       0       0
OMS 5  CCITT6 SIGNALING IRREGULARITIES
     IAD     IAM     ISA     CCF     MCI     SNF     GLR
       0       0       0       0       0       0       0
     ITUP SIGNALLING IRREGULARITIES
     IAD     ISA   IAM GLR   CCR GLR   GLR
       0       0       0       0       0
     INUP SIGNALLING IRREGULARITIES
     ISA     IAM GLR   CCR GLR   GLR
       0         0       0       0
OMS 6  ISUP UUI AND ATP DROPPED
     UUI  UUI INT    ATP  ATP INT
       0       0       0       0
------------------ CALL MERGE ------------------
    RQST    SUCC  ADJ NA  INV CS  INV CN  MFRQST
       0       0       0       0       0       0
OMS 7  E&M SOFTWARE CARRIER GROUP ALARM
       ALARM  RESTORAL  NON-CON  QIC-PASS  QIC-FAIL
 TPF     0       0         0        0         0
 RPF     0       0         -        -         -
```

Descriptions of Measurements for MSC 45

OMS 0

Initial Address Message (IAM)
Irregularity (IRR) Peg Count
(IAM IRR)

This counter will be incremented by one for each of the following initial address irregularities:

a. Invalid Initial Address Message (IAM) data - An example of an IAM containing invalid data is an invalid digit such as digit 14.

b. IAM length check failure - A CCIS office is unable to complete a length check on a received IAM because, for example, one or more subsequent signaling units of the IAM are missing.

c. Receipt of a nonmatching second IAM - If during the call setup a CCIS office receives a second IAM, a comparison is made to the first IAM and the two are different.

CCIS Trunk Or Band Reset Received
Peg Count
(RESET RCVD)

Each time a trunk or band Reset signal (RST) from the incoming direction is received during call set-up, this counter is incremented by one.

CCIS National Switching Congestion (NSC)
Signals Received Peg Count
(NSC RCVD)

This counter is incremented by one when a National Switching Congestion (NSC) signal is received for an outgoing CCIS call attempt because common control facilities in a subsequent office were not available or a network path hunt failed in a subsequent office.

CCIS National Trunk Congestion (NTC)
Signals Received Peg Count
(NTC RCVD)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

This counter is incremented by one each time a National Trunk Congestion signal (NTC) is received for an outgoing CCIS call attempt because of an outgoing trunk congestion condition (no circuit) in a subsequent office.

CCIS Vacant National Number (VNN)
Signals Received Peg Count
(VNN RCVD)

When a succeeding CCIS office has examined the digits received on a CCIS call and determined that it has received a vacant code, and this office received a Vacant National Number (VNN) signal, this counter is incremented by one.

CCIS Address Incomplete (ADI) Signals
Received Peg Count
(ADI RCVD)

This counter is incremented by one when a succeeding CCIS office determined that the address received on an incoming call does not contain the proper number of digits and this office received an Address Incomplete (ADI) signal.

CCIS Confusion (COF) Signals Received
Peg Count
(COF RCVD)

Each time a Confusion Signal (COF) is received because the forward office detected an invalid Initial Address Message (IAM) irregularity, this counter is incremented by one.

CCIS Call Failure (CFL) Signals Received
Peg Count
(CFL RCVD)

This counter is incremented by one each time a forward CCIS office experienced Continuity (COT) Timeout signal or Address Complete (ADC) signal timeout and this office received a Call Failure (CFL) signal.

CCIS Unequipped Label Signals Received
Peg Count
(UQL RCVD)

This counter is incremented by one each time an Unequipped Label (UQL) signal is received from a forward office which had been sent an IAM.

CCIS Unreasonable Message (UNRES)
Signals Received Peg Count
(UNRES RCVD)

This counter is incremented by one each time the CCIS office receives an unreasonable backward message that causes retrial. Such messages include receipt of Release Guard (RLG) signal or Reset (RST) signal after an IAM or IAM plus COT has been sent.

CCIS Trunk Or Band Reset Signals
Transmitted Peg Count
(RESET XMIT)

Each time a band or trunk Reset signal is sent in the outgoing direction during call setup, this counter is incremented by one.

CCIS National Switching Congestion (NSC)
Signals Transmitted Peg Count
(NSC XMIT)

This counter is incremented by one each time a National Switching Congestion signal (NSC) is returned for an incoming call because insufficient common control facilities were available for the CCIS call or because a failure occurred while hunting a network path.

CCIS National Trunk Congestion (NTC)
Signals Transmitted Peg Count
(NTC XMIT)

Each time a National Trunk Congestion signal is returned for a CCIS incoming call because of an outgoing trunk congestion condition (no circuit), this counter is incremented by one.

CCIS Vacant National Number (VNN)
Signals Transmitted Peg Count
(VNN XMIT)

This counter is incremented by one each time the digits received have been examined and determined to be a vacant code and a Vacant National Number (VNN) signal has been sent to the CCIS office which sent the digits.

CCIS Address Incomplete (ADI) Signals
Transmitted Peg Count
(ADI XMIT)

Each time the address received on an incoming call does not contain the proper number of digits and an Address Incomplete (ADI) signal is sent to the CCIS office which transmitted the IAM, this counter will be incremented by one.

CCIS Confusion (COF) Signals

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Transmitted Peg Count
(COF XMIT)

This counter is incremented by one each time a Confusion (COF) signal is transmitted because an invalid Initial Address Message (IAM) irregularity has been received.

CCIS Call Failure (CFL) Signals
Transmitted Peg Count
(CFL XMIT)

Each time a Continuity (COT) Timeout or an Address Complete (ADC) timeout occurs and a Call Failure (CFL) signal has been transmitted to the sending office, this counter will be incremented by one.

CCIS Unequipped Label Signals Transmitted
Peg Count
(UQL XMIT)

This counter is incremented by one each time an Unequipped Label response (UQL) is sent to an office as a result of an invalid label found in an IAM.

Q.931 Incoming CNI Ring Failure Peg Count
(Q931 IN CNI RING FAIL)

This counter is incremented by one when an incoming Q.931 call is sent to Final Handling due to Customer Network Interface (CNI) ring failure.

Q.931 Incoming CNI Ring Buffer
Overflow Peg Count
(Q931 IN CNI RING OVFL)

This counter is incremented by one when an incoming Q.931 call fails due to an inability to send messages caused by CNI buffer overflow.

Q.931 Outgoing CNI Ring Failure Peg Count
(Q931 OUT CNI RING FAIL)

This counter is incremented by one when an outgoing Q.931 call is sent to Final Handling due to CNI ring failure.

Q.931 Outgoing CNI Ring Overflow
Peg Count
(Q931 OUT CNI RING OVFL)

This counter is incremented by one when an outgoing Q.931 call fails due to an inability to send messages caused by CNI buffer overflow.

Q.931 Resets Received Peg Count
(Q931 RESET RCVD)

This counter is incremented by one when a reset message is received on a Q.931 trunk that is on queue for or busy to a CR.

Q.931 Confusion Received Peg Count
(Q931 CONFUSION RCVD)

This counter is incremented by one when an incoming Q.931 fails due to a call state mismatch in a setup or post-setup state.

Q.931 Confusion Transmitted Peg Count
(Q931 CONFUSION XMIT)

This counter is incremented by one when a call state mismatch is detected on an outgoing Q.931 call in either setup or post setup state.

ISUP Incoming CNI Ring Failure Peg Count
(ISUP IN CNI RING FAIL)

This counter is incremented by one when an incoming ISUP call is sent to Final Handling due to CNI ring failure.

ISUP Incoming CNI Ring Overflow
Peg Count
(ISUP IN CNI RING OVFL)

This counter is incremented by one when an incoming ISUP call fails due to an inability to send messages caused by CNI buffer overflow.

ISUP Outgoing CNI Ring Failure Peg Count
(ISUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing ISUP call is sent to Final Handling due to CNI ring failure.

ISUP Outgoing CNI Ring Overflow
Peg Count
(ISUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing ISUP call fails due to an inability to send messages caused by CNI buffer overflow.

ISUP Unsuccessful Backward Setup
Received Peg Count
(ISUP UBM RCVD)

This counter is incremented by one when an ISUP release message is received in setup.

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

ISUP Outgoing Unexpected Message
Peg Count
(ISUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR occurs.

ISUP Resets Received Peg Count
(ISUP RESET RCVD)

This counter is incremented by one when an incoming ISUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

ITUP Incoming CNI Ring Failure
Peg Count
(ITUP IN CNI RING FAIL)

This counter is incremented by one when an incoming ITUP call is sent to Final Handling due to CNI ring failure.

ITUP Incoming CNI Ring Overflow
Peg Count
(ITUP IN CNI RING OVFL)

This counter is incremented by one when an incoming ITUP call fails due to an inability to send messages caused by CNI buffer overflow.

ITUP Outgoing CNI Ring Failure
Peg Count
(ITUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing ITUP call is sent to Final Handling due to CNI ring failure.

ITUP Outgoing CNI Ring Overflow
Peg Count
(ITUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing ITUP call fails due to an inability to send messages caused by CNI buffer overflow.

ITUP Unblocking Message Received
Peg Count
(ITUP UBM RCVD)

This counter is incremented by one when an unblocking message is received on an ITUP call that is busy to a call register.

ITUP Outgoing Unexpected Message
Peg Count
(ITUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR occurs.

ITUP Resets Received Peg Count
(ITUP RESET RCVD)

This counter is incremented by one when an incoming ITUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

INUP Incoming CNI Ring Failure
Peg Count
(INUP IN CNI RING FAIL)

This counter is incremented by one when an incoming INUP call is sent to Final Handling due to CNI ring failure.

INUP Incoming CNI Ring Overflow
Peg Count
(INUP IN CNI RING OVFL)

This counter is incremented by one when an incoming INUP call fails due to an inability to send messages caused by CNI buffer overflow.

INUP Outgoing CNI Ring Failure
Peg Count
(INUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing INUP call is sent to Final Handling due to CNI ring failure.

INUP Outgoing CNI Ring Overflow
Peg Count
(INUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing INUP call is sent to Final Handling due to CNI ring overflow.

INUP Unblocking Message Received
Peg Count
(INUP UBM RCVD)

This counter is incremented by one when an unblocking message is received on an INUP call that is busy to a call register.

INUP Outgoing Unexpected Message
Peg Count

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

(INUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR.

INUP Resets Received Peg Count
(INUP RESET RCVD)

This counter is incremented by one when an incoming INUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

ISUP Confusion Message Sent Peg Count
(ISUP CFN SENT)

This counter is incremented by one when a Confusion message is sent in response to an unimplemented message.

ISUP Confusion Message Received Peg Count
(ISUP CFN RCVD)

This counter is incremented by one when a Confusion message is received.

DNHR Crank Backs Sent Peg Count
(DNHR CRB SENT)

This counter is incremented by one when a crank back is sent from the Via Toll Switch.

DNHR Crank Backs Received Peg Count
(DNHR CRB RCVD)

This counter is incremented by one when a crank back is received at the Originating Toll Switch.

RTNR Egress Busy Crankbacks Sent
Peg Count
(RTNR EBCRB SENT)

This counter is incremented by one when a crankback is sent at a Terminating Access Switch.

RTNR Egress Busy Crankback Received
Peg Count
(RTNR EBCRB RCVD)

This counter is incremented by one when a crankback is received at an Originating Access Switch.

RTNR Queries Sent Peg Count
(RTNR QUERY SENT)

This counter is incremented by one when a TSG bit-map query is sent from an Originating Access Switch (OAS).

RTNR Queries Received Peg Count
(RTNR QUERY RCVD)

This counter is incremented by one when a TSG bit-map query is received at a Terminating Access Switch (TAS).

CNI Stream Processor Interface Down
(CNI STRM PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the CNI data stream has been down.

API Processor Interface Down
(API PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the API is down.

1A File Processor Interface Down
(1A FILE PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the 1A File Store is down.

OMS 1

These counters are incremented by the Software Carrier Group Alarm program on the basis of statistical tests on Carrier Group believed to have failed. An initial continuity test is run when a suspected failure is first encountered. A monitor test is run at periodic intervals after the failure of an initial test. A restoral test is run after a monitor test pass.

1. Initial Tests Pass Peg Count
2. Initial Tests Failure Peg Count
3. Monitor Tests Pass Peg Count
4. Restoral Tests Pass Peg Count
5. Restoral Tests Failure Peg Count

OMS 2

Trunks Blocked Due To Far End
Equipment Problems Peg Count
(TRKS BLOCKED FAR END EQUIP PROB)

This counter is incremented by one for each trunk that is blocked and taken out of service due to far end switching equipment problems.

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

OMS 3

CCITT No. 6 Switching Equipment Congestion (SEC) Signals Received Peg Count
(CCITT6 SEC)

This count is incremented by one when a Switching Equipment Congestion signal is received from a forward CCITT No. 6 office or when there is some congestion in the office itself, such as no transceivers available for an outgoing CCITT No. 6 call.

CCITT No. 6 Address Incomplete (ADI) Signals Received Peg Count
(CCITT6 ADI)

This counter is incremented by one when a succeeding CCITT No. 6 office determined that the address received on an incoming call does not contain the proper number of digits and this office received an Address Incomplete signal.

CCITT No. 6 Call Failure (CFL) Signals Received Peg Count
(CCITT6 CFL)

This counter is incremented by one each time a forward CCITT No. 6 office experienced Continuity (COT) Timeout signal or Address Complete (ADC) signal timeout and this office received a Call Failure (CFL) signal.

CCITT No. 6 Vacant National Number (VNN) Signals Received Peg Count
(CCITT6 VNN)

This counter is incremented by one when a succeeding CCITT No. 6 office has examined the digits received on a CCITT No. 6 call and determined that it has received a Vacant National Number signal.

CCITT No. 6 Circuit Group Congestion (CGC) Signals Received Peg Count
(CCITT6 CGC)

This count is incremented by one each time a Circuit Group Congestion signal is received for an outgoing CCITT No. 6 call attempt because of an outgoing trunk congestion (no circuit) condition is a subsequent office.

CCITT No. 6 National Network Congestion (NNC) Signals Received Peg Count
(CCITT6 NNC)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing CCITT No. 6 call attempt because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

CCITT No. 6 Line Out-of-Service Signals Received Peg Count
(CCITT6 LOS)

This counter is incremented by one when a LOS fail signal is received on a CCITT6 outgoing trunk.

CCITT No. 6 Subscriber Busy Signals Received Peg Count
(CCITT6 SSB)

This counter is incremented by one when an SSB fail signal is received on a CCITT6 outgoing trunk.

CCITT No. 6 Terminal Congestion Peg Count
(CCITT6 CONG)

This counter is incremented by one when a CCITT6 call is final handled due to terminal congestion that cancels IAMs to a terminal.

ITUP Switching Equipment Congestion (SEC) Signals Received Peg Count
(ITUP SEC)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received from a forward ITUP office or when there is some congestion in the office itself, such as no transceivers available for an outgoing ITUP call.

ITUP Circuit Group Congestion (CGC) Received While Waiting For Answer Peg Count
(ITUP CGC WFA)

This counter is incremented by one when a Circuit Group Congestion (CGC) signal is received on an outgoing ITUP call attempt while waiting for answer because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP Call Failure (CFL) Received While Waiting For Answer Peg Count
(ITUP CFL WFA)

This counter is incremented by one when a Call Failure (CFL) signal is received on an outgoing ITUP call attempt while waiting for answer.

ITUP Circuit Group Congestion (CGC) Signals Received Peg Count
(ITUP CGC)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

This count is incremented by one each time a Circuit Group Congestion signal is received for an outgoing ITUP call attempt because of outgoing trunk congestion (CGC) condition in a subsequent office.

ITUP National Network Congestion (NNC) Signals Received Peg Count
(ITUP NNC)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing ITUP call attempt because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP National Network Congestion (NNC) While Waiting For Answer Peg Count
(ITUP NNC WFA)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing ITUP call attempt while waiting for answer because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP Line Out-of-Service (LOS) Signals Received Peg Count
(ITUP LOS)

This counter is incremented by one when a LOS fail signal is received on an ITUP outgoing trunk.

ITUP Subscriber Busy (SSB) Signals Received Peg Count
(ITUP SSB)

This counter is incremented by one when an SSB fail signal is received on an ITUP outgoing trunk.

INUP Switching Equipment Congestion (SEC) Signals Received Peg Count
(INUP SEC)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received from a forward INUP office or when there is some congestion in the office itself, such as no transceivers available for an outgoing INUP call.

INUP Switching Equipment Congestion (SEC) Signals Received While Waiting For Answer Peg Count
(INUP SEC WFA)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received while waiting for answer from a forward INUP office or when there is some congestion in the office itself, such as no transceivers available for an INUP call.

INUP No Circuit Available (NCA) Signals Received Peg Count
(INUP NCA)

This counter is incremented by one when a REL message is received with a cause of No Circuit Available from a forward INUP office.

INUP No Circuit Available (NCA) Signals Received While Waiting For Answer Peg Count
(INUP NCA WFA)

This counter is incremented by one when a REL message is received with a cause of No Circuit Available while waiting for answer from a forward INUP office.

INUP Temporary Failure (TFL) Signals Received While Waiting For Answer Peg Count
(INUP TFL WFA)

This counter is incremented by one when a REL message is received with a cause of Temporary Failure while waiting for answer from a forward INUP office.

INUP Line Out-of-Service (LOS) Signals Received Peg Count
(INUP LOS)

This counter is incremented by one when a LOS fail signal is received on an INUP outgoing trunk.

INUP Subscriber Busy (SB) Signals Received While Waiting For Answer Peg Count
(INUP SSB WFA)

This counter is incremented by one when a Subscriber Busy fail signal is received while waiting for answer on an INUP outgoing trunk.

CCITT No. 7 Subsequent Address Message Ignored Peg Count
(CCITT7 SAM IGNORED)

This is a count of the number of Subsequent Address Messages (SAM) ignored in the incoming setup post routing state.

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

OMS 4

CCITT No. 6 Switching Equipment Congestion (SEC) Signals Transmitted Peg Count (SEC)

This counter is incremented by one when there is some congestion in the office such as no transceiver available for an outgoing CCITT No. 6 call or when a Switching Equipment Congestion signal is received from a forward office.

CCITT No. 6 Address Incomplete (ADI) Signals Transmitted Peg Count (ADI)

This counter is incremented by one when an Address Incomplete signal is received by the office or if the CCITT No. 6 office determined that the address received on an incoming call does not contain the proper number of digits.

CCITT No. 6 Call Failure (CFL) Signals Transmitted Peg Count (CFL)

This counter is incremented by one when this office received a Call Failure signal from a forward CCITT No. 6 office or if the outgoing trunk fails on a final trial.

CCITT No. 6 Vacant National Number (VNN) Signals Transmitted Peg Count (VNN)

This counter is incremented by one each time the digits received have been examined and determined to be a vacant code and a Vacant National Number (VNN) signal has been sent to the CCITT No. 6 office which sent the digits.

CCITT No. 6 Circuit Group Congestion (CGC) Signals Transmitted Peg Count (CGC)

This counter is incremented by one each time a Circuit Group Congestion is received from a forward office or when an incoming CCITT No. 6 call encounters outgoing trunk congestion (no circuit).

CCITT No. 6 National Network Congestion (NNC) Signals Transmitted Peg Count (NNC)

This counter is incremented by one each time a National Network Congestion signal is returned for a CCITT No. 6 incoming call because of an outgoing trunk congestion problem (no circuit).

CCITT No. 6 Confusion (COF) Signals Transmitted Peg Count (COF)

This counter is incremented by one each time a Confusion signal is transmitted because an invalid Initial Address Message (IAM) irregularity has been received.

CCITT No. 6 Subscriber Busy (SSB) Signals Transmitted Peg Count (SSB)

This counter is incremented by one each time a Subscriber Busy (SSB) signal is received from the sending office.

CCITT No. 6 Subscriber Transferred (SST) Signals Transmitted Peg Count (SST)

This counter is incremented by one each time a Subscriber Transferred (SST) signal is received from the sending office.

CCITT No. 6 Line Out-Of-Service (LOS) Signal Transmitted Peg Count (LOS)

This counter is incremented by one each time a Line Out-Of-Service signal is received from the sending office.

CCITT No. 6 Blocking (BLO) Signal Transmitted Peg Count (BLO)

This counter is incremented by one upon the receipt of Confusion (COF) and Release-Guard (RLG) signals during set-up of an outgoing CCITT No. 6 call, or the receipt of a Blocking (BLO) signal after sending an Initial Address Message (IAM) but before any backward signal has been received.

OMS 5

CCITT No. 6 Incomplete Address Detected Call Irregularity Peg Count (CCITT6 IAD)

This count is incremented by one when it is determined on an incoming CCITT No. 6 call that a received address does not contain the proper number of digits for

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

setting up the call and an Address Incomplete (ADI) signal is sent in the backward direction for the incoming trunk.

CCITT No. 6 Initial Address Message (IAM)
Call Irregularity Peg Count
(CCITT6 IAM)

This counter is incremented by one when the Initial Address Message (IAM) or Subsequent Address Message (SAM) data is invalid, or if the IAM or SAM length checks fail, or if a second nonmatching IAM or SAM signal is received. Detecting any of these failures, the office will send a Confusion (COF) signal in the backward direction for the incoming trunk.

CCITT No. 6 Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(CCITT6 ISA)

This counter is incremented by one each time a Clear-Forward (CLF) signal is received on an incoming CCITT No. 6 trunk (not preceded by a blocking signal) while timing for the receipt of the Continuity (COT) signal.

CCITT No. 6 Continuity Check Failure (CCF)
Signaling Irregularity Peg Count
(CCITT6 CCF)

This counter is incremented by one each time a transceiver has not detected the receipt of the check tone within acceptable transmission and time limits. Four reattempts are allowed in the event of successive continuity check failures.

CCITT No. 6 Miscellaneous Call Irregularity
Peg Count
(CCITT6 MCI)

This counter is incremented by one when a CCITT No. 6 outgoing call attempt receives a Confusion or Blocking message in response to an IAM.

CCITT No. 6 Signaling Network Failures (SNF)
Call Irregularities Peg Count
(CCITT6 SNF)

This counter is incremented by one upon receipt of a Message Refusal (MRF) signal or loss of signaling capability on all signaling paths to which a trunk is assigned at a CCITT No. 6 office.

CCITT No. 6 Double Seizure (GLR) Call
Irregularity Peg Count
(CCITT6 GLR)

This counter is incremented by one by the non-control office upon detection of a double seizure.

ITUP Incomplete Address Detected (IAD)
Call Irregularity Peg Count
(ITUP IAD)

This count is incremented by one when it is determined on an incoming ITUP call that a received address does not contain the proper number of digits for setting up a call and an Address Incomplete (ADI) signal is sent in the backward direction for the incoming trunk.

ITUP Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(ITUP ISA)

This counter is incremented by one each time a Reset (RST) message is received on an incoming ITUP trunk that is either on queue for or busy to a CR.

ITUP Initial Address Message (IAM)
Glare Peg Count
(ITUP IAM GLR)

This counter is incremented by one on an ITUP outgoing attempt when an IAM is received on the outgoing trunk which the far end controls while either doing a continuity check request or in setup.

ITUP Continuity Check Request (CCR)
Glare Peg Count
(ITUP CCR GLR)

This counter is incremented by one when a CCR is received on an ITUP outgoing trunk after a CCR was successfully sent, which is a glare condition in a non-control office.

ITUP Glare Peg Count
(ITUP GLR)

This counter is incremented by one when an outgoing ITUP trunk detects a double seizure is detected in a non-control office.

INUP Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(INUP ISA)

This counter is incremented by one each time a Reset (RST) message is received on an incoming INUP trunk that is either on queue for or busy to a CR.

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

INUP Initial Address Message (IAM)
Glare Peg Count
(INUP IAM GLR)

This counter is incremented by one on an INUP outgoing attempt when an IAM is received on the outgoing trunk which the far end controls while either doing a continuity check request or in setup.

INUP Continuity Check Request (CCR)
Glare Peg Count
(INUP CCR GLR)

This counter is incremented by one when a CCR is received on an INUP outgoing trunk after a CCR was successfully sent, which is a glare condition in a non-control office.

INUP Glare Peg Count
(INUP GLR)

This counter is incremented by one when an outgoing INUP trunk detects a double seizure is detected in a non-control office.

OMS 6

ISUP UUI Dropped Due to
Length Peg Count
(ISUP UUI)

This is a count of the number of times User-to-User Information (UUI) was dropped due to length considerations and maximum ISUP length restrictions.

ISUP UUI Dropped Due to
Internal Loss Peg Count
(ISUP UUI INT)

This is a count of the number of times User-to-User Information (UUI) is dropped due to lack of internal buffer space.

ISUP ATP Dropped Due to
Length Peg Count
(ISUP ATP)

This is a count of the number of times Access Transport data (ATP) was dropped due to length considerations and maximum ISUP length restrictions.

ISUP ATP Dropped Due to
Internal Loss Peg Count
(ISUP ATP INT)

This is a count of the number of times Access Transport data (ATP) is dropped due to lack of internal buffer space.

Call Merge Requests Peg Count
(CALL MERGE RQST)

This is a count of call merge requests to connect two calls set up through a PRI interface as a single call into the switch.

Call Merge Success Peg Count
(CALL MERGE SUCC)

This is a count of successfully completed call merge operations.

Call Merge Denials - Adjunct Not Allowed
Peg Count
(CALL MERGE ADJ NA)

This is the count of call merge denials because the adjunct is prohibited from merging calls.

Call Merge Denials - Invalid Call States Peg Count
(CALL MERGE INV CS)

This is the count of call merge denials because the calls to be merged were in invalid states.

Call Merge Denials - Invalid Channel ID Peg Count
(CALL MERGE INV CN)

This is the count of call merge denials because of an invalid channel ID.

Call Merge Denials - Multi-Feature Request
Peg Count
(CALL MERGE MFRQST)

This is the count of call merge denials because of multiple feature requests in one facility message.

OMS 7

Confirmed Transmit Path Failure
Carrier Alarm Peg Count
(TPF ALARM)

This counter will be incremented by one each time a Confirmed Transmit Path Failure Carrier Alarm is detected.

Confirmed Transmit Path Failure
Carrier Restoral Peg Count

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

(TPF RESTORAL)

This counter will be incremented by one each time a retest quick test verifies that a Transmit Path Failure Carrier Restoral has passed and the carrier alarm will be deactivated.

Non-Confirmed Transmit Path Failure
Carrier Alarm Peg Count
(TPF NON-CON)

This counter will be incremented by one each time a Non-Confirmed Transmit Path Failure Carrier Alarm has been detected.

Monitor QIC Passed - Suspected Transmit
Path Failure Restoral Peg Count
(TPF QIC-PASS)

This counter will be incremented by one each time a transmit path failure monitor test has passed and the carrier alarm will be deactivated.

Retest QIC Failed - Non-Confirmed
Transmit Path Failure Restoral Peg Count
(TPF QUIC-FAIL)

This counter will be incremented by one each time a retest quick test has failed.

Confirmed Receive Path Failure Carrier Alarm
Peg Count
(RPF ALARM)

This counter will be incremented by one each time a Confirmed Receive Path Failure Carrier Alarm has been detected.

Confirmed Receive Path Failure Carrier Restoral
Peg Count
(RPF RESTORAL)

This counter will be incremented by one each time a successful Receive Path Failure Carrier Restoral has been detected.

TABLE 46

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

MSC 46 SWITCHING AREA EQUIPMENT COUNTS

OMS 0 PROCESSOR

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ
CC	0	0	0	0	0	0	0
PS	0	0	0	0	0	0	0
CS	0	0	0	0	0	0	0
MCC	0	0	0	0	0	0	0
API	0	0	0	0	0	0	0
DUS	0	0	0	0	0	0	0
TUC	0	0	0	0	0	0	0
PDF	0	0	0	0	0	0	0

OMS 1 I/O

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	ATP DIAG PROG REQ	DIAG MAN REQ
IOUS	0	0	0	0	0	0	0
IOUC	0	0	0	0	0	0	0

OMS 2 BUS SYSTEM

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	ATP DIAG PROG REQ	DIAG MAN REQ
PSB	0	0	0	0	0	0	0
CSB	0	0	0	0	0	0	0
AUB	0	0	0	0	0	0	0
PUB	0	0	0	0	0	0	0

OMS 3 NETWORK

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	ATP DIAG PROG REQ	DIAG MAN REQ
TSI	0	0	0	0	0	0	0
TMSP	0	0	0	0	0	0	0

OMS 4 SIGNALING EQUIPMENT

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	ATP DIAG PROG REQ	DIAG MAN REQ
TGR CONTR	0	0	0	0	0	0	0
DOM TER	0	0	0	0	0	0	0
DOM VFL	-	0	0	-	-	-	-
INT TER	0	0	0	0	0	0	0
INT VFL	-	0	0	-	-	-	-

OMS 5 CLOCKS

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	ATP DIAG PROG REQ	DIAG MAN REQ
NCLK	0	0	0	0	0	0	0
SCLK	0	0	0	0	0	0	0
NCSU	0	0	0	0	0	0	0

TABLE 46 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

```
OMS 6  PER CALL SERVICE CIRCUIT MEASUREMENTS
           UNIT LOC  UNIT NON
            FAULTS   LOC FLTS
  MF RCVR        0      0
  MF XMTR        0      0
  CCIS XCVR      0      0
  DTMF RCVR      0      0
  DTMF XMTR      0      0
```

Descriptions of Measurements for MSC 46

The following seven counts will be taken for the entire office, for all members of each Unit Type, that is specified as being associated with OMS 0 through OMS 6.

Unit Errors Peg Count
(UNIT ERRORS)

Defined as a malfunction, the symptoms of which cannot be reproduced under program control. The initial stimulus leading to this counter being incremented by one is an interrupt associated with the particular Unit Type. The fault recognition program, of the unit will increment this counter.

Unit Located Fault Peg Count
(UNIT-LOC FAULTS)

This is a fault occurrence which can be resolved through analysis to a replaceable equipment unit. The general situation leading to this counter being incremented by one, is an interrupt causing execution of the fault Recognition program and the FR program finds the suspected trouble, requests that the unit be diagnosed and the diagnostic finds the trouble source.

Non-located Faults
(NONLOC FAULTS)

This register will be incremented by one when a fault occurs which cannot be resolved through analysis to a replaceable equipment unit. The unit diagnostic would compete with an All Tests Pass (ATP) result.

Diagnostics Program Requested
(DIAG EXC PROG REQ)

This counter will be incremented by one each time the particular unit diagnostic program is executed, unless its execution has been manually requested.

Diagnostics Manually Requested
(DIAG EXC MAN REQ)

Each time the unit diagnostic program is executed by requesting a manual or routine exercise request, this counter will be incremented by one.

Diagnostics ATP Program Requested
(DIAG ATP PROG REQ)

This counter will be incremented by one each time the unit diagnostic program is executed with an ATP result. This does not include diagnostics requested manually or by routine exercise.

Diagnostics ATP Manually Requested
(DIAG ATP MAN REQ)

This counter will be incremented by one each time the unit diagnostic program is executed by a manual request or routine exercise with an ATP result.

OMS 0

The counts described above are outputted for the following units:

Central Control (CC)
Program Store (PS)
Call Store (CS)
Master Control Console (MCC)
Attached Processor Interface (API)
Data Unit Selector (DUS)
Tape Unit Controller (TUC)
Power Distribution Frame (PDF)

OMS 1

The counts described above are outputted for the following units:

Input/Output Unit Selector (IOUS)

TABLE 46 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

Input/Output Unit Controller (IOUC)

OMS 2

The counts described above are outputted for the following units:

Program Store Bus (PSB)
Call Store Bus (CSB)
Auxiliary Unit Bus (AUB)
Peripheral Unit Bus (PUB)

OMS 3

The counts described above are outputted for the following units:

Time-Slot Interchange (TSI)
Time-Multiplexed Switching Pair (TMSP)

OMS 4

The counts described above are outputted for the following units:

CCIS Terminal Group (CONTR)
Domestic CCIS Terminal (DOM TER)
Domestic VFL (DOM VFL)
International CCIS Terminal (INT TER)
International VFL (INT VFL)

OMS 5

The counts described above are outputted for the following units:

Network Clock (NCLK)
System Clock (SCLK)
Network Clock Synchronization Unit (NCSU)

OMS 6

Located Faults Peg Count
(UNIT LOC FAULTS)

This counter will be incremented by one each time an MF Receiver, MF Transmitter, incoming MFC Transceiver, outgoing MFC Transceiver or CCIS Transceiver is diagnosed and a fault is found, or each time the unit undergoes error analysis and is deemed to be faulty.

Non-located Faults Peg Count
(UNIT NON LOC FLTS)

Each time an MF Receiver, MF Transmitter, or CCIS transceiver is either diagnosed and no trouble is found or the unit undergoes error analysis and no fault is found, this counter is incremented by one.

The two counts described above are output for each of the following service circuits:

MF Receiver (MF RCVR)
MF Transmitter (MF XMTR)
CCIS Transceiver (CCIS XCVR)
DTMF Receiver (DTMF RCVR)
DTMF Transmitter (DTMF XMTR)

TABLE 47

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENT-AUDIT TYPE)

MSC 47 PERFORMANCE MEASUREMENTS - AUDITS BY TYPE

OMS 0 ROUTINE AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
10	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
20	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
30	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
40	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000

OMS 1 ROUTINE AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
60	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
70	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
80	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
90	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000

OMS 2 ROUTINE AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
110	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
120	00000	00000	00000	00000	00000	00000	00000	00000		

OMS 3 DEMAND AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
10	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
20	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
30	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
40	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000

OMS 4 DEMAND AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
60	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
70	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
80	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
90	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000

OMS 5 DEMAND AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
110	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
120	00000	00000	00000	00000	00000	00000	00000	00000		

OMS 6 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
10	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
20	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
30	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
40	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000

TABLE 47 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENT-AUDIT TYPE)

OMS 7 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
60	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
70	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
80	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
90	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000

OMS 8 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
110	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
120	00000	00000	00000	00000	00000	00000	00000	00000		

OMS 9 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
10	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
20	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
30	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
40	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000

OMS 10 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
60	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
70	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
80	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
90	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000

OMS 11 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
110	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000
120	00000	00000	00000	00000	00000	00000	00000	00000		

Description of Measurements for MSC 47

OMS 0

Audit 00 through 49 Routine Request Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit that is routinely requested by the program is completed.

OMS 1

Audit 50 through 99 Routine Request Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit that is routinely requested by the program is completed.

OMS 2

Audit 100 through 127 Routine Request Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is routinely requested by the program is completed.

TABLE 47 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENT-AUDIT TYPE)

OMS 3

Audit 00 through 49 Demand Request Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is requested by a manual or routine exercise is completed.

OMS 4

Audit 50 through 99 Demand Request Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit that is requested by a manual or routine exercise is completed.

OMS 5

Audit 100 through 127 Demand Request Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit that is requested by a manual or routine exercise is completed.

OMS 6

Audit 00 through 49 Routine Request Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 7

Audit 50 through 99 Routine Request Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 8

Audit 100 through 127 Routine Request Errors Found Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 9

Audit 00 through 49 Demand Request Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

OMS 10

Audit 50 through 99 Demand Request Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

OMS 11

Audit 100 through 127 Demand Request Errors Found Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

TABLE 48

OUTPUT MEASUREMENT SETS FOR MSC 48
(ADMINISTRATIVE AREA TWO)

The layout and count definitions of this MSC are identical to MSC 25. This MSC provides data for Administrative Area Two.

TABLE 49

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, DIRECT SIGNALING AND ACI)

```
MSC 49  INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI
 OMS 0  CCIS INWATS
   TOT CLS      QUERIES      SUCCESS      NM MSGS   MSGS
    TO OSO        SENT       REPLIES        RCVD     SSB
         0            0            0           0      0

   -------------------- BSSP DATA BASE FAILURES ---------------------
   CBVNCP   CBSCP   CBMASS   CBSMS   QFSTRM   QFOVFL   SCPTO   SCPREJ
        0       0        0       0        0        0       0        0
   SCPRTE  RESPER    PLAYA  800DCE   TCPUDS   TCPHDR  TCPCPE   EXRPTS
        0       0        0       0        0        0       0        0
   EXRPTF  TRANID    CLABND NOCLID   LATMSG   10D6D
        0       0         0      0        0       0

   ------ Q.931 CHANNEL NEGOTIATION REQUESTS -------
   ORGTSG   TATSG    FATSG  FOOTSG   FTATSG   FFOTSG
        0       0        0       0        0        0

   ----------------INWATS FAILURES----------------
     NM-ICC        NM-DSC        SLC        NO-AUX
          0             0           0           0

   ---------------------------DATA BASE FAILURES---------------------------
        ALB    OVLD    UA-NXX    NE-NPA    NP-NPA    VL    V-NXX    TO
          0       0         0         0         0     0        0     0

 - DIRECT SIGNALING FAILURE -
     NW-BLK  NW-CON  NO-XLT
          0       0       0

    OUTWATS
   NON-PUR NPA
           0

   -------------------- NETWORK CALL DENIAL ----------------------
        IQ  BQOVLD  BQCSC  BQCONG     RDC    RDBA    RDAA    QRBLK
         0       0      0       0       0       0       0        0
    QROVLD   QRNRD QNOVLD   QNMSC     INV
         0       0      0       0       0

 OMS 1  DIRECT SIGNALING
   MISROUTED
   MSGS RCVD
          0
 - SADC MESSAGES -
    TOTAL     UNX
        0       0
    TERM NTFY
    MSGS LOST
           0

   1A-3B AMA RECORDS
     MADE    LOST
        0       0
```

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, DIRECT SIGNALING AND ACI)

Output Measurement Sets for MSC 49

OMS 0

Total INWATS Calls Reaching CCIS OSO
Peg Count
(TOT CLS TO OSO)

This counter will be incremented by one each time a "Query Data Base" return is received from the initial digit translation. Before an office becomes a CCIS OSO, this count will always be 0. This count will be maintained by DIRE or translations.

INWATS Queries Sent Peg Count
(QUERIES SENT)

This counter will be incremented by one each time a query is sent to the Data Base. This count will be maintained by call processing.

Successful INWATS Replies
Peg Count
(SUCCESS REPLIES)

This counter is incremented by one each time a successful INWATS reply is received from the Data Base. This count is kept by the CCIS dispenser program.

INWATS Network Management Messages
Received Peg Count
(NM MSGS RCVD)

This counter will be incremented by one each time a Network Management Message is received from the INWATS Data Base. This count will be maintained by Network Management.

CCIS Message Subscriber Busy
Peg Count
(MSGS SSB)

This counter will be incremented by one each time an SSB message will be sent from the terminating end. This count is kept by the CCIS Dispenser Program.

Vacant Code/Non-Purchased NPA
BOC-Service Switch Point (SSP)
Calls Blocked Due To Excess Calling Peg Count
(CBVNCP BSSP DATA BASE FAILURES)

This counter is incremented by one each time a BOC SSP call is blocked via vacant code controls.

SCP Overload Blocked BOC-SSP Calls
Peg Count
(CBSCP BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked due to NM implementation of Service Control Point Overload controls.

MAS - BOC-SSP Calls Blocked Peg Count
(CBMASS BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked due to NM implementation of MAS calling controls.

SMS Blocked BOC-SSP Call Peg Count
(CBSMS BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked via NM Service Management Position (SMS) controls.

Initial Query Failure Due to CNI
Stream Down Peg Count
(QFSTRM BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is unable to complete due to Initial query failure caused by the CNI stream being down.

Initial Query Failure Due to CNI
Buffer Overflow Peg Count
(QFOVFL BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is unable to complete due to Initial query failure caused by the CNI Buffer overflowing.

Timeout Waiting for SCP Response Peg Count
(SCPTO BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt times out waiting for a response from the SCP data base.

Reject Message Returned from SCP Peg Count
(SCPREJ BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to the SCP returning a Reject Message.

Return Error Returned from SCP Peg Count
(SCPRTE BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to Return Error Message from the

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, DIRECT SIGNALING AND ACI)

SCP.

Fatal Protocol Error Response from
SCP Peg Count
(RESPER DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to the SCP response containing Fatal Protocol Errors.

Play Announcement Message from
SCP Peg Count
(PLAYA BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails with the SCP indicating that an announcement should be played.

800 Number Services (NS) Attempts Failed
Due to Unacceptable Digit Count Peg Count
(800DCE BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP 800 number services call is finaled due to an insufficient number of dialed digits (10).

Unit Data Service Messages Returned
by STP Peg Count
(TCPUDS BSSP DATA BASE FAILURES)

This is a total count of CCS7 Transaction Capability (TCAP) Unit Data Service Messages returned by the Signal Transfer Point (STP).

Fatal Errors in SCCP Header Peg Count
(TCPHDR BSSP DATA BASE FAILURES)

This is a total count of Signaling Connection Control Point (SCCP) fatal header errors on CCS7 TCAP messages.

Discrepancy in Number of Components
and End Address of TCAP Message
Peg Count
(TCPCPE BSSP DATA BASE FAILURES)

This is a count of CCS7 TCAP messages that have a discrepancy as to the number of components versus end address.

Exception Reports Sent to the SCP Peg Count
(EXRPTS BSSP DATA BASE FAILURES)

This is a count of Exception Reports sent to the SCP.

Exception Reports Failed to Send to the
SCP Peg Count
(EXRPTF BSSP DATA BASE FAILURES)

This is a count of exception reports that should have been sent to the SCP but were not.

Transaction ID in SCP Response
Was Invalid Peg Count
(TRANID BSSP DATA BASE FAILURES)

This is a count of responses from the SCP that contained an invalid transaction ID.

Caller Abandon Before Response
from SCP Peg Count
(CLABND BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP caller abandons before a response has been received from the SCP.

Undetermined Call ID in a Response from the
SCP Which Contained Protocol Errors Peg Count
(NOCLID BSSP DATA BASE FAILURES)

This is a count of SCP responses which contained fatal protocol errors where the call ID could not be determined.

Response from SCP After Query
Timer Timeout Peg Count
(LATMSG BSSP DATA BASE FAILURES)

This counter is incremented by one when a query to the SCP results in a response after Timer timeout.

Failure to Place NM 10/6 Digit Controls
on ACG Control List Peg Count
(10D6D BSSP DATA BASE FAILURES)

This counter is incremented by one each time a NM Automatic Call Gap (ACG) control received in the response from the SCP cannot be placed on the ACG control list because the list is full.

Q.931 Channel Negotiation (CN) Requests
on Original TSG
(ORGTSG Q931 CN REQUESTS)

This is the number of CN requests that resulted in the originally hunted trunk being selected.

Q.931 Channel Negotiation (CN) Requests
to Another TSG
(TATSG Q931 CN REQUESTS)

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, DIRECT SIGNALING AND ACI)

This is the number of CN requests where the egress call is to be diverted to the PBX specified TSG.

Q.931 Channel Negotiation (CN) Requests From Other TSG (FATSG Q931 CN REQUESTS)

This is the number of CN requests where the egress call is requested to complete on the non-originally hunted TSG.

Q.931 Channel Negotiation (CN) Failures On Originating TSG (FOOTSG Q931 CN REQUESTS)

This is the number of times a CN request on the originating TSG failed to connect.

Q.931 Channel Negotiation (CN) Request Failures To Another TSG (FTATSG Q931 CN REQUESTS)

This is the number of times a CN request to another specified TSG failed.

Q.931 Channel Negotiation (CN) Request Failures From Other TSG (FFOTSG Q931 CN REQUESTS)

This is the number of times a CN request from another TSG failed.

Network Management Blocked: INWATS Code Control (NM-ICC INWATS FAILURES)

This counter will be incremented by one each time an INWATS call is blocked by 6-digit or 10-digit INWATS Code Control. This count will be maintained by final handling.

Network Management Blocked: Direct Signaling Control (NM-DSC INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS call is blocked by 6-digit INWATS Direct Signaling Control. This count will be maintained by final handling.

INWATS Blocked by Signaling Link Congestion (SLC INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS Call Failure is received because of one or more of the following reasons:

a. Terminal Buffer Overflow

b. Signaling Link Failure

c. Receipt of Processor Switching Congestions (PSC) signal prevented the INWATS query from being sent

This count will be maintained by final handling.

No Auxiliary Call Register (NO-AUX INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS failure is received because an Auxiliary Call Register is not available. This count will be maintained by final handling.

Data Base Failure Reply: All Lines Busy (ALB DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base because all lines are busy to the INWATS subscriber. This count will be maintained by final handling.

Data Base Failure Reply: Data Base Overload (OVLD DATA BASE FAILURES)

This counter will be incremented by one each time a Data Base Failure is received which specifies that Data Base Overload is the reason for failure. This count will be maintained by final handling.

Data Base Failure Reply: Unassigned NXX (UA-NXX DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base because an unassigned NXX was the reason for the failure. This indicates that the CCIS network routed the query to the wrong Data Base and implies bad translation data at the STP. This count will be maintained by final handling.

Data Base Failure Reply: Non-Existent NPA (NE-NPA DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base which specifies Non-Existent NPA as the reason for failure. This implies bad translation data either at the OSO (trunk block or 3-digit translator) or at the Data Base. This count will be maintained by final handling.

Data Base Failure Reply: Non-Purchased NPA

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, DIRECT SIGNALING AND ACI)

(NP-NPA DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base which specifies non-purchased NPA as the reason for failure. This is analogous to zonal band exceeded in conventional INWATS. This count will be maintained by final handling.

Data Base Failure Reply: Vacant Line
(VL DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base which specifies Vacant Line Number as the reason for failure. This count will be maintained by final handling.

Data Base Failure Reply: Vacant NXX
(V-NXX DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base which specified vacant NXX as the reason for failure. This count will be maintained by final handling.

Data Base Query Timeout
(TO DATA BASE FAILURES)

This counter will be incremented by one each time an INWATS call failure is received because the Data Base query timed out before a response was received. In this case, it is likely that the replies are being misrouted in the CCIS network. This count will be maintained by final handling.

INWATS CCIS Failure: Network Blockage
(NW-BLK)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return specified an network blockage failure. This count will be maintained by final handling.

INWATS CCIS Failure: Network Congestion
(NW-CON)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return specified as network congestion failure. This count will be maintained by final handling.

INWATS CCIS Failure: No Translation Data
(NO-XLT)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return being specified as no translation data at the STP to route the query failure. This count will be maintained by final handling.

OUTWATS Non-purchased NPA Peg Count
(OUTWATS NON-PUR NPA)

This counter will be incremented when an OUTWATS customer attempts to call an NPA that has not been contracted for.

Network Call Denial Initial Query
Peg Count
(NETWORK CALL DENIAL IQ)

This counter is incremented when an attempt is made to send a query to the Network Call Denial (NCD) data base.

Network Call Denial Blocked Queries
From Overload Peg Count
(NETWORK CALL DENIAL BQOVLD)

This counter is incremented when an NCD query is blocked at the Action Point (AP) due to NCD/Network Control Point (NCP) overload control.

Network Call Denial Blocked Queries From
CCS Abnormal Replies Control Peg Count
(NETWORK CALL DENIAL BQCSC)

This counter is incremented when an NCD query is blocked at the AP due to CCIS Network Abnormal replies control.

Network Call Denial Blocked Queries
From Congestion Peg Count
(NETWORK CALL DENIAL BQCONG)

This counter is incremented when an NCD query is blocked at the AP due to congestion signals received at the AP.

Network Cal Denial Replies With Deny
Codes Peg Count
(NETWORK CALL DENIAL RDC)

This counter is incremented when an NCD reply is received with a call deny code.

Network Call Denial Replies With
Deny Code Before Answer Supervision
Peg Count
(NETWORK CALL DENIAL RDBA)

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, DIRECT SIGNALING AND ACI)

This counter is incremented when NCD reply is received with a call deny code before Answer Supervision has been received.

Network Call Denial Replies With Deny
Code After Answer Supervision Peg Count
(NETWORK CALL DENIAL RDAA)

This counter is incremented when an NCD reply is received with a call deny code after Answer Supervision has been received.

Network Call Denial Queries Returned
Due to CCS Network Block Replies Peg Count
(NETWORK CALL DENIAL QRBLK)

This counter is incremented when an NCD query is returned due to CCIS Network Block replies.

Network Call Denial Queries Returned
Due to CCS Network Overload Replies
(NETWORK CALL DENIAL QROVLD)

This counter is incremented when an NCD query is returned due to CCIS Network Overload replies.

Network Call Denial Queries Returned
Due to No Routing Data Peg Count
(NETWORK CALL DENIAL QRNRD)

This counter is incremented when an NCD query is returned due to lack of routing data for destination reply code.

Network Call Denial Queries Returned
Due to Overload Peg Count
(NETWORK CALL DENIAL QNOVLD)

This counter is incremented when an NCD query is returned due to data base overload reply condition.

Network Call Denial Queries Returned
Due to Miscellaneous Replies Peg Count
(NETWORK CALL DENIAL QNMSC)

This counter is incremented when an NCD query is returned due to miscellaneous reply reasons.

Network Call Denial Replies With
Invalid Data Peg Count
(NETWORK CALL DENIAL INV)

This counter is incremented when an NCD reply is interpreted to have invalid data.

OMS 1

Misrouted Direct Signaling Messages
Received Peg Count
(MISROUTED MSGS RCVD)

This counter will be incremented by one each time a Direct Signaling Message is received in which the address is not valid for the office which received the message. This implies that one or both of the office's home STP's has bad translation data or that the office data is incorrect. This count is kept by the CCIS dispenser program.

Direct Access Data Channel (DADC)
Total Messages Peg Count
(SADC MESSAGES TOTAL)

This counter reflects the total number of messages sent and received between the 1A and the 3B Processors.

Direct Access Data Channel (DADC)
Unexpected Messages Peg Count
(SADC MESSAGES UNX)

This counter reflects the total number of unexpected messages, including both invalid and out of sequence types.

Termination Notification Messages
Lost Peg Count
(TERM NTFY MSGS LOST)

This count is incremented by one when Termination Notification messages are lost due to 3B problems.

1A-3B AMA Records Made Peg Count
(1A-3B AMA RECORDS MADE)

This counter reflects the total number of all AMA record types (e.g.: CAMA, INWATS, DSD, etc.) that were made by the 3B Processor.

1A-3B AMA Records Lost Peg Count
(1A-3B AMA RECORDS LOST)

This counter reflects the total number of AMA record types sent by 1A to the 3B Processor that were mutilated or unauthorized.

TABLE 50

OUTPUT MEASUREMENT SETS FOR MSC 50
(MAS PER ANNOUNCEMENT MEASUREMENTS)

MSC 50 MAS PER ANNOUNCEMENT MEASUREMENTS

OMS	EAID	ANNSEP	ATT	CONNECT TO AUDIO	OVFL	SEC
0	0000000000000	00	000000	000000	000000	000000
1	0000000000000	00	000000	000000	000000	000000
2	0000000000000	00	000000	000000	000000	000000
3	0000000000000	00	000000	000000	000000	000000
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
508	0000000000000	00	000000	000000	000000	000000
509	0000000000000	00	000000	000000	000000	000000
510	0000000000000	00	000000	000000	000000	000000
511	0000000000000	00	000000	000000	000000	000000

Description of Measurements for MSC 50

All per-announcement measurements will be labeled with the External Announcement Identifier (EAID) for the announcement. The OMS for a particular office must be less than <OD4DNUM28H0> * 64. The EAID is a 12-digit identifier with the format:

VVVVVAAAAAAA

where VVVVV is the VSSID identifier (VSSID) if this service is updatable from VSS and is all zeros, otherwise,

AAAAAA is the service identifier.

There will be 64 OMSs for each frame in use in the office (maximum of 8 frames).

OMS 0-511

MAS - Per-Announcement Attempts Peg Count
(ATT)

When an attempt is made to reach a PAS announcement, this counter is incremented by one. This counter includes all PAS with TELEVOTE and PAS with cut-through calls which are routed to an announcement but not those routed to a cut-through number.

MAS - Per-Announcement Connect To Audio Peg Count
(CONNECT TO AUDIO)

When a call is successfully connected to announcement audio, this counter is incremented by one.

MAS - Per-Announcement Overflow Peg Count
(OVFL)

When a call cannot be connected to a given announcement because one or both dedicated TSI SPCs serving the announcement have overflowed, this counter is incremented by one.

MAS - Per-Announcement Usage
(SEC)

This counter provides the occupancy count of calls connected to a given announcement and audible ring preceding that announcement. This count is converted to CCS before output.

TABLE 51

OUTPUT MEASUREMENT SETS FOR MSC 51
(CALL GAPPING/CUT THRU)

MSC 51 CALL GAPPING/CUT-THRU			
OMS	DIALED NUM	CUTHRU	TO-ANN
0	0000000000	0	0
1	0000000000	0	0
2	0000000000	0	0
3	0000000000	0	0
.	.	.	.
.	.	.	.
.	.	.	.
60	0000000000	0	0
61	0000000000	0	0
62	0000000000	0	0
63	0000000000	0	0

Description of Measurements for MSC 51

OMS 0-63

The following counts will be outputted per 10-digit dialed number via OMS 0-63.

MAS - Calls Routed To A Cut-Through Number
Peg Count
(CUTHRU)

When a PAS with cut-through call is routed to a cut-through number, this counter is incremented by one. This counter also includes the number of calls routed to the called number, for any dialed number which has a network management call gapping control applied to it.

MAS - Calls Routed To An Announcement
Peg Count
(TO-ANN)

When a PAS with cut-through call is routed to the specific announcement, this counter is incremented by one. This counter also includes the number of calls routed by network management to a final handling announcement in the office, for any dialed number which has a network management call gapping control applied to it.

TABLE 52

OUTPUT MEASUREMENT SETS FOR MSC 52
(TELEVOTE MASTER DIALED NUMBER)

MSC 52 TELEVOTE MASTER DIALED NUMBER

OMS	MAPN	LINE	VOTES
0	00	0000	0
1	00	0000	0
2	00	0000	0
3	00	0000	0
.	.	.	.
.	.	.	.
.	.	.	.
124	00	0000	0
125	00	0000	0
126	00	0000	0
127	00	0000	0

Description of Measurements for MSC 52

OMS 0-127

MAS - Totals of the TELEVOTE Counts
Received Peg Count
(VOTES)

MSC 52, OMS 0-127, contain cumulative totals of the TELEVOTE counts received from the TELEVOTE slaves reporting to a particular master. These counts are labeled with a 2-digit Master Application Number (MAPN) from 0-63 and a 4-digit line number which identifies a voting option within a TELEVOTE application. This MSC should be scheduled for a 15 minute accumulation interval only, because the counts are cumulative.

TABLE 53

OUTPUT MEASUREMENT SETS FOR MSC 53
(TELEVOTE SLAVE DIALED NUMBER)

MSC 53 TELEVOTE SLAVE DIALED NUMBER		
OMS	NUMBER	VOTES
0	0000000000	0
1	0000000000	0
2	0000000000	0
3	0000000000	0
.	.	.
.	.	.
.	.	.
124	0000000000	0
125	0000000000	0
126	0000000000	0
127	0000000000	0

Description of Measurements for MSC 53

OMS 0-127

MAS - Total Calls (Votes) to a TELEVOTE Slave Dialed Number Peg Count (VOTES)

MSC 53, OMS 0-127, contains a count of the number of calls to a given 10-digit number. The 10-digit number is the number called by a customer to reach the TELEVOTE service. Each 10-digit number is specified by an OMS. The count is incremented by one when a call to a given TELEVOTE number is successfully connected to an audible ringing preceding the appropriate announcement. It also includes PAS with TELEVOTE and cut-through type calls which are routed to the cut-through number.

TABLE 54

OUTPUT MEASUREMENT SETS FOR MSC 54
(GEOGRAPHIC ATTEMPTS MATRIX)

```
MSC 54 GEOGRAPHIC ATTEMPTS MATRIX
OMS-0-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
OMS-1-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
OMS-2-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000

     .
     .
     .

OMS-31-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
```

Description of Measurements for MSC 54

OMS 0-31

MAS - Geographic Attempts Matrix Completion Peg Count

The Geographic Attempts Matrix contains 32 OMSs (0-31) containing completion Peg Counts based on incoming Trunk Subgroup and announcement called. There is a separate OMS for each of 32 announcement operations.

TABLE 55

OUTPUT MEASUREMENT SETS FOR MSC 55
(reserved for future use)

```
This table reserved for MSC 55.
```

TABLE 56

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

MSC 56 ANI DELIVERY SERVICE COUNTS
OMS 0 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
1	0	0	0	0	0
	0	0	0	0	0
2	0	0	0	0	0
	0	0	0	0	0
3	0	0	0	0	0
	0	0	0	0	0
4	0	0	0	0	0
	0	0	0	0	0
5	0	0	0	0	0
	0	0	0	0	0
6	0	0	0	0	0
	0	0	0	0	0

OMS 1 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
7	0	0	0	0	0
	0	0	0	0	0
8	0	0	0	0	0
	0	0	0	0	0
9	0	0	0	0	0
	0	0	0	0	0
10	0	0	0	0	0
	0	0	0	0	0
11	0	0	0	0	0
	0	0	0	0	0
12	0	0	0	0	0
	0	0	0	0	0

OMS 2 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
13	0	0	0	0	0
	0	0	0	0	0
14	0	0	0	0	0
	0	0	0	0	0

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

```
  15          0          0          0          0          0
              0          0          0          0          0

  16          0          0          0          0          0
              0          0          0          0          0

OMS 3  DIAL-A-VIEW MESSAGE REGISTER MEASUREMENTS
         -------LINK 1-------   -------LINK 2--------
         MSG REGS   RREG THLD    MSG REGS   RREG THLD
 ADSI    RETURNED   LINK SKPD    RETURNED   LINK SKPD
    1           0           0           0           0
    2           0           0           0           0
    3           0           0           0           0
    4           0           0           0           0
    5           0           0           0           0
    6           0           0           0           0
    7           0           0           0           0
    8           0           0           0           0
    9           0           0           0           0
   10           0           0           0           0
   11           0           0           0           0
   12           0           0           0           0
   13           0           0           0           0
   14           0           0           0           0
   15           0           0           0           0
   16           0           0           0           0

OMS 4  PER CALL CONTROL OF USEC
  TOT ORD   SOC ORD  TEST ORD   REG MSG     UNACK  SADC CON  REG FAIL
        0         0         0         0         0         0         0

  ------------------- GATEWAY/USEC GENERATED DATA --------------------
  CRC ERR     FRAME   BAD PKT   ERRORED  GOOD PKT  LOST MSG  PORT CRC
        0         0         0         0         0         0         0

 SADC PRT    IG CRC  SEC GATE  MSG QOVF   IG LINK  NO RCMSG
        0         0         0         0         0         0
```

Description of Measurements for MSC 56

OMS 0-2

MAS Attempts Peg Count
(MAS ATT)

This counter is incremented by one each time a Dial-A-View network transaction is attempted. This counter is maintained by the DTSCADMN Program.

MAS Cutthru Peg Count
(MAS CUT)

This counter is incremented by one each time a Dial-A-View network transaction results in a cut-through to an operator. Such a situation occurs when the customers' ANI is not available. This counter is maintained by the DTSCADMN Program.

ANI Sent Peg Count
(ANI SNT)

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

This counter is incremented by one each time a Dial-A-View REGister message containing the ANI and the Event digits is sent to the vendor. This counter is maintained by the ADJSCNTL Program.

Registers From Attendant Peg Count
(REG ATD)

This counter is incremented by one each time a Dial-A-View REGister message is received from an Attendant CPE. This scenario will result following a cut-through to an operator. This counter is maintained by the ADJSCNTL Program.

Attendant Failures Peg Count
(ATD FL)

This counter is incremented by one each time an attendant transaction failure occurs. This counter is maintained by the ADJSCNTL PIDENT.

Timeouts Peg Count
(TIMEOUT)

This counter is incremented by one each time a Dial-A-View network transaction experiences a time out. This occurs when the vendor does not acknowledge a REGister message within 6 seconds. This counter is maintained by the DTSCADMN Program.

Gapped Peg Count
(GAPPED)

This counter is incremented by one each time a network or an attendant transaction experiences congestion due to either too many timeouts per minute or too many REGister messages sent to a given vendor per second. This counter is maintained by the ADJSCNTL Program.

Vendor Rejection Peg Count
(VENDREJ)

This counter is incremented by one each time a Dial-A-View network or attendant transaction experiences a Vendor Rejection message (RELease COMPlete message). This counter is maintained by the ADJSCNTL Program.

Facility Received Indicating
Caller Hung-Up Peg Count
(FCRVHUP)

This counter is incremented by one each time a Dial-A-View network transaction receives a FACility message from the vendor and the caller has hung up. This counter is maintained by the ADJSCNTL Program.

Total Final Handled Calls Peg Count
(TOT FH)

This counter is incremented by one each time a network handled transaction is final handled. This counter is maintained by the ADJSCNTL and DTSCADMN Programs.

OMS 3

Link 1 Message Register Returned
Peg Count
(MSG REGS RETURNED LINK 1)

This counter is incremented by one each time a message is registered by the CNI ring. This counter is maintained by ADJSCNTL programs.

Link 1 Return Register Threshold
Exceeded Peg Count
(RREG THLD LINK SKPD LINK 1)

This counter is incremented by one each time the Return Register Threshold is exceeded. This counter specifies the number of times a SADC link is considered to be "POSSIBLY" going out of service. MSGs will not be routed over this link. This counter is maintained by ADJSCNTL program.

Link 2 Message Register Returned
Peg Count
(MSG REGS RETURNED LINK 2)

Same as above except for Link 2.

Link 2 Return Register Threshold
Exceeded Peg Count
(RREG THLD LINK SKPD LINK 2)

Same as above except for Link 2.

OMS 4

Total Number of Orders Peg Count
(TOT ORD)

The total number of orders contained in the REGISTER messages (Event Digits = 0001), irrespective of indicators in the order, sent to the Gateway.

Total Number of Orders with Start of Call

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

Indicator Set Peg Count
(SOC ORD)

The total number of operational USEC orders and test orders sent to the Gateway in a REGISTER message (Event Digits = 0001) with the start/end indicator set to "start" irrespective of other indicators.

Total Number of Test Orders Sent
Peg Count
(TEST ORD)

The total number of test orders sent to the Gateway with the Maintenance indicator set to "on" in a REGISTER message irrespective of other indicators.

Total Number of Register Messages
Peg Count
(REG MSG)

The total number of REGISTER messages (Event Digits = 0001) sent to the Gateway. This counter is incremented by one each time a REGISTER message is sent irrespective of the number of orders in the message.

Total Number of Unacknowledged
Register Messages Peg Count
(UNACK)

The total number of unacknowledged REGISTER messages sent to the Gateway. This counter is incremented by one each time a 2 second timeout occurs while waiting for a Release Complete message from the Gateway. This counter is only incremented for REGISTER messages with Event Digits = 0001 or 2222.

Total Number of Register Messages
Not Sent due to Congestion Peg Count
(SADC CON)

The total number of REGISTER messages (irrespective of the value in the Event Digits field) *not* sent to the Gateway due to SADC node congestion.

Total Number of Register Messages
Failed to be Sent Peg Count
(REG FAIL)

The total number of REGISTER messages failed to be sent to the Gateway and the cause is anything other than SADC congestion *or* timeout of the REGISTER message. Examples of conditions that cause this count to be incremented are: 1) both SADC links are out-of-service, and 2) no USEC translation data can be retrieved.

Total Number of Packets with CRC Errors
Peg Count
(CRC ERR)

The total number of Gateway Type 1 and Type 2 packets received since the last valid Type 2 packet that has the correct number of bytes but has a cyclic redundancy check (CRC) 6 error shall be collected by the 4ESS switch for all USECs connected to the Gateway.

Total Number of Framing and Overrun
Errors Peg Count
(FRAME)

The total number of framing and overrun errors at the USEC IPCC port UART since the last valid Gateway Type 2 packet was received. This count is for all USECs connected to the Gateway. A framing error is defined as a received byte with an invalid stop bit. An overrun error is defined as a new byte received at the UART before the previous byte is read.

Total Number of Bad Packets Received
Peg Count
(BAD PKT)

The total number of bad packets received since the last valid Gateway Type 2 packet was received. This count is for all USECs connected to the Gateway. The number of bad packets is determined by the USEC by counting the number of Type 1 and Type 2 packets that did not have the correct number of bytes, did not have an all ones Header byte, did not have a correct Message Type byte, or had a CRC 6 error. An incorrect number of bytes may due to many factors including, but not limited to, UART overrun errors on the CP (defined as a new byte received at the UART before the previous byte is read), UART framing errors (count given in the fourth byte), and the Gateway not sending the correct number of bytes.

Total Number of Errored Commands
Peg Count
(ERRORED)

The total number of errored two byte 4ESS-USEC-PCC (IPCC) commands (which are found inside each Type 1 packet) received since the last valid Type 2 packet. This count is for all USECs connected to the Gateway. An 4ESS-USEC-PCC (IPCC) command is in error when at least one of the following occurs:

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

- An invalid channel address is received. An invalid channel address is defined as being outside the range of 0 to 6 for the shelf number, 0 to 7 for the digroup number, or 1 to 24 for the channel number.
- The "Enhancement off" bit and/or the "End USEC" bit is set when the "Maintenance bit" is set.

Total Number of Good Packets Received
Peg Count
(GOOD PKT)

The total number of good packets received by the Gateway since the last Type 2 packet was received. This count is for all USECs connected to the Gateway. This count is determined by the USEC by counting the number of Type 1 packets that have the correct number of bytes, correct header, message type, and CRC 6. Errors in the 10 bytes of data, which is considered to be part of the application message, will be reflected in the sixth byte of this Type 2 acknowledgment packet (i.e., the invalid 4ESS-USEC-PCC (IPCC) command count). The seventh byte contains the most significant byte and the eighth byte contains the least significant byte.

Total Number of Lost Messages
Peg Count
(LOST MSG)

The number of messages that the Gateway attempted to send to the USEC(s) but were lost. This count will be calculated by the Gateway by subtracting the number of good packets received by the USEC(s) and the number of bad packets received by the USEC(s) from the total number of packets that the Gateway attempted to send to the USEC(s).

Total Number of USEC CRC Errors
Peg Count
(PORT CRC)

The total number of USEC port cyclic redundancy check (CRC) errors detected by the Gateway.

Total Number of SADC Port Errors
Peg Count
(SADC PRT)

The total number of SADC port errors detected by the Gateway.

Total Number of Inter-Gateway CRC Errors
Peg Count
(IG CRC)

The total number of Inter-Gateway port CRC errors detected by the Gateway.

Total Number of Times the Secondary
Gateway was Used Peg Count
(SEC GATE)

The total number of times that the secondary Gateway was used during the fifteen minute report interval.

Total Number of Times That Message
Queue Overflowed Peg Count
(MSG QOVF)

The total number of times that the Gateway message queue overflowed during the fifteen minute report interval.

Total Number of Messages Not Sent
Between Gateways Peg Count
(IG LINK)

The total number of messages that could not be sent from the Primary Gateway to the Secondary Gateway due to Inter-Gateway link problems during the fifteen minute report interval.

Total Number of Register Messages That Did
Not Receive a Release Complete Peg Count
(NO RCMSG)

The number of Register messages sent by the Gateway that did not receive a Release Complete message from the 4ESS Switch during the fifteen minute report interval. The Gateway will peg this count when a Release Complete is not returned by the 4ESS Switch within an expected time interval.

TABLE 57

OUTPUT MEASUREMENT SETS FOR MSC 57
(POSITIVE CALL PROCESSING)

```
MSC 57  POSITIVE CALL PROCESSING
OMS 0  PCP IA & PERF COUNTS
0
0
0
.
.
.
0
```

Description of Measurements for MSC 57

[As this MSC is intended as a report for use by a computer system, no description of the counts is printed on the output.]

OMS 0

(1) PCP DTMF Queue Seizure Peg Count
(2) PCP DTMF Queue Accumulated Occupancy Count
(3) PCP DTMF Queue Abandon Peg Count
(4) CPA Call Register Seizures Peg Count
(5) CPA Call Register Accumulated Occupancy Count
(6) CPA Call Register Overflow Peg Count
(7) PCP Receiver Holding Time in Sec for SAN
(8) PCP Receiver Holding Time in Sec for 1+SACDS
(9) PCP Receiver Holding Time in Sec for MUVF
(10) PCP Receiver Holding Time in Sec for FAX S&F
(11) PCP Call Killed Due to DTMF Receiver Queue Overload Count
(12) PCP Call Subjected to Excessive Delay Count (i.e. Wait on DTMF Receiver Queue >= 2 seconds)
(13) PCP SAB Call Denied Due to Improper Collection for LDS
(14) PCP SAB Call Denied Due to Improper Collection for SA WATS
(15) PCP SAB Call Denied Due to Improper Collection for MEGACOM and DC WATS
(16) PCP Call Denied Due to MUVF CTI Improper Collection for LDS
(17) PCP Call Denied Due to MUVF CTI Improper Collection for SA WATS
(18) PCP Call Denied Due to MUVF CTI Improper Collection for MEGACOM and DC WATS
(19) PCP FAX S&F Call Denied Due to Invalid Service Code Received for LDS
(20) PCP FAX S&F Call Denied Due to Invalid Service Code Received for SA WATS
(21) PCP FAX S&F Call Denied Due to Invalid Service Code Received for MEGACOM and DC WATS
(22) PCP Subaccount Number Initial Attempt Failed Count (TMAD0002 pegs for call irregularity report.)
(23) PCP 1+SACDS Initial Attempt Failed in Receipt of Service Code
(24) PCP MUVF Initial Attempt Failed in Receipt of CTI
(25) PCP Total SAN Account Code Verification Failures
(26) PCP SAN Denied - none entered and was mandatory
(27) PCP FAX S&F Initial Attempt Fail in Receipt of Service Code
(28) PCP 1+SACDS Due to Invalid Service Code Received
(29) PCP CDS Attempts for Which Failure to Reseize Receiver Occurred
(30) PCP FAX S&F Attempts for Which Failure to Seize Receiver Occurs
(31) PCP FAX S&F DTMF Receiver Timeout in Wait for ANS State
(32) PCP BN(ANI) Query Attempt CNT for DC and SA LDS
(33) PCP BN(ANI) Query Attempt CNT for SA WATS
(34) PCP BN(ANI) Query Attempt Count for MEGACOM and DC WATS
(35) PCP BN(ANI) Subscribed to Some PCP Feature for DC and SA LDS

TABLE 57 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 57
(POSITIVE CALL PROCESSING)

(36) PCP BN(ANI) Subscribed to Some PCP Feature for SA WATS
(37) PCP BN(ANI) Subscribed to Some PCP Feature for MEGACOM and DC WATS
(38) PCP Handled Customer Specific Recording Successfully for LDS
(39) PCP Handled Customer Specific Recording Successfully for SA WATS
(40) PCP Handled Customer Specific Recording Successfully for MEGACOM and DC WATS
(41) PCP Subaccount Number Collected Successfully for LDS
(42) PCP Subaccount Number Collected Successfully for SA WATS
(43) PCP Subaccount Number Collected Successfully for MEGACOM and DC WATS
(44) PCP Handled Dedicated FAX ID Successfully for LDS
(45) PCP Handled Dedicated FAX ID Successfully for SA WATS
(46) PCP Handled Dedicated FAX ID Successfully for MEGACOM and DC WATS
(47) PCP MUVF CTI Collected Successfully for LDS
(48) PCP MUVF CTI Collected Successfully for SA WATS
(49) PCP MUVF CTI Collected Successfully for MEGACOM and DC WATS
(50) PCP SAB Calls Allowed to Complete with No SAN Received
(51) PCP SAB Calls Allowed to Complete with SAN Received and it was Optional
(52) PCP SAB Calls Allowed to Complete with SAN Received and it was Mandatory
(53) PCP Calls with SAN Account Code Validation Successful
(54) PCP TOTAL 1+SACDS Attempts to Seize a Receiver
(55) PCP TOTAL 1+SACDS Successfully Attempted Routing to VMOC
(56) PCP Total MUVF Calls Identified as Being FAX
(57) PCP FAX ID Calls Identified as Using FAX FPR
(58) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for LDS
(59) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for SA WATS
(60) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for MEGACOM and DC WATS
(61) PCP FAX S&F Successfully Attempted Routing to a FAX S&F Node
(62) PCP SAN Validation Success Peg Count
(63) PCP 1A to DLN Failure to Send Query Peg Count
(64) PCP DLN to 1A No Reply From DLN Peg Count
(65) PCP SAN No Data in DLN Peg Count
(66) CAS-NCP Unrecognized Info Received Peg Count
(67) CPA BN(ANI) Trigger Table Query Attempt Peg Count for All Applicable Services
(68) CPA BN(ANI) Trigger Table Data Found Peg Count for All Applicable Services
(69) CPA Destination Number Trigger Table Query Attempt Peg Count for FAX Calls
(70) CPA Destination Number Trigger Table Data Found Peg Count for FAX Calls
(71) PCP Using 2NCP/NSCX Peg Count

The total number of calls for which an ABC ANI trigger table record was matched, for which the Feature Processing Data Type Indicator was set to "FI", and the "PCP Using 2NCP/NSCX" Indicator is "on."

TABLE 58

OUTPUT MEASUREMENT SETS FOR MSC 58
(reserved for future use)

```
This table reserved for MSC 58.
```

TABLE 59

OUTPUT MEASUREMENT SETS FOR MSC 59
(reserved for future use)

```
This table reserved for MSC 59.
```

TABLE 60

OUTPUT MEASUREMENT SETS FOR MSC 60
(reserved for future use)

```
This table reserved for MSC 60.
```

TABLE 61

OUTPUT MEASUREMENT SETS FOR MSC 61
(reserved for future use)

```
This table reserved for MSC 61.
```

TABLE 62

OUTPUT MEASUREMENT SETS FOR MSC 62
(reserved for future use)

```
This table reserved for MSC 62.
```

TABLE 63

OUTPUT MEASUREMENT SETS FOR MSC 63
(reserved for future use)

```
This table reserved for MSC 63.
```

FIGURE 1

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS	SECTION
0	-	60	MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD	TABLE 00
	0	15	MF XMTR, IDTS RCVR, AND ODTMFWK XMTR QUEUE-DOMESTIC	TABLE 00
	1	1	CCITT5 QUEUE-INTERNATIONAL	TABLE 00
	2	17	MF, DTMF XMTRS, NSCX AND MASFH CKTS	TABLE 00
	3	6	BLUE BOX FRAUD	TABLE 00
	4	21	CCS MESSAGE TABLE	TABLE 00
1	-	6	MF RCVR AND DTMF RCVR	TABLE 01
	0	6		TABLE 01
2	-	8	CCIS, ISUP, ITUP AND INUP XCVR	TABLE 02
	0	8		TABLE 02
3	-	192	ANNOUNCEMENT CIRCUITS AND DEDICATED TSI	TABLE 03
	0-31	1		TABLE 03
	32	32	DEDICATED TSI	TABLE 03
	33-160	1		TABLE 03
4	-	5	NETWORK	TABLE 04
	0	4		TABLE 04
	1	1	SERVICE OBSERVING	TABLE 04
5	-	83	OFFICE TOTALS	TABLE 05
	0	7		TABLE 05
	1	26		TABLE 05
	2	3		TABLE 05
	3	1		TABLE 05
	4	9	INTERNATIONAL INCOMING	TABLE 05
	5	10	INTERNATIONAL OUTGOING	TABLE 05
	6	25	NETWORK CLOCK SYNCHRONIZATION UNIT	TABLE 05
	7	2	SERVICE OBSERVING	TABLE 05
	8	2	CALLS ORIGINATING AND TERMINATING	TABLE 05
	9	2	MAS IRREGULARITIES	TABLE 05
6	-	65	BOC SSP MEASUREMENTS	TABLE 06
	0	65		TABLE 06
7	-	37	INCOMING IRREGULARITIES	TABLE 07
	0	32		TABLE 07
	1	5		TABLE 07
8	-	-	Reserved For Future Use	TABLE 08
9	-	10	PROCESSOR LOAD	TABLE 09
	0	2		TABLE 09
	1	8	BASE LEVEL PEG COUNTS	TABLE 09
10	-	2048	TRAFFIC SEPARATIONS	TABLE 10
	0-1023	2	TRAFFIC SEPARATIONS BASED ON DESEP AND INSEP	TABLE 10
11	-	66	INEFFECTIVE ATTEMPTS	TABLE 11
	0	3		TABLE 11
	1	7		TABLE 11
	2	8		TABLE 11
	3	16	NETWORK MANAGEMENT BLOCKED	TABLE 11
	4	26	MISCELLANEOUS INEFFECTIVE ATTEMPTS	TABLE 11

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS	SECTION
	5	2		TABLE 11
	6	4		TABLE 11
12	-	16	TSI USAGE	TABLE 12
	0	16		TABLE 12
13	-	-	TRUNK SUB-GROUPS (MAX OF 64)	TABLE 13
	-	-	OUTPUT IS BY CIN (MAX OF 16 COUNTS PER CIN)	TABLE 13
14	-	8192	CCIS/CCITT NO. 6 TERMINALS	TABLE 14
	0-255	32		TABLE 14
15	-	59	INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS	TABLE 15
	0	7	SECOND STAGE	TABLE 15
	1	6	IOC OPERATOR ATTEMPTS	TABLE 15
	2	34	INTERNATIONAL INEFFECTIVE ATTEMPTS	TABLE 15
	3	1	ORIGINATING INTL CALL-DOMESTIC SATELLITE INCOMING	TABLE 15
	4	11	TWO STAGE SWITCHING ERRORS	TABLE 15
16	-	36	IO, FILE STORE, TAPE UNIT AND DATA LINK	TABLE 16
	0	5		TABLE 16
	1	31	APS COMMUNITY	TABLE 16
17	-	62	ENGINEERED MEMORY	TABLE 17
	0	46	DOMESTIC MEMORY	TABLE 17
	1	11	MEMORY FOR INTERNATIONAL	TABLE 17
	2	2	CALL DETAIL RECORDING REGISTERS	TABLE 17
	3	3		TABLE 17
18	-	10	CAMA INEFFECTIVE ATTEMPTS	TABLE 18
	0	10		TABLE 18
19	-	26	CAMA	TABLE 19
	0	19		TABLE 19
	1	2		TABLE 19
	2	5		TABLE 19
20	-	58	PERF MEASUREMENTS-MAJOR MAINT RESPONSES AND ALARMS	TABLE 20
	0	15	INTERRUPT TOTALS	TABLE 20
	1	37	MAJOR MAINTENANCE RESPONSES	TABLE 20
	2	5	ALARMS	TABLE 20
	3	1	HARDWARE DETECTED CGA	TABLE 20
21	-	29	PERFORMANCE MEASUREMENTS- SYSTEM RECOVERY- PHASES	TABLE 21
	0	8	SYSTEM RECOVERY-PHASES	TABLE 21
	1	2	RECENT CHANGE MEASUREMENTS	TABLE 21
	2	3	NETWORK MANAGEMENT MEASUREMENTS	TABLE 21
	3	16	MACHINE CONGESTION	TABLE 21
22	-	4	PERFORMANCE MEASUREMENTS - AUDIT TYPE	TABLE 22
	0	2	AUDIT COMPLETE	TABLE 22
	1	2	AUDIT ERRORS	TABLE 22
23	-	40	PERFORMANCE MEASUREMENTS-EQUIPMENT TYPE PROCESSOR	TABLE 23
	0	3	MAINTENANCE OCCUPANCIES	TABLE 23
	1	14	MAINTENANCE USAGE	TABLE 23
	2	14	PERIPHERAL UNIT MAINTENANCE USAGE AND OUTAGE	TABLE 23

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS	SECTION
	3	7	PER CALL SERVICE CKTS ACCUMULATED MAINT OCCUPANCY	TABLE 23
	4	2	VFL ACCUMULATED MAINTENANCE OCCUPANCY	TABLE 23
24	-	84	PERFORMANCE MEASUREMENTS-TERMINAL EQUIPMENT	TABLE 24
	0	1	TOTAL ACCUMULATED MAINTENANCE OCCUPANCY	TABLE 24
	1	18	TERMINAL EQUIPMENT MAINTENANCE USAGE AND OUTAGE	TABLE 24
	2	65	TERMINAL EQUIPMENT	TABLE 24
25	-	293	CONTROL AREA ZERO	TABLE 25
	0	2	CONTROL AREA SUMMATION	TABLE 25
	1	61	INCOMING IMAS	TABLE 25
	2	22	INCOMING IMAS	TABLE 25
	3	49	OUTGOING IMAS AND GLARE FAILURES	TABLE 25
	4	11	OUT-OF-SERVICE PEG COUNTS	TABLE 25
	5	15	ATTEMPTS AND MAINTENANCE USAGE	TABLE 25
	6	5	CCIS INEFFECTIVE ATTEMPTS	TABLE 25
	7	6	ROTL	TABLE 25
	8	24	TERMINATING TEST LINES	TABLE 25
	9	21	ROUTINE OPERATIONAL TESTS	TABLE 25
	10	10	TEST ACCESS CIRCUIT	TABLE 25
	11	12	INTERNATIONAL ATTEMPTS AND MAINTENANCE USAGE	TABLE 25
	12	2	OUT-OF-SERVICE PEG COUNTS	TABLE 25
	13	6	INTERNATIONAL TRUNK TESTS-DIRECTOR	TABLE 25
	14	5	INTERNATIONAL TRUNK TESTS-RESPONDER	TABLE 25
	15	2	ATME FAILURES	TABLE 25
	16	38	CCITT #5 CALL IRREGULARITIES	TABLE 25
	17	2	CCITT #6 ACKNOWLEDGEMENT TIMEOUTS	TABLE 25
26	-	293	CONTROL AREA ONE	TABLE 26
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25	TABLE 26
27	-	293	CONTROL AREA TWO	TABLE 27
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25	TABLE 27
28	-	293	CONTROL AREA THREE	TABLE 28
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25	TABLE 28
29	-	293	CONTROL AREA FOUR	TABLE 29
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25	TABLE 29
30	-	293	CONTROL AREA FIVE	TABLE 30
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25	TABLE 30
31	-	293	CONTROL AREA SIX	TABLE 31
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25	TABLE 31
32	-	293	CONTROL AREA SEVEN	TABLE 32
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25	TABLE 32
33	-	293	CONTROL AREA EIGHT	TABLE 33
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25	TABLE 33
34	-	293	CONTROL AREA NINE	TABLE 34
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25	TABLE 34
35	-	34	SERVICE CIRCUITS	TABLE 35
	0	7	MAINTENANCE SERVICE CKTS MAINTENANCE OCCUPANCIES	TABLE 35
	1	19	MAINTENANCE SERVICE CIRCUITS MEASUREMENTS	TABLE 35
	2	6	ATME-A	TABLE 35

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS	SECTION
	3	2	TMR SEIZURES	TABLE 35
36	-	148	SERVICE MEASUREMENTS	TABLE 36
	0	23	INCOMING IA, CCIS, ISUP, ITUP, INUP AND Q931, CCIS	TABLE 36
	1	16	INCOMING INEFFECTIVE ATTEMPTS, BEFORE ADDR SIGNALING	TABLE 36
	2	24	INCOMING INEFFECTIVE ATTEMPTS, DURING ADDR SIGNALING	TABLE 36
	3	21	INCOMING INEFFECTIVE ATTEMPTS, CALLING PARTY SIGNALING	TABLE 36
	4	26	OUTGOING INEFFECTIVE ATTEMPTS	TABLE 36
	5	2	CAMA POSITION IRREGULARITIES	TABLE 36
	6	13	CALLS LOST DUE TO MACHINE IRREGULARITIES	TABLE 36
	7	4	CCITT #6 FINAL TRIAL FAILURES	TABLE 36
	8	6	CCITT #5 FINAL TRIAL FAILURES-OUTGOING STAGE	TABLE 36
	9	7	CCITT #6 INEFFECTIVE ATTEMPTS	TABLE 36
	10	6	CUSTOMER CALL TO MAS FTF	TABLE 36
37	-	18	BASE MEASUREMENTS	TABLE 37
	0	10	DOM ATTEMPTS-TOTAL OFFICE	TABLE 37
	1	8	INTL ATTEMPTS-TOTAL OFFICE	TABLE 37
38	-	293	ADMINISTRATIVE AREA ZERO	TABLE 38
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25	TABLE 38
39	-	293	ADMINISTRATIVE AREA ONE	TABLE 39
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25	TABLE 39
40	-	256	PERFORMANCE MEASUREMENTS-AUDIT IMPLICATOR CODE	TABLE 40
	0	64	AUDIT IMPLICATOR CODE (000-063)	TABLE 40
	1	64	AUDIT IMPLICATOR CODE (064-127)	TABLE 40
	2	64	AUDIT IMPLICATOR CODE (128-191)	TABLE 40
	3	64	AUDIT IMPLICATOR CODE (192-255)	TABLE 40
41	-	4	AUDITS BY CLIENT	TABLE 41
	0	4	AUDIT CALLS BY CLIENT, ERRORS FOUND	TABLE 41
42	-	32	TRUNK ERROR ANALYSIS COUNTS	TABLE 42
	0-31	1	SECOND STAGE FILTER OVERFLOWS BY SP NUMBER	TABLE 42
43	-	32	TRUNK ERROR ANALYSIS COUNTS	TABLE 43
	0-31	1	LONG TERM TABLE OVERFLOWS BY SP NUMBER	TABLE 43
44	-	1	TRUNK ERROR ANALYSIS-REPORT BUFFER OVERFLOWS	TABLE 44
	0	1		TABLE 44
45	-	126	SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS	TABLE 45
	0	57		TABLE 45
	1	5	CCIS SOFTWARE CARRIER GROUP ALARM	TABLE 45
	2	1	TRUNKS BLOCKED FAR END EQUIPMENT PROBLEMS	TABLE 45
	3	25	CCITT #6 PERFORMANCE SIGNALS RECEIVED	TABLE 45
	4	11	CCITT #6 PERFORMANCE SIGNALS TRANSMITTED	TABLE 45
	5	16	CCITT #6 SIGNALING IRREGULARITIES	TABLE 45
	6	4	ISUP UUI AND ATP DROPPED	TABLE 45
	7	7	E&M SOFTWARE CARRIER GROUP ALARM	TABLE 45
46	-	196	SWITCHING AREA EQUIPMENT COUNTS	TABLE 46
	0	56	PROCESSOR	TABLE 46
	1	14	I/0	TABLE 46

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS	SECTION
	2	28	BUS SYSTEM	TABLE 46
	3	14	NETWORK	TABLE 46
	4	25	SIGNALING EQUIPMENT	TABLE 46
	5	21	CLOCKS	TABLE 46
	6	10	PER CALL SERVICE CIRCUIT MEASUREMENTS	TABLE 46
47	-	512	PERFORMANCE MEASUREMENTS-AUDITS BY TYPE	TABLE 47
	0	50	ROUTINE AUDIT COMPLETIONS NO. 00-49	TABLE 47
	1	50	ROUTINE AUDIT COMPLETIONS NO. 50-99	TABLE 47
	2	28	ROUTINE AUDIT COMPLETIONS NO. 100-127	TABLE 47
	3	50	DEMAND AUDIT COMPLETIONS NO. 00-49	TABLE 47
	4	50	DEMAND AUDIT COMPLETIONS NO. 50-99	TABLE 47
	5	28	DEMAND AUDIT COMPLETIONS NO. 100-127	TABLE 47
	6	50	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 00-49	TABLE 47
	7	50	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 50-99	TABLE 47
	8	28	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 100-127	TABLE 47
	9	50	ERRORS - DEMAND AUDIT COMPLETIONS NO. 00-49	TABLE 47
	10	50	ERRORS - DEMAND AUDIT COMPLETIONS NO. 50-99	TABLE 47
	11	28	ERRORS - DEMAND AUDIT COMPLETIONS NO. 100-127	TABLE 47
48	-	293	ADMINISTRATIVE AREA TWO	TABLE 48
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25	TABLE 48
49	-	68	INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI	TABLE 49
	0	62	CCIS INWATS	TABLE 49
	1	6	DIRECT SIGNALING	TABLE 49
50	-	2048	MAS PER ANNOUNCEMENT MEASUREMENTS	TABLE 50
	0-511	4		TABLE 50
51	-	128	CALL GAPPING/CUT THRU	TABLE 51
	0-63	2		TABLE 51
52	-	128	TELEVOTE MASTER DIALED NUMBER	TABLE 52
	0-127	1		TABLE 52
53	-	128	TELEVOTE SLAVE DIALED NUMBER	TABLE 53
	0-127	1		TABLE 53
54	-	1024	GEOGRAPHIC ATTEMPTS MATRIX	TABLE 54
	0-31	32	ANNOUNCEMENT SEPARATION	TABLE 54
55	-	-	Reserved For Future Use	TABLE 55
56	-	244	ANI DELIVERY SERVICE	TABLE 56
	0	60	DIAL-A-VIEW PERFORMANCE MEASUREMENTS	TABLE 56
	1	60	DIAL-A-VIEW PERFORMANCE MEASUREMENTS	TABLE 56
	2	40	DIAL-A-VIEW PERFORMANCE MEASUREMENTS	TABLE 56
	3	64	DIAL-A-VIEW MESSAGE REGISTER MEASUREMENTS	TABLE 56
	4	20	PER CALL CONTROL OF USEC	TABLE 56
57	-	71	POSITIVE CALL PROCESSING	TABLE 57
	0	71	PCP IA & PERF COUNTS	TABLE 57
58	-	-	Reserved For Future Use	TABLE 58
59	-	-	Reserved For Future Use	TABLE 59
60	-	-	Reserved For Future Use	TABLE 60
61	-	-	Reserved For Future Use	TABLE 61
62	-	-	Reserved For Future Use	TABLE 62
63	-	-	Reserved For Future Use	TABLE 63

FIGURE 2

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
1A Communication Buffer Usage	16/1
1A DMA Job Buffer Overflow Peg Count	16/1
1A DMA Job Buffer Seizures Peg Count	16/1
1A DMA Job Buffer Timeout Peg Count	16/1
1A DMA Job Buffer Usage	16/1
1A DMA Job Buffers Entered into the Reserved State Peg Count	16/1
1A File Processor Interface Down	45/0
1A Messages Sent to the 3B Peg Count	16/1
1A Read Messages Sent to the 3B Peg Count	16/1
1A Write Messages Sent to the 3B Peg Count	16/1
1A-3B AMA Records Lost Peg Count	49/1
1A-3B AMA Records Made Peg Count	49/1
1A-3B Communication Send Buffer Overflows Peg Count	16/1
1A-3B Communication Send Buffer Seizures Peg Count	16/1
3B Communication Send Buffer Usage	16/1
3B DMA Job Buffer Overflow Peg Count	16/1
3B DMA Job Buffer Seizures Peg Count	16/1
3B DMA Job Buffer Timeout Peg Count	16/1
3B DMA Job Buffer Usage	16/1
3B DMA Job Buffers Entered into the Reserved State Peg Count	16/1
3B File Manager Buffer Overflows Peg Count	16/1
3B File Manager Buffer Seizures Peg Count	16/1
3B File Manager Buffer Usage	16/1
3B Messages Sent to the 1A Peg Count	16/1
3B Read Messages Sent to the 1A Peg Count	16/1
3B Write Messages Sent to the 1A Peg Count	16/1
3B-1A Communication Send Buffer Overflows Peg Count	16/1
3B-1A Communication Send Buffer Seizures Peg Count	16/1
4ESS Switch Originated Outgoing Attempts	5/8
800 Number Services (NS) Attempts Failed Due to Unacceptable Digit Count Peg Count	49/0
Abandon During Second Stage International - No Digits Received	15/0
Abandon During Second Stage International - Some Digits Received	15/0
Abandon During Second Stage VSS - No Digits Received	15/0
Abandon During Second Stage VSS - Some Digits Received	15/0
Access Tandem Post Acknowledgement Wink Timeout	11/4
Access Transport Received Peg Count	13/CIN
Adjunct Logical Address T303 Timeouts Peg Count	36/10
Adjunct Logical Address TADJ Timeouts Peg Count	36/10
AMA Match Check Failure Peg Count	19/1
AMA Wrong Calling Code Peg Count	19/1
ANI Multi-Party Calls Peg Count	19/0
ANI Sent Peg Count	56/0-2
Announcement or Tone Group Seizure Peg Count	3/0-31
Announcement or Tone Group Seizure Peg Count	3/33-160
Answer Signal Timeout Peg Count	25/16
Answer-Acknowledgement Signal Timeout Peg Count	25/16
API Accumulated Maintenance Usage	23/1
API Diagnostics Manually Requested - All Tests Passed Peg Count	46/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
API Diagnostics Manually Requested Peg Count	46/0
API Diagnostics Program Requested - All Tests Passed Peg Count	46/0
API Diagnostics Program Requested Peg Count	46/0
API Errors Peg Count	46/0
API Located Faults Peg Count	46/0
API Non-located Peg Count	46/0
API Processor Interface Down	45/0
API to CS In-Range Error Peg Count	20/1
API to CS Out-of-Range Error Peg Count	20/1
API to PS In-Range Error Peg Count	20/1
API to PS Out-of-Range Error Peg Count	20/1
ATME Director/Responder Irregularities Peg Count	25/15
ATME-A Responder Incoming Seizures Peg Count	35/2
ATME-A Responder Maintenance Usage	35/2
ATME-A Responder Tests Attempted Peg Count	25/14
ATME-A Responder Tests Overflowed Peg Count	25/14
ATME-A Responder Total Usage	35/2
ATME-B Director Tests Attempted Peg Count	25/13
ATME-B Director Tests Failed Peg Count	25/13
ATME-B Director Tests Passed Peg Count	25/13
ATME-B Out-Of-Service Peg Count	25/12
ATME-B Responder Tests Attempted Peg Count	25/14
ATME-B Responder Tests Overflowed Peg Count	25/14
ATME-C Director Tests Attempted Peg Count	25/13
ATME-C Director Tests Failed Peg Count	25/13
ATME-C Director Tests Passed Peg Count	25/13
ATME-C Out-Of-Service Peg Count	25/12
ATME-C Responder Tests Attempted Peg Count	25/14
Attached Processor Interject Peg Count	20/1
Attendant Failures Peg Count	56/0-2
AUB Accumulated Maintenance Usage	23/1
AUB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
AUB Diagnostics Manually Requested Peg Count	46/2
AUB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
AUB Diagnostics Program Requested Peg Count	46/2
AUB Errors Peg Count	46/2
AUB Located Faults Peg Count	46/2
AUB Non-located Peg Count	46/2
Audit 00 through 49 Demand Request Errors Found Peg Count	47/9
Audit 00 through 49 Demand Request Peg Count	47/3
Audit 00 through 49 Routine Request Errors Found Peg Count	47/6
Audit 00 through 49 Routine Request Peg Count	47/0
Audit 100 through 127 Demand Request Errors Found Peg Count	47/11
Audit 100 through 127 Demand Request Peg Count	47/5
Audit 100 through 127 Routine Request Errors Found Peg Count	47/8
Audit 100 through 127 Routine Request Peg Count	47/2
Audit 50 through 99 Demand Request Errors Found Peg Count	47/10

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Audit 50 through 99 Demand Request Peg Count	47/4
Audit 50 through 99 Routine Request Errors Found Peg Count	47/7
Audit 50 through 99 Routine Request Peg Count	47/1
Audit Implicator Codes Peg Count	40/0-3
Automatic Network Management Controls	13/CIN
Average Base Level Cycle Length In Milliseconds	9/0
Billing Number Gap Peg Count	11/3
Black Box Fraud Prevention Cancelled	0/4
Black Box Fraud Ring Forwards Received	0/4
B-Level Interrupt Central Control Switch Peg Count	20/1
B-Level Interrupts Hardware Initialization Peg Count	20/1
B-Level Interrupts Pulse Source In-Range Peg Count	20/1
B-Level Interrupts Pulse Source Out-Of-Range Peg Count	20/1
Blocking Acknowledgement Timeout Peg Count	25/17
Blue Box Fraud Attempts	0/3
Blue Box Fraud Detected	0/3
Blue Box Fraud MF Receiver Occupancy	0/3
Blue Box Fraud MF Receiver Seizure	0/3
Blue Box Fraud Overload	0/3
Blue Box Fraud Persisting	0/3
BOC SSP Initial Queries	6/0
BOC SSP MF Incoming Seizures Peg Count	5/1
BOC SSP MF Outgoing Seizures Peg Count	5/1
BOC SSP Seizures	6/0
Broadband Call 24 - Data Calls Received From an IEC Peg Count	5/1
Broadband Call 24 - Originating Data Attempts From a PRI Peg Count	5/1
Broadband Call 24 - Trunk Incoming Seizures Peg Count	5/1
Broadband Call 24 - Trunk Outgoing Seizures Peg Count	5/1
Broadband Call 6 - Data Calls Received From an IEC Peg Count	5/1
Broadband Call 6 - Originating Data Attempts From a PRI Peg Count	5/1
Broadband Call 6 - Trunk Incoming Seizures Peg Count	5/1
Broadband Call 6 - Trunk Outgoing Seizures Peg Count	5/1
Broadband Call Failure Peg Count	11/4
Buffer Overflow Peg Count	14/0-255
Busy-Flash Final Trial Failure Peg Count	36/8
Busy-Flash on the Outgoing Trunk Peg Count	25/16
Busy-Flash Peg Count	25/16
Call Denial Screening Peg Count	11/4
Call Merge Denials - Adjunct Not Allowed Peg Count	45/6
Call Merge Denials - Invalid Call States Peg Count	45/6
Call Merge Denials - Invalid Channel ID Peg Count	45/6
Call Merge Denials - Multi-Feature Request Peg Count	45/6
Call Merge Failure - Resource Limitations Peg Count	7/1
Call Merge Requests Peg Count	45/6
Call Merge Success Peg Count	45/6
Call Record Block Peg Count	19/2
Call Record Lost Peg Count	19/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Call Register (CR) Usage	17/0
Caller Abandon Before Response from SCP Peg Count	49/0
Calls Blocked by Go-No Go Screening Peg Count	11/2
CAMA Automatic Number Identification Failure Peg Count	19/0
CAMA Automatic Number Identification Local Office Failure	19/0
CAMA Automatic Number Identification Office Failure	19/0
CAMA Calls Queue Over 5-Seconds Peg Count	19/0
CAMA Free Calls Peg Count	36/5
CAMA Operator Queue Abandon Peg Count	18/0
CAMA Operator Queue Abandon Peg Count	19/0
CAMA Operator Queue Overflow Peg Count	18/0
CAMA Operator Queue Overflow Peg Count	19/0
CAMA Operator Queue Seizure Peg Count	19/0
CAMA Operator Queue Usage	19/0
CAMA Position Attached Timeout Peg Count	18/0
CAMA Position Disconnect Peg Count	18/0
CAMA Position Disconnect Peg Count	19/0
CAMA Position Disconnect Timeout Peg Count	18/0
CAMA Position Report (CPR) Peg Count	18/0
CAMA Position Report (CPR) Peg Count	36/5
CAMA Position Timeout Peg Count	18/0
CAMA Positions Usage	19/0
Cancel Overload in Effect Peg Count	9/1
Cancel-From Control Blocked Peg Count	11/3
Cancel-To Control Blocked Peg Count	11/3
Carrier Group Failure Peg Count	11/1
CAS-NCP Unrecognized Info Received Peg Count	57/0
CC Accumulated Maintenance Usage	23/1
CC Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
CC Diagnostics Manually Requested Peg Count	46/0
CC Diagnostics Program Requested - All Tests Passed Peg Count	46/0
CC Diagnostics Program Requested Peg Count	46/0
CC Errors Peg Count	46/0
CC Located Faults Peg Count	46/0
CC Non-located Peg Count	46/0
CC to AP Internal Out-of-Range Error Peg Count	20/1
CC to API In-Range Error Peg Count	20/1
CC to DUS In-Range Error Peg Count	20/1
CC to DUS Out-of-Range Error Peg Count	20/1
CCIS 2-Wire Incoming Seizure Peg Count	5/1
CCIS Address Complete Signal Timeout Peg Count	36/4
CCIS Address Incomplete (ADI) Signals Received Peg Count	45/0
CCIS Address Incomplete (ADI) Signals Transmitted Peg Count	45/0
CCIS Call Fail Detection Peg Count	36/4
CCIS Call Failure (CFL) Signals Received Peg Count	45/0
CCIS Call Failure (CFL) Signals Transmitted Peg Count	45/0
CCIS Calls Lost Due to Trunk or Band Reset Peg Count	36/6

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CCIS Confusion (COF) Signals Received Peg Count	45/0
CCIS Confusion (COF) Signals Transmitted Peg Count	45/0
CCIS Continuity Check Failure Final Trial Group Peg Count	36/4
CCIS CR Seizure Peg Count	17/0
CCIS Incoming Attempts Peg Count	25/5
CCIS Incoming Calls Peg Count	5/1
CCIS Maintenance Usage	25/5
CCIS Message Subscriber Busy Peg Count	49/0
CCIS National Switching Congestion (NSC) Signals Received Peg Count	45/0
CCIS National Switching Congestion (NSC) Signals Transmitted Peg Count	45/0
CCIS National Trunk Congestion (NTC) Signals Received Peg Count	45/0
CCIS National Trunk Congestion (NTC) Signals Transmitted Peg Count	45/0
CCIS Origination CR Queue Abandon Peg Count	11/6
CCIS Origination CR Queue Abandon Peg Count	17/0
CCIS Origination CR Queue Overflow Peg Count	11/6
CCIS Origination CR Queue Overflow Peg Count	17/0
CCIS Origination CR Queue Seizure Peg Count	17/0
CCIS Origination CR Queue Usage	17/0
CCIS Outgoing Attempts Peg Count	25/5
CCIS Outgoing Calls Peg Count	5/2
CCIS Signaling Network Failure Peg Count	36/4
CCIS Terminal Group Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
CCIS Terminal Group Diagnostics Manually Requested Peg Count	46/4
CCIS Terminal Group Diagnostics Program Requested - All Tests Passed Peg Count	46/4
CCIS Terminal Group Diagnostics Program Requested Peg Count	46/4
CCIS Terminal Group Errors Peg Count	46/4
CCIS Terminal Group Located Faults Peg Count	46/4
CCIS Terminal Group Non-located Peg Count	46/4
CCIS Transceiver Accumulated Maintenance Usage	23/3
CCIS Transceiver Located Faults Peg Count	46/6
CCIS Transceiver Maintenance Usage	2/0
CCIS Transceiver Non-located Peg Count	46/6
CCIS Transceiver Overflow Peg Count	2/0
CCIS Transceiver Seizure Peg Count	2/0
CCIS Transceiver Service Usage	2/0
CCIS Transceiver Test Circuit Located Faults Peg Count	35/1
CCIS Transceiver Test Circuit Maintenance Busy Occupancy	35/0
CCIS Transceiver Test Circuit Non-located Faults Peg Count	35/1
CCIS Transceiver Test Circuit Total Usage	35/1
CCIS Trunk Or Band Reset Received Peg Count	45/0
CCIS Trunk Or Band Reset Signals Transmitted Peg Count	45/0
CCIS Unequipped Label Signals Received Peg Count	45/0
CCIS Unequipped Label Signals Transmitted Peg Count	45/0
CCIS Unreasonable Message (UNRES) Signals Received Peg Count	45/0
CCIS Vacant National Number (VNN) Signals Received Peg Count	45/0
CCIS Vacant National Number (VNN) Signals Transmitted Peg Count	45/0
CCIS VPA Cancellation and Path Hunt Peg Count	2/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CCITT No. 5 Call Register Queue Seizure Peg Count	17/1
CCITT No. 5 Control Area Incoming Attempts Peg Count	25/11
CCITT No. 5 Control Area Outgoing Attempts Peg Count	25/11
CCITT No. 5 Maintenance Usage	25/11
CCITT No. 5 Miscellaneous Abandon Peg Count	25/16
CCITT No. 5 Originating Queue Seizure Peg Count	17/1
CCITT No. 5 Originating Queue Usage	17/1
CCITT No. 5 Queue Entry Failure Peg Count	0/1
CCITT No. 5 Total Office Incoming Attempts Peg Count	5/4
CCITT No. 5 Total Office Outgoing Attempts Peg Count	5/5
CCITT No. 6 Address Incomplete (ADI) Signals Received Peg Count	45/3
CCITT No. 6 Address Incomplete (ADI) Signals Transmitted Peg Count	45/4
CCITT No. 6 Blocking (BLO) Signal Transmitted Peg Count	45/4
CCITT No. 6 Call Failure (CFL) Signals Received Peg Count	45/3
CCITT No. 6 Call Failure (CFL) Signals Transmitted Peg Count	45/4
CCITT No. 6 Call Register Queue Seizure Peg Count	17/1
CCITT No. 6 Circuit Group Congestion (CGC) Signals Received Peg Count	45/3
CCITT No. 6 Circuit Group Congestion (CGC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Confusion (COF) Signals Transmitted Peg Count	45/4
CCITT No. 6 Continuity Check Failure (CCF) Signaling Irregularity Peg Count	45/5
CCITT No. 6 Control Area Incoming Attempts Peg Count	25/11
CCITT No. 6 Control Area Outgoing Attempts Peg Count	25/11
CCITT No. 6 Double Seizure (GLR) Call Irregularity Peg Count	45/5
CCITT No. 6 Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
CCITT No. 6 Incomplete Address Detected Call Irregularity Peg Count	45/5
CCITT No. 6 Initial Address Message (IAM) Call Irregularity Peg Count	45/5
CCITT No. 6 Line Out-Of-Service (LOS) Signal Transmitted Peg Count	45/4
CCITT No. 6 Line Out-of-Service Signals Received Peg Count	45/3
CCITT No. 6 Maintenance Usage	25/11
CCITT No. 6 Miscellaneous Abandon Peg Count	36/9
CCITT No. 6 Miscellaneous Call Irregularity Peg Count	45/5
CCITT No. 6 National Network Congestion (NNC) Signals Transmitted Peg Count	45/4
CCITT No. 6 National Network Congestion (NNC) Signals Received Peg Count	45/3
CCITT No. 6 Originating Queue Abandon Peg Count	17/1
CCITT No. 6 Originating Queue Overflow Peg Count	17/1
CCITT No. 6 Originating Queue Seizure Peg Count	17/1
CCITT No. 6 Originating Queue Usage	17/1
CCITT No. 6 Signaling Network Failures (SNF) Call Irregularities Peg Count	45/5
CCITT No. 6 Subscriber Busy Signals Received Peg Count	45/3
CCITT No. 6 Subscriber Busy (SSB) Signals Transmitted Peg Count	45/4
CCITT No. 6 Subscriber Transferred (SST) Signals Transmitted Peg Count	45/4
CCITT No. 6 Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
CCITT No. 6 Switching Equipment Congestion (SEC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Terminal Congestion Peg Count	45/3
CCITT No. 6 Total Office Incoming Attempts Peg Count	5/4
CCITT No. 6 Total Office Outgoing Attempts Peg Count	5/5
CCITT No. 6 Vacant National Number (VNN) Signals Received Peg Count	45/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CCITT No. 6 Vacant National Number (VNN) Signals Transmitted Peg Count	45/4
CCITT No. 7 Subsequent Address Message Ignored Peg Count	45/3
CCS Message Table Blue Box Attempts Peg Count	0/4
CCS Message Table Overflow Peg Count	0/4
CCS Message Table Success Peg Count	0/4
CCS Message Table Timeout Peg Count	0/4
Centrex 2 Test Routine Operational Tests Attempted Peg Count	25/9
Centrex 2 Test Routine Operational Tests Failed Peg Count	25/9
Centrex 2 Test Routine Operational Tests Passed Peg Count	25/9
Centrex 3 Test Routine Operational Tests Attempted Peg Count	25/9
Centrex 3 Test Routine Operational Tests Failed Peg Count	25/9
Centrex 3 Test Routine Operational Tests Passed Peg Count	25/9
Clear-Back and Busy-Flash Acknowledgement Signal Timeout Peg Count	25/16
Clear-Back/Busy-Flash Signal Timeout Peg Count	25/16
Clear-Forward Received Peg Count	25/6
Clear-Forward Signal Timeout Peg Count	25/16
CNI Stream Processor Interface Down	45/0
Code 100 Test Attempted Peg Count	25/7
Code 100 Test Completed Peg Count	25/7
Code 101 First Trial Busy Peg Count	25/10
Code 101 Origination Peg Count	25/10
Code 101 Transfer Peg Count	25/10
Code 101 Usage	25/10
Code 102 Test Attempted Peg Count	25/7
Code 102 Test Completed Peg Count	25/7
Code 103 Routine Operational Tests Attempted Peg Count	25/9
Code 103 Routine Operational Tests Failed Peg Count	25/9
Code 103 Routine Operational Tests Passed Peg Count	25/9
Code 105 Test Attempted Peg Count	25/7
Code 105 Test Completed Peg Count	25/7
Code Block Control Blocked Peg Count	11/3
Common System Tone Detector (CSTD) Located Faults Peg Count	35/1
Common System Tone Detector (CSTD) Maintenance Busy Occupancy	35/0
Common System Tone Detector (CSTD) Non-located Faults Peg Count	35/1
Common System Tone Detector (CSTD) Seizure Attempts Peg Count	35/1
Common System Tone Detector (CSTD) Seizure Overflow Peg Count	35/1
Common System Tone Detector (CSTD) Total Usage	35/1
Confirmed Receive Path Failure Carrier Alarm Peg Count	45/7
Confirmed Receive Path Failure Carrier Restoral Peg Count	45/7
Confirmed Transmit Path Failure Carrier Alarm Peg Count	45/7
Confirmed Transmit Path Failure Carrier Restoral Peg Count	45/7
Continuity Check Failure (CKF) Peg Count	25/6
Continuity Check Failure Final Trial Failure Peg Count	36/7
Continuity Signal Timeout Peg Count	36/0
Control Area Pulsing Error Peg Count	25/16
CPA BN(ANI) Trigger Table Data Found Peg Count for All Applicable Services	57/0
CPA BN(ANI) Trigger Table Query Attempt Peg Count for All Applicable Services	57/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CPA Call Register Accumulated Occupancy Count	57/0
CPA Call Register Overflow Peg Count	57/0
CPA Call Register Seizures Peg Count	57/0
CPA Destination Number Trigger Table Data Found Peg Count for FAX Calls	57/0
CPA Destination Number Trigger Table Query Attempt Peg Count for FAX Calls	57/0
Critical Alarms Peg Count	20/2
CS Accumulated Maintenance Usage	23/1
CS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
CS Diagnostics Manually Requested Peg Count	46/0
CS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
CS Diagnostics Program Requested Peg Count	46/0
CS Errors Peg Count	46/0
CS Located Faults Peg Count	46/0
CS Non-located Peg Count	46/0
CSB Accumulated Maintenance Usage	23/1
CSB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
CSB Diagnostics Manually Requested Peg Count	46/2
CSB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
CSB Diagnostics Program Requested Peg Count	46/2
CSB Errors Peg Count	46/2
CSB Located Faults Peg Count	46/2
CSB Non-located Peg Count	46/2
Customer Calls To MAS - Supervision Not Returned Due To CCIS Terminal Congestion	5/9
Data Base Failure Reply: All Lines Busy	49/0
Data Base Failure Reply: Data Base Overload	49/0
Data Base Failure Reply: Non-Existent NPA	49/0
Data Base Failure Reply: Non-Purchased NPA	49/0
Data Base Failure Reply: Unassigned NXX	49/0
Data Base Failure Reply: Vacant Line	49/0
Data Base Failure Reply: Vacant NXX	49/0
Data Base Query Timeout	49/0
Data Call Attempts Peg Count	13/CIN
Data Call Overflow Peg Count	13/CIN
Data Unit Selector Interject Peg Count	20/1
D-Cancel Killed Calls	11/3
Dedicated TSI Overflow Peg Count	3/32
Dedicated TSI Usage	3/32
DIF Accumulated Maintenance Usage	24/1
DIF Accumulated Outage	24/1
DIF Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DIF Diagnostics Manually Requested Peg Count	24/2
DIF Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DIF Diagnostics Program Requested Peg Count	24/2
DIF Errors Peg Count	24/2
DIF Located Faults Peg Count	24/2
DIF Non-located Faults Peg Count	24/2
Direct Access Data Channel (DADC) Total Messages Peg Count	49/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Direct Access Data Channel (DADC) Unexpected Messages Peg Count	49/1
Disconnect Stage Failure to Receive Clear-Forward Peg Count	36/9
Disconnect Stage Failure to Receive Release Guard Peg Count	36/9
Discrepancy in Number of Components and End Address of TCAP Message Peg Count	49/0
Disk Requests Accepted Peg Count	16/1
Disk Requests Canceled Peg Count	16/1
Disk Requests Completed Peg Count	16/1
Disk Requests Failed Peg Count	16/1
Disk Requests Rejected Peg Count	16/1
DIU Accumulated Maintenance Usage	24/1
DIU Accumulated Outage	24/1
DIU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DIU Diagnostics Manually Requested Peg Count	24/2
DIU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DIU Diagnostics Program Requested Peg Count	24/2
DIU Errors Peg Count	24/2
DIU Located Faults Peg Count	24/2
DIU Non-located Faults Peg Count	24/2
D-Level Interrupts Attached Processor In-Range Peg Count	20/1
D-Level Interrupts Attached Processor Peg Count	20/1
D-Level Interrupts Auxiliary Unit Out-Of-Range Address Peg Count	20/1
D-Level Interrupts Call Store In-Range Peg Count	20/1
D-Level Interrupts Data Unit Selector In-Range Peg Count	20/1
D-Level Interrupts Data Unit Selector Peg Count	20/1
D-Level Interrupts Invalid Transfer Peg Count	20/1
D-Level Interrupts Out-Of-Range Peg Count	20/1
D-Level interrupts Protected Area Failure Peg Count	20/1
D-Level Interrupts Stack Related Peg Count	20/1
DNHR Crank Backs Received Peg Count	45/0
DNHR Crank Backs Sent Peg Count	45/0
Domestic CCIS Terminal Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
Domestic CCIS Terminal Diagnostics Manually Requested Peg Count	46/4
Domestic CCIS Terminal Diagnostics Program Requested - All Tests Passed Peg Count	46/4
Domestic CCIS Terminal Diagnostics Program Requested Peg Count	46/4
Domestic CCIS Terminal Errors Peg Count	46/4
Domestic CCIS Terminal Located Faults Peg Count	46/4
Domestic CCIS Terminal Non-located Peg Count	46/4
Domestic IOC Originated Vacant Code	15/2
Domestic IOTC Originated Vacant Code	15/2
Domestic VFL Accumulated Maintenance Occupancy	23/4
Domestic VFL Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
Domestic VFL Diagnostics Manually Requested Peg Count	46/4
Domestic VFL Diagnostics Program Requested - All Tests Passed Peg Count	46/4
Domestic VFL Diagnostics Program Requested Peg Count	46/4
Domestic VFL Errors Peg Count	46/4
Domestic VFL Located Faults Peg Count	46/4
Domestic VFL Non-located Peg Count	46/4

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Double Seizure - Clear Forward Final Trial Failure Peg Count	36/8
Double Seizure - Clear-Forward Peg Count	25/16
Double Seizure - Unreasonable Signal Peg Count	25/16
Double Seizure Timeout Peg Count	25/16
Double Seizures (GLARE) Final Trial Failures Peg Count	36/7
DP ANI MF Receiver Queue Abandon Peg Count	18/0
DP ANI MF Receiver Queue Abandon Peg Count	19/0
DP ANI MF Receiver Queue Seizure Peg Count	19/0
DP ANI MF Receiver Queue Usage	19/0
DP CR Queue Abandon Peg Count	11/6
DP CR Queue Abandon Peg Count	17/0
DP CR Queue Overflow Peg Count	11/6
DP CR Queue Overflow Peg Count	17/0
DP CR Queue Seizure Peg Count	17/0
DP CR Queue Usage	17/0
DP CR Seizure Peg Count	17/0
DP Delay Dial Incoming Seizure Peg Count	5/1
DP Digit Lost Peg Count	7/1
DP Equipment CAMA ANI Failure - Information Digit Error Peg Count	25/1
DP Equipment CAMA ANI Failure Peg Count	25/1
DP Equipment CAMA ANI Office Failure Peg Count	25/1
DP Equipment CAMA Disconnect Timeout Peg Count	25/2
DP Equipment CAMA Seizure Timeout Peg Count	25/2
DP Equipment Continuity/Polarity Test Failure Peg Count	25/3
DP Equipment Control Area False Start Abandon Peg Count	25/1
DP Equipment Control Area Partial Dial Abandon Peg Count	25/1
DP Equipment Control Area Partial Dial Timeout Peg Count	25/1
DP Equipment Control Area Permanent Signal Timeout Peg Count	25/1
DP Equipment Control Area Summation False Start Abandon Peg Count	36/1
DP Equipment Control Area Summation Miscellaneous Abandon Peg Count	36/4
DP Equipment Control Area Summation Partial Dial Abandon Peg Count	36/2
DP Equipment Control Area Summation Partial Dial Timeout Peg Count	36/2
DP Equipment Control Area Summation Permanent Signal Timeout Peg Count	36/1
DP Equipment Control Area Summation Pulsing Error Peg Count	36/2
DP Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
DP Equipment Glare Condition - Far End in Control Peg Count	25/3
DP Equipment Incoming Attempts Peg Count	25/5
DP Equipment Integrity Check Failure Peg Count	25/3
DP Equipment Maintenance Usage	25/5
DP Equipment Miscellaneous Abandon Peg Count	25/2
DP Equipment No Start Dial Peg Count	25/3
DP Equipment Outgoing Attempts Peg Count	25/5
DP Equipment Pulsing Error Peg Count	25/1
DP Equipment Total Office CAMA ANI Failure - Information Digit Error Peg Count	36/3
DP Equipment Total Office CAMA ANI Failure Peg Count	36/3
DP Equipment Total Office CAMA ANI Office Failure Peg Count	36/3
DP Equipment Total Office False Start Abandon Peg Count	7/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DP Equipment Total Office Partial Dial Abandon Peg Count	7/0
DP Equipment Total Office Partial Dial Timeout Peg Count	7/0
DP Equipment Total Office Permanent Signal Timeout Peg Count	7/0
DP Equipment Unexpected Stop Peg Count	25/3
DP Equipment Unexpected Stop Timeout Peg Count	25/3
DP Immediate Start Incoming Seizure Peg Count	5/1
DP Outpulsing Attempts Peg Count	5/2
DP Outpulsing Work List Full Peg Count	7/1
D-Reroute Killed Calls	11/3
DTC Accumulated Maintenance Usage	24/1
DTC Accumulated Outage	24/1
DTC Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DTC Diagnostics Manually Requested Peg Count	24/2
DTC Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DTC Diagnostics Program Requested Peg Count	24/2
DTC Errors Peg Count	24/2
DTC Located Faults Peg Count	24/2
DTC Non-located Faults Peg Count	24/2
DTMF Control Area Summation False Start Abandon Peg Count	36/1
DTMF Control Area Summation Miscellaneous Abandon Peg Count	36/4
DTMF Control Area Summation Partial Dial Abandon Peg Count	36/2
DTMF Control Area Summation Partial Dial Timeout Peg Count	36/2
DTMF Control Area Summation Permanent Signal Timeout Peg Count	36/1
DTMF Control Area Summation Pulsing Error Peg Count	36/2
DTMF CR Seizure Peg Count	17/0
DTMF Equipment Continuity/Polarity Test Failure Peg Count	25/3
DTMF Equipment Control Area False Start Abandon Peg Count	25/1
DTMF Equipment Control Area Partial Dial Abandon Peg Count	25/1
DTMF Equipment Control Area Partial Dial Timeout Peg Count	25/1
DTMF Equipment Control Area Permanent Signal Timeout Peg Count	25/1
DTMF Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
DTMF Equipment Glare Condition - Far End in Control Peg Count	25/3
DTMF Equipment Miscellaneous Abandon Peg Count	25/2
DTMF Equipment No Start Dial Peg Count	25/3
DTMF Equipment Pulsing Error Peg Count	25/1
DTMF Equipment Unexpected Stop Peg Count	25/3
DTMF Miscellaneous Ineffective Attempts Peg Count	11/4
DTMF Receiver Accumulated Maintenance Usage	23/3
DTMF Receiver Located Faults Peg Count	46/6
DTMF Receiver Maintenance Usage	1/0
DTMF Receiver Non-located Peg Count	46/6
DTMF Receiver Seizure Peg Count	1/0
DTMF Receiver Service Circuit Usage	1/0
DTMF Total Office False Start Abandon Peg Count	7/0
DTMF Total Office Partial Dial Abandon Peg Count	7/0
DTMF Total Office Partial Dial Timeout Peg Count	7/0
DTMF Total Office Permanent Signal Timeout Peg Count	7/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DTMF Transmitter Accumulated Maintenance Usage	23/3
DTMF Transmitter Located Faults Peg Count	46/6
DTMF Transmitter Maintenance Usage	0/2
DTMF Transmitter Non-located Peg Count	46/6
DTMF Transmitter Seizure Peg Count	0/2
DTMF Transmitter Service Usage	0/2
DTU Accumulated Maintenance Usage	24/1
DTU Accumulated Outage	24/1
DTU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DTU Diagnostics Manually Requested Peg Count	24/2
DTU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DTU Diagnostics Program Requested Peg Count	24/2
DTU Errors Peg Count	24/2
DTU Located Faults Peg Count	24/2
DTU Non-located Faults Peg Count	24/2
DUS Accumulated Maintenance Usage	23/1
DUS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
DUS Diagnostics Manually Requested Peg Count	46/0
DUS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
DUS Diagnostics Program Requested Peg Count	46/0
DUS Errors Peg Count	46/0
DUS Located Faults Peg Count	46/0
DUS Non-located Peg Count	46/0
DUS to CS Out-of-Range Error Peg Count	20/1
DUS to PS In-Range Error Peg Count	20/1
DUS to PS Out-of-Range Error Peg Count	20/1
DUS to TUC In-Range Error Peg Count	20/1
Dynamic Overload Control Peg Count and Duration Measurement	21/3
EA ANI Failure - Route Peg Count	19/2
EA ANI Failure Peg Count	19/2
EA ANI Success Peg Count	19/2
Egress Busy Crankbacks Sent	13/CIN
Eighth Digit No Call Register Peg Count	7/1
E-Level Interrupts In-Range Peg Count	20/1
E-Level Interrupts Out-Of-Range Peg Count	20/1
Emergency Restart Peg Count	14/0-255
Error Analysis Suspected Failure Peg Count	25/4
Errors Found By Audit System Peg Count	41/0
Errors Found By Maintenance Programs Peg Count	41/0
Errors Found By Manual Request Peg Count	41/0
Errors Found By Operational Programs Peg Count	41/0
ESC Accumulated Maintenance Usage	24/1
ESC Accumulated Outage	24/1
ESC Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
ESC Diagnostics Manually Requested Peg Count	24/2
ESC Diagnostics Program Requested - All Tests Passed Peg Count	24/2
ESC Diagnostics Program Requested Peg Count	24/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ESC Errors Peg Count	24/2
ESC Located Faults Peg Count	24/2
ESC Non-located Faults Peg Count	24/2
ESU Accumulated Maintenance Usage	24/1
ESU Accumulated Outage	24/1
ESU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
ESU Diagnostics Manually Requested Peg Count	24/2
ESU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
ESU Diagnostics Program Requested Peg Count	24/2
ESU Errors Peg Count	24/2
ESU Located Faults Peg Count	24/2
ESU Non-located Faults Peg Count	24/2
Exception Reports Failed to Send to the SCP Peg Count	49/0
Exception Reports Sent to the SCP Peg Count	49/0
Expected Stop Timeout Final Trial Group Peg Count	36/4
Facility Received Indicating Caller Hung-Up Peg Count	56/0-2
Failure to Place NM 10/6 Digit Controls on ACG Control List Peg Count	49/0
Failure to Receive Clear-Forward Peg Count	25/16
False Seizure Timeout Peg Count	25/16
False Start Abandon Peg Count	7/0
Fatal Errors in SCCP Header Peg Count	49/0
Fatal Protocol Error Response from SCP Peg Count	49/0
Final Trial Network Path Hunt Failure Peg Count	11/1
First Trial Glare Fail CCITT No. 5 Trunk Peg Count	25/16
First Trial No. Start Dial (NSD) - CCITT No. 5 Trunk Peg Count	25/16
First Trial Outpulsing Fail CCITT No. 5 Trunk Peg Count	25/16
F-Level Interrupts Autonomous Peripheral Unit Failure Peg Count	20/1
F-Level Interrupts Peripheral Unit Failure In-Range Peg Count	20/1
F-Level Interrupts Peripheral Unit Failure Out-Of-Range Peg Count	20/1
Functional Trunk Test Routine Operational Tests Attempted Peg Count	25/9
Functional Trunk Test Routine Operational Tests Failed Peg Count	25/9
Functional Trunk Test Routine Operational Tests Passed Peg Count	25/9
Gapped Peg Count	56/0-2
Glare Final Trial Failure Peg Count	36/8
Glare Final Trial Group Peg Count	36/4
Glare Peg Counter	11/0
Group Signaling Congestion Skipped	11/3
Hardware Detected CGA Peg Count	20/3
IDTMFWK CR Queue Abandon Peg Count	17/0
IDTMFWK CR Queue Seizure Peg Count	17/0
IDTMFWK CR Queue Usage	17/0
IDTMFWK Incoming Seizure Peg Count	5/1
IDTS CR Queue Abandon Peg Count	17/0
IDTS CR Queue Overflow Peg Count	17/0
IDTS CR Queue Seizure Peg Count	17/0
IDTS CR Queue Usage	17/0
IDTS DP Incoming Seizure Peg Count	5/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
IDTS Incoming Seizure Peg Count	5/1
IDTS Receiver Dial Tone Delay Time Peg Count	0/0
IDTS Receiver Queue Abandon Peg Count	0/0
IDTS Receiver Queue Seizure Peg Count	0/0
IDTS Receiver Queue Usage	0/0
Incoming Answer Signal Units Peg Count	14/0-255
Incoming Code 101 Overflow Peg Count	25/10
Incoming Code 101 Peg Count	25/10
Incoming Code 101 Usage	25/10
Incoming Continuity Signal Timeout Peg Count	36/9
Incoming Direct Signaling Signal Units Peg Count	14/0-255
Incoming Domestic CCIS Call Attempts	37/0
Incoming Domestic DP Call Attempts	37/0
Incoming Domestic ISUP Call Attempts	37/0
Incoming Domestic MF Call Attempts	37/0
Incoming Domestic Q.931 Call Attempts	37/0
Incoming DP Early Digit Peg Count	7/1
Incoming DP Work List Full Peg Count	7/1
Incoming IAM Peg Count	14/0-255
Incoming International CCITT No. 5 Call Attempts	37/1
Incoming International CCITT No. 6 Call Attempts	37/1
Incoming International INUP Call Attempts	37/1
Incoming International ITUP Call Attempts	37/1
Incoming Miscellaneous Ineffective Attempts Peg Count	11/4
Incoming Seizure Abandon Peg Count	25/16
Incoming Seizure Peg Count	13/CIN
Incoming Signal Irregularities Before Answer CCITT No. 5 Trunk Peg Count	25/16
Incoming Transitions Peg Count	14/0-255
Incomplete Address Abandon Peg Count	25/16
Incomplete Address Detection Peg Count	36/0
Incomplete Address Timeout Peg Count	25/16
Initial Address Message (IAM) Irregularity (IRR) Peg Count	45/0
Initial Address Messages Transferred Per Terminal	14/0-255
Initial Query Failure Due to CNI Buffer Overflow Peg Count	49/0
Initial Query Failure Due to CNI Stream Down Peg Count	49/0
Integrity Check Failures Final Trial Group Peg Count	36/4
International Call Detail Recording Register Buffer Block Occupancy Peg Count	17/2
International Call Detail Recording Registers Total Records Lost Peg Count	17/2
International Calls Block by Network Management Controls	15/2
International Calls Blocked by Screening	15/2
International CCIS Terminal Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
International CCIS Terminal Diagnostics Manually Requested Peg Count	46/4
International CCIS Terminal Diagnostics Program Requested - All Tests Passed Peg Count	46/4
International CCIS Terminal Diagnostics Program Requested Peg Count	46/4
International CCIS Terminal Errors Peg Count	46/4
International CCIS Terminal Located Faults Peg Count	46/4
International CCIS Terminal Non-located Peg Count	46/4

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
International Customer Dialed Vacant Code	15/2
International Inbound Customer Dialed Vacant Code	15/2
International Inbound Operator Dialed Vacant Code	15/2
International Incoming Customer Dialed Calls Peg Count	5/4
International Incoming Operator Dialed Calls Peg Count	5/4
International Incoming Screened-Invalid Call	15/2
International Incoming Screened-Invalid Language Digit	15/2
International Incoming Test Calls Peg Count	5/4
International Incoming Transit Calls Peg Count	5/4
International ISUP Outbound Overflow Peg Count	5/5
International No Circuit Peg Count	11/1
International Operator Dialed Vacant Code	15/2
International Originating Attempts To The Local IOC Operator That Overflow	15/1
International Originating Attempts To The Local IOC Operator	15/1
International Outbound Customer Dialed Call Encountered No Circuit	15/2
International Outbound Operator Dialed Call Peg Count	5/5
International Outbound Overflow Received from Alternate Office Peg Count	5/5
International Outbound Overflow Sent to Alternate Office Peg Count	5/5
International Outgoing Customer Dialed Calls Peg Count	5/5
International Overlap to Enblock Signalling Peg Count	5/4
International Translation Fail - Too Few/Too Many Digits CCITT No. 5 Incoming Trunk	15/2
International Translation Fail - Too Few/Too Many Digits CCITT No. 6 Incoming Trunk	15/2
International Translation Fail - Too Few/Too Many Digits IOC ITC	15/2
International Translation Fail - Too Few/Too Many Digits TSPC	15/2
International VFL Accumulated Maintenance Occupancy	23/4
International VFL Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
International VFL Diagnostics Manually Requested Peg Count	46/4
International VFL Diagnostics Program Requested - All Tests Passed Peg Count	46/4
International VFL Diagnostics Program Requested Peg Count	46/4
International VFL Errors Peg Count	46/4
International VFL Located Faults Peg Count	46/4
International VFL Non-located Peg Count	46/4
Interrupt Level Duration Count	20/1
INUP Address Complete Signal Timeout Peg Count	36/4
INUP Continuity Check Failure Final Trial Group Peg Count	36/4
INUP Continuity Check Request (CCR) Glare Peg Count	45/5
INUP Continuity Failure Peg Count	36/0
INUP Continuity Timeout Peg Count	36/0
INUP Continuity/Polarity Test Failure Peg Count	25/3
INUP Control Area False Start Abandon Peg Count	25/1
INUP Control Area Incoming Attempts Peg Count	25/11
INUP Control Area Miscellaneous Abandon Peg Count	25/2
INUP Control Area Outgoing Attempts Peg Count	25/11
INUP Control Area Partial Dial Abandon Peg Count	25/1
INUP Control Area Partial Dial Timeout Peg Count	25/1
INUP Control Area Permanent Signal Timeout Peg Count	25/1
INUP Control Area Summation False Start Abandon Peg Count	36/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
INUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
INUP Control Area Summation Partial Dial Abandon Peg Count	36/2
INUP Control Area Summation Partial Dial Timeout Peg Count	36/2
INUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
INUP Control Area Summation Pulsing Error Peg Count	36/2
INUP CR Queue Overflow Peg Count	17/0
INUP CR Seizure Peg Count	17/0
INUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
INUP Glare Condition - Far End in Control Peg Count	25/3
INUP Glare Peg Count	45/5
INUP Inbound Customer Dialed Vacant Code	15/2
INUP Inbound Operator Dialed Vacant Code	15/2
INUP Incoming CNI Ring Failure Peg Count	45/0
INUP Incoming CNI Ring Overflow Peg Count	45/0
INUP Incoming Irregularity Before Answer Peg Count	36/0
INUP Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
INUP Incomplete Address Detected Peg Count	36/0
INUP Initial Address Message (IAM) Glare Peg Count	45/5
INUP Integrity Check Failure Peg Count	25/3
INUP Line Out-of-Service (LOS) Signals Received Peg Count	45/3
INUP Maintenance Usage	25/11
INUP Miscellaneous Ineffective Attempts Peg Count	11/4
INUP Miscellaneous Timeout Peg Count	36/0
INUP No Circuit Available (NCA) Signals Received Peg Count	45/3
INUP No Circuit Available (NCA) Signals Received While Waiting For Answer Peg Count	45/3
INUP No Start Dial Peg Count	25/3
INUP Origination CR Queue Abandon Peg Count	17/0
INUP Origination CR Queue Seizure Peg Count	17/0
INUP Origination CR Queue Usage	17/0
INUP Other Abandons Peg Count	11/4
INUP Outgoing CNI Ring Failure Peg Count	45/0
INUP Outgoing CNI Ring Overflow Peg Count	45/0
INUP Outgoing Irregularity Before Answer Peg Count	36/0
INUP Outgoing Miscellaneous Failure Peg Count	11/4
INUP Outgoing Unexpected Message Peg Count	45/0
INUP Pulsing Error Peg Count	25/1
INUP Resets Received Peg Count	45/0
INUP Subscriber Busy (SB) Signals Received While Waiting For Answer Peg Count	45/3
INUP Switching Equipment Congestion Peg Count	11/4
INUP Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
INUP Switching Equipment Congestion (SEC) Signals Received While Waiting For Answer Peg Count	45/3
INUP Temporary Failure (TFL) Signals Received While Waiting For Answer Peg Count	45/3
INUP Total Office False Start Abandon Peg Count	7/0
INUP Total Office Incoming Attempts Peg Count	5/4
INUP Total Office Miscellaneous Abandon Peg Count	11/4
INUP Total Office Outgoing Attempts Peg Count	5/5
INUP Total Office Partial Dial Abandon Peg Count	7/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
INUP Total Office Partial Dial Timeout Peg Count	7/0
INUP Total Office Permanent Signal Timeout Peg Count	7/0
INUP Transceiver Overflow Peg Count	2/0
INUP Transit Vacant Code	15/2
INUP Unblocking Message Received Peg Count	45/0
INUP Unexpected Stop Peg Count	25/3
INUP Unexpected Stop Timeout Peg Count	25/3
INUP Unreasonable Signal Received Peg Count	36/0
Invalid Incoming ATME Test Call Peg Count	25/15
INWATS Band Check Peg Count	11/2
INWATS Blocked by Signaling Link Congestion	49/0
INWATS CCIS Failure: Network Blockage	49/0
INWATS CCIS Failure: Network Congestion	49/0
INWATS CCIS Failure: No Translation Data	49/0
INWATS Network Management Messages Received Peg Count	49/0
INWATS Queries Sent Peg Count	49/0
IOC Control Area False Start Abandon Peg Count	25/1
IOC Control Area Partial Dial Abandon Peg Count	25/1
IOC Control Area Partial Dial Timeout Peg Count	25/1
IOC Control Area Permanent Signal Timeout Peg Count	25/1
IOC Control Area Summation False Start Abandon Peg Count	36/1
IOC Control Area Summation Miscellaneous Abandon Peg Count	36/4
IOC Control Area Summation Partial Dial Abandon Peg Count	36/2
IOC Control Area Summation Partial Dial Timeout Peg Count	36/2
IOC Control Area Summation Permanent Signal Timeout Peg Count	36/1
IOC Control Area Summation Pulsing Error Peg Count	36/2
IOC Miscellaneous Abandon Peg Count	25/2
IOC Operator No Circuit-Domestic	15/1
IOC Operator No Circuit-International	15/1
IOC Operator Outgoing Attempts	15/1
IOC Pulsing Error Peg Count	25/1
IOC Total Office False Start Abandon Peg Count	7/0
IOC Total Office Partial Dial Abandon Peg Count	7/0
IOC Total Office Partial Dial Timeout Peg Count	7/0
IOC Total Office Permanent Signal Timeout Peg Count	7/0
IOUC Accumulated Maintenance Usage	23/1
IOUC Diagnostics Manually Requested - All Tests Passed Peg Count	46/1
IOUC Diagnostics Manually Requested Peg Count	46/1
IOUC Diagnostics Program Requested - All Tests Passed Peg Count	46/1
IOUC Diagnostics Program Requested Peg Count	46/1
IOUC Errors Peg Count	46/1
IOUC Located Faults Peg Count	46/1
IOUC Non-located Peg Count	46/1
IOUS Accumulated Maintenance Usage	23/1
IOUS Diagnostics Manually Requested - All Tests Passed Peg Count	46/1
IOUS Diagnostics Manually Requested Peg Count	46/1
IOUS Diagnostics Program Requested - All Tests Passed Peg Count	46/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
IOUS Diagnostics Program Requested Peg Count	46/1
IOUS Errors Peg Count	46/1
IOUS Located Faults Peg Count	46/1
IOUS Non-located Peg Count	46/1
ISUP 2-Wire Incoming Seizures	5/1
ISUP 4-Wire Incoming Seizures	5/1
ISUP ATP Dropped Due to Internal Loss Peg Count	45/6
ISUP ATP Dropped Due to Length Peg Count	45/6
ISUP Completion of Transmission Path CR Release Peg Count	17/0
ISUP Completion of Transmission Path CR Seize Peg Count	17/0
ISUP Confusion Message Received Peg Count	45/0
ISUP Confusion Message Sent Peg Count	45/0
ISUP Continuity Failure Peg Count	36/0
ISUP Continuity Timeout Peg Count	36/0
ISUP Continuity/Polarity Test Failure Peg Count	25/3
ISUP Control Area False Start Abandon Peg Count	25/1
ISUP Control Area Miscellaneous Abandon Peg Count	25/2
ISUP Control Area Partial Dial Abandon Peg Count	25/1
ISUP Control Area Partial Dial Timeout Peg Count	25/1
ISUP Control Area Permanent Signal Timeout Peg Count	25/1
ISUP Control Area Summation False Start Abandon Peg Count	36/1
ISUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
ISUP Control Area Summation Partial Dial Abandon Peg Count	36/2
ISUP Control Area Summation Partial Dial Timeout Peg Count	36/2
ISUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
ISUP Control Area Summation Pulsing Error Peg Count	36/2
ISUP CR Seizure Peg Count	17/0
ISUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
ISUP Glare Condition - Far End in Control Peg Count	25/3
ISUP Incoming Attempts Peg Count	25/5
ISUP Incoming CNI Ring Failure Peg Count	45/0
ISUP Incoming CNI Ring Overflow Peg Count	45/0
ISUP Incomplete Address Detected Peg Count	36/0
ISUP Integrity Check Failure Peg Count	25/3
ISUP Maintenance Usage	25/5
ISUP Miscellaneous Ineffective Attempts Peg Count	11/4
ISUP Miscellaneous Timeout Peg Count	36/0
ISUP No Start Dial Peg Count	25/3
ISUP Origination CR Queue Abandon Peg Count	17/0
ISUP Origination CR Queue Overflow Peg Count	17/0
ISUP Origination CR Queue Seizure Peg Count	17/0
ISUP Origination CR Queue Usage	17/0
ISUP Other Abandons Peg Count	11/4
ISUP Outgoing Attempts Peg Count	25/5
ISUP Outgoing CNI Ring Failure Peg Count	45/0
ISUP Outgoing CNI Ring Overflow Peg Count	45/0
ISUP Outgoing Seizures	5/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ISUP Outgoing Unexpected Message Peg Count	45/0
ISUP Pulsing Error Peg Count	25/1
ISUP Resets Received Peg Count	45/0
ISUP Switching Equipment Congestion Peg Count	11/4
ISUP Total Office False Start Abandon Peg Count	7/0
ISUP Total Office Miscellaneous Abandon Peg Count	11/4
ISUP Total Office Partial Dial Abandon Peg Count	7/0
ISUP Total Office Partial Dial Timeout Peg Count	7/0
ISUP Total Office Permanent Signal Timeout Peg Count	7/0
ISUP Transceiver Overflow Peg Count	2/0
ISUP Unexpected Stop Peg Count	25/3
ISUP Unexpected Stop Timeout Peg Count	25/3
ISUP Unreasonable Signal Received Peg Count	36/0
ISUP Unsuccessful Backward Setup Received Peg Count	45/0
ISUP UUI Dropped Due to Internal Loss Peg Count	45/6
ISUP UUI Dropped Due to Length Peg Count	45/6
ITUP Address Complete Signal Timeout Peg Count	36/4
ITUP Call Failure (CFL) Received While Waiting For Answer Peg Count	45/3
ITUP Circuit Group Congestion (CGC) Received While Waiting For Answer Peg Count	45/3
ITUP Circuit Group Congestion (CGC) Signals Received Peg Count	45/3
ITUP Continuity Check Failure Final Trial Group Peg Count	36/4
ITUP Continuity Check Request (CCR) Glare Peg Count	45/5
ITUP Continuity Failure Peg Count	36/0
ITUP Continuity Timeout Peg Count	36/0
ITUP Continuity/Polarity Test Failure Peg Count	25/3
ITUP Control Area False Start Abandon Peg Count	25/1
ITUP Control Area Incoming Attempts Peg Count	25/11
ITUP Control Area Miscellaneous Abandon Peg Count	25/2
ITUP Control Area Outgoing Attempts Peg Count	25/11
ITUP Control Area Partial Dial Abandon Peg Count	25/1
ITUP Control Area Partial Dial Timeout Peg Count	25/1
ITUP Control Area Permanent Signal Timeout Peg Count	25/1
ITUP Control Area Summation False Start Abandon Peg Count	36/1
ITUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
ITUP Control Area Summation Partial Dial Abandon Peg Count	36/2
ITUP Control Area Summation Partial Dial Timeout Peg Count	36/2
ITUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
ITUP Control Area Summation Pulsing Error Peg Count	36/2
ITUP CR Queue Overflow Peg Count	17/0
ITUP CR Seizure Peg Count	17/0
ITUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
ITUP Glare Condition - Far End in Control Peg Count	25/3
ITUP Glare Peg Count	45/5
ITUP Inbound Customer Dialed Vacant Code	15/2
ITUP Inbound Operator Dialed Vacant Code	15/2
ITUP Incoming CNI Ring Failure Peg Count	45/0
ITUP Incoming CNI Ring Overflow Peg Count	45/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ITUP Incoming Irregularity Before Answer Peg Count	36/0
ITUP Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
ITUP Incomplete Address Detected (IAD) Call Irregularity Peg Count	45/5
ITUP Initial Address Message (IAM) Glare Peg Count	45/5
ITUP Integrity Check Failure Peg Count	25/3
ITUP Line Out-of-Service (LOS) Signals Received Peg Count	45/3
ITUP Maintenance Usage	25/11
ITUP Miscellaneous Ineffective Attempts Peg Count	11/4
ITUP Miscellaneous Timeout Peg Count	36/0
ITUP National Network Congestion (NNC) Signals Received Peg Count	45/3
ITUP National Network Congestion (NNC) While Waiting For Answer Peg Count	45/3
ITUP No Start Dial Peg Count	25/3
ITUP Origination CR Queue Abandon Peg Count	17/0
ITUP Origination CR Queue Seizure Peg Count	17/0
ITUP Origination CR Queue Usage	17/0
ITUP Other Abandons Peg Count	11/4
ITUP Outgoing CNI Ring Failure Peg Count	45/0
ITUP Outgoing CNI Ring Overflow Peg Count	45/0
ITUP Outgoing Irregularity Before Answer Peg Count	36/0
ITUP Outgoing Miscellaneous Failure Peg Count	11/4
ITUP Outgoing Unexpected Message Peg Count	45/0
ITUP Pulsing Error Peg Count	25/1
ITUP Resets Received Peg Count	45/0
ITUP Subscriber Busy (SSB) Signals Received Peg Count	45/3
ITUP Switching Equipment Congestion Peg Count	11/4
ITUP Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
ITUP Total Office False Start Abandon Peg Count	7/0
ITUP Total Office Incoming Attempts Peg Count	5/4
ITUP Total Office Miscellaneous Abandon Peg Count	11/4
ITUP Total Office Outgoing Attempts Peg Count	5/5
ITUP Total Office Partial Dial Abandon Peg Count	7/0
ITUP Total Office Partial Dial Timeout Peg Count	7/0
ITUP Total Office Permanent Signal Timeout Peg Count	7/0
ITUP Transceiver Overflow Peg Count	2/0
ITUP Transit Vacant Code	15/2
ITUP Unblocking Message Received Peg Count	45/0
ITUP Unexpected Stop Peg Count	25/3
ITUP Unexpected Stop Timeout Peg Count	25/3
ITUP Unreasonable Signal Received Peg Count	36/0
Large Scale Nail-Up Intra-Buffer Count	4/0
LATA/STATE Screening Index Failure Peg Count	11/2
Link 1 Message Register Returned Peg Count	56/3
Link 1 Return Register Threshold Exceeded Peg Count	56/3
Link 2 Message Register Returned Peg Count	56/3
Link 2 Return Register Threshold Exceeded Peg Count	56/3
Load Level 1 Overload Control Peg Count	9/1
Load Level 2 Overload Control Peg Count	9/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Load Level 3 Overload Control Peg Count	9/1
Local IOC Originating Operator Incoming Attempts Going To Domestic or International Domain	15/1
Maintenance Interjects Voiceband Interface Peg Count	20/1
Maintenance Test Access Circuit Usage	25/10
Major Alarms Peg Count	20/2
Manual Network Management Controls	13/CIN
MAS - BOC-SSP Calls Blocked Peg Count	49/0
MAS - Calls Routed To A Cut-Through Number Peg Count	51/0-63
MAS - Calls Routed To An Announcement Peg Count	51/0-63
MAS - Data On Disk Peg Count	36/10
MAS - Geographic Attempts Matrix Completion Peg Count	54/0-31
MAS - Hardware Duplex Failed Peg Count	36/10
MAS - Looping Through Translate All Digits Peg Count	36/10
MAS - No Vacant Announcement Peg Count	36/10
MAS - Path Hunt Peg Count	36/10
MAS - Per-Announcement Attempts Peg Count	50/0-511
MAS - Per-Announcement Connect To Audio Peg Count	50/0-511
MAS - Per-Announcement Overflow Peg Count	50/0-511
MAS - Per-Announcement Usage	50/0-511
MAS - TELEVOTE Slave Dialed Number	53/0-127
MAS - Total Calls (Votes) to a TELEVOTE Slave Dialed Number Peg Count	53/0-127
MAS - Totals of the TELEVOTE Counts Received Peg Count	52/0-127
MAS and Expanded Announcements Accumulated Maintenance Usage	23/3
MAS Attempts Peg Count	56/0-2
MAS Cutthru Peg Count	56/0-2
MAS or Expanded Ann. A Overflow Peg Count	0/2
MAS or Expanded Ann. A Seizure Peg Count	0/2
MAS or Expanded Ann. A Service Usage	0/2
MAS or Expanded Ann. B Overflow Peg Count	0/2
MAS or Expanded Ann. B Seizure Peg Count	0/2
MAS or Expanded Ann. B Service Usage	0/2
MAS or Expanded Ann. Maintenance Usage	0/2
MC1 CCIS Duration	21/3
MC1 CCIS Peg Count	21/3
MC1 DP Duration	21/3
MC1 DP Peg Count	21/3
MC1 MF Duration	21/3
MC1 MF Peg Count	21/3
MC1 Real Time Duration	21/3
MC1 Real Time Peg Count	21/3
MC2 CCIS Duration	21/3
MC2 CCIS Peg Count	21/3
MC2 DP Duration	21/3
MC2 DP Peg Count	21/3
MC2 MF Duration	21/3
MC2 MF Peg Count	21/3
MC2 Real Time Duration	21/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MC2 Real Time Peg Count	21/3
MCC Accumulated Maintenance Usage	23/1
MCC Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
MCC Diagnostics Manually Requested Peg Count	46/0
MCC Diagnostics Program Requested - All Tests Passed Peg Count	46/0
MCC Diagnostics Program Requested Peg Count	46/0
MCC Errors Peg Count	46/0
MCC Located Faults Peg Count	46/0
MCC Non-located Peg Count	46/0
MF CR Seizure Peg Count	17/0
MF Equipment CAMA ANI Failure - Information Digit Error Peg Count	25/1
MF Equipment CAMA ANI Failure Peg Count	25/1
MF Equipment CAMA ANI Office Failure Peg Count	25/1
MF Equipment CAMA Disconnect Timeout Peg Count	25/2
MF Equipment CAMA Seizure Timeout Peg Count	25/2
MF Equipment Continuity/Polarity Test Failure Peg Count	25/3
MF Equipment Control Area False Start Abandon Peg Count	25/1
MF Equipment Control Area Partial Dial Abandon Peg Count	25/1
MF Equipment Control Area Partial Dial Timeout Peg Count	25/1
MF Equipment Control Area Permanent Signal Timeout Peg Count	25/1
MF Equipment Control Area Summation False Start Abandon Peg Count	36/1
MF Equipment Control Area Summation Miscellaneous Abandon Peg Count	36/4
MF Equipment Control Area Summation Partial Dial Abandon Peg Count	36/2
MF Equipment Control Area Summation Partial Dial Timeout Peg Count	36/2
MF Equipment Control Area Summation Permanent Signal Timeout Peg Count	36/1
MF Equipment Control Area Summation Pulsing Error Peg Count	36/2
MF Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
MF Equipment Glare Condition - Far End in Control Peg Count	25/3
MF Equipment Incoming Attempts Peg Count	25/5
MF Equipment Integrity Check Failure Peg Count	25/3
MF Equipment Maintenance Usage	25/5
MF Equipment Miscellaneous Abandon Peg Count	25/2
MF Equipment No Start Dial Peg Count	25/3
MF Equipment Outgoing Attempts Peg Count	25/5
MF Equipment Pulsing Error Peg Count	25/1
MF Equipment Total Office CAMA ANI Failure - Information Digit Error Peg Count	36/3
MF Equipment Total Office CAMA ANI Failure Peg Count	36/3
MF Equipment Total Office CAMA ANI Office Failure Peg Count	36/3
MF Equipment Total Office False Start Abandon Peg Count	7/0
MF Equipment Total Office Partial Dial Abandon Peg Count	7/0
MF Equipment Total Office Partial Dial Timeout Peg Count	7/0
MF Equipment Total Office Permanent Signal Timeout Peg Count	7/0
MF Equipment Unexpected Stop Peg Count	25/3
MF Equipment Unexpected Stop Timeout Peg Count	25/3
MF Incoming Seizure Peg Count	5/1
MF Origination Queue Abandon Peg Count	17/0
MF Origination Queue Seizure Peg Count	17/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MF Origination Queue Usage	17/0
MF Outpulsing Attempts Peg Count	5/2
MF Receiver Accumulated Maintenance Usage	23/3
MF Receiver Located Faults Peg Count	46/6
MF Receiver Maintenance Usage	1/0
MF Receiver Non-located Peg Count	46/6
MF Receiver Seizure Peg Count	1/0
MF Receiver Service Usage	1/0
MF Receiver Test Circuit Maintenance Busy Occupancy	35/0
MF Receiver Test Circuit Total Usage	35/1
MF Transmitter Accumulated Maintenance Usage	23/3
MF Transmitter Errors Final Trial Group Peg Count	36/4
MF Transmitter Located Faults Peg Count	46/6
MF Transmitter Maintenance Usage	0/2
MF Transmitter Non-located Peg Count	46/6
MF Transmitter Queue Entry Attempts Peg Count	0/0
MF Transmitter Queue Entry Failure Peg Count	0/0
MF Transmitter Queue Entry Failure Peg Count	11/5
MF Transmitter Queue Entry Time Usage	0/0
MF Transmitter Queue Overflow Peg Count	11/5
MF Transmitter Queue Seizure Peg Count	0/0
MF Transmitter Queue Usage	0/0
MF Transmitter Seizure Peg Count	0/2
MF Transmitter Service Usage	0/2
MF Transmitter Test Circuit Maintenance Busy Occupancy	35/0
MF Transmitter Test Circuit Total Usage	35/1
MF Transmitter Test Self-Check Fail Peg Count	35/1
Minor Alarms Peg Count	20/2
Miscellaneous call Irregularities Final Trial Failure Peg Count	36/7
Miscellaneous Connecting Ineffective Attempts Peg Count	11/4
Miscellaneous CR Seizure Peg Count	17/0
Miscellaneous Outgoing Ineffective Attempts Peg Count	11/4
Misrouted CAMA Peg Count	18/0
Misrouted Direct Signaling Messages Received Peg Count	49/1
Missed 3B Collections Peg Count	16/1
Monitor QIC Passed - Suspected Transmit Path Failure Restoral Peg Count	45/7
Multiple Scan Points Active Peg Count	25/16
NCLK Accumulated Maintenance Usage	23/2
NCLK Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
NCLK Diagnostics Manually Requested Peg Count	46/5
NCLK Diagnostics Program Requested - All Tests Passed Peg Count	46/5
NCLK Diagnostics Program Requested Peg Count	46/5
NCLK Errors Peg Count	46/5
NCLK Located Faults Peg Count	46/5
NCLK Non-located Peg Count	46/5
NCLK Service Outage Usage	23/2
NCSU Accumulated Maintenance Usage	23/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
NCSU Alternate Frequency Offset Peg Count	5/6
NCSU Alternate Phase Errors Peg Count	5/6
NCSU Alternate Phase Hits Peg Count	5/6
NCSU Alternate Reference OOS Duration	5/6
NCSU Alternate Reference OOS Peg Count	5/6
NCSU Alternate Reference Outage Duration	5/6
NCSU Alternate Reference Outage Peg Count	5/6
NCSU Alternate Transmission Slips Peg Count	5/6
NCSU Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
NCSU Diagnostics Manually Requested Peg Count	46/5
NCSU Diagnostics Program Requested - All Tests Passed Peg Count	46/5
NCSU Diagnostics Program Requested Peg Count	46/5
NCSU Errors Peg Count	46/5
NCSU Free Run Duration	5/6
NCSU Free Run Less Than 10 Minutes Peg Count	5/6
NCSU Free Run Peg Count	5/6
NCSU Located Faults Peg Count	46/5
NCSU Non-located Peg Count	46/5
NCSU Regular Frequency Offset Peg Count	5/6
NCSU Regular Phase Errors Peg Count	5/6
NCSU Regular Phase Hits Peg Count	5/6
NCSU Regular Reference OOS Duration	5/6
NCSU Regular Reference OOS Peg Count	5/6
NCSU Regular Reference Outage Duration	5/6
NCSU Regular Reference Outage Peg Count	5/6
NCSU Regular Transmission Slips Peg Count	5/6
NCSU Service Outage Usage	23/2
NCSU Total Fast Start Timeout Peg Count	5/6
NCSU Total Fast Starts Duration	5/6
NCSU Total Fast Starts Peg Count	5/6
NCSU Total Phase Hits Peg Count	5/6
NCSU Total Transfer to Alternate Duration	5/6
NCSU Total Transfer to Alternate Peg Count	5/6
Network Accumulated Maintenance Usage	23/0
Network Cal Denial Replies With Deny Codes Peg Count	49/0
Network Call Denial Blocked Queries From CCS Abnormal Replies Control Peg Count	49/0
Network Call Denial Blocked Queries From Congestion Peg Count	49/0
Network Call Denial Blocked Queries From Overload Peg Count	49/0
Network Call Denial Initial Query Peg Count	49/0
Network Call Denial Queries Returned Due to CCS Network Block Replies Peg Count	49/0
Network Call Denial Queries Returned Due to CCS Network Overload Replies	49/0
Network Call Denial Queries Returned Due to Miscellaneous Replies Peg Count	49/0
Network Call Denial Queries Returned Due to No Routing Data Peg Count	49/0
Network Call Denial Queries Returned Due to Overload Peg Count	49/0
Network Call Denial Replies With Deny Code After Answer Supervision Peg Count	49/0
Network Call Denial Replies With Deny Code Before Answer Supervision Peg Count	49/0
Network Call Denial Replies With Invalid Data Peg Count	49/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Network Management Blocked: Direct Signaling Control	49/0
Network Management Blocked: INWATS Code Control	49/0
Network Management Control Rollbacks Peg Count	21/2
Network Management Controls Invoked Peg Count	21/2
Network Path Hunt Failure Peg Count	4/0
Network Path Hunt Success Peg Count	4/0
Network Total Usage	4/0
No Auxiliary Call Register	49/0
No Circuit Intertoll Peg Count	11/1
No Circuit Private Branch Exchange Peg Count	11/1
No Circuit Single Trunk Customer Peg Count	11/1
No Circuit Toll Completing Peg Count	11/1
No Start Dial Final Trial Group Peg Count	36/4
No Trunks Hunted	9/1
Non-Call Associated Temporary Signaling Connection (TSC) Attempt	5/1
Non-Call Associated Temporary Signaling Connection (TSC) Successes	5/0
Non-Confirmed Transmit Path Failure Carrier Alarm Peg Count	45/7
Non-Load MAC Overload Control Peg Count	9/1
Non-Load No Overload Control Peg Count	9/1
Non-Load Segment Overload Control Peg Count	9/1
NSC Received on International Outbound Call Using CCIS Overflow Trunk Subgroup	15/2
NSCX Maintenance Usage	0/2
NSCX Overflow Peg Count	0/2
NSCX Seizure Peg Count	0/2
NSCX Service Usage	0/2
NSCX Set S Accumulated Maintenance Usage	23/3
NTC Received on International Outbound Call Using CCIS Overflow Trunk Subgroup	15/2
Number Of Recent Changes Activated Peg Count	21/1
ODTMF Transmitter Queue Entry Failures	0/0
ODTMF Transmitter Queue Seizure Peg Count	0/0
ODTMF Transmitter Queue Usage	0/0
ODTMF Transmitter Queue Wait	0/0
ODTMFWK Outgoing Seizure Peg Count	5/1
OMR Overflow Peg Count	16/0
OMR Seizure Peg Count	16/0
OMR Usage	16/0
ONI Calls Peg Count	19/0
Operational Interject Data Unit Selector Peg Count	20/1
Operator Processed CAMA Calls Peg Count	19/0
Originating International Call Incoming From a Domestic Satellite	15/3
Originating INWATS Denied Peg Count	11/2
Other Errors - Continuity/Polarity Test Failures Peg Count	36/4
Other Errors - MF Transmitter Outpulsing Errors Peg Count	36/4
Other Errors - No XCVR, Final Trial Failure	36/4
Outbound Customer Dialed Call Peg Count	15/2
Outbound Customer Dialed Call, Voice Path Cancellation Peg Count	15/2
Outbound International Operator Peg Count	15/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Outbound International Operator, Voice Path Cancellation Peg Count	15/2
Outbound International Teleconferencing Peg Count	15/2
Outbound International Teleconferencing, Voice Path Cancellation Peg Count	15/2
Outbound International Toll-Free Peg Count	15/2
Outbound International Toll-Free, Voice Path Cancellation Peg Count	15/2
Outgoing Address Complete Signal Timeout Peg Count	36/9
Outgoing Answer Signal Units Peg Count	14/0-255
Outgoing Attempts Peg Count	13/CIN
Outgoing Direct Signaling Signal Units Peg Count	14/0-255
Outgoing Domestic CCIS Call Attempts	37/0
Outgoing Domestic DP Call Attempts	37/0
Outgoing Domestic ISUP Call Attempts	37/0
Outgoing Domestic MF Call Attempts	37/0
Outgoing Domestic Q.931 Call Attempts	37/0
Outgoing IAM Peg Count	14/0-255
Outgoing International CCITT No. 5 Call Attempts	37/1
Outgoing International CCITT No. 6 Call Attempts	37/1
Outgoing International INUP Call Attempts	37/1
Outgoing International ITUP Call Attempts	37/1
Outgoing Transitions Peg Count	14/0-255
Out-of-Chain Routed Calls Failed	11/3
Out-of-Chain Routed Calls Received	11/3
Out-Of-Service Blocking Received (CCIS Trunks) from Far End Office Peg Count	25/4
Out-Of-Service Carrier Group Alarm Peg Count	25/4
Out-Of-Service Continuity Check Retest Failure Peg Count	25/4
Out-Of-Service Equipment Failure, VIU, DTU, ESU Peg Count	25/4
Out-Of-Service Error Analysis Suspected Failure Peg Count	25/4
Out-Of-Service High and Wet Peg Count	25/4
Out-Of-Service Manual Request Peg Count	25/4
Out-Of-Service Operational Test Failure Peg Count	25/4
Out-Of-Service ROTL Request Peg Count	25/4
Out-Of-Service Total Signaling Failure Peg Count (CCIS trunk only)	25/4
Outpulsing Failures Peg Count	11/0
Output Message Failure Peg Count	16/0
Output Message Success Peg Count	16/0
OUTWATS Non-purchased NPA Peg Count	49/0
OUTWATS Originating Calls Peg Count	5/0
Overflow Peg Count	13/CIN
Partial Dial Abandon Peg Count	7/0
Partial Dial Timeout Peg Count	7/0
PBX Reorders Peg Count	11/4
PCP 1A to DLN Failure to Send Query Peg Count	57/0
PCP 1+SACDS Due to Invalid Service Code Received	57/0
PCP 1+SACDS Initial Attempt Failed in Receipt of Service Code	57/0
PCP BN(ANI) Query Attempt CNT for DC and SA LDS	57/0
PCP BN(ANI) Query Attempt CNT for SA WATS	57/0
PCP BN(ANI) Query Attempt Count for MEGACOM and DC WATS	57/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
PCP BN(ANI) Subscribed to Some PCP Feature for DC and SA LDS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for MEGACOM and DC WATS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for SA WATS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for LDS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for MEGACOM and DC WATS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for SA WATS	57/0
PCP Call Killed Due to DTMF Receiver Queue Overload Count	57/0
PCP Call Subjected to Excessive Delay Count (i.e. Wait on DTMF Receiver Queue >= 2 seconds)	57/0
PCP Calls with SAN Account Code Validation Successful	57/0
PCP CDS Attempts for Which Failure to Reseize Receiver Occurred	57/0
PCP DLN to 1A No Reply From DLN Peg Count	57/0
PCP DTMF Queue Abandon Peg Count	57/0
PCP DTMF Queue Accumulated Occupancy Count	57/0
PCP DTMF Queue Seizure Peg Count	57/0
PCP FAX ID Calls Identified as Using FAX FPR	57/0
PCP FAX S&F Attempts for Which Failure to Seize Receiver Occurs	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for LDS	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for MEGACOM and DC WATS	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for SA WATS	57/0
PCP FAX S&F DTMF Receiver Timeout in Wait for ANS State	57/0
PCP FAX S&F Initial Attempt Fail in Receipt of Service Code	57/0
PCP FAX S&F Successfully Attempted Routing to a FAX S&F Node	57/0
PCP Handled Customer Specific Recording Successfully for LDS	57/0
PCP Handled Customer Specific Recording Successfully for MEGACOM and DC WATS	57/0
PCP Handled Customer Specific Recording Successfully for SA WATS	57/0
PCP Handled Dedicated FAX ID Successfully for LDS	57/0
PCP Handled Dedicated FAX ID Successfully for MEGACOM and DC WATS	57/0
PCP Handled Dedicated FAX ID Successfully for SA WATS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for LDS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for MEGACOM and DC WATS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for SA WATS	57/0
PCP MUVF CTI Collected Successfully for LDS	57/0
PCP MUVF CTI Collected Successfully for MEGACOM and DC WATS	57/0
PCP MUVF CTI Collected Successfully for SA WATS	57/0
PCP MUVF Initial Attempt Failed in Receipt of CTI	57/0
PCP Receiver Holding Time in Sec for 1+SACDS	57/0
PCP Receiver Holding Time in Sec for FAX S&F	57/0
PCP Receiver Holding Time in Sec for MUVF	57/0
PCP Receiver Holding Time in Sec for SAN	57/0
PCP SAB Call Denied Due to Improper Collection for LDS	57/0
PCP SAB Call Denied Due to Improper Collection for MEGACOM and DC WATS	57/0
PCP SAB Call Denied Due to Improper Collection for SA WATS	57/0
PCP SAB Calls Allowed to Complete with No SAN Received	57/0
PCP SAB Calls Allowed to Complete with SAN Received and it was Mandatory	57/0
PCP SAB Calls Allowed to Complete with SAN Received and it was Optional	57/0
PCP SAN Denied - none entered and was mandatory	57/0
PCP SAN No Data in DLN Peg Count	57/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
PCP SAN Validation Success Peg Count	57/0
PCP Subaccount Number Collected Successfully for LDS	57/0
PCP Subaccount Number Collected Successfully for MEGACOM and DC WATS	57/0
PCP Subaccount Number Collected Successfully for SA WATS	57/0
PCP Subaccount Number Initial Attempt Failed Count	57/0
PCP TOTAL 1+SACDS Attempts to Seize a Receiver	57/0
PCP TOTAL 1+SACDS Successfully Attempted Routing to VMOC	57/0
PCP Total MUVF Calls Identified as Being FAX	57/0
PCP Total SAN Account Code Verification Failures	57/0
PCP Using 2NCP/NSCX Peg Count	57/0
PDF Accumulated Maintenance Usage	23/1
PDF Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
PDF Diagnostics Manually Requested Peg Count	46/0
PDF Diagnostics Program Requested - All Tests Passed Peg Count	46/0
PDF Diagnostics Program Requested Peg Count	46/0
PDF Errors Peg Count	46/0
PDF Located Faults Peg Count	46/0
PDF Non-located Peg Count	46/0
Permanent Signal Timeout Peg Count	7/0
Persisting Proceed-To-Send Signal Peg Count	25/16
Persisting Release Guard Signal Peg Count	25/16
Phase 1 Manually Initiated Peg Count	21/0
Phase 1 Program Initiated Peg Count	21/0
Phase 2 Manually Initiated Peg Count	21/0
Phase 2 Program Initiated Peg Count	21/0
Phase 3 Manually Initiated Peg Count	21/0
Phase 3 Program Initiated Peg Count	21/0
Phase 4 Manually Initiated Peg Count	21/0
Phase Level Duration Count	21/0
Play Announcement Message from SCP Peg Count	49/0
Power Room Major Alarms Peg Count	20/2
Power Room Minor Alarms Peg Count	20/2
Preferred Call Attempts Peg Count	13/CIN
Proceed-To-Send Signal Timeout Peg Count	25/16
Processor Accumulated Maintenance Usage	23/0
PS Accumulated Maintenance Usage	23/1
PS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
PS Diagnostics Manually Requested Peg Count	46/0
PS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
PS Diagnostics Program Requested Peg Count	46/0
PS Errors Peg Count	46/0
PS Located Faults Peg Count	46/0
PS Non-located Peg Count	46/0
PSB Accumulated Maintenance Usage	23/1
PSB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
PSB Diagnostics Manually Requested Peg Count	46/2
PSB Diagnostics Program Requested - All Tests Passed Peg Count	46/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
PSB Diagnostics Program Requested Peg Count	46/2
PSB Errors Peg Count	46/2
PSB Located Faults Peg Count	46/2
PSB Non-located Peg Count	46/2
Pseudo Country Code No Good Peg Count	5/5
PUB Accumulated Maintenance Usage	23/1
PUB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
PUB Diagnostics Manually Requested Peg Count	46/2
PUB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
PUB Diagnostics Program Requested Peg Count	46/2
PUB Errors Peg Count	46/2
PUB Located Faults Peg Count	46/2
PUB Non-located Peg Count	46/2
Q.931 Channel Negotiation (CN) Failures On Originating TSG	49/0
Q.931 Channel Negotiation (CN) Request Failures From Other TSG	49/0
Q.931 Channel Negotiation (CN) Request Failures To Another TSG	49/0
Q.931 Channel Negotiation (CN) Requests From Other TSG	49/0
Q.931 Channel Negotiation (CN) Requests on Original TSG	49/0
Q.931 Channel Negotiation (CN) Requests to Another TSG	49/0
Q.931 Channel Negotiation Setup	5/1
Q.931 Confusion Received Peg Count	45/0
Q.931 Confusion Transmitted Peg Count	45/0
Q.931 Continuity/Polarity Test Failure Peg Count	25/3
Q.931 Control Area False Start Abandon Peg Count	25/1
Q.931 Control Area Partial Dial Abandon Peg Count	25/1
Q.931 Control Area Partial Dial Timeout Peg Count	25/1
Q.931 Control Area Permanent Signal Timeout Peg Count	25/1
Q.931 Control Area Summation False Start Abandon Peg Count	36/1
Q.931 Control Area Summation Miscellaneous Abandon Peg Count	36/4
Q.931 Control Area Summation Partial Dial Abandon Peg Count	36/2
Q.931 Control Area Summation Partial Dial Timeout Peg Count	36/2
Q.931 Control Area Summation Permanent Signal Timeout Peg Count	36/1
Q.931 Control Area Summation Pulsing Error Peg Count	36/2
Q.931 CR Seizure Peg Count	17/0
Q.931 Glare Condition - 4ESS Switch in Control Peg Count	25/3
Q.931 Glare Condition - Far End in Control Peg Count	25/3
Q.931 Incoming Attempts Peg Count	25/5
Q.931 Incoming CNI Ring Buffer Overflow Peg Count	45/0
Q.931 Incoming CNI Ring Failure Peg Count	45/0
Q.931 Incoming Seizures	5/1
Q.931 Incomplete Address Detected Peg Count	36/0
Q.931 Information Element Error Detected Peg Count	36/0
Q.931 Integrity Check Failure Peg Count	25/3
Q.931 Maintenance Usage	25/5
Q.931 Miscellaneous Abandon Peg Count	25/2
Q.931 Miscellaneous Ineffective Attempts Peg Count	11/4
Q.931 No Start Dial Peg Count	25/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Q.931 Origination CR Queue Abandon Peg Count	17/0
Q.931 Origination CR Queue Overflow Peg Count	17/0
Q.931 Origination CR Queue Seizure Peg Count	17/0
Q.931 Origination CR Queue Usage	17/0
Q.931 Other Abandons Peg Count	11/4
Q.931 Outgoing Attempts Peg Count	25/5
Q.931 Outgoing CNI Ring Failure Peg Count	45/0
Q.931 Outgoing CNI Ring Overflow Peg Count	45/0
Q.931 Outgoing Seizures	5/1
Q.931 Pulsing Error Peg Count	25/1
Q.931 Resets Received Peg Count	45/0
Q.931 Switching Cutoffs Peg Count	11/4
Q.931 Total Office False Start Abandon Peg Count	7/0
Q.931 Total Office Partial Dial Abandon Peg Count	7/0
Q.931 Total Office Partial Dial Timeout Peg Count	7/0
Q.931 Total Office Permanent Signal Timeout Peg Count	7/0
Q.931 Unexpected Stop Peg Count	25/3
Q.931 Unexpected Stop Timeout Peg Count	25/3
Q.931 Unreasonable Signal Received Peg Count	36/0
Quick Integrity Check Routine Operational Tests Attempted Peg Count	25/9
Quick Integrity Check Routine Operational Tests Failed Peg Count	25/9
Quick Integrity Check Routine Operational Tests Passed Peg Count	25/9
Real-Time Overload Retry Cancel Peg Count	36/4
Received Repeated ACU Peg Count	14/0-255
Received Skipped ACU Peg Count	14/0-255
Recorded Announcement Machine Located Faults Peg Count	35/1
Recorded Announcement Machine Maintenance Busy Occupancy	35/0
Recorded Announcement Machine Non-located Faults Peg Count	35/1
Registers From Attendant Peg Count	56/0-2
Reject Message Returned from SCP Peg Count	49/0
Release-Guard Signal Timeout Peg Count	25/16
Remote Office Test Line Maintenance Busy Occupancy	35/0
Remote Office Test Line Seizure Attempts Peg Count	35/1
Remote Office Test Line Seizure Overflow Peg Count	35/1
Remote Office Test Line Self-Check Fail Peg Count	35/1
Remote Office Test Line Total Usage	35/1
Reroute To Seizure Peg Count	13/CIN
Response from SCP After Query Timer Timeout Peg Count	49/0
Retest QIC Failed - Non-Confirmed Transmit Path Failure Restoral Peg Count	45/7
Return Error Returned from SCP Peg Count	49/0
Ringing and Tone Plant Located Faults Peg Counts	35/1
Ringing and Tone Plant Maintenance Busy Occupancy	35/0
Ringing and Tone Plant Non-located Faults Peg Count	35/1
Route Selection Index Screening Failure Peg Count	11/2
Routing Data Error	11/4
RTNR Egress Busy Crankback Received Peg Count	45/0
RTNR Egress Busy Crankbacks Sent Peg Count	45/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
RTNR Queries Received Peg Count	45/0
RTNR Queries Sent Peg Count	45/0
SCLK Accumulated Maintenance Usage	23/2
SCLK Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
SCLK Diagnostics Manually Requested Peg Count	46/5
SCLK Diagnostics Program Requested - All Tests Passed Peg Count	46/5
SCLK Diagnostics Program Requested Peg Count	46/5
SCLK Errors Peg Count	46/5
SCLK Located Faults Peg Count	46/5
SCLK Non-located Peg Count	46/5
SCLK Service Outage Usage	23/2
SCP Overload Blocked BOC-SSP Calls Peg Count	49/0
SCS Errors Peg Count	24/2
SCU Errors Peg Count	24/2
Second Stage Equal Access Failure Peg Count	15/0
Second Stage International Attempts	15/0
Second Stage International Vacant Codes	15/0
Second Stage MF Receiver Queue Abandon Peg Count	17/1
Second Stage MF Receiver Queue Seizure Peg Count	17/1
Second Stage MF Receiver Queue Usage	17/1
Seizing Signal Timeout Final Trial Failure Peg Count	36/8
Seizing Signal Timeout Peg Count	25/16
Selective Dynamic Overload Control Blocked Peg Count	11/3
Selective Dynamic Overload Control Canceled Peg Count	11/3
Selective Dynamic Overload Control Skipped Peg Count	11/3
Selective Incoming Load Control Peg Count	21/2
Selective Incoming Load Control	13/CIN
Selective Trunk Reservation Canceled Peg Count	11/3
Selective Trunk Reservation Control Blocked Peg Count	11/3
Selective Trunk Reservation Skipped Peg Count	11/3
Service Circuits Accumulated Maintenance Usage	23/0
Service Observing Network Usage	4/1
Service Observing Trunk A Seizure Peg Count	5/7
Service Observing Trunk A Usage	5/7
Signaling Network Final Trial Failures Peg Count	36/7
SMS Blocked BOC-SSP Call Peg Count	49/0
Software CGA Initial Tests Failure Peg Count	45/1
Software CGA Initial Tests Pass Peg Count	45/1
Software CGA Monitor Tests Pass Peg Count	45/1
Software CGA Restoral Tests Failure Peg Count	45/1
Software CGA Restoral Tests Pass Peg Count	45/1
SP Accumulated Maintenance Usage	24/1
SP Accumulated Outage	24/1
SP Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
SP Diagnostics Manually Requested Peg Count	24/2
SP Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SP Diagnostics Program Requested Peg Count	24/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
SP Errors Peg Count	24/2
SP Located Faults Peg Count	24/2
SP Non-located Faults Peg Count	24/2
SPC Number	12/0
Spray Reroute Attempts	13/CIN
Spray Reroute Calls Received	13/CIN
Spray Reroute Failures	13/CIN
Stable Calls Lost, Carrier Group Failure Peg Count	5/3
Stable Calls Lost Due to a Phase Peg Count	36/6
Stable Calls Lost Due to DIU Peg Count	36/6
Stable Calls Lost Due to DTU Peg Count	36/6
Stable Calls Lost Due to ESU Peg Count	36/6
Stable Calls Lost Due to SCS Peg Count	36/6
Stable Calls Lost Due to VIU Peg Count	36/6
Start of Pulsing Timeout Peg Count	25/16
Status Failure Attached Processor Peg Count	20/1
Step by Step Test Routine Operational Tests Attempted Peg Count	25/9
Step by Step Test Routine Operational Tests Failed Peg Count	25/9
Step by Step Test Routine Operational Tests Passed Peg Count	25/9
Successful INWATS Replies Peg Count	49/0
Synchronous Test Routine Operational Tests Attempted Peg Count	25/9
Synchronous Test Routine Operational Tests Failed Peg Count	25/9
Synchronous Test Routine Operational Tests Passed Peg Count	25/9
TELEVOTE CCIS Direct Signaling Counts Not Updated	5/9
TER Accumulated Maintenance Usage	23/2
TER Service Outage Usage	23/2
Terminal Equipment Accumulated Maintenance Usage	24/0
Terminal Maintenance Occupancy	14/0-255
Terminal Pair Outage	14/0-255
Terminal Type Identifier	14/0-255
Termination Notification Messages Lost Peg Count	49/1
Test Access Circuit Origination Peg Count	25/10
TGR Accumulated Maintenance Usage	23/2
TGR Service Outage Usage	23/2
Threshold Exceeded Peg Counts	14/0-255
Threshold Exceeded Time in Seconds	14/0-255
Timeout Peg Count	25/16
Timeout Waiting for SCP Response Peg Count	49/0
Timeouts Peg Count	56/0-2
TMS Accumulated Maintenance Usage	23/2
TMS Service Outage Usage	23/2
TMSP Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
TMSP Diagnostics Manually Requested Peg Count	46/3
TMSP Diagnostics Program Requested - All Tests Passed Peg Count	46/3
TMSP Diagnostics Program Requested Peg Count	46/3
TMSP Errors Peg Count	46/3
TMSP Located Faults Peg Count	46/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
TMSP Non-located Peg Count	46/3
Total Attempts That Overflow to Terminating Test Line 100	25/8
Total Attempts That Overflow to Terminating Test Line 102	25/8
Total Attempts That Overflow to Terminating Test Line 103	25/8
Total Attempts That Overflow to Terminating Test Line 104	25/8
Total Attempts That Overflow to Terminating Test Line 105	25/8
Total Attempts That Overflow to Terminating Test Line 106	25/8
Total Attempts That Overflow to Terminating Test Line 107	25/8
Total Attempts That Overflow to Terminating Test Line 108	25/8
Total Attempts That Overflow to Terminating Test Line 109	25/8
Total Attempts That Overflow to Terminating Test Line 110	25/8
Total Attempts That Overflow to Terminating Test Line DATA	25/8
Total Attempts That Overflow to Terminating Test Line SYNCHRONOUS	25/8
Total Attempts to PAS Announcements	5/8
Total Attempts to Terminating Test Line 100	25/8
Total Attempts to Terminating Test Line 102	25/8
Total Attempts to Terminating Test Line 103	25/8
Total Attempts to Terminating Test Line 104	25/8
Total Attempts to Terminating Test Line 105	25/8
Total Attempts to Terminating Test Line 106	25/8
Total Attempts to Terminating Test Line 107	25/8
Total Attempts to Terminating Test Line 108	25/8
Total Attempts to Terminating Test Line 109	25/8
Total Attempts to Terminating Test Line 110	25/8
Total Attempts to Terminating Test Line DATA	25/8
Total Attempts to Terminating Test Line SYNCHRONOUS	25/8
Total CAMA Calls Peg Count	19/0
Total CAMA Positions Seizure Peg Count	19/0
Total CAMA Positions Service Usage	19/0
Total Demand Audits Completed Peg Count	22/0
Total Demand Audits Errors Found Peg Count	22/1
Total Final Handled Calls Peg Count	56/0-2
Total Incoming Calls Peg Count	5/0
Total Incoming Data Filled Signal Units Peg Count	14/0-255
Total Incoming Messages Peg Count	14/0-255
Total Ineffective Machine Attempts Peg Count	25/0
Total INWATS Calls Reaching CCIS OSO Peg Count	49/0
Total Number of Bad Packets Received Peg Count	56/4
Total Number of Errored Commands Peg Count	56/4
Total Number of Framing and Overrun Errors Peg Count	56/4
Total Number of Good Packets Received Peg Count	56/4
Total Number of Inter-Gateway CRC Errors Peg Count	56/4
Total Number of Lost Messages Peg Count	56/4
Total Number of Messages Not Sent Between Gateways Peg Count	56/4
Total Number of Orders Peg Count	56/4
Total Number of Orders with Start of Call Indicator Set Peg Count	56/4
Total Number of Packets with CRC Errors Peg Count	56/4

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Total Number of Register Messages Failed to be Sent Peg Count	56/4
Total Number of Register Messages Not Sent due to Congestion Peg Count	56/4
Total Number of Register Messages Peg Count	56/4
Total Number of Register Messages That Did Not Receive a Release Complete Peg Count	56/4
Total Number of SADC Port Errors Peg Count	56/4
Total Number of Test Orders Sent Peg Count	56/4
Total Number of Times That Message Queue Overflowed Peg Count	56/4
Total Number of Times the Secondary Gateway was Used Peg Count	56/4
Total Number of Unacknowledged Register Messages Peg Count	56/4
Total Number of USEC CRC Errors Peg Count	56/4
Total of Multiple A-Level Interrupts Peg Count	20/0
Total of Multiple B-Level Interrupts Peg Count	20/0
Total of Multiple C-Level Interrupts Peg Count	20/0
Total of Multiple D-Level Interrupts Peg Count	20/0
Total of Multiple E-Level Interrupts Peg Count	20/0
Total of Multiple F-Level Interrupts Peg Count	20/0
Total of Multiple G-Level Interrupts Peg Count	20/0
Total of Single A-Level Interrupts Peg Count	20/0
Total of Single B-Level Interrupts Peg Count	20/0
Total of Single C-Level Interrupts Peg Count	20/0
Total of Single D-Level Interrupts Peg Count	20/0
Total of Single E-Level Interrupts Peg Count	20/0
Total of Single F-Level Interrupts Peg Count	20/0
Total of Single G-Level Interrupts Peg Count	20/0
Total of Single K-Level Interrupts Peg Count	20/0
Total Office Pulsing Error Peg Count	11/0
Total Outgoing Data Filled Signal Units Peg Count	14/0-255
Total Outgoing Intertoll Trunk Seizure Peg Count	5/0
Total Outgoing Messages Peg Count	14/0-255
Total Outgoing Toll Completing Trunk Seizure Peg Count	5/0
Total Routine Audits Completed Peg Count	22/0
Total Routine Audits Errors Found Peg Count	22/1
Total Terminating Toll Switch Calls	5/0
Total Test Access Circuit Usage	25/10
Total Type 2 Rollbacks Peg Count	21/1
Total Usage Measurement	13/CIN
Total Via Toll Switch Calls	5/0
Traffic Separation Class Seizure Peg Count	10/0-1023
Traffic Separation Class Usage	10/0-1023
Transaction ID in SCP Response Was Invalid Peg Count	49/0
Transient Calls Lost Due to a Phase Peg Count	36/6
Transient Calls Lost Due to DIU Peg Count	36/6
Transient Calls Lost Due to DTU Peg Count	36/6
Transient Calls Lost Due to ESU Peg Count	36/6
Transient Calls Lost Due to SCS Peg Count	36/6
Transient Calls Lost Due to VIU Peg Count	36/6
Transmitter Error Final Trial Failure Peg Count	36/8

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Transmitter Error Peg Count	25/16
Trunk Error Analysis Long Term Table Overflow For Signal Processor Peg Count	43/0-31
Trunk Error Analysis Report Buffer Overflow Peg Count	44/0
Trunk Error Analysis Second Stage Filter Overflow For Signal Processor Peg Count	42/0-31
Trunk Maintenance Register Overflow Peg Count	17/3
Trunk Maintenance Register Seizure Attempts Peg Count	35/3
Trunk Maintenance Register Seizure Overflow Peg Count	35/3
Trunk Maintenance Register Seizure Peg Count	17/3
Trunk Maintenance Register Usage	17/3
Trunk Maintenance Usage	25/0
Trunks Blocked Due To Far End Equipment Problems Peg Count	45/2
TSG Access Restriction Peg Count	11/3
TSI Accumulated Maintenance Usage	23/2
TSI Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
TSI Diagnostics Manually Requested Peg Count	46/3
TSI Diagnostics Program Requested - All Tests Passed Peg Count	46/3
TSI Diagnostics Program Requested Peg Count	46/3
TSI Errors Peg Count	46/3
TSI Located Faults Peg Count	46/3
TSI Non-located Peg Count	46/3
TSI Number	12/0
TSI Service Outage Usage	23/2
TSI Usage Measurement	12/0
TUC Accumulated Maintenance Usage	23/1
TUC Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
TUC Diagnostics Manually Requested Peg Count	46/0
TUC Diagnostics Program Requested - All Tests Passed Peg Count	46/0
TUC Diagnostics Program Requested Peg Count	46/0
TUC Errors Peg Count	46/0
TUC Located Faults Peg Count	46/0
TUC Non-located Peg Count	46/0
Two Stage EA Pulsing Errors	15/4
Two Stage MF Permanent Signal Timeout	15/4
Two Stage MF Receiver Not Found	15/4
Two Stage Partial Dial Timeout	15/4
Two Stage Permanent Signal Timeout	15/4
Two Stage Pulsing Errors	15/4
Two Stage VSS MF Receiver Not Found	15/4
Two Stage VSS Pulsing Errors	15/4
Unauthorized CAMA Peg Count	18/0
Unblocking Acknowledgement Timeout Peg Count	25/17
Undetermined Call ID in a Response from the SCP Which Contained Protocol Errors Peg Count	49/0
Unexpected Stop Failures Final Trial Group Peg Count	36/4
Unit Data Service Messages Returned by STP Peg Count	49/0
Unreasonable Signal Final Trial Failure Peg Count	36/8
Unreasonable Signal on an Idle CCITT No. 6 Trunk Peg Count	25/16
Unreasonable Signal on the Incoming Trunk Peg Count	25/16

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Unreasonable Signal on the Outgoing Trunk Peg Count	25/16
Unreasonable Signal Peg Count	25/16
Vacant Code Announcement Peg Count	11/2
Vacant Code Announcement Private Branch Exchange Peg Count	11/2
Vacant Code Announcement Q.931 Peg Count	11/2
Vacant Code/Non-Purchased NPA BOC-SSP Calls Blocked Due To Excess Calling Peg Count	49/0
Vendor Rejection Peg Count	56/0-2
VFL-1 Far-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-1 Near-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-1 Quarter Hour in Service Peg Count	14/0-255
VFL-1 Retransmission Requests Peg Count	14/0-255
VFL-1 Signal Units in Error Peg Count	14/0-255
VFL-2 Far-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-2 Near-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-2 Quarter Hour in Service Peg Count	14/0-255
VFL-2 Retransmission Requests Peg Count	14/0-255
VFL-2 Signal Units in Error Peg Count	14/0-255
VIC Accumulated Maintenance Usage	24/1
VIC Accumulated Outage	24/1
VIC Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
VIC Diagnostics Manually Requested Peg Count	24/2
VIC Diagnostics Program Requested - All Tests Passed Peg Count	24/2
VIC Diagnostics Program Requested Peg Count	24/2
VIC Errors Peg Count	24/2
VIC Located Faults Peg Count	24/2
VIC Non-located Faults Peg Count	24/2
VIU Accumulated Maintenance Usage	24/1
VIU Accumulated Outage	24/1
VIU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
VIU Diagnostics Manually Requested Peg Count	24/2
VIU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
VIU Diagnostics Program Requested Peg Count	24/2
VIU Errors Peg Count	24/2
VIU Located Faults Peg Count	24/2
VIU Non-located Faults Peg Count	24/2
Voice Path Assurance (VPA) Test Attempted Peg Count	25/6
Voice Path Assurance (VPA) Test Completed Peg Count	25/6
Voice Path Assurance (VPA) Test Failure Peg Count	25/6
Waiting-for-Answer Call Failure Peg Count	36/9
Waiting-for-Answer Timeout Peg Count	36/9

GENERAL DESCRIPTION
4ESS SWITCH TRAFFIC/PLANT MEASUREMENTS
4E18/4E19 GENERIC PROGRAM

1. INTRODUCTION

1.01 The 4ESS Switch traffic/plant measurement system is concerned with measuring the effects of the telephone traffic presented to the switching system and the effects of the maintenance condition of the system as they effect service provided to the customer. These measurements are used by engineering to verify that existing equipage is adequate for present needs and to predict future needs. These measurements are also used by Network Management to determine the control actions necessary to efficiently utilize the nationwide network and to evaluate the effects of the various control strategies. Finally, these measurements are used to locate equipment irregularities and evaluate the effectiveness of the office's maintenance procedures as compared to other toll switching systems.

1.02 This section is primarily intended to define the counts and measurements provided by the traffic/plant measurement system. Each Measurement Subclass (MSC) and all Output Measurement Sets (OMS) associated with the MSC are defined and tabled for easy reference.

2. TERMS and DEFINITIONS

2.01 The basic terms used with the 4ESS Switch traffic/plant measurement system are described in the following paragraphs.

2.02 Count - A count is the instantaneous value of a counter that is available for change by the main information processing programs of the switch. (For example, the contents of the outgoing Peg Count register for a specific Trunk Subgroup).

2.03 Measurement - a measurement is a function of a count that is obtained from the switch. An example would be the total usage measurement for one hour on a specified Trunk Subgroup. The function may be a count accumulated over a prescribed interval or an arithmetic combination of several counts accumulated over a prescribed interval.

2.04 Peg Count - A Peg Count is the count of the number of times a given event occurs.

2.05 Peg Counter - A Peg Counter is a register to which the number one is added each time a given event occurs.

2.06 Occupancy Count - An occupancy count is the count of the number of devices of a specified class that are busy (in service - in use - occupied) at any particular instant of time.

2.07 Occupancy Counter - An occupancy counter is the register to which the number 1 is added each time a device of a specified class is made busy, and from which the number 1 is subtracted each time a device of the same specified class is made idle. This counter reflects the occupancy count of the device group.

2.08 Idle Count - An idle count is the count of the number of devices of a specified class that are available for use at any particular instant of time. The idle count of a device group subtracted from the total number of devices in the group is the occupancy count of the group.

2.09 Idle Counter - An idle counter is a register from which the number 1 is subtracted each time a device of a specified class is made busy and to which the number 1 is added each time a device of the same class is made idle. This counter reflects the idle count of the device group.

2.10 Seizure and Release Peg Counters - The seizure Peg Counter is incremented by one each time a device of a specified class is seized for a service function. The release Peg Counter is incremented by one each time a device of the same specified class is made idle. Seizure and release Peg Counters are used to maintain the occupancy count of a device group. The release Peg Count of a device group subtracted from the seizure Peg Count of the same device group equals the occupancy count of that device group.

2.11 Peg Count Measurement - A Peg Count measurement is the Peg Count accumulated over a known interval.

2.12 Usage Measurement - A usage measurement is the total accumulated time the devices of a specified class have been in services (in use-busy) during a prescribed interval. Scan intervals for usage measurements are 10, 100 or 180 seconds, and usage is output in CCS.

2.13 CCS - 100 Call Seconds - This is the standard measurement unit for usage measurements in the 4ESS Switch. For example, five trunks busy for 30 minutes (1800 seconds) would be equal to a total usage of 9000 seconds or 90 CCS.

2.14 Accumulating Registers - This register has the contents of a counter added to it periodically to form a cumulative total over a prescribed interval of time.

2.15 Holding Registers - Measurements are stored in holding registers for fixed time periods. Extended interval accumulation and/or outputting of the measurement occurs from these registers.

2.16 Extended Interval Accumulating Registers - The contents of a set of holding registers is summed in this register periodically to form a cumulative total of a measurement over an extended interval of time.

3. THE TRAFFIC/PLANT PROGRAM

3.01 The traffic/plant program routines can be divided into two classes, measuring routines and data collection routines. The measuring routines generate the data from which the various measurements will be obtained. Data collection routines process this data into the measurements required by the users. The basic interval that these two classes of routines use to perform their tasks is 15 minutes (900 seconds). This is the smallest measuring interval available to the users.

The measuring routines are actively obtaining data on the traffic presented to the 4ESS Switch and the equipment in the office during a 15 minute interval. This activity is called the measuring phase of the traffic/plant program's execution. During the next 15 minute interval, the data collection routines process the data obtained during the previous interval into measurements and prepares them for output. This activity is the collection phase of the traffic/plant program's execution. To insure that all data presented to the 4ESS Switch is measured, measuring routines for the present interval and collection routines for the previous interval must execute concurrently.

3.02 Measuring Routines - Practically all the 4ESS Switch programs must, at some time, adjust Peg Counters, occupancy counters and idle counters. These programs are classified as measuring routines. It is not economical to time the busy period of each device requiring usage measurements. The usage is estimated by periodically sampling the occupancy counter or idle counter of the device group, and compiling this count in an accumulating register (during the measuring interval).

This produces an estimate of the actual usage because the measurements obtained assume that the average number of devices that are busy at each sampling is equal to the actual average number busy.

The accuracy of this usage estimate is dependent on the scanning interval, the size of the device group, the average holding time of the devices in the group, and the traffic offered to the group. Since these characteristics vary widely among the devices requiring usage measurements in the 4ESS Switch, and because there are different accuracy requirements for the devices, two scanning intervals have been provided. These intervals are 10 seconds and 180 seconds. They have been chosen to provide the accuracy required while remaining compatible with the rest of the traffic/plant measurement system.

In addition to usage, it is necessary to accumulate certain Peg Counts. Normally, Peg Counters are allowed to accumulate for the entire 15 minutes of measurement interval. However, in some instances, the sizes of the Peg Counters are not large enough to contain counts accumulated over this long an interval. Consequently, it is necessary to recycle those periodically during the measurement interval and transfer the count to larger accumulating registers. To allow for the accumulation of idle, occupancy and Peg Counts, 10 and 180 second accumulating scan routines and accumulating registers are provided.

3.03 Data Collection Routines

A. Measurement Data Collection Routine

To prepare a measurement output, it is first necessary to obtain a data base. This data base has been generated by the measuring routines, and resides in the various counters and accumulating registers. At the end of each measurement interval, the measurement data collection routines will read these counters and accumulating registers, store their contents in one of four blocks of holding registers (on disk) and then recycle the counters and accumulating registers to zero. The holding registers now contain one hours data in four quarter hour blocks that will be further processed into the measurement output.

B. Measurement Data Extended Interval Accumulation Routines

For users requiring measurements accumulated over extended intervals (intervals greater than one hour) it is necessary to provide additional data bases. This is done by accumulating the required data in extended interval accumulating registers provided for these users. This accumulation function is performed by the measurement data extended interval accumulation routines.

C. Measurement Data Output Routines

The data from which an output is generated is contained in the holding registers and in the users' extended interval accumulating registers. The 4ESS Switch measurement data output routines will process this data into a format that can be easily interpreted by the users, and will output the data on TTY, magnetic tape, and/or eventually over Data Link.

4. TRAFFIC/PLANT MEASUREMENT CLASSES

4.01 The Measurement Class - To help with the internal manipulation of data, the set of all traffic/plant measurements has been partitioned into Measurement Classes (MC). Related measurements are, in general, assigned to the same MC. For example, all the Trunk Subgroup measurements make up one MC. Associated with the MCs where required, are blocks of accumulating registers and holding registers on disk.

These MCs, and the associated measurements, are primary sources of data for the Measurement Subclasses (MSCs) and the Output Measurement Sets (OMSs). The MCs are internal and, as such, are not specified for output on the traffic/plant measurement report. All measurements that are available may be scheduled for output by specifying the MSC and the OMS. The minimum output that can be specified is one OMS. All the measurements in that OMS will be output.

4.02 Measurement Class Counter Blocks (MC-CBs) - The counters needed to generate the required measurements for a device group sometimes reside in the memory that is associated with the particular group. For example, many of the Trunk Subgroup (TSG) counters are located in the TSG head cell. However, in many instances there is no associated memory or the memory is not adequate to accommodate all the required counters. For these cases, separate memory blocks are provided for the counters. These memory blocks are assigned to particular MCs and contain only counters used to obtain measurements in a given MC. The memory blocks reside in core and are called MC Counter Blocks (MC-CB). When an MC-CB is generic and fixed in length, the starting address of the block is Compool (predefined by the program). Otherwise, the starting address is contained in a one word head table.

4.03 Measurement Class Accumulating Register Blocks (MC-ARBs) - Accumulating registers must be provided where usage estimates are desired and where Peg Counters are too small to cycle over the complete 15 minute measurement interval. MC Accumulating Register Blocks (MC-ARB's) are provided for those MCs where many accumulating registers are required. Five traffic MC-ARBs are required in the 4ESS Switch. Those blocks that are generic in length reside in the Compool defined section of disk. Those blocks whose length are office dependent reside in the measurements section of disk and are accessed by head tables.

4.04 Measurement Class Holding Register Blocks (MC-HRBs) - At the end of each measurement interval (15 minutes), the measurement data in accumulating registers and counters is stored in holding registers, and then the counters and accumulating registers are recycled to zero. In general, the holding registers are organized into blocks on disk. The blocks are arranged such that the measurement data needed to generate all the measurements in a particular MC accumulated over one 15 minute interval, is contained in one block. These blocks are called MC Holding Register Blocks (MC-HRB). Those blocks, which are generic in length, reside in Compool defined sections (predefined by the Generic Program) of disk. Those blocks whose length is office dependent are located in the measurements section of disk and are accessed by head tables.

There are four MC-HRBs (MC-HRB-0, MC-HRB-1, MC-HRB-2 and MC-HRB-3) associated with each MC. These four MC-HRBs are identical in layout and are used so that, at any instant, they will contain measurement data obtained by the measuring routines during the previous four measurement intervals. This allows measurement data to be recovered for the previous one hour. This organization provides the flexibility needed to accommodate the users' requirements for various measurement accumulation intervals.

Any user may request measurements accumulated over intervals of 15 minutes, 30 minutes, 45 minutes, or 60 minutes without the need of providing accumulating registers since the holding registers effectively do this function. Further information on traffic/plant output schedules will be contained in the section dealing with input and output schedules.

4.05 The Measurement Subclass - To simplify measurement accumulation and output processing and to conserve memory, all the Measurement Classes (MCs) are divided into subsets (which may, or may not, be used to form some of the same measurements) called Measurement Subclasses (MSCs). Within an MSC, all the measurements associated with a particular facility or entity are called an Output Measurement Set (OMS). When a user requests an output of measurements, he identifies those measurements by specifying an OMS within a MSC. The MSCs are defined to meet the users' needs and each has a specific output format for each type of output device used. The subclasses used in the 4ESS Switch and their output formats are described later in this section. The set of OMSs a user wished to accumulate and output make up a traffic schedule. An output schedule is specified by the accumulation interval, the output times, and a set of OMSs. The schedule parameters are input by the user via various traffic input messages.

All the measurements appearing on a particular schedule are accumulated over the same interval. Since the data in the MC-HRB is sufficient to generate measurements accumulated over periods of up to one

hour (in multiples of 15 minutes), extended interval accumulating registers need only be provided when accumulation intervals of greater than one hour are required. To ensure the independence of the schedules requiring them, extended interval accumulating registers are provided for their private use. Only enough extended interval accumulating registers are provided to accommodate the OMSs that a given schedule is designed to output.

5. MEASUREMENT SUBCLASS (MSC) DEFINITIONS

5.01 MSC-OMS Definitions

In the following Tables (00-63), all measurements available are identified by MSC and OMS. Each measurement is specifically defined in the order that it appears in the particular MSC and OMS. Also included is Figure 1, a listing of all the MSCs and OMSs with their titles and the number of counts in each. Figure 2 is an alphabetized listing of all the TRAFFIC/PLANT measurements and their appropriate MSC and OMS.

TABLE 00

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

```
MSC 0  MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD
OMS 0   MF XMTR, IDTS RCVR, AND ODTMFWK XMTR QUEUE-DOMESTIC
              ATT      FAIL      TIME     SZRE     ABAN     USAGE    Q-WAIT
MF XT           0         0         0        0        -         0         -
IDTS            -         -         0        0        0         0         -
ODTMF           -         0         -        0        -         0         0

OMS 1  CCITT5 QUEUE-INTERNATIONAL
Q  ENTRY FAIL         0

OMS 2   MF, DTMF XMTRS, NSCX AND MASFH CKTS
               MF   DTMF XMTR      NSCX        MSFHA        MSFHB
SEIZURE         0           0           0           0            0
SVC USAGE       0           0           0           0            0
OVERFLOW        -           -           0           0            0
MTC USAGE       0           0           0           0            -

OMS 3   BLUE BOX FRAUD
  OVERLOAD  ATTEMPTS  DETECTED    PERSIST     MFR SZ    MFR CCS
         0         0         0           0          0          0

OMS 4  CCS MESSAGE TABLE
  BLUE BOX   OVERFLOW    TIMEOUT   SUCCESS
         0          0          0         0
  BLACK BOX FRAUD
    FEN   RF RCVD
      0         0
      1         0
      2         0
      3         0
      4         0
      5         0
      6         0
      7         0
      8         0
      9         0
     10         0
     11         0
     12         0
     13         0
     14         0
     15         0
    BBP CANCELLED
              0
```

Description of Measurements for MSC 0

OMS 0

MF Transmitter Queue Entry Attempts

Peg Count
(MF XT ATT)

This counter will be incremented by the number of MF calls for which checks are made to determine if there is room on the MF Transmitter Queue.

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

MF Transmitter Queue Entry Failure
Peg Count
(MF XT FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to be on the MF Transmitter Queue is greater than the number of non-maintenance busy MF transmitters (same count as MSC 11 OMS 5).

MF Transmitter Queue Entry Time Usage
(MF XT TIME)

This counter will be incremented by the number of MF calls that are awaiting the start dial signal after having sent a seizure on the outgoing trunk. This occupancy count will be used to generate the MF start dial usage measurement, the total amount of time MF calls wait for start dial after sending seizure.

MF Transmitter Queue Seizure Peg Count
(MF XT SZRE)

This counter is incremented by one when a Call Register (CR) is linked on the MF Transmitter Queue.

MF Transmitter Queue Usage
(MF XT USAGE)

After each 10 second scan, this counter is incremented by the number of Call Registers linked to the queue. This data will be converted to CCS units by the traffic program before output.

IDTS Receiver Dial Tone Delay Time
Peg Count
(IDTS TIME)

This counter is incremented every time a seizure is received on an IDTS trunk and we are unable to supply an IDTS receiver within 2 seconds.

IDTS Receiver Queue Seizure Peg Count
(IDTS SZRE)

This counter is incremented by one when a TR is linked to the IDTS Receiver Queue.

IDTS Receiver Queue Abandon Peg Count
(IDTS ABAN)

This counter is incremented by one each time the TR of a call that is abandoned is unlinked from the IDTS Receiver Queue.

IDTS Receiver Queue Usage
(IDTS USAGE)

After each 10-second scan, this counter is incremented by the number of trunk registers linked to the queue. This data will be converted to CCS units by the Traffic Program before output.

ODTMF Transmitter Queue Entry Failures
(ODTMF FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the DTMF Transmitter Queue, plus the number of calls waiting to be on the DTMF Transmitter Queue is greater than the number of non-maintenance busy DTMF Transmitters.

ODTMF Transmitter Queue Seizure Peg
Count
(ODTMF SZRE)

This counter is incremented by one when a Call Register is linked to the DTMF Transmitter Queue.

ODTMF Transmitter Queue Usage
(ODTMF USAGE)

After each 10-second scan, this counter is incremented by the number of Call Registers linked to the queue. This data will be converted to CCS units by the Traffic Program before output.

ODTMF Transmitter Queue Wait
(ODTMF Q-WAIT)

This counter is incremented when a Call Register is placed in a waiting to queue state and decremented when a Call Register is taken off the state.

OMS 1

CCITT No. 5 Queue Entry Failure
Peg Count
(Q ENTRY FAIL)

This counter is incremented by one when a call is sent to final handling treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to be on the MF Transmitter Queue is greater than the number of non-maintenance busy MF Transmitters. This counter corresponds to the Domestic MF Transmitter queue Entry Failure. The MF Transmitter Queue is shared by both Domestic and international traffic.

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

OMS 2

MF Transmitter Seizure Peg Count
(MF SEIZURE)

This counter is incremented by one when an idle MF Transmitter is made service busy. This is done by writing a service busy state code in the Transmitter Trunk Register (TR). The MF Transmitter seizure Peg Count reflects not only the number of MF outgoing calls, but also the number of successful reattempts to seize an MF Transmitter for calls that have experienced ineffective attempts during outpulsing.

DTMF Transmitter Seizure Peg Count
(DTMF XMTR SEIZURE)

This counter is incremented by one for each DTMF transmitter that is busy.

NSCX Seizure Peg Count
(NSCX SEIZURE)

This counter is incremented by one when an idle NSCX SET S circuit is made service busy.

MAS or Expanded Ann. A Seizure Peg Count
(MSFHA SEIZURE)

This counter is incremented by one when a MAS or expanded announcement "A" circuit is made busy.

MAS or Expanded Ann. B Seizure Peg Count
(MSFHB SEIZURE)

This counter is incremented by one when a MAS or expanded announcement "B" circuit is made busy.

MF Transmitter Service Usage
(MF SVC USAGE)

After each 10 second scan, this counter will be incremented by the number of MF Transmitters found service busy. This data will be converted to CCS units by the traffic program before output.

DTMF Transmitter Service Usage
(DTMF XMTR SVC USAGE)

This counter is incremented after each ten-second scan by the number of DTMF transmitters found service busy. This data is converted to CCS units by the traffic program before output.

NSCX Service Usage
(NSCX SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of NSCX SET S circuits found service busy. The data will be converted to CCS units by the traffic program before output.

MAS or Expanded Ann. A Service Usage
(MSFHA SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of MSFHA circuits found service busy. The data will be coverted to CCS units by the traffic program before output.

MAS or Expanded Ann. B Service Usage
(MSFHB SVC USAGE)

After each 10-second scan, this counter will be incremented by the number of MSFHB circuits found service busy. The data will be converted to CCS units by the traffic program before output.

NSCX Overflow Peg Count
(NSCX OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of NSCX SET S circuit requests not fulfilled.

MAS or Expanded Ann. A Overflow
Peg Count
(MSFHA OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of MAS or expanded announcement "A" circuit requests not fulfilled.

MAS or Expanded Ann. B Overflow
Peg Count
(MSFHB OVERFLOW)

After each 10-second scan period, this counter is incremented by the number of MAS or expanded announcement "B" circuit requests not fulfilled.

MF Transmitter Maintenance Usage
(MF MTC USAGE)

After each 10 second scan period, this counter will be incremented by the number of MF Transmitters found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

DTMF Transmitter Maintenance Usage
(DTMF MTC USAGE)

TABLE 00 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 0
(MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD)

After each 10-second scan period, this counter will be incremented by the number of DTMF transmitters found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

NSCX Maintenance Usage
(NSCX MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of NSCX SET S circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

MAS or Expanded Ann. Maintenance Usage
(MSFHA MTC USAGE)

After each 10-second scan period, this counter will be incremented by the number of MAS or expanded announcement "A" circuits found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

OMS 3

Blue Box Fraud Overload
(OVERLOAD)

This counter will be incremented if the Blue Box MF Receiver queue is full, or no receivers are allocated.

Blue Box Fraud Attempts
(ATTEMPTS)

This counter is incremented whenever a fraud call is suspected (i.e., on reception of an unexpected post address wink).

Blue Box Fraud Detected
(DETECTED)

This counter is incremented when on a suspect call, four MF digits are received.

Blue Box Fraud Persisting
(PERSIST)

This count is incremented when an attempted fraud call persists for five minutes.

Blue Box Fraud MF Receiver Seizure
(MFR SZ)

This count is incremented when an MF Receiver is to be used by fraud prevention.

Blue Box Fraud MF Receiver Occupancy
(MFR CCS)

This count is updated every 10 seconds to give Fraud MF Receiver usage.

OMS 4

CCS Message Table Blue Box Attempts
Peg Count
(BLUE BOX)

This counter is incremented whenever a fraud call is suspected on a Teleconferencing request (i.e, when the second stage call identification cannot be found in the Common Channel Signaling (CCS) message table.

CCS Message Table Overflow Peg Count
(OVERFLOW)

This counter is incremented whenever a CCS message is received from TSPS to load into the CCS Message Table and no room is available.

CCS Message Table Timeout Peg Count
(TIMEOUT)

This counter is incremented when an entry in the CCS Message Table does not receive the subsequent second stage MF digit ID within 15 seconds.

CCS Message Table Success Peg Count
(SUCCESS)

This counter is incremented when the second stage MF digit ID is found in the CCS Message Table.

Black Box Fraud Ring Forwards Received
(RF RCVD)

These counters, which are broken down by the Far End Network (FEN), are incremented each time a ring forward signal is received.

Black Box Fraud Prevention Canceled
(BBP CANCELLED)

On receipt of a ring forward signal from an operator, black box fraud prevention is canceled to allow the operator to service a call.

TABLE 01

OUTPUT MEASUREMENT SETS FOR MSC 1
(MF RCVR AND DTMF RCVR)

```
MSC 1 MF RCVR AND DTMF RCVR
OMS 0
                MF RCVR    DTMF RCVR
SZRE                  0            0
SVC USAGE             0            0
MTCE USAGE            0            0
```

Description of Measurements for MSC 1

OMS 0

MF Receiver Seizure Peg Count
(MF RCVR SZRE)

This counter is incremented by one when an idle MF Receiver is made busy. This is done by writing a service busy state code in the receiver's Trunk Register (TR).

DTMF Receiver Seizure Peg Count
(DTMF SZRE)

This counter is incremented by one when an idle DTMF Receiver is made busy. This is done by writing a service busy code in the Receiver Trunk Register.

MF Receiver Service Usage
(MF RCVR SCV USAGE)

This counter is incremented, after each 10 second scan, by the number of MF Receivers found service busy. This data will be converted to CCS units by the traffic program before output.

DTMF Receiver Service Circuit Usage
(DTMF SVC USAGE)

This counter is incremented, after each 10-second scan, by the number of DTMF Receivers found service busy. This data will be converted to CCS units by the traffic program before output.

MF Receiver Maintenance Usage
(MF RCVR MTCE USAGE)

After each 10 second scan this counter will be incremented by the number of MF Receivers found maintenance busy. This data will be converted to CCS units by the traffic program before output.

DTMF Receiver Maintenance Usage
(DTMF RCVR MTCE USAGE)

After each 10-second scan, this counter will be incremented by the number of DTMF receivers found maintenance busy. This data will be converted to CCS units by the traffic program before output.

TABLE 02

OUTPUT MEASUREMENT SETS FOR MSC 2
(CCIS, ISUP, ITUP AND INUP XCVR)

```
MSC 2  CCIS, ISUP, ITUP AND INUP XCVR
OMS 0
                    SVC       MTCE
          SZRE      USAGE     USAGE     OVFL
XCVR           0         0         0         0

VPA CANC  ISUP XCVR OVFL  ITUP XCVR OVFL  INUP XCVR OVFL
       0          0               0               0
```

Description of Measurements for MSC 2

OMS 0

CCIS Transceiver Seizure Peg Count
(XCVR SZRE)

This counter is incremented by one when an idle CCIS Transceiver is made busy by writing a service state code in the transceivers Trunk Register (TR).

CCIS Transceiver Service Usage
(XCVR SVC USAGE)

After each 10 second scan, this register is incremented by the number of CCIS Transceivers found service busy. This data will be converted to CCS units by the traffic program before output.

CCIS Transceiver Maintenance Usage
(XCVR MTCE USAGE)

This counter is incremented by the number of CCIS Transceivers found maintenance busy after each 10 second scan period. This data will be converted to CCS units by the traffic program before output.

CCIS Transceiver Overflow Peg Count
(XCVR OVFL)

This counter is incremented by one when a hunt for an idle CCIS Transceiver fails because there are no idle Transceivers in the group.

CCIS VPA Cancellation and Path Hunt
Peg Count
(VPA CANC)

Each call will increment this counter by one when the Voice Path Assurance (VPA) test on a CCIS outgoing trunk is canceled because of the current level of overload control. This counter is also incremented when a network path between the CCIS Transceiver and the outgoing trunk can not be found.

ISUP Transceiver Overflow Peg Count
(ISUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle CCS7 Transceiver fails because there are no idle transceivers in the group.

ITUP Transceiver Overflow Peg Count
(ITUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle International Transceiver fails because there are no idle Transceivers in the group.

INUP Transceiver Overflow Peg Count
(INUP XCVR OVFL)

This counter is incremented by one when a hunt for an idle International Transceiver fails because there are no idle transceivers in the group.

TABLE 03

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

MSC 3 OMS	ANCMT CKT TYPE	SZRE	USAGE	OVFL
0	xxx	0	-	-
1	xxx	0	-	-
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
30	xxx	0	-	-
31	xxx	0	-	-
32	TSI 0	-	0	0
	TSI 1	-	0	0
	TSI 2	-	0	0
	TSI 3	-	0	0
	TSI 4	-	0	0
	TSI 5	-	0	0
	TSI 6	-	0	0
	TSI 7	-	0	0
	TSI 8	-	0	0
	TSI 9	-	0	0
	TSI 10	-	0	0
	TSI 11	-	0	0
	TSI 12	-	0	0
	TSI 13	-	0	0
	TSI 14	-	0	0
	TSI 15	-	0	0
33	xxx	0	-	-
34	xxx	0	-	-
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
159	xxx	0	-	-
160	xxx	0	-	-

Description for Measurements for MSC 3

OMS 0-31

Announcement or Tone Group Seizure
Peg Count
(SZRE)

When a path through the network between an incoming trunk and an announcement or tone group has been seized and connected, this counter is incremented by one. The Output Measurement Set (OMS) number will be equal to the announcement or tone group number and the TYPE code is the 1-, 2-, or 3-character code shown below. The following is a list of each OMS and the associated announcement or tone type for announcements on the Recorded Announcement Frame.

OMS 0 - Unassigned (***)

OMS 1 - Audible Ring (AR)

OMS 2 - 120 IPM Tone (T)

OMS 3 - 60 IPM Busy Tone (BT)

OMS 4 - Test Progress Tone (TPT)

OMS 5 - 1000 hz. Milliwatt Test Tone (MW)

OMS 6 - No Circuit Announcement (NCA)

OMS 7 - Vacant Code Announcement (VCA)

OMS 8 - Reorder Announcement (ROA)

OMS 9 - Emergency Announcement No. 1 (EA1)

OMS 10 - Emergency Announcement No. 2 (EA2)

OMS 11 - Special Announcement No. 1 (SP1)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 12 - Special Announcement No. 2 (SP2)

OMS 13 - Idle Wet (IDL)

OMS 14 - High and Wet (HW)

OMS 15 - Idle No Guard Timing (ING)

OMS 16 - 10DB 1004 HZ Test Tone (M10)

OMS 17 - Unassigned (***)

OMS 18 - Misrouted Non-CAMA (MCA)

OMS 19 - No Circuit to Carrier (NCC)

OMS 20 - No Wink to Carrier (NWC)

OMS 21 - INWATS Out-Of-Band Announcement (OOB)

OMS 22 - Emergency Announcement Number 6 (EA6)

OMS 23 - Emergency Announcement Number 3 (EA3)

OMS 24 - Emergency Announcement Number 4 (EA4)

OMS 25 - Network Call Denial (NCD)

OMS 26 - Emergency Announcement Number 7 (EA7)

OMS 27 - All Circuits Busy to Foreign Country (INC)

OMS 28 - Vacant Code on International Call (IVC)

OMS 29 - Emergency Announcement Number 5 (EA5)

OMS 30 - International Foreign Failure (IFF)

OMS 31 - Unassigned (***)

OMS 32

The following two counts are maintained for each dedicated TSI. Each PAS announcement in a MAS office will be assigned to an announcement separation class from 0 to 31. At most one announcement may be assigned to each of the classes 1 to 31. Any number of announcements may be assigned to class 0.

Dedicated TSI Usage
(TSI USAGE)

Every 100 seconds the occupancy of the TSI's dedicated to announcements and tones is accumulated. This data is converted into CCS units by the traffic program before output.

Dedicated TSI Overflow Peg Count
(TSI OVFL)

This counter is incremented by one when an attempt to establish a network connection between an incoming trunk connection and an idle announcement or tone circuit fails because there is no available time slot in the TSI.

OMS 33-160

Announcement or Tone Group Seizure
Peg Count
(SZRE)

When a path through the network between an incoming trunk and an announcement or tone group has been seized and connected, this counter is incremented by one. The Output Measurement Set (OMS) number will be equal to the announcement or tone group number and the TYPE code is the 1-, 2-, or 3-character code shown below. The following is a list of each OMS and the associated announcement or tone type for announcements on the Service Circuit System (SCS) frame. (The first 32 announcements on the SCS are the same as the 32 announcements on the RAF.)

OMS 33 - Unassigned (***)

OMS 34 - Audible Ring (AR)

OMS 35 - 120 IPM Tone (T)

OMS 36 - 60 IPM Busy Tone (BT)

OMS 37 - Test Progress Tone (TPT)

OMS 38 - 1000 hz. Milliwatt Test Tone (MW)

OMS 39 - No Circuit Announcement (NCA)

OMS 40 - Vacant Code Announcement (VCA)

OMS 41 - Reorder Announcement (ROA)

OMS 42 - Emergency Announcement No. 1 (EA1)

OMS 43 - Emergency Announcement No. 2 (EA2)

OMS 44 - Special Announcement No. 1 (SP1)

OMS 45 - Special Announcement No. 2 (SP2)

OMS 46 - Idle Wet (IDL)

OMS 47 - High and Wet (HW)

OMS 48 - Idle No Guard Timing (ING)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 49 - 10DB 1004 HZ Test Tone (M10)

OMS 50 - Unassigned (***)

OMS 51 - Misrouted Non-CAMA (MCA)

OMS 52 - No Circuit to Carrier (NCC)

OMS 53 - No Wink to Carrier (NWC)

OMS 54 - INWATS Out-Of-Band Announcement (OOB)

OMS 55 - Emergency Announcement Number 6 (EA6)

OMS 56 - Emergency Announcement Number 3 (EA3)

OMS 57 - Emergency Announcement Number 4 (EA4)

OMS 58 - Network Call Denial (NCD)

OMS 59 - Emergency Announcement Number 7 (EA7)

OMS 60 - All Circuits Busy to Foreign Country (INC)

OMS 61 - Vacant Code on International Call (IVC)

OMS 62 - Emergency Announcement Number 5 (EA5)

OMS 63 - International Foreign Failure (IFF)

OMS 64 - Unassigned (***)

OMS 65 - Service Not Active (SNA)

OMS 66 - Vacant MAS Announcement (VMA)

OMS 67 - HICAP Out of Time Slot (OTS)

OMS 68 - SUN Transit Outage (STO)

OMS 69 - Vacant 800 Number (NWN)

OMS 70 - Disconnected 800 Number (DNN)

OMS 71 - Temporarily Disconnected 800 Number (TDN)

OMS 72 - INFO 1 ANI Failure (INF)

OMS 73 - LEC EGRESS Busy (NCB)

OMS 74 - Waiting For Answer Timeout (WAT)

OMS 75 - Intra-LATA Call Screening (LSA)

OMS 76 - LEC MAS Service (OOA)

OMS 77 - 700-555-4141 (LDV)

OMS 78 - Logging on Busy (LOB)

OMS 79 - SS7 (UNN)

OMS 80 - Spare (S19)

OMS 81 - SS7 (DOO)

OMS 82- International Subscriber Busy (ISB)

OMS 83 - Emergency Situation (E01)

OMS 84 - Severe Weather (E02)

OMS 85 - Facility Trouble (E03)

OMS 86 - Local Company Trouble (E04)

OMS 87 - Airplane Crash (E05)

OMS 88 - Hurricane (E06)

OMS 89 - Flood (E07)

OMS 90 - Tornado (E08)

OMS 91 - Forest Fire (E09)

OMS 92 - Earthquake (E10)

OMS 93 - Mudslide (E11)

OMS 94 - Major Network Outage (E12)

OMS 95 - Reserved Domestic Network Management (E13)

OMS 96 - Reserved Domestic Network Management (E14)

OMS 97 - Reserved Domestic Network Management (E15)

OMS 98 - Reserved Domestic Network Management (E16)

OMS 99 - Reserved Domestic Network Management (E17)

OMS 100 - Reserved Domestic Network Management (E18)

OMS 101 - Reserved Domestic Network Management (E19)

OMS 102 - Reserved Domestic Network Management (E20)

OMS 103 - Domestic (R01)

OMS 104 - Domestic (R02)

OMS 105 - Domestic (R03)

OMS 106 - Domestic (R04)

TABLE 03 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 3
(ANNOUNCEMENT CIRCUITS AND DEDICATED TSI)

OMS 107 - Domestic (R05)

OMS 108 - Domestic (R06)

OMS 109 - Domestic (R07)

OMS 110 - Domestic (R08)

OMS 111 - Domestic (R09)

OMS 112 - Domestic (R10)

OMS 113 - International Emergency Situation (I01)

OMS 114 - International Severe Weather (I02)

OMS 115 - International Telephone Company (I03)

OMS 116 - International Airplane Crash (I04)

OMS 117 - International Earthquake (I05)

OMS 118 - International Mudslide (I06)

OMS 119 - International Fire (I07)

OMS 120 - Reserved International Network Management (I08)

OMS 121 - International Direct Dialing Suspended (I09)

OMS 122 - International Direct Dialing Test (I10)

OMS 123 - International (I11)

OMS 124 - International (I12)

OMS 125 - International (I13)

OMS 126 - International (I14)

OMS 127 - International (I15)

OMS 128 - International (I16)

OMS 129 - International (I17)

OMS 130 - International (I18)

OMS 131 - International (I19)

OMS 132 - International (I20)

OMS 133 - International (I21)

OMS 134 - International (I22)

OMS 135 - International (I23)

OMS 136 - Reserved International Network Management (I24)

OMS 137 - Reserved International Network Management (I25)

OMS 138 - Reserved International Network Management (I26)

OMS 139 - Reserved International Network Management (I27)

OMS 140 - Reserved International Network Management (I28)

OMS 141 - Reserved International Network Management (I29)

OMS 142 - Reserved International Network Management (I30)

OMS 143 - Spare (S01)

OMS 144 - Spare (S02)

OMS 145 - Spare (S03)

OMS 146 - Spare (S04)

OMS 147 - Spare (S05)

OMS 148 - Spare (S06)

OMS 149 - Spare (S07)

OMS 150 - Spare (S08)

OMS 151 - Spare (S09)

OMS 152 - Spare (S10)

OMS 153 - Spare (S11)

OMS 154 - Spare (S12)

OMS 155 - Spare (S13)

OMS 156 - Spare (S14)

OMS 157 - Spare (S15)

OMS 158 - Spare (S16)

OMS 159 - Spare (S17)

OMS 160 - Spare (S18)

TABLE 04

OUTPUT MEASUREMENT SETS FOR MSC 4
(NETWORK)

```
MSC 4 NETWORK
OMS 0
PATH HUNT SUCS  PATH HUNT FAIL   USAGE  LSNC INTRABUF
         0               0           0           0

OMS 1  SVC OBSV
SVC OBSV NETWORK USAGE
              0
```

Description of Measurements for MSC 4

OMS 0

Network Path Hunt Success Peg Count
(PATH HUNT SUCS)

This counter is incremented by one when a path through the network has been seized by setting the appropriate bits in the time division map. This action either reserves a path between an incoming trunk and an outgoing trunk or corresponds to the connection of a service circuit to an incoming or outgoing trunk.

Network Path Hunt Failure Peg Count
(PATH HUNT FAIL)

When an attempt to seize an idle path through the network has failed because it appeared that no acceptable idle path was available, this counter is incremented by one. This counter contains the total number of network path hunt failures whereas the final trial network path hunt failure Peg counter (MSC 11 OMS 1) contains only the count of calls sent to final handling because of network path hunt failure.

Network Total Usage
(USAGE)

After every 180 second scan, the total number of occupied paths in the network is added to this counter. This data is converted to CCS by the traffic program before output.

Large Scale Nail-Up Intra-Buffer Count
(LSNC INTRABUF)

This is a count of large scale nail up (LSNC) intra-buffer connections.

OMS 1

Service Observing Network Usage
(SVC OBSV NETWORK USAGE)

This counter will show the total usage on the two service observing Trunk Subgroups. It will be used as an estimate of the network usage generated by service observing.

TABLE 05

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

```
MSC 5 OFFICE TOTALS
OMS 0
  INC    OUTWATS   OG IT   OG TC   DNHR    DNHR    NCAT
 CALL      ORIG      SZ      SZ     VTS     TTS     SUC
    0         0       0       0       0       0       0

OMS 1
   MF       DP-DD     DP-IS     CCIS    CCIS-2W     IDTS    IDTS-DP
INC SZRE  INC SZRE  INC SZRE  INC CALL  INC SZRE  INC SZRE  INC SZRE
       0         0         0         0         0         0         0

IDTMFWK   ODTMFWK     Q931      Q931      Q931    ISUP-2W   ISUP-4W
INC SZRE  OUT SZRE  INC SZRE  OUT SZRE  CN SETUP  INC SZRE  INC SZRE
       0         0         0         0         0         0         0

  ISUP     BBC-6     BBC-24    BBC-6     BBC-24     BSSP      BSSP
OUT SZRE  INC SZRE  INC SZRE  OUT SZRE  OUT SZRE  INC SZRE  OUT SZRE
       0         0         0         0         0         0         0

  NCAT     BBC-6     BBC-24    BBC-6     BBC-24
ATTEMPTS  OPRI ATT  OPRI ATT  RCVD ATT  RCVD ATT
       0         0         0         0         0

OMS 2
MF OPLS   DP OPLS    CCIS OG
ATTEMPTS  ATTEMPTS     CALLS
       0         0         0

OMS 3
STABLE CALLS LOST, CGF
            0

OMS 4  INTERNATIONAL INCOMING
           CCITT#5   CCITT#6      ITUP   INUP
ATTEMPTS         0         0         0      0
         CUSTOMER  OPERATOR      TEST   TRANSIT    EN-BLOC
CALLS            0         0         0         0          0

OMS 5 INTL OUTGOING
           CCITT#5   CCITT#6    ITUP    INUP
ATTEMPTS         0         0       0       0
              SENT       REC    ISUP
OVERFLOWS        0         0       0
              CUST   OP   PCC NG
CALLS            0    0        0
```

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

```
OMS 6   NETWORK CLOCK SYNC UNIT PERFORMANCE MEASUREMENTS
                  --- TOTAL --- ---- REG ---- ---- ALT ----
                      PC    DUR     PC    DUR     PC    DUR
FREE RUN               0      0
FREE RUN < 10 MIN      0
REFERENCE OUTAGE       -      -      0      0      0      0
PHASE HITS             0      -      0      -      0
FREQUENCY OFFSET       -      -      0      -      0
PHASE ERRORS           -      -      0      -      0
FAST START TO          0
FAST STARTS            0      0
REFERENCE OOS          -      -      0      0      0      0
TRANSFER TO ALT        0      0
TRANSMISSION SLIPS     -      -      0      -      0

OMS 7  SERVICE OBSERVING
  ---- TRUNK A ---
  SEIZURES   USAGE
        0        0

OMS 8  CALLS ORIG,TERM
    ORIG OGA            0
  TERM ATTS
    PAS                 0

OMS 9  MAS IRREGULARITIES
  MAS IRREGULARITIES
    NO ANS DUE TO CCIS              0
    TELEVOTE DIRECT SIG FAIL        0
```

Description of Measurements for MSC 5

OMS 0

Total Incoming Calls Peg Count
(INC CALL)

This counter is incremented for every incoming call for which at least one digit has been received.

OUTWATS Originating Calls Peg Count
(OUTWATS ORIG)

This count is incremented by one when an OUTWATS Call is attempted.

Total Outgoing Intertoll Trunk Seizure
Peg Count
(OG IT SZ)

This counter is set to the sum of the outgoing seizure Peg Counts collected from all outgoing intertoll TSGs at the time of the collection of TSG data.

Total Outgoing Toll Completing Trunk
Seizure Peg Count
(OG TC SZ)

This counter is set to the sum of the outgoing seizure Peg Counts collected from all outgoing toll connecting and toll completing TSGs at the time of the collection of TSG data.

Total Via Toll Switch Calls
(DNHR VTS)

This counter is incremented by one when the total number of calls entering the node from any DNHR TSG is serving as a Via Toll Switch.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

Total Terminating Toll Switch Calls
(DNHR TTS)

This counter is incremented by one when the total number of calls entering the node from any DNHR TSG is serving as a Terminating Toll Switch.

Non-Call Associated Temporary
Signaling Connection (TSC) Successes
(NCAT SUC)

This counter registers the number of successful TSC connections made through the 1A.

OMS 1

MF Incoming Seizure Peg Count
(MF INC SZRE)

This counter is incremented at the start of each base level cycle by the number of MF originations processed in the last base level cycle. This count of originations includes false starts, permanent signals, continuity test failures, as well as incoming calls.

DP Delay Dial Incoming Seizure Peg Count
(DP-DD INC SZRE)

When a DP origination is recognized on a DP delay dial trunk, this counter is incremented by one.

DP Immediate Start Incoming Seizure
Peg Count
(DP-IS INC SZRE)

When a DP origination is recognized on a DP immediate start trunk, this counter is incremented by one.

CCIS Incoming Calls Peg Count
(CCIS INC CALL)

This counter is the sum of CCIS CR seizures and CCIS CR queue overflows.

CCIS 2-Wire Incoming Seizure Peg Count
(CCIS-2W INC SZRE)

This count is incremented by one when a CCIS origination is recognized on a 2-wire incoming trunk.

IDTS Incoming Seizure Peg Count
(IDTS INC SZRE)

This counter is incremented by one for each Incoming Dial Tone Start (IDTS) seizure processing attempt.

IDTS DP Incoming Seizure Peg Count
(IDTS-DP INC SZRE)

This counter is incremented by one for each IDTS seizure processing attempt that is followed by a DP digit.

IDTMFWK Incoming Seizure Peg Count
(IDTMFWK INC SZRE)

This counter is incremented by one for each Incoming Dual-Tone Multifrequency Wink (IDTMFWK) seizure processing attempt.

ODTMFWK Outgoing Seizure Peg Count
(ODTMFWK OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing Dual-Tone Multifrequency Wink (ODTMFWK) trunk is to be seized.

Q.931 Incoming Seizures
(Q931 INC SZRE)

This counter is incremented by one for each Q.931 seizure processing attempt.

Q.931 Outgoing Seizures
(Q931 OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing Q.931 trunk is to be seized.

Q.931 Channel Negotiation Setup
(Q931 CN SETUP)

This counter is incremented by one each time a Q.931 Channel Negotiation Setup message is sent.

The CCIS incoming calls count is calculated each quarter hour. A summation of the CCIS call register seizure Peg Count, the CCIS origination call register queue Overflow Peg Count, and the CCIS origination call register queue abandon Peg Count is stored in this counter.

ISUP 2-Wire Incoming Seizures
(ISUP-2W INC SZRE)

This counter is incremented by one for each ISUP seizure processing attempt received over a 2-wire trunk.

ISUP 4-Wire Incoming Seizures
(ISUP-4W INC SZRE)

This counter is incremented by one for each ISUP seizure processing attempt received over a 4-wire trunk.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

ISUP Outgoing Seizures
(ISUP OUT SZRE)

This counter is incremented by one when trunk hunt determines an outgoing ISUP trunk is to be seized.

Broadband Call 6-Trunk Incoming Seizures
(BBC-6 INC SZRE)

This counter is incremented by one for each H0 (384K bps) call seizure processing attempt received.

Broadband Call 24-Trunk Incoming Seizures
(BBC-24 INC SZRE)

This counter is incremented by one for each H11 (1536K bps) call seizure processing attempt received.

Broadband Call 6-Trunk Outgoing Seizures
(BBC-6 OUT SZRE)

This counter is incremented by one when trunk hunt determines enough trunks are available to be seized to process an H0 call.

Broadband Call 24-Trunk Outgoing Seizures
(BBC-24 OUT SZRE)

This counter is incremented by one when trunk hunt determines enough trunks are available to be seized to process an H11 call.

BOC SSP MF Incoming Seizures
(BSSP INC SZRE)

This counter is incremented by one when the first stage digit sequence on a MF trunk is translated with a result of BOC SSP Equal Access.

BOC SSP MF Outgoing Seizures
(BSSP OUT SZRE)

This counter is incremented by one when a trunk is seized for feature Group "D" or BOC SSP Equal Access call.

Non-Call Associated Temporary
Signaling Connection (TSC) Attempt
(NCAT ATTEMPTS)

This counter is incremented by one when a Non-Call Associated TSC request is received.

Broadband Call 6 - Originating Data
Attempts From a PRI Peg Count
(BBC-6 OPRI ATT)

This counter is incremented by one for each originating inter-LATA H0 (384K bps) data call attempt received from a PRI.

Broadband Call 24 - Originating Data
Attempts From a PRI Peg Count
(BBC-24 OPRI ATT)

This counter is incremented by one for each originating inter-LATA H11 (1536K bps) data call attempt received from a PRI.

Broadband Call 6 - Data Calls
Received From an IEC Peg Count
(BBC-6 RCVD ATT)

This counter is incremented by one for each H0 (384K bps) data call received from an IEC terminating through an Access Tandem.

Broadband Call 24 - Data Calls
Received From an IEC Peg Count
(BBC-24 RCVD ATT)

This counter is incremented by one for each H11 (1536K bps) data call received from an IEC terminating through an Access Tandem.

OMS 2

MF Outpulsing Attempts Peg Count
(MF OPULS ATTEMPTS)

This measurement reflects the total number of MF outgoing call attempts. This counter reflects not only the number of MF outgoing calls, but also the number of times MF outpulsing recurred for MF calls that experienced ineffective attempts during outpulsing and for which retrial trunk hunts were performed.

DP Outpulsing Attempts Peg Count
(DP OPULS ATTEMPTS)

This counter is incremented by one when DP outpulsing is first attempted for an outgoing DP call. That is, when the first digit to be outpulsed is sent to the Signal Processor. This counter reflects not only the number of DP outgoing calls, but also the number of times DP outpulsing recurred for DP calls that experienced ineffective attempts during outpulsing and for which retrial trunk hunts were performed.

CCIS Outgoing Calls Peg Count
(CCIS OG CALLS)

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

This measurement reflects the total number of all CCIS outgoing calls. Every call for which an initial address message is transmitted is included in this count. This measurement also reflects the number of times retrial trunk hunts were performed for CCIS outgoing calls for which a backward failure message is received or for which the Voice Path Assurance test fails.

OMS 3

Stable Calls Lost, Carrier Group
Failure Peg Count
(STABLE CALLS LOST, CGF)

For each call in the waiting-for-answer state or in the talking state that is lost because of a Carrier Group Failure, this counter is incremented by one.

OMS 4

CCITT No. 5 Incoming Attempts Peg Count
(CCITT#5 ATTEMPTS)

This count is incremented by one when a CCITT No. 5 incoming seizure is recognized by the system.

CCITT No. 6 Incoming Attempts Peg Count
(CCITT#6 ATTEMPTS)

This count is incremented by one when a CCITT No. 6 incoming seizure is recognized by the system.

ITUP Incoming Attempts Peg Count
(ITUP ATTEMPTS)

This counter is incremented by one for each International Telephone User Part (ITUP) seizure processing attempt received.

INUP Incoming Attempts Peg Count
(INUP ATTEMPTS)

This counter is incremented by one for each International User Part (INUP) seizure processing attempt received.

International Incoming Customer
Dialed Calls Peg Count
(CUSTOMER CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming call that was customer dialed.

International Incoming Operator
Dialed Calls Peg Count
(OPERATOR CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming call that was operator dialed.

International Incoming Test Calls Peg Count
(TEST CALLS)

This count is incremented by one after the incoming digits are analyzed and the call was found to have been an international incoming test call.

International Incoming Transit Calls
Peg Count
(TRANSIT CALLS)

This counter is incremented by one after the incoming digit was analyzed and the call was found to have been an international incoming transit call.

International Overlap to
Enblock Signaling Peg Count
(EN-BLOC CALLS)

This counter is incremented whenever the overlap to en-bloc procedure is invoked.

OMS 5

CCITT No. 5 Outgoing Attempts Peg Count
(CCITT#5 ATTEMPTS)

This count is incremented by one when a CCITT No. 5 outgoing seizure is recognized by the system.

CCITT No. 6 Outgoing Attempts Peg Count
(CCITT#6 ATTEMPTS)

This count is incremented by one when a CCITT No. 6 outgoing seizure is recognized by the system.

ITUP Outgoing Attempts Peg Count
(ITUP ATTEMPTS)

The counter is incremented by one when trunk hunt determines an outgoing ITUP trunk is to be seized.

INUP Outgoing Attempts Peg Count
(INUP ATTEMPTS)

The counter is incremented by one when trunk hunt determines an outgoing INUP trunk is to be seized.

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

International Outbound Overflow Sent to Alternate Office Peg Count
(OVERFLOWS SENT)

This counter is incremented by one when the intended CCITT No. 5 or CCITT No. 6 route is in a no circuit condition and the call is passed to an alternate International Office for completion.

International Outbound Overflow Received from Alternate Office Peg Count
(OVERFLOWS REC)

This counter is incremented by one when another International Office has no CCITT No. 5 or CCITT No. 6 circuits for outbound calls and the call is passed to this International office for completion.

International ISUP Outbound Overflow Peg Count
(OVERFLOWS ISUP)

This counter is incremented by one when the intended CCITT #5 or CCITT #6 route is in a NO circuit condition and the call is passed to an alternate ISC for completion via ISUP trunks.

International Outgoing Customer Dialed Calls Peg Count
(CUST CALLS)

This is a count of the domestically originated, customer dialed calls destined for non-world zone 1 termination. This count is pegged by call processing after digit analysis.

International Outbound Operator Dialed Call Peg Count
(OP CALLS)

This counter is incremented by one on receipt of an International outbound call from an IOC or IOTC operator.

Pseudo Country Code No Good Peg Count
(PCC NG CALLS)

This counter is incremented by one when a pseudo country code is received on a one-stage call.

OMS 6

For several events in the NCSU, peg count and duration counts are kept. Peg count is defined as the number of times an event occurs. Duration is defined as the length of time the event took, in 8-second intervals.

Free Run
(FREE RUN)

Free run occurs when the NCSU is decoupled from the external reference. Total peg count and duration counters are maintained.

Free Run Less Than 10 Minutes
(FREE RUN < 10 MIN)

Total peg count of free run occurrences less than 10 minutes.

Reference Outage
(REFERENCE OUTAGE)

Reference outage is impairment of the reference. Regular and alternate reference peg counts and duration counters are maintained.

Phase Hits
(PHASE HITS)

A phase hit is defined as a step change in phase error exceeding 5 microseconds. Total, regular, and alternate reference peg counts are maintained.

Frequency Offset
(FREQUENCY OFFSET)

Frequency offset is defined as the frequency offset of the selected reference relative to the VCO (Voltage Control Oscillator) of one part in 100,000,000 or more. Regular and alternate reference peg counts are maintained.

Phase Errors
(PHASE ERRORS)

A Phase Error is one that is outside the range of about $\pm$ 60 microseconds from center of the phase comparator range. Regular and alternate reference peg counts are maintained.

Fast Start Timeout
(FAST START TO)

A fast start TO occurs when the NCSU fails to enter normal mode from fast start within 40 minutes. Total peg count is maintained.

Fast Starts
(FAST STARTS)

TABLE 05 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 5
(OFFICE TOTALS)

Fast starts are defined as the number of fast starts entered since the last look. Total peg count and duration counters are maintained.

Reference OOS
(REFERENCE OOS)

Reference OOS occurs when the reference is out of service. Regular and alternate reference peg counts and duration counts are maintained.

Transfer to Alternate
(TRANSFER TO ALT)

This counter keeps track of the number of times the alternate reference was made active. Total peg count and duration counts are maintained.

Transmission Slips
(TRANSMISSION SLIPS)

This counter keeps track of the number of slip impairments on the regular or alternate references. Peg counts are maintained.

OMS 7

Service Observing Trunk A Seizure Peg Count
(TRUNK A SEIZURES)

This counter is incremented by one each time an attempt is made to establish a Service Observing Trunk A connection.

Service Observing Trunk A Usage
(TRUNK A USAGE)

This measurement reflects the time, measured in CCS, that Service Observing is in effect. This count differs from MSC 4, OMS 1 which is the sum of the usage on the two Trunk Subgroups for Service Observing and results in an estimate of network occupancy due to Service Observing.

OMS 8

4ESS Switch Originated Outgoing Attempts
(ORIG OGA)

This counter keeps track of the number of attempts to seize a CR for a 4ESS Switch originated outgoing call. Noted that this count is not limited to MAS related calls. Initially it will include attempts occurring during the direct producer callback and trunk maintenance outgoing test attempts.

Total Attempts to PAS Announcements
(PAS TERM ATTS)

This counter keeps track of the number of attempts to reach PAS announcements, including PAS with TELEVOTE and with cut-through calls.

OMS 9

Customer Calls To MAS Which No Answer Supervision Is Returned Due To CCIS Terminal Congestion
(NO ANS DUE TO CCIS)

This counter keeps track of the number of customer calls to MAS on CCIS trunks that are successfully connected to announcement audio but do not have answer supervision returned because call processing detects that the CCIS terminal is overloaded.

TELEVOTE CCIS Direct Signaling Counts Not Updated
(TELEVOTE DIRECT SIG FAIL)

This counter keeps track of the number of nonzero counts received at a TELEVOTE machine in a CCIS direct signaling message, for which no counter can be located for the MAPN and line number associated with the count in the direct signaling message.

TABLE 06

OUTPUT MEASUREMENT SETS FOR MSC 6
(BOC SSP MEASUREMENTS)

```
MSC 6 BOC SSP MEASUREMENTS

OMS 0
  TOS   SEIZURES
    0       0
    1       0
    2       0
    3       0
          .
          .
          .
   28       0
   29       0
   30       0
   31       0


  TOS   INIT QUERIES
    0       0
    1       0
    2       0
    3       0
          .
          .
          .
   28       0
   29       0
   30       0
   31       0

  TOTAL INITIAL QUERIES
            0
```

Description of Measurements for MSC 6

OMS 0

BOC SSP Seizures
(SEIZURES)

Each time a BOC SSP Number Services origination is detected, a counter is incremented by one, depending on the Type Of Service (TOS).

BOC SSP Initial Queries
(INIT QUERIES)

Each time a BOC SSP Number Services Query is sent to the database, a counter is incremented by one, depending on the Type Of Service (TOS).

TABLE 07

OUTPUT MEASUREMENT SETS FOR MSC 7
(INCOMING IRREGULARITIES)

```
MSC 7 INCOMING IRREGULARITIES
OMS 0

        MF EQ  DP EQ   Q931   ISUP  ITUP  INUP  DTMF  IOC

  PST       0      0      0      0     0     0     0    0
  FSA       0      0      0      0     0     0     0    0
  PDA       0      0      0      0     0     0     0    0
  PDT       0      0      0      0     0     0     0    0

OMS 1
  INC   8 DIG   DP DIG  INC DP  OPLS DP
 DPED   NC CR    LOST   WL FULL WL FULL
    0       0       0       0       0
```

Description of Measurements for MSC 7

OMS 0

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing

b. DP trunks with equipment, operator or by-link pulsing

c. Q.931 trunks

d. ISUP trunks

e. ITUP trunks

f. INUP trunks

g. DTMF trunks with equipment or customer pulsing

h. IOC

Permanent Signal Timeout Peg Count
(PST)

These counters will be incremented by one each time a bid for service is received on an incoming trunk, but no digits are received within the permanent signal time out interval.

False Start Abandon Peg Count
(FSA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk but no digits are received, and the call is abandoned before permanent signal timeout.

Partial Dial Abandon Peg Count
(PDA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk and at least one digit but less than the expected number of digits is received, and the bid is removed before partial dial timeout.

Partial Dial Timeout Peg Count
(PDT)

Each time at least one but less than the expected number of digits is received before timeout on an incoming trunk, one of these counters will be incremented by one.

OMS 1

Incoming DP Early Digit Peg Count
(INC DPED)

This counter is incremented by one when a call is sent to final handling treatment after the reception of a digit buffer report from the Signal Processor. This report shows that a DP change of state occurred before the time when the system is ready to receive digits. This count is incremented for both immediate start and delay dial/start dial trunks.

Eighth Digit No Call Register Peg Count
(8 DIG NO CR)

TABLE 07 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 7
(INCOMING IRREGULARITIES)

This counter will be incremented by one when the eighth digit is received for a DP call waiting on the DP CR queue and no CR is available, resulting in the call being sent to final handling treatment.

DP Digit Lost Peg Count
(DP DIG LOST)

This counter will be incremented by the number of calls lost due to failure to load a DP digit into the digit buffer because of digit buffer congestion.

Incoming DP Work List Full Peg Count
(INC DP WL FULL)

This counter is incremented by one when the first call is sent to final handling treatment after the reception of a digit buffer incoming DP worklist full report from the SP. All succeeding calls trying to get on the full worklist will not be scored. A system audit is required to reset the worklist before new entries can be accepted.

DP Outpulsing Work List Full Peg Count
(OPLS DP WL FULL)

When a call is sent to final handling treatment because the Signal Processor DP outpulsing worklist is full, this counter will be incremented by one.

TABLE 08

OUTPUT MEASUREMENT SETS FOR MSC 8
(reserved for future use)

```
This table reserved for MSC 8.
```

TABLE 09

OUTPUT MEASUREMENT SETS FOR MSC 9
(PROCESSOR LOAD)

```
MSC 9 PROCESSOR LOAD
OMS 0
AVG BASE LEV MSEC
        0

OMS 1  BASE LEVEL PEG CNTS
  CANCEL OVLD          0

                    NONE       MAC       SGMT
  NONLOAD CONT         0         0          0

                  LEV(1)    LEV(2)    LEV(3)
  LOAD CONT            0         0          0

  NO TRKS HNTD         0
```

Description of Measurements for MSC 9

OMS 0

Average Base Level Cycle Length In Milliseconds
(AVG BASE LEV MSEC)

This time is calculated by multiplying the number of 10 millisecond interjects that occur in a 15 minute collection interval by 10 and dividing this product by the number of base level cycles, thus yielding average time in milliseconds. The time spent in maintenance interrupts is not included in the average length. Average base level cycle time is corrected for intervals longer than 15 minutes by summing the 15 minute averages and dividing by the number of quarter hours in the accumulation interval.

*Note: The sum of the next 7 counts equals the number of base level cycles in the accumulation interval.

OMS 1

Cancel Overload in Effect Peg Count
(CANCEL OVLD)

This counter is incremented at the beginning of each base level cycle if the cancel overload key at the MCC is activated.

Non-Load No Overload Control Peg Count
(NONLOAD CONT NONE)

This measurement reflects the number of base level cycles during which no overload controls were in effect or when cancel overload was not in effect.

Non-Load MAC Overload Control Peg Count
(NONLOAD CONT MAC)

This counter is incremented by the overload control program at the beginning of each base level cycle if it had instituted the set of state two controls in the previous base level cycle. These controls are nonload affecting, but restrict the number of segments allowed the Maintenance Administration Control (MAC) program in the base level cycle.

Non-Load Segment Overload Control Peg Count
(NONLOAD CONT SGMT)

At the beginning of each base level cycle, this counter is incremented by the overload control program if the set of state three controls had been instituted in the previous base level cycle. These controls are nonload affecting, but restrict the number of segments that are allowed for deferrable programs. In addition, a total Dynamic Overload Control (DOC) MC1 control is sent out to contiguous offices.

Load Level 1 Overload Control Peg Count
(LOAD CONT LEV 1)

This counter is incremented at the beginning of each base level cycle if the overload load control program had instituted the set of state four controls in the previous base level cycle. These controls reduce the accepted load to an overload Level 1, further reduce the number of segments that MAC can have, and restrict

TABLE 09 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 9
(PROCESSOR LOAD)

the Voice Path Assurance (VPA) test for CCIS outgoing calls.

Load Level 2 Overload Control Peg Count
(LOAD CONT LEV 2)

The overload control program will increment this counter at the beginning of each base level cycle, if the set of state five controls had been instituted in the previous cycle. These controls further reduce the accepted load to an overload level 2 and send out a total DOC, MC2, control to contiguous offices.

Load Level 3 Overload Control Peg Count
(LOAD CONT LEV 3)

This counter is incremented by the overload control program at the beginning of each base level cycle if it had instituted the set of state six controls in the previous base level cycle. These controls reduce the accepted load to zero.

No Trunks Hunted
(NO TRKS HNTD)

This counter is incremented by the number of base level cycles in which no trunks were hunted.

TABLE 10

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

MSC 10 TRAFFIC SEPARATIONS

OMS	SZRE	USAGE
0	0	0
1	0	0
2	0	0
.	.	.
.	.	.
.	.	.
1021	0	0
1022	0	0
1023	0	0

Description of Measurements for MSC 10

Traffic Separations

Measurement subclass 10 is the traffic separations and distribution measurement class. Each call successfully processed by the 4ESS Switch will fall into a traffic separations category (determined by the incoming TSG, domain and designation code of the call). The traffic separation incoming TSG class (INSEP) is specified in the trunk block translator, while the destination class (DESEP) is a code grouping translator item. There can be up to 256 traffic separations incoming TSG classes and 256 destination classes, with DESEP 0 not available for general assignment. Each (INSEP, DESEP) pair is assigned a Cell-Grouping Index. There are 1024 Cell-Grouping Indexes, each of which is associated with an OMS. The only measurements required in this MSC are the traffic separations class usage and Peg Count measurements.

The traffic separations class measurements provide the data required to facilitate divisions of revenue and to perform a variety of engineering, dial administration, and Network Management functions.

Traffic separations counts are accumulated primarily to provide breakdowns of the total toll telephone traffic. These may be based on variables such as geographic locality, Trunk Subgroup ownership (Long Lines, Associated Company or Independent Company), and type of traffic (message toll, CAMA, operator handled, local tandem, data PICTUREPHONE, and private network).

In addition to these measurement functions, the traffic separations MSC can be used, if required, to determine the quantity of "through" traffic switched by the machine. This is a count of calls that enter the system via intertoll trunks and are destined for distant toll centers. To accomplish this, it is necessary to assign the Cell Grouping Indexes so that none of these classes represent both interstate and intrastate traffic.

The traffic separations classes usage in conjunction with service circuit and trunk maintenance network usage provide an estimate of total network usage for output in usage measurement form at the MCC and on traffic schedules.

Traffic separations counters provide Peg Count and usage measurements for separations classes to which have been assigned selected destination codes or groups of codes. This facility enables the network manager to obtain a breakdown of the traffic items that may be offered to a particular route. The traffic separations class concept provides the network manager with the mechanism to analyze traffic patterns through the toll hierarchy. These patterns can be defined by categorizing traffic with respect to where it originates and terminates:

Category 1 identifies traffic from or terminating in an office that is served by a different regional center switching machine (including regional center traffic) than the 4ESS Switch.

Category 2 identifies traffic from or terminating in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes traffic to the home regional.

Category 3 identifies traffic from or terminating in an office that is lower in the hierarchial network and "homes" (i.e., is in the direct routing ladder) on the 4ESS Switch.

Category 4 identifies traffic from or terminating in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those

TABLE 10 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

end offices.

To provide data to light lamps in the traffic pattern module of the 4ESS Switch toll Network Management exception panel, the INSEP classes must be associated with one of the four incoming TSG classifications.

1. Foreign region TSGs,
2. Home region TSGs,
3. Subtending office TSGs, and
4. Home toll center area TSGs

Category 1 includes those Trunk Subgroups whose far end is in an office that is served by a different regional center switching machine (including Trunk Subgroups to that regional center) than the 4ESS Switch.

Category 2 includes Trunk Subgroups whose far end is in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes Trunk Subgroups to the home regional.

Category 3 includes Trunk Subgroups whose far end is in an office that is lower in the hierarchial network and "homes" (i.e., is in the direct routing ladder) on the 4ESS Switch.

Category 4 includes Trunk Subgroups whose far end is in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those end offices.

The 4ESS Switch office may not have representative Trunk Subgroups in all the categories. For instance, high volume tandem offices will probably not have Trunk Subgroups from the Home Toll Center area.

The DESEP classes must be associated with one of the four destination code classifications:

1. Foreign region codes,
2. Home region codes,
3. Subtending office codes, and
4. Home toll center area codes.

Category 1 includes those destination codes that terminate in an office that is served by a different regional center switching machine (including codes to that regional center) than the 4ESS Switch.

Category 2 includes destination codes that terminate in an office that does not "home" (i.e., not in the direct routing ladder) on the 4ESS Switch but, the office is served by the same regional center that serves the 4ESS Switch. Includes codes to the home regional.

Category 3 includes destination codes that terminate in an office that is lower in the hierarchial network and "homes" (i.e., in the direct routing ladder) on the 4ESS Switch.

Category 4 includes destination codes that terminate in end offices that "home" on the 4ESS Switch and the 4ESS Switch serves as the Toll Center or Toll Point for those end offices.

With the exception of summing the separation class usage counts to calculate one of the components of the total network usage count, no other summing over Cell Groupings will be performed by traffic measurements programs. Therefore, the "through switched traffic" Peg Count and the measurements for the four categories specified above will be computed by the Network Management program PA-1 (Traffic Pattern Overview).

Since the integrity of these seizure release counters is not infallible, audits will be necessary to insure the accuracy of the traffic separations class usage counts. This audit (number 33) is designed such that the traffic separations measurements can be maintained while it is being executed. Consequently, Cell Grouping 0 has been reserved for the traffic separations class usage count audit. Several functions are responsible for adjusting counters in addition to, or with, call processing routines. It is desirable to isolate the effects of some of these functions and, for that reason, an INSEP class (31) is generally assigned to both system integrity test call TSGs and maintenance test access trunks. All (outpulsed) trunk maintenance calls for which digit translation is done, and for which call processing sets up the connection, will be tagged with this appropriate INSEP class.

The appropriate DESEP class will be found in the digit translator. These are trunk maintenance outpulsed calls for which no digit translation is done. (The origination of a system integrity test call is an example.) For this reason, a DESEP class must be supplied to enable call processing to set up the connection. These calls will be with the appropriate INSEP class and a generically assigned DESEP class (63). Generic assignment of INSEP and a DESEP class does not preclude their assignment to other TSGs and destination codes if this is required. However, INSEP class (31) and DESEP class (63) will be generically assigned to Cell-Grouping (1).

Point-to-point distribution studies (this feature will not be available for phase 1) will be made at appropriate times to determine the distribution of the flow of traffic through an office. The data for this study is obtained by

TABLE 10 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 10
(TRAFFIC SEPARATIONS)

recording (on high speed magnetic tape in standard ASCII characters) pertinent information on a sampling of the successfully handled calls processed by the office. A successfully processed call is, by definition for the traffic system, one that goes into the "waiting-for-answer" state. After this time in the call processing sequence, some of the data required by the point-to-point studies is no longer available. For every Nth successfully processed call, this system will record the identity of the incoming trunk, the identity of the outgoing trunk to which it was connected, call area and office codes, and traveling classmark (if used to indicate domain and/or routing treatment). The value of N will be based on real time and data volume considerations. Information obtained from the sampled calls will not be available for output on the traffic schedules. This data will be processed off line.

OMS 0-1023

There are 1024 Cell Groupings, each of which corresponds to an OMS.

Traffic Separation Class Seizure Peg Count
(TRAFFIC SEPARATIONS SZRE)

This counter is incremented by one just before a call goes into the waiting-for-answer state. The Cell Grouping Index will reside in the CR, and can be retrieved to index the counter block.

Traffic Separation Class Usage
(TRAFFIC SEPARATIONS USAGE)

After each 100 second scan, this register will be incremented by the number of calls (for this Cell Grouping) that are found busy to obtain CCS.

TABLE 11

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

```
MSC 11 IA
OMS 0
          OPULS
  PER      FAIL    GLARE
    0         0        0
OMS 1
FIN NET FAIL  RSRC LMT        NCI       NCT  STC NC  PBX NC  ITL NC    CGF
        0           0           0         0       0       0       0      0
OMS 2
          Q931                          PBX       -- INWATS --
    VCA    VCA     LSIF     RSIF       VCA    TERM    ORIG   BLK-SCRN
      0       0        0        0         0       0       0       0
OMS 3 NM BLOCKED
     CB   SDOC    STR    CANT    CANF    TSAR    BNG
      0      0      0       0       0       0      0
   DSTR   DSTR  DSDOC   DSDOC     OCR     OCR    GSC
    CAN     SK    CAN      SK     RCV    FAIL     SK
      0      0      0       0       0       0      0
    DRR   DCAN
      0      0
OMS 4  MISC IA
MISC IA
  DTMF                    000000
  ISUP                    000000
  ITUP                    000000
  INUP                    000000
  Q931                    000000
  INC                     000000
  CONN                    000000
  OUT                     000000
  TUP OUT                 000000
  NUP OUT                 000000
  CALL DENIAL SCRN        000000
  AT ACK WINK T/O         000000
  ISUP MAB                000000
  ISUP EQUIP CONG         000000
  ISUP OTHER ABAN         000000
  ITUP MAB                000000
  ITUP EQUIP CONG         000000
  ITUP OTHER ABAN         000000
  INUP MAB                000000
  INUP EQUIP CONG         000000
  INUP OTHER ABAN         000000
  Q931 OTHER ABAN         000000
  Q931 SW CUTOFFS         000000
  BROADBAND FAIL          000000
  PBX REORDERS            000000
  ROUTING DATA ERR        000000
```

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

```
OMS 5
                FAIL    OVFL
TRMTR QUEUE        0       0
OMS 6
                 OVFL    ABAN
DP CR QUEUE         0       0
CCIS CR QUEUE       0       0
```

Description of Measurements for MSC 11

MSC 11 is the ineffective attempt measurement class for the nonequipment related ineffective machine attempts (NIAs). The following paragraphs define each counter for each NIA as it is referred to in a 4ESS Switch.

OMS 0

Pulsing Error Peg Count
(PER)

This register will be incremented by one each time one or more of the received digits is in error. This error may be defined by one of the following:

a. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.

b. False Key Pulse - On MF pulsing calls, when a second Key Pulse (KP) signal is received.

c. Extra Digit - When more digits are received than expected.

d. Extra Pulse - On DP calls, when an eleventh pulse is received for a single digit.

e. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Outpulsing Failures Peg Count
(OPULS FAIL)

This register will be incremented by one each time an outpulsing failure occurs for any of the following reasons:

a. Unexpected Stop - This count will be incremented by one each time an unexpected stop dial signal is received because of any of the following reasons.

1. Any stop dial during pulsing on an MF trunk.
2. Any stop dial during pulsing on a DP trunk that does not have the "expect stop-go" class.
3. A second stop dial during pulsing on a DP trunk that does have "expect stop-go" class.
4. On DP stop-go trunks, a stop dial at an invalid time.

b. Integrity Check Failure - Each time there is a failure of the trunk E&M lead integrity check (expected on delay dial-start dial trunks) this counter will be incremented by one.

c. Continuity Test Failure - This count will be incremented by one each time there is a failure of the continuity and polarity test.

d. No Start Dial - This count will be incremented by one each time the delay dial signal (off-hook) from the office persists beyond the transmitter timeout interval on MF or DP delay dial trunks. For wink start trunks, this count is also incremented if the first part of the wink (on to off-hook) is not received within the transmitter timeout interval, or the second part of the wink (off to on-hook) is not received within a specified interval of receipt of the first part of the wink.

e. Expected Stop Timeout - Each time, on any DP trunk with expected stop-go class, an unexpected stop dial signal is received during outpulsing and persists beyond the transmitter time out interval, this counter will be incremented by one.

Glare Peg Counter
(GLARE)

This counter is incremented by one when a glare condition is encountered on the second trial, and the call is sent to Final Handling Treatment (FHT).

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

OMS 1

Final Trial Network Path Hunt Failure
Peg Count
(FIN NET FAIL)

This counter is incremented when a call is sent to Final Handling Treatment because an attempt to seize an idle path through the network fails due to no acceptable idle path availability.

Call Merge Failure - Resource Limitations
Peg Count
(RSRC LMT)

This count is incremented when a call merge request fails because of the lack of resources or because of a path hunt failure.

No Circuit Intertoll Peg Count
(NCI)

When a call is sent to Final Handling Treatment because it has overflowed all the available intertoll routes in its routing chain, this counter is incremented by one.

No Circuit Toll Completing Peg Count
(NCT)

When a call is sent to Final Handling Treatment because it has overflowed all the available toll completing routes to its destination, this counter is incremented by one.

No Circuit Single Trunk Customer
Peg Count
(STC NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to an STC, this counter is incremented by one.

No Circuit Private Branch Exchange
Peg Count
(PBX NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to a PBX, this counter is incremented by one.

International No Circuit Peg Count
(ITL NC)

When a call is sent to Final Handling Treatment because it has overflowed all available trunks to its destination, this counter is incremented by one.

Carrier Group Failure Peg Count
(CGF)

This counter is incremented by one for every incoming seizure that is processed as an origination and is later determined to be an off-hook because of a carrier group failure.

OMS 2

Vacant Code Announcement Peg Count
(VCA)

When a call is sent to Final Handling Treatment because a return from translations is interpreted to be a vacant code (unassigned routing digits have been received for this call), this counter is incremented by one.

Vacant Code Announcement Q.931 Peg Count
(Q931 VCA)

When a call on a Q.931 trunk is sent to Final Handling treatment because a return from translations is interpreted to be a vacant code, this counter is incremented by one.

LATA/STATE Screening Index Failure
Peg Count
(LSIF)

This counter is incremented by one when a call encounters a LATA/STATE Screening Index Failure.

Route Selection Index Screening Failure
Peg Count
(RSIF)

This counter is incremented by one when a call encounters a Route Selection Index Screening Failure.

Vacant Code Announcement Private
Branch Exchange Peg Count
(PBX VCA)

When a call on a PBX trunk is sent to Final Handling treatment because a return from translations is interpreted to be a vacant code, this counter is incremented by one.

INWATS Band Check Peg Count
(INWATS TERM)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

When a call is sent to Final Handling Treatment because a return from the terminating translation indicates that the zonal band check has failed, this counter will be incremented by one.

Originating INWATS Denied Peg Count
(INWATS ORIG)

This counter is incremented by one when an originating INWATS call is sent to final handling for one of the following reasons.

a. INWATS is invalid for the incoming Trunk Subgroup.

b. The INWATS zone is unauthorized for the incoming Trunk Subgroup.

Calls Blocked by Go-No Go Screening Peg Count
(INWATS BLK-SCRN)

This count will be included in a later issue. It is not being pegged in the 4E3 Generic Program.

OMS 3

Code Block Control Blocked Peg Count
(CB)

When a call that has been blocked by a Network Management code block control is sent to Final Handling Treatment, this counter is incremented by one.

Selective Dynamic Overload Control Blocked Peg Count
(SDOC)

This counter is incremented when a call that has been blocked by a Network Management Selective Dynamic Overload Control is sent to Final Handling Treatment.

Selective Trunk Reservation Control Blocked Peg Count
(STR)

When a call has been blocked by a Network Management activated Selective Trunk Reservation control and sent to Final Handling Treatment, this counter is incremented by one.

Cancel-To Control Blocked Peg Count
(CANT)

This counter is incremented by one when a call that has been blocked by a Network Management "Cancel To Control" is sent to Final Handling Treatment.

Cancel-From Control Blocked Peg Count
(CANF)

When a call is blocked by a Network Management "Cancel From Control" and then sent to Final Handling Treatment, this counter is incremented by one.

TSG Access Restriction Peg Count
(TSAR)

This counter is incremented by one when a call that has been blocked by a Network Management TSAR control is sent to Final Handling.

Billing Number Gap Peg Count
(BNG)

This counter is incremented by one when a call is blocked by Network Management based on the billing number.

Selective Trunk Reservation Canceled Peg Count
(DSTR CAN)

This counter is incremented by one when the calls are canceled at the OTS node by DSTR.

Selective Trunk Reservation Skipped Peg Count
(DSTR SK)

This counter is incremented by one when the calls are skipped at the OTS node by DSTR.

Selective Dynamic Overload Control Canceled Peg Count
(DSDOC CAN)

This counter is incremented by one when the calls are canceled at the node by D-SDOC.

Selective Dynamic Overload Control Skipped Peg Count
(DSDOC SK)

This counter is incremented by one when the calls are skipped at the node by D-SDOC.

Out-of-Chain Routed Calls Received
(OCR RCV)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

This counter is incremented by one when a rerouted call is received.

Out-of-Chain Routed Calls Failed
(OCR FAIL)

This counter is incremented by one when a rerouted call is received that failed.

Group Signaling Congestion Skipped
(GSC SK)

This counter is incremented by one when the calls are skipped at the node because of GSC.

D-Reroute Killed Calls
(DRR)

This counter is incremented by one when a D-rerouted call is killed.

D-Cancel Killed Calls
(DCAN)

This counter is incremented by one when a D-CAN call is killed.

OMS 4

DTMF Miscellaneous Ineffective Attempts
Peg Count
(DTMF MISC IA)

This counter is incremented by one when greater than 10 DTMF digits are received on an IDTS trunk.

ISUP Miscellaneous Ineffective Attempts
Peg Count
(ISUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ANI digits missing, ISUP IAM with invalid digit is detected.

ITUP Miscellaneous Ineffective Attempts
Peg Count
(ITUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ITUP IAM to LANGE to fit ITUP or QUEUE slot.

INUP Miscellaneous Ineffective Attempts
Peg Count
(INUP MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs, e.g., ICT unusable because of MB state.

Q.931 Miscellaneous Ineffective Attempts
Peg Count
(Q931 MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition, e.g., invalid message, is detected.

Incoming Miscellaneous Ineffective Attempts
Peg Count
(INC MISC IA)

This counter is incremented by one when a miscellaneous ineffective attempt condition occurs.

Miscellaneous Connecting Ineffective Attempts
Peg Count
(CONN MISC IA)

This counter is incremented by one when a failure to a second MF receiver occurs.

Miscellaneous Outgoing Ineffective Attempts
Peg Count
(OUT MISC IA)

This counter is incremented by one when a Q.931 or CCS7 outgoing received a message that ended the call.

ITUP Outgoing Miscellaneous Failure
Peg Count
(TUP OUT MISC IA)

This counter is incremented by one when a miscellaneous IA occurs, e.g., OGT receives a BLO during setup on second try.

INUP Outgoing Miscellaneous Failure
Peg Count
(NUP OUT MISC IA)

This counter is incremented by one when a miscellaneous IA occurs, e.g., OGT receives a BLO during setup on second try.

Call Denial Screening Peg Count
(CALL DENIAL SCRN)

This count is incremented when a call is denied based on incoming trunk Far End Network characteristics and Call Type data found from called digits.

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

Access Tandem Post Acknowledgement Wink Timeout
(AT ACK WINK T/O)

This count is incremented whenever an access tandem call fails while waiting for a Post Acknowledgement Wink.

ISUP Miscellaneous Abandon Peg Count
(ISUP MAB MISC IA)

This counter is incremented by one when an ISUP call receives a released message or release message while busy in a call register.

ISUP Switching Equipment Congestion Peg Count
(ISUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an ISUP continuity check request.

ISUP Other Abandons Peg Count
(ISUP OTHER ABAN MISC IA)

This counter is incremented by one when an ISUP call that is on queue for a call register receiving a released or release message.

ITUP Miscellaneous Abandon Peg Count
(ITUP MAB MISC IA)

This counter is incremented by one when an ITUP call receives a released or release message while busy in a call register.

ITUP Switching Equipment Congestion Peg Count
(ITUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an ITUP continuity check request.

ITUP Other Abandons Peg Count
(ITUP OTHER ABAN MISC IA)

This counter is incremented by one when an ITUP call that is on queue for a call register receiving a released or release message.

INUP Miscellaneous Abandon Peg Count
(INUP MAB MISC IA)

This counter is incremented by one when an INUP call receives a release message while on queue for a CR or during call setup.

INUP Switching Equipment Congestion Peg Count
(INUP EQUIP CONG MISC IA)

This counter is incremented by one when no call registers are available to complete an INUP continuity check request.

INUP Other Abandons Peg Count
(INUP OTHER ABAN MISC IA)

This counter is incremented by one when an INUP call that is on queue for a call register receiving a released or release message.

Q.931 Other Abandons Peg Count
(Q931 OTHER ABAN MISC IA)

This counter is incremented by one when a Q.931 call that is on queue for or busy to a call register receives a disconnect.

Q.931 Switching Cutoffs Peg Count
(Q931 SW CUTOFFS MISC IA)

This counter is incremented by one when a Q.931 call is in a stable or confused state and an irregularity occurs to end the call.

Broadband Call Failure Peg Count
(BROADBAND FAIL MISC IA)

This counter is incremented by one for H0 (384K bps) or H11 (C1536K bps) call attempts that fail.

PBX Reorders Peg Count
(PBX REORDERS MISC IA)

This counter is incremented by one when a Q.931 call attempt encounters a reorder condition.

Routing Data Error
(ROUTING DATA ERR MISC IA)

This counter is incremented by one when a CCIS or CCS7 outgoing trunk encounters routing problems.

OMS 5

MF Transmitter Queue Entry Failure Peg Count
(TRMTR QUEUE FAIL)

TABLE 11 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 11
(INEFFECTIVE ATTEMPTS)

This counter is incremented by one when a call is sent to Final Handling Treatment because the number of entries on the MF Transmitter Queue, plus the number of calls waiting to go on the MF Transmitter Queue, is greater than the number of nonmaintenance busy MF Transmitters (same count as MSC 0 OMS 0).

MF Transmitter Queue Overflow Peg Count
(TRMTR QUEUE OVFL)

When a call attempts to link to the MF transmitter queue and no slots are available, this counter is incremented by one.

OMS 6

DP CR Queue Overflow Peg Count
(DP CR QUEUE OVFL)

When an attempt to link the trunk register of a trunk associated with a DP call to an entry on the DP Call Register queue fails because there is no free entry on the queue, this counter will be incremented by one (same count as MSC 17 OMS 0).

DP CR Queue Abandon Peg Count
(DP CR QUEUE ABAN)

This counter is incremented by one when the trunk register of a trunk associated with a DP call that has been abandoned is unlinked from the DP Call Register queue (same count as MSC 17 OMS 0).

CCIS Origination CR Queue Overflow
Peg Count
(CCIS CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with a CCIS call in an entry on the CCIS origination Call Register queue fails because no free entry is available, this counter will be incremented by one (same count as MSC 17 OMS 0).

CCIS Origination CR Queue Abandon
Peg Count
(CCIS CR QUEUE ABAN)

When the IAM and other identifying information for a CCIS call that has been abandoned is removed from the CCIS origination Call Register queue, this counter is incremented by one (same count as MSC 17 OMS 0).

TABLE 12

OUTPUT MEASUREMENT SETS FOR MSC 12
(TIME SLOT INTERCHANGE USAGE)

```
MSC 12 TSI USAGE
OMS 0
TSI   SPC   USAGE  TSI   SPC   USAGE
  0     0       0    0     0       0
  0     0       0    0     0       0
  0     0       0    0     0       0
  0     0       0    0     0       0
```

Description of Measurements for MSC 12

OMS 0

Measurement Subclass 12 is the Time Slot Interchange (TSI) usage measurement class. This MSC provides the capability of obtaining estimates of the Usage on up to eight selected TSIs.

TSI Number
(TSI)

This register contains the TSI number that was previously specified by an input message as requiring usage measurements. Up to eight TSI numbers can be stored. (See Division 10, Section 2a.)

SPC Number
(SPC)

This register contains the Signal Processing Circuit (SPC) number of the TSI that was previously specified by an input message as requiring usage measurements. Each TSI may have two associated SPCs (0-1). (See Division 10, Section 2a).

TSI Usage Measurement
(USAGE)

For the specified TSI and SPC requiring usage measurements, the TSI Usage (occupancy) count is determined every 180 seconds by counting the busy idle bits in the time slot memory map. The traffic measurements program will convert this count into CCS before output.

TABLE 13

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

```
MSC 13 TSG
------CIN------
  IN SZ     OCC   OG ATT   OVFL    RRTO    RRAT    RRCR    RRSU
    MAN    AUTO    PATT    ECBS    DATT    DOVF     ATP    SILC
0001LSAN CA 02 01T LAB (a 1-way incoming TSG)
  000000  000000     -       -       -       -       -       -
     -       -       -       -       -       -    000000* 000000

2001ISUP TO LL 3IC HHP (a 1-way outgoing TSG)
     -    000000  000000  000000  000000  000000  000000  000000
  000000  000000  000000  000000  000000  000000  000000*    -

1001TCFD PD DI FMF DOM (a 2-way TSG)
  000000  000000  000000  000000  000000  000000  000000  000000
  000000  000000  000000  000000  000000  000000  000000* 000000
```

* - Count ATP is only output in non-AT&T offices.

Description of Measurements for MSC 13

OMS CIN

There are three possible types of output measurement sets. These sets relate to the TSGs by directionality. That is, one-way incoming, one-way outgoing, and two-way. The OMS number will be the abbreviated Circuit Identification Number (CIN) of the TSG. Each TSG is provided with a complete set of traffic counters (irrespective of its directionality). Thus for one-way TSGs, certain counters will be used and should always contain dashes.

1. **OMS - For One-Way Incoming Trunk Subgroups (TSG)**

Incoming Seizure Peg Count
(IN SZ)

When an incoming trunk in this TSG is represented as busy by changing the trunk's busy idle bits from one to zero, this counter is incremented by one.

Total Usage Measurement
(OCC)

The Trunk Subgroups occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

Selective Incoming Load Control
(SILC)

This counter is incremented by one when a bid for service is denied on an incoming trunk because of Network Management Selective Incoming Load Control.

2. **OMS - For One-Way Outgoing Trunk Subgroups (TSG)**

Total Usage Measurement
(OCC)

The Trunk Subgroup's occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Outgoing Attempts Peg Count
(OG ATT)

This counter is incremented by one when an idle outgoing trunk in this TSG is made busy by changing the trunk's busy idle bits from one to zero. Should an outgoing ineffective attempt occur on this TSG before or during outpulsing, a retrial hunt can be performed (starting with this TSG). The TSG Outgoing attempts

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

Peg Counter, if non-zero, is decremented before the retrial trunk hunt to avoid pegging it twice for the same call. Note that the outgoing attempts printed is the sum of the TSG outgoing seizures Peg Count, and the TSG overflow Peg Count. The carried call load can be obtained by subtracting the overflow from the outgoing attempts (OG ATT).

Overflow Peg Count
(OVFL)

This counter is incremented by one when an attempt to hunt an idle trunk fails because there are no idle trunks in this TSG.

Reroute To Seizure Peg Count
(RRTO)

This counter is incremented by one whenever a call that is routed out-of-chain to this outgoing TSG seizes an idle trunk. This count includes the number of incoming calls that have been automatically or manually rerouted out-of-chain and recognized by the via office as out-of-chain routed. It also includes the number of calls that may have been rerouted in this office by either a manual reroute control or an automatic out-of-chain control. Should an outgoing ineffective attempt occur on this TSG for a call that has been routed out-of-chain to it, the TSG reroute to seizure Peg Counter, if non-zero, is decremented by one before a retrial trunk hunt.

Spray Reroute Attempts
(RRAT)

This counter is incremented by one when a reroute is attempted.

Spray Reroute Calls Received
(RRCR)

This counter is incremented by one when a reroute call is received.

Spray Reroute Failures
(RRSU)

This counter is the number of reroute successes. It is obtained by subtracting the number of reroute failures from the total number of reroute attempts.

Manual Network Management Controls
(MAN)

This counter is incremented by one any time Network Management (NM) control cancels or skips a call manually.

Automatic Network Management Controls
(AUTO)

This counter is incremented by one any time NM controls cancel or skip calls automatically.

Preferred Call Attempts Peg Count
(PATT)

This counter is incremented by one when a Preferred Call (defined to be calls with maximal revenue potential, e.g., international inboard calls) is attempted.

Egress Busy Crankbacks Sent
(ECBS)

This counter is incremented by one when an egress busy crankback is sent due to unable to complete on an outgoing TSG.

Data Call Attempts Peg Count
(DATT)

This counter is incremented by one when a data call is attempted.

Data Call Overflow Peg Count
(DOVF)

This counter is incremented by one when a data call is attempted and no idle trunk is found because there are idle trunks in the TSG.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

3. **OMS - For Two-Way Trunk Subgroups (TSG)**

Incoming Seizure Peg Count
(IN SZ)

When an incoming trunk in this TSG is represented as busy (by changing the trunks busy idle bits from one to zero), this counter is incremented by one.

Total Usage Measurement
(OCC)

The Trunk Subgroup’s occupancy counter is scanned every 180 seconds for the number of trunks found service busy and maintenance busy. This number is accumulated over the measurement interval and converted to CCS units before output.

TABLE 13 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 13
(TRUNK SUB-GROUP)

Outgoing Attempts Peg Count
(OG ATT)

This counter is incremented by one when an idle outgoing trunk in this TSG is made busy by changing the trunks busy idle bits from one to zero. Should an outgoing ineffective attempt occur on this TSG before or during outpulsing, a retrial hunt can be performed (starting with this TSG). The TSG outgoing attempts Peg Counter, if nonzero, is decremented before the retrial trunk hunt to avoid pegging it twice for the same call. Note that the outgoing attempts printed is the sum of the TSG outgoing seizures Peg Counter and the TSG overflow Peg Count. The carried call load can be obtained by subtracting the overflow from the outgoing attempts (OG ATT).

Overflow Peg Count
(OVFL)

This counter is incremented by one when an attempt to hunt an idle trunk fails because there are no idle trunks in this TSG.

Reroute To Seizure Peg Count
(RRTO)

This counter is incremented by one whenever a call that is routed out-of-chain to this outgoing TSG seizes an idle trunk. This count includes the number of incoming calls that have been automatically or manually rerouted out-of-chain and recognized by the via office as out-of-chain routed. It also includes the number of calls that may have been rerouted in this office by either a manual reroute control or an automatic out-of-chain control. Should an outgoing ineffective attempt occur on this TSG for a call that has been routed out-of-chain to it, the TSG reroute to seizure Peg Counter, if non-zero, is decremented by one before a retrial trunk hunt.

Spray Reroute Attempts
(RRAT)

This counter is incremented by one when a reroute is attempted.

Spray Reroute Calls Received
(RRCR)

This counter is incremented by one when a reroute call is received.

Spray Reroute Failures
(RRSU)

This counter is the number of reroute successes. It is obtained by subtracting the number of reroute failures from the total number of reroute attempts.

Manual Network Management Controls
(MAN)

This counter is incremented by one any time Network Management (NM) control cancels or skips a call manually.

Automatic Network Management Controls
(AUTO)

This counter is incremented by one any time NM controls cancel or skip calls automatically.

Preferred Call Attempts Peg Count
(PATT)

This counter is incremented by one when a Preferred Call (defined to be calls with maximal revenue potential, e.g., international inboard calls) is attempted.

Egress Busy Crankbacks Sent
(ECBS)

This counter is incremented by one when an egress busy crankback is sent due to unable to complete on an outgoing TSG.

Data Call Attempts Peg Count
(DATT)

This counter is incremented by one when a data call is attempted.

Data Call Overflow Peg Count
(DOVF)

This counter is incremented by one when a data call is attempted and no idle trunk is found because there are idle trunks in the TSG.

Access Transport Received Peg Count
(ATP)

This is a count of the access transports received on any ISUP message. (LEC only)

Selective Incoming Load Control
(SILC)

This counter is incremented by one when a bid for service is denied on an incoming trunk because of Network Management Selective Incoming Load Control.

TABLE 14

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

```
MSC 14 CCIS/CCITT NO.6 TERMINALS
OMS 0
                      VFL1   VFL2
NEAR AUTO CO        000000 000000
FAR  AUTO CO        000000 000000
REXMIT   REQ        000000 000000
SU IN    ERR        000000 000000
QTR HR IN SERV      000000 000000
RCV RPT ACU         000000
RCV SKP ACU         000000
IN  MSGS            000000
IN  DATA FILLED SU  000000
IN  TRANS       SU  000000
IN  IAM         SU  000000
IN  ANS         SU  000000
OUT MSGS            000000
OUT DATA FILLED SU  000000
IAM XFER PER TERM   000000
OUT TRANS       SU  000000
OUT IAM         SU  000000
OUT ANS         SU  000000
EMER RESTART        000000
THRES EXC           000000
THRES EXC(SEC)      000000
BUFFER OVFL         000000
OUTAGE(CCS)         000000
MAINT OCC(CCS)      000000
TERM TYPE           CCC
IN  DIRECT SIG  SU  000000
OUT DIRECT SIG  SU  000000
```

Description of Measurements for MSC 14

The OMS numbers for this MSC must correspond to the CCIS signaling links (CCIS/CCITT No. 6 Terminals) engineered for the 4ESS Switch office. The maximum OMS for a particular office must be less than or equal to the number of engineered CCIS signaling links (DOMTERM + INTL term specified on 406C), or the contents of OD4DNUM6HR07. Each OMS will supply the following measurements.

OMS 0-255

VFL-1 Near-end Initiated Automatic Changeovers Peg Count
(NEAR AUTO CO VFL1)

This counter is incremented by one when a signaling link is automatically relieved of its traffic load (changeover) and this event is initiated by the near end office.

VFL-2 Near-end Initiated Automatic Changeovers Peg Count
(NEAR AUTO CO VFL2)

Same as above except for VFL-2

VFL-1 Far-end Initiated Automatic Changeovers Peg Count
(FAR AUTO CO VFL1)

This counter is incremented by one when a signaling link is automatically relieved of its traffic load (changeover) and this event is initiated by the far end office.

VFL-2 Far-end Initiated Automatic Changeovers Peg Count
(FAR AUTO CO VFL2)

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

Same as above except for VFL-2

VFL-1 Retransmission Requests Peg Count
(REXMIT REQ VFL1)

This counter is maintained by the CCIS terminal and it is incremented by one each time a retransmission request is received by the terminal. If the number of changeovers for the signaling link is zero during a quarter hour, this count is read from the terminal memory and attributed to the VFL over which transmission occurred during the quarter hour. The count of transmission requests for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the retransmission requests Peg Counters for both VFLs are set to zero.

VFL-2 Retransmission Requests Peg Count
(REXMIT REQ VFL2)

Same as above except for VFL-2

VFL-1 Signal Units in Error Peg Count
(SU IN ERR VFL1)

This counter is maintained by the CCIS terminal and it is incremented by one each time a signal unit is received in error by the terminal. (A signal unit is considered in error when the 8 bit checksum over the other 20 bits in the signal unit that is transmitted, do not match the checksum over the first 20 bits in the signal unit that is computed on reception of the signal unit). If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal memory and attributed to the VFL over which transmission occurred during the quarter hour. The count of signal units in error for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the signal units in error Peg Counts for both VFLs are set to zero.

VFL-2 Signal Units in Error Peg Count
(SU IN ERR VFL2)

Same as above except for VFL-2

VFL-1 Quarter Hour in Service Peg Count
(QTR HR IN SRV VFL1)

This counter is set to one each quarter hour during which no changeovers for the signaling link occurred. The quarter hour in service Peg Counter for the other VFL of the pair is set to zero. If changeovers occurred during the quarter hour, the quarter hour in service Peg Counters for both VFLs are set to zero.

VFL-2 Quarter Hour in Service Peg Count
(QTR HR IN SVR VFL2)

Same as above except for VFL-2

Received Repeated ACU Peg Count
(RCV RPT ACU)

This counter is maintained by the CCIS terminal and is incremented by one each time a received Acknowledgement Signal Unit (ACU) contains a block acknowledgement number equal to the block acknowledgement number in the last ACU received. If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal. Otherwise, it is set to zero.

Received Skipped ACU Peg Count
(RCV SKP ACU)

This counter is maintained by the CCIS terminal and is incremented by one each time a received ACU contains an acknowledgement number that is more than one greater than the block acknowledgement number in the last ACU received. A retransmission request is then made for the skipped block. If the number of changeovers for the signaling link is zero during the quarter hour, this count is read from the terminal. Otherwise it is set to zero.

Total Incoming Messages Peg Count
(IN MSGS)

This counter is maintained by the CCIS terminal and is incremented by one for each message received (a message may consist of more than one signal unit).

Total Incoming Data Filled Signal Units
Peg Count
(IN DATA FILLED SU)

This counter is maintained by the CCIS terminal and is incremented by one for each non-SYN, non-ACU signal unit that is received. This count includes retransmitted data filled signal units.

Incoming Transitions Peg Count
(IN TRANS)

This count is maintained by the CCIS terminal and is incremented by one each time an incoming data filled signal unit is followed by an SYU or preceded by an SYU, not counting the presence of ACU's.

Incoming IAM Peg Count
(IN IAM)

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

This counter is maintained by the CCIS terminal and is incremented by one for each Initial Address Message (IMA) that is received. This count includes retransmitted IAMs.

Incoming Answer Signal Units Peg Count
(IN ANS)

This count is maintained by the CCIS terminal and is incremented by one each time an answer signal is received.

Total Outgoing Messages Peg Count
(OUT MSGS)

This counter is maintained by the CCIS terminal and is incremented by one for each message transmitted (a message may consist of more than one signal unit).

Total Outgoing Data Filled Signal Units
Peg Count
(OUT DATA FILLED SU)

This counter is maintained by the CCIS terminal and is incremented by one for each non-Synchronous (SYN), non-ACU signal unit that is transmitted. This count includes retransmitted data filled signal units.

Initial Address Messages Transferred
Per Terminal
(IAM XFER PER TERM)

This counter is maintained by the number of CCITT6 IAMS forwarded at the international STP. This count is stored per receiving terminal to indicate the originating office.

Outgoing Transitions Peg Count
(OUT TRANS)

This count is maintained by the CCIS terminal and is incremented by one each time an outgoing data filled signal unit is followed by an SYU or preceded by an SYU, not counting the presence of ACU's.

Outgoing IAM Peg Count
(OUT IAM)

This counter is maintained by the CCIS terminal and is incremented by one for each IAM that is transmitted. This count includes transmitted IAMs.

Outgoing Answer Signal Units Peg Count
(OUT ANS)

This count is maintained by the CCIS terminal and is incremented by one each time an answer signal is transmitted.

Emergency Restart Peg Count
(EMER RESTART)

This count is incremented by one each time synchronization is successfully achieved after failure of all Data Links associated with a terminal pair. The count is incremented against the terminal in which synchronization first occurred. The number of restarts per terminal pair is the sum of the restarts pegged for the associated terminals.

Threshold Exceeded Peg Counts
(THRES EXC)

This count is incremented by one each time the CCIS terminal reports that it was necessary to link spare memory to the report buffer. This occurs when the number of pending incoming and outgoing messages have filled the normal buffer to capacity.

Threshold Exceeded Time in Seconds
(THRES EXC SEC)

This count contains the time in seconds that spare memory is linked to the report buffer. On initial threshold exceeded the counter is incremented once. After one second, if the contents of the buffer is not reduced to or below the capacity of the normal buffer size, the count is incremented again. One second later, if the buffer contents have not been reduced to normal capacity the terminal is removed from service.

Buffer Overflow Peg Count
(BUFFER OVFL)

This counter is incremented by one each time the buffer and the spare linked memory are full of pending messages and an incoming message for which there is no room is received. The terminal is then removed from service.

Terminal Pair Outage
(OUTAGE - CCS)

This count contains the time in CCS of duplex failure of a terminal pair. Each terminal counter contains the pair outage. The count is achieved by scanning the link security registers for the prohibit state every 10 seconds.

Terminal Maintenance Occupancy

TABLE 14 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 14
(CCIS/CCITT NO. 6 TERMINALS)

(MAINT OCC - CCS)

This count contains the time in CCS that the terminal was marked maintenance busy. It does not include any time that the TGR containing the terminal was duplex failed but may include time the terminal pair was duplex failed if the terminals in the pair are in different frames.

Terminal Type Identifier
(TERM TYPE)

Three ASCII characters are used to identify the terminal as Domestic CCIS (DOM), International CCITT No. 6 (INT), or Domestic 4800 BPS (D48).

Incoming Direct Signaling Signal Units
Peg Count
(IN DIRECT SIG SU)

This counter will be incremented by the number of signaling units in the message each time a direct signaling message is received on a particular signaling link. This count is kept by the CCIS terminal program in the terminal memory.

Outgoing Direct Signaling Signal Units
Peg Count
(OUT DIRECT SIG SU)

This counter is incremented by the number of signaling units in the message each time a direct signaling message is sent on a particular signaling link. This count is kept by the CCIS terminal program in the terminal memory.

TABLE 15

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

```
MSC 15  INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS

OMS 0  SECOND STAGE
        ATTS     VCA  ABN-ND  ABN-SD    FAIL
INTL       0       0       0       0       -
EA         -       -       -       -       0
DOM        -       -       0       0       -

OMS 1  IOC OPER ATTEMPTS
    INT ONLY      0
    INT OVFL      0
    INT-DOM       0
    OUT           0
    NC-DOM        0
    NC-INTL       0

OMS 2  INTL IA
    VCA
                     CUSTOMER    OPERATOR    SCREENED
      TRANSIT             0           0           0
      INBOUND             0           0           -
      ITUP                0           0           -
      INUP                0           0           -

                       ITUP        INUP
      TRANSIT             0           0

                        IOC        IOTC
      DOM OPER            0           0

    NCA CUST            0

    OUTBOUND INTERNATIONAL OVFL
      NTC        0
      NSC        0

    NM BLOCKED INTERNATIONAL
      SDOC        STR    CAN-TO     CAN-FR
         0          0         0          0
    INBOUND SCREENED
      INV CALL          0
      INV L DIG         0

    TRANSLATION FAILURE
          CCITT#5     CCITT#6      IOC         TSPC
                0           0          0           0

    OUTBOUND INTERNATIONAL SERVICE
         TC    TCVPC     OPER  OPERVPC   OUTWATS   OWVPC
          0        0        0        0         0       0
       CUST  CUSTVPC
          0        0
```

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

```
OMS 3 ORIG INTL CALL - DOM SATELLITE INCOMING
                0
OMS 4 TWO STAGE SWITCHING ERRORS
          PE  NO REC    PSTO    PDTO
INTL       0       0       0       0
DOM        0       0       0       0
EA         0       -       0       0
```

Description of Measurements for MSC 15

OMS 0

Second Stage International Attempts
(SECOND STAGE INTL ATTS)

This count is incremented by one when a call on an international incoming trunk requires two stage pulsing. It does not include calls for which only second stage pulsing formats are used.

Second Stage International Vacant Codes
(SECOND STAGE INTL VCA)

This count is incremented by one when a vacant code is recognized during second stage impulsing. It does not include the cases where second stage only impulsing is used as in operator and inter-ISC overflow calls. The latter are considered international vacant codes.

Abandon During Second Stage International -
No Digits Received
(SECOND STAGE INTL ABN-ND)

This counter is incremented by one when an international incoming trunk abandons while second stage impulsing is taking place and no digits have been received.

Abandon During Second Stage International -
Some Digits Received
(SECOND STAGE INTL ABN-SD)

This counter is incremented by one when an international incoming trunk abandons while second stage impulsing is taking place and some digits have been received.

Second Stage Equal Access Failure Peg Count
(SECOND STAGE EA FAIL)

This counter is incremented by one when the second stage of an EA call is not received.

Abandon During Second Stage VSS -
No Digits Received
(SECOND STAGE DOM ABN-ND)

This counter is incremented by one when a VSS incoming trunk abandons while second stage impulsing is taking place and no digits have been received.

Abandon During Second Stage VSS -
Some Digits Received
(SECOND STAGE DOM ABN-SD)

This counter is incremented by one when a VSS incoming trunk abandons while second stage impulsing is taking place and some digits have been received.

OMS 1

International Originating Attempts To
The Local IOC Operator
(INT ONLY)

This count is incremented by the number of incoming international originating calls offered to local IOC operators, by a 4ESS Switch machine. It is the summation of trunk subgroup head cell counts that represent successful trunk hunts.

International Originating Attempts To
The Local IOC Operator That Overflow
(INT OVFL)

This count is incremented by the number of incoming international originating calls offered to local IOC operators that overflow. It is the summation of Trunk Subgroup head cell counts that represent successful trunk hunts.

Local IOC Originating Operator Incoming
Attempts Going To Domestic or International
Domain
(INT-DOM)

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

This count is incremented by the number of incoming international and domestic calls attempted by local IOC operators to go to the domestic or international domain. It is the summation of Trunk Subgroup head cell counts that represent successful trunk hunts.

IOC Operator Outgoing Attempts
(OUT)

This count is incremented by the number of outgoing calls (domestic or international originating) offered to local IOC operators. It is the summation of Trunk Subgroup head cell counts that represent successful trunk hunts.

IOC Operator No Circuit-Domestic
(NC-DOM)

This counter is incremented by one when a call originated by a local IOC operator fails to find an idle trunk in the domestic domain.

IOC Operator No Circuit-International
(NC-INTL)

This counter is incremented by one when a call originated by an IOC operator fails to find an idle trunk in the international domain.

OMS 2

International Customer Dialed Vacant Code
(CUSTOMER-TRANSIT VCA)

This counter is incremented by one when a vacant code is recognized on an international call that was customer dialed.

International Operator Dialed Vacant Code
(OPERATOR-TRANSIT VCA)

This counter is incremented by one when a vacant code is recognized on an international call that was operator dialed.

International Calls Blocked by Screening
(SCREENED-TRANSIT VCA)

This counter is incremented by one when an international customer originated call attempts to reach a number not reachable by direct dialing. This would include INWATS numbers and domestic directory information numbers.

International Inbound Customer Dialed
Vacant Code
(CUSTOMER-INBOUND VCA)

This counter is incremented by one when an inbound customer dialed call on a CCITT No. 5 or CCITT No. 6 trunk is determined to be a vacant code.

International Inbound Operator Dialed
Vacant Code
(OPERATOR-INBOUND VCA)

This counter is incremented by one when an inbound operator dialed call on a CCITT No. 5 or CCITT No. 6 trunk is determined to be a vacant code.

ITUP Inbound Customer Dialed
Vacant Code
(CUSTOMER-ITUP VCA)

This counter is incremented by one when an inbound customer dialed call on an ITUP trunk is determined to be a vacant code.

ITUP Inbound Operator Dialed
Vacant Code
(OPERATOR-ITUP VCA)

This counter is incremented by one when an inbound operator dialed call on an ITUP trunk is determined to be vacant code.

INUP Inbound Customer Dialed
Vacant Code
(CUSTOMER-INUP VCA)

This counter is incremented by one when an inbound customer dialed call on an INUP trunk is determined to be a vacant code.

INUP Inbound Operator Dialed
Vacant Code
(OPERATOR-INUP VCA)

This counter is incremented by one when an inbound operator dialed call on an INUP trunk is determined to be vacant code.

ITUP Transit Vacant Code
(ITUP TRANSIT VCA)

This counter is incremented by one when a transit call on an ITUP trunk fails on what is determined to be a vacant code.

INUP Transit Vacant Code
(INUP TRANSIT VCA)

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

This counter is incremented by one when a transit call on an INUP trunk fails on what is determined to be a vacant code.

Domestic IOC Originated Vacant Code
(IOC-DOM OPER VCA)

This counter is incremented by one when a domestic IOC dialed outbound call is determined to be a vacant code.

Domestic IOTC Originated Vacant Code
(IOTC-DOM OPER VCA)

This counter is incremented by one when a domestic IOTC dialed outbound call is determined to be a vacant code.

International Outbound Customer
Dialed Call Encountered No Circuit
(NCA CUST)

This counter is incremented by one when a customer dialed international outbound call encounters no circuit.

NTC Received on International Outbound
Call Using CCIS Overflow Trunk Subgroup
(OUTBOUND INTERNATIONAL OVFL-NTC)

This counter is incremented by one when National trunk congestion (NTC) has been received for an outbound call placed on an International overflow Trunk Subgroup.

NSC Received on International Outbound
Call Using CCIS Overflow Trunk Subgroup
(OUTBOUND INTERNATIONAL OVFL-NSC)

This counter is incremented by one when National Switching Congestion (NSC) has been received for an outbound call placed on an International Overflow Trunk Subgroup.

International Calls Block by Network
Management Controls
(NM BLOCKED INTERNATIONAL)

The four controls used by Network Management to block calls domestically, as explained plained in TABLE 11 for MSC 11/OMS 3, are also used to control International traffic. The counters used to maintain this data are maintained similar to the Domestic equivalent, but the International Blocking Control counters are separate counters.

International Incoming Screened-Invalid Call
(INBOUND SCREENED-INV CALL)

This counter is incremented by one when translation determines that an International inbound call is invalid.

International Incoming Screened-Invalid
Language Digit
(INBOUND SCREENED-INV L DIG)

This counter is incremented by one when translation determines that an International inbound call contains an invalid language digit.

International Translation Fail -
Too Few/Too Many Digits
CCITT No. 5 Incoming Trunk
(TRANSLATION FAILURE-CCITT#5)

This counter is incremented by one when an incoming transit call on a CCITT No. 5 trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits
CCITT No. 6 Incoming Trunk
(TRANSLATION FAILURE-CCITT#6)

This counter is incremented by one when an incoming transit call on a CCITT No. 6 trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits IOC ITC
(TRANSLATION FAILURE-IOC)

This counter is incremented by one when an outbound transit call on an International Operator Center (IOC) incoming trunk contains too few/too many digits for further International translation.

International Translation Fail -
Too Few/Too Many Digits TSPC
(TRANSLATION FAILURE-TSPC)

This counter is incremented by one when an International outbound call has too few/too many second stage digits for further International translation.

Outbound International Teleconferencing
Peg Count
(TC)

This register is incremented by one when an outbound international teleconferencing call is attempted.

Outbound International Teleconferencing,

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

Voice Path Cancellation Peg Count
(TCVPC)

This register is incremented by one when an outbound international teleconferencing call with voice path assurance cancellation is attempted.

Outbound International Operator Peg Count
(OPER)

This register is incremented by one when an operator originated international outbound call is attempted.

Outbound International Operator,
Voice Path Cancellation Peg Count
(OPERVPC)

This register is incremented by one when an operator originated international outbound call with voice path assurance cancellation is attempted.

Outbound International Toll-Free
Peg Count
(OUTWATS)

This register is incremented by one when an outbound international toll-free call is attempted by a customer.

Outbound International Toll-Free,
Voice Path Cancellation Peg Count
(OWVPC)

This register is incremented by one when an outbound international toll-free call, with voice path assurance cancellation, is attempted by a customer.

Outbound Customer Dialed Call Peg Count
(CUST)

This register is incremented by one when an outbound international customer dialed call is attempted.

Outbound Customer Dialed Call, Voice
Path Cancellation Peg Count
(CUSTVPC)

This register is incremented by one when an outbound international customer dialed call with voice path cancellation is attempted.

OMS 3

Originating International Call
Incoming From a Domestic Satellite
(DOM SATELLITE INCOMING)

This counter is incremented by one when a call destined for non-world zone 1 is sent via a Domestic Satellite link from a world zone 1 office.

OMS 4

Two Stage Pulsing Errors
(TWO STAGE INTL PE)

This count is incremented by one each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Two Stage MF Receiver Not Found
(TWO STAGE INTL NO REC)

This counter is incremented by one when there is no available MF Receiver for a call requiring second stage pulsing after a previously selected receiver cannot be connected.

Two Stage MF Permanent Signal Timeout
(TWO STAGE INTL PSTO)

This counter is incremented by one each time a bid for service is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE INTL PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) is received before partial dial timeout on a trunk requiring two stage pulsing.

Two Stage VSS Pulsing Errors
(TWO STAGE DOM PE)

TABLE 15 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 15
(INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS)

This count is incremented by one on a VSS call each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Two Stage VSS MF Receiver Not Found
(TWO STAGE DOM NO REC)

This counter is incremented by one when there is no available MF Receiver for a VSS call requiring second stage pulsing after a previously selected receiver cannot be connected.

Two Stage Permanent Signal Timeout
(TWO STAGE DOM PSTO)

This counter is incremented by one each time a bid for service for a VSS call is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE DOM PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) for a VSS call is received before partial dial timeout on a trunk requiring two stage pulsing.

Two Stage EA Pulsing Errors
(TWO STAGE EA PE)

This count is incremented by one on an EA call each time one or more of the received digits is in error. This error may be defined by one of the following:

1. Mutilated Digit - On MF pulsing calls, when a single frequency or more than two frequencies are received in a digit pulse.
2. False Key Pulse - On MF pulsing calls, when a second keypulse (KP) signal is received.
3. Extra Digit - When more digits are received than expected.
4. Pulsing Error Other - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above definitions.

Two Stage Permanent Signal Timeout
(TWO STAGE EA PSTO)

This counter is incremented by one each time a bid for service for an EA call is received but no digits are received within the permanent signal timeout interval on Two Stage Pulsing calls.

Two Stage Partial Dial Timeout
(TWO STAGE EA PDTO)

This counter is incremented by one each time at least one digit (but less than the expected number of digits) for an EA call is received before partial dial timeout on a trunk requiring two stage pulsing.

TABLE 16

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

```
MSC 16 IO,FS,TU,AND DLK
OMS 0
OUTMSG  OUTMSG    OMR      OMR      OMR
 SUCS    FAIL    SZRE     USAGE    OVFL
     0       0       0        0        0

OMS 1  APS COMM
MISSED 3B COLLECTIONS 0
DKADI REQ   ACCEPTED      REJ     COMPL   CANCELED   FAILED
                  0        0         0          0        0
DMA JOB BUFF  SZRE     RSV ST     OVFL       CCS    TIMEOUT
1A               0          0         0          0         0
3B               0          0         0          0         0
COM BUFFER    SZRE       CCS      OVFL
1A               0          0         0
3B               0          0         0
MESSAGES      MSGS      READS    WRITES
1A               0          0         0
3B               0          0         0
FMI BUFFERS   SZRE       CCS      OVFL
3B               0          0         0
```

Description of Measurements for MSC 16

OMS 0

Output Message Success Peg Count
(OUTMSG SUCS)

When an output message is successfully loaded and placed on the translate link list, this counter is incremented by one.

Output Message Failure Peg Count
(OUTMSG FAIL)

This counter is incremented by one when an output message is not successfully loaded due to: incorrect input data in the PRINT call; or to a filed attempt to remove Output Message Register (OMRs) from the OMR idle link list (insufficient OMRs available); or the idle link list is found in an invalid state.

OMR Seizure Peg Count
(OMR SZRE)

Each time an output message is loaded into one or more Output Message Registers (OMRs) this counter is incremented by the number of OMRs removed from the OMR idle link list.

OMR Usage
(OMR USAGE)

The OMR occupancy counter is scanned every ten seconds for the number of OMRs that are busy. This number is accumulated over the measurement interval and it is converted to CCS units before output.

OMR Overflow Peg Count
(OMR OVFL)

When an attempt to remove OMRs from the OMR idle link list for an output message fails because enough OMRs are not available, this counter is incremented by the number of OMRs requested for the output message.

OMS 1

Missed 3B Collections Peg Count
(MISSED 3B COLLECTIONS)

This count reflects the number of times the 1A processor failed to collect 3B AP driver counts. The collection is performed once every 15 minutes.

Disk Requests Accepted Peg Count
(DKADI REQ ACCEPTED)

This count is incremented each time the disk administration program accepts a client request to make a disk request.

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

Disk Requests Rejected Peg Count
(DKADI REQ REJ)

This count is incremented each time the disk administration program does not accept a client disk request. These type of failures result from software range checks on input parameters.

Disk Requests Completed Peg Count
(DKADI REQ COMPL)

This count is incremented each time the disk administration program completes the transfer of data requested by a client.

Disk Requests Canceled Peg Count
(DKADI REQ CANCELED)

This count is incremented by the disk administration program each time a disk request is canceled.

Disk Requests Failed Peg Count
(DKADI REQ FAILED)

This count is incremented each time the disk administration program determines a request failed after being accepted. This does not include the number of requests canceled.

1A DMA Job Buffer Seizures Peg Count
(DMA JOB BUFF SZRE 1A)

This count is incremented each time the attached processor message handler program seizes a direct memory access job buffer. DMA buffers control memory transfers between the 1A and 3B processors.

1A DMA Job Buffers Entered into the
Reserved State Peg Count
(DMA JOB BUFF RSV ST 1A)

This count is incremented each time the attached processor message handler program changes a direct memory access job buffer state to reserved. The buffer is in the reserved state until the DMA transfer is ready in each processor.

1A DMA Job Buffer Overflow Peg Count
(DMA JOB BUFF OVFL 1A)

This count is incremented whenever the attached processor message handler program needed a direct memory access job buffer and none was available.

1A DMA Job Buffer Usage
(DMA JOB BUFF CCS 1A)

This number represents the 1A direct memory access job buffers usage in units of CCS, over the measurement interval.

1A DMA Job Buffer Timeout Peg Count
(DMA JOB BUFF TIMEOUT 1A)

This count is incremented whenever the attached processor message handler program determines a direct memory access job buffer has timed out waiting for a block transfer to take place.

3B DMA Job Buffer Seizures Peg Count
(DMA JOB BUFF SZRE 3B)

This count is incremented whenever the 3B AP driver program seizes a direct memory access job buffer. DMA buffers control memory transfers between the 1A and 3B processors.

3B DMA Job Buffers Entered into the
Reserved State Peg Count
(DMA JOB BUFF RSV ST 3B)

This count is incremented whenever the 3B AP driver program changes a direct memory access job buffer state to reserved. The buffer is in the reserved state until the DMA transfer is ready in each processor.

3B DMA Job Buffer Overflow Peg Count
(DMA JOB BUFF OVFL 3B)

This count is incremented whenever the 3B AP driver program needs a direct memory access job buffer and none is available.

3B DMA Job Buffer Usage
(DMA JOB BUFF CCS 3B)

This number represents the 3B direct memory access job buffer usage, in units of CCS, over the measurement interval.

3B DMA Job Buffer Timeout Peg Count
(DMA JOB BUFF TIMEOUT 3B)

This count is incremented whenever the 3B AP driver program determines a direct memory access job buffer has timed out waiting for a block transfer to take place.

1A-3B Communication Send Buffer Seizures
Peg Count
(COM BUFFER SZRE 1A)

When the 1A attached processor message handler program enters a message into the 3B communication

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

send buffer this count is incremented. The communication buffer is a mechanism that enables programs in the 1A and in the 3B to communicate. The 3B AP driver delivers the message to the proper 3B client.

1A Communication Buffer Usage
(COM BUFFER CCS 1A)

This number represents the usage, in CCS, of the 1A resident 3B communications send buffer, over the measurement interval.

1A-3B Communication Send Buffer Overflows
Peg Count
(COM BUFFER OVFL 1A)

When the 1A attached processor message handler program cannot load a message into the 3B communication send buffer because there is no room, this count is incremented.

3B-1A Communication Send Buffer Seizures
Peg Count
(COM BUFFER SZRE 3B)

When the 3B AP driver program enters a message into the 3B communication send buffer this count is incremented. The communication buffer is a mechanism that enables programs in the 1A and in the 3B to communicate. The 1A attached processor message handler program delivers the message to the proper 1A client.

3B Communication Send Buffer Usage
(COM BUFFER CCS 3B)

This number represents the usage, in CCS, of the 3B resident 1A communication send buffer, over the measurement interval.

3B-1A Communication Send Buffer Overflows
Peg Count
(COM BUFFER OVFL 3B)

When the 3B AP driver program cannot load a message into the 1A communication send buffer because there is no room, this count is incremented.

1A Messages Sent to the 3B Peg Count
(MESSAGES MSGS 1A)

This is a count of the number of times the 1A attached processor message handler program loaded a message of type MSG into the 3B communication send buffer. There are around 13 different message types.

1A Read Messages Sent to the 3B Peg Count
(MESSAGES READS 1A)

This is a count of the number of times the 1A attached processor message handler program loaded a message of type READ into the 3B communication send buffer.

1A Write Messages Sent to the 3B Peg Count
(MESSAGES WRITES 1A)

This is a count of the number of times the 1A attached processor message handler program loaded a message of type WRITE into the 3B communication send buffer.

3B Messages Sent to the 1A Peg Count
(MESSAGES MSGS 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type MSG into the 1A communication send buffer. There are around 13 different message types.

3B Read Messages Sent to the 1A Peg Count
(MESSAGES READS 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type READ Into the 1A communication send buffer.

3B Write Messages Sent to the 1A Peg Count
(MESSAGES WRITES 3B)

This is a count of the number of times the 3B AP driver program loaded a message of type WRITE into the 1A communication send buffer.

3B File Manager Buffer Seizures
Peg Count
(FMI BUFFERS SZRE 3B)

This count is incremented each time a FMI buffer is required by the file manager interface. FMI buffers hold data for transfer to or from the 1A section of the 3B disk. The file manager interface is part of the 3B AP driver program.

3B File Manager Buffer Usage
(FMI BUFFERS CCS 3B)

This number is the FMI buffer usage, in CCS, over the measurement interval.

3B File Manager Buffer Overflows Peg Count
(FMI BUFFERS OVFL 3B)

This count is incremented each time a FMI buffer is required by the file manager interface and none is

TABLE 16 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 16
(I/O, FILE STORE, TAPE UNIT AND DATA LINK)

available. FMI buffers hold data for transfer to or from the 1A section of the 3B disk. The file manager interface is part of the 3B AP driver program.

TABLE 17

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

```
MSC 17 ENGINEERED MEMORY
OMS 0  DOMESTIC MEMORY
                 SZRE     RLS
ISUP CTP CR         0       0
                 SZRE    USAGE    OVFL    ABAN
MF CR               0        -       -       -
DP CR               0        -       -       -
CCIS CR             0        -       -       -
MISC CR             0        -       -       -
Q931 CR             0        -       -       -
ISUP CR             0        -       -       -
ITUP CR             0        -       -       -
INUP CR             0        -       -       -
Q931 CR QUEUE       0        0       0       0
ISUP CR QUEUE       0        0       0       0
ITUP CR QUEUE       0        0       0       0
INUP CR QUEUE       0        0       0       0
CR                  -        0       -       -
DP CR QUEUE         0        0       0       0
CCIS CR QUEUE       0        0       0       0
MF ORIG QUEUE       0        0       -       0
DTMF CR             0        -       -       -
IDTMFWK CR Q        0        0       -       0
IDTS CR QUEUE       0        0       0       0

OMS 1  MEMORY FOR INTERNATIONAL
                       SZRE      USAGE      OVFL      ABAN
CCITT5 CR                 0          -         -         -
CCITT6 CR                 0          -         -         -
CCITT5 ORIG Q             0          0         -         -
CCITT6 ORIG Q             0          0         0         0
2ND STAGE MF REC Q        0          0         -         0

OMS 2  CALL DETAIL REC. BUFFERS
TOTAL RECORDS LOST       0
BUFFER OCCUPANCY         0

OMS 3  SZRE     CCS    OVFL
TMR       0       0       0
```

Description of Measurements for MSC 17

OMS 0

ISUP Completion of Transmission Path
CR Seize Peg Count
(ISUP CTP CR SZRE)

This count is for data calls where neither the Backward Call Indicator (BCI) nor the Optional Backward Call Indicator (OBCI) in the address complete message says to cut-through the transmission path.

ISUP Completion of Transmission Path
CR Release Peg Count
(ISUP CTP CR RLS)

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

This release count is pegged when an Answer message is received while in the timing for answer states.

MF CR Seizure Peg Count
(MF CR SZRE)

When a Call Register (CR) is removed from the link list of idle CRs and initialized for an MF call or for a test call, this counter will be incremented by one.

DP CR Seizure Peg Count
(DP CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a DP call, this counter will be incremented by one.

CCIS CR Seizure Peg Count
(CCIS CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a CCIS call, this count will be incremented by one.

Miscellaneous CR Seizure Peg Count
(MISC CR SZRE)

This count is incremented by one when a CR is removed from the link list of idle CRs and initialized for a test call.

Q.931 CR Seizure Peg Count
(Q931 CR SZRE)

When a Call Register (CR) is removed from the link list of idle CRs and initialized for a Q.931 call, this counter is incremented by one.

ISUP CR Seizure Peg Count
(ISUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an ISUP call, this counter is incremented by one.

ITUP CR Seizure Peg Count
(ITUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an ITUP call, this counter is incremented by one.

INUP CR Seizure Peg Count
(INUP CR SZRE)

When a call register is removed from the link list of idle CRs and initialized for an INUP call, this counter is incremented by one.

Q.931 Origination CR Queue Seizure
Peg Count
(Q931 CR QUEUE SZRE)

When an incoming Q.931 call fails to obtain a CR by overload, the setup message is placed on queue for a CR, with this counter being incremented by one.

Q.931 Origination CR Queue Usage
(Q931 CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

Q.931 Origination CR Queue Overflow
Peg Count
(Q931 CR QUEUE OVFL)

When a Q.931 call fails to obtain a queue entry due to lack of a free entry, this counter is incremented by one.

Q.931 Origination CR Queue Abandon
Peg Count
(Q931 CR QUEUE ABAN)

When the setup message for a Q.931 call that has been abandoned has been removed from the Q.931 CR queue, this counter is incremented by one.

ISUP Origination CR Queue Seizure
Peg Count
(ISUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received via the CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

ISUP Origination CR Queue Usage
(ISUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. The number is accumulated over the measurement interval and then converted to CCS units before output.

ISUP Origination CR Queue Overflow
Peg Count
(ISUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an ISUP call in an entry on

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

the ISUP origination CR queue fails because no free entry is available, this counter is incremented by one.

ISUP Origination CR Queue Abandon
Peg Count
(ISUP CR QUEUE ABAN)

When the IAM and other identifying information for an ISUP call that has been abandoned is removed from the ISUP origination call register queue, this counter is incremented by one.

ITUP Origination CR Queue Seizure
Peg Count
(ITUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received on an ITUP CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

ITUP Origination CR Queue Usage
(ITUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This is accumulated over the measurement interval and then converted to CCS units before output.

ITUP CR Queue Overflow Peg Count
(ITUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an ITUP call in an entry on the ITUP origination CR queue fails because no free entry is available, this counter is incremented by one.

ITUP Origination CR Queue Abandon
Peg Count
(ITUP CR QUEUE ABAN)

When the IAM and other identifying information for an ITUP call that has been abandoned is removed from the ITUP origination call register queue, this counter is incremented by one.

INUP Origination CR Queue Seizure
Peg Count
(INUP CR QUEUE SZRE)

This counter is incremented by one each time an IAM is received on an INUP CCS7 node for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

INUP Origination CR Queue Usage
(INUP CR QUEUE USAGE)

This queue occupancy count is scanned every ten seconds for the number of entries on the queue. This is accumulated over the measurement interval and then converted to CCS units before output.

INUP CR Queue Overflow Peg Count
(INUP CR QUEUE OVFL)

When an attempt to place an IAM and other identifying information associated with an INUP call in an entry on the INUP origination CR queue fails because no free entry is available, this counter is incremented by one.

INUP Origination CR Queue Abandon
Peg Count
(INUP CR QUEUE ABAN)

When the IAM and other identifying information for an INUP call that has been abandoned is removed from the INUP origination call register queue, this counter is incremented by one.

Call Register (CR) Usage
(CR USAGE)

The Call Register occupancy count is scanned every ten seconds for the number of CRs that are busy. This number is accumulated over the measurement interval and then converted to CCS units before output.

DP CR Queue Seizure Peg Count
(DP CR QUEUE SZRE)

When the Trunk Register (TR) of a trunk associated with an incoming DP call is linked to an entry on the DP CR queue, this counter will be incremented by one.

DP CR Queue Usage
(DP CR QUEUE USAGE)

The DP CR queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and it is converted to CCS units before output.

DP CR Queue Overflow Peg Count
(DP CR QUEUE OVFL)

This counter is incremented by one when an attempt to link the Trunk Register of a trunk handling a DP call with an entry on the DP CR queue fails because there is no free entry on the queue. (same count as MSC 11 OMS 6).

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

DP CR Queue Abandon Peg Count
(DP CR QUEUE ABAN)

When the Trunk Register of a trunk associated with a DP call that has been abandoned is unlinked from the DP CR queue, this counter is incremented by one. (same count as MSC 11 OMS 6).

CCIS Origination CR Queue Seizure
Peg Count
(CCIS CR QUEUE SZRE)

This counter is incremented by one each time an Initial Address Message (IAM) is read from a terminal for which no CR can be assigned. The message and identifying information will be stored in an entry on the queue.

CCIS Origination CR Queue Usage
(CCIS CR QUEUE USAGE)

The queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCIS Origination CR Queue Overflow
Peg Count
(CCIS CR QUEUE OVFL)

When an attempt to place an IAM, and other identifying information associated with a CCIS call, in an entry on the CCIS origination CR queue fails because no free entry is available, this counter is incremented by one. (same count as MSC 11 OMS 6).

CCIS Origination CR Queue Abandon
Peg Count
(CCIS CR QUEUE ABAN)

When the IAM and other identifying information for a CCIS call that has been abandoned is removed from the CCIS origination Call Register queue, this counter is incremented by one. (same count as MSC 11 OMS 6).

MF Origination Queue Seizure Peg Count
(MF ORIG QUEUE SZRE)

When the Trunk Register of a trunk with an MF origination is linked to the MF origination queue, this counter will be incremented by one.

MF Origination Queue Usage
(MF ORIG QUEUE USAGE)

The MF origination queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

MF Origination Queue Abandon Peg Count
(MF ORIG QUEUE ABAN)

When the Trunk Register of a trunk with an MF origination in unlinked from the MF origination queue after the origination is abandoned, this counter is incremented by one.

DTMF CR Seizure Peg Count
(DTMF CR SZRE)

When a CR is removed from the link list of idle CRs and initialized for a DTMF call, the counter will be incremented by one.

IDTMFWK CR Queue Seizure Peg Count
(IDTMFWK CR Q SZRE)

When the TR of a trunk associated with an incoming DTMF call is linked to an entry on the incoming DTMF wink (IDTMFWK) CR queue, this counter will be incremented by one.

IDTMFWK CR Queue Usage
(IDTMFWK CR Q USAGE)

The IDTMFWK CR Queue occupancy count is scanned every 10 seconds for the number of entries on the queue. The number is accumulated over the measurement interval and it is converted to CCS units before output.

IDTMFWK CR Queue Abandon Peg Count
(IDTMFWK CR Q ABAN)

When the TR of a trunk associated with a DTMF call that has been abandoned is unlinked from the IDTMFWK CR queue, this counter is incremented by one.

IDTS CR Queue Seizure Peg Count
(IDTS CR QUEUE SZRE)

When the TR of a trunk associated with an Incoming Dial Tone Start (IDTS) call is linked to an entry on the IDTS CR queue, this counter will be incremented by one.

IDTS CR Queue Usage
(IDTS CR QUEUE USAGE)

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

The IDTS CR Queue occupancy count is scanned every 10 seconds for the number of entries on the queue. The number is accumulated over the measurement interval and it is converted to CCS units before output.

IDTS CR Queue Overflow Peg Count
(IDTS CR QUEUE OVFL)

This counter is incremented by one when an attempt to link the TR of a trunk handling an IDTS call to an entry on the IDTS CR queue fails because there is no free entry on the queue.

IDTS CR Queue Abandon Peg Count
(IDTS CR QUEUE ABAN)

When the TR of a trunk associated with an IDTS call that has been abandoned is unlinked from the IDTS CR queue, this counter is incremented by one.

OMS 1

CCITT No. 5 Call Register Queue Seizure
Peg Count
(CCITT5 CR SZRE)

When a Call Register is removed from the link list of idle CRs and initialized for a CCITT No. 5 call, this counter will be incremented by one.

CCITT No. 6 Call Register Queue Seizure
Peg Count
(CCITT6 CR SZRE)

This count will be incremented by one when a CR is removed from the link list of idle CRs and initialized for a CCITT No. 6 call.

CCITT No. 5 Originating Queue Seizure
Peg Count
(CCITT5 ORIG Q SZRE)

This count is incremented by one when the Trunk Register of a trunk with a CCITT No. 5 origination is linked to the CCITT No. 5 origination queue.

CCITT No. 5 Originating Queue Usage
(CCITT5 ORIG Q USAGE)

The CCITT No. 5 originating queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCITT No. 6 Originating Queue Seizure
Peg Count
(CCITT6 ORIG Q SZRE)

This counter is incremented by one when a CCITT No. 6 call goes on queue for a Call Register.

CCITT No. 6 Originating Queue Usage
(CCITT6 ORIG Q USAGE)

The CCITT No. 6 originating queue usage count is scanned every ten seconds the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS units before output.

CCITT No. 6 Originating Queue Overflow
Peg Count
(CCITT6 ORIG Q OVFL)

This count is incremented by one when an attempt to link the Trunk Register of a trunk handling a CCITT No. 6 call with an entry on the CCITT No. 6 CR queue fails because there is no free entry on the queue.

CCITT No. 6 Originating Queue Abandon
Peg Count
(CCITT6 ORIG Q ABAN)

This counter is incremented by one when a CCITT No. 6 call goes off the originating queue for any abnormal reason. The count is pegged via Final Handling.

Second Stage MF Receiver Queue Seizure
Peg Count
(2ND STAGE MF REC Q SZRE)

This count is incremented by one when a call requiring second stage is removed from the CR link list and canceled to a second stage MF Receiver.

Second Stage MF Receiver Queue Usage
(2ND STAGE MF REC Q USAGE)

The second stage MF Receiver queue occupancy count is scanned every ten seconds for the number of entries on the queue. This number is accumulated over the measurement interval and then converted to CCS before output.

Second Stage MF Receiver Queue Abandon
Peg Count
(2ND STAGE MF REC Q ABAN)

This count is incremented by one when a call on the second stage MF Receiver queue leaves the queue for

TABLE 17 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 17
(ENGINEERED MEMORY)

any abnormal reason. The count is incremented via Final Handling.

OMS 2

International Call Detail Recording
Registers Total Records Lost Peg Count
(TOTAL RECORDS LOST)

This count is incremented by one every time a request is made to write a record into the buffer block but there are no buffer blocks available.

International Call Detail Recording
Register Buffer Block Occupancy Peg Count
(BUFFER OCCUPANCY)

The buffer occupancy counter is an up/down counter that reflects how many records are in the buffer at any time.

OMS 3

Trunk Maintenance Register Seizure
Peg Count
(TMR SZRE)

When a Trunk Maintenance Register (TMR) is removed from the link list of idle TMRs and initialized for a trunk maintenance test, this counter will be incremented by one.

Trunk Maintenance Register Usage
(TMR CCS)

The TMR occupancy count is scanned every ten seconds for the number of registers that are busy. This number is accumulated over the measurement interval and converted to CCS units before output.

Trunk Maintenance Register Overflow
Peg Count
(TMR OVFL)

This counter is incremented by one when an attempt to seize an idle TMR fails because there are no idle TMRs on the TMR idle link list.

TABLE 18

OUTPUT MEASUREMENT SETS FOR MSC 18
(CAMA INEFFECTIVE ATTEMPTS)

```
MSC 18 CAMA IA
OMS 0
    CAMA         CAMA    CAMA POS              CAMA
   POS TO         CDT     ATT TO       CPR   POS DISC
        0           0          0         0          0
                          OVFL     ABAN
  OPERATOR QUEUE           0        0
  DP ANI RCVR QUEUE        -        0
     MCA        UCA
       0          0
```

Description of Measurements for MSC 18

OMS 0

CAMA Position Timeout Peg Count
(CAMA POS TO)

This register will be incremented when an occupied and idle CAMA operator position is seized, but remains unassigned until it times out.

CAMA Position Disconnect Timeout
Peg Count
(CAMA CDT)

This counter will be incremented by one whenever more than 5 seconds elapse between sending a disconnect signal to a CAMA operator position and receipt of off-hook from the operator on the keying trunk.

CAMA Position Attached Timeout Peg Count
(CAMA POS ATT TO)

This counter is incremented by one each time the CAMA position fails to provide a position attached signal within 30 seconds of seizure.

CAMA Position Report (CPR) Peg Count
(CPR)

This register will be incremented by one when a trouble condition is reported by the operator. An example might be poor transmission. This results in a predetermined seven digit trouble code being keyed (rather than a calling party number) and the call is aborted. (Same as MSC 36 OMS 5.)

CAMA Position Disconnect Peg Count
(CAMA POS DISC)

This counter is incremented by one each time an operator depresses the position disconnect key or unplugs between the time seizure is sent out and valid ONI digits are received. (Same as MSC 19 OMS 0.)

CAMA Operator Queue Overflow Peg Count
(OPERATOR QUEUE OVFL)

When an attempt to link a Call Register on the CAMA operator queue fails because the queue is full, this counter is incremented by one. (Same as MSC 19 OMS 0.)

CAMA Operator Queue Abandon Peg Count
(OPERATOR QUEUE ABAN)

This counter is incremented when the Call Register of a call that has been abandoned is unlinked from the CAMA operator queue (Same as MSC 19 OMS 0).

DP ANI MF Receiver Queue Abandon
Peg Count
(DP ANI RCVR QUEUE ABAN)

When the Call Register of a call that has been abandoned is unlinked from the DP ANI MF receiver queue, this counter is incremented by one. (Same as MSC 19 OMS 0.)

Misrouted CAMA Peg Count
(MCA)

This counter is incremented by one when a call is sent to Final Handling Treatment because a return is made from the local call intercept translation that says the call should have been completed locally.

Unauthorized CAMA Peg Count
(UCA)

This counter is incremented by one when a call is sent to Final Handling Treatment because a return is made from the local call intercept translation that indicates that the dialed number is unauthorized for CAMA (for example, operator codes).

TABLE 19

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

```
MSC 19  CAMA
OMS 0
                        SRV
                  SZRE    USAGE   USAGE   OVFL    ABAN     DCONN
POSITION             0        0       0       -       -         0
OP QUEUE             0        -       0       0       0         -
DP ANI QUEUE         0        -       0       -       0         -

   CALLS      ONI  ANI MP  ONI PROCESSED  5-SEC TOUT
       0        0       0              0           0
     ANF      AIF     AOF
       0        0       0

OMS 1
      AMA MATCH      AMA WRONG
       CHK FAIL    CALLING CODE
              0               0

OMS 2
      EA ANI      EA ANI      EA ANI        CALL          TAPE/3B
        FAIL      FL-RTE        SUCC    RCD LOST           BLOCKS
           0           0           0           0                0
```

Description of Measurements for MSC 19

OMS 0

Total CAMA Positions Seizure Peg Count
(POSITION SZRE)

This counter is incremented by one each time an occupied (manned) and idle CAMA operator position is made service busy. This is done by changing the first busy idle bit associated with a position's keying trunk from 1 to 0.

Total CAMA Positions Service Usage
(POSITION SRV USAGE)

After each ten second scan, this counter is incremented by the number of CAMA operator positions that are found occupied and service busy. This data is converted into CCS by the traffic program before output.

CAMA Positions Usage
(POSITION USAGE)

This counter is incremented by the number of CAMA positions found occupied after each ten second scan. This data is converted into CCS by the traffic program before output.

CAMA Position Disconnect Peg Count
(POSITION DCONN)

This counter is incremented by one each time an operator depresses the position disconnect key or unplugs between the time seizure is sent and valid ONI digits are received. (Same as MSC 18 OMS 0.)

CAMA Operator Queue Seizure Peg Count
(OP QUEUE SZRE)

When a Call Register is linked on the CAMA operator queue, this counter is incremented by one.

CAMA Operator Queue Usage
(OP QUEUE USAGE)

After each ten second scan, this counter is incremented by the number of call registers linked on the CAMA operator queue. This data is converted to CCS by the traffic program before output.

CAMA Operator Queue Overflow Peg Count
(OP QUEUE OVFL)

When an attempt to link a Call Register on the CAMA operator queue fails because the queue is full, this counter is incremented by one. (Same as MSC 18 OMS 0.)

TABLE 19 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

CAMA Operator Queue Abandon Peg Count
(OP QUEUE ABAN)

This counter is incremented by one when the Call Register of a call that has been abandoned is unlinked from the CAMA operator queue. (Same as MSC 18 OMS 0.)

DP ANI MF Receiver Queue Seizure
Peg Count
(DP ANI QUEUE SZRE)

This counter is incremented by one when a Call Register associated with a DP ANI call is linked on the DP ANI MF Receiver queue. This link to the queue is necessary while waiting for a receiver to collect the information digit and the calling number (Same as MSC 18 OMS 0).

DP ANI MF Receiver Queue Usage
(DP ANI QUEUE USAGE)

After each ten second scan, this counter is incremented by the number of Call Registers (associated with a DP ANI call) that are linked on the DP ANI MF Receiver queue. This data is converted into CCS by the traffic program before output.

DP ANI MF Receiver Queue Abandon
Peg Count
(DP ANI QUEUE ABAN)

When the Call Register of a call that has been abandoned is unlinked from the DP ANI MF Receiver queue, this counter is incremented by one.

NOTE: The following four (4) counts are incremented at key points in the CAMA program. From these the On-Site Report System can derive the counts for offered ONI calls, offered ANI calls and ANI failure.

Total CAMA Calls Peg Count
(CALLS)

This counter is incremented by one whenever a call originates on a CAMA trunk and the called number is received for an ANI or ONI call.

ONI Calls Peg Count
(ONI)

This counter will be incremented by one each time a call is initially determined to be an ONI call to the information digit outpulsed by the ANI office indicates multi-party.

ANI Multi-Party Calls Peg Count
(ANI MP)

This count will be incremented by one each time the information digit outpulsed by an ANI office indicates the caller is on a multi-party line.

Operator Processed CAMA Calls Peg Count
(ONI PROCESSED)

This count will be incremented each time a CAMA call is sent to an operator because:

a. The call is from an ONI trunk,

b. The information digit from an ANI office indicated multi-party.

c. There was an AIF or ANF on an ANI call.

CAMA Calls Queue Over 5-Seconds Peg Count
(5-SEC TOUT)

This counter is incremented whenever a call abandons or is removed from the CAMA operator position queue and the length of time the call was queued exceeds 5-seconds.

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

On CAMA Automatic Number Identification (ANI) calls, this counter will be incremented by one when 5 seconds have elapsed between reception of an information digit and the calling party number digits. The counter will also be incremented when the ANI equipment receives invalid or non-MF calling party digits, or the ANI information digit is a non-MF tone. The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Local Office Failure
(AIF)

This counter will be incremented by one for CAMA ANI calls for which the ANI information digit is not 0 or 3 (ANI information is not forthcoming from the origination office). The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure
(AOF)

TABLE 19 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 19
(CAMA)

This counter will be incremented by one for CAMA ANI calls for which a five second timeout occurs while waiting for the ANI information digit. The call is then transferred to an operator for further handling.

OMS 1

AMA Match Check Failure Peg Count
(AMA MATCH CHK FAIL)

This counter is incremented by one each time the customer gives the CAMA operator the called number instead of the calling number.

AMA Wrong Calling Code Peg Count
(AMA WRONG CALLING CODE)

This counter is incremented by one each time a CAMA operator keys in a calling number invalid for CAMA.

OMS 2

EA ANI Failure Peg Count
(EA ANI FAIL)

This counter is incremented by one each time an Equal Access (EA) Automatic Number Identification (ANI) call encounters an error in reception of the ANI digits.

EA ANI Failure - Route Peg Count
(EA ANI FL-RTE)

This counter is incremented by one each time an EA ANI call encounters an error in the reception of the ANI digits and the call was still routed.

EA ANI Success Peg Count
(EA ANI SUCC)

This count is incremented by one each time an EA ANI call either receives the correct ANI digit sequence or the ANI digit sequence fails with Far End Network (FEN) ANI Failure Action (AFA) set to a continue state.

Call Record Lost Peg Count
(CALL RCD LOST)

This counter is incremented by the number of records that were lost due to the records not being entered on the AMA tape.

Call Record Block Peg Count
(TAPE/3B BLOCKS)

This counter is incremented by one each time a block of AMA call records is written onto the AMA tape or to the 3B/APS.

TABLE 20

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

```
MSC 20 PERFORMANCE MEASUREMENTS - MAJOR MAINT RESPONSES AND ALARMS
OMS 0  INTERRUPT - TOTALS
         TOT-A  TOT-B  TOT-C  TOT-D  TOT-E  TOT-F  TOT-G  TOT-K
SINGLE       0      0      0      0      0      0      0      0
MULT         0      0      0      0      0      0      0      -

OMS 1 MAJOR MAINTENANCE RESPONSES

  INTERRUPTS
    B HIN     B PSI    B PSO   B CCSW  D CSIR     D APIR
        0         0        0        0       0          0
   D DSIR     D STK    D IVT    D PAF   D OOR      D AUO     E INR     E OOR
        0         0        0        0       0          0         0         0
   INJ,AP   INJ,DUS   F PUFI   F PUFO  F APUF   INT LEVL   TOT MTINJ
        0         0        0        0       0          0           0
    DLVAP    DLVDUS  OPINJPS   STFLAP
        0         0        0        0

ADDRESSING ERRORS
  CCAPOR  CCDUOR   APCSOR  APPSOR  DUPSOR  DUCSOR  CCAPIR
       0       0        0       0       0       0       0
  CCDUIR  APCSIR   APPSIR  DUPSIR  DUTUIR
       0       0        0       0       0

OMS 2  ALARMS
          CRITICAL  MAJOR  MINOR
                 0      0      0
 POWER RM    -          0      0

OMS 3   HARDWARE DETECTED CGA
           0

OMS 4 1B SELECT MAINTENANCE RESPONSES
  INTERRUPTS
   B BROM   B CPAR    D AUI  D AUIIR  D IFBOR    D MUP
        0        0        0        0        0        0
  D MUPIR    D SSD  D SSDIR  INJ,MUP  INJ,AUI  BLM,MUP
        0        0        0        0        0        0

  ADDRESSING ERRORS
  CCMUPIR  CCMUPOR  CCAUIIR  CCAUIOR  CCSSDIR  CCSSDOR
        0        0        0        0        0        0
  MUPCLIR  MUPCLOR  MUPCSIR  MUPCSOR  MUPPSIR  MUPPSOR
        0        0        0        0        0        0
  AUIPSIR  AUIPSOR AUIAPIIR AUIAPIOR AUIDUSIR AUIDUSOR
        0        0        0        0        0        0
  AUICSIR  AUICSOR  CLSSDIR  CLSSDOR
        0        0        0        0

  MISC MAINTENANCE RESPONSES
 CCFR,CC0 CCFR,CC1 FAN0,INH FAN1,INH
        0        0        0        0
```

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

Description of Measurements for MSC 20

OMS 0

Individual Totals of A through K
Level Interrupts Peg Count
(SINGLE or MULT TOT A-K)

These counters will be incremented by one each time the A through K level interrupt logic is placed in execution. The counters will be incremented by the Maintenance Restart Program (MARP) before exiting from interrupt level program execution.

Note that in 4E3 the multiple F-Level total Peg Counter is not being pegged. It will be added in the future issue. Also note that the total number of single F-Levels includes F-Levels from the MCC and IOUS. These last two sources are not shown individually in MSC 20/OMS 1.

OMS 1

B-Level Interrupts Hardware Initialization
Peg Count
(B HIN)

This counter will be incremented by one each time it can be determined that the B-Level interrupt is due to a processor configuration or a processor configuration accompanying a system reinitialization. The counter will be incremented by the Processor Configuration Recovery Program (PCRV).

B-Level Interrupts Pulse Source In-Range
Peg Count
(B PSI)

This counter will be incremented by one each time it can be determined that the B-Level interrupt is due to an in-range pulse source error. The counter is incremented by the Central Control Fault Recognition Program (CCFR).

B-Level Interrupts Pulse Source Out-Of-Range
Peg Count
(B PSO)

This counter will be incremented by one by the CCFR program each time it determines that the B-level interrupt is due to an out-of-range pulse source error.

B-Level Interrupt Central Control Switch
Peg Count
(B CCSW)

This counter will be incremented by one by the CCFR program each time it determines that the B-Level interrupt resulted from a Central Control Switch.

D-Level Interrupts Call Store In-Range
Peg Count
(D CSIR)

This counter will be incremented by one each time the Call Store Terminal Equipment Center Fault Recognition Program (CSFR) can determine that the D-level interrupt is due to an in-range Call Store Error.

D-Level Interrupts Attached Processor
In-Range Peg Count
(D APIR)

This counter is incremented by one each time a D-level interrupt is due to an in-range Attached Processor error.

D-Level Interrupts Data Unit Selector In-Range
Peg Count
(D DSIR)

This counter is incremented by one each time a D-level interrupt is due to an in-range Data Unit Selector error.

D-Level Interrupts Stack Related Peg Count
(D STK)

This counter will be incremented by one each time the CSFR program can determine that the d-level interrupt is due to a stack related error, such as overflow or underflow.

D-Level Interrupts Invalid Transfer
Peg Count
(D IVT)

This counter will be incremented by one each time the CSFR program can determine that the D-level interrupt is due to an invalid transfer.

D-Level interrupts Protected Area Failure
Peg Count
(D PAF)

Each time the CSFR program can determine that the D-level interrupt is due to a protected area failure, this counter will be incremented by one.

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

D-Level Interrupts Out-Of-Range Peg Count
(D OOR)

This counter will be incremented by one each time the Maintenance Restart Program (MARP) can determine that the D-level interrupt was due to an Out-Of-Range error.

D-Level Interrupts Auxiliary Unit
Out-Of-Range Address Peg Count
(D AUO)

This counter is incremented by the AUFR program each time a D-level interrupt is caused by an Out-Of-Range Auxiliary Unit Address.

E-Level Interrupts In-Range Peg Count
(E INR)

Each time that the Program Store Fault Recognition Program (PSFR) can determine that the E-level interrupt is due to an in-range PS error, this counter will be incremented by one.

E-Level Interrupts Out-Of-Range Peg Count
(E OOR)

This counter will be incremented by one each time the PSFR program can determine that the E-level interrupt is due to an Out-Of-Range PS error.

Attached Processor Interject Peg Count
(INJ,AP)

This counter will be incremented by one by the AUFR program for each Attached Processor Maintenance Interject request.

Data Unit Selector Interject Peg Count
(INJ,DUS)

This counter will be incremented by one by the AUFR program for each Data Unit Selector Control Unit Maintenance Interject request.

F-Level Interrupts Peripheral Unit
Failure In-Range Peg Count
(F PUFI)

This counter will be incremented by one each time that the Peripheral Bus Fault Recognition Program (PBFR) can determine that the F-level interrupt is due to an in-range Peripheral Unit Failure (PUF).

F-Level Interrupts Peripheral Unit
Failure Out-Of-Range Peg Count
(F PUFO)

Each time the PBFR program can determine that the F-level interrupt is due to an Out-Of-Range PUF, this counter will be incremented by one.

F-Level Interrupts Autonomous
Peripheral Unit Failure Peg Count
(F APUF)

This counter will be incremented by one each time the PBFR can determine that the F-level interrupt was due to an Autonomous Peripheral Unit Failure (APUF). The units capable of this action include the SP, VIP, TSI and TMS.

Interrupt Level Duration Count
(INT LEVL)

This counter will be updated by the Maintenance Restart Program (MARP), before existing from interrupt level processing, by the amount of time, measured in tens of milliseconds, which has been spent on interrupt level. This count will reflect system outage due to interrupts.

Maintenance Interjects Voiceband Interface
Peg Count
(TOT MTINJ)

For each maintenance interject request associated with a VIF, PUC, MAS, DIF, or Signal Processor, this counter will be incremented by one.

D-Level Interrupts Attached Processor
Peg Count
(DLVAP)

This counter will be incremented by one by the AUFR program each time a D-level interrupt is caused by an Attached Processor.

D-Level Interrupts Data Unit Selector
Peg Count
(DLVDUS)

This counter will be incremented by one by the AUFR program each time a D-level interrupt is caused by a Data Unit Selector.

Operational Interject Data Unit Selector
Peg Count
(OPINJPS)

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

This counter will be incremented by one by the AUFR program each time an operational interject is caused by a Data Unit selector.

Status Failure Attached Processor
Peg Count
(STFLAP)

Each time a status failure is caused by a Attached Processor, this counter will be incremented by one.

Addressing Errors

These items each have an associated counter and it will be incremented by one each time the AUFR, CSFR or APFR program determines that the specified addressing error has taken place.

OMS 2

Alarms Peg Count
(ALARMS CRITICAL, MAJOR, or MINOR)

Within the 4ESS Switch there are three categories of alarms-critical, major and minor. A counter will exist for each one of these categories individually. Each time an alarm is announced the appropriate counter will be incremented by one to produce a total Peg Count for each alarm.

Power Room Alarms Peg Count
(POWER RM MAJOR-MINOR)

Power Room Alarm Peg Counts are counts of major and minor alarms sounded for power failures in power rooms remote from the switching equipment.

OMS 3

Hardware Detected CGA Peg Count
(HARDWARE DETECTED CGA)

This counter will be incremented by one each time a carrier failure is detected by hardware.

OMS 4

The measurements in this OMS are associated with the 1B processor that is being introduced with the 4E19 generic. While this OMS exists in the 4E18 generic, the counts will only have meaning (and possible non-zero value) in generics that use the 1B processor.

Internal B-level Boot ROM Parity Error Count
(B BROM)

This counter is pegged every time that the CCs are switched. This includes switches on base level and on interrupt.

Internal B-level Control Parity Error Count
(B CPAR)

This count is pegged every time a B-level occurs because of a Control Parity Error.

AUI D-Level Counter
(D AUI)

This counter is incremented each time a D level error is involved with the Auxiliary Unit Interface (AUI) board. The error could occur under two types of transactions: memory mapped input output (MMIO), and Word DMA.

AUI In-Range D-Level Counter
(D AUIIR)

This counter is incremented each time an in-range D-level error is involved with the Auxiliary Unit Interface (AUI) board. The error could occur under two types of transactions: memory mapped input output (MMIO), and Word DMA.

IFB Out-Of-Range D-Level
(D IFBOR)

This counter is incremented each time an invalid software access is found on the IFB. These access could occur under all types of transactions: memory mapped input output (MMIO), Word or Block DMA.

MUP D-Level Counter
(D MUP)

This counter is incremented each time a D-level error is involved with the Maintenance and Utility Processor (MUP). The error could occur under all types of transactions: memory mapped input output (MMIO), client-to-client, and Word or Block DMA.

MUP In-Range D-Level Counter
(D MUPIR)

This counter is incremented each time an in-range D-level error is involved with the Maintenance and Utility Processor (MUP). The error could occur under all types of transactions: memory mapped input output (MMIO),

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

client-to-client, and Word or Block DMA.

SSD D-Level Counter
(D SSD)

This counter is incremented each time a D-level error is involved with the Scan and Signal Distributor (SSD). The error occurred under memory mapped input output (MMIO) when CC tried to access it.

SSD In-Range D-Level Counter
(D SSDIR)

This counter is incremented each time a D-level error is involved with the Scan and Signal Distributor (SSD). The error occurred under memory mapped input output (MMIO) when CC tried to access it.

MUP Interject Counter
(INJ,MUP)

This counter is incremented each time an interject from the Maintenance and Utility Processor (MUP) is reported.

AUI Interject Counter
(INJ,AUI)

This counter is incremented each time an interject from the Auxiliary Unit Interface (AUI) board is reported.

MUP BLM Counter
(BLM,MUP)

This counter is incremented each time a Base Level Maintenance (BLM) request from the Maintenance and Utility Processor (MUP) is processed.

CC to MUP In-Range Counter
(CCMUPIR)

This counter is incremented each time a D-level error of the valid in-range memory mapped input output (MMIO) access is involved with the Maintenance and Utility Processor (MUP).

CC to MUP Out-Of-Range Counter
(CCMUPOR)

This counter is incremented each time a D-level error of invalid out-of-range memory mapped input output (MMIO) access is involved with the Maintenance and Utility Processor (MUP).

CC to AUI In-Range Counter
(CCAUIIR)

This counter is incremented each time a D-level error of the valid in-range memory mapped input output (MMIO) access is involved with the Auxiliary Unit Interface (AUI) board.

CC to AUI Out-Of-Range Counter
(CCAUIOR)

This counter is incremented each time a D-level error of invalid out-of-range memory mapped input output (MMIO) access is involved with the Auxiliary Unit Interface (AUI) board.

CC to SSD In-Range Counter
(CCSSDIR)

This counter is incremented each time a D-level error of the valid in-range memory mapped input output (MMIO) access is involved with the Scan and Signal Distributor (SSD) board.

CC to SSD Out-Of-Range Counter
(CCSSDOR)

This counter is incremented each time a D-level error of invalid out-of-range memory mapped input output (MMIO) access is involved with the Scan and Signal Distributor (SSD) board.

MUP to Client In-Range Counter
(MUPCLIR)

This counter is incremented each time a D-level error of valid in-range client-to-client access is involved with the Maintenance and Utility Processor (MUP).

MUP to Client Out-Of-Range Counter
(MUPCLOR)

This counter is incremented each time a D-level error of invalid out-of-range client-to-client access is involved with the Maintenance and Utility Processor (MUP).

MUP to CS In-Range Counter
(MUPCSIR)

This counter is incremented each time a D-level error of valid in-range MUP to CS DMA is involved with the Maintenance and Utility Processor (MUP).

MUP to CS Out-Of-Range Counter
(MUPCSOR)

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

This counter is incremented each time a D-level error of invalid out-of-range MUP to CS DMA is involved with the Maintenance and Utility Processor (MUP).

MUP to PS In-Range Counter
(MUPPSIR)

This counter is incremented each time a D-level error of valid in-range MUP to PS DMA is involved with the Maintenance and Utility Processor (MUP).

MUP to PS Out-Of-Range Counter
(MUPPSOR)

This counter is incremented each time a D-level error of invalid out-of-range MUP to PS DMA is involved with the Maintenance and Utility Processor (MUP).

AUI to PS In-Range Counter
(AUIPSIR)

This counter is incremented each time a D-level error of valid in-range AUI to PS DMA is involved with the Auxiliary Unit Interface (AUI) board.

AUI to PS Out-Of-Range Counter
(AUIPSOR)

This counter is incremented each time a D-level error of invalid out-of-range AUI to PS DMA is involved with the Auxiliary Unit Interface (AUI) board.

AUI to API In-Range Counter
(AUIAPIIR)

This counter is incremented each time an interject error on a valid in-range AUI to API access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to API Out-Of-Range Counter
(AUIAPIOR)

This counter is incremented each time an interject error on an invalid out-of-range AUI to API access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to DUS In-Range Counter
(AUIDUSIR)

This counter is incremented each time an interject error on a valid in-range AUI to DUS access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to DUS Out-Of-Range Counter
(AUIDUSOR)

This counter is incremented each time an interject error on an invalid out-of-range AUI to DUS access is involved with the Auxiliary Unit Interface (AUI) board.

AUI to CS In-Range Counter
(AUICSIR)

This counter is incremented each time a D-level error of valid in-range AUI to CS DMA is involved with the Auxiliary Unit Interface (AUI) board.

AUI to CS Out-Of-Range Counter
(AUICSOR)

This counter is incremented each time a D-level error of invalid out-of-range AUI to CS DMA is involved with the Auxiliary Unit Interface (AUI) board.

SSD to Client In-Range Counter
(CLSSDIR)

This counter is incremented each time a D-level error of valid in-range client-to-client access is involved with the Scan and Signal Distributor (SSD).

SSD to Client Out-Of-Range Counter
(CLSSDOR)

This counter is incremented each time a D-level error of invalid out-of-range client-to-client access is involved with the Scan and Signal Distributor (SSD).

External CCFR Entry When
CC 0 Was Active Simplex
(CCFR,CC0)

This count is pegged every time the CCFR program is called by D/E/F-level.

External CCFR Entry When
CC 1 Was Active Simplex
(CCFR,CC1)

This count is pegged every time the CCFR program is called by D/E/F-level.

Fan Controller 0 Inhibited Counter
(FAN0,INH)

This counter is incremented each time 1B overrides Fan Controller 0’ control when software receives an invalid response from it.

Fan Controller 1 Inhibited Counter
(FAN1,INH)

TABLE 20 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 20
(PERFORMANCE MEASUREMENTS - MAJOR MAINTENANCE
RESPONSES AND ALARMS)

This counter is incremented each time 1B overrides Fan Controller 0' control when software receives an invalid response from it.	

TABLE 21

OUTPUT MEASUREMENT SETS FOR MSC 21
(PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES)

```
MSC 21 PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES
OMS 0  SYSTEM RECOVERY - PHASES
  PH1PRG  PH1MAN  PH2PRG  PH2MAN  PH3PRG  PH3MAN  PH4MAN   PHTIME
       0       0       0       0       0       0       0        0

OMS 1  RECENT CHANGE MEASUREMENTS
 NO. RC ACTIVATED       0
 TYPE 2 ROLLBACKS       0

OMS 2  NM MEASUREMENTS

  CONTROL       SILC
  INVOKED     CONTROL    ROLLBACKS
        0           0            0

OMS 3  MACHINE CONGESTION

     MC1        REAL TIME        MF        DP      CCIS
  PEG COUNT             0         0         0         0
  TIME(10 MSEC)         0         0         0         0

     MC2        REAL TIME        MF        DP      CCIS
  PEG COUNT             0         0         0         0
  TIME (10 MSEC)        0         0         0         0
```

Description of Measurements for MSC 21

OMS 0

Phase 1 Program Initiated Peg Count
(PH1PRG)

This counter will be incremented by one by the Software Initialization Program (SINT) each time a phase 1 software initialization is initiated by the System Integrity Control (SICO) due to a program request.

Phase 1 Manually Initiated Peg Count
(PH1MAN)

Each time a phase 1 software initialization is initiated by SICO due to a manual request, this counter will be incremented by one by SINT.

Phase 2 Program Initiated Peg Count
(PH2PRG)

This counter will be incremented by one by the SINT program each time the SICO program initiates a phase 2 software initialization due to a program request.

Phase 2 Manually Initiated Peg Count
(PH2MAN)

Each time a phase 2 software initialization is initiated by the SICO program due to a manual request, this counter will be incremented by one by the SINT program.

Phase 3 Program Initiated Peg Count
(PH3PRG)

This counter will be incremented by one by the SINT program each time the SICO program initiated a phase 3 software initialization due to a program request.

Phase 3 Manually Initiated Peg Count
(PH3MAN)

Each time a phase 3 software initialization is initiated by the SICO program due to a manual request, this counter will be incremented by one by the SINT program.

Phase 4 Manually Initiated Peg Count
(PH4MAN)

This counter will be incremented by one by the SINT program each time the SICO initiates a phase 4 software initialization due to a manual request.

TABLE 21 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 21
(PERFORMANCE MEASUREMENTS - SYSTEM RECOVERY - PHASES)

Phase Level Duration Count
(PHTIME)

This counter will be updated by the Maintenance Restart Program (MARP) with the amount of time, measured in tens of milliseconds, that the system spends in a phase level recovery of any type. This count will include only the time spent in the phase and not time spent on interrupt processing due to a phase or as part of a phase.

OMS 1

Number Of Recent Changes Activated
Peg Count
(NO. RC ACTIVATED)

This counter is incremented by one each time a Recent Change is Activated.

Total Type 2 Rollbacks Peg Count
(TYPE 2 ROLLBACKS)

This counter will be incremented by one each time a Type 2 Recent Change rollback occurs. A Type 2 rollback is manually activated with a phase.

OMS 2

Network Management Controls Invoked
Peg Count
(CONTROL INVOKED)

This counter is incremented by one each time a Network Management control is instituted by the Network Manager.

Selective Incoming Load Control Peg Count
(SILC CONTROL)

This count is incremented by one when an incoming bid for service is denied due to Network Management Selective Incoming Load Control.

Network Management Control Rollbacks
Peg Count
(ROLLBACKS)

This counter is incremented by one each time the reinstatement of TSG control is inhibited as a result of a system reinitialization. The count relates to the number of phases when this occurs, not to the number of TSGs affected.

OMS 3

Dynamic Overload Control Peg Count
and Duration Measurement

This counter is incremented by the Network Management program whenever a request is made by overload or phase control programs to transmit a particular level and type of Dynamic Overload Control on order to reduce incoming call pressure. There are 4 types of control per level and 2 levels MC1 and MC2 (no counts are kept for MC3). The types are MF, DP, CCIS and Real Time, which determine the types of trunks for which DOC signals are sent. The Real Time control implies all signaling types.

The duration measurement for each level and type of control is given in tens of milliseconds. The measurement is maintained by recording the time a control was instituted, calculating elapsed time when the control is removed and summing that time into a counter. The specified counts are:

1. MC1 Real Time Peg Count
2. MC1 MF Peg Count
3. MC1 DP Peg Count
4. MC1 CCIS Peg Count
5. MC1 Real Time Duration
6. MC1 MF Duration
7. MC1 DP Duration
8. MC1 CCIS Duration
9. MC2 Real Time Peg Count
10. MC2 MF Peg Count
11. MC2 DP Peg Count
12. MC2 CCIS Peg Count
13. MC2 Real Time Duration
14. MC2 MF Duration
15. MC2 DP Duration
16. MC2 CCIS Duration

TABLE 22

OUTPUT MEASUREMENT SETS FOR MSC 22
(PERFORMANCE MEASUREMENTS - AUDIT TYPE)

```
MSC 22 PERFORMANCE MEASUREMENTS - AUDIT TYPE
OMS 0 AUDIT COMPLT
  ROUTINE-     0
  DEMAND -     0
OMS 1 AUDIT ERRORS
  ROUTINE-     0
  DEMAND -     0
```

Description of Measurements for MSC 22

OMS 0

Total Routine Audits Completed Peg Count
(AUDIT COMPLT-ROUTINE)

This counter will be incremented by one by the Audit Control Program (AUDS) each time any audit type (00-127) that is routinely requested by the program is completed.

Total Demand Audits Completed Peg Count
(AUDIT COMPLT-DEMAND)

Each time any audit type (00-127) that is manually requested is completed, this counter will be incremented by one by the AUDS program.

OMS 1

Total Routine Audits Errors Found
Peg Count
(AUDIT ERRORS-ROUTINE)

This counter will be incremented by one by the AUDS program each time an error is found by an audit type (00-127) that is routinely requested by the program.

Total Demand Audits Errors Found
Peg Count
(AUDIT ERRORS-DEMAND)

Each time any audit type (00-127) that is manually requested finds an error, this counter will be incremented by one by the AUDS program.

TABLE 23

OUTPUT MEASUREMENT SETS FOR MSC 23
(PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR)

```
MSC 23 PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR
OMS 0  MAINTENANCE OCCUPANCIES
  PROCESSOR  NETWORK  SERV CIRC
          0        0         0

OMS 1  MTCE USAGE
     CC     PS     CS    MCC
      0      0      0      0
    AUB    PSB    CSB    PUB
      0      0      0      0
   IOUS   IOUC    API
      0      0      0
    DUS    TUC    PDF
      0      0      0

OMS 2 PERIPHERAL UNIT MTCE USAGE AND OUTAGE
                 TSI     TMS     TGR     TER    NCLK    SCLK    NCSU
  MTCE USAGE       0       0       0       0       0       0       0
  OUTAGE           0       0       0       0       0       0       0

OMS 3  PER CALL SERVICE CIRCUITS ACCUM MAINT OCC
    MF RCVR  DTMF RCVR  MF XMTR  DTMF XMTR
         0         0         0         0
     NSCXS     MSFHA   CCIS XMTR
         0         0         0

OMS 4  VFL ACCUM MAINT OCC

   DOM       0
   INT       0

OMS 5  1B MTCE USAGE
    MUP    AUI    IFB    SSD   XPWR
      0      0      0      0      0
```

Description of Measurements for MSC 23

OMS 0

Processor Accumulated Maintenance Usage
(PROCESSOR)

This counter will accumulate total maintenance usage for all units listed separately under OMS 1.

Network Accumulated Maintenance Usage
(NETWORK)

This counter will accumulate total maintenance usage for all units listed separately under OMS 2.

Service Circuits Accumulated
Maintenance Usage
(SERV CIRC)

This counter will accumulate total maintenance usage for all units listed separately under OMS 3.

OMS 1

Accumulated Maintenance Usage

The maintenance status for each of the specified units is determined every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before

TABLE 23 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 23
(PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR)

output. Thus the printout of each register for the following unit types will reflect, in CCS, the amount of time the units were maintenance busy.

1. Central Control (CC)
2. Program Store (PS)
3. Call Store (CS)
4. Master Control Console (MCC)
5. Auxiliary Unit Bus (AUB)
6. Program Store Bus (PSB)
7. Call Store Bus (CSB)
8. Peripheral Unit Bus (PUB)
9. Input-Output Unit Selector (IOUS)
10. Input-Output Unit Controller (IOUC)
11. Attached Processor Interface (API)
12. Data Unit Selector (DUS)
13. Tape Unit Controller (TUC)
14. Power Distribution Frame (PDF)

OMS 2

Accumulated Maintenance Usage

The status table for each of the specified peripheral unit types is scanned every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus, the printout of each register for the following unit types will reflect in CCS, the amount of time the units were maintenance busy.

1. Time-Slot Interchange frame (TSI)
2. Time-Multiplex Switching Pair (TMS)
3. CCIS Terminal Group (TGR)
4. CCIS Terminal (TER)
5. Network Clock (NCLK)
6. System Clock (SCLK)
7. Network Clock Synchronization Unit (NCSU)

Outage

The Service Degrading Conditions Table is scanned every 10 seconds to determine the number of each of the following unit types that are unavailable for service. The output, in CCS, is service outage time due to the condition specified for each unit type. Only primary outage times are reported. When a failure of one type causes the failure of another, only the first is recorded. (See MSC 24 for other outage measurements.)

8. TSI - Duplex Controller OOS
9. TMS - Duplex Controller OOS
10. TGR - Duplex Controller OOS
11. TER - Terminal Pair OOS
12. NCLK - 4 Clock Chains OOS
13. SCLK - Duplex Controller OOS
14. NCSU - 4 Clock Chains OOS

OMS 3

Accumulated Maintenance Usage

The occupancy counter for each of the specified service circuits is scanned every 180 seconds. After each scan, the accumulating register for the service circuit type is incremented by the number of units found to be maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register for the following service circuit type will reflect, in CCS, the amount of time the units were maintenance busy.

1. MF Receivers (MF RCVR)
2. DTMF Receivers (DTMF RCVR)
3. MF Transmitters (MF XMTR)
4. DTMF Transmitters (DTMF XMTR)
5. NSCX Set S (NSCXS)
6. MAS and Expanded Announcements (MSFHA)
7. CCIS Transceivers (CCIS XCVR)

OMS 4

Domestic VFL Accumulated Maintenance Occupancy
(DOM VFL ACCUM MAINT OCC)

This counter contains the accumulated maintenance occupancy for all Domestic VFL circuits and is obtained via a 180 second scan of Trunk Subgroup head cells for VFL's. The output is in CCS.

International VFL Accumulated Maintenance Occupancy
(INT VFL ACCUM MAINT OCC)

This counter contains the accumulated maintenance occupancy for all International VFL circuits. It is obtained via a 180 second scan of Trunk Subgroup head cells for VFLs. The output is in CCS.

OMS 5

The measurements in this OMS are associated with the 1B processor that is being introduced with the 4E19 generic. While this OMS exists in the 4E18 generic,

TABLE 23 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 23
(PERFORMANCE MEASUREMENTS - EQUIPMENT TYPE - PROCESSOR)

the counts will only have meaning (and possible non-zero value) in generics that use the 1B processor.

Accumulated Maintenance Usage

The maintenance status for each of the specified units is determined every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register for the following unit types will reflect, in CCS, the amount of time the units were maintenance busy.

1. Maintenance and Utility Processor (MUP)
2. Auxiliary Unit Interface (AUI)
3. Interface Bus (IFB)
4. Scan and Signal Distributor (SSD)
5. Miscellaneous Power Board (XPWR)

TABLE 24

OUTPUT MEASUREMENT SETS FOR MSC 24
(PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT)

```
MSC 24 PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT
OMS 0  TOTAL ACCUMULATED MAINTENANCE OCCUPANCY
  TERMINAL EQUIPMENT
         0

OMS 1  TERMINAL EQUIPMENT MAINT USAGE AND OUTAGE
          SP     VIC    VIU    DTC    DTU    DIF    DIU    SCS    SCU
USAGE      0       0      0      0      0      0      0      0      0
OUTAGE     0       0      0      0      0      0      0      0      0

OMS 2  TERMINAL EQUIPMENT
          UNIT     LOC     NONLOC   ---DIAG REQ----   ---DIAG ATP----
         ERRORS   FAULTS   FAULTS    PROG    MANUAL    PROG    MANUAL

 SP          0        0        0        0        0        0        0
 VIC         0        0        0        0        0        0        0
 VIU         0        0        0        0        0        0        0
 DTC         0        0        0        0        0        0        0
 DTU         0        0        0        0        0        0        0
 DIF         0        0        0        0        0        0        0
 DIU         0        0        0        0        0        0        0
 SCS         0        0        0        0        0        0        0
 SCU         0        0        0        0        0        0        0
```

Description of Measurements for MSC 24

OMS 0

Terminal Equipment Accumulated
Maintenance Usage
(TERMINAL EQUIPMENT)

This counter will accumulate total maintenance usage for all units associated with the MOC, and TEC 1 through 5. These units are listed individually under OMS 1.

OMS 1

Accumulated Maintenance Usage
(USAGE)

For Administration purposes, each of the units specified is assigned, via CMS 1A, to a Terminal Equipment Center (TEC 1 to 5). All maintenance usage for units assigned to TEC 1 to 5 will be combined and accumulated in a register assigned to the Maintenance Operations Center (MOC). The occupancy counter for each of the specified units is scanned every 180 seconds. After each scan, the accumulating register for each unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units before output. Thus, the printout of each register for a specified unit type will reflect in CCS, the amount of time the units were maintenance busy.

The units are SP, VIC, VIU, DTC, DTU, DIF, DIU, SCS, and SCU. No maintenance usage is charged against units (VIU, DTU, DIU, SCU) resident in a frame that is duplex failed.

Accumulated Outage
(OUTAGE)

These counters contain the time in CCS that the specified terminal units are not available for service. The Service Degrading Conditions Table is scanned every 10 seconds and the number of units found failed in each category is added to the plant counters. Outage is defined as follows:

a. SP, VIF, DT, DIF and SCS - Duplex controller failure

b. VIU, DTU, DIU, SCU - Out-Of-Service unit is not protection switched. No outage is counted against units resident in a duplex failed frame.

TABLE 24 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 24
(PERFORMANCE MEASUREMENTS - TERMINAL EQUIPMENT)

OMS 2

The counts described below (with the SP as an example unit) are outputted for the following units:

Signal Processor (SP)
Voiceband Interface Controller (VIC)
Voiceband Interface Unit (VIU)
Digroup Terminal Controller (DTC)
Digroup Terminal Unit (DTU)
Digital Interface Frame (DIF)
Digital Interface Unit (DIU)
Service Circuit System (SCS)
Service Circuit Unit (SCU)

Signal Processor Errors Peg Count
(SP UNIT ERRORS)

The entries in this counter are defined as malfunctions, the symptoms of which cannot be reproduced under program control. An interrupt associated with a Signal Processor causes this counter to be incremented by one. The Unit Fault Recognition (FR) program will increment this Peg Counter.

Signal Processor Located Faults Peg Count
(SP LOC FAULTS)

This item is defined as a fault occurrence that can be resolved through analysis, to a replaceable equipment unit. This counter will be incremented by one when an interrupt causes execution of the FR program, which requests that the unit be diagnosed, and the diagnostic finds the trouble source.

Signal Processor Non-located Faults
Peg Counts
(SP NONLOC FAULTS)

This register will be incremented by one when a fault occurs that cannot be resolved through analysis to a replaceable equipment unit. It is incremented only when the diagnostic was requested by a fault recognition program. (The unit diagnostic would complete with an All Test Pass "ATP" result.)

Signal Processor Diagnostics Program
Requested Peg Count
(SP DIAG REQ PROG)

This counter will be incremented by one each time the unit diagnostic program is executed, unless its execution has been manually requested.

Signal Processor Diagnostic Manually
Requested Peg Count
(SP DIAG REQ MAN)

Each time the unit diagnostic program is executed by a manual request, this counter will be incremented by one.

Signal Processor Diagnostics Program
Requested - All Tests Passed Peg Count
(SP DIAG ATP PROG)

This counter will be incremented by one each time the unit diagnostic program is executed with an ATP result. This does not include diagnostics requested manually.

Signal Processor Diagnostics Manually
Requested - All Tests Passed Peg Count
(SP DIAG ATP MAN)

This counter will be incremented by one each time the unit diagnostic program is executed by a manual request with an ATP result.

TABLE 25

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

MSC 25 CONTROL AREA ZERO

OMS 0 CONTROL AREA SUMMATION

TOTAL IMAS	TRK MTC OCC
0	0

OMS 1 INCOMING IMAS

	MF EQ	DP EQ	Q931	ISUP	ITUP	INUP	DTMF	IOC
PST	0	0	0	0	0	0	0	0
FSA	0	0	0	0	0	0	0	0
PDA	0	0	0	0	0	0	0	0
PDT	0	0	0	0	0	0	0	0
PER	0	0	0	0	0	0	0	0
ANF	0	0	-	-	-	-	-	-
AIF	0	0	-	-	-	-	-	-
AOF	0	0	-	-	-	-	-	-

OMS 2 INCOMING IMAS

	MF EQ	DP EQ	Q931	ISUP	ITUP	INUP	DTMF	IOC
MAB	0	0	0	0	0	0	0	0
CST	0	0	-	-	-	-	-	-
CDT	0	0	-	-	-	-	-	-

OMS 3 OUTGOING IMAS AND GLARE FAILURES

	MF EQ	DP EQ	Q931	ISUP	ITUP	INUP	DTMF
UXS	0	0	0	0	0	0	0
IKF	0	0	0	0	0	0	-
CPF	0	0	0	0	0	0	0
NSD	0	0	0	0	0	0	0
XST	0	0	0	0	0	0	-
GLR	0	0	0	0	0	0	0
GLC	0	0	0	0	0	0	0

OMS 4 OOS PEG COUNTS

RR	OTF	MAN	EASF	CGA
0	0	0	0	0

NIU	TSF	BLK	CCF	HAW
0	0	0	0	0

ERR ANAL SUSP FLT(NOT OOS)
0

OMS 5 ATTEMPTS AND MAINTENANCE USAGE

ATT	MF EQ	DP EQ	Q931	ISUP	CCIS
IN	0	0	0	0	0
OUT	0	0	0	0	0
MTC	0	0	0	0	0

OMS 6 CCIS INEFFECTIVE ATTEMPTS

	------- VPA TESTS -------		
CKF	CLF	ATT	COMP	FAIL
0	0	0	0	0

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
OMS 7  ROTL
                TEST    TEST
                 ATT     COMP
  CODE 100         0       0
  CODE 102         0       0
  CODE 105         0       0

OMS 8  TERMINATING TEST LINES
  ATTEMPTS
     100     102      103     104      105      106
       0       0        0       0        0        0
     107     108      109     110     SYNCHR   DATA
       0       0        0       0        0        0
  OVERFLOWS
     100     102      103     104      105      106
       0       0        0       0        0        0
     107     108      109     110     SYNCHR   DATA
       0       0        0       0        0        0

OMS 9  ROUTINE OPERATIONAL TESTS
               TEST    TEST    TEST
                ATT    PASS    FAIL
  CODE 103       0       0       0
  QIC            0       0       0
  SYNCHR         0       0       0
  CENTREX 2      0       0       0
  CENTREX 3      0       0       0
  SXS            0       0       0
  FTT            0       0       0

OMS 10  TEST ACCESS CIRCUIT
  ORIG   101 ORIG  INC ATT  101 FTB  INC OVF  101 XFR
      0       0         0        0        0        0
  TOTAL   101   INC 101  MAINT
  USAGE  USAGE   USAGE   USAGE
      0      0       0       0

OMS 11  INTERNATIONAL ATTEMPTS AND MAINT. USAGE
                 CCITT5     CCITT6     ITUP      INUP
INC ATTEMPTS          0          0        0         0
OUT ATTEMPTS          0          0        0         0
MAINT USAGE           0          0        0         0

OMS 12  OOS PEG COUNTS
  ATME-B    ATME-C
       0         0

OMS13 INTERNATIONAL TRUNK TESTS-DIRECTOR
        ATTEMPTS      PASS      FAIL
ATME-B         0         0         0
ATME-C         0         0         0
```

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

```
OMS 14  INTERNATIONAL TRUNK TESTS-RESPONDER
        ATTEMPTS      OVFL
ATME-A         0         0
ATME-B         0         0
ATME-C         0         -

OMS 15  ATME FAILURES
INV INC TC          0
DIR/RES IRREG       0

OMS 16  CCITT5 CALL IRREGULARITIES
--INCOMING--
IDLE-URS      FS-TO     PST-TO     SOP-TO     IAD-TO      URS  PLS-ERR
       1          0          0          0          0        0        0
--OUTGOING--
  DS-CLF     DS-URS      DS-TO     PTS-TO
       0          0          0          0
  TX-ERR        URS         BF     PS-PTS
       0          0          0          0
--WAITING FOR ANSWER--
      TO    URS-ICT    URS-OGT     BF-OGT     ANS-TO  ANS-ACK-TO
       0          0          0          0          0         0
--ANSWERED--
 URS-ICT    URS-OGT
       0          0
--DISCONNECTED--
  CLB-TO     NO-CLF      PS-CB     NO-RLG     CLF-TO    PS-RLG
       0          0          0          0          0         0
--ABANDONS--
     ISA        IAD        MAB
       0          0          0
--OTHERS--
 MULT SP       URS-CCITT6
       0               0
FIRST TRIAL - CCITT5
  GLARE              0
  NSD                0
  OUTPULSING         0
  SIG IRREG          0

OMS 17  CCITT6 ACKNOWLEDGEMENT TIMEOUTS
     BLA     UBA
       0       0
```

Description of Measurements for MSC 25

These performance measurements are associated with trunks and they will be kept on a Control Area basis. The number of Control Areas is office dependent. The number of counter blocks is also office dependent, one for each Control Area. Each block will correspond to a Control Area or Administration Area within the Circuit Maintenance System CMS 1A. Each Trunk Subgroup in the office is assigned to one and only one Control Area. The counters associated with the data block 0, corresponding to Control Area 0, will be the performance measures of all Trunk Subgroups assigned to Control Area 0. So, Plant Maintenance performance data on a per Trunk Subgroup basis will not be available. However, the ability will be provided

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

whereby at most, 31 individual Trunk Subgroups can be monitored for ineffective attempts, total attempts, and maintenance usage, using one or all of the Control and Administrative.

All the following counts listed with the exceptions of the total attempts counts and the accumulated maintenance usage, will be incremented by the Trunk Maintenance Administration Program (TMAD). This program is responsible for removing trunks from service and has available to it the data about signaling characteristics and reasons for removal. TMAD is aware of all trunks undergoing error analysis. This program is entered whenever there is an ineffective call attempt and has the identity and signaling characteristics of the trunk involved. The total attempts counts and the accumulated maintenance occupancy are calculated by the Traffic and Plant Measurement program.

OMS 0

Total Ineffective Machine Attempts
Peg Count
(TOTAL IMAS)

This register contains the combined counts of all registers in OMS 1 and OMS 2. All these counts are considered Ineffective Machine Attempts.

Trunk Maintenance Usage
(TRK MTC OCC)

This counter will record the combined accumulated maintenance usage of all trunks assigned to the Control Area. The trunks are scanned every 180 seconds and the program will convert this counter to CCS units before it is printed out.

OMS 1

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing
h. IOC

Permanent Signal Timeout Peg Count
(PST)

These counters will be incremented by one each time a bid for service is received on an incoming trunk, but no digits are received within the permanent signal time out interval.

False Start Abandon Peg Count
(FSA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk but no digits are received, and the call is abandoned before permanent signal timeout.

Partial Dial Abandon Peg Count
(PDA)

These counters will be incremented by one each time a bid for service is received on an incoming trunk and at least one digit but less than the expected number of digits is received, and the bid is removed before partial dial timeout.

Partial Dial Timeout Peg Count
(PDT)

Each time at least one but less than the expected number of digits is received before timeout on an incoming trunk, one of these counters will be incremented by one.

Pulsing Error Peg Count
(PER)

These counters will be incremented by one each time one or more of the received digits is in error as defined by one of the following:

a. Mutilated Digit (MTD) - on MF pulsing calls, a single frequency or more than two frequencies are received in a digit pulse.

b. Misplaced Start (MPS) - on MF pulsing calls, an ST signal is received in an improper position.

c. False Key Pulse (FKP) - on MF pulsing calls, a second KP signal is received.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

d. Extra Digit (EXD) - More digits are received than expected.

e. Extra Pulse (EXP) - on DP calls, an 11th pulse is received for a single digit.

f. Pulsing Error Other (PEO) - This includes such things as a valid MF code that is an illegal character, or any other error not covered by one of the above.

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

These counters will be incremented by one for CAMA ANI calls when 5-seconds have elapsed between reception of an information digit and the calling party number digits. These counters will also be incremented when the ANI equipment receives invalid or non-MF calling party digits, or the ANI information digit is non-MF tone. The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure Peg Count
(AIF)

These counters will be incremented by one for CAMA ANI calls that exceed 5 seconds waiting for the ANI information digit, or the ANI information is not:

a. 0 - ANI OK
b. 3 - ANI OK - Service Observing
c. 1 - ANI Multi-party
d. 4 - ANI Multi-party - Service Observing

The call is then transferred to an operator for further handling.

CAMA Automatic Number Identification
Office Failure Peg Count
(AOF)

These counters will be incremented by one for CAMA ANI calls for which a five second timeout occurs while waiting for the ANI information digit. The call is then transferred to an operator for further handling.

OMS 2

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing
h. IOC

Miscellaneous Abandon Peg Count
(MAB)

These counters will be incremented by one each time a bid for service is abandoned before completion of outpulsing and after the completion of inpulsing and no other abandon register is pegged.

CAMA Seizure Timeout Peg Count
(CST)

With each occurrence of the following situation, these counters will be incremented by one. When the CAMA operator position circuit automatically recognizes a seizure, the circuit returns an on-hook on the keying trunk, and the keying trunk fails to go on-hook within 5-seconds of when the seizure was sent.

CAMA Disconnect Timeout Peg Count
(CDT)

This counter is incremented when more than 5-seconds elapses between the sending of a disconnect signal to a CAMA operator position and the receipt of off-hook on the keying trunk.

OMS 3

The performance measurements for each of the following types of ineffective attempts will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. ITUP trunks
f. INUP trunks
g. DTMF trunks with equipment or customer pulsing

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Unexpected Stop
(UXS)

These counters will be incremented by one each time an unexpected stop dial signal is received. This includes the following:

a. Any stop dial during pulsing on an MF trunk.

b. Any stop dial during pulsing on a DP trunk that does not have expect stop-go class.

c. A second stop dial during pulsing on a DP trunk that does not expect stop-go class.

d. On DP, expect stop-go trunks, a stop dial at an invalid time.

Integrity Check Failure
(IKF)

These counters will be incremented by one each time there is a failure to receive a delay dial signal on a delay dial start dial trunk within 4-seconds of trunk seizure.

Continuity/Polarity Test Failure
(CPF)

These counters are incremented by one each time one of the following conditions occur:

a. An incoming seizure is processed on a one way outgoing trunk.

b. An off-hook on an operator no-outpulsing trunk occurs where the operator fails to hang up within a 1-second timeout interval.

c. An off-hook on maintenance test trunks and service circuits occur.

No Start Dial
(NSD)

These counters will be incremented by one each time there is a failure to receive a wink start signal within 4-seconds of a trunk seizure, a failure to receive on-hook on a one way outgoing trunk, and failure of the far end office to relinquish the trunk within the 4-second timeout interval when glare occurred on a trunk that the near end office has control of.

Expected Stop Timeout
(XST)

This counter is incremented by one each time, on any DP trunk with expected stop-go class, an unexpected stop dial signal is received during outpulsing and persists beyond the transmitter timeout interval.

Glare Condition - Far End in Control
(GLR)

These counters will be incremented by one each time the 4ESS Switch and the far end office simultaneously attempt to seize the same trunk, and the 4ESS Switch relinquishes control. The 4ESS Switch backs down if the far end office has control of the trunk and if a check to determine whether the outgoing trunk is on-hook before seizure indicates that the trunk is off-hook and when for a given call, the TSN of the outgoing trunk had to be retrieved from disk memory for 3 different trunks and on each successful retrieval the trunk was found busy.

Glare Condition - 4ESS Switch in Control
(GLC)

This counter is incremented by one each time the 4ESS Switch and a far end office simultaneously attempt to seize the same trunk, and the 4ESS Switch is in control.

OMS 4

Out-Of-Service Peg Counts are kept for trunks as they are removed from service. These Peg Counts indicate the reason for removal from service.

Out-Of-Service ROTL Request Peg Count
(OOS - RR)

Out-Of-Service Operational Test Failure
Peg Count
(OOS - OTF)

Out-Of-Service Manual Request Peg Count
(OOS - MAN)

Out-Of-Service Error Analysis Suspected
Failure Peg Count
(OOS - EASF)

Out-Of-Service Carrier Group Alarm
Peg Count
(OOS - CGA)

Out-Of-Service Equipment Failure, VIU,
DTU, ESU Peg Count
(OOS - NIU)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Out-Of-Service Total Signaling Failure
Peg Count (CCIS trunk only)
(OOS - TSF)

Out-Of-Service Blocking Received (CCIS
Trunks) from Far End Office Peg Count
(OOS - BLK)

Out-Of-Service Continuity Check Retest
Failure Peg Count
(OOS - CCF)

Out-Of-Service High and Wet Peg Count
(OOS - HAW)

Error Analysis Suspected Failure Peg Count
(ERR ANAL SUSP FLT - NOY OOS)

Each time the error analysis encounters a suspected failure and leaves the trunk in service, this counter is incremented by one.

OMS 5

The performance measurements for each of the following measurements will be subcategorized by signaling characteristics as listed below:

a. MF trunks with equipment or operator pulsing
b. DP trunks with equipment, operator or by-link pulsing
c. Q.931 trunks
d. ISUP trunks
e. CCIS trunks

Incoming Attempts
(ATTEMPTS IN)

These counts will be calculated by accumulating the incoming seizures for which at least one digit was received on message Trunk Subgroups. This count will not include false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Outgoing Attempts
(ATTEMPTS OUT)

These counts will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing message Trunk Subgroups. Since there is only one seizure Peg Count for outgoing call attempts, these counts will be off by the number of retrials attempted.

Maintenance Usage
(MTC USAGE)

These counters will accumulate maintenance usage of all message trunks assigned to this Control Area.

OMS 6

Continuity Check Failure (CKF) Peg Count
(CKF)

Each time a failure of the continuity test of a CCIS trunk that is made before a voice path cut through occurs, this register will be incremented by one.

Clear-Forward Received Peg Count
(CLF)

This counter is incremented each time a Clear-Forward signal is received on an incoming trunk in the transient state.

Voice Path Assurance (VPA) Test Attempted
Peg Count
(VPA TESTS ATT)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

Voice Path Assurance (VPA) Test Completed
Peg Count
(VPA TESTS COMP)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

Voice Path Assurance (VPA) Test Failure
Peg Count
(VPA TESTS FAIL)

This counter exists in the output format but it is no longer pegged and eventually it will be deleted.

OMS 7

Code 10X Test Attempted Peg Count
(TEST ATT)

Code 10X Test Completed Peg Count
(TEST COMP)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

These counters, by test type, will be incremented by one each time ROTL attempts or completes a transmission test on a trunk. The following codes identify the types of transmission tests:

1. CODE 100
2. CODE 102
3. CODE 105

OMS 8

Terminating Test Line Tests Attempts
(ATTEMPTS)

Terminating Test Line Tests Overflows
(OVERFLOWS)

These counters will record the total number of call attempts made to the following terminating test lines and the total attempts that overflow.

1. 100
2. 102
3. 103
4. 104
5. 105
6. 106
7. 107
8. 108
9. 109
10. 110
11. SYNCHRONOUS (SYNCHR)
12. DATA

OMS 9

Routine Operational Tests Attempted
(TEST ATT)

Routine Operational Tests Passed
(TEST PASS)

Routine Operational Tests Failed
(TEST FAIL)

These counters will record total test attempts, test passed and test failures for types of outgoing operational tests.

1. CODE 103
2. Quick Integrity Check (QIC)
3. Synchronous Test (SYNCHR)
4. Centrex 2 Test (CENTREX 2)
5. Centrex 3 Test (CENTREX 3)
6. Step by Step Test (SXS)
7. Functional Trunk Test (FTT)

OMS 10

Test Access Circuit Origination Peg Count
(ORIG)

Each time a Test Access Circuit is seized for originating a maintenance request, this counter is incremented by one.

Code 101 Origination Peg Count
(101 ORIG)

This counter will be incremented by one each time a Test Access Circuit is seized to originate a code 101 test call.

Incoming Code 101 Peg Count
(INC ATT)

This counter will be incremented by one each time an attempted seizure is made on a Code 101 Test Access Circuit. The count is incremented based on the Control Area that is assigned to the incoming trunk through translation data. This count also includes test attempts that are aborted.

Code 101 First Trial Busy Peg Count
(101 FTB)

When an incoming code 101 test call attempts to terminate at a test position, which is determined by the trunk or by a request for a test position through the digits received, and this first choice test position cannot be seized, this counter will be incremented by one.

Incoming Code 101 Overflow Peg Count
(INC OVF)

This counter is incremented by one each time an incoming 101 test call is unable to be terminated.

Code 101 Transfer Peg Count
(101 XFR)

This counter will be incremented by one each time the Test Access Circuit transfer facility is utilized. The counter is incremented based on the Control Area that is assigned to the incoming trunk through translation data.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Total Test Access Circuit Usage
(TOTAL USAGE)

This counter will be incremented by the number of Test Access Circuits found busy after each 180 second scan. This count does not include maintenance usage. The program will convert the data to CCS units before output.

Code 101 Usage
(101 USAGE)

This counter will record the accumulated Test Access Circuit Usage attributable to outgoing code 101 test calls.

Incoming Code 101 Usage
(INC 101 USAGE)

This counter will record the accumulated Test Access Circuit Usage attributable to incoming code 101 code test calls.

Maintenance Test Access Circuit Usage
(MAINT USAGE)

This counter will record the accumulated Test Access Circuit maintenance busy usage.

OMS 11

CCITT No. 5, CCITT No. 6, ITUP and INUP
Incoming Attempts
(INC ATTEMPTS)

These counts will be calculated by accumulating the incoming seizures for which at least one digit was received on CCITT No. 5, CCITT No. 6, ITUP or INUP Trunk Subgroups. These counts do not include false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

CCITT No. 5, CCITT No. 6, ITUP and INUP
Outgoing Attempts
(OUT ATTEMPTS)

These counts will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing message Trunk Subgroups. Since there is only one seizure Peg Count for CCITT No. 5, CCITT No. 6, ITUP or INUP outgoing call attempts, respectively, these counts will be off by the number of retrials attempted.

CCITT No. 5, CCITT No. 6, ITUP and INUP
Maintenance Usage
(MAINT USAGE)

After each 180 second scan period, these counts will be incremented by the number of CCITT No. 5, CCITT No. 6, ITUP or INUP trunks found maintenance busy. Before output, this data will be converted to CCS units by the traffic program.

OMS 12

ATME-B Out-Of-Service Peg Count
(ATME-B OOS)

This counter is incremented by one each time a trunk is taken out-of-service because it failed either a hardware or software requested ATME-B Director Test.

ATME-C Out-Of-Service Peg Count
(ATME-C OOS)

This counter is incremented by one each time a trunk is taken out-of-service because it failed either a hardware or software requested ATME-C Director Test.

OMS 13

ATME-B Director Tests Attempted Peg Count
(ATME-B ATTEMPTS)

This count is incremented by one each time an ATME-B Director is seized as a result of a hardware or software request for testing.

ATME-B Director Tests Passed Peg Count
(ATME-B PASS)

This count is incremented by one each time an ATME-B director successfully passes the Director test requested.

ATME-B Director Tests Failed Peg Count
(ATME-B FAIL)

This count is incremented by one each time an ATME-B Director fails to pass the Director test requested.

ATME-C Director Tests Attempted
Peg Count
(ATME-C ATTEMPTS)

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

This count is incremented by one each time an ATME-C Director is seized as a result of a hardware or software test request.

ATME-C Director Tests Passed Peg Count
(ATME-C PASS)

This count is incremented by one when an ATME-C Director passes successfully the Director tests required.

ATME-C Director Tests Failed Peg Count
(ATME-C FAIL)

This count is incremented by one each time an ATME-C Director fails to pass the Director test.

OMS 14

ATME-A Responder Tests Attempted
Peg Count
(ATME-A ATTEMPTS)

This count is incremented by one each time an ATME-A Responder is seized from a distant office for testing.

ATME-A Responder Tests Overflowed
Peg Count
(ATME-A OVFL)

This count is incremented by one when a request is made by a distant office to seize an ATME-A Responder for testing and none is available.

ATME-B Responder Tests Attempted
Peg Count
(ATME-B ATTEMPTS)

This count is incremented by one each time an ATME-B Responder is seized from a distant office for testing.

ATME-B Responder Tests Overflowed
Peg Count
(ATME-B OVFL)

This count is incremented by one when a request is made by a distant office to seize an ATME-B Responder for testing and none is available.

ATME-C Responder Tests Attempted
Peg Count
(ATME-C ATTEMPTS)

This count is incremented by one each time an ATME-C Responder is seized from a distant office for testing.

OMS 15

Invalid Incoming ATME Test Call Peg Count
(INV INC TC)

This counter is incremented by one when an inbound call on a CCITT No. 5 or CCITT No. 6 trunk has been determined to be invalid.

ATME Director/Responder Irregularities
Peg Count
(DIR/RES IRREG)

This counter is incremented by one when a signaling irregularity has been detected on an inbound or outbound automatic trunk measuring equipment (ATME) test call on a CCITT No. 5 or CCITT No. 6 trunk.

OMS 16

INCOMING

Unreasonable Signal Peg Count
(IDLE-URS)

This counter is incremented by one if one of the following frequencies is received on an idle circuit:

a. (F1+F2)
b. (F2)
c. (F1) on an idle one-way Outgoing Trunk

False Seizure Timeout Peg Count
(FS-TO)

This counter is incremented by one if a Clear-Forward signal is not received on an incoming trunk within a 40-second timing interval after the loss of a seizing signal (F1), and before a Proceed-To-Send signal was sent.

Proceed-To-Send Signal Timeout Peg Count
(PST-TO)

This counter is incremented by one when a seizing signal (F1), is not removed within 6-seconds of transmitting a Proceed-To-Send signal.

Start of Pulsing Timeout Peg Count
(SOP-TO)

This counter is incremented by one when the KP-signal is not received within 2-seconds after the Proceed-To-

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Send signal is removed.

Incomplete Address Timeout Peg Count
(IAD-TO)

This counter is incremented by one when an ST-signal is not received within 5-seconds after receipt of the KP-signal.

Unreasonable Signal Peg Count
(URS)

This counter is incremented by one when an (F1) or (F2) signal is received during register timing on an incoming call.

Pulsing Error Peg Count
(PLS-ERR)

This counter is incremented by one each time one or more of the following digits is in error as defined by one of the following:

a. Mutilated Digit (MTD) - On MF pulsing calls, a single frequency or more than two frequencies are received in a digit pulse.

b. Misplaced Start (MPS) - On MF outpulsing calls, an ST-signal is received in an improper position.

c. False Key Pulse (FKP) - On MF pulsing calls, a second KP-signal is received.

d. Extra Digit (EXD) - More digits are received than are expected.

OUTGOING

Double Seizure - Clear-Forward Peg Count
(DS-CLF)

This count is incremented by one if a Clear-Forward (F1+F2) signal is received instead of a Proceed-To-Send signal.

Double Seizure - Unreasonable Signal
Peg Count
(DS-URS)

This count is incremented by one if an (F2) signal is received on the outgoing trunk during the 850-millisecond double seizure (Glare) timing interval.

Double Seizure Timeout Peg Count
(DS-TO)

This counter is incremented by one if an incoming seizure signal persists for 20-seconds after the terminating seizure is released following an 850-millisecond glare timeout.

Seizing Signal Timeout Peg Count
(PTS-TO)

This counter is incremented by one if the Proceed-To-Send signal is not received within 20-seconds after sending the seizure signal (F1).

Transmitter Error Peg Count
(TX-ERR)

This counter is incremented by one if an MF Transmitter fails during outpulsing.

Unreasonable Signal Peg Count
(URS)

This counter is incremented by one if an (F1) or (F1+F2) signal is received during outpulsing.

Busy-Flash Peg Count
(BF)

This counter is incremented by one if a Busy-Flash (F2) signal is received during outpulsing.

Persisting Proceed-To-Send Signal Peg Count
(PS-PTS)

This counter is incremented by one if the Proceed-To-Send signal is not removed from the outgoing trunk within 20-seconds after the completion of outpulsing.

WAITING FOR ANSWER

Timeout Peg Count
(TO)

This counter is incremented by one if an answer signal is not received within 4-minutes after outpulsing is completed.

Unreasonable Signal on the Incoming Trunk
Peg Count
(URS-ICT)

This counter is incremented by one if a seizure signal (F1) is received on the incoming trunk during the 4-minute waiting-for-answer.

Unreasonable Signal on the Outgoing Trunk

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

Peg Count
(URS-OGT)

This counter is incremented by one if an (F1,F2) signal is received on an outgoing trunk that is in the waiting-for-answer stage.

Busy-Flash on the Outgoing Trunk Peg Count
(BF-OGT)

This counter is incremented by one if a Busy-Flash (F2) signal is received on the outgoing trunk while in the waiting-for-answer stage.

Answer Signal Timeout Peg Count
(ANS-TO)

This counter is incremented by one if an answer acknowledgement signal (F1) is not received within 15-seconds of sending an answer signal (F1) on the incoming trunk.

Answer-Acknowledgement Signal Timeout
Peg Count
(ANS-ACK-TO)

This counter is incremented by one if the answer acknowledgement signal (F1) is not stopped on the outgoing trunk within 6-seconds of sending the answer-acknowledgement signal (F1).

ANSWERED

Unreasonable Signal On the Incoming Trunk
Peg Count
(URS-ICT)

This counter is incremented by one if an (F1) signal is not received on an incoming trunk in the answered call state.

Unreasonable Signal on the Outgoing Trunk
Peg Count
(URS-OGT)

This counter is incremented by one if an (F1+F2) or an (F1) signal is received on an outgoing trunk in the answered call state.

DISCONNECTED

Clear-Back/Busy-Flash Signal Timeout
Peg Count
(CLB-TO)

This counter is incremented by one when an acknowledgement signal (F1) is not received within 15-seconds of sending a Clear-Back or Busy-Flash (F2) signal.

Failure to Receive Clear-Forward Peg Count
(NO-CLF)

This counter is incremented by one if a Clear-Forward signal is not received within 60-seconds after receipt of a Clear-Back or Busy-Flash acknowledgement (4-minutes if it is a transit call).

Clear-Back and Busy-Flash Acknowledgement
Signal Timeout Peg Count
(PS-CB)

This counter is incremented by one if the Clear-Back or Busy-Flash signal is not removed within 6-seconds after sending Clear-Back or Busy-Flash acknowledgement.

Release-Guard Signal Timeout Peg Count
(NO-RLG)

This counter is incremented by one if on sending a Release-Guard (F1+F2) signal on the incoming trunk, the Clear-Forward signal is not removed within 6-seconds.

Clear-Forward Signal Timeout Peg Count
(CLF-TO)

This counter is incremented by one if on sending a Clear-Forward (F1,F2) signal on an outgoing trunk, a Release-Guard (F1+F2) signal is not received within the Clear-Forward timing interval.

Persisting Release Guard Signal Peg Count
(PS-RLG)

This counter is incremented by one if a Release-Guard signal is not removed within 15-seconds of removing Clear-Forward.

ABANDONS

Incoming Seizure Abandon Peg Count
(ISA)

This counter is incremented by one if:

a. The seizing signal (F1) on an incoming trunk stops before a Proceed-To-Send signal is sent, and a Clear-Forward (F1+F2) signal is received before a 40-second timeout occurs.

TABLE 25 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 25-34, 38, 39, AND 48
(CONTROL AREA ZERO THROUGH NINE, ADMINISTRATIVE
AREA ZERO, ONE AND TWO)

b. If a Clear-Forward signal is received the Proceed-To-Send signal is sent but before the reception of a KP-signal.

Incomplete Address Abandon Peg Count
(IAD)

This counter is incremented by one if a Clear-Forward signal is received on an incoming call after a KP-signal has been received but before receiving the ST-signal.

Miscellaneous Abandon Peg Count
(MAB)

This counter is incremented by one if a Clear-Forward signal is received on the incoming trunk before completion of outpulsing on a CCITT No. 5 outgoing trunk.

OTHERS

Multiple Scan Points Active Peg Count
(MULT SP)

This count is incremented by one when more than one scan point is active at the same time on a CCITT No. 5 circuit.

Unreasonable Signal on an Idle
CCITT No. 6 Trunk Peg Count
(URS-CCITT6)

This counter is incremented by one when an unreasonable signal is received on an idle CCITT No. 6 trunk.

First Trial Glare Fail CCITT No. 5 Trunk
Peg Count
(FIRST TRIAL-CCITT5-GLARE)

This counter is incremented by one when a first trial glare condition has been encountered on a CCITT No. 5 outgoing trunk.

First Trial No. Start Dial (NSD) -
CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-NSD)

This counter is incremented by one when an outbound call encounters a first trial proceed to send timeout on a CCITT No. 5 trunk.

First Trial Outpulsing Fail
CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-OUTPULSING)

This counter is incremented by one when an outbound call encounters a first trial outpulsing failure on a CCITT No. 5 trunk.

Incoming Signal Irregularities Before
Answer CCITT No. 5 Trunk Peg Count
(FIRST TRIAL-CCITT5-SIG IRREG)

This counter is incremented by one when a signaling irregularity occurs before answer on a CCITT No. 5 outgoing trunk.

OMS 17

Blocking Acknowledgement Timeout
Peg Count
(BLA)

This count is incremented by one if on sending a blocking signal a blocking acknowledgement signal is not received within 6-minutes.

Unblocking Acknowledgement Timeout
Peg Count
(UBA)

This count is incremented by one if on sending an unblocking signal, an unblocking acknowledgement signal is not received within 6-minutes.

TABLE 26

OUTPUT MEASUREMENT SETS FOR MSC 26
(CONTROL AREA ONE)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area One.
```

TABLE 27

OUTPUT MEASUREMENT SETS FOR MSC 27
(CONTROL AREA TWO)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Two.

TABLE 28

OUTPUT MEASUREMENT SETS FOR MSC 28
(CONTROL AREA THREE)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Three.
```

TABLE 29

OUTPUT MEASUREMENT SETS FOR MSC 29
(CONTROL AREA FOUR)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Four.

TABLE 30

OUTPUT MEASUREMENT SETS FOR MSC 30
(CONTROL AREA FIVE)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Five.
```

TABLE 31

OUTPUT MEASUREMENT SETS FOR MSC 31
(CONTROL AREA SIX)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Six.

TABLE 32

OUTPUT MEASUREMENT SETS FOR MSC 32
(CONTROL AREA SEVEN)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Seven.

TABLE 33

OUTPUT MEASUREMENT SETS FOR MSC 33
(CONTROL AREA EIGHT)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Eight.

TABLE 34

OUTPUT MEASUREMENT SETS FOR MSC 34
(CONTROL AREA NINE)

```
The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Control Area Nine.
```

TABLE 35

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

```
MSC 35  SERVICE CIRCUITS
OMS 0 MAINTENANCE SERVICE CIRCUITS MAINTENANCE OCCUPANCIES

      RA      RT    ROTL  MF RCVR TST  MF XMTR TST   CSTD    XCVR TEST
       0       0       0           0            0       0            0

OMS 1  MAINTENANCE SERVICE CIRCUITS MEASUREMENTS
         LOC   NONLOC    SEIZ  SEIZ   TOTAL
  UNIT  FLTS    FLTS     ATT   OVFL   USAGE   SCF
  RA       0       0       -      -       -      -
  RT       0       0       -      -       -      -
  ROTL     -       -       0      0       0      0
  MRCT     -       -       -      -       0      -
  MXMT     -       -       -      -       0      0
  CSTD     0       0       0      0       0      -
  XCVR     0       0       -      -       0      -

OMS 2  ATME-A
               SZRE     USAGE  MTC USAGE
RESPONDER         0         0          0

OMS 3  TMR SEIZURES
              ATT        OVFL
                0         0
```

Description of Measurements for MSC 35

OMS 0

Maintenance Busy Occupancy

The occupancy counter for each of the specified units is scanned every 180 seconds. After each scan, the accumulating register for the unit type is incremented by the number of units found maintenance busy. This data is converted to CCS units by the program before output. Thus the printout of each register will reflect, in CCS, the amount of time each of the following types of units were maintenance busy.

1. Recorded Announcement Machine (RA)
2. Ringing and Tone Plant (RT)
3. Remote Office Test Line (ROTL)
4. MF Receiver Test Circuit (MF RCVR TST)
5. MF Transmitter Test Circuit (MF XMTR TST)
6. Common System Tone Detector (CSTD)
7. CCIS Transceiver Test Circuit (XCVR TEST)

OMS 1

Recorded Announcement Machine Located
Faults Peg Count
(RA LOC FLTS)

This counter is incremented by one each time the Recorded Announcement machine diagnostic locates a fault.

Recorded Announcement Machine Non-located
Faults Peg Count
(RA NONLOC FLTS)

This counter is incremented by one each time the Recorded Announcement machine diagnostic is run and no fault is found.

Ringing and Tone Plant Located Faults
Peg Counts
(RT LCO FLTS)

This counter is incremented by one each time the ringing and tone plant diagnostic locates a fault.

Ringing and Tone Plant Non-located Faults
Peg Count
(RT NONLOC FLTS)

TABLE 35 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

This counter is incremented by one each time the ringing and tone plant diagnostic is run and no fault is found.

Remote Office Test Line Seizure
Attempts Peg Count
(ROTL SEIZ ATT)

Each time a 4ESS Switch program attempts to seize a ROTL port, this counter is incremented by one.

Remote Office Test Line Seizure Overflow
Peg Count
(ROTL SEIZ OVFL)

This counter is incremented by one each time a 4ESS Switch program attempts to seize a ROTL port but none are available.

Remote Office Test Line Total Usage
(ROTL TOTAL USAGE)

This counter will record the accumulated usage for ROTL ports. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

Remote Office Test Line Self-Check Fail
Peg Count
(ROTL SCF)

This counter will be incremented by one each time either the ROTL Responder or the 105 responder fails its self-check.

MF Receiver Test Circuit Total Usage
(MRCT TOTAL USAGE)

This counter will record the accumulated usage for MF Receiver tests sets. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

MF Transmitter Test Circuit Total Usage
(MXMT TOTAL USAGE)

This counter will record the accumulated usage for MF Transmitter test sets. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

MF Transmitter Test Self-Check Fail
Peg Count
(MXMT SCF)

Each time an MF Transmitter or MF Receiver fails its self-check, this counter will be incremented by one.

Common System Tone Detector (CSTD)
Located Faults Peg Count
(CSTD LOC FLTS)

This counter will be incremented by one each time the CSTD diagnostic is executed and a fault is found.

Common System Tone Detector (CSTD)
Non-located Faults Peg Count
(CSTD NONLOC FLTS)

Each time the CSTD diagnostic is executed and no fault is found, this counter will be incremented by one.

Common System Tone Detector (CSTD)
Seizure Attempts Peg Count
(CSTD SEIZ ATT)

This counter is incremented by one each time an attempt is made to seize a CSTD.

Common System Tone Detector (CSTD)
Seizure Overflow Peg Count
(CSTD SEIZ OVFL)

This counter is incremented by one each time an attempt is made to seize a CSTD and none is available.

Common System Tone Detector (CSTD)
Total Usage
(CSTD TOTAL USAGE)

This counter will record the accumulated usage for all CSTDs. This count does not include maintenance usage.

CCIS Transceiver Test Circuit
Located Faults Peg Count
(XCVR LOC FLTS)

This counter is incremented by one each time the CCIS Transceiver diagnostic locates a fault.

CCIS Transceiver Test Circuit
Non-located Faults Peg Count
(XCVR NONLOC FLTS)

This counter is incremented by one each time the CCIS Transceiver diagnostic is run and no fault is found.

CCIS Transceiver Test Circuit Total Usage
(XCVR TOTAL USAGE)

TABLE 35 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 35
(SERVICE CIRCUITS)

This counter will record the accumulated usage for CCIS Transceiver test circuits. This count does not include maintenance usage. The scan rate is 10 seconds but the output is in CCS.

OMS 2

ATME-A Responder Incoming Seizures
Peg Count
(RESPONDER SZRE)

This counter is incremented by one each time an ATME-A responder is seized by the office for testing.

ATME-A Responder Total Usage
(RESPONDER USAGE)

This counter will record the accumulating usage for ATME-A responder test circuits. This count does not include maintenance usage. The scan rate is 180 seconds and the data is converted to CCS by the traffic program before output.

ATME-A Responder Maintenance Usage
(RESPONDER MTC USAGE)

This counter will record the accumulated maintenance usage for ATME-A responder test circuits. This count does not include service usage. The scan rate is 180 seconds and the data is converted to CCS by the traffic program before output.

OMS 3

Trunk Maintenance Register Seizure
Attempts Peg Count
(TMR SEIZURES ATT)

Each time an attempt is made to seize a TMR, this register is incremented by one.

Trunk Maintenance Register Seizure
Overflow Peg Count
(TMR SEIZURES OVFL)

Each time an attempt is made to seize a TMR and there are none available this register is incremented by one.

TABLE 36

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

```
MSC 36  SERVICE MEASUREMENTS
OMS 0 INCOMING IA, CCIS, ISUP, ITUP, INUP AND Q931
  INC ADRS   COT SIG    ISUP IAD  ISUP COT  ISUP COT  ITUP COT
    DET        T/O         DET      FAIL      T/O       FAIL
       0         0           0         0         0          0

  ITUP COT    INUP        INUP    INUP COT    Q931      Q931
    T/O        IAD         COT      T/O     INC ADRS    INFO
       0         0           0         0         0          0

    Q931      ISUP        ISUP      ITU       ITUP      INUP
     URS       URS        MISC       UR       MISC       URS
    RCVD      RCVD         T/O      RCVD       T/O      RCVD
       0         0           0         0         0          0

  INUP MSC  ITUP IRR    ITUP OUT  INUP IRR  INUP OUT
    T/O       B4ANS     IRR B4ANS   B4ANS   IRR B4ANS
       0         0           0         0         0

OMS 1  INCOMING IAS,BEFORE ADDR SIGNALING
         MF EQ  DP EQ   Q931   ISUP   ITUP  INUP  DTMF  IOC
  PST       0      0      0      0      0     0     0    0
  FSA       0      0      0      0      0     0     0    0

OMS 2  INCOMING IAS,DURING ADDRESS SIGNALING
         MF EQ  DP EQ   Q931   ISUP   ITUP  INUP  DTMF  IOC
  PDA       0      0      0      0      0     0     0    0
  PDT       0      0      0      0      0     0     0    0
  PER       0      0      0      0      0     0     0    0

OMS 3  INCOMING IAS,CALLING PARTY SIGNALING
         MF EQ  DP EQ
  ANF       0      0
  AIF       0      0
  AOF       0      0

OMS 4  OUTGOING IAS
         MF EQ  DP EQ    Q931    ISUP    ITUP    INUP  DTMF   IOC
  MAB         0      0       0       0       0       0     0     0

  OVERLOAD RETRY CANCEL       0
  CCIS
   CALL FAIL DETECTION        0
   SGNLING NWK FAILURE        0
   ADC SGN TIMEOUT            0
  ITUP
   ADC SGN TIMEOUT            0
  INUP
   ADC SGN TIMEOUT            0

  FINAL TRIAL GROUP
    CKF  TUPCKF  NUPCKF   UXS     IKF     NSD     XST   GLARE
      0       0       0    0       0       0       0       0
```

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

```
 MFT ERR
      0
 OTHER ERRORS
MFT OPLS    CPF    NO XCVR FTF
      0       0           0
OMS 5  CAMA POSITION IRREGULARITIES
  FREE CLS  POS REPT
        0         0
OMS 6  CALLS LOST DUE TO MACHINE IRREG
                                                          RCPT
            PHASE    VIU    DTU    DIU     ESU  SCS   TRNK OR BAND
TRANSIENT       0      0      0      0       0    0           -
STABLE          0      0      0      0       0    0           0
OMS 7  CCITT6 FINAL TRIAL FAILURES
     CCF     MCI     GLR     SNF
       0       0       0       0
OMS 8  CCITT5 FINAL TRIAL FAILURES-OUTGOING STAGE
  DS-CLF  PTS-TO  TX-ERR     URS      BF     GLR
       0       0       0       0       0       0
OMS 9  CCITT6 INEFFECTIVE ATTEMPTS
INCOMING    COT-TO
                 0
OUTGOING    ADC-TO
                 0
ABANDONS     MISC
                 0
WAIT ANS        CF      TO
                 0       0
DISCONNECT  CLF-TO  RLG-TO
                 0       0
OMS 10  CUSTOMER CALL TO MAS FTF
  XLATE LOOP         0
  DATA ON DISK       0
  PATH HUNT          0
  NO VAC ANN         0
  HARDWARE OOS       0
OMS 11  ADJUNCT TIMEOUTS
------------------------ ADJUNCT T303 TIMEOUTS -------------------------
        0      1      2      3      4      5      6      7      8      9
00      0      0      0      0      0      0      0      0      0      0
01      0      0      0      0      0      0
------------------------ ADJUNCT TADJ TIMEOUTS -------------------------
        0      1      2      3      4      5      6      7      8      9
00      0      0      0      0      0      0      0      0      0      0
01      0      0      0      0      0      0
```

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

Descriptions of measurements for MSC 36

OMS 0

Incomplete Address Detection Peg Count
(INC ADRS DET)

The Trunk Maintenance Administration Program (TMAD) will increment this counter by one each time a call is sent to Final Handling due to the detection of an incomplete address.

Continuity Signal Timeout Peg Count
(COT SIG T/O)

This counter is incremented by one each time a continuity (COT) timeout signal is not received within the timeout interval following the receipt of an Initial Address Message (IAM). The call will be sent to Final Handling.

ISUP Incomplete Address Detected Peg Count
(ISUP IAD DET)

On detection of an illegal digit in an ISUP IAM, this counter will be incremented by one via TMAD.

ISUP Continuity Failure Peg Count
(ISUP COT FAIL)

This counter is incremented by one when an ISUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to Final Handling.

ISUP Continuity Timeout Peg Count
(ISUP COT T/O)

This counter is incremented by one when an ISUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to Final Handling.

ITUP Continuity Failure Peg Count
(ITUP COT FAIL)

This counter is incremented by one when an ITUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to final handling.

ITUP Continuity Timeout Peg Count
(ITUP COT T/O)

This counter is incremented by one when an ITUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to final handling.

INUP Incomplete Address Detected Peg Count
(INUP IAD)

On detection of an illegal digit in an INUP IAM, this counter will be incremented by one via TMAD.

INUP Continuity Failure Peg Count
(INUP COT)

This counter is incremented by one when an INUP trunk that is waiting for COT receives a COT message with a failure state. The call is sent to final handling.

INUP Continuity Timeout Peg Count
(INUP COT T/O)

This counter is incremented by one when an INUP trunk fails to receive a COT message within the timeout interval following receipt of the IAM. The call will be sent to final handling.

Q.931 Incomplete Address Detected
Peg Count
(Q931 INC ADRS)

An invalid address, e.g., unacceptable digit count, illegal digit in setup message on a Q.931 call, will increment this counter by one. The call will be sent to Final Handling.

Q.931 Information Element Error Detected
Peg Count
(Q931 INFO)

This counter is incremented by one when an error involving the information element field is detected on a Q.931 call. The call is sent to Final Handling.

Q.931 Unreasonable Signal Received
Peg Count
(Q931 URS RCVD)

This counter is incremented by one when an unreasonable signal, e.g., release, disconnect is received during Q.931 call setup.

ISUP Unreasonable Signal Received
Peg Count
(ISUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an ISUP call is in the setup state.

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

ISUP Miscellaneous Timeout Peg Count
(ISUP MISC T/O)

This counter is incremented by one when an ISUP test call timed out waiting for a released message.

ITUP Unreasonable Signal Received Peg Count
(ITUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an ITUP call is in the setup state.

ITUP Miscellaneous Timeout Peg Count
(ITUP MISC T/O)

This counter is incremented by one when an ITUP test call timed out waiting for a clearforward message.

INUP Unreasonable Signal Received
Peg Count
(INUP URS RCVD)

This counter is incremented by one when an unexpected message is received while an INUP call is in setup state.

INUP Miscellaneous Timeout Peg Count
(INUP MSC T/O)

This counter is incremented by one when an INUP test call timeout waiting for a release message.

ITUP Incoming Irregularity Before Answer
Peg Count
(ITUP IRR B4ANS)

This counter is incremented by one when an irregularity such as an ADC message was returned on an ITUP call in a stable state.

ITUP Outgoing Irregularity Before Answer
Peg Count
(ITUP OUT IRR B4ANS)

This counter is incremented by one when an irregularity such as a clearing message received during setup.

INUP Incoming Irregularity Before Answer
Peg Count
(INUP IRR B4ANS)

This counter is incremented by one when an irregularity such as an ADC message returned on a stable call occurs.

INUP Outgoing Irregularity Before Answer
Peg Count
(INUP OUT IRR B4ANS)

This counter is incremented by one when an irregularity such as receiving an invalid or out of sequence message occurs.

OMS 1

Permanent Signal Timeout Peg Count
(PST)

These counters will record the total number of Permanent Signal Timeouts for the office, categorized by signaling type. These counters are a summation of the per Control Area counters.

False Start Abandon Peg Count
(FSA)

The total number of False Start Abandons for the office, categorized by signaling type, is recorded with this counter. The counters will reflect a summation of the per Control Area counters.

OMS 2

Partial Dial Abandon Peg Count
(PDA)

These total office counts of Partial Dial Abandons, categorized by signaling type, will be the summation of the per Control Area counters for PDA.

Partial Dial Timeout Peg Count
(PDT)

These total office counts of Partial Dial Timeouts categorized by signaling type, will equal the summation of the per Control Area counters for PDTO.

Pulsing Error Peg Count
(PER)

These total office counts of Pulsing Errors, categorized by signaling type, will equal the summation of the per Control Area counters for Pulsing Errors.

OMS 3

CAMA Automatic Number Identification
Failure Peg Count
(ANF)

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

These counts of total office ANF will reflect the summation of the per Control Area counters for ANF.

CAMA Automatic Number Identification
Office Failure Peg Count
(AIF)

These counts of total office AIF will reflect the summation of the per Control Area Counters for AIF.

CAMA Automatic Number Identification
Office Failure Peg Count
(AOF)

These counts of total office AOF will reflect the summation of the per Control Area Counters for AOF.

OMS 4

Miscellaneous Abandon Peg Count
(MAB)

These total counts of Miscellaneous Abandons, categorized by signaling type, reflect the summations of the per Control Area Counts.

Real-Time Overload Retry Cancel Peg Count
(OVERLOAD RETRY CANCEL)

This counter is incremented by one when a call attempt retry is canceled by the real-time overload function.

CCIS Call Fail Detection Peg Count
(CCIS CALL FAIL DETECTION)

This counter is incremented by one each time a COF, RLG, and RST signal is received for a call that is sent to final Handling.

CCIS Signaling Network Failure Peg Count
(CCIS SIGNLING NWK FAILURE)

This counter is incremented by one each time a call is sent to Final Handling because of a failure to send an IAM or COT for an outgoing trunk or an ADC for an incoming trunk because of a signaling network failure and each time a Message Refusal (MRF) signal is received for an outgoing CCIS call attempt.

CCIS Address Complete Signal Timeout
Peg Count
(CCIS ADC SGN TIMEOUT)

This counter is incremented by one each time a CCIS call times out while waiting for the ADC signal from the succeeding office.

ITUP Address Complete Signal Timeout
Peg Count
(ITUP ADC SGN TIMEOUT)

This counter is incremented by one each time an ITUP call times out while waiting for the ADC message from the succeeding office.

INUP Address Complete Signal Timeout
Peg Count
(INUP ADC SGN TIMEOUT)

This counter is incremented by one each time an INUP call times out while waiting for the ADC message from the succeeding office.

Final Trial Group Peg Count
(FINAL TRIAL GROUP)

These counters will be incremented by one each time a call is lost due to an ineffective attempt on the final trial. One counter exists for each of the following outgoing ineffective attempt type.

1. CCIS Continuity Check Failure (CKF)
2. ITUP Continuity Check Failure (TUPCKF)
3. INUP Continuity Check Failure (NUPCKF)
4. Unexpected Stop Failures (UXS)
5. Integrity Check Failures (IKF)
6. No Start Dial (NSD)
7. Expected Stop Timeout (XST)
8. Glare
9. MF Transmitter Errors (MFT ERR)

Other Errors - MF Transmitter
Outpulsing Errors Peg Count
(MFT OPLS)

This counter will be incremented by one each time a MF Transmitter reports a failure while outpulsing. This count will be maintained on a Control Area basis.

Other Errors - Continuity/Polarity
Test Failures Peg Count
(CPF)

This counter will be incremented by one each time there is a failure on a Continuity and Polarity test, indicating an off-hook on a one-way outgoing trunk.

Other Errors - No XCVR, Final Trial Failure
(NO XCVR FTF)

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

This counter will be incremented by one each time a CCIS call is sent to Final Handling because no CCIS Transceiver is available to do a Voice Path Assurance test.

OMS 5

CAMA Free Calls Peg Count
(FREE CLS)

This counter is incremented by one each time a CAMA call is allowed to complete free because ONI suspension is active.

CAMA Position Report (CPR) Peg Count
(POS REPT)

This counter is incremented by one each time CAMA determines that a trouble condition has taken place and the operator keys a predetermined seven digit trouble code rather than a calling party number and the call is aborted. (Same as MSC 18 OMS 0.)

OMS 6

Transient Calls Lost Peg Count
(TRANSIENT CALLS LOST)

Each time a call is lost during software initialization, a recovery phase, or because of the failure of a VIU, DTU, DIU, ESU, or SCS, this counter will be incremented by one. Note that this count is concerned with those calls that have not progressed to the "waiting-for-answer" state or beyond.

Established Calls Lost Peg Count
(STABLE CALLS LOST)

This count will be incremented by one each time a call is lost during software initialization, a recovery phase or because of the failure of a VIU, DTU, DIU, ESU, or SCS and the call had progressed to or beyond the "waiting-for-answer" state.

CCIS Calls Lost Due to Trunk or
Band Reset Peg Count
(STABLE RCPT TRNK OR BAND)

Each time a CCIS call is lost due to a trunk or band reset, this counter is incremented by one.

OMS 7

Continuity Check Failure Final Trial Failure
Peg Count
(CCF)

This count is incremented by one on final trial failure if a transceiver has not detected the receipt of the check tone within acceptable timing limits after sending IAM.

Miscellaneous call Irregularities
Final Trial Failure Peg Count
(MCI)

This count is incremented by one on final failure on the receipt of confusion (COF) or Release-Guard (RLG) signals during setup of an outgoing IAM but before any backward signal has been received.

Double Seizures (GLARE) Final Trial Failures
Peg Count
(GLR)

This count is incremented by one on final trial failure by the non-control office on detection of a double seizure.

Signaling Network Final Trial Failures
Peg Count
(SNF)

This count is incremented by one on the final trial failure on receipt of a Message Refusal (MRF) signal or loss of signaling capability on all signaling paths to which a trunk is assigned during an outgoing call setup (before receipt of the ADC signal).

OMS 8

Double Seizure - Clear Forward Final
Trial Failure Peg Count
(DS-CLF)

This count is incremented by one on final trial failure if a (F1+F2) signal is received instead of a Proceed-To-Send signal.

Seizing Signal Timeout Final Trial Failure
Peg Count
(PTS-TO)

This count is incremented by one on final trial failure if the Proceed--To-Send signal is not received within 20-seconds after sending seizure (F1).

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

Transmitter Error Final Trial Failure Peg Count (TX-ERR)

This counter is incremented by one on final trial failure if an MF Transmitter fails during outpulsing.

Unreasonable Signal Final Trial Failure Peg Count (URS)

This counter is incremented by one on final trial failure if an (F1) or (F1+F2) signal is received during outpulsing.

Busy-Flash Final Trial Failure Peg Count (BF)

This counter is incremented by one on final trial failure if a Busy-Flash (F2) signal is received during outpulsing.

Glare Final Trial Failure Peg Count (GLR)

This counter is incremented by one on final trial failure by the non-control office on detection of a double seizure.

OMS 9

Incoming Continuity Signal Timeout Peg Count (INCOMING COT-TO)

This counter is incremented by one when an initial message (IAM) is not followed within the accepted timing interval by a COT signal or a blocking signal followed by Clear-Forward.

Outgoing Address Complete Signal Timeout Peg Count (OUTGOING ADC-TO)

This counter is incremented by one when the CCITT No. 6 office that sent an address message and a COT message has not received an address complete signal within the accepted timing interval.

Miscellaneous Abandon Peg Count (ABANDONS MISC)

This count is incremented by one if a CLF signal is received subsequent to a COT signal but before receipt of an address complete signal (or early answer).

Waiting-for-Answer Call Failure Peg Count (WAIT ANS CF)

This count is incremented by one on receipt of a Call Failure (CFL) signal for an outgoing CCITT No. 6 trunk during the "waiting-for-answer" stage.

Waiting-for-Answer Timeout Peg Count (WAIT ANS TO)

This count is incremented by one if an outgoing CCITT No. 6 trunk does not receive an answer signal or other appropriate signal within 4-minutes of receipt of ADC.

Disconnect Stage Failure to Receive Clear-Forward Peg Count (DISCONNECT CLF-TO)

This count is incremented by one if when Clear-Back or any failure signal is transmitted for an incoming CCITT No. 6 trunk, a Clear-Forward signal is not received with 40 to 60-seconds for the failure signals.

Disconnect Stage Failure to Receive Release Guard Peg Count (DISCONNECT RLG-TO)

This count is incremented by one when a Release-Guard signal is not received within acceptable timing limits of sending Clear-Forward.

OMS 10

MAS - Looping Through Translate All Digits Peg Count (XLATE LOOP)

This counter keeps track of the number of customer calls to MAS that fail because the digit reception program (DIRE) is looping through translate all digits due to multiple cut-throughs and/or INWATS routing.

MAS - Data On Disk Peg Count (DATA ON DISK)

This counter keeps track of the number of customer calls to MAS that fail because DIRE has found MAS call data on disk.

MAS - Path Hunt Peg Count (PATH HUNT)

This counter keeps track of the number of customer calls to MAS that fail because all path hunt attempts failed.

TABLE 36 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 36
(SERVICE MEASUREMENTS)

MAS - No Vacant Announcement Peg Count
(NO VAC ANN)

This counter keeps track of the number of customer calls to MAS that fail because they are routed to a MAS vacant code or service inactive announcement and the vacant code/service inactive announcement is not available.

MAS - Hardware Duplex Failed Peg Count
(HARDWARE OOS)

This counter keeps track of the number of customer calls to MAS that fail because the MAS hardware is duplex failed, the two dedicated TSI SPCS serving the announcement are duplex failed, or two consecutive announcement phases are on tested TSI ports.

OMS 11

Adjunct Logical Address T303 Timeouts Peg Count
(ADJUNCT T303 TIMEOUTS)

These are the per Adjunct Logical Address T303 expiration counts that are pegged on timeout for response after sending a setup message on a CPA Q931 (B1) outgoing trunk. The count is reported for each of the 16 possible adjuncts.

Adjunct Logical Address TADJ Timeouts
Peg Count
(ADJUNCT TADJ TIMEOUTS)

These are the per Adjunct Logical Address T_ADJ expiration counts that are pegged on timeout while waiting for a message after a PROGRESS message has been received on a CPA Q931 (B1) outgoing trunk. The count is reported for each of the 16 possible adjuncts.

TABLE 37

OUTPUT MEASUREMENT SETS FOR MSC 37
(BASE MEASUREMENTS)

```
MSC 37  BASE MEASUREMENTS
OMS 0  DOM ATTEMPTS-TOTAL OFFICE
 ATT      MF EQ     DP EQ     Q931      ISUP    CCIS
   IN          0         0         0         0       0
   OUT         0         0         0         0       0
OMS 1  INTL ATTEMPTS-TOTAL OFFICE
 ATT    CCITT5    CCITT6     ITUP      INUP
   IN          0         0         0         0
   OUT         0         0         0         0
```

Description of Measurements for MSC 37

OMS 0

Incoming Domestic MF Call Attempts
(IN ATT MF EQ)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on MF Trunk Subgroups at 15 minute intervals. This count will not include those false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic DP Call Attempts
(IN ATT DP EQ)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on DP Trunk Subgroups at 15 minute intervals. This count will not include those false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic Q.931 Call Attempts
(IN ATT Q931)

This count will be calculated by accumulating the total incoming seizure Peg Count for which at least one digit was received on Q.931 Trunk Subgroups at 15 minute intervals. This count will not include those false starts that did not progress far enough to peg the Trunk Subgroup head cell incoming seizure Peg Count.

Incoming Domestic ISUP Call Attempts
(IN ATT ISUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute intervals.

Incoming Domestic CCIS Call Attempts
(IN ATT CCIS)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute intervals.

Outgoing Domestic MF Call Attempts
(OUT ATT MF EQ)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing MF Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic DP Call Attempts
(OUT ATT DP EQ)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing DP Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic Q.931 Call Attempts
(OUT ATT Q931)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cell of outgoing Q.931 Trunk Subgroups. Since only one seizure Peg Count for outgoing calls is incremented per outgoing call attempt, this count will be off by the number of retrials attempted.

Outgoing Domestic ISUP Call Attempts
(OUT ATT ISUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the ISUP Trunk Subgroups at 15 minute

TABLE 37 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 37
(BASE MEASUREMENTS)

intervals.

Outgoing Domestic CCIS Call Attempts
(OUT ATT CCIS)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCIS Trunk Subgroups at 15 minute intervals.

OMS 1

Incoming International CCITT No. 5
Call Attempts
(IN ATT CCITT5)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 5 Trunk Subgroups at 15 minute intervals.

Incoming International CCITT No. 6
Call Attempts
(IN ATT CCITT6)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 6 Trunk Subgroups at 15 minute intervals.

Incoming International ITUP Call Attempts
(IN ATT ITUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the ITUP Trunk Subgroups at 15 minute intervals.

Incoming International INUP Call Attempts
(IN ATT INUP)

This count will be calculated by accumulating the total incoming seizure Peg Count in the Trunk Subgroup head cells of the INUP Trunk Subgroups at 15 minute intervals.

Outgoing International CCITT No. 5
Call Attempts
(OUT ATT CCITT5)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 5 Trunk Subgroups at 15 minute intervals.

Outgoing International CCITT No. 6
Call Attempts
(OUT ATT CCITT6)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the CCITT No. 6 Trunk Subgroups at 15 minute intervals.

Outgoing International ITUP Call Attempts
(OUT ATT ITUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the ITUP Trunk Subgroups at 15 minute intervals.

Outgoing International INUP Call Attempts
(OUT ATT INUP)

This count will be calculated by accumulating the outgoing seizure Peg Count in the Trunk Subgroup head cells of the INUP Trunk Subgroups at 15 minute intervals.

TABLE 38

OUTPUT MEASUREMENT SETS FOR MSC 38
(ADMINISTRATIVE AREA ZERO)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Administrative Area Zero.

TABLE 39

OUTPUT MEASUREMENT SETS FOR MSC 39
(ADMINISTRATIVE AREA ONE)

The layout and count definitions of this MSC are identical to MSC 25.
This MSC provides data for Administrative Area One.

TABLE 40

OUTPUT MEASUREMENTS SETS FOR MSC 40
(PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE)

```
MSC 40  PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE
OMS 0  AUDIT IMPLICATOR CODES
  000     0  001     0  002     0  003     0  004     0  005     0
  006     0  007     0  008     0  009     0  010     0  011     0
  012     0  013     0  014     0  015     0  016     0  017     0
  018     0  019     0  020     0  021     0  022     0  023     0
  024     0  025     0  026     0  027     0  028     0  029     0
  030     0  031     0  032     0  033     0  034     0  035     0
  036     0  037     0  038     0  039     0  040     0  041     0
  042     0  043     0  044     0  045     0  046     0  047     0
  048     0  049     0  050     0  051     0  052     0  053     0
  054     0  055     0  056     0  057     0  058     0  059     0
  060     0  061     0  062     0  063     0

OMS 1  AUDIT IMPLICATOR CODES
  064     0  065     0  066     0  067     0  068     0  069     0
  070     0  071     0  072     0  073     0  074     0  075     0
  076     0  077     0  078     0  079     0  080     0  081     0
  082     0  083     0  084     0  085     0  086     0  087     0
  088     0  089     0  090     0  091     0  092     0  093     0
  094     0  095     0  096     0  097     0  098     0  099     0
  100     0  101     0  102     0  103     0  104     0  105     0
  106     0  107     0  108     0  109     0  110     0  111     0
  112     0  113     0  114     0  115     0  116     0  117     0
  118     0  119     0  120     0  121     0  122     0  123     0
  124     0  125     0  126     0  127     0

OMS 2  AUDIT IMPLICATOR CODES
  128     0  129     0  130     0  131     0  132     0  133     0
  134     0  135     0  136     0  137     0  138     0  139     0
  140     0  141     0  142     0  143     0  144     0  145     0
  146     0  147     0  148     0  149     0  150     0  151     0
  152     0  153     0  154     0  155     0  156     0  157     0
  158     0  159     0  160     0  161     0  162     0  163     0
  164     0  165     0  166     0  167     0  168     0  169     0
  170     0  171     0  172     0  173     0  174     0  175     0
  176     0  177     0  178     0  179     0  180     0  181     0
  182     0  183     0  184     0  185     0  186     0  187     0
  188     0  189     0  190     0  191     0

OMS 3  AUDIT IMPLICATOR CODES
  192     0  193     0  194     0  195     0  196     0  197     0
  198     0  199     0  200     0  201     0  202     0  203     0
  204     0  205     0  206     0  207     0  208     0  209     0
  210     0  211     0  212     0  213     0  214     0  215     0
  216     0  217     0  218     0  219     0  220     0  221     0
  222     0  223     0  224     0  225     0  226     0  227     0
  228     0  229     0  230     0  231     0  232     0  233     0
  234     0  235     0  236     0  237     0  238     0  239     0
  240     0  241     0  242     0  243     0  244     0  245     0
  246     0  247     0  248     0  249     0  250     0  251     0
  252     0  253     0  254     0  255     0
```

TABLE 40 (CONTINUED)

OUTPUT MEASUREMENTS SETS FOR MSC 40
(PERFORMANCE MEASUREMENTS - AUDIT IMPLICATOR CODE)

Description of Measurements for MSC 40

OMS 0-3

Audit Implicator Codes Peg Count

Each of these OMS have a total of 64 registers, one for each of the audit implicator codes within the specified OMS. Audit implicator codes point to memory structures and error types involved in defensive check failures.

TABLE 41

OUTPUT MEASUREMENT SETS FOR MSC 41
(AUDITS BY CLIENT)

```
MSC 41  AUDITS BY CLIENT
OMS 0 AUDIT CALLS BY CLIENT, ERRORS FOUND
    AUDITS  OPER   MAINT  MAN
     SYST   PRGMS  PRGMS  REQ
        0       0      0      0
```

Description of Measurements for MSC 41

OMS 0

Errors Found By Audit System Peg Count
(AUDITS SYST)

Each time an error is found by the audit system this register is incremented by one.

Errors Found By Operational Programs
Peg Count
(OPER PRGMS)

This counter will be incremented by one each time an error is found by an operational program.

Errors Found By Maintenance Programs
Peg Count
(MAINT PRGMS)

Each time an error is found by a maintenance program this register is incremented by one.

Errors Found By Manual Request
Peg Count
(MAN REQ)

This counter is incremented by one each time an error is found by an audit program that was initiated by manual request.

TABLE 42

OUTPUT MEASUREMENT SETS FOR MSC 42
(TRUNK ERROR ANALYSIS - SECOND STAGE FILTERS)

MSC 42 TRUNK ERROR ANALYSIS COUNTS

SP NUMBER	SECOND STAGE FILTER OVERFLOWS
OMS 0	0
OMS 1	0
OMS 2	0
OMS 3	0
OMS 4	0
OMS 5	0
OMS 6	0
OMS 7	0
OMS 8	0
OMS 9	0
OMS 10	0
OMS 11	0
OMS 12	0
OMS 13	0
OMS 14	0
OMS 15	0
OMS 16	0
OMS 17	0
OMS 18	0
OMS 19	0
OMS 20	0
OMS 21	0
OMS 22	0
OMS 23	0
OMS 24	0
OMS 25	0
OMS 26	0
OMS 27	0
OMS 28	0
OMS 29	0
OMS 30	0
OMS 31	0

Description of Measurements for MSC 42

OMS 0-31

Trunk Error Analysis Second Stage Filter Overflow For Signal Processor Peg Count (SECOND STAGE FILTER OVERFLOWS)

Each OMS has one counter for a signal processor of the same number (i.e., OMS 0 = SP Member 0, ..., OMS 31 = SP Member 31). These registers will be incremented by one for each trunk error analysis second stage filter overflow. This overflow will occur when an SP has received the maximum number of trunk requests it can handle and another request is received.

TABLE 43

OUTPUT MEASUREMENT SETS FOR MSC 43
(TRUNK ERROR ANALYSIS - LONG TERM TABLE)

MSC 43 TRUNK ERROR ANALYSIS COUNTS

SP NUMBER	LONG TERM TABLE OVERFLOWS
OMS 0	0
OMS 1	0
OMS 2	0
OMS 3	0
OMS 4	0
OMS 5	0
OMS 6	0
OMS 7	0
OMS 8	0
OMS 9	0
OMS 10	0
OMS 11	0
OMS 12	0
OMS 13	0
OMS 14	0
OMS 15	0
OMS 16	0
OMS 17	0
OMS 18	0
OMS 19	0
OMS 20	0
OMS 21	0
OMS 22	0
OMS 23	0
OMS 24	0
OMS 25	0
OMS 26	0
OMS 27	0
OMS 28	0
OMS 29	0
OMS 30	0
OMS 31	0

Description of Measurements for MSC 43

OMS 0-31

Trunk Error Analysis Long Term Table Overflow For Signal Processor Peg Count (LONG TERM TABLE OVERFLOWS)

Each OMS has one counter for a signal processor of the same number (i.e., OMS 0 = SP Member 0, ..., OMS 31 = SP Member 31). These registers will be incremented by one for each long term table overflow. This type of overflow will occur when the long term table is full and an attempt is made to place another trunk is on the table.

TABLE 44

OUTPUT MEASUREMENT SETS FOR MSC 44
(TRUNK ERROR ANALYSIS - REPORT BUFFER OVERFLOW)

```
MSC 44  TRUNK ERROR ANALYSIS - REPORT BUFFER OVERFLOW
OMS 0                   0
```

Description of Measurements for MSC 44

OMS 0

Trunk Error Analysis Report Buffer
Overflow Peg Count

This counter will be incremented by one each time an attempt is made to place a report to be printed out in the report buffer and the buffer is full to capacity.

TABLE 45

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

```
MSC 45 SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS
OMS 0
IAM IRR     0
        RESET    NSC    NTC    VNN    ADI    COF    CFL    UQL   UNRES
  RCVD      0      0      0      0      0      0      0      0       0
  XMIT      0      0      0      0      0      0      0      0

        IN CNI RING   OUT CNI RING   UBM    OUT   RESET   -CONFUSION-
        FAIL   OVFL   FAIL   OVFL   RCVD   UNEXP  RCVD   RCVD   XMIT
  Q931      0      0      0      0      -      -      0       0      0
  ISUP      0      0      0      0      0      0      0       -      -
  ITUP      0      0      0      0      0      0      0       -      -
  INUP      0      0      0      0      0      0      0       -      -

                SENT     RCVD
  ISUP CFN         0        0
  DNHR CRB         0        0
  RTNR EBCRB       0        0
  RTNR QUERY       0        0

  PROCESSOR INTERFACES DOWN
   CNI STRM    API   1A FILE
         0        0        0

OMS 1 CCIS SOFTWARE CARRIER GROUP ALARM
                   PASS         FAIL
       INITIAL        0            0
       MONITOR        0            -
       RESTORAL       0            0

OMS 2  TRKS BLOCKED FAR END EQUIP PROB
                   0

OMS 3  CCITT6 PERFORMANCE SIGNALS RECEIVED
     SEC     ADI     CFL     VNN     CGC     NNC
       0       0       0       0       0       0
     LOS     SSB    CONG
       0       0       0

       ITUP PERFORMANCE SIGNALS RECEIVED
     SEC  CGC WFA  CFL WFA   CGC     NNC  NNC WFA
       0       0       0       0       0       0
     LOS     SSB
       0       0

       INUP SIGNALLING IRREGULARITIES
     SEC  SEC WFA    NCA  NCA WFA  TFL WFA
       0       0       0       0       0
     LOS  SSB WFA
       0       0
       CCITT7 SAM IGNORED
              0
```

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

```
OMS 4  CCITT6 PERFORMANCE SIGNALS TRANSMITTED
     SEC     ADI     CFL     VNN     CGC     NNC
       0       0       0       0       0       0

     COF     SSB     SST     LOS     BLO
       0       0       0       0       0

OMS 5  CCITT6 SIGNALLING IRREGULARITIES
     IAD     IAM     ISA     CCF     MCI     SNF     GLR
       0       0       0       0       0       0       0

       ITUP SIGNALLING IRREGULARITIES
     IAD     ISA  IAM GLR  CCR GLR   GLR
       0       0       0       0       0

       INUP SIGNALLING IRREGULARITIES
     ISA  IAM GLR  CCR GLR   GLR
      0       0       0       0

OMS 6  ISUP UUI AND ATP DROPPED
     UUI  UUI INT    ATP  ATP INT
       0       0       0       0

OMS 7  CALL MERGE
------------------ CALL MERGE ------------------
    RQST    SUCC  ADJ NA  INV CS  INV CN  MFRQST
       0       0       0       0       0       0

OMS 8 E&M SOFTWARE CARRIER GROUP ALARM
        ALARM  RESTORAL  NON-CON  QIC-PASS  QIC-FAIL
  TPF       0         0         0         0         0
  RPF       0         0         -         -         -
```

Descriptions of Measurements for MSC 45

OMS 0

Initial Address Message (IAM)
Irregularity (IRR) Peg Count
(IAM IRR)

This counter will be incremented by one for each of the following initial address irregularities:

a. Invalid Initial Address Message (IAM) data - An example of an IAM containing invalid data is an invalid digit such as digit 14.

b. IAM length check failure - A CCIS office is unable to complete a length check on a received IAM because, for example, one or more subsequent signaling units of the IAM are missing.

c. Receipt of a nonmatching second IAM - If during the call setup a CCIS office receives a second IAM, a comparison is made to the first IAM and the two are different.

CCIS Trunk Or Band Reset Received
Peg Count
(RESET RCVD)

Each time a trunk or band Reset signal (RST) from the incoming direction is received during call set-up, this counter is incremented by one.

CCIS National Switching Congestion (NSC)
Signals Received Peg Count
(NSC RCVD)

This counter is incremented by one when a National Switching Congestion (NSC) signal is received for an outgoing CCIS call attempt because common control facilities in a subsequent office were not available or a network path hunt failed in a subsequent office.

CCIS National Trunk Congestion (NTC)
Signals Received Peg Count

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

(NTC RCVD)

This counter is incremented by one each time a National Trunk Congestion signal (NTC) is received for an outgoing CCIS call attempt because of an outgoing trunk congestion condition (no circuit) in a subsequent office.

CCIS Vacant National Number (VNN)
Signals Received Peg Count
(VNN RCVD)

When a succeeding CCIS office has examined the digits received on a CCIS call and determined that it has received a vacant code, and this office received a Vacant National Number (VNN) signal, this counter is incremented by one.

CCIS Address Incomplete (ADI) Signals
Received Peg Count
(ADI RCVD)

This counter is incremented by one when a succeeding CCIS office determined that the address received on an incoming call does not contain the proper number of digits and this office received an Address Incomplete (ADI) signal.

CCIS Confusion (COF) Signals Received
Peg Count
(COF RCVD)

Each time a Confusion Signal (COF) is received because the forward office detected an invalid Initial Address Message (IAM) irregularity, this counter is incremented by one.

CCIS Call Failure (CFL) Signals Received
Peg Count
(CFL RCVD)

This counter is incremented by one each time a forward CCIS office experienced Continuity (COT) Timeout signal or Address Complete (ADC) signal timeout and this office received a Call Failure (CFL) signal.

CCIS Unequipped Label Signals Received
Peg Count
(UQL RCVD)

This counter is incremented by one each time an Unequipped Label (UQL) signal is received from a forward office that had been sent an IAM.

CCIS Unreasonable Message (UNRES)
Signals Received Peg Count
(UNRES RCVD)

This counter is incremented by one each time the CCIS office receives an unreasonable backward message that causes retrial. Such messages include receipt of Release Guard (RLG) signal or Reset (RST) signal after an IAM or IAM plus COT has been sent.

CCIS Trunk Or Band Reset Signals
Transmitted Peg Count
(RESET XMIT)

Each time a band or trunk Reset signal is sent in the outgoing direction during call setup, this counter is incremented by one.

CCIS National Switching Congestion (NSC)
Signals Transmitted Peg Count
(NSC XMIT)

This counter is incremented by one each time a National Switching Congestion signal (NSC) is returned for an incoming call because insufficient common control facilities were available for the CCIS call or because a failure occurred while hunting a network path.

CCIS National Trunk Congestion (NTC)
Signals Transmitted Peg Count
(NTC XMIT)

Each time a National Trunk Congestion signal is returned for a CCIS incoming call because of an outgoing trunk congestion condition (no circuit), this counter is incremented by one.

CCIS Vacant National Number (VNN)
Signals Transmitted Peg Count
(VNN XMIT)

This counter is incremented by one each time the digits received have been examined and determined to be a vacant code and a Vacant National Number (VNN) signal has been sent to the CCIS office that sent the digits.

CCIS Address Incomplete (ADI) Signals
Transmitted Peg Count
(ADI XMIT)

Each time the address received on an incoming call does not contain the proper number of digits and an Address Incomplete (ADI) signal is sent to the CCIS office that transmitted the IAM, this counter will be incremented by one.

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

CCIS Confusion (COF) Signals Transmitted Peg Count
(COF XMIT)

This counter is incremented by one each time a Confusion (COF) signal is transmitted because an invalid Initial Address Message (IAM) irregularity has been received.

CCIS Call Failure (CFL) Signals Transmitted Peg Count
(CFL XMIT)

Each time a Continuity (COT) Timeout or an Address Complete (ADC) timeout occurs and a Call Failure (CFL) signal has been transmitted to the sending office, this counter will be incremented by one.

CCIS Unequipped Label Signals Transmitted Peg Count
(UQL XMIT)

This counter is incremented by one each time an Unequipped Label response (UQL) is sent to an office as a result of an invalid label found in an IAM.

Q.931 Incoming CNI Ring Failure Peg Count
(Q931 IN CNI RING FAIL)

This counter is incremented by one when an incoming Q.931 call is sent to Final Handling due to Customer Network Interface (CNI) ring failure.

Q.931 Incoming CNI Ring Buffer Overflow Peg Count
(Q931 IN CNI RING OVFL)

This counter is incremented by one when an incoming Q.931 call fails due to an inability to send messages caused by CNI buffer overflow.

Q.931 Outgoing CNI Ring Failure Peg Count
(Q931 OUT CNI RING FAIL)

This counter is incremented by one when an outgoing Q.931 call is sent to Final Handling due to CNI ring failure.

Q.931 Outgoing CNI Ring Overflow Peg Count
(Q931 OUT CNI RING OVFL)

This counter is incremented by one when an outgoing Q.931 call fails due to an inability to send messages caused by CNI buffer overflow.

Q.931 Resets Received Peg Count
(Q931 RESET RCVD)

This counter is incremented by one when a reset message is received on a Q.931 trunk that is on queue for or busy to a CR.

Q.931 Confusion Received Peg Count
(Q931 CONFUSION RCVD)

This counter is incremented by one when an incoming Q.931 fails due to a call state mismatch in a setup or post-setup state.

Q.931 Confusion Transmitted Peg Count
(Q931 CONFUSION XMIT)

This counter is incremented by one when a call state mismatch is detected on an outgoing Q.931 call in either setup or post setup state.

ISUP Incoming CNI Ring Failure Peg Count
(ISUP IN CNI RING FAIL)

This counter is incremented by one when an incoming ISUP call is sent to Final Handling due to CNI ring failure.

ISUP Incoming CNI Ring Overflow Peg Count
(ISUP IN CNI RING OVFL)

This counter is incremented by one when an incoming ISUP call fails due to an inability to send messages caused by CNI buffer overflow.

ISUP Outgoing CNI Ring Failure Peg Count
(ISUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing ISUP call is sent to Final Handling due to CNI ring failure.

ISUP Outgoing CNI Ring Overflow Peg Count
(ISUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing ISUP call fails due to an inability to send messages caused by CNI buffer overflow.

ISUP Unsuccessful Backward Setup Received Peg Count
(ISUP UBM RCVD)

This counter is incremented by one when an ISUP release message is received in setup.

ISUP Outgoing Unexpected Message

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Peg Count
(ISUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR occurs.

ISUP Resets Received Peg Count
(ISUP RESET RCVD)

This counter is incremented by one when an incoming ISUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

ITUP Incoming CNI Ring Failure Peg Count
(ITUP IN CNI RING FAIL)

This counter is incremented by one when an incoming ITUP call is sent to Final Handling due to CNI ring failure.

ITUP Incoming CNI Ring Overflow Peg Count
(ITUP IN CNI RING OVFL)

This counter is incremented by one when an incoming ITUP call fails due to an inability to send messages caused by CNI buffer overflow.

ITUP Outgoing CNI Ring Failure Peg Count
(ITUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing ITUP call is sent to Final Handling due to CNI ring failure.

ITUP Outgoing CNI Ring Overflow Peg Count
(ITUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing ITUP call fails due to an inability to send messages caused by CNI buffer overflow.

ITUP Unblocking Message Received
Peg Count
(ITUP UBM RCVD)

This counter is incremented by one when an unblocking message is received on an ITUP call that is busy to a call register.

ITUP Outgoing Unexpected Message
Peg Count
(ITUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR occurs.

ITUP Resets Received Peg Count
(ITUP RESET RCVD)

This counter is incremented by one when an incoming ITUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

INUP Incoming CNI Ring Failure Peg Count
(INUP IN CNI RING FAIL)

This counter is incremented by one when an incoming INUP call is sent to Final Handling due to CNI ring failure.

INUP Incoming CNI Ring Overflow Peg Count
(INUP IN CNI RING OVFL)

This counter is incremented by one when an incoming INUP call fails due to an inability to send messages caused by CNI buffer overflow.

INUP Outgoing CNI Ring Failure Peg Count
(INUP OUT CNI RING FAIL)

This counter is incremented by one when an outgoing INUP call is sent to Final Handling due to CNI ring failure.

INUP Outgoing CNI Ring Overflow Peg Count
(INUP OUT CNI RING OVFL)

This counter is incremented by one when an outgoing INUP call is sent to Final Handling due to CNI ring overflow.

INUP Unblocking Message Received
Peg Count
(INUP UBM RCVD)

This counter is incremented by one when an unblocking message is received on an INUP call that is busy to a call register.

INUP Outgoing Unexpected Message
Peg Count
(INUP OUT UNEXP)

This counter is incremented by one when a far-end irregularity such as clearing received while busy to a CR.

INUP Resets Received Peg Count
(INUP RESET RCVD)

This counter is incremented by one when an incoming INUP call that is on queue for or busy to a CR is final handled due to receipt of a RESET message.

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

ISUP Confusion Message Sent Peg Count
(ISUP CFN SENT)

This counter is incremented by one when a Confusion message is sent in response to an unimplemented message.

ISUP Confusion Message Received Peg Count
(ISUP CFN RCVD)

This counter is incremented by one when a Confusion message is received.

DNHR Crank Backs Sent Peg Count
(DNHR CRB SENT)

This counter is incremented by one when a crank back is sent from the Via Toll Switch.

DNHR Crank Backs Received Peg Count
(DNHR CRB RCVD)

This counter is incremented by one when a crank back is received at the Originating Toll Switch.

RTNR Egress Busy Crankbacks Sent
Peg Count
(RTNR EBCRB SENT)

This counter is incremented by one when a crankback is sent at a Terminating Access Switch.

RTNR Egress Busy Crankback Received
Peg Count
(RTNR EBCRB RCVD)

This counter is incremented by one when a crankback is received at an Originating Access Switch.

RTNR Queries Sent Peg Count
(RTNR QUERY SENT)

This counter is incremented by one when a TSG bit-map query is sent from an Originating Access Switch (OAS).

RTNR Queries Received Peg Count
(RTNR QUERY RCVD)

This counter is incremented by one when a TSG bit-map query is received at a Terminating Access Switch (TAS).

CNI Stream Processor Interface Down
(CNI STRM PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the CNI data stream has been down.

API Processor Interface Down
(API PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the API is down.

1A File Processor Interface Down
(1A FILE PROCESSOR INTERFACES DOWN)

This counter reflects the time, in .10 second increments, that the 1A File Store is down.

OMS 1

These counters are incremented by the Software Carrier Group Alarm program from statistical tests on the Carrier Group believed to have failed. An initial continuity test is run when a suspected failure is first encountered. A monitor test is run at periodic intervals after the failure of an initial test. A restoral test is run after a monitor test pass.

1. Initial Tests Pass Peg Count
2. Initial Tests Failure Peg Count
3. Monitor Tests Pass Peg Count
4. Restoral Tests Pass Peg Count
5. Restoral Tests Failure Peg Count

OMS 2

Trunks Blocked Due To Far End
Equipment Problems Peg Count
(TRKS BLOCKED FAR END EQUIP PROB)

This counter is incremented by one for each trunk that is blocked and taken out of service due to far end switching equipment problems.

OMS 3

CCITT No. 6 Switching Equipment Congestion
(SEC) Signals Received Peg Count
(CCITT6 SEC)

This count is incremented by one when a Switching Equipment Congestion signal is received from a forward CCITT No. 6 office or when there is some

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

congestion in the office itself, such as no transceivers available for an outgoing CCITT No. 6 call.

CCITT No. 6 Address Incomplete (ADI) Signals Received Peg Count (CCITT6 ADI)

This counter is incremented by one when a succeeding CCITT No. 6 office determined that the address received on an incoming call does not contain the proper number of digits and this office received an Address Incomplete signal.

CCITT No. 6 Call Failure (CFL) Signals Received Peg Count (CCITT6 CFL)

This counter is incremented by one each time a forward CCITT No. 6 office experienced Continuity (COT) Timeout signal or Address Complete (ADC) signal timeout and this office received a Call Failure (CFL) signal.

CCITT No. 6 Vacant National Number (VNN) Signals Received Peg Count (CCITT6 VNN)

This counter is incremented by one when a succeeding CCITT No. 6 office has examined the digits received on a CCITT No. 6 call and determined that it has received a Vacant National Number signal.

CCITT No. 6 Circuit Group Congestion (CGC) Signals Received Peg Count (CCITT6 CGC)

This count is incremented by one each time a Circuit Group Congestion signal is received for an outgoing CCITT No. 6 call attempt because of an outgoing trunk congestion (no circuit) condition is a subsequent office.

CCITT No. 6 National Network Congestion (NNC) Signals Received Peg Count (CCITT6 NNC)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing CCITT No. 6 call attempt because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

CCITT No. 6 Line Out-of-Service Signals Received Peg Count (CCITT6 LOS)

This counter is incremented by one when a LOS fail signal is received on a CCITT6 outgoing trunk.

CCITT No. 6 Subscriber Busy Signals Received Peg Count (CCITT6 SSB)

This counter is incremented by one when an SSB fail signal is received on a CCITT6 outgoing trunk.

CCITT No. 6 Terminal Congestion Peg Count (CCITT6 CONG)

This counter is incremented by one when a CCITT6 call is final handled due to terminal congestion that cancels IAMs to a terminal.

ITUP Switching Equipment Congestion (SEC) Signals Received Peg Count (ITUP SEC)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received from a forward ITUP office or when there is some congestion in the office itself, such as no transceivers available for an outgoing ITUP call.

ITUP Circuit Group Congestion (CGC) Received While Waiting For Answer Peg Count (ITUP CGC WFA)

This counter is incremented by one when a Circuit Group Congestion (CGC) signal is received on an outgoing ITUP call attempt while waiting for answer because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP Call Failure (CFL) Received While Waiting For Answer Peg Count (ITUP CFL WFA)

This counter is incremented by one when a Call Failure (CFL) signal is received on an outgoing ITUP call attempt while waiting for answer.

ITUP Circuit Group Congestion (CGC) Signals Received Peg Count (ITUP CGC)

This count is incremented by one each time a Circuit Group Congestion signal is received for an outgoing ITUP call attempt because of outgoing trunk congestion (CGC) condition in a subsequent office.

ITUP National Network Congestion (NNC)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Signals Received Peg Count
(ITUP NNC)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing ITUP call attempt because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP National Network Congestion (NNC)
While Waiting For Answer Peg Count
(ITUP NNC WFA)

This counter is incremented by one each time a National Network Congestion signal is received for an outgoing ITUP call attempt while waiting for answer because of an outgoing trunk congestion (no circuit) condition in a subsequent office.

ITUP Line Out-of-Service (LOS) Signals
Received Peg Count
(ITUP LOS)

This counter is incremented by one when a LOS fail signal is received on an ITUP outgoing trunk.

ITUP Subscriber Busy (SSB) Signals
Received Peg Count
(ITUP SSB)

This counter is incremented by one when an SSB fail signal is received on an ITUP outgoing trunk.

INUP Switching Equipment Congestion (SEC)
Signals Received Peg Count
(INUP SEC)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received from a forward INUP office or when there is some congestion in the office itself, such as no transceivers available for an outgoing INUP call.

INUP Switching Equipment Congestion (SEC)
Signals Received While Waiting For Answer
Peg Count
(INUP SEC WFA)

This counter is incremented by one when a Switching Equipment Congestion (SEC) signal is received while waiting for answer from a forward INUP office or when there is some congestion in the office itself, such as no transceivers available for an INUP call.

INUP No Circuit Available (NCA) Signals
Received Peg Count
(INUP NCA)

This counter is incremented by one when a REL message is received with a cause of No Circuit Available from a forward INUP office.

INUP No Circuit Available (NCA) Signals
Received While Waiting For Answer
Peg Count
(INUP NCA WFA)

This counter is incremented by one when a REL message is received with a cause of No Circuit Available while waiting for answer from a forward INUP office.

INUP Temporary Failure (TFL) Signals
Received While Waiting For Answer
Peg Count
(INUP TFL WFA)

This counter is incremented by one when a REL message is received with a cause of Temporary Failure while waiting for answer from a forward INUP office.

INUP Line Out-of-Service (LOS) Signals
Received Peg Count
(INUP LOS)

This counter is incremented by one when a LOS fail signal is received on an INUP outgoing trunk.

INUP Subscriber Busy (SB) Signals Received
While Waiting For Answer Peg Count
(INUP SSB WFA)

This counter is incremented by one when a Subscriber Busy fail signal is received while waiting for answer on an INUP outgoing trunk.

CCITT No. 7 Subsequent Address
Message Ignored Peg Count
(CCITT7 SAM IGNORED)

This is a count of the number of Subsequent Address Messages (SAM) ignored in the incoming setup post routing state.

OMS 4

CCITT No. 6 Switching Equipment Congestion
(SEC) Signals Transmitted Peg Count
(SEC)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

This counter is incremented by one when there is some congestion in the office such as no transceiver available for an outgoing CCITT No. 6 call or when a Switching Equipment Congestion signal is received from a forward office.

CCITT No. 6 Address Incomplete (ADI)
Signals Transmitted Peg Count
(ADI)

This counter is incremented by one when an Address Incomplete signal is received by the office or if the CCITT No. 6 office determined that the address received on an incoming call does not contain the proper number of digits.

CCITT No. 6 Call Failure (CFL) Signals
Transmitted Peg Count
(CFL)

This counter is incremented by one when this office received a Call Failure signal from a forward CCITT No. 6 office or if the outgoing trunk fails on a final trial.

CCITT No. 6 Vacant National Number (VNN)
Signals Transmitted Peg Count
(VNN)

This counter is incremented by one each time the digits received have been examined and determined to be a vacant code and a Vacant National Number (VNN) signal has been sent to the CCITT No. 6 office that sent the digits.

CCITT No. 6 Circuit Group Congestion (CGC)
Signals Transmitted Peg Count
(CGC)

This counter is incremented by one each time a Circuit Group Congestion is received from a forward office or when an incoming CCITT No. 6 call encounters outgoing trunk congestion (no circuit).

CCITT No. 6 National Network Congestion
(NNC) Signals Transmitted Peg Count
(NNC)

This counter is incremented by one each time a National Network Congestion signal is returned for a CCITT No. 6 incoming call because of an outgoing trunk congestion problem (no circuit).

CCITT No. 6 Confusion (COF) Signals
Transmitted Peg Count
(COF)

This counter is incremented by one each time a Confusion signal is transmitted because an invalid Initial Address Message (IAM) irregularity has been received.

CCITT No. 6 Subscriber Busy (SSB) Signals
Transmitted Peg Count
(SSB)

This counter is incremented by one each time a Subscriber Busy (SSB) signal is received from the sending office.

CCITT No. 6 Subscriber Transferred (SST)
Signals Transmitted Peg Count
(SST)

This counter is incremented by one each time a Subscriber Transferred (SST) signal is received from the sending office.

CCITT No. 6 Line Out-Of-Service (LOS)
Signal Transmitted Peg Count
(LOS)

This counter is incremented by one each time a Line Out-Of-Service signal is received from the sending office.

CCITT No. 6 Blocking (BLO) Signal
Transmitted Peg Count
(BLO)

This counter is incremented by one on the receipt of Confusion (COF) and Release-Guard (RLG) signals during set-up of an outgoing CCITT No. 6 call, or the receipt of a Blocking (BLO) signal after sending an Initial Address Message (IAM) but before any backward signal has been received.

OMS 5

CCITT No. 6 Incomplete Address Detected
Call Irregularity Peg Count
(CCITT6 IAD)

This count is incremented by one when it is determined on an incoming CCITT No. 6 call that a received address does not contain the proper number of digits for setting up the call and an Address Incomplete (ADI) signal is sent in the backward direction for the incoming trunk.

CCITT No. 6 Initial Address Message (IAM)

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Call Irregularity Peg Count
(CCITT6 IAM)

This counter is incremented by one when the Initial Address Message (IAM) or Subsequent Address Message (SAM) data is invalid, or if the IAM or SAM length checks fail, or if a second nonmatching IAM or SAM signal is received. Detecting any of these failures, the office will send a Confusion (COF) signal in the backward direction for the incoming trunk.

CCITT No. 6 Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(CCITT6 ISA)

This counter is incremented by one each time a Clear-Forward (CLF) signal is received on an incoming CCITT No. 6 trunk (not preceded by a blocking signal) while timing for the receipt of the Continuity (COT) signal.

CCITT No. 6 Continuity Check Failure (CCF)
Signaling Irregularity Peg Count
(CCITT6 CCF)

This counter is incremented by one each time a transceiver has not detected the receipt of the check tone within acceptable transmission and time limits. Four reattempts are allowed in the event of successive continuity check failures.

CCITT No. 6 Miscellaneous Call Irregularity
Peg Count
(CCITT6 MCI)

This counter is incremented by one when a CCITT No. 6 outgoing call attempt receives a Confusion or Blocking message in response to an IAM.

CCITT No. 6 Signaling Network Failures
(SNF) Call Irregularities Peg Count
(CCITT6 SNF)

This counter is incremented by one on receipt of a Message Refusal (MRF) signal or loss of signaling capability on all signaling paths to which a trunk is assigned at a CCITT No. 6 office.

CCITT No. 6 Double Seizure (GLR) Call
Irregularity Peg Count
(CCITT6 GLR)

This counter is incremented by one by the non-control office on detection of a double seizure.

ITUP Incomplete Address Detected (IAD)
Call Irregularity Peg Count
(ITUP IAD)

This count is incremented by one when it is determined on an incoming ITUP call that a received address does not contain the proper number of digits for setting up a call and an Address Incomplete (ADI) signal is sent in the backward direction for the incoming trunk.

ITUP Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(ITUP ISA)

This counter is incremented by one each time a Reset (RST) message is received on an incoming ITUP trunk that is either on queue for or busy to a CR.

ITUP Initial Address Message (IAM) Glare
Peg Count
(ITUP IAM GLR)

This counter is incremented by one on an ITUP outgoing attempt when an IAM is received on the outgoing trunk that the far end controls while either doing a continuity check request or in setup.

ITUP Continuity Check Request (CCR) Glare
Peg Count
(ITUP CCR GLR)

This counter is incremented by one when a CCR is received on an ITUP outgoing trunk after a CCR was successfully sent, which is a glare condition in a non-control office.

ITUP Glare Peg Count
(ITUP GLR)

This counter is incremented by one when an outgoing ITUP trunk detects a double seizure is detected in a non-control office.

INUP Incoming Seizure Abandon (ISA)
Signaling Irregularity Peg Count
(INUP ISA)

This counter is incremented by one each time a Reset (RST) message is received on an incoming INUP trunk that is either on queue for or busy to a CR.

INUP Initial Address Message (IAM) Glare
Peg Count
(INUP IAM GLR)

This counter is incremented by one on an INUP outgoing attempt when an IAM is received on the

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

outgoing trunk that the far end controls while either doing a continuity check request or in setup.

INUP Continuity Check Request (CCR) Glare Peg Count
(INUP CCR GLR)

This counter is incremented by one when a CCR is received on an INUP outgoing trunk after a CCR was successfully sent, which is a glare condition in a non-control office.

INUP Glare Peg Count
(INUP GLR)

This counter is incremented by one when an outgoing INUP trunk detects a double seizure is detected in a non-control office.

OMS 6

ISUP UUI Dropped Due to Length Peg Count
(ISUP UUI)

This is a count of the number of times User-to-User Information (UUI) was dropped due to length considerations and maximum ISUP length restrictions.

ISUP UUI Dropped Due to Internal Loss Peg Count
(ISUP UUI INT)

This is a count of the number of times User-to-User Information (UUI) is dropped due to lack of internal buffer space.

ISUP ATP Dropped Due to Length Peg Count
(ISUP ATP)

This is a count of the number of times Access Transport data (ATP) was dropped due to length considerations and maximum ISUP length restrictions.

ISUP ATP Dropped Due to Internal Loss Peg Count
(ISUP ATP INT)

This is a count of the number of times Access Transport data (ATP) is dropped due to lack of internal buffer space.

OMS 7

Call Merge Requests Peg Count
(CALL MERGE RQST)

This is a count of call merge requests to connect two calls set up through a PRI interface as a single call into the switch.

Call Merge Success Peg Count
(CALL MERGE SUCC)

This is a count of successfully completed call merge operations.

Call Merge Denials - Adjunct Not Allowed Peg Count
(CALL MERGE ADJ NA)

This is the count of call merge denials because the adjunct is prohibited from merging calls.

Call Merge Denials - Invalid Call States Peg Count
(CALL MERGE INV CS)

This is the count of call merge denials because the calls to be merged were in invalid states.

Call Merge Denials - Invalid Channel ID Peg Count
(CALL MERGE INV CN)

This is the count of call merge denials because of an invalid channel ID.

Call Merge Denials - Multi-Feature Request Peg Count
(CALL MERGE MFRQST)

This is the count of call merge denials because of multiple feature requests in one facility message.

OMS 8

Confirmed Transmit Path Failure Carrier Alarm Peg Count
(TPF ALARM)

This counter will be incremented by one each time a Confirmed Transmit Path Failure Carrier Alarm is detected.

Confirmed Transmit Path Failure Carrier Restoral Peg Count
(TPF RESTORAL)

This counter will be incremented by one each time a retest quick test verifies that a Transmit Path Failure

TABLE 45 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 45
(SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS)

Carrier Restoral has passed and the carrier alarm will be deactivated.

Non-Confirmed Transmit Path Failure Carrier Alarm Peg Count (TPF NON-CON)

This counter will be incremented by one each time a Non-Confirmed Transmit Path Failure Carrier Alarm has been detected.

Monitor QIC Passed - Suspected Transmit Path Failure Restoral Peg Count (TPF QIC-PASS)

This counter will be incremented by one each time a transmit path failure monitor test has passed and the carrier alarm will be deactivated.

Retest QIC Failed - Non-Confirmed Transmit Path Failure Restoral Peg Count (TPF QUIC-FAIL)

This counter will be incremented by one each time a retest quick test has failed.

Confirmed Receive Path Failure Carrier Alarm Peg Count (RPF ALARM)

This counter will be incremented by one each time a Confirmed Receive Path Failure Carrier Alarm has been detected.

Confirmed Receive Path Failure Carrier Restoral Peg Count (RPF RESTORAL)

This counter will be incremented by one each time a successful Receive Path Failure Carrier Restoral has been detected.

TABLE 46

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

MSC 46 SWITCHING AREA EQUIPMENT COUNTS

OMS 0 PROCESSOR

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ	ATP
CC	0	0	0	0	0	0	0	
PS	0	0	0	0	0	0	0	
CS	0	0	0	0	0	0	0	
MCC	0	0	0	0	0	0	0	
API	0	0	0	0	0	0	0	
DUS	0	0	0	0	0	0	0	
TUC	0	0	0	0	0	0	0	
PDF	0	0	0	0	0	0	0	

OMS 1 I/O

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ	ATP
IOUS	0	0	0	0	0	0	0	
IOUC	0	0	0	0	0	0	0	

OMS 2 BUS SYSTEM

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ	ATP
PSB	0	0	0	0	0	0	0	
CSB	0	0	0	0	0	0	0	
AUB	0	0	0	0	0	0	0	
PUB	0	0	0	0	0	0	0	

OMS 3 NETWORK

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ	ATP
TSI	0	0	0	0	0	0	0	
TMSP	0	0	0	0	0	0	0	

OMS 4 SIGNALING EQUIPMENT

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ	ATP
TGR								
CONTR	0	0	0	0	0	0	0	
DOM TER	0	0	0	0	0	0	0	
DOM VFL	-	0	0	-	-	-	-	
INT TER	0	0	0	0	0	0	0	
INT VFL	-	0	0	-	-	-	-	

OMS 5 CLOCKS

	UNIT ERRORS	UNIT-LOC FAULTS	NONLOC FAULTS	DIAG PROG REQ	EXC DIAG MAN REQ	EXC DIAG PROG REQ	ATP DIAG MAN REQ	ATP
NCLK	0	0	0	0	0	0	0	
SCLK	0	0	0	0	0	0	0	
NCSU	0	0	0	0	0	0	0	

TABLE 46 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

```
OMS 6  PER CALL SERVICE CIRCUIT MEASUREMENTS
           UNIT LOC  UNIT NON
            FAULTS   LOC FLTS
  MF RCVR        0      0
  MF XMTR        0      0
  CCIS XCVR      0      0
  DTMF RCVR      0      0
  DTMF XMTR      0      0
```

```
OMS 7  1B PROCESSOR
         UNIT  UNIT-LOC NONLOC DIAG EXC DIAG EXC DIAG ATP DIAG ATP
        ERRORS  FAULTS  FAULTS PROG REQ MAN REQ  PROG REQ MAN REQ
   MUP       0       0       0       0       0       0       0
   AUI       0       0       0       0       0       0       0
   SSD       0       0       0       0       0       0       0
   IFB       0       0       0       0       0       0       0
  XPWR       0       0       0       0       0       0       0
```

Descriptions of Measurements for MSC 46

The following seven counts will be taken for the entire office, for all members of each Unit Type, that is specified as being associated with OMS 0 through OMS 7.

Unit Errors Peg Count
(UNIT ERRORS)

Defined as a malfunction, the symptoms of which cannot be reproduced under program control. The initial stimulus leading to this counter being incremented by one is an interrupt associated with the particular Unit Type. The fault recognition program, of the unit will increment this counter.

Unit Located Fault Peg Count
(UNIT-LOC FAULTS)

This is a fault occurrence that can be resolved through analysis to a replaceable equipment unit. The general situation leading to this counter being incremented by one, is an interrupt causing execution of the fault Recognition program and the FR program finds the suspected trouble, requests that the unit be diagnosed and the diagnostic finds the trouble source.

Non-located Faults
(NONLOC FAULTS)

This register will be incremented by one when a fault occurs that cannot be resolved through analysis to a replaceable equipment unit. The unit diagnostic would compete with an All Tests Pass (ATP) result.

Diagnostics Program Requested
(DIAG EXC PROG REQ)

This counter will be incremented by one each time the particular unit diagnostic program is executed, unless its execution has been manually requested.

Diagnostics Manually Requested
(DIAG EXC MAN REQ)

Each time the unit diagnostic program is executed by requesting a manual or routine exercise request, this counter will be incremented by one.

Diagnostics ATP Program Requested
(DIAG ATP PROG REQ)

This counter will be incremented by one each time the unit diagnostic program is executed with an ATP result. This does not include diagnostics requested manually or by routine exercise.

Diagnostics ATP Manually Requested
(DIAG ATP MAN REQ)

This counter will be incremented by one each time the unit diagnostic program is executed by a manual request or routine exercise with an ATP result.

OMS 0

The counts described above are outputted for the following units:

Central Control (CC)

TABLE 46 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 46
(SWITCHING AREA EQUIPMENT COUNTS)

Program Store (PS)
Call Store (CS)
Master Control Console (MCC)
Attached Processor Interface (API)
Data Unit Selector (DUS)
Tape Unit Controller (TUC)
Power Distribution Frame (PDF)

OMS 1

The counts described above are outputted for the following units:

Input/Output Unit Selector (IOUS)
Input/Output Unit Controller (IOUC)

OMS 2

The counts described above are outputted for the following units:

Program Store Bus (PSB)
Call Store Bus (CSB)
Auxiliary Unit Bus (AUB)
Peripheral Unit Bus (PUB)

OMS 3

The counts described above are outputted for the following units:

Time-Slot Interchange (TSI)
Time-Multiplexed Switching Pair (TMSP)

OMS 4

The counts described above are outputted for the following units:

CCIS Terminal Group (CONTR)
Domestic CCIS Terminal (DOM TER)
Domestic VFL (DOM VFL)
International CCIS Terminal (INT TER)
International VFL (INT VFL)

OMS 5

The counts described above are outputted for the following units:

Network Clock (NCLK)
System Clock (SCLK)
Network Clock Synchronization Unit (NCSU)

OMS 6

The two counts described below are output for each of the following service circuits:

MF Receiver (MF RCVR)
MF Transmitter (MF XMTR)
CCIS Transceiver (CCIS XCVR)
DTMF Receiver (DTMF RCVR)
DTMF Transmitter (DTMF XMTR)

Located Faults Peg Count
(UNIT LOC FAULTS)

This counter will be incremented by one each time the service circuit is diagnosed and a fault is found, or each time the unit undergoes error analysis and is deemed to be faulty.

Non-located Faults Peg Count
(UNIT NON LOC FLTS)

Each time the service circuit is either diagnosed and no trouble is found or the unit undergoes error analysis and no fault is found, this counter is incremented by one.

OMS 7

The measurements in this OMS are associated with the 1B processor that is being introduced with the 4E19 generic. While this OMS exists in the 4E18 generic, the counts will only have meaning (and possible non-zero value) in generics that use the 1B processor.

The counts described above are outputted for the following units:

Maintenance and Utility Processor (MUP)
Auxiliary Unit Interface (AUI)
Interface Bus (IFB)
Scan and Signal Distributor (SSD)
Miscellaneous Power Board (XPWR)

TABLE 47

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENTS - AUDITS BY TYPE)

MSC 47 PERFORMANCE MEASUREMENTS - AUDITS BY TYPE

OMS 0 ROUTINE AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

OMS 1 ROUTINE AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 2 ROUTINE AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

OMS 3 DEMAND AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

OMS 4 DEMAND AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 5 DEMAND AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

OMS 6 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

TABLE 47 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENTS - AUDITS BY TYPE)

OMS 7 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 8 ERRORS - ROUTINE AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

OMS 9 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 0-49

	0	1	2	3	4	5	6	7	8	9
00	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

OMS 10 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 50-99

	0	1	2	3	4	5	6	7	8	9
50	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

OMS 11 ERRORS - DEMAND AUD COMPLETIONS AUD NUM 100-127

	0	1	2	3	4	5	6	7	8	9
100	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0		

Description of Measurements for MSC 47

OMS 0

Audit 00 through 49 Routine Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit that is routinely requested by the program is completed.

OMS 1

Audit 50 through 99 Routine Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit that is routinely requested by the program is completed.

OMS 2

Audit 100 through 127 Routine Request
Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is routinely requested by the program is completed.

TABLE 47 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 47
(PERFORMANCE MEASUREMENTS - AUDITS BY TYPE)

OMS 3

Audit 00 through 49 Demand Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is requested by a manual or routine exercise is completed.

OMS 4

Audit 50 through 99 Demand Request
Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit that is requested by a manual or routine exercise is completed.

OMS 5

Audit 100 through 127 Demand Request
Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit that is requested by a manual or routine exercise is completed.

OMS 6

Audit 00 through 49 Routine Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 7

Audit 50 through 99 Routine Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 8

Audit 100 through 127 Routine Request
Errors Found Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is routinely requested by the program and an error is found.

OMS 9

Audit 00 through 49 Demand Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (00-49). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

OMS 10

Audit 50 through 99 Demand Request
Errors Found Peg Count

This OMS has a total of 50 registers, one for each audit type (50-99). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

OMS 11

Audit 100 through 127 Demand Request
Errors Found Peg Count

This OMS has a total of 28 registers, one for each audit type (100-127). A register is incremented by one each time the specified audit is requested by a manual or routine exercise and an error is found.

TABLE 48

OUTPUT MEASUREMENT SETS FOR MSC 48
(ADMINISTRATIVE AREA TWO)

The layout and count definitions of this MSC are identical to MSC 25. This MSC provides data for Administrative Area Two.

TABLE 49

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

```
MSC 49  INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI
OMS 0  CCIS INWATS
  TOT CLS   QUERIES  SUCCESS  NM MSGS     MSGS
   TO OSO     SENT   REPLIES    RCVD       SSB
        0         0        0        0        0

   ------------------ BSSP DATA BASE FAILURES -----------------
   CBVNCP   CBSCP  CBMASS   CBSMS  QFSTRM  QFOVFL   SCPTO  SCPREJ
        0       0       0       0       0       0       0       0
   SCPRTE  RESPER   PLAYA  800DCE  TCPUDS  TCPHDR  TCPCPE  EXRPTS
        0       0       0       0       0       0       0       0
   EXRPTF  TRANID  CLABND  NOCLID  LATMSG   10D6D
        0       0       0       0       0       0

   ----- Q.931 CHANNEL NEGOTIATION REQUESTS -----
   ORGTSG   TATSG   FATSG  FOOTSG  FTATSG  FFOTSG
        0       0       0       0       0       0

   ----------- INWATS FAILURES ----------
   NM6DCC  NM10DCC  NM-DSC     SLC  NO-AUX
        0        0       0       0       0

   -------------------- DATA BASE FAILURES --------------------
      ALB    OVLD  UA-NXX  NE-NPA  NP-NPA      VL  V-NXX       TO
        0       0       0       0       0       0      0        0

-DIRECT SIGNALING FAILURE -
   NW-BLK  NW-CON  NO-XLT
        0       0       0

    OUTWATS
  NON-PUR NPA
         0
  -------------------- NETWORK CALL DENIAL -------------------
      IQ  BQOVLD  BQCSC  BQCONG     RDC    RDBA    RDAA   QRBLK
       0       0      0       0       0       0       0       0
   QROVLD   QRNRD QNOVLD   QNMSC     INV
        0       0      0       0       0
```

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

```
OMS 1  AIN CALLS

  -- AIN ORIGINATIONS --
           INC
             0

  ----------- PRE-SCP RESPONSE ------------
   QRYS   NMBLK   FAIL-CP-BIQ   UNAVAIL-BIQ
      0       0             0             0

  ---- AWAITING/RECEIVED SCP RESPONSE -----
  RSP-MSG   PLAY-ANN   RETREJ   SIG-FAIL-TD
        0          0        0             0

  --- ABANDON ---   --- TN INFO ---
  ABDNBO   ABDNAO        TN-REC
       0        0             0

  ------------------ UNABLE TO COMPLETE -------------------
  INVLD   INVLD-CMD   TRIG-OVFL   FAIL-CP-AIQ   UNAVAIL-AIQ
      0           0           0             0             0


OMS 2  DIRECT SIGNALING
  MISROUTED
  MSGS RCVD
         0
- SADC MESSAGES -
   TOTAL     UNX
       0       0

  TERM NTFY
  MSGS LOST
         0
  1A-3B AMA RECORDS
    SENT    LOST
       0       0

  AIN TN INFO
    TN-RET
         0
```

Output Measurement Sets for MSC 49

OMS 0

Total INWATS Calls Reaching CCIS OSO
Peg Count
(TOT CLS TO OSO)

This counter will be incremented by one each time a "Query Data Base" return is received from the initial digit translation. Before an office becomes a CCIS OSO, this count will always be 0. This count will be maintained by DIRE or translations.

INWATS Queries Sent Peg Count
(QUERIES SENT)

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

This counter will be incremented by one each time a query is sent to the Data Base. This count will be maintained by call processing.

Successful INWATS Replies Peg Count
(SUCCESS REPLIES)

This counter is incremented by one each time a successful INWATS reply is received from the Data Base. This count is kept by the CCIS dispenser program.

INWATS Network Management Messages
Received Peg Count
(NM MSGS RCVD)

This counter will be incremented by one each time a Network Management Message is received from the INWATS Data Base. This count will be maintained by Network Management.

CCIS Message Subscriber Busy Peg Count
(MSGS SSB)

This counter will be incremented by one each time an SSB message will be sent from the terminating end. This count is kept by the CCIS Dispenser Program.

Vacant Code/Non-Purchased NPA
BOC-Service Switch Point (SSP) Calls
Blocked Due To Excess Calling Peg Count
(CBVNCP BSSP DATA BASE FAILURES)

This counter is incremented by one each time a BOC SSP call is blocked via vacant code controls.

SCP Overload Blocked BOC-SSP Calls
Peg Count
(CBSCP BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked due to NM implementation of Service Control Point Overload controls.

MAS - BOC-SSP Calls Blocked Peg Count
(CBMASS BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked due to NM implementation of MAS calling controls.

SMS Blocked BOC-SSP Call Peg Count
(CBSMS BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is blocked via NM Service Management Position (SMS) controls.

Initial Query Failure Due to CNI
Stream Down Peg Count
(QFSTRM BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is unable to complete due to Initial query failure caused by the CNI stream being down.

Initial Query Failure Due to CNI
Buffer Overflow Peg Count
(QFOVFL BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call is unable to complete due to Initial query failure caused by the CNI Buffer overflowing.

Timeout Waiting for SCP Response Peg Count
(SCPTO BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt times out waiting for a response from the SCP data base.

Reject Message Returned from SCP Peg Count
(SCPREJ BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to the SCP returning a Reject Message.

Return Error Returned from SCP Peg Count
(SCPRTE BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to Return Error Message from the SCP.

Fatal Protocol Error Response from SCP
Peg Count
(RESPER DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails due to the SCP response containing Fatal Protocol Errors.

Play Announcement Message from SCP
Peg Count
(PLAYA BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP call attempt fails with the SCP indicating that an announcement should be played.

800 Number Services (NS) Attempts Failed

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

Due to Unacceptable Digit Count Peg Count
(800DCE BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP 800 number services call is finaled due to an insufficient number of dialed digits (10).

Unit Data Service Messages Returned by STP
Peg Count
(TCPUDS BSSP DATA BASE FAILURES)

This is a total count of CCS7 Transaction Capability (TCAP) Unit Data Service Messages returned by the Signal Transfer Point (STP).

Fatal Errors in SCCP Header Peg Count
(TCPHDR BSSP DATA BASE FAILURES)

This is a total count of Signaling Connection Control Point (SCCP) fatal header errors on CCS7 TCAP messages.

Discrepancy in Number of Components
and End Address of TCAP Message
Peg Count
(TCPCPE BSSP DATA BASE FAILURES)

This is a count of CCS7 TCAP messages that have a discrepancy in the number of components versus end address.

Exception Reports Sent to the SCP Peg Count
(EXRPTS BSSP DATA BASE FAILURES)

This is a count of Exception Reports sent to the SCP.

Exception Reports Failed to Send to the SCP
Peg Count
(EXRPTF BSSP DATA BASE FAILURES)

This is a count of exception reports that should have been sent to the SCP but were not.

Transaction ID in SCP Response Was Invalid
Peg Count
(TRANID BSSP DATA BASE FAILURES)

This is a count of responses from the SCP that contained an invalid transaction ID.

Caller Abandon Before Response from SCP
Peg Count
(CLABND BSSP DATA BASE FAILURES)

This counter is incremented by one when a BOC-SSP caller abandons before a response has been received from the SCP.

Undetermined Call ID in a Response from the
SCP Which Contained Protocol Errors
Peg Count
(NOCLID BSSP DATA BASE FAILURES)

This is a count of SCP responses that contained fatal protocol errors where the call ID could not be determined.

Response from SCP After Query
Timer Timeout Peg Count
(LATMSG BSSP DATA BASE FAILURES)

This counter is incremented by one when a query to the SCP results in a response after Timer timeout.

Failure to Place NM 10/6 Digit Controls
on ACG Control List Peg Count
(10D6D BSSP DATA BASE FAILURES)

This counter is incremented by one each time a NM Automatic Call Gap (ACG) control received in the response from the SCP cannot be placed on the ACG control list because the list is full.

Q.931 Channel Negotiation (CN) Requests
on Original TSG
(ORGTSG Q931 CN REQUESTS)

This is the number of CN requests that resulted in the originally hunted trunk being selected.

Q.931 Channel Negotiation (CN) Requests
to Another TSG
(TATSG Q931 CN REQUESTS)

This is the number of CN requests where the egress call is to be diverted to the PBX specified TSG.

Q.931 Channel Negotiation (CN) Requests
From Other TSG
(FATSG Q931 CN REQUESTS)

This is the number of CN requests where the egress call is requested to complete on the non-originally hunted TSG.

Q.931 Channel Negotiation (CN) Failures
On Originating TSG
(FOOTSG Q931 CN REQUESTS)

This is the number of times a CN request on the originating TSG failed to connect.

Q.931 Channel Negotiation (CN) Request
Failures To Another TSG

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

(FTATSG Q931 CN REQUESTS)

This is the number of times a CN request to another specified TSG failed.

Q.931 Channel Negotiation (CN) Request Failures From Other TSG
(FFOTSG Q931 CN REQUESTS)

This is the number of times a CN request from another TSG failed.

Network Management Blocked: INWATS 6-digit Code Control
(NM6DCC INWATS FAILURES)

This counter will be incremented by one each time an INWATS call is blocked by 6-digit INWATS Code Control. This count will be maintained by Final Handling.

Network Management Blocked: INWATS 10-digit Code Control
(NM10DCC INWATS FAILURES)

This counter will be incremented by one each time an INWATS call is blocked by 10-digit INWATS Code Control. This count will be maintained by Final Handling.

Network Management Blocked: Direct Signaling Control
(NM-DSC INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS call is blocked by 6-digit INWATS Direct Signaling Control. This count will be maintained by Final Handling.

INWATS Blocked by Signaling Link Congestion
(SLC INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS Call Failure is received because of one or more of the following reasons:

a. Terminal Buffer Overflow

b. Signaling Link Failure

c. Receipt of Processor Switching Congestions (PSC) signal prevented the INWATS query from being sent

This count will be maintained by Final Handling.

No Auxiliary Call Register
(NO-AUX INWATS FAILURES)

This counter will be incremented by one each time a CCIS INWATS failure is received because an Auxiliary Call Register is not available. This count will be maintained by Final Handling.

Data Base Failure Reply: All Lines Busy
(ALB DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base because all lines are busy to the INWATS subscriber. This count will be maintained by Final Handling.

Data Base Failure Reply: Data Base Overload
(OVLD DATA BASE FAILURES)

This counter will be incremented by one each time a Data Base Failure is received that specifies that Data Base Overload is the reason for failure. This count will be maintained by Final Handling.

Data Base Failure Reply: Unassigned NXX
(UA-NXX DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base because an unassigned NXX was the reason for the failure. This indicates that the CCIS network routed the query to the wrong Data Base and implies bad translation data at the STP. This count will be maintained by Final Handling.

Data Base Failure Reply: Non-Existent NPA
(NE-NPA DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specifies Non-Existent NPA as the reason for failure. This implies bad translation data either at the OSO (trunk block or 3-digit translator) or at the Data Base. This count will be maintained by Final Handling.

Data Base Failure Reply: Non-Purchased NPA
(NP-NPA DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specifies non-purchased NPA as the reason for failure. This is analogous to zonal band exceeded in conventional INWATS. This count will be maintained by Final Handling.

Data Base Failure Reply: Vacant Line
(VL DATA BASE FAILURES)

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

This counter will be incremented by one each time a failure reply is received from the Data Base that specifies Vacant Line Number as the reason for failure. This count will be maintained by Final Handling.

Data Base Failure Reply: Vacant NXX
(V-NXX DATA BASE FAILURES)

This counter will be incremented by one each time a failure reply is received from the Data Base that specified vacant NXX as the reason for failure. This count will be maintained by Final Handling.

Data Base Query Timeout
(TO DATA BASE FAILURES)

This counter will be incremented by one each time an INWATS call failure is received because the Data Base query timed out before a response was received. Here, it is likely that the replies are being misrouted in the CCIS network. This count will be maintained by Final Handling.

INWATS CCIS Failure: Network Blockage
(NW-BLK)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return specified as network blockage failure. This count will be maintained by Final Handling.

INWATS CCIS Failure: Network Congestion
(NW-CON)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return specified as network congestion failure. This count will be maintained by Final Handling.

INWATS CCIS Failure: No Translation Data
(NO-XLT)

This counter will be incremented by one each time an INWATS query is returned to the CCIS OSO with the reason for return being specified as no translation data at the STP to route the query failure. This count will be maintained by Final Handling.

OUTWATS Non-purchased NPA Peg Count
(OUTWATS NON-PUR NPA)

This counter will be incremented when an OUTWATS customer attempts to call an NPA that has not been contracted for.

Network Call Denial Initial Query Peg Count
(NETWORK CALL DENIAL IQ)

This counter is incremented when an attempt is made to send a query to the Network Call Denial (NCD) data base.

Network Call Denial Blocked Queries
From Overload Peg Count
(NETWORK CALL DENIAL BQOVLD)

This counter is incremented when an NCD query is blocked at the Action Point (AP) due to NCD/Network Control Point (NCP) overload control.

Network Call Denial Blocked Queries From
CCS Abnormal Replies Control Peg Count
(NETWORK CALL DENIAL BQCSC)

This counter is incremented when an NCD query is blocked at the AP due to CCIS Network Abnormal replies control.

Network Call Denial Blocked Queries
From Congestion Peg Count
(NETWORK CALL DENIAL BQCONG)

This counter is incremented when an NCD query is blocked at the AP due to congestion signals received at the AP.

Network Call Denial Replies With Deny Codes
Peg Count
(NETWORK CALL DENIAL RDC)

This counter is incremented when an NCD reply is received with a call deny code.

Network Call Denial Replies With Deny Code
Before Answer Supervision Peg Count
(NETWORK CALL DENIAL RDBA)

This counter is incremented when NCD reply is received with a call deny code before Answer Supervision has been received.

Network Call Denial Replies With Deny
Code After Answer Supervision Peg Count
(NETWORK CALL DENIAL RDAA)

This counter is incremented when an NCD reply is received with a call deny code after Answer Supervision has been received.

Network Call Denial Queries Returned
Due to CCS Network Block Replies Peg Count

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

(NETWORK CALL DENIAL QRBLK)

This counter is incremented when an NCD query is returned due to CCIS Network Block replies.

Network Call Denial Queries Returned
Due to CCS Network Overload Replies
(NETWORK CALL DENIAL QROVLD)

This counter is incremented when an NCD query is returned due to CCIS Network Overload replies.

Network Call Denial Queries Returned
Due to No Routing Data Peg Count
(NETWORK CALL DENIAL QRNRD)

This counter is incremented when an NCD query is returned due to lack of routing data for destination reply code.

Network Call Denial Queries Returned
Due to Overload Peg Count
(NETWORK CALL DENIAL QNOVLD)

This counter is incremented when an NCD query is returned due to data base overload reply condition.

Network Call Denial Queries Returned
Due to Miscellaneous Replies Peg Count
(NETWORK CALL DENIAL QNMSC)

This counter is incremented when an NCD query is returned due to miscellaneous reply reasons.

Network Call Denial Replies With
Invalid Data Peg Count
(NETWORK CALL DENIAL INV)

This counter is incremented when an NCD reply is interpreted to have invalid data.

OMS 1

AIN Calls Received from Another Switch
Peg Count
(INC)

The Advanced Intelligent Network (AIN) Calls Received From Another Switch count is pegged for all AIN calls that have been received from another switch (that is, the AIN call did not originate on this Service Switching Point (SSP) switch).

AIN Queries to the SCP Peg Count
(QRYS)

The AIN Queries Sent to the SCP count is pegged for each query that is sent to the Service Control Point (SCP). This is the total number of queries sent and can be incremented more than once for each AIN call attempt.

Network Management Control Blocks Call
Peg Count
(NMBLK)

Regardless of the type of NM control, the Network Management (NM) Control Blocks Call count is pegged on every occurrence of an AIN query blocked at the SSP due to an NM control. This count can be pegged due to one of the following reasons:

1. An SCP overload automatic code gap (ACG) control.
2. An SCP overload manual automatic code gap (MACG) control.
3. An SMS originated code control (SOCC).
4. A POTS destination code control.

This count is not pegged when a call is blocked after the SCP has provided routing instructions.

Call Processing Failure Before Initial Query
Peg Count
(FAIL-CP-BIQ)

The Call Processing Failure Before Initial Query count is pegged when an AIN call is terminated before the query to the SCP is sent. The reason for an AIN call being terminated could either be because of a hardware or software initialization, or because of a failure in the normal call processing routine. Any call processing failure that can be detected by the SSP is counted under this failure.

Resource Unavailable Before Initial Query
Peg Count
(UNAVAIL-BIQ)

The Resource Unavailable Before Initial Query count is pegged when an AIN call fails because a resource, which is normally provided by the SSP, is unavailable because of maintenance or engineering reasons before the query to the SCP is sent. The resources might either be engineerable, or might be fixed internally via the switch software release.

Normal Route Response Message Received
Peg Count
(RSP-MSG)

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

The Normal Route Response Message Received count is pegged when a route response is received from the SCP on AIN calls.

Play Announcement Message from the SCP Peg Count (PLAY-ANN)

The Play Announcement Message from the SCP count is pegged when a play announcement message is received from the SCP.

Return Error or Reject Message Peg Count (RETREJ)

The Return Error or Reject Message count is pegged when the SSP receives a Return Error message or a Reject message in response to a Query or Conversation message. A Return Error message is returned from the SCP for an invalid command sent from the SSP. The Reject message is returned from the SCP for a valid command sent from the SSP that is either incomplete or out of sequence.

Signaling Failure - Time-out at SSP Peg Count (SIG-FAIL-TD)

The Signaling Failure - Time-out at SSP count is pegged when the SSP times-out while waiting for a reply from the SCP.

Abandon - Before Outpulsing Peg Count (ABDNBO)

The Abandon - Before Outpulsing count is pegged when an on-hook is received from the calling party before the SSP receives and interprets a routing response. This includes the case where the caller abandons during a play announcement and collect digits operation.

Abandon - After Outpulsing Peg Count (ABDNAO)

The Abandon - After Outpulsing count is pegged when an on-hook is received from the calling party while the SSP is processing an SCP route response.

Termination Notification Requests Received Peg Count (TN-REC)

The Termination Notification Requests Received count represents the number of Termination Notification requests received from the SCP.

Invalid Command Sequence Peg Count (INVLD)

The Invalid Command Sequence count is pegged when the SSP receives a response from the SCP that contains an incomplete or out of sequence valid command. In other words, the SSP receives a valid command from the SCP, but its order or completeness, with reference to the current dialogue sequence is incorrect.

Invalid Command Message Peg Count (INVLD-CMD)

The Invalid Command Message count is pegged when the SSP receives a response from the SCP that is undecipherable or has bad data.

Serial-Triggering Limit Overflow Peg Count (TRIG-OVFL)

The Serial-Triggering Limit Overflowed measurement represents the number of times the office-administrable serial-triggering limit has been overflowed or exhausted.

Call Processing Failure After Initial Query Peg Count (FAIL-CP-AIQ)

The Call Processing Failure After Initial Query count is pegged when an AIN call is terminated after the query is sent. The reason for an AIN call being terminated could either be because of a hardware or software initialization, or because of a failure in the normal call processing routine. A call processing failure that can be detected by the SSP is counted under this failure. This count indicates a more serious event than the FAIL-CP-BIQ one because of the waste in resources.

Resource Unavailable After Initial Query Peg Count (UNAVAIL-AIQ)

The Resource Unavailable After Initial Query count is pegged when an AIN call fails because a resource, which is normally provided by the SSP, is unavailable because of maintenance or engineering reasons after the query to the SCP is sent. This count indicates a more serious event than the UNAVAIL-BIQ one because of the waste in resources.

TABLE 49 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 49
(INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI)

OMS 2

Misrouted Direct Signaling Messages
Received Peg Count
(MISROUTED MSGS RCVD)

This counter will be incremented by one each time a Direct Signaling Message is received in which the address is not valid for the office that received the message. This implies that one or both of the office's home STP's has bad translation data or that the office data is incorrect. This count is kept by the CCIS dispenser program.

Direct Access Data Channel (DADC)
Total Messages Peg Count
(SADC MESSAGES TOTAL)

This counter reflects the total number of messages sent and received between the 1A and the 3B Processors.

Direct Access Data Channel (DADC)
Unexpected Messages Peg Count
(SADC MESSAGES UNX)

This counter reflects the total number of unexpected messages, including both invalid and out of sequence types.

Termination Notification Messages Lost
Peg Count
(TERM NTFY MSGS LOST)

This count is incremented by one when Termination Notification messages are lost due to 3B problems.

1A-3B AMA Records Sent Peg Count
(1A-3B AMA RECORDS SENT)

This counter reflects the total number of all AMA record types (e.g.: CAMA, INWATS, DSD, etc.) that were made by the 3B Processor.

1A-3B AMA Records Lost Peg Count
(1A-3B AMA RECORDS LOST)

This counter reflects the total number of AMA record types sent by 1A to the 3B Processor that were mutilated or unauthorized.

Termination Notification Response Peg Count
(TN-RET)

The Termination Notification Response (TN-RET) count represents the number of Termination Notification responses sent to the SCP for AIN calls.

TABLE 50

OUTPUT MEASUREMENT SETS FOR MSC 50
(MAS PER ANNOUNCEMENT MEASUREMENTS)

```
MSC 50 MAS PER ANNOUNCEMENT MEASUREMENTS
    OMS       EAID    ANNSEP     ATT   CONNECT    OVFL   SEC
                                        TO AUDIO
      0  0000000000000    00    000000  000000  000000  000000
      1  0000000000000    00    000000  000000  000000  000000
      2  0000000000000    00    000000  000000  000000  000000
      3  0000000000000    00    000000  000000  000000  000000
      .        .          .       .       .       .       .
      .        .          .       .       .       .       .
      .        .          .       .       .       .       .
    508  0000000000000    00    000000  000000  000000  000000
    509  0000000000000    00    000000  000000  000000  000000
    510  0000000000000    00    000000  000000  000000  000000
    511  0000000000000    00    000000  000000  000000  000000
```

Description of Measurements for MSC 50

All per-announcement measurements will be labeled with the External Announcement Identifier (EAID) for the announcement. The OMS for a particular office must be less than <OD4DNUM28H0> * 64. The EAID is a 12-digit identifier with the format:

VVVVVAAAAAAA

where VVVVV is the VSSID identifier (VSSID) if this service is updatable from VSS and is all zeros, otherwise,

AAAAAA is the service identifier.

There will be 64 OMSs for each frame in use in the office (maximum of 8 frames).

OMS 0-511

MAS - Per-Announcement Attempts
Peg Count
(ATT)

When an attempt is made to reach a PAS announcement, this counter is incremented by one. This counter includes all PAS with TELEVOTE and PAS with cut-through calls that are routed to an announcement but not those routed to a cut-through number.

MAS - Per-Announcement Connect To Audio
Peg Count
(CONNECT TO AUDIO)

When a call is successfully connected to announcement audio, this counter is incremented by one.

MAS - Per-Announcement Overflow Peg Count
(OVFL)

When a call cannot be connected to a given announcement because one or both dedicated TSI SPCs serving the announcement have overflowed, this counter is incremented by one.

MAS - Per-Announcement Usage
(SEC)

This counter provides the occupancy count of calls connected to a given announcement and audible ring preceding that announcement. This count is converted to CCS before output.

TABLE 51

OUTPUT MEASUREMENT SETS FOR MSC 51
(CALL GAPPING/CUT-THRU)

```
MSC 51 CALL GAPPING/CUT-THRU
 OMS DIALED NUM  CUTHRU  TO-ANN
   0 0000000000       0       0
   1 0000000000       0       0
   2 0000000000       0       0
   3 0000000000       0       0
   .     .            .       .
   .     .            .       .
   .     .            .       .
  60 0000000000       0       0
  61 0000000000       0       0
  62 0000000000       0       0
  63 0000000000       0       0
```

Description of Measurements for MSC 51

OMS 0-63

The following counts will be outputted per 10-digit dialed number via OMS 0-63.

MAS - Calls Routed To A Cut-Through Number Peg Count
(CUTHRU)

When a PAS with cut-through call is routed to a cut-through number, this counter is incremented by one. This counter also includes the number of calls routed to the called number, for any dialed number that has a network management call gapping control applied to it.

MAS - Calls Routed To An Announcement Peg Count
(TO-ANN)

When a PAS with cut-through call is routed to the specific announcement, this counter is incremented by one. This counter also includes the number of calls routed by network management to a final handling announcement in the office, for any dialed number that has a network management call gapping control applied to it.

TABLE 52

OUTPUT MEASUREMENT SETS FOR MSC 52
(TELEVOTE MASTER DIALED NUMBER)

MSC 52 TELEVOTE MASTER DIALED NUMBER

OMS	MAPN	LINE	VOTES
0	00	0000	0
1	00	0000	0
2	00	0000	0
3	00	0000	0
.	.	.	.
.	.	.	.
.	.	.	.
124	00	0000	0
125	00	0000	0
126	00	0000	0
127	00	0000	0

Description of Measurements for MSC 52

OMS 0-127

MAS - Totals of the TELEVOTE Counts
Received Peg Count
(VOTES)

MSC 52, OMS 0-127, contain cumulative totals of the TELEVOTE counts received from the TELEVOTE slaves reporting to a particular master. These counts are labeled with a 2-digit Master Application Number (MAPN) from 0-63 and a 4-digit line number that identifies a voting option within a TELEVOTE application. This MSC should be scheduled for a 15 minute accumulation interval only, because the counts are cumulative.

TABLE 53

OUTPUT MEASUREMENT SETS FOR MSC 53
(TELEVOTE SLAVE DIALED NUMBER)

MSC 53 TELEVOTE SLAVE DIALED NUMBER		
OMS	NUMBER	VOTES
0	0000000000	0
1	0000000000	0
2	0000000000	0
3	0000000000	0
.	.	.
.	.	.
.	.	.
124	0000000000	0
125	0000000000	0
126	0000000000	0
127	0000000000	0

Description of Measurements for MSC 53

OMS 0-127

MAS - Total Calls (Votes) to a TELEVOTE Slave Dialed Number Peg Count (VOTES)

MSC 53, OMS 0-127, contains a count of the number of calls to a given 10-digit number. The 10-digit number is the number called by a customer to reach the TELEVOTE service. Each 10-digit number is specified by an OMS. The count is incremented by one when a call to a given TELEVOTE number is successfully connected to an audible ringing preceding the appropriate announcement. It also includes PAS with TELEVOTE and cut-through type calls that are routed to the cut-through number.

TABLE 54

OUTPUT MEASUREMENT SETS FOR MSC 54
(GEOGRAPHIC ATTEMPTS MATRIX)

```
MSC 54 GEOGRAPHIC ATTEMPTS MATRIX
OMS-0-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
OMS-1-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
OMS-2-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000

     .
     .
     .

OMS-31-ANN SEP
GEO SEP  0     1     2     3     4     5     6     7     8     9
    00 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    10 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    20 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
    30 00000 00000
```

Description of Measurements for MSC 54

In order to add any OMSs in this MSC to a schedule, the ODA parameter OD4DNUMMGO0 must not be zero. If it is zero, this MSC can not be scheduled.

OMS 0-31

MAS - Geographic Attempts Matrix
Completion Peg Count

The Geographic Attempts Matrix contains 32 OMSs (0-31) containing completion Peg Counts based on incoming Trunk Subgroup and announcement called. There is a separate OMS for each of 32 announcement operations.

TABLE 55

OUTPUT MEASUREMENT SETS FOR MSC 55
(SURVIVABLE SIGNALLING NETWORK MEASUREMENTS)

```
MSC 55  SURVIVABLE SIGNALLING NETWORK MEASUREMENTS
OMS 0  SSN OFFICE TOTALS
----------- NUM OF LSP -----------
    GEN  DIS RED  DIS AGE  WAIT XT  DUR LSP  AVG HOP  PATH >4
      0        0        0        0        0        0        0
IAM XMT  ANS RCV  CHG BOV  MSG DIS  DUR UNA
      0        0        0        0        0
---------- NSEP CALLS AT OAS ----------
 ATMPTS  SIG FAIL  NSIG FAIL  ORIG ASTN
      0         0          0          0
OMS 1  SSN PER LINK
SSN LINK  LSP RCV  OCT XMT  OCT RCV  MSG DRP  CHNGOVR  UNA OOS  UNA PRO
          UNA MAH  CHG PRO  CHG LMH  XMT STP
      00        0        0        0        0        0        0        0
                0        0        0        0
      01        0        0        0        0        0        0        0
                0        0        0        0
      02        0        0        0        0        0        0        0
                0        0        0        0
      03        0        0        0        0        0        0        0
                0        0        0        0
      04        0        0        0        0        0        0        0
                0        0        0        0
OMS 2  SSN PER LINK
SSN LINK  LSP RCV  OCT XMT  OCT RCV  MSG DRP  CHNGOVR  UNA OOS  UNA PRO
          UNA MAH  CHG PRO  CHG LMH  XMT STP
      05        0        0        0        0        0        0        0
                0        0        0        0
      06        0        0        0        0        0        0        0
                0        0        0        0
      07        0        0        0        0        0        0        0
                0        0        0        0
      08        0        0        0        0        0        0        0
                0        0        0        0
      09        0        0        0        0        0        0        0
                0        0        0        0
OMS 3  SSN PER LINK
SSN LINK  LSP RCV  OCT XMT  OCT RCV  MSG DRP  CHNGOVR  UNA OOS  UNA PRO
          UNA MAH  CHG PRO  CHG LMH  XMT STP
      10        0        0        0        0        0        0        0
                0        0        0        0
      11        0        0        0        0        0        0        0
                0        0        0        0
      12        0        0        0        0        0        0        0
                0        0        0        0
      13        0        0        0        0        0        0        0
                0        0        0        0
      14        0        0        0        0        0        0        0
                0        0        0        0
```

TABLE 55 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 55
(SURVIVABLE SIGNALLING NETWORK MEASUREMENTS)

OMS 4 SSN PER LINK

SSN	LINK	LSP UNA	RCV MAH	OCT XMT CHG	PRO	OCT RCV CHG	LMH	MSG DRP XMT	STP	CHNGOVR	UNA OOS	UNA PRO
	15		0		0		0		0	0	0	0
			0		0		0		0			
	16		0		0		0		0	0	0	0
			0		0		0		0			
	17		0		0		0		0	0	0	0
			0		0		0		0			
	18		0		0		0		0	0	0	0
			0		0		0		0			
	19		0		0		0		0	0	0	0
			0		0		0		0			

OMS 5 SSN - NO ROUTE DURATION

000	0	001	0	002	0	003	0	004	0		
005	0	006	0	007	0	008	0	009	0		
010	0	011	0	012	0	013	0	014	0		
015	0	016	0	017	0	018	0	019	0		
020	0	021	0	022	0	023	0	024	0		
025	0	026	0	027	0	028	0	029	0		
030	0	031	0	032	0	033	0	034	0		
035	0	036	0	037	0	038	0	039	0		
040	0	041	0	042	0	043	0	044	0		
045	0	046	0	047	0	048	0	049	0		
050	0	051	0	052	0	053	0	054	0		
055	0	056	0	057	0	058	0	059	0		
060	0	061	0	062	0	063	0				

OMS 6 SSN - NO ROUTE DURATION

064	0	065	0	066	0	067	0	068	0		
069	0	070	0	071	0	072	0	073	0		
074	0	075	0	076	0	077	0	078	0		
079	0	080	0	081	0	082	0	083	0		
084	0	085	0	086	0	087	0	088	0		
089	0	090	0	091	0	092	0	093	0		
094	0	095	0	096	0	097	0	098	0		
099	0	100	0	101	0	102	0	103	0		
104	0	105	0	106	0	107	0	108	0		
109	0	110	0	111	0	112	0	113	0		
114	0	115	0	116	0	117	0	118	0		
119	0	120	0	121	0	122	0	123	0		
124	0	125	0	126	0	127	0				

OMS 7 SSN - NO ROUTE DURATION

128	0	129	0	130	0	131	0	132	0		
133	0	134	0	135	0	136	0	137	0		
138	0	139	0	140	0	141	0	142	0		
143	0	144	0	145	0	146	0	147	0		
148	0	149	0	150	0	151	0	152	0		
153	0	154	0	155	0	156	0	157	0		
158	0	159	0	160	0	161	0	162	0		
163	0	164	0	165	0	166	0	167	0		

TABLE 55 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 55
(SURVIVABLE SIGNALLING NETWORK MEASUREMENTS)

Description of Measurements for MSC 55

OMS 0

LSPs Generated Peg Count
(NUM OF LSP GEN)

The number of Link State Packets (LSPs) generated due to changeover or changeback or due to periodic flooding.

LSPs Discarded Due to Redundancy Peg Count
(NUM OF LSP DIS RED)

The number of Link State Packets (LSPs) discarded due to redundancy.

LSPs Discarded Due to Aging Peg Count
(NUM OF LSP DIS AGE)

The number of Link State Packets (LSPs) discarded due to aging.

LSPs Waiting to be Transmitted Peg Count
(NUM OF LSP WAIT XT)

The number of Link State Packets (LSPs) waiting to be transmitted. This count is updated every second. At each 1-second interval, the counter is incremented by the number of LSPs waiting to be transmitted.

Duration That at Least One LSP is
Waiting to be Transmitted Peg Count
(DUR LSP)

This count is the duration that at least one Link State Packet (LSP) is waiting to be transmitted. This count is updated every second. This measurement is pegged every second that at least one LSP is waiting; the maximum value or duration is 3600 (for a one-hour interval).

Average Links in the Minimum-hop Path
(AVG HOP)

This measurement is the average number of links in minimum-hop path. It is computed every 30 seconds. Note: This average is calculated (using integer division) for each report interval. For report intervals greater than 15 minutes, this is a true average; not simply an average of the included 15-minute interval averages.

Average Number of Paths of Length > 4
(PATH >4)

This measurement is the average number of paths with path length > 4 links. It is computed every 30 seconds. See Note on previous measurement.

IAMs Transmitted Functioning as a Switch
Peg Count
(IAM XMT)

The number of IAMs transmitted at the switch functioning as a switch rather than an STP.

ANSs Received Functioning as a Switch
Peg Count
(ANS RCV)

The number of ANS messages received at the switch, which functions as a switch rather than an STP.

Changeover Buffer Overflows Peg Count
(CHG BOV)

The number of changeover buffer overflows. An overflow occurs each time an attempt is made to store a message and there is not enough memory.

Messages Discarded Due to No Route
to Destination Peg Count
(MSG DIS)

The number of messages discarded due to no route to destination.

Duration of All S-Links Unavailable
(DUR UNA)

This measurement is the duration of all S-Links simultaneously unavailable for any reason (i.e., SSN isolation). This is updated every 30 seconds.

Originating NSEP Call Attempts Peg Count
(NSEP CALLS AT OAS - ATMPTS)

The number of originating NSEP call attempts at the originating switch.

NSEP Call Failures Due to
Signaling Unavailable Peg Count
(NSEP CALLS AT OAS - SIG FAIL)

The number of NSEP call failures due to signaling unavailability at the originating switch.

NSEP Call Failures Due to
Non-Signaling-Unavailable Peg Count
(NSEP CALLS AT OAS - NSIG FAIL)

TABLE 55 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 55
(SURVIVABLE SIGNALLING NETWORK MEASUREMENTS)

The number of NSEP call failures due to non-signaling-related reasons at the originating switch.

NSEP Calls Originating on ASTN
Peg Count
(NSEP CALLS AT OAS - ORIG ASTN)

The number of NSEP calls originating on ASTN.

OMS 1-4

All the measurements in these OMSs are reported for each of the possible 20 links (numbered 0-19) in an office.

LSPs Received Peg Count
(LSP RCV)

The number of Link State Packets (LSPs) received per link.

Call-Related Octets Transmitted Peg Count
(OCT XMT)

The number of call-related octets transmitted per link.

Call-Related Octets Received Peg Count
(OCT RCV)

The number of call-related octets received per link.

Messages Dropped Peg Count
(MSG DRP)

The number of received messages dropped due to an excessive number of hops per link.

Changeovers Peg Count
(CHNGOVR)

The number of changeovers per link.

Duration of Unavailability Due to OOS
(UNA OOS)

The duration of unavailability of a link due to Out of Service (OOS) per link. This is updated every 30 seconds. At each 30 second interval, this measurement is incremented by one if the link is unavailable because it is OOS.

Duration of Unavailability Due to PRO
(UNA PRO)

The duration of unavailability of a link due to Processor Outage (PRO) per link. This is updated every 30 seconds. At each 30 second interval, this measurement is incremented by one if the link is unavailable because of a processor outage.

Duration of Unavailability Due to MAH
(UNA MAH)

The duration of unavailability of a link due to Management Hindering (MAH) per link. This is updated every 30 seconds. At each 30 second interval, this measurement is incremented by one if the link is unavailable because of MAH.

Changeovers Due to PRO Peg Count
(CHG PRO)

The number of changeovers due to Processor Outage (PRO) per link.

Changeovers Due to LMH Peg Count
(CHG LMH)

The number of changeovers due to local Management Hindering (LMH) per link.

Call Related Octets Transmitted With 4ESS as
STP Peg Count
(XMT STP)

The number of call related octets transmitted, where the 4ESS is functioning as a Signal Transfer Point (STP).

OMS 5-7

Duration With No Route to a Destination
(NO ROUTE DURATION)

This measurement is the duration with no route to a destination. It is updated every 30 seconds and reported on a per destination switch number basis (from 0-167). At each 30 second interval, this measurement is incremented by one if there is no route to the destination switch.

TABLE 56

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

MSC 56 ANI DELIVERY SERVICE COUNTS
OMS 0 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
1	0	0	0	0	0
	0	0	0	0	0
2	0	0	0	0	0
	0	0	0	0	0
3	0	0	0	0	0
	0	0	0	0	0
4	0	0	0	0	0
	0	0	0	0	0
5	0	0	0	0	0
	0	0	0	0	0
6	0	0	0	0	0
	0	0	0	0	0

OMS 1 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
7	0	0	0	0	0
	0	0	0	0	0
8	0	0	0	0	0
	0	0	0	0	0
9	0	0	0	0	0
	0	0	0	0	0
10	0	0	0	0	0
	0	0	0	0	0
11	0	0	0	0	0
	0	0	0	0	0
12	0	0	0	0	0
	0	0	0	0	0

OMS 2 DIAL-A-VIEW PERFORMANCE MEASUREMENTS

ADSI	MAS ATT TIMEOUT	MAS CUT GAPPED	ANI SNT VENDREJ	REG ATD FCRVHUP	ATD FL TOT FH
13	0	0	0	0	0
	0	0	0	0	0
14	0	0	0	0	0
	0	0	0	0	0

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

```
  15          0         0         0         0         0
              0         0         0         0         0

  16          0         0         0         0         0
              0         0         0         0         0

OMS 3  DIAL-A-VIEW MESSAGE REGISTER MEASUREMENTS
         -------LINK 1-------   -------LINK 2-------
         MSG REGS   RREG THLD    MSG REGS   RREG THLD
 ADSI    RETURNED   LINK SKPD    RETURNED   LINK SKPD
    1           0           0           0           0
    2           0           0           0           0
    3           0           0           0           0
    4           0           0           0           0
    5           0           0           0           0
    6           0           0           0           0
    7           0           0           0           0
    8           0           0           0           0
    9           0           0           0           0
   10           0           0           0           0
   11           0           0           0           0
   12           0           0           0           0
   13           0           0           0           0
   14           0           0           0           0
   15           0           0           0           0
   16           0           0           0           0

OMS 4  PER CALL CONTROL OF USEC
  TOT ORD   SOC ORD  TEST ORD   REG MSG     UNACK  SADC CON  REG FAIL
        0         0         0         0         0         0         0

  ------------------- GATEWAY/USEC GENERATED DATA --------------------
  CRC ERR     FRAME   BAD PKT   ERRORED  GOOD PKT  LOST MSG  PORT CRC
        0         0         0         0         0         0         0

 SADC PRT    IG CRC  SEC GATE  MSG QOVF   IG LINK  NO RCMSG
        0         0         0         0         0         0

OMS 5  TRANSMITTED NOISE REDUCTION (TNR) COUNTS
  TNR SOC   TNR TOT
        0         0
```

Description of Measurements for MSC 56

OMS 0-2

MAS Attempts Peg Count
(MAS ATT)

This counter is incremented by one each time a Dial-A-View network transaction is attempted. This counter is maintained by the DTSCADMN Program.

MAS Cutthru Peg Count
(MAS CUT)

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

This counter is incremented by one each time a Dial-A-View network transaction results in a cut-through to an operator. Such a situation occurs when the customers' ANI is not available. This counter is maintained by the DTSCADMN Program.

ANI Sent Peg Count
(ANI SNT)

This counter is incremented by one each time a Dial-A-View REGister message containing the ANI and the Event digits is sent to the vendor. This counter is maintained by the ADJSCNTL Program.

Registers From Attendant Peg Count
(REG ATD)

This counter is incremented by one each time a Dial-A-View REGister message is received from an Attendant CPE. This scenario will result following a cut-through to an operator. This counter is maintained by the ADJSCNTL Program.

Attendant Failures Peg Count
(ATD FL)

This counter is incremented by one each time an attendant transaction failure occurs. This counter is maintained by the ADJSCNTL PIDENT.

Timeouts Peg Count
(TIMEOUT)

This counter is incremented by one each time a Dial-A-View network transaction experiences a time out. This occurs when the vendor does not acknowledge a REGister message within 6 seconds. This counter is maintained by the DTSCADMN Program.

Gapped Peg Count
(GAPPED)

This counter is incremented by one each time a network or an attendant transaction experiences congestion due to either too many timeouts per minute or too many REGister messages sent to a given vendor per second. This counter is maintained by the ADJSCNTL Program.

Vendor Rejection Peg Count
(VENDREJ)

This counter is incremented by one each time a Dial-A-View network or attendant transaction experiences a Vendor Rejection message (RELease COMPlete message). This counter is maintained by the ADJSCNTL Program.

Facility Received Indicating Caller Hung-Up
Peg Count
(FCRVHUP)

This counter is incremented by one each time a Dial-A-View network transaction receives a FACility message from the vendor and the caller has hung up. This counter is maintained by the ADJSCNTL Program.

Total Final Handled Calls Peg Count
(TOT FH)

This counter is incremented by one each time a network handled transaction is final handled. This counter is maintained by the ADJSCNTL and DTSCADMN Programs.

OMS 3

Link 1 Message Register Returned
Peg Count
(MSG REGS RETURNED LINK 1)

This counter is incremented by one each time a message is registered by the CNI ring. This counter is maintained by ADJSCNTL programs.

Link 1 Return Register Threshold Exceeded
Peg Count
(RREG THLD LINK SKPD LINK 1)

This counter is incremented by one each time the Return Register Threshold is exceeded. This counter specifies the number of times a SADC link is considered to be "POSSIBLY" going out of service. MSGs will not be routed over this link. This counter is maintained by ADJSCNTL program.

Link 2 Message Register Returned
Peg Count
(MSG REGS RETURNED LINK 2)

Same as above except for Link 2.

Link 2 Return Register Threshold Exceeded
Peg Count
(RREG THLD LINK SKPD LINK 2)

Same as above except for Link 2.

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

OMS 4

Total Number of Orders Peg Count
(TOT ORD)

The total number of orders contained in the REGISTER messages (Event Digits = 0001), irrespective of indicators in the order, sent to the Gateway.

Total Number of Orders with Start of Call
Indicator Set Peg Count
(SOC ORD)

The total number of operational USEC orders and test orders sent to the Gateway in a REGISTER message (Event Digits = 0001) with the start/end indicator set to "start" irrespective of other indicators.

Total Number of Test Orders Sent
Peg Count
(TEST ORD)

The total number of test orders sent to the Gateway with the Maintenance indicator set to "on" in a REGISTER message irrespective of other indicators.

Total Number of Register Messages
Peg Count
(REG MSG)

The total number of REGISTER messages (Event Digits = 0001) sent to the Gateway. This counter is incremented by one each time a REGISTER message is sent irrespective of the number of orders in the message.

Total Number of Unacknowledged
Register Messages Peg Count
(UNACK)

The total number of unacknowledged REGISTER messages sent to the Gateway. This counter is incremented by one each time a 2 second timeout occurs while waiting for a Release Complete message from the Gateway. This counter is only incremented for REGISTER messages with Event Digits = 0001 or 2222.

Total Number of Register Messages
Not Sent due to Congestion Peg Count
(SADC CON)

The total number of REGISTER messages (irrespective of the value in the Event Digits field) *not* sent to the Gateway due to SADC node congestion.

Total Number of Register Messages
Failed to be Sent Peg Count
(REG FAIL)

The total number of REGISTER messages failed to be sent to the Gateway and the cause is anything other than SADC congestion *or* timeout of the REGISTER message. Examples of conditions that cause this count to be incremented are: 1) both SADC links are out-of-service, and 2) no USEC translation data can be retrieved.

Total Number of Packets with CRC Errors
Peg Count
(CRC ERR)

The total number of Gateway Type 1 and Type 2 packets received since the last valid Type 2 packet that has the correct number of bytes but has a cyclic redundancy check (CRC) 6 error shall be collected by the 4ESS switch for all USECs connected to the Gateway.

Total Number of Framing and Overrun
Errors Peg Count
(FRAME)

The total number of framing and overrun errors at the USEC IPCC port UART since the last valid Gateway Type 2 packet was received. This count is for all USECs connected to the Gateway. A framing error is defined as a received byte with an invalid stop bit. An overrun error is defined as a new byte received at the UART before the previous byte is read.

Total Number of Bad Packets Received
Peg Count
(BAD PKT)

The total number of bad packets received since the last valid Gateway Type 2 packet was received. This count is for all USECs connected to the Gateway. The number of bad packets is determined by the USEC by counting the number of Type 1 and Type 2 packets that did not have the correct number of bytes, did not have an all ones Header byte, did not have a correct Message Type byte, or had a CRC 6 error. An incorrect number of bytes may due to many factors including, but not limited to, UART overrun errors on the CP (defined as a new byte received at the UART before the previous byte is read), UART framing errors (count given in the fourth byte), and the Gateway not sending the correct number of bytes.

Total Number of Errored Commands

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

Peg Count
(ERRORED)

The total number of errored two byte 4ESS-USEC-PCC (IPCC) commands (which are found inside each Type 1 packet) received since the last valid Type 2 packet. This count is for all USECs connected to the Gateway. An 4ESS-USEC-PCC (IPCC) command is in error when at least one of the following occurs:

- An invalid channel address is received. An invalid channel address is defined as being outside the range of 0 to 6 for the shelf number, 0 to 7 for the digroup number, or 1 to 24 for the channel number.
- The "Enhancement off" bit and/or the "End USEC" bit is set when the "Maintenance bit" is set.

Total Number of Good Packets Received
Peg Count
(GOOD PKT)

The total number of good packets received by the Gateway since the last Type 2 packet was received. This count is for all USECs connected to the Gateway. This count is determined by the USEC by counting the number of Type 1 packets that have the correct number of bytes, correct header, message type, and CRC 6. Errors in the 10 bytes of data, which is considered to be part of the application message, will be reflected in the sixth byte of this Type 2 acknowledgment packet (i.e., the invalid 4ESS-USEC-PCC (IPCC) command count). The seventh byte contains the most significant byte and the eighth byte contains the least significant byte.

Total Number of Lost Messages
Peg Count
(LOST MSG)

The number of messages that the Gateway attempted to send to the USEC(s) but were lost. This count will be calculated by the Gateway by subtracting the number of good packets received by the USEC(s) and the number of bad packets received by the USEC(s) from the total number of packets that the Gateway attempted to send to the USEC(s).

Total Number of USEC CRC Errors
Peg Count
(PORT CRC)

The total number of USEC port cyclic redundancy check (CRC) errors detected by the Gateway.

Total Number of SADC Port Errors
Peg Count
(SADC PRT)

The total number of SADC port errors detected by the Gateway.

Total Number of Inter-Gateway CRC Errors
Peg Count
(IG CRC)

The total number of Inter-Gateway port CRC errors detected by the Gateway.

Total Number of Times the Secondary
Gateway was Used Peg Count
(SEC GATE)

The total number of times that the secondary Gateway was used during the fifteen minute report interval.

Total Number of Times That Message
Queue Overflowed Peg Count
(MSG QOVF)

The total number of times that the Gateway message queue overflowed during the fifteen minute report interval.

Total Number of Messages Not Sent
Between Gateways Peg Count
(IG LINK)

The total number of messages that could not be sent from the Primary Gateway to the Secondary Gateway due to Inter-Gateway link problems during the fifteen minute report interval.

Total Number of Register Messages That Did
Not Receive a Release Complete Peg Count
(NO RCMSG)

The number of Register messages sent by the Gateway that did not receive a Release Complete message from the 4ESS Switch during the fifteen minute report interval. The Gateway will peg this count when a Release Complete is not returned by the 4ESS Switch within an expected time interval.

OMS 5

Total Number of TNR Operational Orders
for Start of Call Peg Count
(TNR SOC)

The total number of operational TNR USEC orders sent for egress trunks to the iPCC Gateway in a REGISTER

TABLE 56 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 56
(ANI DELIVERY SERVICE)

message (Event Digits = 0001) with the Start/End indicator set to "start".

Total Number of TNR Orders Peg Count
(TNR TOT)

The total number of TNR USEC orders sent to the iPCC Gateway in REGISTER messages (Event Digits = 0001) for access/egress trunks, regardless of the setting of the Start/End of Call indicator.

TABLE 57

OUTPUT MEASUREMENT SETS FOR MSC 57
(POSITIVE CALL PROCESSING)

```
MSC 57  POSITIVE CALL PROCESSING
OMS 0  PCP IA & PERF COUNTS
0
0
0
.
.
.
0
```

Description of Measurements for MSC 57

[As this MSC is intended as a report for use by a computer system, no description of the counts is printed on the output.]

OMS 0

(1) PCP DTMF Queue Seizure Peg Count
(2) PCP DTMF Queue Accumulated Occupancy Count
(3) PCP DTMF Queue Abandon Peg Count
(4) CPA Call Register Seizures Peg Count
(5) CPA Call Register Accumulated Occupancy Count
(6) CPA Call Register Overflow Peg Count
(7) PCP Receiver Holding Time in Sec for SAN
(8) PCP Receiver Holding Time in Sec for 1+SACDS
(9) PCP Receiver Holding Time in Sec for MUVF
(10) PCP Receiver Holding Time in Sec for FAX S&F
(11) PCP Call Killed Due to DTMF Receiver Queue Overload Count
(12) PCP Call Subjected to Excessive Delay Count (i.e. Wait on DTMF Receiver Queue >= 2 seconds)
(13) PCP SAB Call Denied Due to Improper Collection for LDS
(14) PCP SAB Call Denied Due to Improper Collection for SA WATS
(15) PCP SAB Call Denied Due to Improper Collection for MEGACOM and DC WATS
(16) PCP Call Denied Due to MUVF CTI Improper Collection for LDS
(17) PCP Call Denied Due to MUVF CTI Improper Collection for SA WATS
(18) PCP Call Denied Due to MUVF CTI Improper Collection for MEGACOM and DC WATS
(19) PCP FAX S&F Call Denied Due to Invalid Service Code Received for LDS
(20) PCP FAX S&F Call Denied Due to Invalid Service Code Received for SA WATS
(21) PCP FAX S&F Call Denied Due to Invalid Service Code Received for MEGACOM and DC WATS
(22) PCP Subaccount Number Initial Attempt Failed Count (TMAD0002 pegs for call irregularity report.)
(23) PCP 1+SACDS Initial Attempt Failed in Receipt of Service Code
(24) PCP MUVF Initial Attempt Failed in Receipt of CTI
(25) PCP Total SAN Account Code Verification Failures
(26) PCP SAN Denied - none entered and was mandatory
(27) PCP FAX S&F Initial Attempt Fail in Receipt of Service Code
(28) PCP 1+SACDS Due to Invalid Service Code Received
(29) PCP CDS Attempts for Which Failure to Reseize Receiver Occurred
(30) PCP FAX S&F Attempts for Which Failure to Seize Receiver Occurs
(31) PCP FAX S&F DTMF Receiver Timeout in Wait for ANS State
(32) PCP BN(ANI) Query Attempt CNT for DC and SA LDS
(33) PCP BN(ANI) Query Attempt CNT for SA WATS
(34) PCP BN(ANI) Query Attempt Count for MEGACOM and DC WATS
(35) PCP BN(ANI) Subscribed to Some PCP Feature for DC and SA LDS

TABLE 57 (CONTINUED)

OUTPUT MEASUREMENT SETS FOR MSC 57
(POSITIVE CALL PROCESSING)

(36) PCP BN(ANI) Subscribed to Some PCP Feature for SA WATS
(37) PCP BN(ANI) Subscribed to Some PCP Feature for MEGACOM and DC WATS
(38) PCP Handled Customer Specific Recording Successfully for LDS
(39) PCP Handled Customer Specific Recording Successfully for SA WATS
(40) PCP Handled Customer Specific Recording Successfully for MEGACOM and DC WATS
(41) PCP Subaccount Number Collected Successfully for LDS
(42) PCP Subaccount Number Collected Successfully for SA WATS
(43) PCP Subaccount Number Collected Successfully for MEGACOM and DC WATS
(44) PCP Handled Dedicated FAX ID Successfully for LDS
(45) PCP Handled Dedicated FAX ID Successfully for SA WATS
(46) PCP Handled Dedicated FAX ID Successfully for MEGACOM and DC WATS
(47) PCP MUVF CTI Collected Successfully for LDS
(48) PCP MUVF CTI Collected Successfully for SA WATS
(49) PCP MUVF CTI Collected Successfully for MEGACOM and DC WATS
(50) PCP SAB Calls Allowed to Complete with No SAN Received
(51) PCP SAB Calls Allowed to Complete with SAN Received and it was Optional
(52) PCP SAB Calls Allowed to Complete with SAN Received and it was Mandatory
(53) PCP Calls with SAN Account Code Validation Successful
(54) PCP TOTAL 1+SACDS Attempts to Seize a Receiver
(55) PCP TOTAL 1+SACDS Successfully Attempted Routing to VMOC
(56) PCP Total MUVF Calls Identified as Being FAX
(57) PCP FAX ID Calls Identified as Using FAX FPR
(58) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for LDS
(59) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for SA WATS
(60) PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for MEGACOM and DC WATS
(61) PCP FAX S&F Successfully Attempted Routing to a FAX S&F Node
(62) PCP SAN Validation Success Peg Count
(63) PCP 1A to DLN Failure to Send Query Peg Count
(64) PCP DLN to 1A No Reply From DLN Peg Count
(65) PCP SAN No Data in DLN Peg Count
(66) CAS-NCP Unrecognized Info Received Peg Count
(67) CPA BN(ANI) Trigger Table Query Attempt Peg Count for All Applicable Services
(68) CPA BN(ANI) Trigger Table Data Found Peg Count for All Applicable Services
(69) CPA Destination Number Trigger Table Query Attempt Peg Count for FAX Calls
(70) CPA Destination Number Trigger Table Data Found Peg Count for FAX Calls
(71) PCP Using 2NCP/NSCX Peg Count

The total number of calls for which an ABC ANI trigger table record was matched, for which the Feature Processing Data Type Indicator was set to "FI", and the "PCP Using 2NCP/NSCX" Indicator is "on."

TABLE 58

OUTPUT MEASUREMENT SETS FOR MSC 58
(reserved for future use)

```
This table reserved for MSC 58.
```

TABLE 59

OUTPUT MEASUREMENT SETS FOR MSC 59
(reserved for future use)

```
This table reserved for MSC 59.
```

TABLE 60

OUTPUT MEASUREMENT SETS FOR MSC 60
(reserved for future use)

```
This table reserved for MSC 60.
```

TABLE 61

OUTPUT MEASUREMENT SETS FOR MSC 61
(reserved for future use)

```
This table reserved for MSC 61.
```

TABLE 62

OUTPUT MEASUREMENT SETS FOR MSC 62
(reserved for future use)

```
This table reserved for MSC 62.
```

TABLE 63

OUTPUT MEASUREMENT SETS FOR MSC 63
(reserved for future use)

```
This table reserved for MSC 63.
```

FIGURE 1

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
0	-	60	MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD
	0	15	MF XMTR, IDTS RCVR, AND ODTMFWK XMTR QUEUE-DOMESTIC
	1	1	CCITT5 QUEUE-INTERNATIONAL
	2	17	MF, DTMF XMTRS, NSCX AND MASFH CKTS
	3	6	BLUE BOX FRAUD
	4	21	CCS MESSAGE TABLE
1	-	6	MF RCVR AND DTMF RCVR
	0	6	
2	-	8	CCIS, ISUP, ITUP AND INUP XCVR
	0	8	
3	-	192	ANNOUNCEMENT CIRCUITS AND DEDICATED TSI
	0-31	1	
	32	32	DEDICATED TSI
	33-160	1	
4	-	5	NETWORK
	0	4	
	1	1	SERVICE OBSERVING
5	-	87	OFFICE TOTALS
	0	7	
	1	26	
	2	3	
	3	1	
	4	9	INTERNATIONAL INCOMING
	5	10	INTERNATIONAL OUTGOING
	6	25	NETWORK CLOCK SYNCHRONIZATION UNIT
	7	2	SERVICE OBSERVING
	8	2	CALLS ORIGINATING AND TERMINATING
	9	2	MAS IRREGULARITIES
6	-	65	BOC SSP MEASUREMENTS
	0	65	
7	-	37	INCOMING IRREGULARITIES
	0	32	
	1	5	
8	-	-	Reserved For Future Use
9	-	10	PROCESSOR LOAD
	0	2	
	1	8	BASE LEVEL PEG COUNTS
10	-	2048	TRAFFIC SEPARATIONS
	0-1023	2	TRAFFIC SEPARATIONS BASED ON DESEP AND INSEP
11	-	67	INEFFECTIVE ATTEMPTS
	0	3	
	1	8	
	2	8	
	3	16	NETWORK MANAGEMENT BLOCKED
	4	26	MISCELLANEOUS INEFFECTIVE ATTEMPTS
	5	2	

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	6	4	
12	-	16	TSI USAGE
	0	16	
13	-	-	TRUNK SUB-GROUPS (MAX OF 64)
	-	-	OUTPUT IS BY CIN (MAX OF 16 COUNTS PER CIN)
14	-	8192	CCIS/CCITT NO. 6 TERMINALS
	0-255	32	
15	-	59	INTL COUNTS,SECOND STAGE,IOC OPER, AND IAS
	0	7	SECOND STAGE
	1	6	IOC OPERATOR ATTEMPTS
	2	34	INTERNATIONAL INEFFECTIVE ATTEMPTS
	3	1	ORIGINATING INTL CALL-DOMESTIC SATELLITE INCOMING
	4	11	TWO STAGE SWITCHING ERRORS
16	-	36	IO, FILE STORE, TAPE UNIT AND DATA LINK
	0	5	
	1	31	APS COMMUNITY
17	-	62	ENGINEERED MEMORY
	0	46	DOMESTIC MEMORY
	1	11	MEMORY FOR INTERNATIONAL
	2	2	CALL DETAIL RECORDING REGISTERS
	3	3	
18	-	10	CAMA INEFFECTIVE ATTEMPTS
	0	10	
19	-	26	CAMA
	0	19	
	1	2	
	2	5	
20	-	99	PERFORMANCE MEASUREMENTS-MAJOR MAINT RESPONSES AND ALARMS
	0	15	INTERRUPT TOTALS
	1	37	MAJOR MAINTENANCE RESPONSES
	2	5	ALARMS
	3	1	HARDWARE DETECTED CGA
	4	41	1B SELECT MAINTENANCE RESPONSES
21	-	29	PERFORMANCE MEASUREMENTS- SYSTEM RECOVERY- PHASES
	0	8	SYSTEM RECOVERY-PHASES
	1	2	RECENT CHANGE MEASUREMENTS
	2	3	NETWORK MANAGEMENT MEASUREMENTS
	3	16	MACHINE CONGESTION
22	-	4	PERFORMANCE MEASUREMENTS - AUDIT TYPE
	0	2	AUDIT COMPLETE
	1	2	AUDIT ERRORS
23	-	45	PERFORMANCE MEASUREMENTS-EQUIPMENT TYPE - PROCESSOR
	0	3	MAINTENANCE OCCUPANCIES
	1	14	MAINTENANCE USAGE
	2	14	PERIPHERAL UNIT MAINTENANCE USAGE AND OUTAGE
	3	7	PER CALL SERVICE CKTS ACCUMULATED MAINT OCCUPANCY

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	4	2	VFL ACCUMULATED MAINTENANCE OCCUPANCY
	5	5	1B MTCE USAGE
24	-	82	PERFORMANCE MEASUREMENTS-TERMINAL EQUIPMENT
	0	1	TOTAL ACCUMULATED MAINTENANCE OCCUPANCY
	1	18	TERMINAL EQUIPMENT MAINTENANCE USAGE AND OUTAGE
	2	63	TERMINAL EQUIPMENT
25	-	293	CONTROL AREA ZERO
	0	2	CONTROL AREA SUMMATION
	1	61	INCOMING IMAS
	2	22	INCOMING IMAS
	3	49	OUTGOING IMAS AND GLARE FAILURES
	4	11	OUT-OF-SERVICE PEG COUNTS
	5	15	ATTEMPTS AND MAINTENANCE USAGE
	6	5	CCIS INEFFECTIVE ATTEMPTS
	7	6	ROTL
	8	24	TERMINATING TEST LINES
	9	21	ROUTINE OPERATIONAL TESTS
	10	10	TEST ACCESS CIRCUIT
	11	12	INTERNATIONAL ATTEMPTS AND MAINTENANCE USAGE
	12	2	OUT-OF-SERVICE PEG COUNTS
	13	6	INTERNATIONAL TRUNK TESTS-DIRECTOR
	14	5	INTERNATIONAL TRUNK TESTS-RESPONDER
	15	2	ATME FAILURES
	16	38	CCITT #5 CALL IRREGULARITIES
	17	2	CCITT #6 ACKNOWLEDGEMENT TIMEOUTS
26	-	293	CONTROL AREA ONE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
27	-	293	CONTROL AREA TWO
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
28	-	293	CONTROL AREA THREE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
29	-	293	CONTROL AREA FOUR
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
30	-	293	CONTROL AREA FIVE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
31	-	293	CONTROL AREA SIX
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
32	-	293	CONTROL AREA SEVEN
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
33	-	293	CONTROL AREA EIGHT
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
34	-	293	CONTROL AREA NINE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
35	-	31	SERVICE CIRCUITS
	0	7	MAINTENANCE SERVICE CKTS MAINTENANCE OCCUPANCIES
	1	19	MAINTENANCE SERVICE CIRCUITS MEASUREMENTS
	2	3	ATME-A

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	3	2	TMR SEIZURES
36	-	179	SERVICE MEASUREMENTS
	0	23	INCOMING IA, CCIS, ISUP, ITUP, INUP AND Q931
	1	16	INCOMING INEFFECTIVE ATTEMPTS, BEFORE ADDR SIGNALING
	2	24	INCOMING INEFFECTIVE ATTEMPTS, DURING ADDR SIGNALING
	3	21	INCOMING INEFFECTIVE ATTEMPTS, CALLING PARTY SIGNALING
	4	26	OUTGOING INEFFECTIVE ATTEMPTS
	5	2	CAMA POSITION IRREGULARITIES
	6	13	CALLS LOST DUE TO MACHINE IRREGULARITIES
	7	4	CCITT #6 FINAL TRIAL FAILURES
	8	6	CCITT #5 FINAL TRIAL FAILURES-OUTGOING STAGE
	9	7	CCITT #6 INEFFECTIVE ATTEMPTS
	10	5	CUSTOMER CALL TO MAS FTF
	11	32	ADJUNCT TIMEOUTS
37	-	18	BASE MEASUREMENTS
	0	10	DOM ATTEMPTS-TOTAL OFFICE
	1	8	INTL ATTEMPTS-TOTAL OFFICE
38	-	293	ADMINISTRATIVE AREA ZERO
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
39	-	293	ADMINISTRATIVE AREA ONE
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
40	-	256	PERFORMANCE MEASUREMENTS-AUDIT IMPLICATOR CODE
	0	64	AUDIT IMPLICATOR CODE (000-063)
	1	64	AUDIT IMPLICATOR CODE (064-127)
	2	64	AUDIT IMPLICATOR CODE (128-191)
	3	64	AUDIT IMPLICATOR CODE (192-255)
41	-	4	AUDITS BY CLIENT
	0	4	AUDIT CALLS BY CLIENT, ERRORS FOUND
42	-	32	TRUNK ERROR ANALYSIS COUNTS - SECOND STAGE FILTERS
	0-31	1	SECOND STAGE FILTER OVERFLOWS BY SP NUMBER
43	-	32	TRUNK ERROR ANALYSIS COUNTS - LONG TERM TABLE
	0-31	1	LONG TERM TABLE OVERFLOWS BY SP NUMBER
44	-	1	TRUNK ERROR ANALYSIS-REPORT BUFFER OVERFLOW
	0	1	
45	-	132	SCGA, CNI, AND CCIS TOTAL OFFICE PERFORMANCE MEASUREMENTS
	0	57	
	1	5	CCIS SOFTWARE CARRIER GROUP ALARM
	2	1	TRUNKS BLOCKED FAR END EQUIPMENT PROBLEMS
	3	25	CCITT #6 PERFORMANCE SIGNALS RECEIVED
	4	11	CCITT #6 PERFORMANCE SIGNALS TRANSMITTED
	5	16	CCITT #6 SIGNALING IRREGULARITIES
	6	4	ISUP UUI AND ATP DROPPED
	7	6	CALL MERGE
	8	7	E&M SOFTWARE CARRIER GROUP ALARM
46	-	203	SWITCHING AREA EQUIPMENT COUNTS
	0	56	PROCESSOR
	1	14	I/O

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	2	28	BUS SYSTEM
	3	14	NETWORK
	4	25	SIGNALING EQUIPMENT
	5	21	CLOCKS
	6	10	PER CALL SERVICE CIRCUIT MEASUREMENTS
	7	35	1B PROCESSOR
47	-	512	PERFORMANCE MEASUREMENTS-AUDITS BY TYPE
	0	50	ROUTINE AUDIT COMPLETIONS NO. 00-49
	1	50	ROUTINE AUDIT COMPLETIONS NO. 50-99
	2	28	ROUTINE AUDIT COMPLETIONS NO. 100-127
	3	50	DEMAND AUDIT COMPLETIONS NO. 00-49
	4	50	DEMAND AUDIT COMPLETIONS NO. 50-99
	5	28	DEMAND AUDIT COMPLETIONS NO. 100-127
	6	50	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 00-49
	7	50	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 50-99
	8	28	ERRORS - ROUTINE AUDIT COMPLETIONS NO. 100-127
	9	50	ERRORS - DEMAND AUDIT COMPLETIONS NO. 00-49
	10	50	ERRORS - DEMAND AUDIT COMPLETIONS NO. 50-99
	11	28	ERRORS - DEMAND AUDIT COMPLETIONS NO. 100-127
48	-	293	ADMINISTRATIVE AREA TWO
	0-17	293	SAME AS FOR CONTROL AREA ZERO IN MSC 25
49	-	87	INWATS, OUTWATS, BSSP, DIRECT SIGNALING AND ACI
	0	63	CCIS INWATS
	1	17	AIN CALLS
	2	7	DIRECT SIGNALING
50	-	2048	MAS PER ANNOUNCEMENT MEASUREMENTS
	0-511	4	
51	-	128	CALL GAPPING/CUT THRU
	0-63	2	
52	-	128	TELEVOTE MASTER DIALED NUMBER
	0-127	1	
53	-	128	TELEVOTE SLAVE DIALED NUMBER
	0-127	1	
54	-	1024	GEOGRAPHIC ATTEMPTS MATRIX
	0-31	32	ANNOUNCEMENT SEPARATION
55	-	404	SURVIVABLE SIGNALLING NETWORK MEASUREMENTS
	0	16	SSN OFFICE TOTALS
	1	55	SSN PER LINK - LINKS 00-04
	2	55	SSN PER LINK - LINKS 05-09
	3	55	SSN PER LINK - LINKS 10-14
	4	55	SSN PER LINK - LINKS 15-19
	5	64	SSN - NO ROUTE DURATION - NSN 000-063
	6	64	SSN - NO ROUTE DURATION - NSN 064-127
	7	40	SSN - NO ROUTE DURATION - NSN 128-167
56	-	246	ANI DELIVERY SERVICE
	0	60	DIAL-A-VIEW PERFORMANCE MEASUREMENTS - ADSI 01-06
	1	60	DIAL-A-VIEW PERFORMANCE MEASUREMENTS - ADSI 07-12

FIGURE 1 (CONTINUED)

TRAFFIC/PLANT MEASUREMENT SUBCLASSES (MSC)

MSC	OMS	COUNTS PER MSC OR OMS	MSC-OMS DESCRIPTIONS
	2	40	DIAL-A-VIEW PERFORMANCE MEASUREMENTS - ADSI 13-16
	3	64	DIAL-A-VIEW MESSAGE REGISTER MEASUREMENTS
	4	20	PER CALL CONTROL OF USEC
	5	2	TRANSMITTED NOISE REDUCTION (TNR) COUNTS
57	-	71	POSITIVE CALL PROCESSING
	0	71	PCP IA & PERF COUNTS
58	-	-	Reserved For Future Use
59	-	-	Reserved For Future Use
60	-	-	Reserved For Future Use
61	-	-	Reserved For Future Use
62	-	-	Reserved For Future Use
63	-	-	Reserved For Future Use

FIGURE 2

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
1A Communication Buffer Usage	16/1
1A DMA Job Buffer Overflow Peg Count	16/1
1A DMA Job Buffer Seizures Peg Count	16/1
1A DMA Job Buffer Timeout Peg Count	16/1
1A DMA Job Buffer Usage	16/1
1A DMA Job Buffers Entered into the Reserved State Peg Count	16/1
1A File Processor Interface Down	45/0
1A Messages Sent to the 3B Peg Count	16/1
1A Read Messages Sent to the 3B Peg Count	16/1
1A Write Messages Sent to the 3B Peg Count	16/1
1A-3B AMA Records Lost Peg Count	49/2
1A-3B AMA Records Sent Peg Count	49/2
1A-3B Communication Send Buffer Overflows Peg Count	16/1
1A-3B Communication Send Buffer Seizures Peg Count	16/1
3B Communication Send Buffer Usage	16/1
3B DMA Job Buffer Overflow Peg Count	16/1
3B DMA Job Buffer Seizures Peg Count	16/1
3B DMA Job Buffer Timeout Peg Count	16/1
3B DMA Job Buffer Usage	16/1
3B DMA Job Buffers Entered into the Reserved State Peg Count	16/1
3B File Manager Buffer Overflows Peg Count	16/1
3B File Manager Buffer Seizures Peg Count	16/1
3B File Manager Buffer Usage	16/1
3B Messages Sent to the 1A Peg Count	16/1
3B Read Messages Sent to the 1A Peg Count	16/1
3B Write Messages Sent to the 1A Peg Count	16/1
3B-1A Communication Send Buffer Overflows Peg Count	16/1
3B-1A Communication Send Buffer Seizures Peg Count	16/1
4ESS Switch Originated Outgoing Attempts	5/8
800 Number Services (NS) Attempts Failed Due to Unacceptable Digit Count Peg Count	49/0
Abandon - After Outpulsing Peg Count	49/1
Abandon - Before Outpulsing Peg Count	49/1
Abandon During Second Stage International - No Digits Received	15/0
Abandon During Second Stage International - Some Digits Received	15/0
Abandon During Second Stage VSS - No Digits Received	15/0
Abandon During Second Stage VSS - Some Digits Received	15/0
Access Tandem Post Acknowledgement Wink Timeout	11/4
Access Transport Received Peg Count	13/CIN
Adjunct Logical Address T303 Timeouts Peg Count	36/11
Adjunct Logical Address TADJ Timeouts Peg Count	36/11
AIN Calls Received from Another Switch Peg Count	49/1
AIN Queries to the SCP Peg Count	49/1
AMA Match Check Failure Peg Count	19/1
AMA Wrong Calling Code Peg Count	19/1
ANI Multi-Party Calls Peg Count	19/0
ANI Sent Peg Count	56/0-2
Announcement or Tone Group Seizure Peg Count	3/0-31
Announcement or Tone Group Seizure Peg Count	3/33-160

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ANSs Received Functioning as a Switch Peg Count	55/0
Answer Signal Timeout Peg Count	25/16
Answer-Acknowledgement Signal Timeout Peg Count	25/16
API Accumulated Maintenance Usage	23/1
API Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
API Diagnostics Manually Requested Peg Count	46/0
API Diagnostics Program Requested - All Tests Passed Peg Count	46/0
API Diagnostics Program Requested Peg Count	46/0
API Errors Peg Count	46/0
API Located Faults Peg Count	46/0
API Non-located Peg Count	46/0
API Processor Interface Down	45/0
API to CS In-Range Error Peg Count	20/1
API to CS Out-of-Range Error Peg Count	20/1
API to PS In-Range Error Peg Count	20/1
API to PS Out-of-Range Error Peg Count	20/1
ATME Director/Responder Irregularities Peg Count	25/15
ATME-A Responder Incoming Seizures Peg Count	35/2
ATME-A Responder Maintenance Usage	35/2
ATME-A Responder Tests Attempted Peg Count	25/14
ATME-A Responder Tests Overflowed Peg Count	25/14
ATME-A Responder Total Usage	35/2
ATME-B Director Tests Attempted Peg Count	25/13
ATME-B Director Tests Failed Peg Count	25/13
ATME-B Director Tests Passed Peg Count	25/13
ATME-B Out-Of-Service Peg Count	25/12
ATME-B Responder Tests Attempted Peg Count	25/14
ATME-B Responder Tests Overflowed Peg Count	25/14
ATME-C Director Tests Attempted Peg Count	25/13
ATME-C Director Tests Failed Peg Count	25/13
ATME-C Director Tests Passed Peg Count	25/13
ATME-C Out-Of-Service Peg Count	25/12
ATME-C Responder Tests Attempted Peg Count	25/14
Attached Processor Interject Peg Count	20/1
Attendant Failures Peg Count	56/0-2
AUB Accumulated Maintenance Usage	23/1
AUB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
AUB Diagnostics Manually Requested Peg Count	46/2
AUB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
AUB Diagnostics Program Requested Peg Count	46/2
AUB Errors Peg Count	46/2
AUB Located Faults Peg Count	46/2
AUB Non-located Peg Count	46/2
Audit 00 through 49 Demand Request Errors Found Peg Count	47/9
Audit 00 through 49 Demand Request Peg Count	47/3
Audit 00 through 49 Routine Request Errors Found Peg Count	47/6
Audit 00 through 49 Routine Request Peg Count	47/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Audit 100 through 127 Demand Request Errors Found Peg Count	47/11
Audit 100 through 127 Demand Request Peg Count	47/5
Audit 100 through 127 Routine Request Errors Found Peg Count	47/8
Audit 100 through 127 Routine Request Peg Count	47/2
Audit 50 through 99 Demand Request Errors Found Peg Count	47/10
Audit 50 through 99 Demand Request Peg Count	47/4
Audit 50 through 99 Routine Request Errors Found Peg Count	47/7
Audit 50 through 99 Routine Request Peg Count	47/1
Audit Implicator Codes Peg Count	40/0-3
AUI Accumulated Maintenance Usage	23/5
AUI Diagnostics Manually Requested - All Tests Passed Peg Count	46/7
AUI Diagnostics Manually Requested Peg Count	46/7
AUI Diagnostics Program Requested - All Tests Passed Peg Count	46/7
AUI Diagnostics Program Requested Peg Count	46/7
AUI D-Level Counter	20/4
AUI Errors Peg Count	46/7
AUI In-Range D-Level Counter	20/4
AUI Interject Counter	20/4
AUI Located Faults Peg Count	46/7
AUI Non-located Peg Count	46/7
AUI to API In-Range Counter	20/4
AUI to API Out-Of-Range Counter	20/4
AUI to CS In-Range Counter	20/4
AUI to CS Out-Of-Range Counter	20/4
AUI to DUS In-Range Counter	20/4
AUI to DUS Out-Of-Range Counter	20/4
AUI to PS In-Range Counter	20/4
AUI to PS Out-Of-Range Counter	20/4
Automatic Network Management Controls	13/CIN
Average Base Level Cycle Length In Milliseconds	9/0
Average Links in the Minimum-hop Path	55/0
Average Number of Paths of Length > 4	55/0
Billing Number Gap Peg Count	11/3
Black Box Fraud Prevention Canceled	0/4
Black Box Fraud Ring Forwards Received	0/4
B-Level Interrupt Central Control Switch Peg Count	20/1
B-Level Interrupts Hardware Initialization Peg Count	20/1
B-Level Interrupts Pulse Source In-Range Peg Count	20/1
B-Level Interrupts Pulse Source Out-Of-Range Peg Count	20/1
Blocking Acknowledgement Timeout Peg Count	25/17
Blue Box Fraud Attempts	0/3
Blue Box Fraud Detected	0/3
Blue Box Fraud MF Receiver Occupancy	0/3
Blue Box Fraud MF Receiver Seizure	0/3
Blue Box Fraud Overload	0/3
Blue Box Fraud Persisting	0/3
BOC SSP Initial Queries	6/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
BOC SSP MF Incoming Seizures	5/1
BOC SSP MF Outgoing Seizures	5/1
BOC SSP Seizures	6/0
Broadband Call 24 - Data Calls Received From an IEC Peg Count	5/1
Broadband Call 24 - Originating Data Attempts From a PRI Peg Count	5/1
Broadband Call 24-Trunk Incoming Seizures	5/1
Broadband Call 24-Trunk Outgoing Seizures	5/1
Broadband Call 6 - Data Calls Received From an IEC Peg Count	5/1
Broadband Call 6 - Originating Data Attempts From a PRI Peg Count	5/1
Broadband Call 6-Trunk Incoming Seizures	5/1
Broadband Call 6-Trunk Outgoing Seizures	5/1
Broadband Call Failure Peg Count	11/4
Buffer Overflow Peg Count	14/0-255
Busy-Flash Final Trial Failure Peg Count	36/8
Busy-Flash on the Outgoing Trunk Peg Count	25/16
Busy-Flash Peg Count	25/16
Call Denial Screening Peg Count	11/4
Call Merge Denials - Adjunct Not Allowed Peg Count	45/7
Call Merge Denials - Invalid Call States Peg Count	45/7
Call Merge Denials - Invalid Channel ID Peg Count	45/7
Call Merge Denials - Multi-Feature Request Peg Count	45/7
Call Merge Failure - Resource Limitations Peg Count	11/1
Call Merge Requests Peg Count	45/7
Call Merge Success Peg Count	45/7
Call Processing Failure After Initial Query Peg Count	49/1
Call Processing Failure Before Initial Query Peg Count	49/1
Call Record Block Peg Count	19/2
Call Record Lost Peg Count	19/2
Call Register (CR) Usage	17/0
Call Related Octets Transmitted With 4ESS as STP Peg Count	55/1-4
Caller Abandon Before Response from SCP Peg Count	49/0
Call-Related Octets Received Peg Count	55/1-4
Call-Related Octets Transmitted Peg Count	55/1-4
Calls Blocked by Go-No Go Screening Peg Count	11/2
CAMA Automatic Number Identification Failure Peg Count	19/0
CAMA Automatic Number Identification Local Office Failure	19/0
CAMA Automatic Number Identification Office Failure	19/0
CAMA Calls Queue Over 5-Seconds Peg Count	19/0
CAMA Free Calls Peg Count	36/5
CAMA Operator Queue Abandon Peg Count	18/0
CAMA Operator Queue Abandon Peg Count	19/0
CAMA Operator Queue Overflow Peg Count	18/0
CAMA Operator Queue Overflow Peg Count	19/0
CAMA Operator Queue Seizure Peg Count	19/0
CAMA Operator Queue Usage	19/0
CAMA Position Attached Timeout Peg Count	18/0
CAMA Position Disconnect Peg Count	18/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CAMA Position Disconnect Peg Count	19/0
CAMA Position Disconnect Timeout Peg Count	18/0
CAMA Position Report (CPR) Peg Count	18/0
CAMA Position Report (CPR) Peg Count	36/5
CAMA Position Timeout Peg Count	18/0
CAMA Positions Usage	19/0
Cancel Overload in Effect Peg Count	9/1
Cancel-From Control Blocked Peg Count	11/3
Cancel-To Control Blocked Peg Count	11/3
Carrier Group Failure Peg Count	11/1
CAS-NCP Unrecognized Info Received Peg Count	57/0
CC Accumulated Maintenance Usage	23/1
CC Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
CC Diagnostics Manually Requested Peg Count	46/0
CC Diagnostics Program Requested - All Tests Passed Peg Count	46/0
CC Diagnostics Program Requested Peg Count	46/0
CC Errors Peg Count	46/0
CC Located Faults Peg Count	46/0
CC Non-located Peg Count	46/0
CC to AP Internal Out-of-Range Error Peg Count	20/1
CC to API In-Range Error Peg Count	20/1
CC to AUI In-Range Counter	20/4
CC to AUI Out-Of-Range Counter	20/4
CC to DUS In-Range Error Peg Count	20/1
CC to DUS Out-of-Range Error Peg Count	20/1
CC to MUP In-Range Counter	20/4
CC to MUP Out-Of-Range Counter	20/4
CC to SSD In-Range Counter	20/4
CC to SSD Out-Of-Range Counter	20/4
CCIS 2-Wire Incoming Seizure Peg Count	5/1
CCIS Address Complete Signal Timeout Peg Count	36/4
CCIS Address Incomplete (ADI) Signals Received Peg Count	45/0
CCIS Address Incomplete (ADI) Signals Transmitted Peg Count	45/0
CCIS Call Fail Detection Peg Count	36/4
CCIS Call Failure (CFL) Signals Received Peg Count	45/0
CCIS Call Failure (CFL) Signals Transmitted Peg Count	45/0
CCIS Calls Lost Due to Trunk or Band Reset Peg Count	36/6
CCIS Confusion (COF) Signals Received Peg Count	45/0
CCIS Confusion (COF) Signals Transmitted Peg Count	45/0
CCIS Continuity Check Failure Final Trial Group Peg Count	36/4
CCIS CR Seizure Peg Count	17/0
CCIS Incoming Attempts Peg Count	25/5
CCIS Incoming Calls Peg Count	5/1
CCIS Maintenance Usage	25/5
CCIS Message Subscriber Busy Peg Count	49/0
CCIS National Switching Congestion (NSC) Signals Received Peg Count	45/0
CCIS National Switching Congestion (NSC) Signals Transmitted Peg Count	45/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CCIS National Trunk Congestion (NTC) Signals Received Peg Count	45/0
CCIS National Trunk Congestion (NTC) Signals Transmitted Peg Count	45/0
CCIS Origination CR Queue Abandon Peg Count	11/6
CCIS Origination CR Queue Abandon Peg Count	17/0
CCIS Origination CR Queue Overflow Peg Count	11/6
CCIS Origination CR Queue Overflow Peg Count	17/0
CCIS Origination CR Queue Seizure Peg Count	17/0
CCIS Origination CR Queue Usage	17/0
CCIS Outgoing Attempts Peg Count	25/5
CCIS Outgoing Calls Peg Count	5/2
CCIS Signaling Network Failure Peg Count	36/4
CCIS Terminal Group Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
CCIS Terminal Group Diagnostics Manually Requested Peg Count	46/4
CCIS Terminal Group Diagnostics Program Requested - All Tests Passed Peg Count	46/4
CCIS Terminal Group Diagnostics Program Requested Peg Count	46/4
CCIS Terminal Group Errors Peg Count	46/4
CCIS Terminal Group Located Faults Peg Count	46/4
CCIS Terminal Group Non-located Peg Count	46/4
CCIS Transceiver Accumulated Maintenance Usage	23/3
CCIS Transceiver Located Faults Peg Count	46/6
CCIS Transceiver Maintenance Usage	2/0
CCIS Transceiver Non-located Peg Count	46/6
CCIS Transceiver Overflow Peg Count	2/0
CCIS Transceiver Seizure Peg Count	2/0
CCIS Transceiver Service Usage	2/0
CCIS Transceiver Test Circuit Located Faults Peg Count	35/1
CCIS Transceiver Test Circuit Maintenance Busy Occupancy	35/0
CCIS Transceiver Test Circuit Non-located Faults Peg Count	35/1
CCIS Transceiver Test Circuit Total Usage	35/1
CCIS Trunk Or Band Reset Received Peg Count	45/0
CCIS Trunk Or Band Reset Signals Transmitted Peg Count	45/0
CCIS Unequipped Label Signals Received Peg Count	45/0
CCIS Unequipped Label Signals Transmitted Peg Count	45/0
CCIS Unreasonable Message (UNRES) Signals Received Peg Count	45/0
CCIS Vacant National Number (VNN) Signals Received Peg Count	45/0
CCIS Vacant National Number (VNN) Signals Transmitted Peg Count	45/0
CCIS VPA Cancellation and Path Hunt Peg Count	2/0
CCITT No. 5 Call Register Queue Seizure Peg Count	17/1
CCITT No. 5 Control Area Incoming Attempts Peg Count	25/11
CCITT No. 5 Control Area Outgoing Attempts Peg Count	25/11
CCITT No. 5 Maintenance Usage	25/11
CCITT No. 5 Miscellaneous Abandon Peg Count	25/16
CCITT No. 5 Originating Queue Seizure Peg Count	17/1
CCITT No. 5 Originating Queue Usage	17/1
CCITT No. 5 Queue Entry Failure Peg Count	0/1
CCITT No. 5 Total Office Incoming Attempts Peg Count	5/4
CCITT No. 5 Total Office Outgoing Attempts Peg Count	5/5

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CCITT No. 6 Address Incomplete (ADI) Signals Received Peg Count	45/3
CCITT No. 6 Address Incomplete (ADI) Signals Transmitted Peg Count	45/4
CCITT No. 6 Blocking (BLO) Signal Transmitted Peg Count	45/4
CCITT No. 6 Call Failure (CFL) Signals Received Peg Count	45/3
CCITT No. 6 Call Failure (CFL) Signals Transmitted Peg Count	45/4
CCITT No. 6 Call Register Queue Seizure Peg Count	17/1
CCITT No. 6 Circuit Group Congestion (CGC) Signals Received Peg Count	45/3
CCITT No. 6 Circuit Group Congestion (CGC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Confusion (COF) Signals Transmitted Peg Count	45/4
CCITT No. 6 Continuity Check Failure (CCF) Signaling Irregularity Peg Count	45/5
CCITT No. 6 Control Area Incoming Attempts Peg Count	25/11
CCITT No. 6 Control Area Outgoing Attempts Peg Count	25/11
CCITT No. 6 Double Seizure (GLR) Call Irregularity Peg Count	45/5
CCITT No. 6 Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
CCITT No. 6 Incomplete Address Detected Call Irregularity Peg Count	45/5
CCITT No. 6 Initial Address Message (IAM) Call Irregularity Peg Count	45/5
CCITT No. 6 Line Out-Of-Service (LOS) Signal Transmitted Peg Count	45/4
CCITT No. 6 Line Out-of-Service Signals Received Peg Count	45/3
CCITT No. 6 Maintenance Usage	25/11
CCITT No. 6 Miscellaneous Abandon Peg Count	36/9
CCITT No. 6 Miscellaneous Call Irregularity Peg Count	45/5
CCITT No. 6 National Network Congestion (NNC) Signals Received Peg Count	45/3
CCITT No. 6 National Network Congestion (NNC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Originating Queue Abandon Peg Count	17/1
CCITT No. 6 Originating Queue Overflow Peg Count	17/1
CCITT No. 6 Originating Queue Seizure Peg Count	17/1
CCITT No. 6 Originating Queue Usage	17/1
CCITT No. 6 Signaling Network Failures (SNF) Call Irregularities Peg Count	45/5
CCITT No. 6 Subscriber Busy Signals Received Peg Count	45/3
CCITT No. 6 Subscriber Busy (SSB) Signals Transmitted Peg Count	45/4
CCITT No. 6 Subscriber Transferred (SST) Signals Transmitted Peg Count	45/4
CCITT No. 6 Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
CCITT No. 6 Switching Equipment Congestion (SEC) Signals Transmitted Peg Count	45/4
CCITT No. 6 Terminal Congestion Peg Count	45/3
CCITT No. 6 Total Office Incoming Attempts Peg Count	5/4
CCITT No. 6 Total Office Outgoing Attempts Peg Count	5/5
CCITT No. 6 Vacant National Number (VNN) Signals Received Peg Count	45/3
CCITT No. 6 Vacant National Number (VNN) Signals Transmitted Peg Count	45/4
CCITT No. 7 Subsequent Address Message Ignored Peg Count	45/3
CCS Message Table Blue Box Attempts Peg Count	0/4
CCS Message Table Overflow Peg Count	0/4
CCS Message Table Success Peg Count	0/4
CCS Message Table Timeout Peg Count	0/4
Centrex 2 Test Routine Operational Tests Attempted Peg Count	25/9
Centrex 2 Test Routine Operational Tests Failed Peg Count	25/9
Centrex 2 Test Routine Operational Tests Passed Peg Count	25/9
Centrex 3 Test Routine Operational Tests Attempted Peg Count	25/9

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Centrex 3 Test Routine Operational Tests Failed Peg Count	25/9
Centrex 3 Test Routine Operational Tests Passed Peg Count	25/9
Changeover Buffer Overflows Peg Count	55/0
Changeovers Due to LMH Peg Count	55/1-4
Changeovers Due to PRO Peg Count	55/1-4
Changeovers Peg Count	55/1-4
Clear-Back and Busy-Flash Acknowledgement Signal Timeout Peg Count	25/16
Clear-Back/Busy-Flash Signal Timeout Peg Count	25/16
Clear-Forward Received Peg Count	25/6
Clear-Forward Signal Timeout Peg Count	25/16
CNI Stream Processor Interface Down	45/0
Code 100 Test Attempted Peg Count	25/7
Code 100 Test Completed Peg Count	25/7
Code 101 First Trial Busy Peg Count	25/10
Code 101 Origination Peg Count	25/10
Code 101 Transfer Peg Count	25/10
Code 101 Usage	25/10
Code 102 Test Attempted Peg Count	25/7
Code 102 Test Completed Peg Count	25/7
Code 103 Routine Operational Tests Attempted Peg Count	25/9
Code 103 Routine Operational Tests Failed Peg Count	25/9
Code 103 Routine Operational Tests Passed Peg Count	25/9
Code 105 Test Attempted Peg Count	25/7
Code 105 Test Completed Peg Count	25/7
Code Block Control Blocked Peg Count	11/3
Common System Tone Detector (CSTD) Located Faults Peg Count	35/1
Common System Tone Detector (CSTD) Maintenance Busy Occupancy	35/0
Common System Tone Detector (CSTD) Non-located Faults Peg Count	35/1
Common System Tone Detector (CSTD) Seizure Attempts Peg Count	35/1
Common System Tone Detector (CSTD) Seizure Overflow Peg Count	35/1
Common System Tone Detector (CSTD) Total Usage	35/1
Confirmed Receive Path Failure Carrier Alarm Peg Count	45/8
Confirmed Receive Path Failure Carrier Restoral Peg Count	45/8
Confirmed Transmit Path Failure Carrier Alarm Peg Count	45/8
Confirmed Transmit Path Failure Carrier Restoral Peg Count	45/8
Continuity Check Failure (CKF) Peg Count	25/6
Continuity Check Failure Final Trial Failure Peg Count	36/7
Continuity Signal Timeout Peg Count	36/0
Control Area Pulsing Error Peg Count	25/16
CPA BN(ANI) Trigger Table Data Found Peg Count for All Applicable Services	57/0
CPA BN(ANI) Trigger Table Query Attempt Peg Count for All Applicable Services	57/0
CPA Call Register Accumulated Occupancy Count	57/0
CPA Call Register Overflow Peg Count	57/0
CPA Call Register Seizures Peg Count	57/0
CPA Destination Number Trigger Table Data Found Peg Count for FAX Calls	57/0
CPA Destination Number Trigger Table Query Attempt Peg Count for FAX Calls	57/0
Critical Alarms Peg Count	20/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
CS Accumulated Maintenance Usage	23/1
CS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
CS Diagnostics Manually Requested Peg Count	46/0
CS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
CS Diagnostics Program Requested Peg Count	46/0
CS Errors Peg Count	46/0
CS Located Faults Peg Count	46/0
CS Non-located Peg Count	46/0
CSB Accumulated Maintenance Usage	23/1
CSB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
CSB Diagnostics Manually Requested Peg Count	46/2
CSB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
CSB Diagnostics Program Requested Peg Count	46/2
CSB Errors Peg Count	46/2
CSB Located Faults Peg Count	46/2
CSB Non-located Peg Count	46/2
Customer Calls To MAS - Supervision Not Returned Due To CCIS Terminal Congestion	5/9
Data Base Failure Reply: All Lines Busy	49/0
Data Base Failure Reply: Data Base Overload	49/0
Data Base Failure Reply: Non-Existent NPA	49/0
Data Base Failure Reply: Non-Purchased NPA	49/0
Data Base Failure Reply: Unassigned NXX	49/0
Data Base Failure Reply: Vacant Line	49/0
Data Base Failure Reply: Vacant NXX	49/0
Data Base Query Timeout	49/0
Data Call Attempts Peg Count	13/CIN
Data Call Overflow Peg Count	13/CIN
Data Unit Selector Interject Peg Count	20/1
D-Cancel Killed Calls	11/3
Dedicated TSI Overflow Peg Count	3/32
Dedicated TSI Usage	3/32
DIF Accumulated Maintenance Usage	24/1
DIF Accumulated Outage	24/1
DIF Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DIF Diagnostics Manually Requested Peg Count	24/2
DIF Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DIF Diagnostics Program Requested Peg Count	24/2
DIF Errors Peg Count	24/2
DIF Located Faults Peg Count	24/2
DIF Non-located Faults Peg Count	24/2
Direct Access Data Channel (DADC) Total Messages Peg Count	49/2
Direct Access Data Channel (DADC) Unexpected Messages Peg Count	49/2
Disconnect Stage Failure to Receive Clear-Forward Peg Count	36/9
Disconnect Stage Failure to Receive Release Guard Peg Count	36/9
Discrepancy in Number of Components and End Address of TCAP Message Peg Count	49/0
Disk Requests Accepted Peg Count	16/1
Disk Requests Canceled Peg Count	16/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Disk Requests Completed Peg Count	16/1
Disk Requests Failed Peg Count	16/1
Disk Requests Rejected Peg Count	16/1
DIU Accumulated Maintenance Usage	24/1
DIU Accumulated Outage	24/1
DIU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DIU Diagnostics Manually Requested Peg Count	24/2
DIU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DIU Diagnostics Program Requested Peg Count	24/2
DIU Errors Peg Count	24/2
DIU Located Faults Peg Count	24/2
DIU Non-located Faults Peg Count	24/2
D-Level Interrupts Attached Processor In-Range Peg Count	20/1
D-Level Interrupts Attached Processor Peg Count	20/1
D-Level Interrupts Auxiliary Unit Out-Of-Range Address Peg Count	20/1
D-Level Interrupts Call Store In-Range Peg Count	20/1
D-Level Interrupts Data Unit Selector In-Range Peg Count	20/1
D-Level Interrupts Data Unit Selector Peg Count	20/1
D-Level Interrupts Invalid Transfer Peg Count	20/1
D-Level Interrupts Out-Of-Range Peg Count	20/1
D-Level interrupts Protected Area Failure Peg Count	20/1
D-Level Interrupts Stack Related Peg Count	20/1
DNHR Crank Backs Received Peg Count	45/0
DNHR Crank Backs Sent Peg Count	45/0
Domestic CCIS Terminal Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
Domestic CCIS Terminal Diagnostics Manually Requested Peg Count	46/4
Domestic CCIS Terminal Diagnostics Program Requested - All Tests Passed Peg Count	46/4
Domestic CCIS Terminal Diagnostics Program Requested Peg Count	46/4
Domestic CCIS Terminal Errors Peg Count	46/4
Domestic CCIS Terminal Located Faults Peg Count	46/4
Domestic CCIS Terminal Non-located Peg Count	46/4
Domestic IOC Originated Vacant Code	15/2
Domestic IOTC Originated Vacant Code	15/2
Domestic VFL Accumulated Maintenance Occupancy	23/4
Domestic VFL Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
Domestic VFL Diagnostics Manually Requested Peg Count	46/4
Domestic VFL Diagnostics Program Requested - All Tests Passed Peg Count	46/4
Domestic VFL Diagnostics Program Requested Peg Count	46/4
Domestic VFL Errors Peg Count	46/4
Domestic VFL Located Faults Peg Count	46/4
Domestic VFL Non-located Peg Count	46/4
Double Seizure - Clear Forward Final Trial Failure Peg Count	36/8
Double Seizure - Clear-Forward Peg Count	25/16
Double Seizure - Unreasonable Signal Peg Count	25/16
Double Seizure Timeout Peg Count	25/16
Double Seizures (GLARE) Final Trial Failures Peg Count	36/7
DP ANI MF Receiver Queue Abandon Peg Count	18/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DP ANI MF Receiver Queue Abandon Peg Count	19/0
DP ANI MF Receiver Queue Seizure Peg Count	19/0
DP ANI MF Receiver Queue Usage	19/0
DP CR Queue Abandon Peg Count	11/6
DP CR Queue Abandon Peg Count	17/0
DP CR Queue Overflow Peg Count	11/6
DP CR Queue Overflow Peg Count	17/0
DP CR Queue Seizure Peg Count	17/0
DP CR Queue Usage	17/0
DP CR Seizure Peg Count	17/0
DP Delay Dial Incoming Seizure Peg Count	5/1
DP Digit Lost Peg Count	7/1
DP Equipment CAMA ANI Failure - Information Digit Error Peg Count	25/1
DP Equipment CAMA ANI Failure Peg Count	25/1
DP Equipment CAMA ANI Office Failure Peg Count	25/1
DP Equipment CAMA Disconnect Timeout Peg Count	25/2
DP Equipment CAMA Seizure Timeout Peg Count	25/2
DP Equipment Continuity/Polarity Test Failure Peg Count	25/3
DP Equipment Control Area False Start Abandon Peg Count	25/1
DP Equipment Control Area Partial Dial Abandon Peg Count	25/1
DP Equipment Control Area Partial Dial Timeout Peg Count	25/1
DP Equipment Control Area Permanent Signal Timeout Peg Count	25/1
DP Equipment Control Area Summation False Start Abandon Peg Count	36/1
DP Equipment Control Area Summation Miscellaneous Abandon Peg Count	36/4
DP Equipment Control Area Summation Partial Dial Abandon Peg Count	36/2
DP Equipment Control Area Summation Partial Dial Timeout Peg Count	36/2
DP Equipment Control Area Summation Permanent Signal Timeout Peg Count	36/1
DP Equipment Control Area Summation Pulsing Error Peg Count	36/2
DP Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
DP Equipment Glare Condition - Far End in Control Peg Count	25/3
DP Equipment Incoming Attempts Peg Count	25/5
DP Equipment Integrity Check Failure Peg Count	25/3
DP Equipment Maintenance Usage	25/5
DP Equipment Miscellaneous Abandon Peg Count	25/2
DP Equipment No Start Dial Peg Count	25/3
DP Equipment Outgoing Attempts Peg Count	25/5
DP Equipment Pulsing Error Peg Count	25/1
DP Equipment Total Office CAMA ANI Failure - Information Digit Error Peg Count	36/3
DP Equipment Total Office CAMA ANI Failure Peg Count	36/3
DP Equipment Total Office CAMA ANI Office Failure Peg Count	36/3
DP Equipment Total Office False Start Abandon Peg Count	7/0
DP Equipment Total Office Partial Dial Abandon Peg Count	7/0
DP Equipment Total Office Partial Dial Timeout Peg Count	7/0
DP Equipment Total Office Permanent Signal Timeout Peg Count	7/0
DP Equipment Unexpected Stop Peg Count	25/3
DP Equipment Unexpected Stop Timeout Peg Count	25/3
DP Immediate Start Incoming Seizure Peg Count	5/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DP Outpulsing Attempts Peg Count	5/2
DP Outpulsing Work List Full Peg Count	7/1
D-Reroute Killed Calls	11/3
DTC Accumulated Maintenance Usage	24/1
DTC Accumulated Outage	24/1
DTC Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DTC Diagnostics Manually Requested Peg Count	24/2
DTC Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DTC Diagnostics Program Requested Peg Count	24/2
DTC Errors Peg Count	24/2
DTC Located Faults Peg Count	24/2
DTC Non-located Faults Peg Count	24/2
DTMF Control Area Summation False Start Abandon Peg Count	36/1
DTMF Control Area Summation Miscellaneous Abandon Peg Count	36/4
DTMF Control Area Summation Partial Dial Abandon Peg Count	36/2
DTMF Control Area Summation Partial Dial Timeout Peg Count	36/2
DTMF Control Area Summation Permanent Signal Timeout Peg Count	36/1
DTMF Control Area Summation Pulsing Error Peg Count	36/2
DTMF CR Seizure Peg Count	17/0
DTMF Equipment Continuity/Polarity Test Failure Peg Count	25/3
DTMF Equipment Control Area False Start Abandon Peg Count	25/1
DTMF Equipment Control Area Partial Dial Abandon Peg Count	25/1
DTMF Equipment Control Area Partial Dial Timeout Peg Count	25/1
DTMF Equipment Control Area Permanent Signal Timeout Peg Count	25/1
DTMF Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
DTMF Equipment Glare Condition - Far End in Control Peg Count	25/3
DTMF Equipment Miscellaneous Abandon Peg Count	25/2
DTMF Equipment No Start Dial Peg Count	25/3
DTMF Equipment Pulsing Error Peg Count	25/1
DTMF Equipment Unexpected Stop Peg Count	25/3
DTMF Miscellaneous Ineffective Attempts Peg Count	11/4
DTMF Receiver Accumulated Maintenance Usage	23/3
DTMF Receiver Located Faults Peg Count	46/6
DTMF Receiver Maintenance Usage	1/0
DTMF Receiver Non-located Peg Count	46/6
DTMF Receiver Seizure Peg Count	1/0
DTMF Receiver Service Circuit Usage	1/0
DTMF Total Office False Start Abandon Peg Count	7/0
DTMF Total Office Partial Dial Abandon Peg Count	7/0
DTMF Total Office Partial Dial Timeout Peg Count	7/0
DTMF Total Office Permanent Signal Timeout Peg Count	7/0
DTMF Transmitter Accumulated Maintenance Usage	23/3
DTMF Transmitter Located Faults Peg Count	46/6
DTMF Transmitter Maintenance Usage	0/2
DTMF Transmitter Non-located Peg Count	46/6
DTMF Transmitter Seizure Peg Count	0/2
DTMF Transmitter Service Usage	0/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
DTU Accumulated Maintenance Usage	24/1
DTU Accumulated Outage	24/1
DTU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
DTU Diagnostics Manually Requested Peg Count	24/2
DTU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
DTU Diagnostics Program Requested Peg Count	24/2
DTU Errors Peg Count	24/2
DTU Located Faults Peg Count	24/2
DTU Non-located Faults Peg Count	24/2
Duration of All S-Links Unavailable	55/0
Duration of Unavailability Due to MAH	55/1-4
Duration of Unavailability Due to OOS	55/1-4
Duration of Unavailability Due to PRO	55/1-4
Duration That at Least One LSP is Waiting to be Transmitted Peg Count	55/0
Duration With No Route to a Destination	55/5-7
DUS Accumulated Maintenance Usage	23/1
DUS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
DUS Diagnostics Manually Requested Peg Count	46/0
DUS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
DUS Diagnostics Program Requested Peg Count	46/0
DUS Errors Peg Count	46/0
DUS Located Faults Peg Count	46/0
DUS Non-located Peg Count	46/0
DUS to CS Out-of-Range Error Peg Count	20/1
DUS to PS In-Range Error Peg Count	20/1
DUS to PS Out-of-Range Error Peg Count	20/1
DUS to TUC In-Range Error Peg Count	20/1
Dynamic Overload Control Peg Count and Duration Measurement	21/3
EA ANI Failure - Route Peg Count	19/2
EA ANI Failure Peg Count	19/2
EA ANI Success Peg Count	19/2
Egress Busy Crankbacks Sent	13/CIN
Eighth Digit No Call Register Peg Count	7/1
E-Level Interrupts In-Range Peg Count	20/1
E-Level Interrupts Out-Of-Range Peg Count	20/1
Emergency Restart Peg Count	14/0-255
Error Analysis Suspected Failure Peg Count	25/4
Errors Found By Audit System Peg Count	41/0
Errors Found By Maintenance Programs Peg Count	41/0
Errors Found By Manual Request Peg Count	41/0
Errors Found By Operational Programs Peg Count	41/0
Exception Reports Failed to Send to the SCP Peg Count	49/0
Exception Reports Sent to the SCP Peg Count	49/0
Expected Stop Timeout Final Trial Group Peg Count	36/4
External CCFR Entry When CC 0 Was Active Simplex	20/4
External CCFR Entry When CC 1 Was Active Simplex	20/4
Facility Received Indicating Caller Hung-Up Peg Count	56/0-2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Failure to Place NM 10/6 Digit Controls on ACG Control List Peg Count	49/0
Failure to Receive Clear-Forward Peg Count	25/16
False Seizure Timeout Peg Count	25/16
False Start Abandon Peg Count	7/0
Fan Controller 0 Inhibited Counter	20/4
Fan Controller 1 Inhibited Counter	20/4
Fatal Errors in SCCP Header Peg Count	49/0
Fatal Protocol Error Response from SCP Peg Count	49/0
Final Trial Network Path Hunt Failure Peg Count	11/1
First Trial Glare Fail CCITT No. 5 Trunk Peg Count	25/16
First Trial No. Start Dial (NSD) - CCITT No. 5 Trunk Peg Count	25/16
First Trial Outpulsing Fail CCITT No. 5 Trunk Peg Count	25/16
F-Level Interrupts Autonomous Peripheral Unit Failure Peg Count	20/1
F-Level Interrupts Peripheral Unit Failure In-Range Peg Count	20/1
F-Level Interrupts Peripheral Unit Failure Out-Of-Range Peg Count	20/1
Functional Trunk Test Routine Operational Tests Attempted Peg Count	25/9
Functional Trunk Test Routine Operational Tests Failed Peg Count	25/9
Functional Trunk Test Routine Operational Tests Passed Peg Count	25/9
Gapped Peg Count	56/0-2
Glare Final Trial Failure Peg Count	36/8
Glare Final Trial Group Peg Count	36/4
Glare Peg Counter	11/0
Group Signaling Congestion Skipped	11/3
Hardware Detected CGA Peg Count	20/3
IAMs Transmitted Functioning as a Switch Peg Count	55/0
IDTMFWK CR Queue Abandon Peg Count	17/0
IDTMFWK CR Queue Seizure Peg Count	17/0
IDTMFWK CR Queue Usage	17/0
IDTMFWK Incoming Seizure Peg Count	5/1
IDTS CR Queue Abandon Peg Count	17/0
IDTS CR Queue Overflow Peg Count	17/0
IDTS CR Queue Seizure Peg Count	17/0
IDTS CR Queue Usage	17/0
IDTS DP Incoming Seizure Peg Count	5/1
IDTS Incoming Seizure Peg Count	5/1
IDTS Receiver Dial Tone Delay Time Peg Count	0/0
IDTS Receiver Queue Abandon Peg Count	0/0
IDTS Receiver Queue Seizure Peg Count	0/0
IDTS Receiver Queue Usage	0/0
IFB Accumulated Maintenance Usage	23/5
IFB Diagnostics Manually Requested - All Tests Passed Peg Count	46/7
IFB Diagnostics Manually Requested Peg Count	46/7
IFB Diagnostics Program Requested - All Tests Passed Peg Count	46/7
IFB Diagnostics Program Requested Peg Count	46/7
IFB Errors Peg Count	46/7
IFB Located Faults Peg Count	46/7
IFB Non-located Peg Count	46/7

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
IFB Out-Of-Range D-Level	20/4
Incoming Answer Signal Units Peg Count	14/0-255
Incoming Code 101 Overflow Peg Count	25/10
Incoming Code 101 Peg Count	25/10
Incoming Code 101 Usage	25/10
Incoming Continuity Signal Timeout Peg Count	36/9
Incoming Direct Signaling Signal Units Peg Count	14/0-255
Incoming Domestic CCIS Call Attempts	37/0
Incoming Domestic DP Call Attempts	37/0
Incoming Domestic ISUP Call Attempts	37/0
Incoming Domestic MF Call Attempts	37/0
Incoming Domestic Q.931 Call Attempts	37/0
Incoming DP Early Digit Peg Count	7/1
Incoming DP Work List Full Peg Count	7/1
Incoming IAM Peg Count	14/0-255
Incoming International CCITT No. 5 Call Attempts	37/1
Incoming International CCITT No. 6 Call Attempts	37/1
Incoming International INUP Call Attempts	37/1
Incoming International ITUP Call Attempts	37/1
Incoming Miscellaneous Ineffective Attempts Peg Count	11/4
Incoming Seizure Abandon Peg Count	25/16
Incoming Seizure Peg Count	13/CIN
Incoming Signal Irregularities Before Answer CCITT No. 5 Trunk Peg Count	25/16
Incoming Transitions Peg Count	14/0-255
Incomplete Address Abandon Peg Count	25/16
Incomplete Address Detection Peg Count	36/0
Incomplete Address Timeout Peg Count	25/16
Initial Address Message (IAM) Irregularity (IRR) Peg Count	45/0
Initial Address Messages Transferred Per Terminal	14/0-255
Initial Query Failure Due to CNI Buffer Overflow Peg Count	49/0
Initial Query Failure Due to CNI Stream Down Peg Count	49/0
Integrity Check Failures Final Trial Group Peg Count	36/4
Internal B-level Boot ROM Parity Error Count	20/4
Internal B-level Control Parity Error Count	20/4
International Call Detail Recording Register Buffer Block Occupancy Peg Count	17/2
International Call Detail Recording Registers Total Records Lost Peg Count	17/2
International Calls Block by Network Management Controls	15/2
International Calls Blocked by Screening	15/2
International CCIS Terminal Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
International CCIS Terminal Diagnostics Manually Requested Peg Count	46/4
International CCIS Terminal Diagnostics Program Requested - All Tests Passed Peg Count	46/4
International CCIS Terminal Diagnostics Program Requested Peg Count	46/4
International CCIS Terminal Errors Peg Count	46/4
International CCIS Terminal Located Faults Peg Count	46/4
International CCIS Terminal Non-located Peg Count	46/4
International Customer Dialed Vacant Code	15/2
International Inbound Customer Dialed Vacant Code	15/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
International Inbound Operator Dialed Vacant Code	15/2
International Incoming Customer Dialed Calls Peg Count	5/4
International Incoming Operator Dialed Calls Peg Count	5/4
International Incoming Screened-Invalid Call	15/2
International Incoming Screened-Invalid Language Digit	15/2
International Incoming Test Calls Peg Count	5/4
International Incoming Transit Calls Peg Count	5/4
International ISUP Outbound Overflow Peg Count	5/5
International No Circuit Peg Count	11/1
International Operator Dialed Vacant Code	15/2
International Originating Attempts To The Local IOC Operator That Overflow	15/1
International Originating Attempts To The Local IOC Operator	15/1
International Outbound Customer Dialed Call Encountered No Circuit	15/2
International Outbound Operator Dialed Call Peg Count	5/5
International Outbound Overflow Received from Alternate Office Peg Count	5/5
International Outbound Overflow Sent to Alternate Office Peg Count	5/5
International Outgoing Customer Dialed Calls Peg Count	5/5
International Overlap to Enblock Signaling Peg Count	5/4
International Translation Fail - Too Few/Too Many Digits CCITT No. 5 Incoming Trunk	15/2
International Translation Fail - Too Few/Too Many Digits CCITT No. 6 Incoming Trunk	15/2
International Translation Fail - Too Few/Too Many Digits IOC ITC	15/2
International Translation Fail - Too Few/Too Many Digits TSPC	15/2
International VFL Accumulated Maintenance Occupancy	23/4
International VFL Diagnostics Manually Requested - All Tests Passed Peg Count	46/4
International VFL Diagnostics Manually Requested Peg Count	46/4
International VFL Diagnostics Program Requested - All Tests Passed Peg Count	46/4
International VFL Diagnostics Program Requested Peg Count	46/4
International VFL Errors Peg Count	46/4
International VFL Located Faults Peg Count	46/4
International VFL Non-located Peg Count	46/4
Interrupt Level Duration Count	20/1
INUP Address Complete Signal Timeout Peg Count	36/4
INUP Continuity Check Failure Final Trial Group Peg Count	36/4
INUP Continuity Check Request (CCR) Glare Peg Count	45/5
INUP Continuity Failure Peg Count	36/0
INUP Continuity Timeout Peg Count	36/0
INUP Continuity/Polarity Test Failure Peg Count	25/3
INUP Control Area False Start Abandon Peg Count	25/1
INUP Control Area Incoming Attempts Peg Count	25/11
INUP Control Area Miscellaneous Abandon Peg Count	25/2
INUP Control Area Outgoing Attempts Peg Count	25/11
INUP Control Area Partial Dial Abandon Peg Count	25/1
INUP Control Area Partial Dial Timeout Peg Count	25/1
INUP Control Area Permanent Signal Timeout Peg Count	25/1
INUP Control Area Summation False Start Abandon Peg Count	36/1
INUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
INUP Control Area Summation Partial Dial Abandon Peg Count	36/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
INUP Control Area Summation Partial Dial Timeout Peg Count	36/2
INUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
INUP Control Area Summation Pulsing Error Peg Count	36/2
INUP CR Queue Overflow Peg Count	17/0
INUP CR Seizure Peg Count	17/0
INUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
INUP Glare Condition - Far End in Control Peg Count	25/3
INUP Glare Peg Count	45/5
INUP Inbound Customer Dialed Vacant Code	15/2
INUP Inbound Operator Dialed Vacant Code	15/2
INUP Incoming CNI Ring Failure Peg Count	45/0
INUP Incoming CNI Ring Overflow Peg Count	45/0
INUP Incoming Irregularity Before Answer Peg Count	36/0
INUP Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
INUP Incomplete Address Detected Peg Count	36/0
INUP Initial Address Message (IAM) Glare Peg Count	45/5
INUP Integrity Check Failure Peg Count	25/3
INUP Line Out-of-Service (LOS) Signals Received Peg Count	45/3
INUP Maintenance Usage	25/11
INUP Miscellaneous Ineffective Attempts Peg Count	11/4
INUP Miscellaneous Timeout Peg Count	36/0
INUP No Circuit Available (NCA) Signals Received Peg Count	45/3
INUP No Circuit Available (NCA) Signals Received While Waiting For Answer Peg Count	45/3
INUP No Start Dial Peg Count	25/3
INUP Origination CR Queue Abandon Peg Count	17/0
INUP Origination CR Queue Seizure Peg Count	17/0
INUP Origination CR Queue Usage	17/0
INUP Other Abandons Peg Count	11/4
INUP Outgoing CNI Ring Failure Peg Count	45/0
INUP Outgoing CNI Ring Overflow Peg Count	45/0
INUP Outgoing Irregularity Before Answer Peg Count	36/0
INUP Outgoing Miscellaneous Failure Peg Count	11/4
INUP Outgoing Unexpected Message Peg Count	45/0
INUP Pulsing Error Peg Count	25/1
INUP Resets Received Peg Count	45/0
INUP Subscriber Busy (SB) Signals Received While Waiting For Answer Peg Count	45/3
INUP Switching Equipment Congestion Peg Count	11/4
INUP Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
INUP Switching Equipment Congestion (SEC) Signals Received While Waiting For Answer Peg Count	45/3
INUP Temporary Failure (TFL) Signals Received While Waiting For Answer Peg Count	45/3
INUP Total Office False Start Abandon Peg Count	7/0
INUP Total Office Incoming Attempts Peg Count	5/4
INUP Total Office Miscellaneous Abandon Peg Count	11/4
INUP Total Office Outgoing Attempts Peg Count	5/5
INUP Total Office Partial Dial Abandon Peg Count	7/0
INUP Total Office Partial Dial Timeout Peg Count	7/0
INUP Total Office Permanent Signal Timeout Peg Count	7/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
INUP Transceiver Overflow Peg Count	2/0
INUP Transit Vacant Code	15/2
INUP Unblocking Message Received Peg Count	45/0
INUP Unexpected Stop Peg Count	25/3
INUP Unexpected Stop Timeout Peg Count	25/3
INUP Unreasonable Signal Received Peg Count	36/0
Invalid Command Message Peg Count	49/1
Invalid Command Sequence Peg Count	49/1
Invalid Incoming ATME Test Call Peg Count	25/15
INWATS Band Check Peg Count	11/2
INWATS Blocked by Signaling Link Congestion	49/0
INWATS CCIS Failure: Network Blockage	49/0
INWATS CCIS Failure: Network Congestion	49/0
INWATS CCIS Failure: No Translation Data	49/0
INWATS Network Management Messages Received Peg Count	49/0
INWATS Queries Sent Peg Count	49/0
IOC Control Area False Start Abandon Peg Count	25/1
IOC Control Area Partial Dial Abandon Peg Count	25/1
IOC Control Area Partial Dial Timeout Peg Count	25/1
IOC Control Area Permanent Signal Timeout Peg Count	25/1
IOC Control Area Summation False Start Abandon Peg Count	36/1
IOC Control Area Summation Miscellaneous Abandon Peg Count	36/4
IOC Control Area Summation Partial Dial Abandon Peg Count	36/2
IOC Control Area Summation Partial Dial Timeout Peg Count	36/2
IOC Control Area Summation Permanent Signal Timeout Peg Count	36/1
IOC Control Area Summation Pulsing Error Peg Count	36/2
IOC Miscellaneous Abandon Peg Count	25/2
IOC Operator No Circuit-Domestic	15/1
IOC Operator No Circuit-International	15/1
IOC Operator Outgoing Attempts	15/1
IOC Pulsing Error Peg Count	25/1
IOC Total Office False Start Abandon Peg Count	7/0
IOC Total Office Partial Dial Abandon Peg Count	7/0
IOC Total Office Partial Dial Timeout Peg Count	7/0
IOC Total Office Permanent Signal Timeout Peg Count	7/0
IOUC Accumulated Maintenance Usage	23/1
IOUC Diagnostics Manually Requested - All Tests Passed Peg Count	46/1
IOUC Diagnostics Manually Requested Peg Count	46/1
IOUC Diagnostics Program Requested - All Tests Passed Peg Count	46/1
IOUC Diagnostics Program Requested Peg Count	46/1
IOUC Errors Peg Count	46/1
IOUC Located Faults Peg Count	46/1
IOUC Non-located Peg Count	46/1
IOUS Accumulated Maintenance Usage	23/1
IOUS Diagnostics Manually Requested - All Tests Passed Peg Count	46/1
IOUS Diagnostics Manually Requested Peg Count	46/1
IOUS Diagnostics Program Requested - All Tests Passed Peg Count	46/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
IOUS Diagnostics Program Requested Peg Count	46/1
IOUS Errors Peg Count	46/1
IOUS Located Faults Peg Count	46/1
IOUS Non-located Peg Count	46/1
ISUP 2-Wire Incoming Seizures	5/1
ISUP 4-Wire Incoming Seizures	5/1
ISUP ATP Dropped Due to Internal Loss Peg Count	45/6
ISUP ATP Dropped Due to Length Peg Count	45/6
ISUP Completion of Transmission Path CR Release Peg Count	17/0
ISUP Completion of Transmission Path CR Seize Peg Count	17/0
ISUP Confusion Message Received Peg Count	45/0
ISUP Confusion Message Sent Peg Count	45/0
ISUP Continuity Failure Peg Count	36/0
ISUP Continuity Timeout Peg Count	36/0
ISUP Continuity/Polarity Test Failure Peg Count	25/3
ISUP Control Area False Start Abandon Peg Count	25/1
ISUP Control Area Miscellaneous Abandon Peg Count	25/2
ISUP Control Area Partial Dial Abandon Peg Count	25/1
ISUP Control Area Partial Dial Timeout Peg Count	25/1
ISUP Control Area Permanent Signal Timeout Peg Count	25/1
ISUP Control Area Summation False Start Abandon Peg Count	36/1
ISUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
ISUP Control Area Summation Partial Dial Abandon Peg Count	36/2
ISUP Control Area Summation Partial Dial Timeout Peg Count	36/2
ISUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
ISUP Control Area Summation Pulsing Error Peg Count	36/2
ISUP CR Seizure Peg Count	17/0
ISUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
ISUP Glare Condition - Far End in Control Peg Count	25/3
ISUP Incoming Attempts Peg Count	25/5
ISUP Incoming CNI Ring Failure Peg Count	45/0
ISUP Incoming CNI Ring Overflow Peg Count	45/0
ISUP Incomplete Address Detected Peg Count	36/0
ISUP Integrity Check Failure Peg Count	25/3
ISUP Maintenance Usage	25/5
ISUP Miscellaneous Ineffective Attempts Peg Count	11/4
ISUP Miscellaneous Timeout Peg Count	36/0
ISUP No Start Dial Peg Count	25/3
ISUP Origination CR Queue Abandon Peg Count	17/0
ISUP Origination CR Queue Overflow Peg Count	17/0
ISUP Origination CR Queue Seizure Peg Count	17/0
ISUP Origination CR Queue Usage	17/0
ISUP Other Abandons Peg Count	11/4
ISUP Outgoing Attempts Peg Count	25/5
ISUP Outgoing CNI Ring Failure Peg Count	45/0
ISUP Outgoing CNI Ring Overflow Peg Count	45/0
ISUP Outgoing Seizures	5/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ISUP Outgoing Unexpected Message Peg Count	45/0
ISUP Pulsing Error Peg Count	25/1
ISUP Resets Received Peg Count	45/0
ISUP Switching Equipment Congestion Peg Count	11/4
ISUP Total Office False Start Abandon Peg Count	7/0
ISUP Total Office Miscellaneous Abandon Peg Count	11/4
ISUP Total Office Partial Dial Abandon Peg Count	7/0
ISUP Total Office Partial Dial Timeout Peg Count	7/0
ISUP Total Office Permanent Signal Timeout Peg Count	7/0
ISUP Transceiver Overflow Peg Count	2/0
ISUP Unexpected Stop Peg Count	25/3
ISUP Unexpected Stop Timeout Peg Count	25/3
ISUP Unreasonable Signal Received Peg Count	36/0
ISUP Unsuccessful Backward Setup Received Peg Count	45/0
ISUP UUI Dropped Due to Internal Loss Peg Count	45/6
ISUP UUI Dropped Due to Length Peg Count	45/6
ITUP Address Complete Signal Timeout Peg Count	36/4
ITUP Call Failure (CFL) Received While Waiting For Answer Peg Count	45/3
ITUP Circuit Group Congestion (CGC) Received While Waiting For Answer Peg Count	45/3
ITUP Circuit Group Congestion (CGC) Signals Received Peg Count	45/3
ITUP Continuity Check Failure Final Trial Group Peg Count	36/4
ITUP Continuity Check Request (CCR) Glare Peg Count	45/5
ITUP Continuity Failure Peg Count	36/0
ITUP Continuity Timeout Peg Count	36/0
ITUP Continuity/Polarity Test Failure Peg Count	25/3
ITUP Control Area False Start Abandon Peg Count	25/1
ITUP Control Area Incoming Attempts Peg Count	25/11
ITUP Control Area Miscellaneous Abandon Peg Count	25/2
ITUP Control Area Outgoing Attempts Peg Count	25/11
ITUP Control Area Partial Dial Abandon Peg Count	25/1
ITUP Control Area Partial Dial Timeout Peg Count	25/1
ITUP Control Area Permanent Signal Timeout Peg Count	25/1
ITUP Control Area Summation False Start Abandon Peg Count	36/1
ITUP Control Area Summation Miscellaneous Abandon Peg Count	36/4
ITUP Control Area Summation Partial Dial Abandon Peg Count	36/2
ITUP Control Area Summation Partial Dial Timeout Peg Count	36/2
ITUP Control Area Summation Permanent Signal Timeout Peg Count	36/1
ITUP Control Area Summation Pulsing Error Peg Count	36/2
ITUP CR Queue Overflow Peg Count	17/0
ITUP CR Seizure Peg Count	17/0
ITUP Glare Condition - 4ESS Switch in Control Peg Count	25/3
ITUP Glare Condition - Far End in Control Peg Count	25/3
ITUP Glare Peg Count	45/5
ITUP Inbound Customer Dialed Vacant Code	15/2
ITUP Inbound Operator Dialed Vacant Code	15/2
ITUP Incoming CNI Ring Failure Peg Count	45/0
ITUP Incoming CNI Ring Overflow Peg Count	45/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
ITUP Incoming Irregularity Before Answer Peg Count	36/0
ITUP Incoming Seizure Abandon (ISA) Signaling Irregularity Peg Count	45/5
ITUP Incomplete Address Detected (IAD) Call Irregularity Peg Count	45/5
ITUP Initial Address Message (IAM) Glare Peg Count	45/5
ITUP Integrity Check Failure Peg Count	25/3
ITUP Line Out-of-Service (LOS) Signals Received Peg Count	45/3
ITUP Maintenance Usage	25/11
ITUP Miscellaneous Ineffective Attempts Peg Count	11/4
ITUP Miscellaneous Timeout Peg Count	36/0
ITUP National Network Congestion (NNC) Signals Received Peg Count	45/3
ITUP National Network Congestion (NNC) While Waiting For Answer Peg Count	45/3
ITUP No Start Dial Peg Count	25/3
ITUP Origination CR Queue Abandon Peg Count	17/0
ITUP Origination CR Queue Seizure Peg Count	17/0
ITUP Origination CR Queue Usage	17/0
ITUP Other Abandons Peg Count	11/4
ITUP Outgoing CNI Ring Failure Peg Count	45/0
ITUP Outgoing CNI Ring Overflow Peg Count	45/0
ITUP Outgoing Irregularity Before Answer Peg Count	36/0
ITUP Outgoing Miscellaneous Failure Peg Count	11/4
ITUP Outgoing Unexpected Message Peg Count	45/0
ITUP Pulsing Error Peg Count	25/1
ITUP Resets Received Peg Count	45/0
ITUP Subscriber Busy (SSB) Signals Received Peg Count	45/3
ITUP Switching Equipment Congestion Peg Count	11/4
ITUP Switching Equipment Congestion (SEC) Signals Received Peg Count	45/3
ITUP Total Office False Start Abandon Peg Count	7/0
ITUP Total Office Incoming Attempts Peg Count	5/4
ITUP Total Office Miscellaneous Abandon Peg Count	11/4
ITUP Total Office Outgoing Attempts Peg Count	5/5
ITUP Total Office Partial Dial Abandon Peg Count	7/0
ITUP Total Office Partial Dial Timeout Peg Count	7/0
ITUP Total Office Permanent Signal Timeout Peg Count	7/0
ITUP Transceiver Overflow Peg Count	2/0
ITUP Transit Vacant Code	15/2
ITUP Unblocking Message Received Peg Count	45/0
ITUP Unexpected Stop Peg Count	25/3
ITUP Unexpected Stop Timeout Peg Count	25/3
ITUP Unreasonable Signal Received Peg Count	36/0
Large Scale Nail-Up Intra-Buffer Count	4/0
LATA/STATE Screening Index Failure Peg Count	11/2
Link 1 Message Register Returned Peg Count	56/3
Link 1 Return Register Threshold Exceeded Peg Count	56/3
Link 2 Message Register Returned Peg Count	56/3
Link 2 Return Register Threshold Exceeded Peg Count	56/3
Load Level 1 Overload Control Peg Count	9/1
Load Level 2 Overload Control Peg Count	9/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Load Level 3 Overload Control Peg Count	9/1
Local IOC Originating Operator Incoming Attempts Going To Domestic or International Domain	15/1
LSPs Discarded Due to Aging Peg Count	55/0
LSPs Discarded Due to Redundancy Peg Count	55/0
LSPs Generated Peg Count	55/0
LSPs Received Peg Count	55/1-4
LSPs Waiting to be Transmitted Peg Count	55/0
Maintenance Interjects Voiceband Interface Peg Count	20/1
Maintenance Test Access Circuit Usage	25/10
Major Alarms Peg Count	20/2
Manual Network Management Controls	13/CIN
MAS - BOC-SSP Calls Blocked Peg Count	49/0
MAS - Calls Routed To A Cut-Through Number Peg Count	51/0-63
MAS - Calls Routed To An Announcement Peg Count	51/0-63
MAS - Data On Disk Peg Count	36/10
MAS - Geographic Attempts Matrix Completion Peg Count	54/0-31
MAS - Hardware Duplex Failed Peg Count	36/10
MAS - Looping Through Translate All Digits Peg Count	36/10
MAS - No Vacant Announcement Peg Count	36/10
MAS - Path Hunt Peg Count	36/10
MAS - Per-Announcement Attempts Peg Count	50/0-511
MAS - Per-Announcement Connect To Audio Peg Count	50/0-511
MAS - Per-Announcement Overflow Peg Count	50/0-511
MAS - Per-Announcement Usage	50/0-511
MAS - TELEVOTE Slave Dialed Number	53/0-127
MAS - Total Calls (Votes) to a TELEVOTE Slave Dialed Number Peg Count	53/0-127
MAS - Totals of the TELEVOTE Counts Received Peg Count	52/0-127
MAS and Expanded Announcements Accumulated Maintenance Usage	23/3
MAS Attempts Peg Count	56/0-2
MAS Cutthru Peg Count	56/0-2
MAS or Expanded Ann. A Overflow Peg Count	0/2
MAS or Expanded Ann. A Seizure Peg Count	0/2
MAS or Expanded Ann. A Service Usage	0/2
MAS or Expanded Ann. B Overflow Peg Count	0/2
MAS or Expanded Ann. B Seizure Peg Count	0/2
MAS or Expanded Ann. B Service Usage	0/2
MAS or Expanded Ann. Maintenance Usage	0/2
MC1 CCIS Duration	21/3
MC1 CCIS Peg Count	21/3
MC1 DP Duration	21/3
MC1 DP Peg Count	21/3
MC1 MF Duration	21/3
MC1 MF Peg Count	21/3
MC1 Real Time Duration	21/3
MC1 Real Time Peg Count	21/3
MC2 CCIS Duration	21/3
MC2 CCIS Peg Count	21/3

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MC2 DP Duration	21/3
MC2 DP Peg Count	21/3
MC2 MF Duration	21/3
MC2 MF Peg Count	21/3
MC2 Real Time Duration	21/3
MC2 Real Time Peg Count	21/3
MCC Accumulated Maintenance Usage	23/1
MCC Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
MCC Diagnostics Manually Requested Peg Count	46/0
MCC Diagnostics Program Requested - All Tests Passed Peg Count	46/0
MCC Diagnostics Program Requested Peg Count	46/0
MCC Errors Peg Count	46/0
MCC Located Faults Peg Count	46/0
MCC Non-located Peg Count	46/0
Messages Discarded Due to No Route to Destination Peg Count	55/0
Messages Dropped Peg Count	55/1-4
MF CR Seizure Peg Count	17/0
MF Equipment CAMA ANI Failure - Information Digit Error Peg Count	25/1
MF Equipment CAMA ANI Failure Peg Count	25/1
MF Equipment CAMA ANI Office Failure Peg Count	25/1
MF Equipment CAMA Disconnect Timeout Peg Count	25/2
MF Equipment CAMA Seizure Timeout Peg Count	25/2
MF Equipment Continuity/Polarity Test Failure Peg Count	25/3
MF Equipment Control Area False Start Abandon Peg Count	25/1
MF Equipment Control Area Partial Dial Abandon Peg Count	25/1
MF Equipment Control Area Partial Dial Timeout Peg Count	25/1
MF Equipment Control Area Permanent Signal Timeout Peg Count	25/1
MF Equipment Control Area Summation False Start Abandon Peg Count	36/1
MF Equipment Control Area Summation Miscellaneous Abandon Peg Count	36/4
MF Equipment Control Area Summation Partial Dial Abandon Peg Count	36/2
MF Equipment Control Area Summation Partial Dial Timeout Peg Count	36/2
MF Equipment Control Area Summation Permanent Signal Timeout Peg Count	36/1
MF Equipment Control Area Summation Pulsing Error Peg Count	36/2
MF Equipment Glare Condition - 4ESS Switch in Control Peg Count	25/3
MF Equipment Glare Condition - Far End in Control Peg Count	25/3
MF Equipment Incoming Attempts Peg Count	25/5
MF Equipment Integrity Check Failure Peg Count	25/3
MF Equipment Maintenance Usage	25/5
MF Equipment Miscellaneous Abandon Peg Count	25/2
MF Equipment No Start Dial Peg Count	25/3
MF Equipment Outgoing Attempts Peg Count	25/5
MF Equipment Pulsing Error Peg Count	25/1
MF Equipment Total Office CAMA ANI Failure - Information Digit Error Peg Count	36/3
MF Equipment Total Office CAMA ANI Failure Peg Count	36/3
MF Equipment Total Office CAMA ANI Office Failure Peg Count	36/3
MF Equipment Total Office False Start Abandon Peg Count	7/0
MF Equipment Total Office Partial Dial Abandon Peg Count	7/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MF Equipment Total Office Partial Dial Timeout Peg Count	7/0
MF Equipment Total Office Permanent Signal Timeout Peg Count	7/0
MF Equipment Unexpected Stop Peg Count	25/3
MF Equipment Unexpected Stop Timeout Peg Count	25/3
MF Incoming Seizure Peg Count	5/1
MF Origination Queue Abandon Peg Count	17/0
MF Origination Queue Seizure Peg Count	17/0
MF Origination Queue Usage	17/0
MF Outpulsing Attempts Peg Count	5/2
MF Receiver Accumulated Maintenance Usage	23/3
MF Receiver Located Faults Peg Count	46/6
MF Receiver Maintenance Usage	1/0
MF Receiver Non-located Peg Count	46/6
MF Receiver Seizure Peg Count	1/0
MF Receiver Service Usage	1/0
MF Receiver Test Circuit Maintenance Busy Occupancy	35/0
MF Receiver Test Circuit Total Usage	35/1
MF Transmitter Accumulated Maintenance Usage	23/3
MF Transmitter Errors Final Trial Group Peg Count	36/4
MF Transmitter Located Faults Peg Count	46/6
MF Transmitter Maintenance Usage	0/2
MF Transmitter Non-located Peg Count	46/6
MF Transmitter Queue Entry Attempts Peg Count	0/0
MF Transmitter Queue Entry Failure Peg Count	0/0
MF Transmitter Queue Entry Failure Peg Count	11/5
MF Transmitter Queue Entry Time Usage	0/0
MF Transmitter Queue Overflow Peg Count	11/5
MF Transmitter Queue Seizure Peg Count	0/0
MF Transmitter Queue Usage	0/0
MF Transmitter Seizure Peg Count	0/2
MF Transmitter Service Usage	0/2
MF Transmitter Test Circuit Maintenance Busy Occupancy	35/0
MF Transmitter Test Circuit Total Usage	35/1
MF Transmitter Test Self-Check Fail Peg Count	35/1
Minor Alarms Peg Count	20/2
Miscellaneous call Irregularities Final Trial Failure Peg Count	36/7
Miscellaneous Connecting Ineffective Attempts Peg Count	11/4
Miscellaneous CR Seizure Peg Count	17/0
Miscellaneous Outgoing Ineffective Attempts Peg Count	11/4
Misrouted CAMA Peg Count	18/0
Misrouted Direct Signaling Messages Received Peg Count	49/2
Missed 3B Collections Peg Count	16/1
Monitor QIC Passed - Suspected Transmit Path Failure Restoral Peg Count	45/8
Multiple Scan Points Active Peg Count	25/16
MUP Accumulated Maintenance Usage	23/5
MUP BLM Counter	20/4
MUP Diagnostics Manually Requested - All Tests Passed Peg Count	46/7

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
MUP Diagnostics Manually Requested Peg Count	46/7
MUP Diagnostics Program Requested - All Tests Passed Peg Count	46/7
MUP Diagnostics Program Requested Peg Count	46/7
MUP D-Level Counter	20/4
MUP Errors Peg Count	46/7
MUP In-Range D-Level Counter	20/4
MUP Interject Counter	20/4
MUP Located Faults Peg Count	46/7
MUP Non-located Peg Count	46/7
MUP to Client In-Range Counter	20/4
MUP to Client Out-Of-Range Counter	20/4
MUP to CS In-Range Counter	20/4
MUP to CS Out-Of-Range Counter	20/4
MUP to PS In-Range Counter	20/4
MUP to PS Out-Of-Range Counter	20/4
NCLK Accumulated Maintenance Usage	23/2
NCLK Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
NCLK Diagnostics Manually Requested Peg Count	46/5
NCLK Diagnostics Program Requested - All Tests Passed Peg Count	46/5
NCLK Diagnostics Program Requested Peg Count	46/5
NCLK Errors Peg Count	46/5
NCLK Located Faults Peg Count	46/5
NCLK Non-located Peg Count	46/5
NCLK Service Outage Usage	23/2
NCSU Accumulated Maintenance Usage	23/2
NCSU Alternate Frequency Offset Peg Count	5/6
NCSU Alternate Phase Errors Peg Count	5/6
NCSU Alternate Phase Hits Peg Count	5/6
NCSU Alternate Reference OOS Duration	5/6
NCSU Alternate Reference OOS Peg Count	5/6
NCSU Alternate Reference Outage Duration	5/6
NCSU Alternate Reference Outage Peg Count	5/6
NCSU Alternate Transmission Slips Peg Count	5/6
NCSU Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
NCSU Diagnostics Manually Requested Peg Count	46/5
NCSU Diagnostics Program Requested - All Tests Passed Peg Count	46/5
NCSU Diagnostics Program Requested Peg Count	46/5
NCSU Errors Peg Count	46/5
NCSU Free Run Duration	5/6
NCSU Free Run Less Than 10 Minutes Peg Count	5/6
NCSU Free Run Peg Count	5/6
NCSU Located Faults Peg Count	46/5
NCSU Non-located Peg Count	46/5
NCSU Regular Frequency Offset Peg Count	5/6
NCSU Regular Phase Errors Peg Count	5/6
NCSU Regular Phase Hits Peg Count	5/6
NCSU Regular Reference OOS Duration	5/6

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
NCSU Regular Reference OOS Peg Count	5/6
NCSU Regular Reference Outage Duration	5/6
NCSU Regular Reference Outage Peg Count	5/6
NCSU Regular Transmission Slips Peg Count	5/6
NCSU Service Outage Usage	23/2
NCSU Total Fast Start Timeout Peg Count	5/6
NCSU Total Fast Starts Duration	5/6
NCSU Total Fast Starts Peg Count	5/6
NCSU Total Phase Hits Peg Count	5/6
NCSU Total Transfer to Alternate Duration	5/6
NCSU Total Transfer to Alternate Peg Count	5/6
Network Accumulated Maintenance Usage	23/0
Network Call Denial Blocked Queries From CCS Abnormal Replies Control Peg Count	49/0
Network Call Denial Blocked Queries From Congestion Peg Count	49/0
Network Call Denial Blocked Queries From Overload Peg Count	49/0
Network Call Denial Initial Query Peg Count	49/0
Network Call Denial Queries Returned Due to CCS Network Block Replies Peg Count	49/0
Network Call Denial Queries Returned Due to CCS Network Overload Replies	49/0
Network Call Denial Queries Returned Due to Miscellaneous Replies Peg Count	49/0
Network Call Denial Queries Returned Due to No Routing Data Peg Count	49/0
Network Call Denial Queries Returned Due to Overload Peg Count	49/0
Network Call Denial Replies With Deny Code After Answer Supervision Peg Count	49/0
Network Call Denial Replies With Deny Code Before Answer Supervision Peg Count	49/0
Network Call Denial Replies With Deny Codes Peg Count	49/0
Network Call Denial Replies With Invalid Data Peg Count	49/0
Network Management Blocked: Direct Signaling Control	49/0
Network Management Blocked: INWATS 10-digit Code Control	49/0
Network Management Blocked: INWATS 6-digit Code Control	49/0
Network Management Control Blocks Call Peg Count	49/1
Network Management Control Rollbacks Peg Count	21/2
Network Management Controls Invoked Peg Count	21/2
Network Path Hunt Failure Peg Count	4/0
Network Path Hunt Success Peg Count	4/0
Network Total Usage	4/0
No Auxiliary Call Register	49/0
No Circuit Intertoll Peg Count	11/1
No Circuit Private Branch Exchange Peg Count	11/1
No Circuit Single Trunk Customer Peg Count	11/1
No Circuit Toll Completing Peg Count	11/1
No Start Dial Final Trial Group Peg Count	36/4
No Trunks Hunted	9/1
Non-Call Associated Temporary Signaling Connection (TSC) Attempt	5/1
Non-Call Associated Temporary Signaling Connection (TSC) Successes	5/0
Non-Confirmed Transmit Path Failure Carrier Alarm Peg Count	45/8
Non-Load MAC Overload Control Peg Count	9/1
Non-Load No Overload Control Peg Count	9/1
Non-Load Segment Overload Control Peg Count	9/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Normal Route Response Message Received Peg Count	49/1
NSC Received on International Outbound Call Using CCIS Overflow Trunk Subgroup	15/2
NSCX Maintenance Usage	0/2
NSCX Overflow Peg Count	0/2
NSCX Seizure Peg Count	0/2
NSCX Service Usage	0/2
NSCX Set S Accumulated Maintenance Usage	23/3
NSEP Call Failures Due to Non-Signaling-Unavailable Peg Count	55/0
NSEP Call Failures Due to Signaling Unavailable Peg Count	55/0
NSEP Calls Originating on ASTN Peg Count	55/0
NTC Received on International Outbound Call Using CCIS Overflow Trunk Subgroup	15/2
Number Of Recent Changes Activated Peg Count	21/1
ODTMF Transmitter Queue Entry Failures	0/0
ODTMF Transmitter Queue Seizure Peg Count	0/0
ODTMF Transmitter Queue Usage	0/0
ODTMF Transmitter Queue Wait	0/0
ODTMFWK Outgoing Seizure Peg Count	5/1
OMR Overflow Peg Count	16/0
OMR Seizure Peg Count	16/0
OMR Usage	16/0
ONI Calls Peg Count	19/0
Operational Interject Data Unit Selector Peg Count	20/1
Operator Processed CAMA Calls Peg Count	19/0
Originating International Call Incoming From a Domestic Satellite	15/3
Originating INWATS Denied Peg Count	11/2
Originating NSEP Call Attempts Peg Count	55/0
Other Errors - Continuity/Polarity Test Failures Peg Count	36/4
Other Errors - MF Transmitter Outpulsing Errors Peg Count	36/4
Other Errors - No XCVR, Final Trial Failure	36/4
Outbound Customer Dialed Call Peg Count	15/2
Outbound Customer Dialed Call, Voice Path Cancellation Peg Count	15/2
Outbound International Operator Peg Count	15/2
Outbound International Operator, Voice Path Cancellation Peg Count	15/2
Outbound International Teleconferencing Peg Count	15/2
Outbound International Teleconferencing, Voice Path Cancellation Peg Count	15/2
Outbound International Toll-Free Peg Count	15/2
Outbound International Toll-Free, Voice Path Cancellation Peg Count	15/2
Outgoing Address Complete Signal Timeout Peg Count	36/9
Outgoing Answer Signal Units Peg Count	14/0-255
Outgoing Attempts Peg Count	13/CIN
Outgoing Direct Signaling Signal Units Peg Count	14/0-255
Outgoing Domestic CCIS Call Attempts	37/0
Outgoing Domestic DP Call Attempts	37/0
Outgoing Domestic ISUP Call Attempts	37/0
Outgoing Domestic MF Call Attempts	37/0
Outgoing Domestic Q.931 Call Attempts	37/0
Outgoing IAM Peg Count	14/0-255

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Outgoing International CCITT No. 5 Call Attempts	37/1
Outgoing International CCITT No. 6 Call Attempts	37/1
Outgoing International INUP Call Attempts	37/1
Outgoing International ITUP Call Attempts	37/1
Outgoing Transitions Peg Count	14/0-255
Out-of-Chain Routed Calls Failed	11/3
Out-of-Chain Routed Calls Received	11/3
Out-Of-Service Blocking Received (CCIS Trunks) from Far End Office Peg Count	25/4
Out-Of-Service Carrier Group Alarm Peg Count	25/4
Out-Of-Service Continuity Check Retest Failure Peg Count	25/4
Out-Of-Service Equipment Failure, VIU, DTU, ESU Peg Count	25/4
Out-Of-Service Error Analysis Suspected Failure Peg Count	25/4
Out-Of-Service High and Wet Peg Count	25/4
Out-Of-Service Manual Request Peg Count	25/4
Out-Of-Service Operational Test Failure Peg Count	25/4
Out-Of-Service ROTL Request Peg Count	25/4
Out-Of-Service Total Signaling Failure Peg Count (CCIS trunk only)	25/4
Outpulsing Failures Peg Count	11/0
Output Message Failure Peg Count	16/0
Output Message Success Peg Count	16/0
OUTWATS Non-purchased NPA Peg Count	49/0
OUTWATS Originating Calls Peg Count	5/0
Overflow Peg Count	13/CIN
Partial Dial Abandon Peg Count	7/0
Partial Dial Timeout Peg Count	7/0
PBX Reorders Peg Count	11/4
PCP 1A to DLN Failure to Send Query Peg Count	57/0
PCP 1+SACDS Due to Invalid Service Code Received	57/0
PCP 1+SACDS Initial Attempt Failed in Receipt of Service Code	57/0
PCP BN(ANI) Query Attempt CNT for DC and SA LDS	57/0
PCP BN(ANI) Query Attempt CNT for SA WATS	57/0
PCP BN(ANI) Query Attempt Count for MEGACOM and DC WATS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for DC and SA LDS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for MEGACOM and DC WATS	57/0
PCP BN(ANI) Subscribed to Some PCP Feature for SA WATS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for LDS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for MEGACOM and DC WATS	57/0
PCP Call Denied Due to MUVF CTI Improper Collection for SA WATS	57/0
PCP Call Killed Due to DTMF Receiver Queue Overload Count	57/0
PCP Call Subjected to Excessive Delay Count (i.e. Wait on DTMF Receiver Queue >= 2 seconds)	57/0
PCP Calls with SAN Account Code Validation Successful	57/0
PCP CDS Attempts for Which Failure to Reseize Receiver Occurred	57/0
PCP DLN to 1A No Reply From DLN Peg Count	57/0
PCP DTMF Queue Abandon Peg Count	57/0
PCP DTMF Queue Accumulated Occupancy Count	57/0
PCP DTMF Queue Seizure Peg Count	57/0
PCP FAX ID Calls Identified as Using FAX FPR	57/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
PCP FAX S&F Attempts for Which Failure to Seize Receiver Occurs	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for LDS	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for MEGACOM and DC WATS	57/0
PCP FAX S&F Call Denied Due to Invalid Service Code Received for SA WATS	57/0
PCP FAX S&F DTMF Receiver Timeout in Wait for ANS State	57/0
PCP FAX S&F Initial Attempt Fail in Receipt of Service Code	57/0
PCP FAX S&F Successfully Attempted Routing to a FAX S&F Node	57/0
PCP Handled Customer Specific Recording Successfully for LDS	57/0
PCP Handled Customer Specific Recording Successfully for MEGACOM and DC WATS	57/0
PCP Handled Customer Specific Recording Successfully for SA WATS	57/0
PCP Handled Dedicated FAX ID Successfully for LDS	57/0
PCP Handled Dedicated FAX ID Successfully for MEGACOM and DC WATS	57/0
PCP Handled Dedicated FAX ID Successfully for SA WATS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for LDS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for MEGACOM and DC WATS	57/0
PCP Handled FAX S&F Attempt to Seize a DTMF Receiver for SA WATS	57/0
PCP MUVF CTI Collected Successfully for LDS	57/0
PCP MUVF CTI Collected Successfully for MEGACOM and DC WATS	57/0
PCP MUVF CTI Collected Successfully for SA WATS	57/0
PCP MUVF Initial Attempt Failed in Receipt of CTI	57/0
PCP Receiver Holding Time in Sec for 1+SACDS	57/0
PCP Receiver Holding Time in Sec for FAX S&F	57/0
PCP Receiver Holding Time in Sec for MUVF	57/0
PCP Receiver Holding Time in Sec for SAN	57/0
PCP SAB Call Denied Due to Improper Collection for LDS	57/0
PCP SAB Call Denied Due to Improper Collection for MEGACOM and DC WATS	57/0
PCP SAB Call Denied Due to Improper Collection for SA WATS	57/0
PCP SAB Calls Allowed to Complete with No SAN Received	57/0
PCP SAB Calls Allowed to Complete with SAN Received and it was Mandatory	57/0
PCP SAB Calls Allowed to Complete with SAN Received and it was Optional	57/0
PCP SAN Denied - none entered and was mandatory	57/0
PCP SAN No Data in DLN Peg Count	57/0
PCP SAN Validation Success Peg Count	57/0
PCP Subaccount Number Collected Successfully for LDS	57/0
PCP Subaccount Number Collected Successfully for MEGACOM and DC WATS	57/0
PCP Subaccount Number Collected Successfully for SA WATS	57/0
PCP Subaccount Number Initial Attempt Failed Count	57/0
PCP TOTAL 1+SACDS Attempts to Seize a Receiver	57/0
PCP TOTAL 1+SACDS Successfully Attempted Routing to VMOC	57/0
PCP Total MUVF Calls Identified as Being FAX	57/0
PCP Total SAN Account Code Verification Failures	57/0
PCP Using 2NCP/NSCX Peg Count	57/0
PDF Accumulated Maintenance Usage	23/1
PDF Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
PDF Diagnostics Manually Requested Peg Count	46/0
PDF Diagnostics Program Requested - All Tests Passed Peg Count	46/0
PDF Diagnostics Program Requested Peg Count	46/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
PDF Errors Peg Count	46/0
PDF Located Faults Peg Count	46/0
PDF Non-located Peg Count	46/0
Permanent Signal Timeout Peg Count	7/0
Persisting Proceed-To-Send Signal Peg Count	25/16
Persisting Release Guard Signal Peg Count	25/16
Phase 1 Manually Initiated Peg Count	21/0
Phase 1 Program Initiated Peg Count	21/0
Phase 2 Manually Initiated Peg Count	21/0
Phase 2 Program Initiated Peg Count	21/0
Phase 3 Manually Initiated Peg Count	21/0
Phase 3 Program Initiated Peg Count	21/0
Phase 4 Manually Initiated Peg Count	21/0
Phase Level Duration Count	21/0
Play Announcement Message from SCP Peg Count	49/0
Play Announcement Message from the SCP Peg Count	49/1
Power Room Major Alarms Peg Count	20/2
Power Room Minor Alarms Peg Count	20/2
Preferred Call Attempts Peg Count	13/CIN
Proceed-To-Send Signal Timeout Peg Count	25/16
Processor Accumulated Maintenance Usage	23/0
PS Accumulated Maintenance Usage	23/1
PS Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
PS Diagnostics Manually Requested Peg Count	46/0
PS Diagnostics Program Requested - All Tests Passed Peg Count	46/0
PS Diagnostics Program Requested Peg Count	46/0
PS Errors Peg Count	46/0
PS Located Faults Peg Count	46/0
PS Non-located Peg Count	46/0
PSB Accumulated Maintenance Usage	23/1
PSB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
PSB Diagnostics Manually Requested Peg Count	46/2
PSB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
PSB Diagnostics Program Requested Peg Count	46/2
PSB Errors Peg Count	46/2
PSB Located Faults Peg Count	46/2
PSB Non-located Peg Count	46/2
Pseudo Country Code No Good Peg Count	5/5
PUB Accumulated Maintenance Usage	23/1
PUB Diagnostics Manually Requested - All Tests Passed Peg Count	46/2
PUB Diagnostics Manually Requested Peg Count	46/2
PUB Diagnostics Program Requested - All Tests Passed Peg Count	46/2
PUB Diagnostics Program Requested Peg Count	46/2
PUB Errors Peg Count	46/2
PUB Located Faults Peg Count	46/2
PUB Non-located Peg Count	46/2
Q.931 Channel Negotiation (CN) Failures On Originating TSG	49/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Q.931 Channel Negotiation (CN) Request Failures From Other TSG	49/0
Q.931 Channel Negotiation (CN) Request Failures To Another TSG	49/0
Q.931 Channel Negotiation (CN) Requests From Other TSG	49/0
Q.931 Channel Negotiation (CN) Requests on Original TSG	49/0
Q.931 Channel Negotiation (CN) Requests to Another TSG	49/0
Q.931 Channel Negotiation Setup	5/1
Q.931 Confusion Received Peg Count	45/0
Q.931 Confusion Transmitted Peg Count	45/0
Q.931 Continuity/Polarity Test Failure Peg Count	25/3
Q.931 Control Area False Start Abandon Peg Count	25/1
Q.931 Control Area Partial Dial Abandon Peg Count	25/1
Q.931 Control Area Partial Dial Timeout Peg Count	25/1
Q.931 Control Area Permanent Signal Timeout Peg Count	25/1
Q.931 Control Area Summation False Start Abandon Peg Count	36/1
Q.931 Control Area Summation Miscellaneous Abandon Peg Count	36/4
Q.931 Control Area Summation Partial Dial Abandon Peg Count	36/2
Q.931 Control Area Summation Partial Dial Timeout Peg Count	36/2
Q.931 Control Area Summation Permanent Signal Timeout Peg Count	36/1
Q.931 Control Area Summation Pulsing Error Peg Count	36/2
Q.931 CR Seizure Peg Count	17/0
Q.931 Glare Condition - 4ESS Switch in Control Peg Count	25/3
Q.931 Glare Condition - Far End in Control Peg Count	25/3
Q.931 Incoming Attempts Peg Count	25/5
Q.931 Incoming CNI Ring Buffer Overflow Peg Count	45/0
Q.931 Incoming CNI Ring Failure Peg Count	45/0
Q.931 Incoming Seizures	5/1
Q.931 Incomplete Address Detected Peg Count	36/0
Q.931 Information Element Error Detected Peg Count	36/0
Q.931 Integrity Check Failure Peg Count	25/3
Q.931 Maintenance Usage	25/5
Q.931 Miscellaneous Abandon Peg Count	25/2
Q.931 Miscellaneous Ineffective Attempts Peg Count	11/4
Q.931 No Start Dial Peg Count	25/3
Q.931 Origination CR Queue Abandon Peg Count	17/0
Q.931 Origination CR Queue Overflow Peg Count	17/0
Q.931 Origination CR Queue Seizure Peg Count	17/0
Q.931 Origination CR Queue Usage	17/0
Q.931 Other Abandons Peg Count	11/4
Q.931 Outgoing Attempts Peg Count	25/5
Q.931 Outgoing CNI Ring Failure Peg Count	45/0
Q.931 Outgoing CNI Ring Overflow Peg Count	45/0
Q.931 Outgoing Seizures	5/1
Q.931 Pulsing Error Peg Count	25/1
Q.931 Resets Received Peg Count	45/0
Q.931 Switching Cutoffs Peg Count	11/4
Q.931 Total Office False Start Abandon Peg Count	7/0
Q.931 Total Office Partial Dial Abandon Peg Count	7/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Q.931 Total Office Partial Dial Timeout Peg Count	7/0
Q.931 Total Office Permanent Signal Timeout Peg Count	7/0
Q.931 Unexpected Stop Peg Count	25/3
Q.931 Unexpected Stop Timeout Peg Count	25/3
Q.931 Unreasonable Signal Received Peg Count	36/0
Quick Integrity Check Routine Operational Tests Attempted Peg Count	25/9
Quick Integrity Check Routine Operational Tests Failed Peg Count	25/9
Quick Integrity Check Routine Operational Tests Passed Peg Count	25/9
Real-Time Overload Retry Cancel Peg Count	36/4
Received Repeated ACU Peg Count	14/0-255
Received Skipped ACU Peg Count	14/0-255
Recorded Announcement Machine Located Faults Peg Count	35/1
Recorded Announcement Machine Maintenance Busy Occupancy	35/0
Recorded Announcement Machine Non-located Faults Peg Count	35/1
Registers From Attendant Peg Count	56/0-2
Reject Message Returned from SCP Peg Count	49/0
Release-Guard Signal Timeout Peg Count	25/16
Remote Office Test Line Maintenance Busy Occupancy	35/0
Remote Office Test Line Seizure Attempts Peg Count	35/1
Remote Office Test Line Seizure Overflow Peg Count	35/1
Remote Office Test Line Self-Check Fail Peg Count	35/1
Remote Office Test Line Total Usage	35/1
Reroute To Seizure Peg Count	13/CIN
Resource Unavailable After Initial Query Peg Count	49/1
Resource Unavailable Before Initial Query Peg Count	49/1
Response from SCP After Query Timer Timeout Peg Count	49/0
Retest QIC Failed - Non-Confirmed Transmit Path Failure Restoral Peg Count	45/8
Return Error or Reject Message Peg Count	49/1
Return Error Returned from SCP Peg Count	49/0
Ringing and Tone Plant Located Faults Peg Counts	35/1
Ringing and Tone Plant Maintenance Busy Occupancy	35/0
Ringing and Tone Plant Non-located Faults Peg Count	35/1
Route Selection Index Screening Failure Peg Count	11/2
Routing Data Error	11/4
RTNR Egress Busy Crankback Received Peg Count	45/0
RTNR Egress Busy Crankbacks Sent Peg Count	45/0
RTNR Queries Received Peg Count	45/0
RTNR Queries Sent Peg Count	45/0
SCLK Accumulated Maintenance Usage	23/2
SCLK Diagnostics Manually Requested - All Tests Passed Peg Count	46/5
SCLK Diagnostics Manually Requested Peg Count	46/5
SCLK Diagnostics Program Requested - All Tests Passed Peg Count	46/5
SCLK Diagnostics Program Requested Peg Count	46/5
SCLK Errors Peg Count	46/5
SCLK Located Faults Peg Count	46/5
SCLK Non-located Peg Count	46/5
SCLK Service Outage Usage	23/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
SCP Overload Blocked BOC-SSP Calls Peg Count	49/0
SCS Accumulated Maintenance Usage	24/1
SCS Accumulated Outage	24/1
SCS Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
SCS Diagnostics Manually Requested Peg Count	24/2
SCS Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SCS Diagnostics Program Requested Peg Count	24/2
SCS Errors Peg Count	24/2
SCS Located Faults Peg Count	24/2
SCS Non-located Faults Peg Count	24/2
SCU Accumulated Maintenance Usage	24/1
SCU Accumulated Outage	24/1
SCU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
SCU Diagnostics Manually Requested Peg Count	24/2
SCU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SCU Diagnostics Program Requested Peg Count	24/2
SCU Errors Peg Count	24/2
SCU Located Faults Peg Count	24/2
SCU Non-located Faults Peg Count	24/2
Second Stage Equal Access Failure Peg Count	15/0
Second Stage International Attempts	15/0
Second Stage International Vacant Codes	15/0
Second Stage MF Receiver Queue Abandon Peg Count	17/1
Second Stage MF Receiver Queue Seizure Peg Count	17/1
Second Stage MF Receiver Queue Usage	17/1
Seizing Signal Timeout Final Trial Failure Peg Count	36/8
Seizing Signal Timeout Peg Count	25/16
Selective Dynamic Overload Control Blocked Peg Count	11/3
Selective Dynamic Overload Control Canceled Peg Count	11/3
Selective Dynamic Overload Control Skipped Peg Count	11/3
Selective Incoming Load Control Peg Count	21/2
Selective Incoming Load Control	13/CIN
Selective Trunk Reservation Canceled Peg Count	11/3
Selective Trunk Reservation Control Blocked Peg Count	11/3
Selective Trunk Reservation Skipped Peg Count	11/3
Serial-Triggering Limit Overflow Peg Count	49/1
Service Circuits Accumulated Maintenance Usage	23/0
Service Observing Network Usage	4/1
Service Observing Trunk A Seizure Peg Count	5/7
Service Observing Trunk A Usage	5/7
Signaling Failure - Time-out at SSP Peg Count	49/1
Signaling Network Final Trial Failures Peg Count	36/7
SMS Blocked BOC-SSP Call Peg Count	49/0
Software CGA Initial Tests Failure Peg Count	45/1
Software CGA Initial Tests Pass Peg Count	45/1
Software CGA Monitor Tests Pass Peg Count	45/1
Software CGA Restoral Tests Failure Peg Count	45/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Software CGA Restoral Tests Pass Peg Count	45/1
SP Accumulated Maintenance Usage	24/1
SP Accumulated Outage	24/1
SP Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
SP Diagnostics Manually Requested Peg Count	24/2
SP Diagnostics Program Requested - All Tests Passed Peg Count	24/2
SP Diagnostics Program Requested Peg Count	24/2
SP Errors Peg Count	24/2
SP Located Faults Peg Count	24/2
SP Non-located Faults Peg Count	24/2
SPC Number	12/0
Spray Reroute Attempts	13/CIN
Spray Reroute Calls Received	13/CIN
Spray Reroute Failures	13/CIN
SSD Accumulated Maintenance Usage	23/5
SSD Diagnostics Manually Requested - All Tests Passed Peg Count	46/7
SSD Diagnostics Manually Requested Peg Count	46/7
SSD Diagnostics Program Requested - All Tests Passed Peg Count	46/7
SSD Diagnostics Program Requested Peg Count	46/7
SSD D-Level Counter	20/4
SSD Errors Peg Count	46/7
SSD In-Range D-Level Counter	20/4
SSD Located Faults Peg Count	46/7
SSD Non-located Peg Count	46/7
SSD to Client In-Range Counter	20/4
SSD to Client Out-Of-Range Counter	20/4
Stable Calls Lost, Carrier Group Failure Peg Count	5/3
Stable Calls Lost Due to a Phase Peg Count	36/6
Stable Calls Lost Due to DIU Peg Count	36/6
Stable Calls Lost Due to DTU Peg Count	36/6
Stable Calls Lost Due to ESU Peg Count	36/6
Stable Calls Lost Due to SCS Peg Count	36/6
Stable Calls Lost Due to VIU Peg Count	36/6
Start of Pulsing Timeout Peg Count	25/16
Status Failure Attached Processor Peg Count	20/1
Step by Step Test Routine Operational Tests Attempted Peg Count	25/9
Step by Step Test Routine Operational Tests Failed Peg Count	25/9
Step by Step Test Routine Operational Tests Passed Peg Count	25/9
Successful INWATS Replies Peg Count	49/0
Synchronous Test Routine Operational Tests Attempted Peg Count	25/9
Synchronous Test Routine Operational Tests Failed Peg Count	25/9
Synchronous Test Routine Operational Tests Passed Peg Count	25/9
TELEVOTE CCIS Direct Signaling Counts Not Updated	5/9
TER Accumulated Maintenance Usage	23/2
TER Service Outage Usage	23/2
Terminal Equipment Accumulated Maintenance Usage	24/0
Terminal Maintenance Occupancy	14/0-255

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Terminal Pair Outage	14/0-255
Terminal Type Identifier	14/0-255
Termination Notification Messages Lost Peg Count	49/2
Termination Notification Requests Received Peg Count	49/1
Termination Notification Response Peg Count	49/2
Test Access Circuit Origination Peg Count	25/10
TGR Accumulated Maintenance Usage	23/2
TGR Service Outage Usage	23/2
Threshold Exceeded Peg Counts	14/0-255
Threshold Exceeded Time in Seconds	14/0-255
Timeout Peg Count	25/16
Timeout Waiting for SCP Response Peg Count	49/0
Timeouts Peg Count	56/0-2
TMS Accumulated Maintenance Usage	23/2
TMS Service Outage Usage	23/2
TMSP Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
TMSP Diagnostics Manually Requested Peg Count	46/3
TMSP Diagnostics Program Requested - All Tests Passed Peg Count	46/3
TMSP Diagnostics Program Requested Peg Count	46/3
TMSP Errors Peg Count	46/3
TMSP Located Faults Peg Count	46/3
TMSP Non-located Peg Count	46/3
Total Attempts That Overflow to Terminating Test Line 100	25/8
Total Attempts That Overflow to Terminating Test Line 102	25/8
Total Attempts That Overflow to Terminating Test Line 103	25/8
Total Attempts That Overflow to Terminating Test Line 104	25/8
Total Attempts That Overflow to Terminating Test Line 105	25/8
Total Attempts That Overflow to Terminating Test Line 106	25/8
Total Attempts That Overflow to Terminating Test Line 107	25/8
Total Attempts That Overflow to Terminating Test Line 108	25/8
Total Attempts That Overflow to Terminating Test Line 109	25/8
Total Attempts That Overflow to Terminating Test Line 110	25/8
Total Attempts That Overflow to Terminating Test Line DATA	25/8
Total Attempts That Overflow to Terminating Test Line SYNCHRONOUS	25/8
Total Attempts to PAS Announcements	5/8
Total Attempts to Terminating Test Line 100	25/8
Total Attempts to Terminating Test Line 102	25/8
Total Attempts to Terminating Test Line 103	25/8
Total Attempts to Terminating Test Line 104	25/8
Total Attempts to Terminating Test Line 105	25/8
Total Attempts to Terminating Test Line 106	25/8
Total Attempts to Terminating Test Line 107	25/8
Total Attempts to Terminating Test Line 108	25/8
Total Attempts to Terminating Test Line 109	25/8
Total Attempts to Terminating Test Line 110	25/8
Total Attempts to Terminating Test Line DATA	25/8
Total Attempts to Terminating Test Line SYNCHRONOUS	25/8

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Total CAMA Calls Peg Count	19/0
Total CAMA Positions Seizure Peg Count	19/0
Total CAMA Positions Service Usage	19/0
Total Demand Audits Completed Peg Count	22/0
Total Demand Audits Errors Found Peg Count	22/1
Total Final Handled Calls Peg Count	56/0-2
Total Incoming Calls Peg Count	5/0
Total Incoming Data Filled Signal Units Peg Count	14/0-255
Total Incoming Messages Peg Count	14/0-255
Total Ineffective Machine Attempts Peg Count	25/0
Total INWATS Calls Reaching CCIS OSO Peg Count	49/0
Total Number of Bad Packets Received Peg Count	56/4
Total Number of Errored Commands Peg Count	56/4
Total Number of Framing and Overrun Errors Peg Count	56/4
Total Number of Good Packets Received Peg Count	56/4
Total Number of Inter-Gateway CRC Errors Peg Count	56/4
Total Number of Lost Messages Peg Count	56/4
Total Number of Messages Not Sent Between Gateways Peg Count	56/4
Total Number of Orders Peg Count	56/4
Total Number of Orders with Start of Call Indicator Set Peg Count	56/4
Total Number of Packets with CRC Errors Peg Count	56/4
Total Number of Register Messages Failed to be Sent Peg Count	56/4
Total Number of Register Messages Not Sent due to Congestion Peg Count	56/4
Total Number of Register Messages Peg Count	56/4
Total Number of Register Messages That Did Not Receive a Release Complete Peg Count	56/4
Total Number of SADC Port Errors Peg Count	56/4
Total Number of Test Orders Sent Peg Count	56/4
Total Number of Times That Message Queue Overflowed Peg Count	56/4
Total Number of Times the Secondary Gateway was Used Peg Count	56/4
Total Number of TNR Operational Orders for Start of Call Peg Count	56/5
Total Number of TNR Orders Peg Count	56/5
Total Number of Unacknowledged Register Messages Peg Count	56/4
Total Number of USEC CRC Errors Peg Count	56/4
Total of Multiple A-Level Interrupts Peg Count	20/0
Total of Multiple B-Level Interrupts Peg Count	20/0
Total of Multiple C-Level Interrupts Peg Count	20/0
Total of Multiple D-Level Interrupts Peg Count	20/0
Total of Multiple E-Level Interrupts Peg Count	20/0
Total of Multiple F-Level Interrupts Peg Count	20/0
Total of Multiple G-Level Interrupts Peg Count	20/0
Total of Single A-Level Interrupts Peg Count	20/0
Total of Single B-Level Interrupts Peg Count	20/0
Total of Single C-Level Interrupts Peg Count	20/0
Total of Single D-Level Interrupts Peg Count	20/0
Total of Single E-Level Interrupts Peg Count	20/0
Total of Single F-Level Interrupts Peg Count	20/0
Total of Single G-Level Interrupts Peg Count	20/0

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
Total of Single K-Level Interrupts Peg Count	20/0
Total Office Pulsing Error Peg Count	11/0
Total Outgoing Data Filled Signal Units Peg Count	14/0-255
Total Outgoing Intertoll Trunk Seizure Peg Count	5/0
Total Outgoing Messages Peg Count	14/0-255
Total Outgoing Toll Completing Trunk Seizure Peg Count	5/0
Total Routine Audits Completed Peg Count	22/0
Total Routine Audits Errors Found Peg Count	22/1
Total Terminating Toll Switch Calls	5/0
Total Test Access Circuit Usage	25/10
Total Type 2 Rollbacks Peg Count	21/1
Total Usage Measurement	13/CIN
Total Via Toll Switch Calls	5/0
Traffic Separation Class Seizure Peg Count	10/0-1023
Traffic Separation Class Usage	10/0-1023
Transaction ID in SCP Response Was Invalid Peg Count	49/0
Transient Calls Lost Due to a Phase Peg Count	36/6
Transient Calls Lost Due to DIU Peg Count	36/6
Transient Calls Lost Due to DTU Peg Count	36/6
Transient Calls Lost Due to ESU Peg Count	36/6
Transient Calls Lost Due to SCS Peg Count	36/6
Transient Calls Lost Due to VIU Peg Count	36/6
Transmitter Error Final Trial Failure Peg Count	36/8
Transmitter Error Peg Count	25/16
Trunk Error Analysis Long Term Table Overflow For Signal Processor Peg Count	43/0-31
Trunk Error Analysis Report Buffer Overflow Peg Count	44/0
Trunk Error Analysis Second Stage Filter Overflow For Signal Processor Peg Count	42/0-31
Trunk Maintenance Register Overflow Peg Count	17/3
Trunk Maintenance Register Seizure Attempts Peg Count	35/3
Trunk Maintenance Register Seizure Overflow Peg Count	35/3
Trunk Maintenance Register Seizure Peg Count	17/3
Trunk Maintenance Register Usage	17/3
Trunk Maintenance Usage	25/0
Trunks Blocked Due To Far End Equipment Problems Peg Count	45/2
TSG Access Restriction Peg Count	11/3
TSI Accumulated Maintenance Usage	23/2
TSI Diagnostics Manually Requested - All Tests Passed Peg Count	46/3
TSI Diagnostics Manually Requested Peg Count	46/3
TSI Diagnostics Program Requested - All Tests Passed Peg Count	46/3
TSI Diagnostics Program Requested Peg Count	46/3
TSI Errors Peg Count	46/3
TSI Located Faults Peg Count	46/3
TSI Non-located Peg Count	46/3
TSI Number	12/0
TSI Service Outage Usage	23/2
TSI Usage Measurement	12/0
TUC Accumulated Maintenance Usage	23/1

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
TUC Diagnostics Manually Requested - All Tests Passed Peg Count	46/0
TUC Diagnostics Manually Requested Peg Count	46/0
TUC Diagnostics Program Requested - All Tests Passed Peg Count	46/0
TUC Diagnostics Program Requested Peg Count	46/0
TUC Errors Peg Count	46/0
TUC Located Faults Peg Count	46/0
TUC Non-located Peg Count	46/0
Two Stage EA Pulsing Errors	15/4
Two Stage MF Permanent Signal Timeout	15/4
Two Stage MF Receiver Not Found	15/4
Two Stage Partial Dial Timeout	15/4
Two Stage Permanent Signal Timeout	15/4
Two Stage Pulsing Errors	15/4
Two Stage VSS MF Receiver Not Found	15/4
Two Stage VSS Pulsing Errors	15/4
Unauthorized CAMA Peg Count	18/0
Unblocking Acknowledgement Timeout Peg Count	25/17
Undetermined Call ID in a Response from the SCP Which Contained Protocol Errors Peg Count	49/0
Unexpected Stop Failures Final Trial Group Peg Count	36/4
Unit Data Service Messages Returned by STP Peg Count	49/0
Unreasonable Signal Final Trial Failure Peg Count	36/8
Unreasonable Signal on an Idle CCITT No. 6 Trunk Peg Count	25/16
Unreasonable Signal on the Incoming Trunk Peg Count	25/16
Unreasonable Signal on the Outgoing Trunk Peg Count	25/16
Unreasonable Signal Peg Count	25/16
Vacant Code Announcement Peg Count	11/2
Vacant Code Announcement Private Branch Exchange Peg Count	11/2
Vacant Code Announcement Q.931 Peg Count	11/2
Vacant Code/Non-Purchased NPA BOC-SSP Calls Blocked Due To Excess Calling Peg Count	49/0
Vendor Rejection Peg Count	56/0-2
VFL-1 Far-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-1 Near-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-1 Quarter Hour in Service Peg Count	14/0-255
VFL-1 Retransmission Requests Peg Count	14/0-255
VFL-1 Signal Units in Error Peg Count	14/0-255
VFL-2 Far-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-2 Near-end Initiated Automatic Changeovers Peg Count	14/0-255
VFL-2 Quarter Hour in Service Peg Count	14/0-255
VFL-2 Retransmission Requests Peg Count	14/0-255
VFL-2 Signal Units in Error Peg Count	14/0-255
VIC Accumulated Maintenance Usage	24/1
VIC Accumulated Outage	24/1
VIC Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
VIC Diagnostics Manually Requested Peg Count	24/2
VIC Diagnostics Program Requested - All Tests Passed Peg Count	24/2
VIC Diagnostics Program Requested Peg Count	24/2
VIC Errors Peg Count	24/2

FIGURE 2 (CONTINUED)

ALPHABETIC LIST OF TRAFFIC/PLANT MEASUREMENTS
WITH MSC AND OMS DEFINITIONS

Measurement	MSC/OMS
VIC Located Faults Peg Count	24/2
VIC Non-located Faults Peg Count	24/2
VIU Accumulated Maintenance Usage	24/1
VIU Accumulated Outage	24/1
VIU Diagnostics Manually Requested - All Tests Passed Peg Count	24/2
VIU Diagnostics Manually Requested Peg Count	24/2
VIU Diagnostics Program Requested - All Tests Passed Peg Count	24/2
VIU Diagnostics Program Requested Peg Count	24/2
VIU Errors Peg Count	24/2
VIU Located Faults Peg Count	24/2
VIU Non-located Faults Peg Count	24/2
Voice Path Assurance (VPA) Test Attempted Peg Count	25/6
Voice Path Assurance (VPA) Test Completed Peg Count	25/6
Voice Path Assurance (VPA) Test Failure Peg Count	25/6
Waiting-for-Answer Call Failure Peg Count	36/9
Waiting-for-Answer Timeout Peg Count	36/9
XPWR Accumulated Maintenance Usage	23/5
XPWR Diagnostics Manually Requested - All Tests Passed Peg Count	46/7
XPWR Diagnostics Manually Requested Peg Count	46/7
XPWR Diagnostics Program Requested - All Tests Passed Peg Count	46/7
XPWR Diagnostics Program Requested Peg Count	46/7
XPWR Errors Peg Count	46/7
XPWR Located Faults Peg Count	46/7
XPWR Non-located Peg Count	46/7

SECTION 2 - TRAFFIC/PLANT MEASUREMENTS INPUT MESSAGES

Section

2a	Add TSI usage
2b	Delete TSI usage
2c	Measurement reports
2d	TSI usage list
2e	Build or change a measurement report or a schedule
2f	Verify measurement reports
2g	Build a TDASMC

ALW:USGMEAS:TSI a/a,SPC b

TRAFFIC MEASUREMENTS INPUT - ADD TSI USAGE

1. GENERAL

1.01 This input message is used to add a Time Slot Interchange (TSI) to a list of TSIs that are scanned for usage by the traffic measurements program. One half of a TSI can be added with one input message. This is defined by specifying the frame and the switching and permuting circuit of which there are two (0-1). To add an entire frame requires two input messages. If this input message is aborted, the set of TSIs currently being measured for usage should be verified by inserting a separate input message (OP:MEASTSI!-Division 10, Section 2d) so it can be determined if any changes were made.

1.02 The measurement subclass (MSC 12) and Output Measurement Set (OMS 0) required to assign TSI usage measurements are detailed in Division 10, Section 1a. The input message used to assign MSC 12-OMS 0 to a measurement report is described in Division 10, Section 2e.

2. FORM ENTRIES

2.01 `ALW:USGMEAS:TSI a/a,SPC b !`

The above format represents the entries that comprise the traffic measurements input message. The first series of letters identify a particular message to the machine. The acronyms following identify the fields that require data input. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash (/) designates an optional item. Those letters without a slash are required as the minimum input for the message. The exclamation point following each message denotes the end of the input message. The following paragraphs define the possible entries for each of the variable items.

2.02 `TSI a/a`

Time Slot Interchange - Enter the number of the TSI that contains the SPC to be measured for usage. Valid inputs are 0 to 63.

2.03 `SPC b!`

Switching and Permuting Circuit - Enter the SPC of the TSI that is to be measured for usage. Valid inputs are 0 or 1.

```
INPUT:
          ALW:USGMEAS:TSI aa,SPC b!

  ex 1    ALW:USGMEAS:TSI 12,SPC 0!




OUTPUT:
          aaa:USGMEAS:TSI bb SPC c d...d

                  a = ALW or INH

                  b = TSI number (0-63)

                  c = SPC number (0-1)

                  d = Text phrases forming one of the
                      following dispositions;

                      1 - Completed
                      2 - Aborted
                      3 - Not started
                      4 - Not started uneq
                      5 - Not started previously asn
                      6 - Not started 8 previously asn
```

FIGURE 1

SAMPLE MESSAGES

INH:USGMEAS:TSI a/a,SPC b!

TRAFFIC MEASUREMENTS INPUT - DELETE TSI USAGE

1. GENERAL

1.01 This input message is used to delete a Time Slot Interchange (TSI) from a list of TSIs that are scanned for usage by the traffic measurements program. One half of a TSI can be deleted with one input message. This is defined by specifying the frame and the switching and permuting circuit of which there are two (0-1). To delete an entire frame requires two input messages. If this input message is aborted the set of TSIs currently being measured for usage should be verified by inserting a separate input message (OP: MEASTSI!DIVISION 10, SECTION 2d) so it can be determined if any changes were made.

2. FORM ENTRIES

2.01 INH:USGMEAS:TSI a/a,SPC b !

The above format represents the entries that comprise the traffic measurements input message. The first series of letters identify a particular message to the machine. The acronyms following identify the fields that require data input. These fields are separated by a colon (:), semicolon(;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash a/ designates an optional item. Those letters without a slash are required as the minimum input for the message. The exclamation point following each message denotes the end of the input message. The following paragraphs define the possible entries for each of the variable items.

2.02 TSI a/a

Time Slot Interchange - Enter the number of the TSI that contains the SPC to be deleted. Valid inputs are 0 to 63.

2.03 SPC b!

Switching and Permuting Circuit - Enter the SPC of the TSI that is to be deleted. Valid inputs are 0 to 1.

```
INPUT:


     INH:USGMEAS:TSI a,SPC b!

ex.  IHN:USGMEAS:TSI 3,SPC 1!
sp5
OUTPUT:


     aaa:USGMEAS:TSI b SPC c d----d

     a = ALW or INH

     b = TSI number (0-63)

     c = SPC number (0-1)

     d = Text phrases forming one of the following
         dispositions:

                    1 - Completed
                    2 - Aborted
                    3 - Not started
                    4 - Not started uneq
                    5 - Not started unas
```

FIGURE 1

SAMPLE MESSAGES

ØP:MEASREPT áá:b...b,ć ć ć ć ć ć!

TRAFFIC MEASUREMENTS INPUT

MEASUREMENT REPORTS

1. GENERAL

1.01 This input message requests the printout of several types of measurements that may be assigned to a measurement report. There are six input possibilities and five output messages which result from them. See Figure 1 for a list of inputs and outputs and their related sections.

2. FORM ENTRIES

2.01 ØP:MEASREPT áá:b...b,ć ć ć ć ć ć!

The above format represents the entries that comprise the traffic measurements input message. The first series of letters identify a particular message to the machine. The acronyms following identify the fields that require data input. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash á designates an optional item. Those letters without a slash are required as the minimum input for the message. The exclamation point (!) following each message denotes the end of the input message. The following paragraphs define the possible entries for each of the variable items.

2.02 áá

The measurement report number is entered in this field. Valid entries are 0-23, or 1-23 with 4E8 and later Generic Programs. When the field following (b...b) contains ATT, OTT or SPAREMEM the measurement report number is not allowed as an input.

2.03 b...b

This is a variable field in which a keyword may be entered to request the desired output message. The valid entries are as follows:

MSCOMS - Measurement Subclass and Output Measurement Set pairs. This entry requests a printout of all MSCOMS pairs that are currently assigned to the report number appearing in the áá field.

ATT - Accumulation Time Table - This keyword is entered when requesting a printout of the entire ATT. A portion of the ATT may be requested by using the c...c field.

OTT - Output Time Table - This keyword is used to request a printout of the entire OTT. A portion of the OTT may be requested by using the c...c field.

TSG - Trunk Subgroup - This keyword is used to request a printout of all TSG circuit identification names (CINs) and TSG sizes that are currently assigned to the measurement schedule specified in the áá field.

SPAREMEM - A printout of the amount of spare memory available for report accumulation and report related data is requested with this keyword.

2.04 c...c! - This field is used to request a portion of an ATT or OTT. An input of SUN through SAT requests all of a time table for the day specified. An additional four digits may be used to request a smaller portion of a time table. The first two digits are the hour (00-23) and the last two digits are the minutes of the hour (00, 15, 30, 45).

INPUT:

ØP:MEASREPT *aa*:b...b,*cccccccc*!

ex. 1 ØP:MEASREPT 14:MSCØMS!

ex. 2 ØP:MEASREPT:ATT!

ex. 3 ØP:MEASREPT:ATT,MØN!

ex. 4 ØP:MEASREPT:ØTT,MØN 1400!

ex. 5 ØP:MEASREPT:ØTT,TUE (1515,1615)!

ex. 6 ØP:MEASREPT:ØTT,FRI (915-1115)!

ex. 7 ØP:MEASREPT 2:TSG!

ex. 8 ØP:MEASREPT:SPAREMEM!

ex. 9 ØP:MEASREPT 3:MSCØMS,TSG!

OUTPUT:

ØP:MEASREPT *a*:MSCOMS b...b(Division 10, Section 3c)

ØP:MEASREPT:ATT(or OTT) b...b (Division 10, Section 3d)

ØP:MEASREPT a:TSG b...b (Division 10, Section 3e)

ØP:MEASREPT:SPAREMEM a...a (Division 10, Section 3f)

FIGURE 1

SAMPLE MESSAGES

ØP:MEASTSI!

TRAFFIC MEASUREMENTS INPUT - TSI USAGE

1. GENERAL

1.01 This input message is used to request the list of Time Slot Interchanges (TSIs) that are currently being scanned for usage by the traffic measurements program.

2. MESSAGE

2.01 There are no variables in this input message. From 0 to 8 TSIs may appear on the list.

```
INPUT:
          ØP:MEASTSI!
```

```
OUTPUT:
          ØP:MEASTSI a...a (Division 10, Section 3g)
          TSIF SPC  TSIF SPC  TSIF SPC  TSIF SPC
           bb   c    bb   c    bb   c    bb   c
           bb   c    bb   c    bb   c    bb   c
```

FIGURE 1

SAMPLE MESSAGES

SCHED:MEASREPT a[a];bbb:[c...c]!

TRAFFIC/PLANT MEASUREMENTS INPUT

TRAFFIC SCHEDULES/MEASUREMENT REPORTS

1. GENERAL

1.01 This input message is used to establish a new measurement report and to add or delete items from an existing measurement report. It is also used to add or delete a traffic schedule which specifies the accumulation interval and schedules the accumulation and output times for a measurement report.

1.02 It must be recognized that for all input messages only one line of 80 characters is allowed for each message. If more than 80 characters are required, the input message must be split into two or more messages, each one not exceeding the 80 character limit.

2. FORM ENTRIES

2.01 SCHED:MEASREPT a[a];bbb:[c...c]!

The above format represents the entries that comprise the traffic measurement input message. The first series of letters identifies a particular message to the 4 ESS. The following acronyms identify the fields that require data input. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash [and] designate an optional item. Those letters without a slash are required as the minimum input for the message. The exclamation point (!) following each message denotes the end of the input message. The following paragraphs define the possible entries for each of the variable items.

2.02 a[a] - This field contains the number of the measurement report that is being added, deleted or changed. Valid inputs are 0-23, or 1-23 with 4E8 and later Generic Programs.

2.03 bbb - There are two possible entries in this field, ADD or DLT. ADD is used to add a new measurement report or make an addition to an existing report. DLT is used to delete an entire measurement report or make a deletion from an existing report. When deleting an entire measurement report, DLT should be followed immediately by an exclamation point !.

2.04 [c...c] - This field is represented by one or more of the following variable length FORMATS. FORMATS 1-5 cannot be combined in one input message. Therefore, five separate input messages are required when specifying FORMATS 1-5. FORMATS 6-8 may be combined in one input message in any order; however, these keywords may not be combined with keywords on FORMATS 1-5.

A minimum of four input messages are required to establish and output a new measurement report (report 1-23). FORMAT 1 must be specified in the first input message when establishing a new measurement report, e.g., SCHED:MEASREPT 5;ADD:PRIM MTC, MAXM 33, TSGCAP 3, ENGMEM! FORMAT 2 should be entered in the second input message, e.g., SCHED:MEASREPT 5;ADD: CHAN SCREC1! FORMATS 7 and 8 can be combined and entered on the third input message, e.g., SCHED:MEASREPT 5;ADD:ACCINT 800,MON 1700! Finally, FORMATS 3-5 represent the types of measurements which may be included in the measurement report.

FORMAT 1 - PRIM aaa[a], MAXM b[b][b][b],TSGCAP [c][c], ENGMEM! - This FORMAT cannot be combined on the same input message with any other FORMAT. The first two keywords (PRIM and MAXM) must be input as the minimum entry when establishing a new measurement report numbered 1-23. The entire measurement report must be deleted and then reestablished in order to change any data specified in FORMAT 1.

PRIM aaa[a] - This field contains the alphanumeric name of the primary input channel on which changes to the measurement report can be made. Only 11 of the channels available for 4 ESS may be used as traffic measurement input channels. They are MTC, SREC1, SREC2, RCDT1, RCDT2, TRF1, TRF2, RCREC, RCMOC, NMPR1 and NMPR2. For further definitions of these channels, see Tables A and B.

MAXM b[b][b][b] - Maximum Number of Measurements - The entry in this field must be equal to or greater than the actual number of measurements assigned to the measurement report. This number is derived by adding the number of measurements contained in each Measurement Sub-Class (MSC) - Output Measurement Set (OMS) being assigned to the measurement report. The number of measurements assigned to each traffic and plant MSC-OMS is given in Division 10, Sections 1a-1d Tables 00 through 63 and summarized in Figure 1.

TSGCAP cc - Trunk Sub-Group Capacity - This keyword is optional for FORMAT 1. If Trunk Sub-Groups are to be assigned to this measurement report, then TSGCAP must be used to specify the number of Trunk Sub-Groups allowed on the report. Valid entries are 1 through 64.

ENGMEM - Engineered Memory - This keyword is optional for FORMAT 1. When this keyword is used it indicates that previously engineered file store memory is to be allocated to this report to accumulate measurements. ENGMEM must be specified for those measurement reports which accumulate measurements for greater than one hour. It should not be specified for measurement reports which accumulate measurements for one hour or less. The quantity of extended interval accumulating registers that are engineered by the use of this keyword is equal to the MAXM input specification.

FORMAT 2 - `CHAN aaa`*ddd ddddd ddddd ddddd ddddd* These fields specify from one to five TTY channels on which the measurement report can be output concurrently. If more than one channel is specified, they must be in parenthesis and separated by a comma, e.g., SCHED:MEASREPT 2;ADD:CHAN (TRF1,TRF2,TCA1)! Any of the I/O channels available for 4 ESS may be used to output traffic and plant measurements. The valid entries for this field are listed in the "NAME" column of Tables A and B. Table A lists the I/O channels that are required for each 4 ESS and Table B lists the optional channels.

FORMAT 3 - `MSCOMS aabbbb...aabbb!` - These fields specify one or more Measurement Sub-Class (MSC) - Output Measurement Set (OMS) pairs that are to be added to or deleted from the measurement report. Valid traffic and plant MSC-OMS pairings are given in Division 10, Section 1a, Tables 00 through 63 and summarized in Figure 1. If more than one MSC-OMS pair is specified, they must be in parenthesis and separated by a comma, e.g., SCHED:MEASREPT 2;ADD: MSCOMS (000000,010000,060000)! In addition to a list of MSC-OMS pairs, ranges of MSC-OMS pairs may be input with the first and last argument in the range specifying the same MSC, e.g., SCHED:MEASREPT 2;ADD: MSCOMS(050000-050003)! Ranges and list of ranges must be in parenthesis and separated by commas, e.g., SCHED:MEASREPT 2;ADD:MSCOMS(050000-050003, 110000-110005,160000,170001)! The first two digits are the MSC (00-47), and the last four digits are the OMS (0000-2047).

NOTE: FORMAT 4 must be used when a Trunk Group (TG) or list of Trunk Sub-Groups (TSGs) are being added to or deleted from a measurement report.

FORMAT 4 - `TSG a...a (,TG b...b)!`

`TSG aaaaaaaaaaaaaaaaa` - The TSG field is optional for FORMAT 4. If used, it will contain a Circuit Identification Name (CIN) or a list of CINs of Trunk Sub-Groups to be added to or deleted from the measurement report. If more than one TSG is specified, they must be in parenthesis and separated by a comma. A maximum of 2 CIN's may be specified.

`TG bbbbbbbbbbbbbb` - The TG field is optional for FORMAT 4. When this field is used, it specifies a Trunk Group Circuit Identification Name (CIN) or list of Trunk Group CINs of which all the Trunk Sub-Groups are to be added to or deleted from the measurement report. If more than one TG is specified, they must be in parenthesis and separated by a comma. A Base Traffic Number (BTFN) must not be specified when using the TG keyword.

FORMAT 6 - `ACCINT` *ddd*`bb` - This FORMAT may be entered alone or in conjunction with FORMAT(s) 7 and/or 8. If more than one FORMAT is specified, they must be separated with a comma. The fields in FORMAT 6 are used to specify the Accumulation Interval (ACCINT) for the measurement report. All measurements on the report will accumulate for the length of time specified by the *ddd* and bb fields prior to output. The *ddd* field is the number of hours (000-168) the measurement report will accumulate and may range from 000 to one week, 168 hours. The bb field represents the number of minutes; minutes may only be specified in fifteen minute increments, i.e., 00, 15, 30, or 45. Therefore, entries for ACCINT may range from a minimum of fifteen minutes, to a

maximum of 168 hours. The default is the currently assigned ACCINT.

NOTE 1: MSC52 contains cumulative counts and should be scheduled for *only* a 15 minute accumulation interval.

The Accumulation Interval (ACCINT) can be added only once for a measurement report and it must be input before any output time(s) and/or accumulation start time(s) are specified. Conversely, output time(s) and/or accumulation start time(s) must be deleted before the ACCINT can be deleted.

FORMAT 7 - `OTT or ATT` - Output Time Table or Accumulation Time Table - This FORMAT may be input alone or in conjunction with FORMAT(s) 6 and/or 7. If more than one FORMAT is specified, they must be separated with a comma. These keywords are optional and are normally not specified in the input message. The standard input message has both OTT and ATT entered by system default, e.g., SCHED:MEASREPT 3;ADD:MON 1700! Defaulting both OTT and ATT results in the Output Time Table being changed for nonextended interval reports if the Accumulation Interval (ACCINT) is one hour or less, or both the Output and Accumulation Time Tables being changed for extended interval reports to which Engineered Memory (ENGMEM) is allocated. This makes the output time coincide with the end of ACCINT.

If OTT is input, then only the Output Time Table will be updated to reflect the specified time, e.g., SCHED:MEASREPT 3; ADD:OTT,MON 1700! This keyword must be entered when delaying the output time beyond the end of the Accumulation Interval. A delayed output time can only be assigned to an extended interval report to which Engineered Memory (ENGMEM) is assigned, and cannot exceed 30 minutes past the end of the assigned Accumulation Interval. By inputting SCHED:MEASREPT A; DLT:OTT! *all* times in the OTT for measurement report "a" are deleted regardless of the Accumulation Interval.

The ATT keyword should only be input for an extended interval report to which Engineered Memory (ENGMEM) is allocated. Entering ATT will result in only the Accumulation Time Table being updated to the specified time, e.g., SCHED:MEASREPT 4; ADD:ATT,TUE 1400! By inputting SCHED:MEASREPT A;DLT: ATT! *all* times in the ATT for measurement report "a" are deleted regardless of the ACCINT.

FORMAT 8 - `aaaØØØØ` - This FORMAT may be input alone or in conjunction with FORMAT(s) 6 and/or 7. If more than one FORMAT is specified, they must be separated with a comma. The fields in FORMAT 8 are used to schedule output time(s) and/or accumulation start time(s) for the measurement report. Output or accumulation start time is specified by the day of the week, hour, and minutes. The aaa field indicates the day (SUN, MON, TUE, WED, THU, FRI, SAT), and ØØØØ is the time, where the first two digits are the hour (00-23) and the second two digits specify the minutes (00, 15, 30, or 45). In all cases, the output time can be defaulted to the end of the assigned Accumulation Interval, by inputting the aaa field without the hour and minutes, e.g., SCHED:MEASREPT 7;ADD: ACCINT 100, TUE! or SCHED: MEASREPT 6;ADD:FRI!

If the OTT keyword is input in conjunction with this field, then the day and time specified will denote output time, e.g., SCHED:MEASREPT 2;ADD:OTT,FRI 1500! However, if the ATT keyword is entered with this field, then the day and time specified is not output time, but accumulation start time, e.g., SCHED:MEASREPT 4;DLT:ATT,TUE 1500! If neither OTT nor ATT is specified with this field, then the day and time entry will be reflected in the Output Time Table for nonextended interval reports if the Accumulation Interval (ACCINT) is one hour or less or both the Output and Accumulation Time Tables being changed for extended interval reports to which Engineered Memory (ENGMEM) is allocated.

It should be noted that a range and/or list format can be used to specify more than one output or accumulation start time. A range of times within the same day can be entered by inserting a dash between the earliest and latest time, and enclosing

the range in parenthesis, e.g., SCHED:MEASREPT 2;ADD:THU (1300-1700)! Also, a list of times within the same day are specified by separating each entry with a comma, and enclosing the entire list in parenthesis, e.g., SCHED:MEASREPT 2;ADD:TUE (1100,1500,1700)! Similarly, times in different days may be input, e.g., SCHED: MEASREPT 3;ADD:TUE (1100,1700), WED (1500,1600,1700),THU(1100, 1400),! It may be desirable to enter a list of ranges, e.g., SCHED:MEASREPT 4;ADD:TUE (1400-1600),WED(1300-1700)! The input message does not require parenthesis if only one time is specified for one day or a list of days, e.g., SCHED:MEASREPT 2;ADD:TUE 1500! or SCHED:MEASREPT 2;ADD: TUE 1400,WED 1700,FRI 1100! Output time will default to the end of the Accumulation Interval if the day of the week is entered alone, e.g., SCHED: MEASREPT 3;ADD:ACCINT 15,MON, TUE,FRI.

TABLE A

NO. 4 ESS REQUIRED I/O CHANNELS

NAME	LOC	TERMINAL TYPE REQ	NOTES	FUNCTION	SUGGESTED BACKUP CHANNEL
MTC	MOC	KD-P	1,3,4	SWITCHING MACHINE MAINTENANCE	SREC1
SREC1	MOC	KD-P-T	2-3,4	SECONDARY RECORD	MTC
RCMOC	MOC	P-T	4	RECENT CHANGE - MOC	SREC1
BELT1		KDP		BELTLINE MAINTENANCE	MTC
RCREC	MAC	KD-P-T	4	RECENT CHANGE RECORD	SREC1
RCDT1	MAC	KD	3,4	RECENT CHANGE DISPLAY TERMINAL	RCREC
TRF1	MAC	KD-P	4	TRAFFIC MEASUREMENTS	RCREC
NMPR1	NMC	KD-P	4	NETWORK MANAGEMENT PRINTER	SREC1
NMDT1	NMC	KDP	8,9	NETWORK MANAGEMENT DISPLAY TERMINAL	
NMDT2	NMC	KDP	8,9	NETWORK MANAGEMENT DISPLAY TERMINAL	
TCA1	TOC	KD-P		TEST CONTROL AREA	SREC1
CMS1	TOC		5,6	CIRCUIT MAINTENANCE SYSTEM 1200 BPS INTERFACE	CMS3
CMS2	TOC		5,6	CIRCUIT MAINTENANCE SYSTEM 1200 BPS INTERFACE	CMS4
CMS3	TOC		5,6	CIRCUIT MAINTENANCE SYSTEM 1200 BPS INTERFACE	CMS1
CMS4	TOC		5,6	CIRCUIT MAINTENANCE SYSTEM 1200 BPS INTERFACE	CMS2
SVOBS				SERVICE OBSERVING TERMINAL	MTC
CMSH1	TOC		6,7	CIRCUIT MAINTENANCE SYSTEM HIGH 10,11 SPEED (4800 BPS) INTERFACE	CMSH2
CMSH2	TOC		6,7	CIRCUIT MAINTENANCE SYSTEM HIGH 10,11 (4800 BPS) INTERFACE	CMSH1
RMT1			12	REMOTE DIAL UP TERMINAL	MTC

TABLE A (CONTINUED)

4 ESS REQUIRED I/O CHANNELS

NOTES:

1. THIS CHANNEL IS FIXED ASSIGNED TO IOUS O, IOUC O.
2. FOR OFFICES NOT EQUIPPED WITH AN SCC1 CHANNEL, THE SREC1 CHANNEL IS FIXED ASSIGNED TO IOUS (IOP) 1, IOUC 0. WHEN THE SCC1 CHANNEL IS ASSIGNED FOR SMCC USE, IT IS FIXED ASSIGNED TO IOUS 1, IOUC 0 AND SREC 1 SHOULD BE ASSIGNED TO ANY OTHER IOUS, WHEN AVAILABLE, EXCEPT IOUS 0 OR 1.
3. THIS CHANNEL REQUIRES A 3 SEGMENT DISPLAY.
4. THIS CHANNEL MAY BE USED AS A TRAFFIC MEASUREMENT INPUT CHANNEL.
5. CMS1 AND CMS2 MUST BE ASSIGNED TO SEPARATE IOUC'S ON ONE IOUS. CMS3 AND CMS4 MUST BE ASSIGNED TO SEPARATE IOUC'S ON A DIFFERENT IOUS.
6. CMS1 - CMS4 ARE REQUIRED FOR 4E4 GENERIC PROGRAMS. FOR 4E5 OR LATER GENERICS, ONE AND ONLY ONE OF THE TWO INTERFACES CMS1-CMS4 OR CMSH1-CMSH2 MUST BE SPECIFIED.
7. THE CMSH1 AND CMSH2 CHANNELS MAY ONLY BE USED IN 4E5 OR LATER GENERICS. THE TWO MUST BE LOCATED ON DIFFERENT IOUS'S.
8. FOR 4E4 GENERICS, THIS IS A 1200 BPS ASYNCHRONOUS CHANNEL.
9. FOR 4E5 OR LATER GENERICS, EITHER NMDT1, OR NMDT2, OR BOTH CHANNELS MAY BE SPECIFIED AS ISOCHRONOUS 4800 BPS CHANNELS.
10. THIS CHANNEL IS FULL-DUPLEX.
11. THIS CHANNEL USES THE BANCS MESSAGE PROTOCOL.

MAC - MACHINE ADMINISTRATION CENTER

MOC - MAINTENANCE OPERATIONS CENTER

NMC - NETWORK MANAGEMENT CENTER

TEC - TERMINAL EQUIPMENT CENTER;

TOC - TRUNK OPERATIONS CENTER

K - KEYBOARD

D - DISPLAY

P - PRINTER

T - MAGNETIC TAPE CASSETTE/FLOPPY DISK

TABLE B

4 ESS OPTIONAL I/O CHANNELS

NAME	LOC	TERMINAL TYPE REQ	NOTES	FUNCTION	SUGGESTED BACKUP CHANNEL
SREC2	MOC	KDP2		SECONDARY RECORD	SREC1
RCDT2	MAC	KD	1,2	RECENT CHANGE DISPLAY TERMINAL	RCREC
RCDT3	MAC	KD	1	RECENT CHANGE DISPLAY TERMINAL	RCREC
RCRRT1		KD-P		RECENT CHANGE REMOTE ROUTING	RCREC
RCRRT2			2,12 19,20	MAS NATIONAL ADMINISTRATION CENTER	SREC1
TRF2	MAC	P	2	TRAFFIC MEASUREMENTS	RCREC
NMPR2	NMC	KD-P	2	NETWORK MANAGEMENT PRINTER	NMPR1
NMDT3	NMC	KDP	13,14	NETWORK MANAGEMENT DISPLAY TERMINAL	
TEC1	TEC	KD-P		TERMINAL EQUIPMENT REPAIR	SREC1
TEC2	TEC	KD-P		TERMINAL EQUIPMENT REPAIR	TEC1
TEC3	TEC	KD-P		TERMINAL EQUIPMENT REPAIR	TEC1
TEC4	TEC	KD-P		TERMINAL EQUIPMENT REPAIR	TEC1
TEC5	TEC	KD-P		TERMINAL EQUIPMENT REPAIR	TEC1
BELT 2		KDP		BELTLINE MAINTENANCE	MTC
TCA2	TOC	KD-P		TEST CONTROL AREA	TCA1
TCA3	TOC	KD-P		TEST CONTROL AREA	TCA1
TCA4	TOC	KD-P		TEST CONTROL AREA	TCA1
TCA5	TOC	KD-P		TEST CONTROL AREA	TCA1
TCA6	TOC	KD-P		TEST CONTROL AREA	TCA1
TCA7	TOC	KD-P		TEST CONTROL AREA	TCA1
TCA8	TOC	KD-P		TEST CONTROL AREA	TCA1
TCA9	TOC	KD-P		TEST CONTROL AREA	TCA1

TABLE B (CONTINUED)

4 ESS OPTIONAL I/O CHANNELS

NAME	LOC	TERMINAL TYPE REQ	NOTES	FUNCTION	SUGGESTED BACKUP CHANNEL
TCA10	TOC	KDP		TEST CONTROL AREA	TCA1
NMNOC1			3	NO CIRCUIT CONDITION	
EDASNM			4,5 11	EADAS/NM 1200 BPS INTERFACE	
SCC1		KDP-T	6,18	SWITCHING CONTROL CENTER	SREC1
ISCC		KDP	7,8	INTERNATIONAL SERVICES COORDINATION CENTER	MTC
DUP1			9,15	DIAL UP PORT	
DUP2			9,15	DIAL UP PORT	
DUP3			9,15	DIAL UP PORT	
DUP4			9,15	DIAL UP PORT	
DUP5			9,15	DIAL UP PORT	
DUP6			9,15	DIAL UP PORT	
EDASH1			4,10 11,12 16	EADAS/NM HIGH SPEED (4800 BPS) INTERFACE	
EDASH2			10,11 12,16 17	EADAS/ROC HIGH SPEED (4800 BPS) INTERFACE	
NSCS	NSC	KD	12,21	NETWORK SERVICE CENTER SYSTEM (1200 BPS ASYNCHRONOUS) INTERFACE	TCA1

NOTES:

1. THIS CHANNEL REQUIRES A 3 SEGMENT DISPLAY.
2. THIS CHANNEL MAY BE USED AS A TRAFFIC MEASUREMENT INPUT CHANNEL.
3. THIS CHANNEL CONNECTS TO THE NATIONAL OPERATIONS CENTER.
4. THIS CHANNEL CONNECTS TO THE EADAS/NM (ENGINEERING AND ADMINISTRATION DATA ACQUISITION SYSTEM/NETWORK MANAGEMENT) CENTER.
5. THIS CHANNEL REQUIRES OPERATION IN A TRANSPARENT MODE. IOUC 5 AND 7, IOUS 0, 1, 2, 3, IO FRAME J5A006A-1, ARE ARRANGED TO PROVIDE THIS TYPE OF OPERATION ALONG WITH THE NORMAL MODE OF OPERATION.

TABLE B (CONTINUED)

4 ESS OPTIONAL I/O CHANNELS

6. THIS CHANNEL IS FIXED ASSIGNED TO IOUS (IOP) 1, IOUC 0 WHEN AN SMCC IS CONNECTED TO THE NO. 4 ESS. IF SREC1 IS CURRENTLY ASSIGNED TO THIS CHANNEL, IT MAY BE MOVED TO ANY OTHER CHANNEL EXCEPT IOUS 0 OR 1, WHEN AVAILABLE.
7. THE ISCC CHANNEL MUST NOT BE ASSIGNED TO THE SAME IOUS (IOP) AS ITS BACKUP CHANNEL.
8. THIS CHANNEL IS OPTIONAL FOR INTERNATIONAL OFFICES ONLY.
9. THIS CHANNEL MUST BE LOCATED ON AN IO PROCESSOR WITH A SUB (OR CHANNEL) HARDWARE GENERATION OF 3 (SEE ESS 407W FORM). THE CHANNEL ALSO REQUIRES SPECIAL PORT TERMINAL EQUIPMENT (SEE SD-4A016 AND ESS 406E FORM). ONLY PORT 0 WITH TYPE "B" (212A) CAN BE SPECIFIED.
10. THIS CHANNEL MAY ONLY BE USED WITH 4E5 OR LATER GENERIC PROGRAMS.
11. IF EADASNM IS SPECIFIED, NEITHER EADASH1 NOR EADASH1 CAN BE SPECIFIED IN THE SAME OFFICE.
12. THIS CHANNEL IS FULL-DUPLEX.
13. FOR 4E4 GENERIC PROGRAM, THIS IS A 1200 BPS ASYNCHRONOUS CHANNEL.
14. FOR 4E5 OR LATER GENERIC PROGRAMS, NMDT3 MAY BE SPECIFIED AS AN ISOCHRONOUS 4800 BPS CHANNEL.
15. THIS CHANNEL MUST BE EQUIPPED WITH AN AUTOMATIC CALLING UNIT (ACU).
16. THIS CHANNEL USES THE BANCS MESSAGE PROTOCOL.
17. THIS CHANNEL CONNECTS TO THE ENGINEERING AND ADMINISTRATIVE DATA ACQUISITION SYSTEM/REGIONAL OPERATIONS CENTER (EADAS/ROC).
18. IF THE ESS 407J FORM HAS SSC AS NO. 2 SCC, IT IS RECOMMENDED THAT THE TERMINAL TYPE BE T (OTHERWISE, TERMINAL TYPE IS KDPT).
19. FOR 4E5 OR LATER GENERICS, THE RCRRT2 CHANNEL MAY BE USED AS A TRAFFIC MEASUREMENT, TRUNK MAINTENANCE (TCA) OR RECENT CHANGE INPUT CHANNEL.
20. WHEN THIS CHANNEL IS USED BY THE MAS NATIONAL ADMINISTRATION CENTER THE BACKUP CHANNEL MUST BE SREC1 AND ASSIGNED TO A DIFFERENT IOUS (IOP).
21. FOR 4E6 AND LATER GENERIC PROGRAMS.

MAC - MACHINE ADMINISTRATION CENTER

MOC - MAINTENANCE OPERATIONS CENTER

NMC - NETWORK MANAGEMENT CENTER

TEC - TERMINAL EQUIPMENT CENTER;

TOC - TRUNK OPERATIONS CENTER

NSC - NETWORK SERVICE CENTER

K - KEYBOARD

D - DISPLAY

P - PRINTER

T - MAGNETIC TAPE CASSETTE/FLOPPY DISK

INPUT:

A. Example of input messages establishing a new measurement report requiring Engineered Memory - Ineffective Attempt Measurements.

1. SCHED:MEASREPT 5;ADD:PRIM MTC,MAXM 28, ENGMEM!(EOT)

2. SCHED:MEASREPT 5;ADD:CHAN TRF1!(EOT)

3. SCHED:MEASREPT 5;ADD:ACCINT 800,MON 1700!(EOT)

4. SCHED:MEASREPT 5;ADD:MSCOMS (110000-110005)!(EOT)

B. Example of input messages required to delete the output time assigned in Example "A" and reschedule output past the end of the assigned Accumulation Interval.

1. SCHED:MEASREPT 5;DLT:OTT,MON 1700!(EOT)

2. SCHED:MEASREPT 5;ADD:OTT,MON 1715!(EOT)

C. Example of input messages establishing a new measurement report requiring Engineered Memory - Trunk Sub-Group measurements.

1. SCHED:MEASREPT 7;ADD:PRIM MTC,MAXM 11,TSGCAP 1,ENGMEM!(EOT)

2. SCHED:MEASREPT 7;ADD:CHAN (TRF1,TCA1)!(EOT)

3. SCHED:MEASREPT 7;ADD:ACCINT 100!(EOT)

4. SCHED:MEASREPT 7;ADD:WED (1200,1500)!(EOT)

5. SCHED:MEASREPT 7;ADD:TSG 1ALBQ NM MA 01T!(EOT)

OUTPUT:

SCHED:MEASREPT a;bbb:c...c (Division 10, Section 3i)

FIGURE 1

SAMPLE MESSAGES

VER:MEASREPT /a!

TRAFFIC MEASUREMENTS INPUT

VERIFY

1. GENERAL

1.01 This input message requests the verification of parameters for an established traffic measurement report.

1.02 The output message specifies the primary channel, maximum number of measurements allowed on the report, trunk subgroup capacity, output channels, accumulation interval, first and last output times during the week and whether or not the report has engineered memory for extended interval accumulation and is output on tape.

2. FORM ENTRIES

2.01 VER:MEASREPT /a!

The above format represents the entries that comprise the traffic measurements input message. The first series of letters identify a particular message to the machine. The acronyms following identify the fields that require data input. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash (/) designates an optional item. Those letters without a slash are required as the minimum input for the message. The exclamation point (!) following each message denotes the end of the input message. The following paragraphs define the possible entries for each of the variable items.

2.02 /a - This field specifies the number of the measurement report being verified. Valid entries or 0-23, 1-23 for 4E8 and later Generic Programs.

```
INPUT:
          VER:MEASREPT ¢a!

   ex.    VER:MEASREPT 16!
```

```
OUTPUT:
          VER:MEASREPT ¢a b...b     PRIM ccc¢¢
          MAXM TSGCAP  ENGMEM  TAPE ERAP  PRINT
          øøød    ¢e      f      g    h     i
          CHAN:
          jjj¢¢
          ACCINT
           kkkll
          SCHEDULED ØUTPUT DURING THE WEEK
                  FIRST       LAST
                mmm nnøø    ppp qqrr
```

FIGURE 1

SAMPLE MESSAGES

SCHED:TDASMC a;b:MSC c...c!

TRAFFIC MEASUREMENT INPUT - BUILD A TDASMC

1. GENERAL

1.01 This message is used to add and delete Measurement Subclasses (MSC) to TDAS user definable MCs 3, 4, or 8. TDAS data is generated automatically, every hour then output to the 3B/APS and optionally to a magnetic tape.

2. FORM ENTRIES

2.01 `SCHED:TDASMC a;bbb:MSC c...c!`

This format has upper case letters that must be input as shown. The lower case letters represent variable input described in the following paragraphs. The exclamation point denotes the end of the message.

2.02 `a` - This field contains the TDAS Measurement Class (MC) number. Only three valid values are allowed, 3, 4, or 8. Other TDASMC values are fixed assigned.

2.03 `bbb` - This field is either ADD or DLT. ADD will add specified MSCs to the TDASMC. DLT deletes specified MSCs from the TDASMC.

2.04 `c...c` - This field specifies one or more MSC to be added or deleted on the TDASMC. Division 10, Section 1, Tables 00 through 63 give the contents of each MSC. All OMS are included when a MSC is specified. If more than one MSC is specified, then they must be in parenthesis and separated by a comma, e.g.,

MSC (0-9)!
MSC (0,1,2,33-35)!

NOTE: MSCs 10, 13, and 14 are not valid as they exist on fixed TDASMC 2, 5, and 6.

INPUT:

```
SCHED:TDASMC 3;ADD:MSC 16!
SCHED:TDASMC 3;ADD:MSC(0-09)!
SCHED:TDASMC 3;DLT:MSC(0-09)!
SCHED:TDASMC 3;DLT:MSC(00,50)!
```

OUTPUT:

```
SCHED:TDASMC a;bbb:MSC c...c!

(Division 10, Section 3l)
```

FIGURE 1

SAMPLE MESSAGE

SECTION 3 - TRAFFIC/PLANT MEASUREMENTS OUTPUT MESSAGES

Section

3a Add TSI usage

3b Delete TSI usage

3c Measurement subclasses and output measurement sets

3d Measurement report time tables

3e Trunk subgroups

3f Spare memory

3g TSI list

3h Measurement reports

3i Measurement report changes

3j Verify measurement reports

3l Schedule TDASMC Output

ALW:USGMEAS:TSI ⌀b SPC c d...d

TRAFFIC MEASUREMENTS OUTPUT - ADD TSI USAGE

1. GENERAL

1.01 This output message is printed out in response to an input message which adds a Time Slot Interchange (TSI) to a list of TSIs that are scanned for usage by the traffic measurements program.

This message specifies the TSI that was processed. A phrase on this message indicates that the TSI is either on the list and usage measurements will be accumulated, or the processing did not reach the required conclusion for the stated reason. A maximum of eight (8) TSIs can be measured for usage simultaneously.

2. FORM ENTRIES

2.01 `aaa:USGMEAS:TSI ⌀b SPC c d...d`
The above format represents the entries that comprise the traffic measurements output message. The first series of letters identify a particular message to the user. The acronyms following identify the fields that will contain data. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash ⌀ designates an optional item. Those letters without a slash are required as the minimum entry for the message. The following paragraphs define the possible entries for each of the variable items.

2.02 `aaa` - ALW - Allow usage measurements.

2.03 `TSI ⌀b` - Time Slot Interchange - The entry in this field is the number of the TSI that contains the SPC which is to be measured for usage. Valid entries are 0 to 63.

2.04 `SPC c` - Switching and Permuting Circuit - This field contains the SPC of the TSI that is being measured for usage. Valid entries are 0 or 1.

2.05 `d...d` - This field contains one of the following phrases which specifies the disposition of the corresponding input message processing.

COMPLETED - Processing is completed. The TSI is now on the list and usage measurements will be accumulated.

ABORTED - Processing was not completed. The outcome of the processing is in doubt. The list of TSIs currently being scanned for usage should be printed out so it can be determined if any changes were made. Refer to Division 10, Section 2d for the input message to printout the list of TSIs.

NOT STARTED - Processing of the input message is incomplete and the output message will not be continued. The input message should be reinserted.

NOT STARTED UNEQ - Processing is complete but usage measurements will not be started because the TSI is unequipped.

NOT STARTED PREVIOUSLY ASN - Processing is complete. The TSI on the input message was previously assigned to the list and is currently being measured.

NOT STARTED 8 PREVIOUSLY ASN - Processing is complete, however usage measurements will not be started because the maximum of eight TSIs have previously been assigned to the list.

INPUT:

ALW:USGMEAS:TSI ØØb,SPC c!

b = Time Slot Interchange number (0-63)

c = Switching and Permuting Circuit (0 or 1)

OUTPUT:

aaa:USGMEAS:TSI ØØb SPC c d...d

ex. 1 - ALW:USGMEAS:TSI 12 SPC 0 COMPLETED

ex. 2 - ALW:USGMEAS:TSI 9 SPC 1 NOT STARTED UNEQ

FIGURE 1

TSI USAGE

INH:USGMEAS:TSI ∅b SPC c d...d

TRAFFIC MEASUREMENTS OUTPUT - DELETE TSI USAGE

1. GENERAL

1.01 This output message is printed out in response to an input message which deletes a Time Slot Interchange (TSI) from a list of TSIs that are scanned for usage by the traffic measurements program. The TSI being deleted is specified on this output message. A phrase on this message indicates that the TSI has either been removed from the list or the processing did not reach the required conclusion for the stated reason.

2. FORM ENTRIES

2.01 `INH:USGMEAS:TSI ∅b SPC c d...d`

The above format represents the entries that comprise the traffic measurements output message. The first series of letters identify a particular message to the user. The acronyms following identify the fields that will contain data. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash (/) designates an optional item. Those letters without a slash are required as the minimum entry for the message. The following paragraphs define the possible entries for each of the variable items.

2.02 `aaa` - INH - Inhibit usage measurements.

2.03 `TSI ∅b` - Time Slot Interchange Frame - The entry in this field is the number of the TSI that contains the SPC to be deleted from the list of TSIs that are currently being measured for usage. Valid entries are 0 to 63.

2.04 `SPC c` - Switching Permuting Circuit - This field contains the SPC of the TSI that is being deleted. Valid entries are 0 or 1.

2.05 `d...d` - This field contains one of the following phrases which specifies the disposition of the corresponding input message processing.

COMPLETED - Processing is complete. The TSI has been removed from the list and usage measurements will no longer be accumulated.

ABORTED - Processing was not completed. The outcome of the processing is in doubt. The list of TSIs currently being scanned for usage should be printed out so it can be determined if any changes were made. Refer to Division 10, Section 2d for the input message to printout the list of TSIs.

NOT STARTED - Processing of the input message is incomplete and the output message will not be started. The input message should be reinserted.

NOT STARTED UNAS - Processing is complete, but the TSI was unassigned and therefore could not be removed from the list.

INPUT:

INH:USGMEAS:TSI ØØb,SPC c!

b = Time Slot Interchange Frame number (0-63)

c = Switching Permuting Circuit (0 or 1)

OUTPUT:

aaa;USGMEAS:TSI ØØb SPC c d...d

ex. 1 - INH:USGMEAS:TSI 13 SPC 1 COMPLETED

ex. 2 - INH:USGMEAS:TSI 3 SPC 0 ABORTED

FIGURE 1

TSI USAGE

```
OP:MEASREPT a:MSCOMS b...b
MSC  OMS  MSC  OMS  MSC  OMS  MSC  OMS
```

TRAFFIC MEASUREMENTS OUTPUT
MEASUREMENT SUBCLASSES AND OUTPUT MEASUREMENT SETS

1. GENERAL

1.01 This message is one block of the message which prints out the list of Measurement Subclasses (MSC) and Output Measurement Sets (OMS) for a given measurement report. If more than 32 lines of MSC-OMS are assigned to a measurement report, additional blocks of 32 lines will be printed out. A text phrase on the first line will specify this block's position in the output process. The total output message reflects the current assignment of non-TSG measurements on a report.

2. FORM ENTRIES

2.01
```
ØP:MEASREPT a:MSCOMS b...b
MSC  ØMS  MSC  ØMS  MSC  ØMS  MSC  ØMS
 c ddddd   c ddddd   c ddddd   c ddddd
                :
 c ddddd   c ddddd   c ddddd   c ddddd
```

The above format represents the entries that comprise the traffic measurements output message. The first series of letters identify a particular message to the user. The acronyms following identify the fields that will contain data. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash *a* designates an optional item. Those letters without a slash are required as the minimum entry for the message. The following paragraphs define the possible entries for each of the variable items.

2.02 a - This field contains the measurement report number. Valid entries range from 1 to 23.

2.03 b...b - This field contains one of the following phrases which specifies the progress of the output procedure or the disposition of the input message processing.

MSG STARTED - This entry indicates that this is the first block of 32 lines of MSC-OMS to be printed out and there are additional blocks to follow.

MSG IP - Message In Progress - This entry will appear on all intermediate blocks and it indicates that there are additional blocks to follow.

MSG COMPL - Message Complete - The last block in a series of blocks will contain this phrase to indicate that this is the completion of the output message. If there is only one block it will contain this phrase.

ABORTED - Processing was not completed. If this phrase appears in the first block, it indicates that the output message will not be started. If it appears in a subsequent block, the output procedure was interrupted. In either case, the input message must be reinserted to get an output message.

NOT STARTED - Processing of the input message is incomplete and the output message will not be continued. The input message should be reinserted.

NOT STARTED MEASREPT UNAS - Processing of the input message was not completed. The output message will not be started because the measurement report number specified on the input message is unassigned.

2.04 MSC

c - Measurement Subclass - Valid entries range from 0 to 63. A MSC is paired with an OMS to specify a particular set of data.

2.05 OMS

ddddd - Output Measurement Set - Valid entries range from 0 to 2047. For further information on OMS (and MSC) see Division 10, Section 1.

INPUT:

```
          OP:MEASREPT aa:MSCOMS!

          a = Measurement Report Number (1-23)
```

OUTPUT:

```
          ØP:MEASREPT aa:MSCØMS b...b
          MSC  ØMS  MSC  ØMS  MSC  ØMS  MSC  ØMS
           c dddd   c dddd   c dddd   c dddd
                             :
           c dddd   c dddd    c dddd   c dddd

 ex.  1 - ØP:MEASREPT 17:MSCØMS MSG STARTED
          MSC  ØMS  MSC  ØMS  MSC  ØMS  MSC  ØMS
            0    0    1    0    2    0    2    1

                             :
                   Total of 32 Lines
                             :

           42    0   43    0   44    0   45    0
```

FIGURE 1

MEASUREMENT SUBCLASSES AND
OUTPUT MEASUREMENT SETS

```
OP:MEASREPT:aaa b...b
MEASREPT 2 2 2 2 1 1 1 1 1 1 1 1 1 1
         3 2 1 0 9 8 7 6 5 4 3 2 1 0 9 8 7 6 5 4 3 2 1 0
DAY TIME
```

TRAFFIC MEASUREMENTS OUTPUT

MEASUREMENT REPORT TIME TABLES

1. GENERAL

1.01 The message shown is one block of a message which outputs the measurement report time tables. There are two tables, the accumulation time table and the output time table. If more than 32 lines are required for either time table, additional blocks of 32 lines will be printed out. Only those specific times assigned on a time table for all measurement reports will be printed out. If all times were assigned on either time table, a maximum of 672 lines (21 blocks of 32 lines) would be printed out. A text phrase on the first line will specify a particular block position in the output process.

1.02 The entire printout of one of the measurement report time tables reflects the current assignment of all measurement reports to a specific time for either accumulation or output.

2. FORM ENTRIES

2.01
```
ØP:MEASREPT:aaa b...b
MEASREPT 22221111111111
         32109876543210987654321O
DAY TIME
ccc ddee fffffffffffffffffffffff
                  :
              Total of 32 Lines
                  :
ccc ddee fffffffffffffffffffffff
```

The above format represents the entries that comprise the traffic measurements output message. The first series of letters identify a particular message to the user. The acronyms following identify the fields that will contain data. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash *d* designates an optional item. Those letters without a slash are required as the minimum entry for the message. The following paragraphs define the possible entries for each of the variable items.

2.02 `aaa` - This field specifies the type of time table to be printed out. Valid entries are ATT for Accumulation Time Table or OTT for Output Time Table.

2.03 `b...b` - One of the following text phrases will be contained in this field. The phrase specifies the position of a given block in the output process or the disposition of the input message processing.

MSG STARTED - This entry indicates that this is the first block of 32 lines of a time table and there are additional blocks to follow.

MSG IP - Message In Progress - This entry will appear in all intermediate blocks and it indicates that there are additional blocks to follow.

MSG COMPL - Message Complete - The last block in a series of blocks will contain this phrase to indicate that this is the completion of the output message. If there is only one block will contain this phrase.

ABORTED - Processing was not completed. If this phrase appears in the first block, it indicates that the output message will not be started. If it appears in a subsequent block, the output procedure was interrupted. In either case, the input message must be reinserted to get an output message.

NOT STARTED - Processing of the input message is incomplete and the output message will not be continued. The input message should be reinserted.

2.04 `MEASREPT 2...`
`3 0` - Measurement Report Number - These two lines will always be printed out as a header for the subsequent lines in a block. They are read from right to left (and down beginning with 10) as measurement Report Number 0 to 23.

2.05 `DAY`
`ccc` - This entry represents the day of the week for this line. Valid entries are SUN-MON-TUE-WED-THU-FRI-SAT.

2.06 `TIME`
`ddee` - This field contains the time of the day for this line, where dd is the hour (00-23) and ee is the minute (00,15, 30 or 45).

2.07 `f's` - These columns correspond to the measurement report number heading (0 to 23). Valid entries are 0 or 1. The corresponding measurement report is turned on for the day and time specified in the "ddee" field when its bit is a one, and off when its bit is a zero.

```
INPUT:
          OP:MEASREPT:aaa,ØØØ¢¢dd!


          a = Accumulation or Output Time Table (ATT or OTT)

          b = Day of the week SUN,MON,TUE,WED,THU,FRI,SAT.

          c = Hour of the day (0-23)

          d = Minute of the hour (00,15,30,45)


   ex.1 - ØP:MEASREPT:ØTT,TUE(100-1045)!




OUTPUT:
          ØP:MEASREPT:aaa b...b
          MEASREPT 2 2 2 2 1 1 1 1 1 1 1 1 1 1
                   3 2 1 0 9 8 7 6 5 4 3 2 1 0 9 8 7 6 5 4 3 2 1 0
          DAY TIME
          ccc ddee f f f f f f f f f f f f f f f f f f f f f f f f
                                    :
                           Total of 32 Lines
                                    :
          ccc ddee f f f f f f f f f f f f f f f f f f f f f f f f


    ex.1 - ØP:MEASREPT:ØTT MSG STARTED
          MEASREPT 2 2 2 2 1 1 1 1 1 1 1 1 1 1
                   3 2 1 0 9 8 7 6 5 4 3 2 1 0 9 8 7 6 5 4 3 2 1 0
          DAY TIME
          TUE 0100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
          TUE 0115 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
          TUE 0130 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
                                    :
                           Total of 32 Lines
                                    :
          TUE 0815 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
          TUE 0830 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
          TUE 0845 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
```

FIGURE 1

ACCUMULATION TIME TABLE OR OUTPUT TIME TABLE

```
ØP:MEASREPT ⁄a  b...b
          CIN       SIZE           CIN            SIZE
```

TRAFFIC MEASUREMENTS OUTPUT

TRUNK SUBGROUPS

1. GENERAL

1.01 The list of trunk subgroups that appear on a given measurement report are specified on this output message. This message is one block of the message which prints out the trunk subgroups by Circuit Identification Name (CIN) and the size of each group. If more than 32 lines are required, additional blocks of 32 lines will be printed out. A text phrase on the first line of each block will specify the block's in the output process.

2. FORM ENTRIES

2.01 `ØP:MEASREPT ⁄a:TSG  b...b`

```
        CIN      SIZE        CIN      SIZE
ccccccccccccccccccØØØØdccccccccccccccccccØØØØ
                   :
ccccccccccccccccccØØØØdccccccccccccccccccØØØØ
```

The above format represents the entries that comprise the traffic measurement output message. The first series of letters identify a particular message to the user. The acronyms following identify the fields that will contain data. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash ⁄ designates an optional item. Those letters without a slash are required as the minimum entry for the message. The following paragraphs define the possible entries for each of the variable items.

2.02 `⁄a` - This field contains the measurement report number. Valid entries are 0-23, or 1-23 with 4E8 and later Generic Programs.

2.03 `b...b` - One of the following text phrases will be contained in this field.

MSG STARTED - This entry indicates that this is the first block of 32 lines of Trunk Sub-Groups and there are additional blocks to follow.

MSG IP - Message In Progress - This entry will appear in all intermediate blocks and it indicates that there are additional blocks to follow.

MSG COMPL - Message Complete - The last block in a series of blocks will contain this phrase to indicate the completion of the output message. If there is only one block it will contain this phrase.

ABORTED - Processing was not completed. If this phrase appears in the first block, it indicates that the output message will not be started. If it appears in a subsequent block, the output procedure was interrupted. In either case the input message must be reinserted to an output message.

NOT STARTED - Processing of the input message is incomplete and the output message will not be continued. The input message should be reinserted.

NOT STARTED MEASREPT UNAS - Processing of the input message was not completed. The output message will not be started because the measurement report number specified on the input message is unassigned.

2.04 `CIN`

`ccccccc cc cc ccc ccc` - This series of codes is the CIN that identifies the Trunk Sub-Group. Each individual field is defined in the following paragraphs.

BTFN - The Base Traffic Number is a reference number to identify a specific subgroup. This number may range from 0 to 9976.

TOWN - This code is a four character alphabetic combination representing the town, city or location for the end of the Trunk Sub-Group.

ST - The state is a two character alphabetic code for the far end state, province or foreign country.

BL - This field contains the office identity for the far end of the subgroup. The code may be either two alphabetic or two numeric characters.

FBS - The Far Building Subdivision code is a three character alphanumeric for internal building identification.

NBS - This code identifies the internal building subdivision for the near end of the subgroup. It is a three character alphanumeric combination.

2.05 `SIZE`

`ØØØØd` - This field specifies the actual number of trunks in the Trunk Sub-Group. Valid entries are 0 to 1023.

INPUT:

```
ØP:MEASREPT &a:TSG!

a = Measurement Report Number (0-23, or 1-23)
      with 4E8 and later Generic Programs
```

OUTPUT:

```
ØP:MEASREPT &a:TSG  b...b
         CIN            SIZE           CIN            SIZE
cccccccc cc cc ccc ccc  ØØØd  cccccccc cc cc ccc ccc  ØØØd
                          :
cccccccc cc cc ccc ccc  ØØØd  cccccccc cc cc ccc ccc  ØØØd
```

ex. 1

```
ØP:MEASREPT  6:TSG  MSG CØMPL
         CIN           SIZE           CIN            SIZE
0001KSCY MØ 01 5B1 57T  120  0101STLS MØ 05 5B2 57T    24
                         :
0022ALBQ NM RT 1FL 57T  168  0202TULS ØK 07 2A1 57T    48
```

FIGURE 1

TRUNK SUBGROUPS

OP:MEASREPT:SPAREMEM a...a
ENGMEM SCHEDULE ACTIVITY TABLES

TRAFFIC MEASUREMENTS OUTPUT

SPARE MEMORY

1. GENERAL

1.01 This message prints out the amount of engineered File Store memory available for allocation to report accumulation, and to store report related information such as a list of Trunk Sub-Groups to be printed out on a report.

2. FORM ENTRIES

2.01 `OP:MEASREPT:SPAREMEM a...a`
`ENGMEM SCHEDULE ACTIVITY TABLES`
`ØØØØØb ¢¢¢¢¢c`

The above format represents the entries that comprise the traffic measurements output message. The first series of letters identify a particular message to the user. The acronyms following identify the fields that will contain data. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash (/) designates an optional item. Those letters without a slash are required as the minimum entry for the message. The following paragraphs define the possible entries for each of the variable items.

2.02 `a...a` - One of the following text phrases will be contained in this field.

ABORTED - Processing was not completed. If this phrase appears in the first block, it indicates that the output message will not be started. If it appears in a subsequent block, the output procedure was interrupted. In either case the input message must be reinserted to an output message.

COMPLETED - Processing is completed. The output message will follow.

NOT STARTED - Processing of the input message is incompleted and the output message will not be continued. The input message should be reinserted.

2.03 `ØØØØØb` - This field contains the amount of engineered memory available for report accumulation. This memory is used to accumulate counts for reports whose accumulation interval is greater than 1 hour. For these reports, MAXM parameter defines the amount of memory to be used. Entries are numbers of memory words, and range from 1 to 999999.

2.04 `¢¢¢¢¢c` - This field contains the amount of engineered memory available for additional measurement reports. Each measurement report requires a maximum of 256 words of engineered File Store memory which includes one (1) word per Trunk Sub-Group on the report.

```
INPUT:
          ØP:MEASREPT:SPAREMEM!

OUTPUT:   ØP:MEASREPT:SPAREMEM a...a
          ENGMEM   SCHEDULE ACTIVITY TABLES
          ØØØØØb             ¢¢¢¢¢c

    ex.   ØP:MEASREPT:SPAREMEM COMPLETED
          ENGMEM   SCHEDULE ACTIVITY TABLES
            2732               1024
```

FIGURE 1

SPARE MEMORY

ØP:MEASTSI a...a

TSIF SPC TSIF SPC TSIF SPC TSIF SPC

TRAFFIC MEASUREMENTS OUTPUT

TSI LIST

1. GENERAL

1.01 This message prints out the list of TSIs that are currently being scanned for usage measurements. One to eight TSIs may appear on this list.

2. FORM ENTRIES

2.01 ØP:MEASTSI a...a

```
TSIF SPC TSIF SPC TSIF SPC TSIF SPC
 bb   c   bb   c   bb   c   bb   c
 bb   c   bb   c   bb   c   bb   c
```

The above format represents the entries that comprise the traffic measurements output message. The first series of letters identify a particular message to the user. The acronyms following identify the fields that will contain data. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash *a* designates an optional item. Those letters without a slash are required as the minimum entry for the message. The following paragraphs define the possible entries for each of the variable items.

2.02 a...a - One of the following text phrases will be contained in this field.

ABORTED - Processing was not completed. To get an output message the input message must be reinserted.

COMPLETED - Processing of the input message is completed and the output message will follow.

NOT STARTED - Processing of the input message is incomplete and the output message will not be continued. The input message should be reinserted.

NO TSI SPC ASN - Processing of the input message is complete and no TSIs are being scanned for usage.

2.03 TSI

bb - TIME SLOT INTERCHANGE FRAME - The entries in the bb fields are the the numbers of the TSI frames that are currently being measured for usage. Valid entries are 0 to 63. A maximum of eight TSIs may be assigned at one time.

2.04 SPC

c - Switching and Permuting Circuit. The entries in the c fields are paired with the bb field and contain the SPC of the TSI that is currently assigned to the list. Valid entries are 0 or 1.

INPUT:

```
ØP:MEASTSI!
```

OUTPUT:

```
ØP:MEASTSI a...a
TSIF SPC  TSIF SPC  TSIF SPC  TSIF SPC
 bb   c    bb   c    bb   c    bb   c
 bb   c    bb   c    bb   c    bb   c

ex.  1   ØP:MEASTSI CØMPLETED
TSIF SPC  TSIF SPC  TSIF SPC  TSIF SPC
 00   0    00   1    02   0    02   1
 03   0    03   1    05   0    05   1
```

FIGURE 1

TSI LIST

```
REPT:MEASREPT /a b...b
cccc dd ee     PRIM ffffff
ggg hh/ii/jj  ACCUMULATION TIME kkk llmm - nnn øøpp
LAST MEASREPT CHANGE gg/rr/ss
```

TRAFFIC MEASUREMENTS OUTPUT

MEASUREMENT REPORTS

1. GENERAL

1.01 This message (Measurement Report Heading) appears at the beginning of every block of all measurement reports. It is followed by the output measurement report which consists of the Measurement Subclass-Output Measurement Sets (MSC-OMS) that are assigned to the report.

All measurement reports are under the direction of the Accumulation Time Table (ATT) and the Output Time Table (OTT).

The measurement reports will accumulate data during the times specified on the ATT and printout at the times specified on the OTT.

2. FORM ENTRIES

2.01
```
REPT:MEASREPT /a b...b
cccc dd ee     PRIM ffffff
ggg hh/ii/jj  ACCUMULATION TIME
  kkkllmm - nnn øøpp
LAST MEASREPT CHANGE  gg/rr/ss
```

The above format represents the entries that comprise the traffic measurements output message. The first series of letters identify a particular message to the user. The acronyms following identify the fields that will contain data. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash / designates an optional item. Those letters without a slash are required as the minimum entry for the message. The following paragraphs define the possible entries for each of the variable items.

2.02 /a - The measurement report number appears in this field. Valid entries are 0-23, or 1-23 with 4E8 and later Generic Programs.

2.03 b...b - One of the following text phrases will be contained in this field.

MSG STARTED - This entry indicates that this is the first block of the measurement report and there are additional blocks to follow.

MSG IP - Message In Progress - This entry will appear on all intermediate blocks and it indicates there are additional blocks to follow.

MSG COMPL - Message Complete - The last block in a series of blocks will contain this phrase to indicate the completion of the output message. If there is only one block it will contain this phrase.

2.04 cccc - TOWN - This field contains an alphabetic combination representing the town, city or location of the 4 ESS that generated the report.

2.05 dd - STATE - The state is contained in this field. It is a two character alphabetic code.

2.06 ee - BUILDING - This field contains the identity of the office that is primarily responsible for the report. This code may be either two alphabetic or two numeric characters.

2.07 PRIM ffffff - The input/output channel, on which changes to the report can be made, is specified in this field. Valid entries are the alphanumeric names of the channels. See Division 10, Section 2e, Tables A and B for a complete list of all valid names.

2.08 ggg - This field contains the current day of the week on which the report is printed out.

2.09 hh/ii/jj - The current date on which the report is printed out is contained in this field. hh is the month, ii is the day and jj is the year.

2.10 kkk - This field specifies the day on which the accumulation interval began. Valid entries are SUN-MON-TUE-WED-THU-FRI-SAT.

2.11 ll,mm - The time at the start of the accumulation interval is specified in this field. ll is the hour (00-23) and mm is the minute (00, 15, 30 or 45).

2.12 nnn - This field specifies the day on which the accumulation interval ends.

2.13 øø,pp - The time at the end of the accumulation interval is shown in this field. øø is the hour of the day (00-23) and pp is the minute (00, 15, 30 or 45).

2.14 qq/rr/ss - This field specifies the date the last change (addition or deletion) was made to the measurement report. qq is the month, rr is the day and ss is the year.

```
INPUT:     The measurement reports are under control of the
           Output Time Table (OTT).  See Division 10, Section 3d.

OUTPUT:    REPT:MEASREPT ød a b...b
           cccc dd ee    PRIM fffff
           ggg hh/ii/jj  ACCUMULATION TIME kkk llmm - nnn øøpp
           LAST MEASREPT CHANGE  gg/rr/ss

    ex.    REPT:MEASREPT 17  MSG STARTED
           CHCG IL CL     PRIM MTC
           FRI 01/16/76  ACCUMULATION TIME FRI 0045 - FRI 0100
           LAST MEASREPT CHANGE 01/15/76
```

FIGURE 1

MEASUREMENT REPORT HEADING

```
00 REPT:MEASREPT 17 MSG STARTED
   CHCG IL CL     PRIM MTC
   WED 07/16/76 ACCUMULATIØN TIME WED 0045 - WED 0100
   LAST MEASREPT CHANGE 07/15/76
   MSC 0  MF XMTR, SCS CKTS, IDTS RCVR, ODTMFWK XMTR, AND BLUE BOX FRAUD
   ØMS 0   MF XMTR, IDTS RCVR, AND ODTMFWK XMTR QUEUE-DOMESTIC
                  ATT      FAIL      TIME     SZRE     ABAN     USAGE    Q-WAIT
   MF XT            0         0         0        0        -         0         -
   IDTS             -         -         0        0        0         0         -
   ODTMF            -         0         -        0        -         0         0
   MSC 1 MF RCVR AND DTMF RCVR
   ØMS 0
                        MF RCVR              DTMF RCVR
   SZRE                      0                     0
   SVC USAGE                 0                     0
   MTCE USAGE                0                     0
   MSC 4 NETWORK
   ØMS 0
   PATH HUNT SUCS  PATH HUNT FAIL   USAGE    LSNC INTRABUF
            0               0           0          0

   OMS 1  SVC OBSV
   SVC OBSV NETWORK USAGE
                 0
   07/16/76  01:00:05
   #539
```

FIGURE 2

SAMPLE MEASUREMENT REPORT

SCHED:MEASREPT a[/a];bbb:c...c d...d

TRAFFIC MEASUREMENTS OUTPUT

MEASUREMENT REPORT CHANGES

1. GENERAL

1.01 This message is printed out in response to any of the input messages which add or delete a measurement report or any of its components. The primary purpose of this message is to relate the disposition of the corresponding input message to the user.

2. FORM ENTRIES

2.01 SCHED:MEASREPT a[/a];bbb:c...c d...d
The above format represents the entries that comprise the traffic measurements output message. The first series of letters identify a particular message to the user. The acronyms following identify the fields that will contain data. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash [/a] designates an optional item. Those letters without a slash are required as the minimum entry for the message. The following paragraphs define the possible entries for each of the variable items.

2.02 a[/a] - This field contains the measurement report number. Valid entries range from 0 - 23, or 1 - 23 with 4E8 and later Generic Programs.

2.03 bbb - The action option for adding to or deleting from the measurement report appears in this field.

ADD - This keyword appears when additions are being made to the measurement report.

DLT - delete - This keyword appears when items are being deleted from the measurement reports.

2.04 c...c - Entries in this field uniquely identify the input message for which this output message is printed out. Each of the codes on the following list has a unique variable field that applies only when the specific code appears in the c...c field.

PRIM aaa[/a] - This field contains the Primary channel on which changes to the schedule are made. Valid entries are the alphanumeric code for the Primary channel as specified on the input message. See Division 10, Section 2e, Tables A and B for a complete list of all valid names.

CHAN aaa[/a] - The output Channels on which the report is printed out are contained in this field. Valid entries are the alphanumeric codes for up to five output Channels as specified on the input message. See Division 10, Section 2e, Tables A and B for a complete list of all valid names.

MSCOMS a...a - This field contains Measurement Subclass - Output Measurement Sets (MSC-OMS) to be added to the measurement report by the input message in the form bbcccc where bb is the MSC (00-63) and cccc is the OMS (0000 to 2047).

TSG a...a - The Circuit Identification Names (CINs) of Trunk Sub-Groups to be added to the measurement report by the input message are shown in this field. They will be in the form bbbbcccc cc cc ccc ccc where bbbb is the base traffic number of the subgroup and c-c is the CIN.

TG a...a - This field contains a Trunk Group CIN or a list of trunk group CINs of which all the Trunk Sub-Groups are to be added to or deleted from the measurement report. They will be in the form bbbbcccc cc cc ccc ccc where bbbb is the base traffic number and c-c is the CIN.

SUN-MON-TUE-WED-THU-FRI-SAT aaa bbcc bbcc bbcc bbcc - This field contains the times of the earliest day in the week as specified on the input message when the report will be printed out where aaa is the day of the week, bb is the hour of the day (00-23) and cc is the minute of the hour (00-15-30-45). A maximum of four output times are printed.

ACCINT aaabb - The Accumulation Interval as specified by the input message is shown in this field. aaa is the hours of the week (000-168) and bb is the minutes of the hour (00-15-30-45).

2.05 d...d - This field contains one of the following text phrases which specifies the disposition of the corresponding input message.

COMPLETED - Processing is completed. The output message specifies the item that was changed.

ABORTED - Processing was not completed. The components of the measurement report should be verified to determine what changes, if any, were made to the report. Refer to Division 10, Sections 2c and 2f for the proper input message.

NOT STARTED DATA AUDIT IN PROGRESS - Processing cannot be completed because a data audit is in progress. The components of the measurement report should be verified to determine what changes, if any, were made to the report.

NOT STARTED - Processing of the input message was not started. The input message should be reinserted.

NOT STARTED ENGMEM EXCEEDED. The input message cannot be completed because the engineered

memory would be exceeded.

NOT STARTED MAXM NOT INPUT - The maximum number of measurements that can be output for this measurement report was not specified on the input message.

NOT STARTED INVALID INPUT CHAN - Processing of the input message was not started because it was inserted on a Channel not specified as the Primary input channel for the measurement schedule being changed.

NOT STARTED MEASREPT PREVIOUSLY ASN - The measurement report number on the input message cannot be used to build another measurement schedule because it is currently assigned.

NOT STARTED MEASREPT UNAS - The input message cannot be processed because the measurement report specified is unassigned.

NOT STARTED CHAN PREVIOUSLY ASN - The channel specified on the input message was previously assigned to the measurement report and cannot be assigned again.

NOT STARTED OUTPUT CHAN UNAS - The input message to delete an output channel for a measurement report cannot be accepted because the output Channel was not assigned to the report.

NOT STARTED MAXM EXCEEDED - This input message cannot be applied since the maximum number of measurements that can be output for this measurement report (specified on the input message) has been exceeded.

NOT STARTED MSCOMS PREVIOUSLY ASN - The change requested by the input message cannot be made. The Measurement Subclass (MSC) - Output Measurement Set (OMS) pair specified in the input message was previously assigned.

NOT STARTED TSGCAP EXCEEDED - The number of trunk subgroups specified on the input message exceeds the maximum number allowed for a measurement report.

NOT STARTED TSG PREVIOUSLY ASN - The change requested by the input message cannot be completed. The Circuit Identification Name (CIN) specified in the input message was previously assigned.

NOT STARTED MSCOMS UNAS - The Measurement Subclass (MSC) Output Measurement Set (OMS) pair specified in the input message is not assigned to the measurement report. Therefore the requested deletion cannot be completed.

NOT STARTED TSG UNAS - The Circuit Identification Name (CIN) of the TSG to be deleted from the measurement report as specified in the input message was never added to the report. Therefore the requested deletion cannot be completed.

NOT STARTED ACCINT PREVIOUSLY ASN - This message indicates that the Accumulation Interval (ACCINT) in the input message differs from the presently assigned ACCINT. If a change of ACCINT is required the presently assigned ACCINT must first be deleted. Then a new ACCINT will be accepted on an input message.

NOT STARTED ACCINT INVALID - The ACCINT specified in the input message is invalid and cannot be assigned.

NOT STARTED ACCINT UNAS - The ACCINT specified in the input message is unassigned and therefore cannot be deleted.

NOT STARTED ACCUMULATION INTERVAL OVERLAP IN ATT - The accumulation interval (ACCINT) specified on the input message overlaps with an accumulation interval previously assigned or being currently assigned. Checks for overlapping intervals are made for accumulation intervals that exceed one hour.

NOT STARTED ATT INVALID INPUT - The accumulation time table (ATT) specified in the input message is invalid because the measurement report does not have allocated engineered memory.

INPUT:

SCHED:MEASREPT a;bbb:c...c!

a=Measurement Report Number (1-23)

b=ADD or DLT represent Add or Delete. In the case of DLT it will be followed immediately by an exclamation point (!) to denote end of message.

c=One of four forms, to input data to the measurement schedule (see Division 10, Section 2e)

OUTPUT:

SCHED:MEASREPT a;bbb:c...c d...d

ex. 1 SCHED:MEASREPT 10;ADD:PRIM TRF1 COMPLETED

ex. 2 SCHED:MEASREPT 11;ADD:CHAN TRF1 TOC1 TCA1 COMPLETED

ex. 3 SCHED:MEASREPT 12;ADD:MSCOMS 000000 010000 100022 100723 100944 ABORTED

ex. 4 SCHED:MEASREPT 16;ADD:TSG 0101IPLS IN 01 5B1 57T 0100MILW WI 4A 5B2 57T COMPLETED

ex. 5 SCHED:MEASREPT 12;ADD:TUE 0000 2345 ABORTED

ex. 6 SCHED:MEASREPT 17;DLT:ACCINT 00015 COMPLETED

ex. 7 SCHED:MEASREPT 10;ADD:TG 0101WASH DC AL 03T 57T COMPLETED

FIGURE 1

MEASUREMENT REPORT CHANGES

```
VER:MEASREPT a/a b...b        PRIM ccc/c/c
MAXM  TSGCAP  ENGMEM  TAPE  ERAP  PRINT
dddd     e/e      f      g     h     i
CHAN:
jjj/j/j
ACCINT
 kkkll
SCHEDULED OUTPUT DURING THE WEEK
        FIRST       LAST
      mmm nnoo    ppp qqrr
```

TRAFFIC MEASUREMENTS OUTPUT

VERIFY MEASUREMENT REPORTS

1. GENERAL

1.01 This message is printed out in response to an input message which requests verification of the parameters defining a traffic measurement schedule.

2. FORM ENTRIES

2.01
```
VER:MEASREPT a/a b...b     PRIM ccc/c/c
 MAXM TSGCAP  ENGMEM  TAPE ERAP  PRINT
 dddd    e/e      f      g    h     i
CHAN:
jjj/j/j
ACCINT
 kkkll
SCHEDULED OUTPUT DURING THE WEEK
        FIRST       LAST
      mmm nnoo    ppp qqrr
```

The above format represents the entries that comprise the traffic measurements output message. The first series of letters identify a particular message to the user. The acronyms following identify the fields that will contain data. These fields are separated by a colon (:), semicolon (;) or a comma (,). Lower case letters represent variable data items in a specific field. The slash a/ designates an optional item. Those letters without a slash are required as the minimum entry for the message. The following paragraphs define the possible entries for each of the variable items.

2.02 a/a - This field contains the measurement report number. Valid entries range from 0-23, or 1-23 with 4E8 and later Generic Programs.

2.03 b...b - This field contains one of the following text phrases which specifies the disposition of the corresponding input message.

ABORTED - Processing was not completed. The input message must be reinserted to get an output message.

COMPLETED - Processing is completed. This phrase indicates the completion of the output message.

NOT STARTED MEASREPT UNAS - Processing cannot be started because the measurement schedule specified in the input message is unassigned.

NOT STARTED - Processing of the input message was not started. The input message should be reinserted.

2.04 PRIM ccc/c/c - This field contains the alphanumeric name of the Primary Channel on which changes to the measurement report can be made. See Division 10, Section 2e, Tables A and B for a complete list of all valid names.

2.05 MAXM

dddd - The Maximum number of measurements that are allowed on this measurement report is specified in this field.

2.06 TSGCAP

e/e - This field specifies the maximum number of Trunk Sub-Groups that are allowed on this measurement report. Valid entries range from 0 to 64.

2.07 ENGMEM

f - A "Y" for Yes or a "N" for No will appear in this field to specify whether or not engineered file store memory is allocated to the report for the accumulation of measurements.

2.08 TAPE

g - A "Y" for Yes in this field indicates the report is output on tape. An "N" for No indicates that the report is printed out on a terminal.

2.09 ERAP

h - A "Y" for Yes in this field indicates this measurement report is being collected by the 1A Processor Error Analysis Program (ERAP) for possible off-line processing. An "N" for No indicates ERAP data collection of this measurement report has been inhibited or was never specified. ERAP may be used for the collection of scheduled measurement reports 1-23.

2.10 PRINT

i - A "Y" for Yes in this field indicates this

measurement report will be printed out on a TTY. An "N" for no indicates this measurement report will not be printed out on a TTY.

2.11 CHAN:

jjjǰǰ - These fields contain the alphanumeric names of the output Channels on which the measurement report is authorized to be printed out. See Division 10, Section 2e, Tables A and B for a complete list of all valid names.

2.12 ACCINT

kkkll - This field contains the measurement report Accumulation Interval in hours and minutes. The accumulation will start the specified number of hours and minutes before output time. The kkk field is the number of hours (0-168) and ll is the number of minutes (00, 15, 30, 45).

2.13 SCHEDULED ØUTPUT DURING THE WEEK

```
 FIRST      LAST
mm nnøø    ppp qqrr
```

These fields contain the day and time of the week when the measurement report is scheduled to be printed out. The day of the first scheduled output is contained in the mmm field. The nn field contains the hour (00-23) and the øø field contains the number of minutes (00,15,30,45) of the first output. The day of the last scheduled output of the measurement report is contained in the ppp field. The qq field contains the hour (00-23) and the rr field contains the number of minutes (00, 15, 30, 45) of the last scheduled output.

```
INPUT:
          VER:MEASREPT ¢a!(EOT)

             a=Measurement Report Number (0-23, or 1-23 with 4E8 and later
               Generic Programs)
```

```
OUTPUT:
         VER:MEASREPT ¢a b...b         PRIM ccc¢¢
         MAXM  TSGCAP  ENGMEM  TAPE   ERAP  PRINT
         ¢¢¢d     ¢e      f      g      h     i
         CHAN:
         jjj¢¢
         ACCINT
          kkkll
         SCHEDULED ØUTPUT DURING THE WEEK
                FIRST      LAST
               mmm nnØØ   ppp qqrr
```

```
    ex.  VER:MEASREPT  1 CØMPLETED      PRIM MTC
         MAXM  TSGCAP  ENGMEM  TAPE  ERAP  PRINT
         1500      0      N      N     N     Y
         CHAN:
         SREC1  TCA1
         ACCINT
         00015
         SCHEDULED ØUTPUT DURING THE WEEK
                 FIRST       LAST
               WED 0000    WED 2300
```

FIGURE 1

MEASUREMENT REPORT PARAMETERS

SCHED: TDASMC a;bbb:MSC c...c d...d

TRAFFIC MEASUREMENTS OUTPUT

SCHED: TDASMC OUTPUT

1. GENERAL

1.01 This message is printed in response to an input message which adds or deletes MSCs to TDASMC 3, 4, or 8.

1.02 The measurements which comprise each TDASMC are identified in Table A for 4E6-4E7 Generic Programs, or Table B for 4E8 and later Generic Programs.

2. MESSAGE ENTRIES

2.01 `SCHED: TDASMC a;bbb:c...c d...d` This format represents the entries comprising this output message.

2.02 `a` - This contains the TDASMC number from the input message.

2.03 `bbb` - This contains ADD and DLT from the input message.

2.04 `c...c` - This field specifies the initial MSC from the input message.

2.05 `d...d` - This field contains one of the following phrases which specifies the disposition of the input message.

COMPLETED - Processing is completed successfully.

NOT STARTED PREVIOUSLY ASSIGNED - The input message was not started because an MSC is already assigned. The MSC is probably 10, 13, or 14.

NOT STARTED UNAS - The input message was not started because an MSC is not assigned.

NOT STARTED DATA AUDIT IN PROGRESS - An active data audit is blocking the completion of the input message.

NOT STARTED TDASMC UNAS - The specified TDASMC is not 3, 4, or 8.

TABLE A

DESCRIPTION OF TRAFFIC DATA ADMINISTRATION SYSTEM MEASUREMENT CLASSES (TDASMCs) 4E6-4E7 GENERIC PROGRAMS

TDASMC	DESCRIPTION OF MC	MSC*
0	SERVICE CIRCUIT, ENGINEERED MEMORY, AND QUEUE	0,1,2,3,17
1	TRAFFIC	4,5,8,9
2	TRAFFIC SEPARATIONS	10
3	MAS COUNT	50,51,53,54,55
4	TSI USAGE	12
5	TRUNK SUBGROUP	INCOMING SEIZURE PEG COUNT TOTAL USAGE OUTGOING ATTEMPTS PEG COUNT OVERFLOW PEG COUNT REROUTE TO SEIZURE PEG COUNT
6	CCIS DATA LINK	14
7	ALL MAS COUNTS	3,5,15,17,23,36,46,50,51, 53,54,55
8	ALL MAS COUNTS EXCEPT THOSE IN TDASMC3	3,5,15,17,23,36,46
9	TRUNK SUBGROUP IDENTITY AND SIZE	18 CHARACTER (CIN) FOLLOWED BY 6 CHARACTER (TSG) SIZE

* ALL MEASUREMENTS THAT COMPRISE THE OMSs IN THESE SUBCLASSES UNLESS OTHERWISE SPECIFIED.

TABLE B

DESCRIPTION OF TRAFFIC DATA ADMINISTRATION SYSTEM MEASUREMENT CLASSES (TDASMCs) 4E8 AND LATER GENERIC PROGRAMS

TDASMC	DESCRIPTION OF MC	MSC*
0	DNHR	PT-PT COUNTS
1	DNHR TTS	MAP
2	TRAFFIC SEPARATIONS	10
3	USER DEFINABLE**	
4	USER DEFINABLE**	
5	TRUNK SUBGROUP	INCOMING SEIZURE PEG COUNT TOTAL USAGE OUTGOING ATTEMPTS PEG COUNT OVERFLOW PEG COUNT REROUTE TO SEIZURE PEG COUNT
6	CCIS DATA LINK	14
7	ALL MAS COUNTS	3,5,15,17,23,36,46,50,51, 53,54,55
8	USER DEFINABLE**	
9	TRUNK SUBGROUP IDENTITY AND SIZE	18 CHARACTER (CIN) FOLLOWED BY 6 CHARACTER (TSG) SIZE

* ALL MEASUREMENTS THAT COMPRISE THE OMSs IN THESE SUBCLASSES UNLESS OTHER SPECIFIED.

** REFER TO INPUT COMMAND - SCHED:TDASMC

```
INPUT:
     SCHED:TDASMC a;bbb:MSC c...c!

     a = 3, 4, or 8
     b = ADD or DLT
     c = specified MSCs

OUTPUT:
     SCHED:TDASMC 3;ADD:MSC 0 ... COMPLETED
     08/10/84  16:34:52
     #983

     SCHED:TDASMC 3;ADD:MSC 13 ... NOT STARTED PREVIOUSLY ASN
     08/10/84  16:34:24
     #971

     SCHED:TDASMC 3;DLT:MSC 6363 ... NOT STARTED UNAS
     08/10/84  16:36:31
     #015
```

FIGURE 1

SAMPLE MESSAGE

SECTION 4
4 ESS ON-SITE OPERATIONS REPORT SYSTEM
(OSOR)

SECTION

4a	General Description
4b	Machine Performance Report Part 1 (MPR1)
4c	Machine Performance Report Part 2 (MPR2)
4d	Machine Performance Report Part 3 (MPR3)
4e	Machine Service Report Part 1 - Domestic (MSR1)
4f	Machine Service Report Part 2 - Domestic (MSR2)
4g	Machine Service Report Part 2 - International (MSR2)
4h	MSR-2 Threshold Assignment Page EF05
4i	Network Switching Performance Measurement Plan - Domestic (NSPMP)
4j	Network Switching Performance Measurement Plan - International (NSPMP)
4k	NSPMP Performance Modification Assignment Page EF08
4l	Traffic Separations Summary Report (SEPSUM)
4m	SSR Assignment Display Page EF04
4n	Far End Network Report (FEN)
4o	Machine Load Service Summary (MLSS)
4p	Load Service Report (LSR)
4q	Load Distribution Report (LDR)
4r	Domestic CIN Entry Form EF07

GENERAL DESCRIPTION
4 ESS ON-SITE OPERATIONS REPORT SYSTEM

1. INTRODUCTION

1.01 The On-Site Operations Report (OSOR) system is a 4 ESS Switch feature for displaying service quality, machine and system performance and traffic load in a 4 ESS Switch office. "OSOR" is comprised of reports to view these various items:

— Machine Service Reports (MSR),
— Machine Performance Reports (MPR),
— Separations Summary Report (SEPSUM),
— Network Switching Performance Measurement Plans (NSPMP),
— Load Distribution Reports (LDR),
— Load Service Reports (LSR),
— Machine Load and Service Summary (MLSS),
— Far End Network Reports (FEN).

Report information consists of critical items, related measurements, calculations and other data in formats tailored to the functions of machine administration, Service Monitoring and Plant and Traffic Engineering. Hence, prompt and accurate interpretation of these reports will enable a high quality of overall service to be maintained.

1.02 Design and implementation objectives are as follows:

Scheduling Capability - Schedules for the on-site reports can be added, deleted or altered by a schedule modification page (EF1) accessible via a Network Management Display Terminal (NMDT).

Demand Output - Some reports can be "demanded" to print, beginning at the next quarter hour. Data consistent with the report's collection period will be displayed on this type of report.

Computational Capability - Computations are performed via the NM display system capabilities and include ratio and exception operations.

Data Access - Counts and measurements required for report generation reside in the Traffic and Plant data base and are accessible through the NM display function. New counts may be added to this data base in support of OSOR.

Future Growth - The techniques and capabilities used in NMDS/OSOR leave room for new requirements, enhancements and additional reports.

Output Capability - All On-Site Operations reports can be printed on any of the nine output channels located in the TOC, MOC, MAC, NM center or at remote locations.

Storage Requirements - Because of ever growing long term storage requirements imposed by the on-site system, periodic increases of disk storage are required.

Interference With Other Tasks - Due to the serial nature of processing transactions, a possibility always exists where an OSOR can delay the response of an NMDT display request. Therefore, the time for processing a transaction associated with an OSOR report should be limited to a few seconds, if it is to be scheduled during periods of NM display activity. Because only the NMDT can access report scheduling it is expected that judicious scheduling of reports be maintained.

2. OSOR - COMPONENTS AND ENVIRONMENT OF THE SYSTEM

2.01 Transactions - A Transaction is a data set residing on disk which is moved to core for interpretation and execution by 1A/1B processor code in the Network Management Display System. Figure 1 is a block diagram of the main components of the system. The logic for OSOR is contained in program units called transactions - scheduler, schedule modifier, data accumulation and message functions are all accomplished using transactions.

2.02 Schedule Modifier - The Schedule Modifier provides an interface with office personnel via the Network Management CRT. Schedules for the various reports may be set up or a determination made as to what schedules are currently in effect. The modifier changes a schedule by altering the scheduler data base in Long Term Storage.

2.03 Data Storage - is in an area of unhashed file store dedicated to the OSOR system. This area is called Long Term Storage (LTS). User identifier OSDATA has been assigned to LTS. LTS is organized into 1024 word blocks. The two types of data stored in LTS are:

a. Scheduling information

b. Counts from traffic and plant measurements in formats tailored to associated reports.

2.04 Data Accumulation Transactions - These transactions maintain the data base in LTS required by the message transactions. Actions performed include:

a. Retrieval of counts from traffic and plant data base or OSOR LTS.

b. Preprocessing of the data, e.g., summing of related counts.

c. Storage of new data in LTS; purging of data in LTS.

Data Accumulation Transactions for all reports *except* the *LSR* are scheduled automatically. The LSR data accumulation is scheduled manually. The time corresponding to the busy hour must be entered for LSR data accumulation.

2.05 Message Preparation Transactions - Message transactions perform the calculations and formatting necessary to ready an on-site report for output to a TTY device. Message transactions have been developed to handle two general classes of on site reports:

a. Scheduled reports - output of report is specified at a time in the future and usually coincides with the completion of a data collection interval. Once established, a schedule repeats indefinitely.

b. Demand reports - A report of data collected in the past is to be output at the start of the next 15 minute period. This schedule is a "one time only" request.

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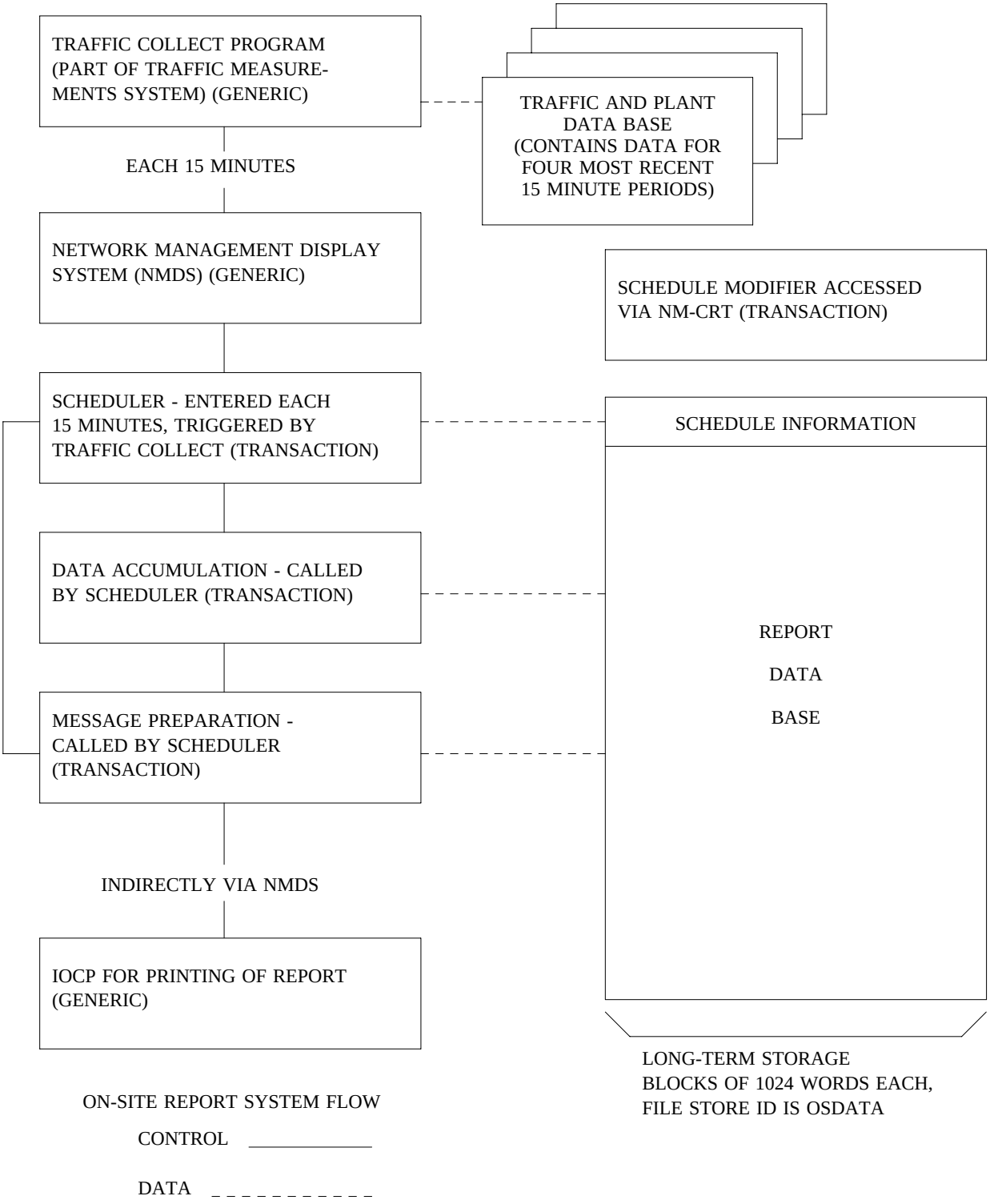

Figure 1. BLOCK DIAGRAM FOR OSOR

3. OSOR REPORTS

3.01 Report Types - The reports produced by the OSOR system are:

a. Machine Load and Service Summary (MLSS)
b. Load Distribution Report (LDR)
c. Load Service Report (LSR)
d. Machine Performance Report Part 1 (MPR1)
e. Machine Performance Report Part 2 (MPR2)
f. Machine Performance Report Part 3 (MPR3)
g. Machine Service Report Part 1 (MSR1)
h. Machine Service Report Part 2 (MSR2)
i. Separation Summary Report (SEPSUM)
j. Network Switching Performance Measurement Plan (NSPMP)
k. Far End Network Report (FEN)

The following describes scheduling and LTS information for each OSOR report type.

3.02 **Machine Load and Service Summary (MLSS)**.

The MLSS report contains one hour of data beginning on the hour or half hour. It is used by the Machine Administrator and traffic engineer to monitor machine performance, capacity and the interaction of critical office components.

The MLSS may be scheduled for any hourly period beginning on the hour or half hour. A demand MLSS may be requested for any hour occurring during the previous 24 hours.

In order to support a demand output capability a structure containing data for the last 24 hours has been established. It is updated at the end of each half hour so that it always contains the most recent 24 hours of data ending on the hour or half hour. In addition, 15-minute data for the 1A/1B processor is maintained for the last 24 hours. The MLSS data base is a "rolling 24 hour" data base.

3.03 **Load Distribution Report (LDR)**.

The LDR report is used to determine the

a. busy hour and the
b. load distribution

for a single office engineering item, over a one day or five day period. The engineering items that are monitored are:

1. CCIS transceivers
2. CAMA operator positions
3. Call registers
4. MF receivers
5. MF transmitters
6. Time division network
7. 1A/1B processor
8. DTMF receivers
9. DTMF transmitters

An LDR report contains data on a contiguous 14.5 hour period. A report is made on 28 hourly intervals, overlapping on the hour and half hour. Data for a 5 day report must be manually requested.

A separate LDR is scheduled for each item, beginning on the hour or half hour. This period may overlap the day boundary i.e., midnight may occur within the 14.5 hour period. The scheduling operation itself may be done at any time prior to the end of the 14.5 hour period. Output occurs at the end of this interval.

Note: Upon output, the LDR report removes its schedule. This is the only scheduled report for which this is done.

All of the data required for the LDR report is contained in the MLSS data base. Additional LTS space is required when a 5 day LDR is requested.

3.04 **Load Service Report (LSR)**.

The LSR report is an engineering report summarizing a "rolling *year*'s" worth of data collected at a specific busy hour, for a single engineering item. It determines the 15 high days and the monthly averages of the past year, for the specified item.

Two busy hours may be specified for each engineering item. Separate data is kept for the Monday through Friday period, and the Sunday period. Therefore, four different LSR reports are possible for each engineering item.

a. Busy hour 1, Monday through Friday
b. Busy hour 2, Monday through Friday
c. Busy hour 1, Sunday
d. Busy hour 2, Sunday

The busy hours may be different for Monday through Friday versus Sunday, and different for each engineering item:

1. CCIS transceivers
2. CAMA operator positions
3. Call registers
4. MF receivers
5. MF transmitters
6. Time division network
7. 1A/1B Processor
8. DTMF receivers
9. DTMF transmitters

The data accumulation transaction for LSR reports must be *scheduled* for the busy hour(s) of the engineering item(s) to be examined.

A demand request for an LSR report is then made by specifying

a. the engineering item,
b. the busy hour,
c. period of the week
   - Monday through Friday,
   - Sunday.

A data base containing a rolling year's worth of data is maintained for the LSRs. At the end of each established busy hour, data is taken from the MLSS data base and installed into the LSR data base.

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Separate areas within the data base are required to save the data for each engineering item (two busy hours for Monday through Friday, two busy hours for Sunday).

3.05 **Machine Performance Report Part 1 (MPR1).**

MPR Part 1 is a very brief report which is output at the end of each 15 minute period. This report provides a time reference to the TTY printout and documents

a. machine performance,
b. service level,
c. trunk status,
d. traffic load.

By default the MPR1 is scheduled to print at the end of each 15 minute period. It may be turned off (inhibited) and output channels may be changed using the EF1 page.

3.06 **Machine Performance Report Part 2 (MPR2).**

MPR2 is intended to be a comprehensive report of total system performance. It documents all major maintenance related information and critical service related information.

An MPR2 may be requested for four different time intervals:

a. *Hourly* report contains information about the hour just completed. It may be scheduled for any hour or half hour.

b. *Day-to-hour* report contains a summation of hourly data from midnight up to the current hour. This is a demand report.

c. *Daily* report contains a summation of the data for the previous calendar day. Output may be scheduled for any hour or half hour on the day following the completed day.

d. *Month-to-date* report is a summation of data for a calendar month, beginning at the first of the month through the last day that ended at midnight. Output may be scheduled for any hour or half hour.

The MPR2 data base accumulates traffic and plant measurements for both the daily and month to date MPR2. Special long term storage is not required for the hourly MPR2 data.

3.07 **Machine Performance Report Part 3 (MPR3).**

MPR3 provides a detailed view of the performance of the 4 ESS Switch Synchronization Network. MPR3 may be scheduled for the same time intervals as MPR2.

3.08 **Machine Service Report Part 1 (MSR1).**

MSR1 is a service report for use by local personnel. It documents the quality of service being provided by focusing on ineffective machine attempts (IMA'S) and provides a means of comparing service anomalies with traffic load.

Long Term Storage requirements are similar to the MPR2. MSR1 may be scheduled for the same time intervals as MPR2.

3.09 **Machine Service Report Part 2 (MSR2).**

This is a service report for use by the operations forces to document and trend the quality of service being provided at the 4 ESS switching machine complex. This detailed view of service may be scheduled for domestic or international office reports.

The MSR2 may be used as an EXCEPTION report when current performance levels are equal to, or greater than, preset performance threshold levels established for that office. The domestic MSR2 scheduled report prints the entire MSR2 report plus a summary page with the exception items and an associated item for reference. The domestic MSR2 THRESHOLD report prints only the items that are the cause of the exception, along with the associated item. The international MSR2 THRESHOLD report prints the complete international MSR2 report. The MSR2 THRESHOLD report (domestic and international) will not print unless an exception has occurred within the last 15 minutes. The reports are then printed on the 15-minute boundary following the exception.

Threshold levels are adjusted via the EF5 threshold input page for both international and domestic items.

MSR2 may be scheduled for the same time intervals as MPR2.

3.10 **Network Switching Performance Measurement Plan (NSPMP).**

The Network Switching Performance Measurement Plan is a report designed to provide a measurement of the level of network switching performance as viewed from a TOLL ESS (4E) switching office. It is a composite view of how effectively the forces of maintenance, administration and engineering are performing. Reports are available for both domestic and international offices.

Certain items on the NSPMP report may be monitored for exceptional activity, i.e. when current performance levels are equal to, or greater than, preset performance threshold levels established for that office.

Threshold levels are adjusted via the EF8 threshold input page for both international and domestic items.

NSPMP may be requested for four different time intervals:

a. *Daily* report contains a summation of the data for the previous calendar day. Output may be scheduled for any hour or half hour on the day following the completed day.

b. *Month-to-date* report is a summation of data for a calendar month, beginning at the first of the month through the last day that ended at midnight. Output may be scheduled for any hour or half hour.

c. *Previous Month (demand)* report is a summation of data for a calendar month, beginning at the first of the month through the midnight of the last calendar day of that month. Output is printed on the next 15-minute boundary.

3.11 **Separation Summary Report (SEPSUM).**

The Traffic Separation Summary Report provides data necessary for Traffic Separations calculations. The report is formatted in a manner which should require no manual calculations by local operating forces. The design of the report allows studies for other purposes such a intrastate jurisdictional studies, ownership studies, machine administration studies, network management studies, and access management studies.

SEPSUM assignments are adjusted via the EF4 input page.

SEPSUM may be scheduled for the same time intervals as MPR2.

3.12 **Far End Network Report (FEN)**

The FEN report provides a view of selected service measurements relative to a Far End Network (FEN). A FEN represent connections from a 4ESS Switch to anther carrier, company or service via one or more trunk subgroups (TSG).

Reports on nine possible FEN network types (classes) are available.

1. ACCESA
2. ACCESI
3. ACCESO
4. INTNL
5. OWATS
6. PBX
7. POTS
8. CAMA
9. CMC
10. OEO

FEN reports may be scheduled for the daily interval only.

4. SCHEDULE MODIFICATION - GENERAL INFORMATION

OSOR uses the NMDS Entry Form (EF) Pages - EF1, EF2 - to examine or modify the schedule of any OSOR report. The EF pages are part of the Network Management Display System and therefore must be accessed through use of a network management display terminal (NMDT).

4.01 Page **EF1** - is used to schedule/inhibit the following reports:

Machine Performance Report - Part 1	(MPR1)
Machine Performance Report - Part 2	(MPR2)
Machine Performance Report - Part 3	(MPR3)
Machine Load and Service Summary	(MLSS)
Machine Service Report - Part 1	(MSR1)
Machine Service Report - Part 2	(MSR2)
Network Switching Performance Measurement Plan - Abbreviated	(NSPMPA)
Network Switching Performance Measurement Plan	(NSPMPT)
Far End Network Report	(FEN)
Separation Summary Report	(SEPSUM)

4.02 Page **EF2** - is used to schedule/inhibit the following reports and data collection:

Load Distribution Report (LDR)
Load Service Report (LSR)

For the following engineering items:

1. CCIS transceivers
2. CAMA operator positions
3. Call registers
4. MF receivers
5. MF transmitters
6. Time division network
7. 1A/1B Processor
8. DTMF receivers
9. DTMF transmitters

4.03 Report printing frequency - There are two broad categories of reports from a scheduling viewpoint.

a. Scheduled Reports - A scheduled report will be printed each designated day at the specified time until the schedule is changed.

b. Demand Report - A demand report will be printed at the next quarter hour after it has been selected. The report will not print again unless the demand report is rescheduled. This schedule is a "one time only" request.

4.04 **General Schedule Page Usage**

The NMDS pages use a set of common controls to maneuver around the screen, and to relay information to the OSOR system.

a. All alphabetic characters must be entered in upper case.

b. To move from field to field,
use the tab or space keys.

c. To send a request,
use the block-send key

d. To select an item,
mark a "+" in the field. These windows are called action windows and are used to select or toggle an item on("+") and off(" ").

e. To erase an entry,
enter the "space" character (blank) in the field.

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Note: Errors may occur when there is extra data in other fields. Use the space character to erase this data.

f. To enter a specific time,
the format is
hhmm
where hh is hour from 00-23,
and mm is minutes, either 00 or 30.

g. To go to a specific NMDS page,
select the directory page by entering the two letter identifier for the page in "DIRECTORY[ ]" found on the last line of every NMDS page, and "[ ]DIRECTORY" found on each directory page. After the request is sent, The directory for the page will be displayed. The specific page can then be selected by marking a "+" next to the name of the page listed on the directory and sending the request.

To go the the page directly, type the name of the page in the "PAGE[ ]" found in the lower right hand corner of every NMDS page, or "[ ]PAGE" found on each directory page, and send the request.

5. EF1 - OSOR SCHEDULE MODIFICATION I

EF1 is the primary scheduling page for OSOR. Figure 2 displays legal combinations of EF1 options.

5.01 Parts of EF1:

a. *NAME* category. Listed are the names of the reports that can be scheduled by EF1. The last three names

1. DEMAND
2. INTNL - international
3. THRLD - threshold

are special options available to some of the reports listed in the NAME category.

b. *FEN CLASS* category. Listed are the FEN classes available on an OSOR FEN report. One FEN class must be selected when a FEN report is selected under the NAME category.

c. *TYPE* category. Listed is the period of the data collection to be viewed on an OSOR report. For example, HOURLY specifies that the data collected from the past 60 minutes will be printed on the OSOR report.

1. HOURLY - One hour's worth of data.
2. DAILY - The previous day's worth of data.
3. DAY TO HOUR - Today's data from midnight to the current hour's data collection.
4. MONTH TO DATE - This month's data up to and including the previous day.

d. *PART OF DAY* category. Listed is the range of times of the day for the report schedule to be displayed.

1. before noon, (midnight to 11am)
2. after noon, (noon to 11pm)
3. on the top of the hour,
4. on the half hour.

e. *MLSSDMD DATA TIME.* A time is entered in this field which represents the data collection time for the demand MLSS report being requested. The time is of the format:
hhmm
where hh is hour from 00-23,
and mm is minutes, either 00 or 30.

f. *INHIBIT.* This flag indicates whether printing of the report is stopped, regardless of its schedule.

g. *TIME* category. The individual hours are listed for the range selected in the PART OF DAY category.

h. Day of the Week. *SUN MON TUE WED THU FRI SAT.* Together with the TIME category, they make the coordinates of a grid to specify the time and day for the OSOR report to be printed.

i. *CHANNELS* category Listed are the legal 4 ESS channels that the OSOR reports can be printed on. Check with switch support personnel for supported channels.

j. *NSPMP NC DISC DAYS.* Network Switching Performance Measurement Plan no circuit discount days - domestic (DOM) and international (INTNL). On these dates, the circuit performance will not be included in the network switching performance data collected for the switch.

5.02 **Usage: Scheduled reports** These reports require a two step processes to be scheduled.

First, the current scheduled must be displayed. Second, the displayed schedule is modified.

Refer to Table 1 for the types of scheduled reports available for each report listed in the NAME category. They are identified by a required PART OF DAY, or a "+".

The following steps are used to schedule a report using EF1.

a. *Initial Display.* The initial EF1 display is brought up on the screen by selecting EF1 on the EF directory or by specifying EF1 in the page (P) window on any NMDS page.

The initial EF1 display will indicate the day, date and time-of-day as shown on Figure 2.

b. *Display Report Schedule.* The current schedule for a report may now be displayed by entering:

1. Report NAME. Select only one, excluding DEMAND or THRLD.
2. "INTNL" if an international report is desired, otherwise a domestic report is assumed.
3. TYPE of report (select only one) hourly, daily and month-to-date are scheduled reports.
4. PART OF DAY (select only one).

Figure 3, is an example showing the input needed to display the current schedule for an MPR 2 hourly report for times ending on the hour from 0000 through 1100.

Figure 4, shows the resulting display.

NOTE: "DSPLY" appears on the first line.

c. *Modify Report Schedule.* With the current schedule displayed, desired modifications to the schedule may be made:

1. CHANNELS. From one to five output channels may be selected. A minimum of one channel must be chosen before a report can be scheduled to print.
2. TIME. The PART-OF-DAY selected, is expanded into a block of twelve clock times, in increments of one hour. This forms the row identifier for the scheduling matrix.

   The column identifier for the scheduling matrix, is the day of the week, Sunday through Saturday.

   To schedule a report, place a "+" in the matrix, at the intersection of the desired TIME and day of the week for the report to run.

   Multiple times and days may be selected per matrix.
3. INHIBIT. This field must be set to a blank for the report to print on the selected channel. A "+" in the INHIBIT window prevents the report from printing regardless of the schedule for the report.

Figure 5, shows the user inputed schedule for a sample MPR2. After sending the data into the system the change requested is acknowledged by "CHNGE" in the window on the first line. Figure 6, shows the resulting display.

NOTE: "CHNGE" appears on the first line after the schedule is accepted.

d. *Errors In Scheduling.* An error occurs when the user has selected a report using invalid options. This type of error is identified by the text on the second line of the page "INVALID NAME, TYPE, PART-OF-DAY", and "ERROR" on the first line. Figure 7, shows the resulting display.

Another type of error occurs when the user has missing information. Figure 8, shows the resulting display when a channel is not selected.

NOTE: A blinking/flashing "ERROR" appears on the first line, and a more specific error message appears in blinking/flashing print, on the second line. The schedule is rejected.

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```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:33         SENT AT 15:33:18

 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
( ) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     ( ) HOURLY        ( ) 0000-1100
( ) MPR2   ( ) MLSS   ( ) ACCESI  ( ) CMC      ( ) DAILY         ( ) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   ( ) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
( ) MSR2   ( ) INTNL  ( ) OWATS
( ) NSPMPA ( ) THRLD  ( ) PBX                           MLSSDMD DATA TIME [    ]
( ) NSPMPT            ( ) POTS
( ) SEPSUM                       ( ) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                                     ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                  CHANNELS         ( ) ( ) ( ) ( ) ( ) ( ) ( )
   DOM        INTNL                ( ) TRF1         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              ( ) SREC1        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) MTC          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) TRF2         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              ( ) NMPR1        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) NMPR2        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) TCA1         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              ( ) TCA2         ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) SREC2        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99                               ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

The initial EF1 display is brought up on the screen by selecting EF1 on the EF directory or by specifying EF1 in the page (P) window on any NMDS page.

The initial EF1 display will indicate the day, date and time-of-day, and office name.

Figure 2. EF1 - INITIAL DISPLAY

```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:33         SENT AT 15:33:18

 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
( ) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     (+) HOURLY        (+) 0000-1100
(+) MPR2   ( ) MLSS   ( ) ACCESI  ( ) CMC      ( ) DAILY         ( ) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   ( ) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
( ) MSR2   ( ) INTNL  ( ) OWATS
( ) NSPMPA ( ) THRLD  ( ) PBX                           MLSSDMD DATA TIME [    ]
( ) NSPMPT            ( ) POTS
( ) SEPSUM                       ( ) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                                     ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                  CHANNELS         ( ) ( ) ( ) ( ) ( ) ( ) ( )
   DOM        INTNL                ( ) TRF1         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              ( ) SREC1        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) MTC          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) TRF2         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              ( ) NMPR1        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) NMPR2        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) TCA1         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              ( ) TCA2         ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) SREC2        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99                               ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

User input to request the MPR2 hourly report schedule for 0000-1100.

Figure 3. EF1 - SCHEDULE MODIFICATION: User Input - Report Selection

```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:34  DSPLY  SENT AT 15:34:38

 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
( ) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     (+) HOURLY        (+) 0000-1100
(+) MPR2   ( ) MLSS   ( ) ACCESI  ( ) CMC      ( ) DAILY         ( ) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   ( ) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
( ) MSR2   ( ) INTNL  ( ) OWATS
( ) NSPMPA ( ) THRLD  ( ) PBX                          MLSSDMD DATA TIME [    ]
( ) NSPMPT            ( ) POTS
( ) SEPSUM                       (+) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                               0000  ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                CHANNELS     0100  ( ) ( ) ( ) ( ) ( ) ( ) ( )
   DOM        INTNL               ( ) TRF1     0200  ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            ( ) SREC1    0300  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) MTC      0400  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) TRF2     0500  ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            ( ) NMPR1    0600  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) NMPR2    0700  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) TCA1     0800  ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            ( ) TCA2     0900  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) SREC2    1000  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99                         1100  ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

Display of the current schedule for MPR2 hourly for 0000-1100.

This is the initial schedule for a report. Notice that the INHIBIT is set.

Figure 4. EF1 - SCHEDULE MODIFICATION: Report Selection Response

```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:34  DSPLY  SENT AT 15:34:38

 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
( ) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     (+) HOURLY        (+) 0000-1100
(+) MPR2   ( ) MLSS   ( ) ACCESI  ( ) CMC      ( ) DAILY         ( ) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   ( ) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
( ) MSR2   ( ) INTNL  ( ) OWATS
( ) NSPMPA ( ) THRLD  ( ) PBX                          MLSSDMD DATA TIME [    ]
( ) NSPMPT            ( ) POTS
( ) SEPSUM                       ( ) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                               0000  ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                CHANNELS     0100  ( ) ( ) ( ) ( ) ( ) ( ) ( )
   DOM        INTNL               ( ) TRF1     0200  ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            (+) SREC1    0300  ( ) (+) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            (+) MTC      0400  ( ) ( ) ( ) ( ) ( ) (+) ( ) ( )
99/99/99     99/99/99            ( ) TRF2     0500  ( )-( )-(+)-( )-( )-( )-( )
99/99/99     99/99/99            (+) NMPR1    0600  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) NMPR2    0700  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) TCA1     0800  ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            ( ) TCA2     0900  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) SREC2    1000  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99                         1100  ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

User input: MPR2 hourly report scheduled to print on
- Monday   at 3am.
- Tuesday at 5am.
- Thursday at 4am.

The report output will be printed on the SREC1, MTC and NMPR1 channels.
Notice the INHIBIT flag is removed.

Figure 5. EF1 - SCHEDULE MODIFICATION: User Input - Report Schedules Modified

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```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:35  CHNGE  SENT AT 15:35:58

 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
( ) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     (+) HOURLY        (+) 0000-1100
(+) MPR2   ( ) MLSS   ( ) ACCESI  ( ) CMC      ( ) DAILY         ( ) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   ( ) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
( ) MSR2   ( ) INTNL  ( ) OWATS
( ) NSPMPA ( ) THRLD  ( ) PBX                          MLSSDMD DATA TIME [    ]
( ) NSPMPT            ( ) POTS
( ) SEPSUM                       ( ) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                               0000  ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                CHANNELS     0100  ( ) ( ) ( ) ( ) ( ) ( ) ( )
   DOM        INTNL              ( ) TRF1      0200  ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            (+) SREC1     0300  ( ) (+) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            (+) MTC       0400  ( ) ( ) ( ) ( ) (+) ( ) ( )
99/99/99     99/99/99            ( ) TRF2      0500  ( )-( )-(+)-( )-( )-( )-( )
99/99/99     99/99/99            (+) NMPR1     0600  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) NMPR2     0700  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) TCA1      0800  ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            ( ) TCA2      0900  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) SREC2     1000  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99                          1100  ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

System accepted schedule.

Notice the request was accepted by the "CHNGE" in the window on the first line.

Figure 6. EF1 - SCHEDULE MODIFICATION: System Response - Report Schedules Modified

```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:40  ERROR  SENT AT 15:40:32
 INVALID NAME, TYPE, PART-OF-DAY
 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
(+) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     (+) HOURLY        (+) 0000-1100
( ) MPR2   ( ) MLSS   ( ) ACCESI  ( ) CMC      ( ) DAILY         ( ) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   ( ) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
( ) MSR2   ( ) INTNL  ( ) OWATS
( ) NSPMPA ( ) THRLD  ( ) PBX                          MLSSDMD DATA TIME <    >
( ) NSPMPT            ( ) POTS
( ) SEPSUM                       ( ) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                                     ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                CHANNELS           ( ) ( ) ( ) ( ) ( ) ( ) ( )
   DOM        INTNL              ( ) TRF1           ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            ( ) SREC1          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) MTC            ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) TRF2           ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            ( ) NMPR1          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) NMPR2          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) TCA1           ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            ( ) TCA2           ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) SREC2          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99                               ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

Result of entering an invalid combination of options.

Notice the request was rejected by the "ERROR" in the window on the first line and the specific error message on the second line.

Figure 7. EF1 - SCHEDULE MODIFICATION: Error - Invalid Option Combination

```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:45  ERROR  SENT AT 15:45:33
 INVALID CHANNEL CONFIGURATION
 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
( ) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     ( ) HOURLY        ( ) 0000-1100
(+) MPR2   ( ) MLSS   ( ) ACCESI  ( ) CMC      (+) DAILY         (+) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   ( ) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
( ) MSR2   ( ) INTNL  ( ) OWATS
( ) NSPMPA ( ) THRLD  ( ) PBX                          MLSSDMD DATA TIME [    ]
( ) NSPMPT            ( ) POTS
( ) SEPSUM                       ( ) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                               1200  ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                CHANNELS     1300  (+) (+) (+) (+) (+) (+) (+)
   DOM        INTNL              ( ) TRF1      1400  ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            ( ) SREC1     1500  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) MTC       1600  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) TRF2      1700  ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            ( ) NMPR1     1800  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) NMPR2     1900  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) TCA1      2000  ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99            ( ) TCA2      2100  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99            ( ) SREC2     2200  ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99                          2300  ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]

MPR2 daily report scheduled but no output channel specified.

This error message also appears when more than 5 output channels are selected.

Notice the request was rejected by the "ERROR" in the window on the first line and the specific error
message on the second line.
```

Figure 8. EF1 - SCHEDULE MODIFICATION: Error - Invalid Channel Option

5.03 **Usage: Demand reports** These reports require a single step to be scheduled. All relevant information is entered on the initial screen, and the report is printed on the next quarter hour boundary. There is no demand schedule to display.

The following steps are used to schedule a demand report using EF1. Refer to Table 1 for the types of demand reports available for each report listed in the NAME category. They are identified by a required CHANNEL input.

A demand report is requested by entering:

a. Report name

b. Data type

   1. "DEMAND" for MLSS hourly data is implied
   2. "DEMAND" for NSPMP data for the previous month is implied
   3. "DAY to HOUR" for MSR1, MSR2, MPR2, MPR3, SEPSUM.

c. "MLSSDMD DATA TIME" if an MLSS report is to be printed. This is not the print time, but the specific hour from which to display data on the report. The MLSS report will display the data gathered ending on the time specified. Any hour, from the previous 24 hours, ending on an hour or half hour is valid.

d. "CHANNELS" - at least one but not more than five channels are chosen to print the report.

NOTE: Other "+"s left from previous operations must be blanked and the "INHIBIT" window must be blank.

The normal response is:

"NEXT QUARTER HOUR STARTS OUTPUT"

displayed on the second line of the display. The report will be printed shortly after the next 15 minute boundary. (hh00, hh15, hh30, hh45).

See Figures 9, 10, and 11 for examples of a demand report request.

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```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:48  CHNGE  SENT AT 15:48:39
 NEXT QUARTER HOUR STARTS OUTPUT
 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
( ) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     ( ) HOURLY        ( ) 0000-1100
( ) MPR2   (+) MLSS   ( ) ACCESI  ( ) CMC      ( ) DAILY         ( ) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   (+) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
( ) MSR2   ( ) INTNL  ( ) OWATS
( ) NSPMPA ( ) THRLD  ( ) PBX                          MLSSDMD DATA TIME [1030]
( ) NSPMPT            ( ) POTS
( ) SEPSUM                        ( ) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                                      ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                   CHANNELS         ( ) ( ) ( ) ( ) ( ) ( ) ( )
   DOM        INTNL                 ( ) TRF1         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              ( ) SREC1          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              (+) MTC            ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) TRF2           ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              (+) NMPR1          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) NMPR2          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) TCA1           ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              ( ) TCA2           ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) SREC2          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99                                 ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                           01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]

MLSS demand report requested and accepted.  Data collected from 09:30 to 10:30 am is displayed on the
printed report.
```

Figure 9. EF1 - SCHEDULE MODIFICATION: Demand Report Request

```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:47  ERROR  SENT AT 15:47:41
 INVALID MLSSDMD DATA TIME
 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
( ) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     ( ) HOURLY        ( ) 0000-1100
( ) MPR2   (+) MLSS   ( ) ACCESI  ( ) CMC      ( ) DAILY         ( ) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   (+) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
( ) MSR2   ( ) INTNL  ( ) OWATS
( ) NSPMPA ( ) THRLD  ( ) PBX                          MLSSDMD DATA TIME [    ]
( ) NSPMPT            ( ) POTS
( ) SEPSUM                       ( ) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                                     ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                  CHANNELS         ( ) ( ) ( ) ( ) ( ) ( ) ( )
   DOM        INTNL                ( ) TRF1         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              ( ) SREC1        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              (+) MTC          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) TRF2         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              (+) NMPR1        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) NMPR2        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) TCA1         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              ( ) TCA2         ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) SREC2        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99                               ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]

MLSSDMD DATA TIME (hour or half-hour) must be specified.
The time is of the format:
        hhmm
where hh is hour from 00-23, and mm is minutes, either 00 or 30.
```

Figure 10. EF1 - SCHEDULE MODIFICATION: Error - Demand Report Request

```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:47  ERROR  SENT AT 15:47:41
INVALID MLSSDMD DATA TIME
 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
( ) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     ( ) HOURLY        ( ) 0000-1100
( ) MPR2   (+) MLSS   ( ) ACCESI  ( ) CMC      ( ) DAILY         ( ) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   (+) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
( ) MSR2   ( ) INTNL  ( ) OWATS
( ) NSPMPA ( ) THRLD  ( ) PBX                          MLSSDMD DATA TIME [1030]
( ) NSPMPT            ( ) POTS
( ) SEPSUM                       ( ) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                                     ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                  CHANNELS         ( ) ( ) ( ) ( ) ( ) ( ) ( )
   DOM        INTNL                ( ) TRF1         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              ( ) SREC1        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              (+) MTC          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) TRF2         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              (+) NMPR1        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) NMPR2        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) TCA1         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99              ( ) TCA2         ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99              ( ) SREC2        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99                               ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]

MLSSDMD request ready for RE-ENTRY after FIGURE 11 ERROR.  The MLSSDMD data time is specified as
"1030" for the data collected ending at 10:30 am.

The resulting system response is found on FIGURE 9.
```

Figure 11. EF1 - SCHEDULE MODIFICATION: Demand Report Request Error Correction

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```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:33  DSPLY  SENT AT 15:33:18

 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
( ) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     ( ) HOURLY        ( ) 0000-1100
( ) MPR2   ( ) MLSS   ( ) ACCESI  ( ) CMC      ( ) DAILY         ( ) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   ( ) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
(+) MSR2   (+) INTNL  ( ) OWATS
( ) NSPMPA (+) THRLD  ( ) PBX                          MLSSDMD DATA TIME [    ]
( ) NSPMPT            ( ) POTS
( ) SEPSUM                       (+) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                                     ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                  CHANNELS         ( ) ( ) ( ) ( ) ( ) ( ) ( )
   DOM        INTNL                ( ) TRF1         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99             ( ) SREC1        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99             ( ) MTC          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99             ( ) TRF2         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99             ( ) NMPR1        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99             ( ) NMPR2        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99             ( ) TCA1         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99             ( ) TCA2         ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99             ( ) SREC2        ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99                              ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

Display for MSR2 INTNL THRLD report after user input. This shows INHIBIT state and current CHANNEL settings.

Figure 12. EF1 - SCHEDULE MODIFICATION: Threshold Report request

5.04 **Usage: Threshold reports** Threshold reports are available for both domestic and international versions of the MSR2 report. These reports print automatically if any data for an hour is out of bounds when compared to its threshold. EF1 is used to specify the channels to which output will be sent if thresholds are equaled or exceeded.

The domestic MSR2 Threshold report will only print the items which have equaled or exceeded the preset threshold value for that item. This summary of exception items is referenced by an associated item which may or may not have exceeded its threshold.

The entire international MSR2 report will print when a threshold condition is raised for an international threshold report request.

The threshold values are set via page EF5 for the MSR2 report, both domestic and international versions.

The MSR2 threshold report is a scheduled report.

a. Report name = MSR2
b. NAME option = THRLD

Printing may be prevented by setting the INHIBIT window to "+". Figure 12 illustrates actions for a threshold report.

5.05 **Usage: MPR1 report** By default, MPR1 is scheduled to print every 15 minutes on the SREC1 and MTC channels. Modifications to the MPR1 schedule are limited to the selection of channels to which MPR1 is printed, and whether or not the report prints at all.

MPR1 is a scheduled report.

a. Report name = MPR1

EF1 is used to select from one to five output channels for the MPR1 report.

The MPR1 may be stopped from printing by setting "INHIBIT" to "+".

No further scheduling options exist for MPR1; it is automatically set to print every 15 minutes.

5.06 **EF1 Error Display.** If during use of EF1 the system detects incomplete or invalid scheduling data, an error message will be displayed. Figures 7, 8, 10, illustrate various errors.

5.07 **Usage: NSPMP NC DISC DAYS**. EF1 NSPMP No Circuit (NC) Discount Day input. As described in Division 10, Section 4i and 4j, EF1 page contains the input structure for establishing authorized NSPMP NC discount days in the OSOR system. These are dates which the circuit performance will not be included in the network switching performance data collected for the switch.

Authorized NC discount days are entered in a mm/dd/yy format at any time during the calendar year prior to midnight of the authorized day. Although any one of the nine available entry slots may be overwritten with the next authorized discount day as it approaches, nine slots are provided so all authorized days may be entered at one time. This also provides an at-a-glance record of authorized days. Figure 14 illustrates the NC DISC DAY input.

A maximum of nine (9) discount days are allowed by the system.

NOTE: Each block (mm, dd, yy) must have a numeric entry at all times or an error message will result.

To "erase" a date, enter the value "9" for month, date and year. The resulting display is "99/99/99".

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```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:33  DSPLY  SENT AT 15:33:18

 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
(+) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     ( ) HOURLY        ( ) 0000-1100
( ) MPR2   ( ) MLSS   ( ) ACCESI  ( ) CMC      ( ) DAILY         ( ) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   ( ) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
( ) MSR2   ( ) INTNL  ( ) OWATS
( ) NSPMPA ( ) THRLD  ( ) PBX                           MLSSDMD DATA TIME [    ]
( ) NSPMPT            ( ) POTS
( ) SEPSUM                       ( ) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                                     ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                  CHANNELS         ( ) ( ) ( ) ( ) ( ) ( ) ( )
   DOM        INTNL                ( ) TRF1         ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99             (+) SREC1         ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99             (+) MTC           ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99             ( ) TRF2          ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99             ( ) NMPR1         ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99             ( ) NMPR2         ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99             ( ) TCA1          ( )-( )-( )-( )-( )-( )-( )
99/99/99     99/99/99             ( ) TCA2          ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99             ( ) SREC2         ( ) ( ) ( ) ( ) ( ) ( ) ( )
99/99/99     99/99/99                               ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]

Display for the MPR1 default.
```

Figure 13. EF1 - SCHEDULE MODIFICATION: MPR1 Report

```
EF1   OSOR SCHEDULE MODIFICATION 1      DATA TIME 15:33         SENT AT 15:33:18

 ------- NAME -------  ----- FEN CLASS ------   --- TYPE -------  -- PART OF DAY
( ) MPR1   ( ) FEN    ( ) ACCESA  ( ) CAMA     ( ) HOURLY        ( ) 0000-1100
( ) MPR2   ( ) MLSS   ( ) ACCESI  ( ) CMC      ( ) DAILY         ( ) 1200-2300
( ) MPR3              ( ) ACCESO  ( ) OEO      ( ) DAY TO HOUR   ( ) 0030-1130
( ) MSR1   ( ) DEMAND ( ) INTNL                ( ) MONTH TO DATE ( ) 1230-2330
( ) MSR2   ( ) INTNL  ( ) OWATS
( ) NSPMPA ( ) THRLD  ( ) PBX                          MLSSDMD DATA TIME [    ]
( ) NSPMPT            ( ) POTS
( ) SEPSUM                       ( ) INHIBIT   TIME  SUN MON TUE WED THU FRI SAT
                                                     ( ) ( ) ( ) ( ) ( ) ( ) ( )
NSPMP NC DISC DAYS                  CHANNELS         ( ) ( ) ( ) ( ) ( ) ( ) ( )
   DOM        INTNL                ( ) TRF1         ( )-( )-( )-( )-( )-( )-( )
01/01/95     99/99/99             ( ) SREC1        ( ) ( ) ( ) ( ) ( ) ( ) ( )
02/14/95     99/99/99             ( ) MTC          ( ) ( ) ( ) ( ) ( ) ( ) ( )
04/14/95     99/99/99             ( ) TRF2         ( )-( )-( )-( )-( )-( )-( )
05/29/95     99/99/99             ( ) NMPR1        ( ) ( ) ( ) ( ) ( ) ( ) ( )
07/04/95     99/99/99             ( ) NMPR2        ( ) ( ) ( ) ( ) ( ) ( ) ( )
11/27/95     99/99/99             ( ) TCA1         ( )-( )-( )-( )-( )-( )-( )
12/24/95     99/99/99             ( ) TCA2         ( ) ( ) ( ) ( ) ( ) ( ) ( )
12/25/95     99/99/99             ( ) SREC2        ( ) ( ) ( ) ( ) ( ) ( ) ( )
12/31/95     99/99/99                              ( ) ( ) ( ) ( ) ( ) ( ) ( )
  MON                          12/02/94 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

An example of Domestic NSPMP NC DISCount DAY input.

This is the display for both user input and system response. Note there is no "CHNGE" on the first line from the system response. The DATA TIME and SENT AT times are changed when the system responds.

Figure 14. EF1 - SCHEDULE MODIFICATION: NC DISCOUNT DAY INPUT

TABLE 1. EF01 Legal Input Combinations

EF01 Input								
NAME				TYPE				FEN Class
Report	Demand	Intnl	Thrld	Hourly	Daily	Day to Hour	Month to Date	
MPR1	-	-	-	-	-	-	-	-
MPR2				**T**	**T**	**C**	**T**	
MPR3				**T**	**T**	**C**	**T**	
SEPSUM				**T**	**T**	**C**	**T**	
MSR1				**T**	**T**	**C**	**T**	
MSR2			+	**T**	**T**	**C**	**T**	
MSR2 -I		+	+	**T**	**T**	**C**	**T**	
NSPMPA					**T**		**T**	
NSPMPT	**C**				**T**		**T**	
NSPMPT-I	**C**	+			**T**		**T**	
MLSS	**CM**			**T**				
FEN					**T**			+

Legend:

+ "(+)" in NAME for report
T "(+)" in NAME for report and "(+)" in PART OF DAY
C "(+)" in NAME for report and "(+)" in CHANNELS
CM "(+)" in NAME for report and "(+)" in CHANNELS and "[time]" in MLSSDMD DATA TIME

6. EF2 - OSOR SCHEDULE MODIFICATION 2

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Page EF2 - This page is used to schedule the Load Distribution Report (LDR) and the Load Service Report (LSR). Separate LDR or LSR reports may be obtained for each of the following items:

1. CCIS transceivers
2. CAMA operator positions
3. Call registers
4. MF receivers
5. MF transmitters
6. Time division network
7. 1A/1B Processor
8. DTMF receivers
9. DTMF transmitters

6.01 Parts of EF2:

EF2 is actually two scheduling pages on the same display - the LSR SCHEDULING half, and the LDR SCHEDULING half. The user must specify either LSR SCHEDULING, or LDR SCHEDULING, but not both.

Note: any extraneous "+" on the unused half, must be cleared i.e. overwritten with the space character.

LSR SCHEDULING

a. *OPERATION* category. Listed are the operations that can be scheduled by EF2 - LSR scheduling.

   1. DATA COLLECTION must be supplied with a busy hour and period, for an engineering item, then manually initiated.

      For each engineering item, there are 4 possible data collection groupings: One for each Time Consistent Busy Hour (TCBH) for each of the two periods M-F and Sunday.

      The exceptions is 1A/1B PROC which uses "peak interval engineering basis" instead of a TCBH. The system will determine the busiest interval itself by looking back over the day's data.

   2. PRINT REPORT is a demand report for the engineering item and busy hour selected.

   3. INITIALIZE STORAGE The LSR database is maintained on a rolling year basis. To initialize means to discard the old data (zero the data) for an engineering item at the next collection interval, thus starting a new "rolling" year.

   4. IGNORE GRACE DAY An "ignore grace day" flag is provided for each report. The data collected for a busy hour is not incorporated into the regular memory for a report until the collection period following the one in which it was collected. Before the data is placed into the regular memory, the grace day flag is tested. If the flag is set, the data for that one collection period is discarded. This mechanism allows one to keep unusual traffic days, not of engineering interest, out of the data base.

b. *PERIOD* category. Two different sets of busy hour times may be specified for the

   1. MONDAY through FRIDAY period,
   2. SUNDAY period.

   Data is not collected on Saturday.

c. *INH DATA COLL*, inhibits LSR data collection. This field affects all LSR reports. It is used to stop data collection for all LSR reports. The data collection times for each report are still remembered so that when the inhibit is removed, normal actions resume.

d. *CHANNELS* category. At least one but not more than five channels are chosen to print the report.

e. *TCBH1, TCBH2* categories. Two different Time Consistent Busy Hours (TCBH) may be specified for each listed engineering item. The 1A/1B PROCessor is the only engineering item that does not require a busy hour.

   A Busy hour is entered in the time format:
   hhmm
   where hh is hour from 00-23,
   and mm is minutes, either 00 or 30.
   9999 is the default time for which no data is collected.

LDR SCHEDULING

f. *REPORT TYPE* category. Specifies the time period for which the load distribution is examined.

   1. 1 DAY
   2. 5 DAY
   3. INH 5 DAY COLL will inhibit the data collection for the 5 day LDR report.

g. *EQUIPMENT* category. lists the engineering items that can be examined for load distributions.

h. *CHANNELS* category. At least one but not more than five channels are chosen to print the report.

i. *TIME* category. Listed are the days of the week for the report to be printed. The user enters the specific time for the particular day of the week (Sunday through Saturday), where the time is of the format:
   hhmm
   where hh is hour from 00-23,
   and mm is minutes, either 00 or 30.

6.02 **Usage: LDR scheduling (1-day type).**

The following actions are used to schedule a 1-day Load Distribution Report.

a. *Initial Display.* The initial EF2 display is brought up on the screen by selecting EF2 on the EF directory or by specifying EF2 in the page (P) window on any NMDS page.

The initial EF2 display will indicate the day, date and time-of-day as shown on Figure 15.

b. *Display Report Schedule.* Obtain the current status of a report by selecting

1. LDR SCHEDULING
2. REPORT TYPE = 1 DAY
3. EQUIPMENT = the desired engineering item.
   Select only one.

Figure 16 shows the User input required to display the schedule. Figure 17, shows the resulting display.

NOTE: "DSPLY" appears on the first line.

c. *Modify Report Schedule.* With the current schedule displayed, desired modifications to the schedule may be made:

1. Output CHANNELS - from one to five output channels may be selected. A minimum of one channel must be chosen.
2. Print TIME - time of day and day of week, are selected by entering the time on the day of the week the report is desired.

Figure 18, show the user changes. Figure 19, shows the resulting display.

NOTE: "CHNGE" appears on the first line after the schedule is accepted.

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Use pursuant to Company Instructions

```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:20  DSPLY  SENT AT 16:20:32

          ( ) LSR SCHEDULING                |        ( ) LDR SCHEDULING
       OPERATION          PERIOD            |   REPORT TYPE       EQUIPMENT
 ( ) DATA COLLECTION      ( ) M-F           |    ( ) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN           |    ( ) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                     |                    ( ) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                            |                    ( ) MF XMTR
                                            |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2    |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [    ]( )  [    ]( )|   ( ) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [    ]( )  [    ]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [    ]( )  [    ]( )|   ( ) MTC
( ) TRF2   MF RCVR      [    ]( )  [    ]( )|   ( ) TRF2            SUN [    ]
( ) NMPR1  MF XMTR      [    ]( )  [    ]( )|   ( ) NMPR1           MON [    ]
( ) NMPR2  TDNET        [    ]( )  [    ]( )|   ( ) NMPR2           TUE [    ]
( ) TCA1   DTMF RCVR    [    ]( )  [    ]( )|   ( ) TCA1      TIME  WED [    ]
( ) TCA2   DTMF XMTR    [    ]( )  [    ]( )|   ( ) TCA2            THU [    ]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [    ]
                                            |                       SAT [    ]
                                            |
                                            |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

Figure 15. EF2 - SCHEDULE MODIFICATION: Initial Display

```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:20         SENT AT 16:20:32

          ( ) LSR SCHEDULING                |        (+) LDR SCHEDULING
       OPERATION          PERIOD            |   REPORT TYPE       EQUIPMENT
 ( ) DATA COLLECTION      ( ) M-F           |    (+) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN           |    ( ) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                     |                    (+) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                            |                    ( ) MF XMTR
                                            |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2    |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [    ]( )  [    ]( )|   ( ) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [    ]( )  [    ]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [    ]( )  [    ]( )|   ( ) MTC
( ) TRF2   MF RCVR      [    ]( )  [    ]( )|   ( ) TRF2            SUN [    ]
( ) NMPR1  MF XMTR      [    ]( )  [    ]( )|   ( ) NMPR1           MON [    ]
( ) NMPR2  TDNET        [    ]( )  [    ]( )|   ( ) NMPR2           TUE [    ]
( ) TCA1   DTMF RCVR    [    ]( )  [    ]( )|   ( ) TCA1      TIME  WED [    ]
( ) TCA2   DTMF XMTR    [    ]( )  [    ]( )|   ( ) TCA2            THU [    ]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [    ]
                                            |                       SAT [    ]
                                            |
                                            |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

User input to request a 1-Day LDR report for Call registers.

Figure 16. EF2 - 1 DAY LDR SCHEDULING: User Schedule Request

```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:22  DSPLY  SENT AT 16:22:48

          ( ) LSR SCHEDULING                |        (+) LDR SCHEDULING
       OPERATION          PERIOD            |   REPORT TYPE       EQUIPMENT
 ( ) DATA COLLECTION      ( ) M-F           |    (+) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN           |    ( ) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                     |                    (+) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                            |                    ( ) MF XMTR
                                            |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2    |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [    ]( )  [    ]( )|   ( ) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [    ]( )  [    ]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [    ]( )  [    ]( )|   ( ) MTC
( ) TRF2   MF RCVR      [    ]( )  [    ]( )|   ( ) TRF2            SUN [9999]
( ) NMPR1  MF XMTR      [    ]( )  [    ]( )|   ( ) NMPR1           MON [9999]
( ) NMPR2  TDNET        [    ]( )  [    ]( )|   ( ) NMPR2           TUE [9999]
( ) TCA1   DTMF RCVR    [    ]( )  [    ]( )|   ( ) TCA1      TIME  WED [9999]
( ) TCA2   DTMF XMTR    [    ]( )  [    ]( )|   ( ) TCA2            THU [9999]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [9999]
                                            |                       SAT [9999]
                                            |
                                            |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

Display of current schedule for 1 DAY LDR for CALL REG showing report is not scheduled. This is the default schedule.

Figure 17. EF2 - 1 DAY LDR SCHEDULING: LDR Schedule Displayed

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Use pursuant to Company Instructions

```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:22  DSPLY  SENT AT 16:22:48

          ( ) LSR SCHEDULING               |        (+) LDR SCHEDULING
       OPERATION          PERIOD           |   REPORT TYPE       EQUIPMENT
 ( ) DATA COLLECTION      ( ) M-F          |    (+) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN          |    ( ) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                    |                    (+) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                           |                    ( ) MF XMTR
                                           |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2   |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [    ]( )  [    ]( )|   (+) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [    ]( )  [    ]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [    ]( )  [    ]( )|   ( ) MTC
( ) TRF2   MF RCVR      [    ]( )  [    ]( )|   ( ) TRF2            SUN [1600]
( ) NMPR1  MF XMTR      [    ]( )  [    ]( )|   ( ) NMPR1           MON [9999]
( ) NMPR2  TDNET        [    ]( )  [    ]( )|   ( ) NMPR2           TUE [9999]
( ) TCA1   DTMF RCVR    [    ]( )  [    ]( )|   ( ) TCA1      TIME  WED [9999]
( ) TCA2   DTMF XMTR    [    ]( )  [    ]( )|   ( ) TCA2            THU [9999]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [1800]
                                           |                        SAT [9999]
                                           |
                                           |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

User input to schedule a 1 DAY LDR for CALL REG for Sunday at 4pm and for Friday at 6pm, to print on the TRF1 channel.

Figure 18. EF2 - 1 DAY LDR SCHEDULING: Change LDR Schedule

```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:24  CHNGE  SENT AT 16:24:18

          ( ) LSR SCHEDULING               |        (+) LDR SCHEDULING
       OPERATION          PERIOD           |   REPORT TYPE       EQUIPMENT
 ( ) DATA COLLECTION      ( ) M-F          |    (+) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN          |    ( ) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                    |                    (+) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                           |                    ( ) MF XMTR
                                           |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2   |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [    ]( )  [    ]( )|   (+) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [    ]( )  [    ]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [    ]( )  [    ]( )|   ( ) MTC
( ) TRF2   MF RCVR      [    ]( )  [    ]( )|   ( ) TRF2            SUN [1600]
( ) NMPR1  MF XMTR      [    ]( )  [    ]( )|   ( ) NMPR1           MON [9999]
( ) NMPR2  TDNET        [    ]( )  [    ]( )|   ( ) NMPR2           TUE [9999]
( ) TCA1   DTMF RCVR    [    ]( )  [    ]( )|   ( ) TCA1      TIME  WED [9999]
( ) TCA2   DTMF XMTR    [    ]( )  [    ]( )|   ( ) TCA2            THU [9999]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [1800]
                                           |                        SAT [9999]
                                           |
                                           |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

Schedule request accepted.

Figure 19. EF2 - 1 DAY LDR SCHEDULING: LDR Schedule Change accepted

6.03 **Usage: LDR scheduling (5-day type).** The following actions are used to schedule a 5-day LDR:

a. *Initial Display.* Call up the initial EF2 display.

   See Figure 15 for the EF2 initial display.

b. *Display Report Schedule.* Obtain the current status of a report by selecting

1. LDR SCHEDULING
2. REPORT TYPE = 5 DAY
3. EQUIPMENT = the desired engineering item.
   Select only one.

Figure 20 shows the resulting display.

NOTE: "DSPLY" appears on the first line.

c. *Modify Report Schedule.* With the current schedule displayed, modifications to the schedule may be made:

1. Output CHANNELS - from one to five output channels may be selected. A minimum of one channel must be chosen.

2. Print TIME - time of day and day of week, are selected by entering the time on the day of the week the report is desired. Figure 21 shows the system response.

   For the time window there are a few restrictions that apply only to 5-day LDRs:

   For a 5-day report, memory is required to accumulate the data. One allotment of memory per equipment type is available. Therefore for the 5-day LDR only one output time may be selected for any one equipment type (Figure 21). Figure 22 shows the error message for an invalid condition.

   If the display made shows that a 5-day schedule is in effect, it is possible to enter a new output time and thus override the current schedule. If the new output time is for a different day, the old output time has to be replaced with ’9999’.

   If an output time is selected that is not at least 5 days in the future, there will be an alerting message of that fact (Figure 23). The report will be printed at the specified time but will be based on less than 5 days’ worth of data.

NOTE: "CHNGE" appears on the first line after the schedule is accepted.

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```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:25  DSPLY  SENT AT 16:25:33

          ( ) LSR SCHEDULING               |        (+) LDR SCHEDULING
       OPERATION          PERIOD           |   REPORT TYPE       EQUIPMENT
 ( ) DATA COLLECTION      ( ) M-F          |    ( ) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN          |    (+) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                    |                    (+) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                           |                    ( ) MF XMTR
                                           |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2   |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [    ]( )  [    ]( )|   (+) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [    ]( )  [    ]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [    ]( )  [    ]( )|   ( ) MTC
( ) TRF2   MF RCVR      [    ]( )  [    ]( )|   ( ) TRF2            SUN [9999]
( ) NMPR1  MF XMTR      [    ]( )  [    ]( )|   ( ) NMPR1           MON [9999]
( ) NMPR2  TDNET        [    ]( )  [    ]( )|   ( ) NMPR2           TUE [9999]
( ) TCA1   DTMF RCVR    [    ]( )  [    ]( )|   ( ) TCA1      TIME  WED [9999]
( ) TCA2   DTMF XMTR    [    ]( )  [    ]( )|   ( ) TCA2            THU [9999]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [9999]
                                           |                        SAT [9999]
                                           |
                                           |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]

Display of the current schedule for a 5-Day LDR report for Call Registers.  No reports are scheduled.
```

Figure 20. EF2 - 5 DAY LDR SCHEDULING: Display of the Current Schedule.

```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:28  CHNGE  SENT AT 16:28:11

          ( ) LSR SCHEDULING               |        (+) LDR SCHEDULING
       OPERATION          PERIOD           |   REPORT TYPE       EQUIPMENT
 ( ) DATA COLLECTION      ( ) M-F          |    ( ) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN          |    (+) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                    |                    (+) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                           |                    ( ) MF XMTR
                                           |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2   |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [    ]( )  [    ]( )|   (+) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [    ]( )  [    ]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [    ]( )  [    ]( )|   ( ) MTC
( ) TRF2   MF RCVR      [    ]( )  [    ]( )|   ( ) TRF2            SUN [1700]
( ) NMPR1  MF XMTR      [    ]( )  [    ]( )|   ( ) NMPR1           MON [9999]
( ) NMPR2  TDNET        [    ]( )  [    ]( )|   ( ) NMPR2           TUE [9999]
( ) TCA1   DTMF RCVR    [    ]( )  [    ]( )|   ( ) TCA1      TIME  WED [9999]
( ) TCA2   DTMF XMTR    [    ]( )  [    ]( )|   ( ) TCA2            THU [9999]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [9999]
                                           |                        SAT [9999]
                                           |
                                           |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

New schedule for 5-Day LDR for Call Registers, accepted. Date for the report set 5 or more days from the current day. For example the display shows MON and the current day, the 5-day report is scheduled for SUN.

Figure 21. EF2 - 5 DAY LDR SCHEDULING: Change LDR Schedule

```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:28  ERROR  SENT AT 16:28:11
 INVALID TIME SPECIFIED
          ( ) LSR SCHEDULING               |        (+) LDR SCHEDULING
       OPERATION          PERIOD           |   REPORT TYPE       EQUIPMENT
 ( ) DATA COLLECTION      ( ) M-F          |    ( ) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN          |    (+) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                    |                    (+) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                           |                    ( ) MF XMTR
                                           |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2   |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [    ]( )  [    ]( )|   (+) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [    ]( )  [    ]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [    ]( )  [    ]( )|   ( ) MTC
( ) TRF2   MF RCVR      [    ]( )  [    ]( )|   ( ) TRF2            SUN [1800]
( ) NMPR1  MF XMTR      [    ]( )  [    ]( )|   ( ) NMPR1           MON [1700]
( ) NMPR2  TDNET        [    ]( )  [    ]( )|   ( ) NMPR2           TUE [9999]
( ) TCA1   DTMF RCVR    [    ]( )  [    ]( )|   ( ) TCA1      TIME  WED [9999]
( ) TCA2   DTMF XMTR    [    ]( )  [    ]( )|   ( ) TCA2            THU [9999]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [9999]
                                           |                        SAT [9999]
                                           |
                                           |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

Only one 5 DAY LDR per equipment may be specified. This display shows two requests for a report - on SUN[1800] and on MON[1700].

Reset the time by changing the time to ’9999’.

Figure 22. EF2 - 5 DAY LDR SCHEDULING: Invalid Time

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```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:28  CHNGE  SENT AT 16:28:11
 5DAY REPORT NOT POSSIBLE
           ( ) LSR SCHEDULING                |        (+) LDR SCHEDULING
       OPERATION          PERIOD             |   REPORT TYPE       EQUIPMENT
 ( ) DATA COLLECTION      ( ) M-F            |    ( ) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN            |    (+) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                      |                    (+) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                             |                    ( ) MF XMTR
                                             |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2    |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [    ]( )  [    ]( )|   (+) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [    ]( )  [    ]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [    ]( )  [    ]( )|   ( ) MTC
( ) TRF2   MF RCVR      [    ]( )  [    ]( )|   ( ) TRF2            SUN [9999]
( ) NMPR1  MF XMTR      [    ]( )  [    ]( )|   ( ) NMPR1           MON [1700]
( ) NMPR2  TDNET        [    ]( )  [    ]( )|   ( ) NMPR2           TUE [9999]
( ) TCA1   DTMF RCVR    [    ]( )  [    ]( )|   ( ) TCA1      TIME  WED [9999]
( ) TCA2   DTMF XMTR    [    ]( )  [    ]( )|   ( ) TCA2            THU [9999]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [9999]
                                             |                      SAT [9999]
                                             |
                                             |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

Request is accepted but user is warned that five day's worth of data cannot be collected. The current day is MON, and the scheduled report day is MON i.e. the same day.

Figure 23. EF2 - 5 DAY LDR SCHEDULING: Five Day Warning

6.04 The **'INH 5 DAY COLL'** window may also be specified at this point. This window acts as a flag that stops data collection for the 5-day LDR. This makes it possible to skip unusual days that might occur in the middle of a 5-day study. The data for any day in the study is moved to the 5-day LDR data base each day at the specified output time. Therefore, to skip a day one would set the 'INH 5 DAY COLL' flag any time before the time shown on the display and clear the flag before that time is reached on the day the study is to resume.

NOTE: When this flag is set it applies to ALL equipment types.

6.05 **EF2 error conditions.** Common mistakes when entering display mode are:

a. LDR scheduling window not set or LSR scheduling also set.
b. Report type not selected.
c. More than one equipment type selected.

Illegal selections when attempting to change schedule are:

a. No output channel selected.
b. More than five channels selected.
c. Output time not hour or half hour.
d. More than 1 day and time selected for 5-day report.

6.06 **Usage: LSR Scheduling - General Initial Display.** For all LSR scheduling activity, the user must bring up the initial display by selecting:

1. LSR SCHEDULING
2. OPERATION = the desired function. Select only one.
3. PERIOD = Monday-Friday or SUNday Select only one.

NOTE: "DSPLY" appears on the first line.

6.07 **Usage: LSR Scheduling - OPERATION: DATA COLLECTION.**

a. *Initial Display* The data collection initial display shows the end times of TCBH1 and TCBH2 for the period selected. '9999' is used if a TCBH had not been established. The state of the INH DATA COLL flag is also displayed.

Figure 24, shows user input to request LSR data collection. Figure 25, shows the resulting display for the data collection operation.

b. *Modify Report Schedule.* With the current schedule displayed, desired modifications to the schedule may be made:

1. TCBH1, TCBH2 - time of day for a Time Consistent Busy Hour is entered on the line for the engineering item desired. This is the time data is collected. Use "9999" to remove a busy hour time.

2. The INHIBIT DATA COLL flag can be changed. Setting this flag will stop all data collection for LSRs.

Figure 26, shows user input for LSR data collection of CALL REG, DTMF RCVR, and DTMF XMTR. Figure 27, shows the resulting modified display accepted by the system.

NOTE: "CHNGE" appears on the first line after the schedule is accepted.

6.08 **Usage: LSR Scheduling - OPERATION: PRINT REPORT.** LSR reports are demand reports so there is no initial display mode to go through. The report is printed on the next quarter hour. From the initial EF2 display select:

1. LSR SCHEDULING
2. OPERATION = PRINT REPORT
3. PERIOD = Monday-Friday or SUNday
4. Select from one to five output channels.
5. Select specific reports to be printed by placing a '+' in the window just adjacent to the associated TCBH or following 'PEAK INT ENG BASIS'.

Figure 28 shows the user input display for the print report operation. Figure 29 shows the resulting system display.

The system responds to the print request with 'CHNGE" and 'NEXT QUARTER HOUR BEGINS OUTPUT'.

print request is for an item for which no data has been collected. This could be caused by

a. initialize storage operation,
b. TCBH was never set up, or
c. inhibit data collection flag has been set since storage was initialized or TCBH was specified.

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```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:20         SENT AT 16:20:32

          (+) LSR SCHEDULING                |        ( ) LDR SCHEDULING
       OPERATION          PERIOD            |   REPORT TYPE       EQUIPMENT
 (+) DATA COLLECTION      (+) M-F           |    ( ) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN           |    ( ) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                     |                    ( ) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                            |                    ( ) MF XMTR
                                            |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2    |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [    ]( )  [    ]( )|   ( ) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [    ]( )  [    ]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [    ]( )  [    ]( )|   ( ) MTC
( ) TRF2   MF RCVR      [    ]( )  [    ]( )|   ( ) TRF2            SUN [    ]
( ) NMPR1  MF XMTR      [    ]( )  [    ]( )|   ( ) NMPR1           MON [    ]
( ) NMPR2  TDNET        [    ]( )  [    ]( )|   ( ) NMPR2           TUE [    ]
( ) TCA1   DTMF RCVR    [    ]( )  [    ]( )|   ( ) TCA1      TIME  WED [    ]
( ) TCA2   DTMF XMTR    [    ]( )  [    ]( )|   ( ) TCA2            THU [    ]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [    ]
                                            |                       SAT [    ]
                                            |
                                            |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]

User request for LSR data collection schedule.
```

Figure 24. EF2 - LSR SCHEDULING: Data Collection - User Request

```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:21  DSPLY  SENT AT 16:21:32

          (+) LSR SCHEDULING               |        ( ) LDR SCHEDULING
       OPERATION          PERIOD           |   REPORT TYPE       EQUIPMENT
 (+) DATA COLLECTION      (+) M-F          |    ( ) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN          |    ( ) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                    |                    ( ) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                           |                    ( ) MF XMTR
                                           |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2   |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [9999]( )  [9999]( )|   ( ) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [9999]( )  [9999]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [9999]( )  [9999]( )|   ( ) MTC
( ) TRF2   MF RCVR      [9999]( )  [9999]( )|   ( ) TRF2            SUN [    ]
( ) NMPR1  MF XMTR      [9999]( )  [9999]( )|   ( ) NMPR1           MON [    ]
( ) NMPR2  TDNET        [9999]( )  [9999]( )|   ( ) NMPR2           TUE [    ]
( ) TCA1   DTMF RCVR    [9999]( )  [9999]( )|   ( ) TCA1      TIME  WED [    ]
( ) TCA2   DTMF XMTR    [9999]( )  [9999]( )|   ( ) TCA2            THU [    ]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [    ]
                                           |                        SAT [    ]
                                           |
                                           |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

The current LSR data collection schedule is displayed. LSR data collection is not scheduled. The default time to ignore data collection is ’9999’.

Figure 25. EF2 - LSR SCHEDULING: Data Collection - Schedule Displayed

```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:21  DSPLY  SENT AT 16:21:32

          (+) LSR SCHEDULING               |        ( ) LDR SCHEDULING
       OPERATION          PERIOD           |   REPORT TYPE       EQUIPMENT
 (+) DATA COLLECTION      (+) M-F          |    ( ) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN          |    ( ) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                    |                    ( ) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                           |                    ( ) MF XMTR
                                           |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2   |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [9999]( )  [9999]( )|   ( ) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [9999]( )  [9999]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [0900]( )  [1300]( )|   ( ) MTC
( ) TRF2   MF RCVR      [9999]( )  [9999]( )|   ( ) TRF2            SUN [    ]
( ) NMPR1  MF XMTR      [9999]( )  [9999]( )|   ( ) NMPR1           MON [    ]
( ) NMPR2  TDNET        [9999]( )  [9999]( )|   ( ) NMPR2           TUE [    ]
( ) TCA1   DTMF RCVR    [1000]( )  [9999]( )|   ( ) TCA1      TIME  WED [    ]
( ) TCA2   DTMF XMTR    [1000]( )  [9999]( )|   ( ) TCA2            THU [    ]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [    ]
                                           |                        SAT [    ]
                                           |
                                           |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]
```

LSR data collection is scheduled Monday through Friday for
- CALL REG at 9am and 1pm
- DTMF RCVR at 10am
- DTMF XMTR at 10am

Figure 26. EF2 - LSR SCHEDULING: Data Collection - User Schedule

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```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:23  CHNGE  SENT AT 16:23:32

          (+) LSR SCHEDULING               |        ( ) LDR SCHEDULING
       OPERATION          PERIOD           |   REPORT TYPE       EQUIPMENT
 (+) DATA COLLECTION      (+) M-F          |    ( ) 1 DAY       ( ) CCIS XCVR
 ( ) PRINT REPORT         ( ) SUN          |    ( ) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                    |                    ( ) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                           |                    ( ) MF XMTR
                                           |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2   |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [9999]( )  [9999]( )|   ( ) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [9999]( )  [9999]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [0900]( )  [1300]( )|   ( ) MTC
( ) TRF2   MF RCVR      [9999]( )  [9999]( )|   ( ) TRF2            SUN [    ]
( ) NMPR1  MF XMTR      [9999]( )  [9999]( )|   ( ) NMPR1           MON [    ]
( ) NMPR2  TDNET        [9999]( )  [9999]( )|   ( ) NMPR2           TUE [    ]
( ) TCA1   DTMF RCVR    [1000]( )  [9999]( )|   ( ) TCA1      TIME  WED [    ]
( ) TCA2   DTMF XMTR    [1000]( )  [9999]( )|   ( ) TCA2            THU [    ]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [    ]
                                           |                        SAT [    ]
                                           |
                                           |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]

LSR data collection schedule is accepted.
```

Figure 27. EF2 - LSR SCHEDULING: Data Collection - Schedule Accepted

```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:25         SENT AT 16:25:12

          (+) LSR SCHEDULING               |        ( ) LDR SCHEDULING
       OPERATION          PERIOD           |   REPORT TYPE       EQUIPMENT
 ( ) DATA COLLECTION      (+) M-F          |    ( ) 1 DAY       ( ) CCIS XCVR
 (+) PRINT REPORT         ( ) SUN          |    ( ) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                    |                    ( ) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                           |                    ( ) MF XMTR
                                           |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2   |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [    ]( )  [    ]( )|   ( ) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [    ]( )  [    ]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [    ]( )  [    ](+)|   ( ) MTC
( ) TRF2   MF RCVR      [    ]( )  [    ]( )|   ( ) TRF2            SUN [    ]
(+) NMPR1  MF XMTR      [    ]( )  [    ]( )|   ( ) NMPR1           MON [    ]
( ) NMPR2  TDNET        [    ]( )  [    ]( )|   ( ) NMPR2           TUE [    ]
( ) TCA1   DTMF RCVR    [    ](+)  [    ]( )|   ( ) TCA1      TIME  WED [    ]
( ) TCA2   DTMF XMTR    [    ](+)  [    ]( )|   ( ) TCA2            THU [    ]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [    ]
                                           |                        SAT [    ]
                                           |
                                           |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]

Request LSR reports printed for
- CALL REG       for data collected during Monday-Friday  1pm
- DTMF RCVR      for data collected during Monday-Friday 10am
- DTMF XMTR      for data collected during Monday-Friday 10am
```

Figure 28. EF2 - LSR SCHEDULING: Print Report - User input

```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:26         SENT AT 16:26:12
 OUTPUT BEGINS NEXT QUARTER HOUR
          (+) LSR SCHEDULING               |        ( ) LDR SCHEDULING
       OPERATION          PERIOD           |   REPORT TYPE       EQUIPMENT
 ( ) DATA COLLECTION      (+) M-F          |    ( ) 1 DAY       ( ) CCIS XCVR
 (+) PRINT REPORT         ( ) SUN          |    ( ) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                    |                    ( ) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                           |                    ( ) MF XMTR
                                           |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2   |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [    ]( )  [    ]( )|   ( ) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [    ]( )  [    ]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [    ]( )  [    ](+)|   ( ) MTC
( ) TRF2   MF RCVR      [    ]( )  [    ]( )|   ( ) TRF2            SUN [    ]
(+) NMPR1  MF XMTR      [    ]( )  [    ]( )|   ( ) NMPR1           MON [    ]
( ) NMPR2  TDNET        [    ]( )  [    ]( )|   ( ) NMPR2           TUE [    ]
( ) TCA1   DTMF RCVR    [    ](+)  [    ]( )|   ( ) TCA1      TIME  WED [    ]
( ) TCA2   DTMF XMTR    [    ](+)  [    ]( )|   ( ) TCA2            THU [    ]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [    ]
                                           |                        SAT [    ]
                                           |
                                           |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]

Request accepted for LSR Print Report operation.
```

Figure 29. EF2 - LSR SCHEDULING: Print Report - System Response

```
EF2   OSOR SCHEDULE MODIFICATION 2     DATA TIME 16:25  DSPLY  SENT AT 16:25:12

          (+) LSR SCHEDULING               |        ( ) LDR SCHEDULING
       OPERATION          PERIOD           |   REPORT TYPE       EQUIPMENT
 ( ) DATA COLLECTION      (+) M-F          |    ( ) 1 DAY       ( ) CCIS XCVR
 (+) PRINT REPORT         ( ) SUN          |    ( ) 5 DAY       ( ) CAMA OPR
 ( ) INITIALIZE STORAGE                    |                    ( ) CALL REG
 ( ) IGNORE GRACE DAY     ( ) INH DATA COLL | ( ) INH 5 DAY COLL ( ) MF RCVR
                                           |                    ( ) MF XMTR
                                           |                    ( ) TDNET
CHANNELS                 TCBH1     TCBH2   |    CHANNELS        ( ) DTMF RCVR
( ) TRF1   CCIS XCVR    [9999]( )  [9999]( )|   ( ) TRF1         ( ) DTMF XMTR
( ) SREC1  CAMA OPR     [9999]( )  [9999]( )|   ( ) SREC1        ( ) 1A/1B PROC
( ) MTC    CALL REG     [0900]( )  [1300](+)|   ( ) MTC
( ) TRF2   MF RCVR      [9999]( )  [9999]( )|   ( ) TRF2            SUN [    ]
( ) NMPR1  MF XMTR      [9999]( )  [9999]( )|   ( ) NMPR1           MON [    ]
( ) NMPR2  TDNET        [9999]( )  [9999]( )|   ( ) NMPR2           TUE [    ]
( ) TCA1   DTMF RCVR    [1000](+)  [9999]( )|   ( ) TCA1      TIME  WED [    ]
( ) TCA2   DTMF XMTR    [1000](+)  [9999]( )|   ( ) TCA2            THU [    ]
( ) SREC2  1A/1B PROC(PEAK INT ENG BASIS)( )|   ( ) SREC2           FRI [    ]
                                           |                        SAT [    ]
                                           |
                                           |
  MON                          01/02/95 CHCG IL CL 57T DIRECTORY[  ]   P[    ]

Display shows reports for which no data has been collected, or if data has been collected, will be
discarded at the next collection interval.
```

Figure 30. EF2 - LSR SCHEDULING: Initialize Storage - Display

6.09 **Usage: LSR Scheduling - OPERATION: Initialize Storage.** When this operation is selected, the system responds by displaying the state of the storage for the period selected. A '+' in the action window of an engineering item, indicates that no data has been collected for the associated equipment and TCBH. A warning message that 'change will destroy old data' is also displayed. The rolling year for individual reports may be restarted by placing a '+' in the appropriate action window and sending the request. Figure 30 illustrates the INITIALIZE STORAGE operation.

6.10 **Usage: LSR Scheduling - OPERATION: Ignore Grace Day.** This operation is similar to 'initialize storage'. A '+' in the action window means that the data collected by the previous

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collection interval will be discarded at the next collection interval. There is no warning message.

TABLE 2. OSOR Output Channels

SYMBOL	DEVICE NAME
1. TRF1	Traffic 1
2. TRF2	Traffic 2
3. SREC1	Secondary Record 1
4. SREC2	Secondary Record 2
5. NMPR1	Network Management Printer 1
6. NMPR2	Network Management Printer 2
7. MTC	Maintenance Channel
8. TCA1	Trunk Control Area 1
9. TCA2	Trunk Control Area 2

TABLE 3. OSOR Directory Codes

SYMBOL	DIRECTORY
CN	Control Input
CN	Threshold Input
PA	Traffic Patterns
MA	Ineffective Machine Attempt (IMA) Data
CC	Code Completions
TG	Trunk Subgroups
MA	Machine Status
EF	Entry Forms

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TABLE 4. ON SITE OPERATIONS REPORT SYSTEM GLOSSARY

ABBREVIATION	EXPANSION
ABAN	Abandon
ACC	Acceptable
ACCESA	Access A
ACCESI	Access I
ACCESO	Access O
ACCUM	Accumulation/Accumulated
ACK	Acknowledgement
ACP	Action Control Point
ACU	Acknowledgement Unit
ADC	Address Complete
ADD	Address
ADDR	Address
ADJ	Adjusted
ADS	Auxiliary Data System
AFT	After
AH	Announcement Handling
AIF	Automatic Number Identification Failure
ALMS	Alarms
ALT	Alternate
AMA	Automatic Message Accounting
ANAL	Analysis
ANF	Automatic Number Failure
ANI	Automatic Number Identification
ANN	Announcement
ANNC	Announcement
ANS	Answer
AOF	Automatic Number Identification Office Failure
API	Attached Processor Interface
ASANT	ACI SID/ANI to Terminating End
ASST	Assist
AT	Access Tandem
AT	Attempt
ATTC	AT&T COMMUNICATIONS
ATTCAMA	AT&T CAMA
ATTERM	Access Tandem Terminating Access
ATME	Automatic Transmission Measuring Equipment
ATO	Answer Time Out
ATP	All Tests Passed
ATT	Attempts
ATTEMP	Attempts
AUB	Auxiliary Unit Bus
AUT	Automatic
AUTO	Automatic
AUX	Auxiliary
AVAIL	Available
AVG	Average
B	Band
BBC	Broadband Call
BBC6	Broadband Call 6 Circuits
BBC24	Broadband Call 24 Circuits
BBF	Blue Box Fraud
BBFP	Blue Box Fraud Protection
B/I	Busy/Idle

TABLE 4. ON SITE OPERATIONS REPORT SYSTEM GLOSSARY

ABBREVIATION	EXPANSION
BLC	Base Level Cycles
BLK(D)	Blocked
BLKGS	Blockages
BLKS	Blocks
BND	Band(ed)
BOC	Bell Operating Company
BSDN	Basic Software Defined Network
BUF	Buffer
BUS	Bus System
BY	Busy
C5	Consultative Committee International Telegraph and Telephone No. 5 Type Signaling
C6	Consultative Committee International Telegraph and Telephone No. 6 Type Signaling
C7I	International ISUP
C7T	International TUP
CAMA	Centralized Automatic Machine Accounting
CAN	Cancel
CAP	Capacity
CAPAC	Capacity
CB	Code Block
CB	Crankback
CBCCS	Call By Call Service Selection
CC	Centralized Automatic Machine Accounting Calls
CC	Central Control
CC	Country Code
CCF(R)	Continuity Check Failure (Report)
CCFR	Common Channel Interoffice Signaling Failure Reply
CCIS	Common Channel Interoffice Signaling
CCITT5	Consultative Committee International Telegraph and Telephone No. 5 Type Signaling
CCITT6	Consultative Committee International Telegraph and Telephone No. 6 Type Signaling
CCR	Continuity Check Request
CCNB	Common Channel Interoffice Signaling Network Blockage
CCS	Hundred Call Seconds
CCS	Common Channel Signaling
CCS6	Common Channel Signaling Number 6
CCS7	Common Channel Signaling Number 7
CCSCAP	Hundred Call Second Capacity
CDS	Call Denial Screening
CF	Cancel From
CFD	Call Fail Detection
CGC	Circuit Group Congestion
CHNGE	Change
CICR	Carrier Identified CAMA Record
CIN	Circuit Identification Name
CKF	Continuity Check Failure
CKT(S)	Circuit(s)
CLF	Clear Forward
CMC	Cellular Mobile Carrier
CNI	Common Network Interface
CNCL	Cancel
CNT	Count
CNTRLS	Controls
COF	Confusion Signal

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TABLE 4. ON SITE OPERATIONS REPORT SYSTEM GLOSSARY

ABBREVIATION	EXPANSION
COLL	Collection
COMP	Completing/Completed/Completions
COMPL	Completion(ed)
CONG	Congestion
CONN	Connecting
COP	Centralized Automatic Message Accounting Operator Positions
COT	Continuity Check Timeout
CPA	Centralized Automatic Machine Accounting Position Attached Timeout
CPD	Centralized Automatic Machine Accounting Position Disconnect
CPF	Continuity And Polarity Failure
CPR	Centralized Automatic Machine Accounting Position Report
CR	Call Register
CRT	Cathode Ray Tube
CS	Call Store
CSB	Call Store Bus
CSR	Customer
CST	Centralized Automatic Machine Accounting Seizure Timeout
CSTD	Common System Tone Detector
CT	Cancel To
CT	Count
CTO	Continuity Time Out
CTR	Centralized Automatic Machine Accounting Trouble Report
CT/ET	Count Per Equivalent Trunk
CXR	Carrier
D	Domestic
D	Direct
DADCIN	Direct Access Data Channel Incoming
DADCOUT	Direct Access Data Channel Outgoing
DAV	Dial-A-View
DA3DGTS	Directory Assistance 3 Digits (411)
DA7DGTS	Directory Assistance 7 Digits (555-1212)
DB	Data Base
DBO	Data Base Overload
DBQTO	Data Base Query Time Out
DD	Delay Dial
DED	Dial Pulse Early Digit
DEF	Deferred
DEFER	Deferred
DH	Domestic High Speed Terminal
DIAG	Diagnostic
DIC	Digital Interface Controller
DIF	Digital Interface Frame
DIG	Digit
DIGT	Digit
DIR	Direct
DIRE	Digit Reception
DIS	Disconnect
DISC	Disconnect
DISC	Discount
DIU	Digital Interface Unit
DL	Domestic Low Speed Terminal
DNHR	Dynamic Non-Hierarchical Routing
DOM	Domestic

TABLE 4. ON SITE OPERATIONS REPORT SYSTEM GLOSSARY

ABBREVIATION	EXPANSION
DOMSAT	Domestic Satellite
DP	Dial Pulse
DPDD	Dial Pulse Delay Dial
DPIS	Dial Pulse Immediate Start
DPLS	Dial Pulse Line Signaling
DRF	Digit Reception Failures
DS	Direct Signaling
DS	Direct Services
DSD	Direct Services Dialing
DSDC	Direct Service Dialing Capability
DSPLY	Display
DT	Digroup Terminal
DTC	Digroup Terminal Controller
DTD	Dial Tone Delay
DTMF	Dual Tone Multi-Frequency
DTS	Dial Tone Start
DTU	Digroup Terminal Unit
DUR	Duration
DUS	Data Unit Selector
D-CAN	DNHR - Cancel Control
D-RR	DNHR - Reroute Control
D-SDOC	Dynamic Non-Hierarchical Routing Selective Dynamic Overload Control
D-STR	Dynamic Non-Hierarchical Routing Selective Trunk Reservation
D/R	Director/Responder
EA	Equal Access
EANR	Equal Access ANI Not Required
EASF	Error Analysis Suspected Failure
EF	Entry Form
EFF	Effect
EMER	Emergency
ENG(D)	Engineering/Engineered
ENGR	Engineering
ENT	Entry
EQ	Equipment
EQPT	Equipped
EQUIP	Equipment
EQV	Equivalent
ERO	Equipment Caused Reorder
ERR(S)	Error(s)
ESC	Echo Suppressor Controller
ESS	Electronic Switching System
EST	Echo Suppressor Terminal
ESU	Echo Suppressor Unit
ET	Equivalent Trunks
EXCEPT	Exception
E1WT	Equivalent One Way Trunks
FAIL	Failure
FEN	Far End Network
FENC	Far End Network Class
FHC	Final Handling Code
FL	Failure
FL	Flash

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TABLE 4. ON SITE OPERATIONS REPORT SYSTEM GLOSSARY

ABBREVIATION	EXPANSION
FLR	Failure
FREQ	Frequency
FS	False Start/Seizure
FS	File Store
FSA	False Start Abandon
FTF	Final Trial Failure
GLR	Glare
GP	Group
H	High
HI	High
HNT	Hunt
HRDWR	Hardware
HRS	Hours
HT	Holding Time
I	International
IA	Inpulsing Abandon
IA(S)	Ineffective Attempt(s)
IAD	Incomplete Address
IAM	Initial Address Message
ICC	INWATS Code Control
ICDR	International Call Detailed Recording
ICT	Incoming Trunk
ICTONATT	Outbound International CXR to Non ATT TC
ID	Identification
IDDD	International Direct Distance Dialing
IDENT	Identified
IDTS	Incoming Dial Tone Start
IE	Information Element
IH	International High Speed Terminal
IKF	Integrity Check Failure
IL	International Low Speed Terminal
IMA	Ineffective Machine Attempt
IN(C)	Incoming
INANS	Incoming Answer
INB	Inbound
INC	Incoming
INCTOIC	International Carrier to Inter-LATA Carrier
Indx	Index
INH	Inhibit
INIAM	Incoming Initial Address Message
INIT	Initial/Initialize
INP	Input
INS	Installed
INT	International
INT	Interval
INTERMACH	Intermachine
INTNL	International
INTRRPT	Interrupt
INUP	International ISUP
INV	Invalid
INW	Inward Wide Area Telephone Service

TABLE 4. ON SITE OPERATIONS REPORT SYSTEM GLOSSARY

ABBREVIATION	EXPANSION
INWACD	INWATS Automatic Call Distribution
INWATS	Inward Wide Area Telephone Service
INWSTAT	INWATS Statistical Record
INWTOD	INWATS Time-Of-Day
I/O	Input/Output
IOC	International Operating Center
IOTC	International Operator Toll Center
IOUC	Input/Output Unit Controller
IOUS	Input/Output Unit Selector
IRR	Irregularity
IRREG(S)	Irregularity(s)
IS	Incoming Seizure
IS	Immediate Start
ISA	Incoming Seizure Abandon
ISC	International Switching Center
ISS	Issue
ISUP	Integrated Services User Part
IT	Intertoll
ITC	International Tele-Conferencing
ITRP	Interrupt
IWF	Incoming Dial Pulse Work List Full
IWS	Inward Wide Area Telephone Service Screening
I800	International Toll Free
I8INB	International 800 Inbound
I8OTB	International 800 Outbound
K	Thousands
L	Low
LD	Language Digit
LDR	Load Distribution Report
LL	Load Level
LOS	Line Out of Service
LSR	Load Service Report
LST	Lost
LTS	Long Term Storage
LVL	Level
MAB	Miscellaneous Abandon
MAC	Machine Administration Center
MAC	Maintenance Administration Control
MAINT	Maintenance
MAJ	Major
MAN	Manual
MC	Maintenance Administration Control
MCA	Misrouted Centralized Automatic Machine Accounting Announcement
MCC	Maintenance Control Center
MEAS	Measurement
MED	Medium
MEG	MEG COM
MEG8	MEG COM 800
MF	Multi-Frequency
MFC	Multi-Frequency Compelled Signaling
MFR	Multi-Frequency Receiver

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TABLE 4. ON SITE OPERATIONS REPORT SYSTEM GLOSSARY

ABBREVIATION	EXPANSION
MFT	Multi-Frequency Transmitter
MIN	Minor
MIN(s)	Minute(s)
MISC	Miscellaneous
MLSS	Machine Load and Service Summary
MLSSDMD	Machine Load and Service Summary Demand
MOC	Machine Operations Center
MOE	Multi-Frequency Transmitter Final Outpulsing Error
MPR	Machine Performance Report
MRF	Message Refusal
MS	Millisecond
MSG(S)	Message(s)
MSR	Machine Service Report
MT	Maintenance
MTC	Maintenance
MTCE	Maintenance
MTD	Month To Date
M-F	Monday through Friday
N	No
NACR	No Auxiliary Call Register
NATTCAMA	Non AT&T CAMA
NC	No Circuit
NC	Network Clock
NCA	No Circuit Announcement
NCD	Network Call Denial
NCIT	No Circuit Intertoll
NCNM	No Circuit Network Management
NCSU	Network Clock Synchronization Unit
NCTC	No Circuit Toll Connecting/Completing
NET	Network
NL	Non Load
NM	Network Management
NMDS	Network Management Display System
NMPR	Network Management Printer
NNC	National Network Congestion
NO	Non Overload
NPA	Numbering Plan Area
NRO	Non Equipment Caused Reorder
NSC	National Switching Congestion
NSD	No Start Dial
NSPMP	Network Switching Performance Measurement Plan
NTC	National Trunk Congestion
NTWK	Network
NUM	Number
O	Objective
OACV	Originating Access Charge Verification
OCC	Occupancy
OCCURRS	Occurrences
OCCY	Occupancy
OEO	Other End Office
OFL	Overflow
OG	Outgoing

TABLE 4. ON SITE OPERATIONS REPORT SYSTEM GLOSSARY

ABBREVIATION	EXPANSION
OGANS	Outgoing Answer
OGFA	Outgoing Final Attempts
OGIAM	Outgoing Initial Address Message
OGSZ	Outgoing Seizures
OGT	Outgoing Trunk
OID	Originating Inward Wide Area Telephone Service Denied
OM	Output Message
OMR(S)	Output Message Register(s)
ONI	Operator Number Identified
OOF	Out-Of-Frame
OOS	Out Of Service
OP	Out Pulsing
OPER	Operator
OPLS	Outpulsing
OPR	Operator
ORCAP	Office Real Time Capacity
ORCAP	Origination Real-time Capacity Analysis Program
ORIG	Originating(ion)
ORIG8	Originating 800 Service Record
OSCG	Out-of-Service Carrier Group Failure
OSOR	On Site Operations Report
OS	Originating Seizures
OS	Outgoing Seizures
OTF	Operational Test Failure
OTG	Outage
OTS	Out Trunk Seizures
OUT	Outgoing
OUTB	Outbound
OUTSZ	Out Seizures
OVFL	Overflow
OVL	Overload
OVLD	Overload
OWATS	Outwats
OWF	Outgoing Work List Full
P	Page
PAS	Public Announcement Service
PAW	Post Address Wink
PBX	Private Branch Exchange
PBEAD	Direct Data Interface and Equal Access Data
PBEAV	Direct Voice Interface and Equal Access Voice
PC	Peg Count
PCD	Power Conversion and Distribution
PDA	Partial Dial Abandon
PDT	Partial Dial Timeout
PDTO	Partial Dial Time Out
PER	Pulsing Error also PSE
PERF	Performance
PGM(S)	Program(s)
PH	Path Hunt
PHCT	Path Hunt Success Peg Count
POS	Position
POSN'S	Positions
POTS	Plain Old Telephone Service

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TABLE 4. ON SITE OPERATIONS REPORT SYSTEM GLOSSARY

ABBREVIATION	EXPANSION
PR	Pair
PROB	Problem
PROC	Processor
PROD	Producer
PROG	Program
PS	Program Store
PSB	Program Store Bus
PSE	Pulsing Error also PER
PSG	Persisting Signal
PST	Permanent Signal Time Out
PSTO	Permanent Signal Time Out
PT	Point
PTH	Path
PTS	Proceed To Send
PUB	Peripheral Unit Bus
PUC	Peripheral Unit Controller
PUCF	Peripheral Unit Controller Frame
PWR	Power
Q	Queue
QEF	Queue Entry Failure
QOB	Queue On Busy
QTR	Quarter
Q.931	Q.931 Signaling Protocol
R	Ratio
RC	Recent Change
RCDG	Recording
RCD(S)	Record(s)
RCR	Routing Category Restricted
RCVD	Received
RCVR	Receiver
RCVRY	Recovery
RD	Redirection
REC	Receiver(ed)
REC'D	Received
RECEPT	Reception
REF(S)	Reference(s)
REG	Register
REG	Regular
REPT	Report
REQ	Required
RESP	Response
RESTR	Restricted
RESTRICT	Restricted
RET	Retention
RLG	Release Guard
RO	Reorder
ROA	Reorder Announcement
ROTL	Remote Office Test Line
RPT(S)	Report(s)
RST	Reset Signal
RT	Real Time

TABLE 4. ON SITE OPERATIONS REPORT SYSTEM GLOSSARY

ABBREVIATION	EXPANSION
SAT	Satellite
SC	System Clock
SCF	Self Check Failure
SCGA	Software Detected Carrier Group Alarm
SCR	Go-No-Go Screening
SD	Start Dial
SD	Universal Scan and Signal Distributor
SDN	Software Defined Network
SDNORG	Software Defined Network Originating Access
SDNTC	Software Defined Network Teleconference
SDOC	Selective Dynamic Overload Control
SDOCB	Selective Dynamic Overload Control Blocked
SEC	Seconds
SEC	Switching Equipment Congestion
SEG	Segment
SEIZ	Seizure
SEP	Separations
SEPSUM	Separations Summary
SG	Segment
SIG	Signaling
SILC	Selective Incoming Load Control
SLK	Signal Link
SL _ PR	Signal Link Pair
SMPRT	Access Charge Verification Sampling Rate Charge
SNF	Signaling Network Failures
SP	Signal Processor
SPC	Switching Permuting Circuit
SREC	Secondary Record
SSANT	SADC SID/ANI to Terminate End
SSB	Subscriber Station Busy
SSD	Second Start Dial
SSDR	Second Stage Digits Requested
SSP	Switch Signaling Point
SSPC	Second Stage Pulsing Calls
SSR	Separations Summary Report
ST	Start
STC	Single Trunk Customer
STNPD	Station Paid
STR	Selective Trunk Reservation
SU	Signal Unit
SUB	Subsequent
SUCC	Success
SUM	Summary
SUOC	Signal Unit Occupancy
SUPV	Supervision
SV	Service
SVC(S)	Service(s)
SW	Switched(ing)
SWATS	Switched Outwats
SYNC	Synchronization
SYS	System
SYU	Sync Unit
SZ	Seizure

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TABLE 4. ON SITE OPERATIONS REPORT SYSTEM GLOSSARY

ABBREVIATION	EXPANSION
TA	Terminating Attempts
TACV	Terminating Access Charge Verification
TC	Toll Completing/Connecting
TC	Teleconferencing
TC	Test Calls
T/C	Teleconferencing
TCA	Trunk Control Area
TCBH	Time Consistent Busy Hour
TCBRDG	Teleconference Bridge
TCLEG	Teleconference Leg
TCC	Total Calls Completed
TD	Time Division
TDN	Time Division Network
TDNET	Time Division Network
TELECONF	Teleconference(ing)
TER	Terminal
TERM	Terminal
TERM	Terminating(ed)
TGC	Terminal Group Controller
TGR	Terminal Group
THRLD	Threshold
TI	Threshold Indicator
TKS	Trunks
TMR	Trunk Maintenance Register
TMSP	Time-Multiplexed Switching Pair
T/O	Time Out
TO	Time Out
TOC	Trunk Operations Center
TOT	Total
TMR	Timer
TR	Trunk Register
TRAF	Traffic
TRANS	Transit
TRF	Transfer
TRF	Traffic
TRK	Trunk
TRMTR	Transmitter
TSAR	Trunk Sub-Group Access Restriction
TSG	Trunk Sub-Group
TSI	Time Slot Interchange
TSN	Transition
TSN	Trunk Scanner Number
TSPC	Two Stage Pulsing Call
TST	Test
TTS	Terminating Toll Switch
TTY	Teletypewriter
TUC	Tape Unit Controller
TUP	Telephone User Part
T-BITS	Trunk Scanner Bits
U	Unequipped
U	Unsatisfactory
UUI	User-To-User Information
UCA	Unauthorized Centralized Automatic Machine Accounting Announcement

TABLE 4. ON SITE OPERATIONS REPORT SYSTEM GLOSSARY

ABBREVIATION	EXPANSION
UNACC	Unacceptable
UNACCEPT	Unacceptable
UQL	Unequipped Label
URS	Unreasonable Signal
USG	Usage
UTIL(Z)	Utilization
UTL	Utilized
UUI	User-to-User Information
UXS	Unexpected Stop
VAC	Vacant
VAL	Value
VC	Vacant Code
VCA	Vacant Code Announcement
VERT	Vertical
VFL	Voice Frequency Link
VIC	Voice Interface Controller
VIF	Voice Interface Frame
VIU	Voice Interface Unit
VNN	Vacant National Number
VTS	Via Toll Switch
WFA	Waiting for Answer
WFATO	Waiting for Answer Time Out
WKG	Working
WRIT	Written
W/O	Without
X	Soft Spot Indicator
XCVR	Transceiver
XLAT	Translation
XLATE	Translate
XLATION	Translation
XMISN	Transmission
XMTR	Transmitter
XOFC	Cross Office
XST	Expected Stop Time Out
Y	Yes
YTD	Year-To-Date
167.....	EIGHT DIGIT REPRESENTATION OF A NEGATIVE NUMBER
1W	One Way
2ND	Second
2SDC	Two Stage Dialed Call
2SDCQ	Two Stage Dialed Call Queue
2W	Two Way
3B	3B Attached Processor
4E	4 Electronic Switching System
4M	4 Minute
4210752	Uncalculable Data
8DR	Eighth Dial Pulse Digit Received Without A Call Register

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4 ESS ON-SITE OPERATIONS REPORT
MACHINE PERFORMANCE REPORT
PART 1

1. GENERAL

1.01 The Machine Performance Report Part 1 provides a synopsis of machine load and switching performance. This report is intended for short interval assessment of general system performance and must be supplemented by other data for comprehensive analysis.

1.02 All counts for this report are accumulated on the quarter hour basis. This report prints every 15 minutes, by default, on the MTC and SREC1 channels. The report can be redirected to another channel, or inhibited from printing, via the EF1 page.

2. REPORT HEADINGS

2.01 ACCUMULATION TIME. The day of the week and time that mark the beginning and end of the 15-minute collection period.

Beginning day: A three alpha character abbreviation for the day of the week that the accumulation of this data was started.

Beginning time: A four digit number that indicates the time of day that the accumulation of this data was started.

Ending day: A three alpha character abbreviation for the day of the week that the accumulation of this data was stopped.

Ending time: A four digit number that indicates the time of day that the accumulation of this data was stopped.

2.02 REPORTING OFFICE. Common Language Location Identification (CLLI) for the office creating the report.

2.03 CURRENT GENERIC. Current Generic Program residing in the machine.

Example: 4E<23>4B.08 SS<GGX>LL.II

SS = Machine System
GG = Generic Load
X = Export Option (Null In domestic offices)
LL = Generic Load
II = Software Change Notice (CN) Issue Number

2.04 NMDS/OSOR SYS ISS. The system's current issue of the NMDS/OSOR tape residing in the machine.

Example: 0398.0 MMYY.X

MM = Month
YY = Year
X = NMDS/OSOR Tape Dot Issue.
"0" is the first issue.

3. REPORT COMPONENTS

3.01 The report is comprised of eleven performance indicators.

3.02 INCOMING SEIZURES. The counts of MF, DP, CCIS, CCITT5, CCITT6, DTMF, ISUP AND Q.931 incoming seizures. See Table 1.

3.03 CALLS ON QUEUE. Table 2 lists the data making up the queue peg count.

3.04 BASE LEVEL CYCLES. This item is the total base level cycle peg count.

3.05 INEFFECTIVE MACHINE ATTEMPTS. Table 3 details the counts that comprise the past quarter hour IMA.

3.06 EQUIPMENT CAUSED REORDER. Table 4 details the equipment failures causing reorder.

3.07 ACTIVE + MTC BUSY TRUNKS. Sum of the trunks which are in an ACTIVE or MAINTENANCE BUSY state. This includes all message, SVC CKT & specialized TSG's with TSGN'S from 0 to 4023.

3.08 MAINTENANCE BUSY TRUNKS. Sum of trunks which are in the MTC BUSY STATE. This includes message, SVC CKT & specialized TSG'S with TSGN'S from 0 to 4023.

3.09 RETRIAL ATTEMPTS. Total number of outgoing attempts automatically retried after having failed due to any of a number of possible "outgoing" problems.

3.10 TOTAL CALLS ANSWERED. Table 5 details the sum of all successfully outpulsed calls minus unanswered calls.

3.11 TRANSIENT CALLS LOST. Table 6 details the sum of transient calls lost due to phases and hardware failures.

3.12 SWITCHING CUTOFF CALLS. Table 7 details the sum of established calls lost due to phases and hardware failures.

```
REPT:  MACHINE PERFORMANCE REPORT (MPR) PART 1
ACCUMULATION TIME $@@ $@@@ - $@@ $@@@ REPORTING OFFICE:  $@@@@@@@@@@@@@@@
                                       CURRENT GENERIC:   $@@@@@@@@@@@@@@@
                                       NMDS/OSOR SYS ISS: $@@@@@

     INCOMING SEIZURES #                  $@@@@@@
     CALLS ON QUEUE                       !@@@@@@
     BASE LEVEL CYCLES                    !@@@@@@
     INEFFECTIVE MACHINE ATTEMPTS #       !@@@@@@
     EQUIPMENT CAUSED REORDERS #          !@@@@@@
     ACTIVE+MTC BUSY TRUNKS #             !@@@@@@
     MTC BUSY TRUNKS #                    !@@@@@@
     RETRIAL ATTEMPTS                     !@@@@@@
     TOTAL CALLS ANSWERED #               !@@@@@@
     TRANSIENT CALLS LOST                 !@@@@@@
     SW CUTOFF CALLS                      !@@@@@@


# DOM + INTNL DATA WHERE APPLICABLE
```

Figure 1. MPR1 Background

Table 1. INCOMING SEIZURES

MEASUREMENT	FORMULA	
INCOMING SEIZURES	MF INCOMING SEIZURE PC +	M153 TF4MFSZ1HR
	DP DELAY DIAL INCOMING SEIZURE PC +	M154 TF4DPDD1HR
	DP IMMEDIATE START INCOMING SEIZURE PC +	M155 TF4DPIS1HR
	CCIS INCOMING CALLS PC +	M156 TF4CCIN1HR
	CCITT5 INCOMING SEIZURE PC +	M959 TF4C5IA1HR
	CCITT6 INCOMING CALLS +	M960 TF4C6IA1HR
	DTMF INCOMING SEIZURE PC +	M665 TF4IDTWKSZ1HR
	Q.931 INCOMING SEIZURE PC +	M1655 TF4Q931ISZ1HR
	ISUP 2-WIRE INCOMING SEIZURE PC +	M1657 TF4ISUP2ISZ1HR
	ISUP 4-WIRE INCOMING SEIZURE PC +	M1658 TF4ISUP4ISZ1HR
	IDTS INCOMING SEIZURE PC +	M664 TF4IDTSZ1HR
	TUP INCOMING SEIZURE PC +	M1713 TF4ITUP4ISZ1HR
	INUP INCOMING SEIZURE PC	M1734 TF4INUP4ISZ1HR

Table 2. CALLS ON QUEUE

MEASUREMENT	FORMULA	
CALLS ON QUEUE	MF ORIGINATING QUEUE SEIZURE PC +	M141 TF4MFQS0HR
	DP CR QUEUE SEIZURE PC +	M132 TF4DPQS0HR
	DP ANI MF RCVR QUEUE SEIZURE PC +	M118 TF4ANIQS0HR
	CCIS ORIGINATING CR QUEUE SEIZURE PC +	M136 TF4CORQS0HR
	CAMA OPERATOR QUEUE SEIZURE PC +	M114 TF4CAOQS0HR
	DTMF CR RCVR QUEUE SEIZURE PC +	M707 TF4IDTWKCRQS0HR
	Q.931 ORIGINATING QUEUE SEIZURE PC +	M1860 TF4Q931ORQS7HR
	ISUP ORIGINATING QUEUE SEIZURE PC +	M1870 TF4ISUPORQS7HR
	IDTS CR QUEUE SEIZURE PC +	M710 TF4IDTSCRQS0HR
	IDTS RCVR QUEUE SEIZURE PC +	M669 TF4IDTSRQS0HR
	TUP ORIGINATING QUEUE SEIZURE PC +	M1517 TF4ITUPORQS7HR
	INUP ORIGINATING QUEUE SEIZURE PC	M1534 TF4INUPORQS7HR

Table 3. INEFFECTIVE MACHINE ATTEMPTS

MEASUREMENT	FORMULA
VACANT CODE PC +	M179 TF4VCA3HR
PSTO, MF EQUIPMENT PC +	M191 PL4PSTOMEHR
PSTO, DP EQUIPMENT PC +	M193 PL4PSTODEHR
PST, Q.931 EQUIPMENT PC +	M192 PL4PSTOQ9HR
PST, ISUP EQUIPMENT PC +	M194 PL4PSTOISHR
PDT, MF EQUIPMENT PC +	M203 PL4PDTOMEHR
PDT, DP EQUIPMENT PC +	M205 PL4PDTODEHR
PDT, Q.931 EQUIPMENT PC +	M204 PL4PDTOQ9HR
PDT, ISUP EQUIPMENT PC +	M206 PL4PDTOISHR
PER, MF EQUIPMENT PC +	M207 PL4PSE_MEHR
PER, DP EQUIPMENT PC +	M209 PL4PSE_DEHR
PER, Q.931 EQUIPMENT PC +	M208 PL4PSE_Q9HR
PER, ISUP EQUIPMENT PC +	M210 PL4PSE_ISHR
CST, MF EQUIPMENT PC +	M223 PL4CST_MEHR
CST, DP EQUIPMENT PC +	M224 PL4CST_DEHR
CST, Q.931 EQUIPMENT PC +	M225 PL4CST_Q9HR
CST, ISUP EQUIPMENT PC +	M226 PL4CST_ISHR
DP CR QUEUE OVERFLOW PC +	M134 TF4DPQF0HR
DED, INCOMING DP EARLY DIGIT PC +	M181 TF4DPED3HR
IWF, INCOMING DP WORKLIST FULL PC +	M182 TF4IDPWF3HR
OWF, OUTPULSING DP WORKLIST FULL PC +	M183 TF4ODPWF3HR
MF XMTR QUEUE ENTRY FAILURE PC +	M190 TF4MFTQF0HR
MF ORIGINATING QUEUE OVERLOAD +	M1827 TF4MFTOQF0HR
MF XMTR FINAL TRIAL OUTPULSE ERROR +	M227 PL4MFTFO17H
IDTS CR QUEUE OVERFLOW PC +	M712 TF4IDTSCRQF0HR
DTMF TRANSMITTER QUEUE FAILURE +	M1801 TF4ODTMFWKXQF0HR
DTMF PST +	M1770 PL4PSTODTFHR
DTMF PDT +	M1773 PL4PDTDTFHRS
DTMF PER +	M1774 PL4PSEDTFHR
DTMF MISC INEFFECTIVE ATTEMPTS +	M1800 TF4MIDTIA3HR
CPA, CAMA POSITION ATTACHED TIMEOUT +	M258 PL4CAPTO17H
CPD, CAMA POSITION DISCONNECT PC +	M113 TF4CAPD0HR
MISROUTED CAMA PC +	M173 TF4MCA3HR
UNAUTHORIZED CAMA PC +	M174 TF4UCA3HR
CAMA OPERATOR QUEUE OVERFLOW PC +	M116 TF4CAOQF0HR
CPR, CAMA POSITION REPORT +	M253 PL4CAMAPRHR
FINAL TRIAL NETWORK PATH HUNT FAILURE PC +	M176 TF4PHF3HR
NCIT, NO CIRCUIT INTERTOLL PC +	M175 TF4NCAIT3HR
NCTC, NO CIRCUIT TOLL CONNECTING PC +	M177 TF4NCATC3HR
SDOC, SELECTIVE DYNAMIC OVERLOAD CONTROL BLOCKED PC +	M185 TF4DOC3HR
D-SDOC, DNHR SELECTIVE DYNAMIC OVERLOAD CONTROL BLOCKED PC +	M1625 TF4DSDOCCANHR
STR, SELECTIVE TRUNK RESERVATION BLOCKED PC +	M186 TF4STR3HR
D-STR, DNHR SELECTIVE TRUNK RESERVATION PC +	M1623 TF4DSTRCANHR
D-CAN, DNHR CANCEL CONTROL PC +	M468 TF4DCAN3HR
D-RR, DNHR REROUTE CONTROL PC +	M467 TF4DRR3HR

Table 3. INEFFECTIVE MACHINE ATTEMPTS

MEASUREMENT	FORMULA
CANCEL-TO CONTROL BLOCKED PC +	M187 TF4CANTO3HR
CANCEL-FROM CONTROL BLOCKED PC +	M188 TF4CANFR3HR
TSAR, TRUNK SUBGROUP ACCESS RESTRICTION BLOCKED PC +	M32 TF4TSAR3HR
KILL FRAUDULENT SDN NRA CALLS +	M184 TF4KFCSDNNRA3HR
CALLS BLOCKED BY CALL GAPPING +	M628 TF4CGCB0HR
UXS, UNEXPECTED STOP FINAL TRIAL +	M249 PL4UXSFTRHR
IKF, INTEGRITY CHECK FAILURE FINAL TRIAL +	M248 PL4IKFFTRHR
NSD, NO START DIAL FINAL TRIAL +	M243 PL4NSDFTRHR
GLR, GLARE FINAL TRIAL +	M242 PL4GLRFTRHR
XST, EXPECTED STOP TIMEOUT FINAL TRIAL MEASUREMENT +	M244 PL4XSTFTRHR
CALLS BLOCKED BY GO-NO-GO SCREENING +	M655 TF4SCBLK3HR
MISC INCOMING INEFFECTIVE ATTEMPTS +	M656 TF4MINIA3HR
MISC CONNECTING INEFFECTIVE ATTEMPTS +	M657 TF4MCNIA3HR
MISC OUTGOING INEFFECTIVE ATTEMPTS +	M658 TF4MOUIA3HR
CPF, CONTINUITY AND POLARITY FAILURE FINAL TRIAL FAILURE +	M404 PL4CPFFTRHR
NO CIRCUIT INTL OUTBOUND CALL +	M1150 TF4NCIOC3HR
NM BLOCKED DIRECT SIGNAL CONTROL +	M1331 PL4NMDSCHR
NO AUX CALL REGISTER +	M1333 PL4IWNAXRHR
STC, SINGLE TRUNK CUSTOMER NO CIRCUIT +	M1826 TF4NCASTC3HR
CCITT5 & CCITT6 INCOMING CUSTOMER DIALED VACANT CODE +	M1147 TF4INCDVC3H
CCITT5 & CCITT6 INCOMING OPERATOR DIALED VACANT CODE +	M1148 TF4INODVC3H
CCITT5 & CCITT6 INCOMING CALLS BLOCKED BY SCREENING +	M1149 TF4INISBL3H
INTL SDOC BLOCKED +	M1152 TF4ISDOC3HR
INTL STR BLOCKED +	M1153 TF4ISTR3HR
INTL CANCEL-TO BLOCKED +	M1154 TF4ICANTO3H
INTL CANCEL-FROM BLOCKED +	M1155 TF4ICANFR3H
CCITT6 CKF, CONTINUITY CHECK FAILURE FINAL TRIAL FAILURE PC +	M1158 PL4C6CCF17H
CCITT6 MISC CALL IRREGULARITIES FINAL TRIAL FAILURE PC +	M1159 PL4C6MCI17H
CCITT6 GLARE FINAL TRIAL FAILURE PC +	M1160 PL4C6GLR17H
CCITT6 SNF, SIGNALING NETWORK FAILURE FINAL TRIAL FAILURE PC +	M1161 PL4C6SNF17H
CCITT6 INCOMING COT SIGNAL TIMEOUT +	M1185 PL4C6COTOHR
CCITT6 OUTGOING ADC SIGNAL TIMEOUT +	M1186 PL4C6ADCHR
CCITT6 IAD, INCOMPLETE ADDRESS DETECTED +	M1263 PL4C6ADIHR
CCITT6 IAM, INITIAL ADDRESS MESSAGE IRREGULARITIES +	M1264 PL4C6IAMHR
CCITT5 DOUBLE SEIZURE OUTGOING STATE +	M1179 PL4C5DSCLFH
CCITT5 OUTGOING WAITING FOR PTS TIMEOUT +	M1180 PL4C5PTSTOH
CCITT5 UNREASONABLE SIGNAL OUTGOING STATE +	M1182 PL4C5USOHR
CCITT5 GLARE OUTGOING STATE +	M1184 PL4C5GLRHR
CCITT5 INCOMING PTS TIMEOUT +	M1291 PL4I5PTSOHR
CCITT5 INCOMING START OF PULSING TIMEOUT +	M1292 PL4I5SPTOHR
CCITT5 INCOMING INCOMPLETE ADDRESS TIMEOUT +	M1293 PL4I5IATOHR
CCITT5 URS, UNREASONABLE SIGNAL RECEIVING STATE +	M1294 PL4I5USRSHR
CCITT5 INCOMING STATE PULSING ERROR +	M1295 PL4I5PSE5HR
CCITT5 PERSISTING PTS TIMEOUT +	M1303 PL4I5PPTSHR
ORIGINATING INWATS DENIED PC +	M30 TF4IWDEN3HR
INWATS BAND CHECK FAILURE PC +	M180 TF4IWS3HR
INWATS BLOCKED BY SIGNALING LINK CONGESTION +	M1332 PL4IWBSLCHR

Table 3. INEFFECTIVE MACHINE ATTEMPTS

MEASUREMENT	FORMULA
* CFD, CCIS CALL FAILURE DETECTION +	M246 PL4CCSCFDHR
** SNF, SIGNALING NETWORK FAILURE +	M247 PL4CCSSNFHR
CCIS NO XCVR FINAL TRIAL FAILURE PC +	M101 PL4NCCFTFHR
ADC, CCIS ADDRESS COMPLETE SIGNAL TIMEOUT +	M245 PL4CCSADCHR
CKF, CCIS CONTINUITY CHECK FAILURE +	M230 PL4CKFFTRHR
NO ANSWER SUPERVISION SENT DUE TO CCIS CONGESTION +	M601 TF4NASCCISC
COT, CCIS CONTINUITY SIGNAL TIMEOUT +	M250 PL4CCSCOTHR
IAD, CCIS INCOMPLETE ADDRESS DETECTION +	M251 PL4CCSIADHR
CCIS ORIGINATING CR QUEUE OVERFLOW PC +	M138 TF4CORQF0HR
CCIS INWATS DATA BASE OVERLOAD +	M1335 PL4IWDBOHR
CCIS INWATS DATA BASE FAILURE - UNASSIGNED NXX +	M1336 PL4IWUNXXHR
CCIS INWATS DATA BASE FAILURE - NON-EXISTENT NPA +	M1337 PL4IWNNPAHR
CCIS INWATS DATA BASE FAILURE - NON-PURCHASED NPA +	M1338 PL4IWPNPAHR
CCIS INWATS DATA BASE FAILURE - VACANT LINE +	M1339 PL4IWVLNHR
CCIS INWATS DATA BASE FAILURE - VACANT NXX +	M1340 PL4IWVNXXHR
CCIS INWATS DATA BASE QUERY TIMEOUT +	M1341 PL4IWDBQTHR
CCIS INWATS NETWORK BLOCKAGE +	M1342 PL4IWCCNBHR
CCIS INWATS NETWORK CONGESTION +	M1343 PL4INCCNCHR
CCIS INWATS NO TRANSLATION DATA +	M1344 PL4IWNXLDHR
CUSTOMER CALL TO ANNOUNCEMENT PATH HUNT FAIL +	M1482 PL4CCMPHHR
ANNOUNCEMENT HARDWARE DUPLEX FAILURE +	M1484 PL4CCMDUPFH
LOOPING THROUGH TRANSLATE ALL DIGITS +	M1480 PL4CCMXLATH
NO VACANT ANNOUNCEMENT AVAILABLE +	M1483 PL4CCMNVAHR
2 STAGE DIGIT REQUEST FAILURE +	M1407 TF4PBXSSDR3HR
2 STAGE INTNL MF RECEIVER NOT FOUND +	M330 TF4SSPMFR3H
2 STAGE DOM MF RECEIVER NOT FOUND +	M1438 TF4DOMMFR3H
2 STAGE INTNL PST +	M1260 TF4SSPST3H
2 STAGE DOM PST +	M1439 TF4DOMPST3H
2 STAGE INTNL PER +	M1259 TF4SSPSE3H
2 STAGE DOM PER +	M1437 TF4DOMPE3H
2 STAGE INTNL PDT +	M1261 TF4SSPDT3H
2 STAGE DOM PDT +	M1440 TF4DOMPDT3H
2 STAGE INTNL VACANT CODES +	M1141 TF4SSPVC3HR
INTNL CALL ON DOM SATELLITE ICT +	M1262 TF4INTDSATH
INTL INCOMING CUSTOMER DIALED VACANT CODE +	M1639 TF4IICDVC3H
INTL INCOMING OPERATOR DIALED VACANT CODE +	M1640 TF4IIODVC3H
DOM IOC ORIGINATED VACANT CODE +	M1641 TF4IOCVC3H
DOM IOTC ORIGINATED VACANT CODE +	M1642 TF4ITCVC3H
INTNL INCOMING INVALID CALL +	M1645 TF4INISINV3H
INTNL INCOMING INVALID "L" DIGIT +	M1646 TF4INISLD3H
DOM IOC ORIGINATED PST +	M1745 PL4PSTOIOCHR
DOM IOC ORIGINATED PDT +	M1743 PL4PDTIOCHRS
DOM IOC ORIGINATED PER +	M1744 PL4PSEIOCHR
INTNL TELECONFERENCE PSEUDO COUNTRY CODE NOT ALLOWED +	M1622 TF4DRPCCHR1
OUTWATS NON-PURCHASED NPA +	M1503 PL4OWPNPAHR
Q.931 INFORMATION ELEMENT FAIL +	M1816 PL4Q931IEBHR
Q.931 IAD, INCOMPLETE ADDRESS +	M1818 PL4Q931IADHR
Q.931 INCOMING CNI BUFFER OVERFLOW +	M1824 PL4Q931ICNIBOHR
Q.931 INCOMING CNI RING FAIL +	M1825 PL4Q931ICNIRFHR

Table 3. INEFFECTIVE MACHINE ATTEMPTS

MEASUREMENT	FORMULA
Q.931 URS, UNREASONABLE SIGNAL +	M1845 PL4Q931USISHR
Q.931 OUTGOING CNI BUFFER OVERFLOW +	M1853 PL4Q931OCNIBOHR
Q.931 OUTGOING CNI RING FAIL +	M1852 PL4Q931OCNIRFHR
Q.931 INCOMING OTHER INEFFECTIVE ATTEMPT FAILURES +	M1817 TF4IQ9IA3HR
Q.931 OTHER FAILURES +	M1851 TF4Q931OFL3HR
Q.931 ORIGINATING CR QUEUE OVERFLOW +	M1823 TF4Q931ORQF7HR
Q.931 GLARE +	M1802 TF4Q931GLRF3HR
Q.931 CONFUSION RECEIVED +	M1828 PL4Q9COFRCVDHR
Q.931 CONFUSION TRANSMITTED +	M1829 PL4Q9COFXMITHR
ISUP OUTGOING CNI RING FAIL +	M1811 PL4ISUPOCNIRFHR
ISUP OUTGOING CNI BUFFER OVERFLOW +	M1810 PL4ISUPOCNIBOHR
ISUP TRANSCEIVER OVERFLOW +	M1814 TF4ISUPXCVF7HR
ISUP IAD, INCOMPLETE ADDRESS +	M1834 PL4ISUPIADHR
ISUP COT, CONTINUITY CHECK TIMEOUT +	M1839 PL4ISUPCOTHR
ISUP INCOMING OTHER INEFFECTIVE ATTEMPT FAILURES +	M1837 TF4IISIA3HR
ISUP URS, UNREASONABLE SIGNAL +	M1841 PL4ISUPUSISHR
ISUP INCOMING CNI BUFFER OVERFLOW +	M1847 PL4ISUPICNIBOHR
ISUP INCOMING CNI RING FAIL +	M1846 PL4ISUPICNIRFHR
ISUP ORIGINATING QUEUE OVERFLOW +	M1835 TF4ISUPORQF7HR
INUP COT, CONTINUITY CHECK TIMEOUT +	M1462 PL4INUPCOTHR
PBX REORDER ANNOUNCEMENT +	M1833 TF4PBXROA3HR
PBX NO CIRCUIT +	M1850 TF4PBXNCA3HR
ACCESS TANDEM POST ACKNOWLEDGEMENT WINK +	M466 TF4ATPOSTACK3HR
DSDC TIMEOUT +	M1626 PL4DSDCTOHR
TIMEOUT WAITING FOR RESPONSE FROM SCP +	M1909 PL4BSSPSCPTOHR
8DR, EIGHTH DIGIT RECEIVED WITH NO CR PC	M257 TF48DNCR3HR

* Sum of COF + RLG + RST signals received on second trial.
** Sum of MRF and no signal path.

Table 4. EQUIPMENT CAUSED REORDER

MEASUREMENT	FORMULA
PSTO, MF EQUIPMENT PC +	M191 PL4PSTOMEHR
PSTO, DP EQUIPMENT PC +	M193 PL4PSTODEHR
PDT, MF EQUIPMENT PC +	M203 PL4PDTOMEHR
PDT, DP EQUIPMENT PC +	M205 PL4PDTODEHR
PER, MF EQUIPMENT PC +	M207 PL4PSE_MEHR
PER, DP EQUIPMENT PC +	M209 PL4PSE_DEHR
CST, MF EQUIPMENT PC +	M223 PL4CST_MEHR
CST, DP EQUIPMENT PC +	M224 PL4CST_DEHR
DP CR QUEUE OVERFLOW PC +	M134 TF4DPQF0HR
MF ORIGINATING QUEUE OVERLOAD +	M1827 TF4MFTOQF0HR
MF XMTR QUEUE ENTRY FAILURE PC +	M190 TF4MFTQF0HR
MF XMTR FINAL TRIAL OUTPULSE ERROR +	M227 PL4MFTFO17H
IDTS CR QUEUE OVERFLOW PC +	M712 TF4IDTSCRQF0HR
DTMF PST +	M1770 PL4PSTODTFHR
DTMF PDT +	M1773 PL4PDTDTFHRS
DTMF PER +	M1774 PL4PSEDTFHR
DTMF MISC INEFFECTIVE ATTEMPTS +	M1800 TF4MIDTIA3HR
DTMF TRANSMITTER QUEUE FAILURE +	M1801 TF4ODTMFWKXQF0HR
IAD, CCIS INCOMPLETE ADDRESS DETECTION +	M251 PL4CCSIADHR
COT, CCIS CONTINUITY SIGNAL TIMEOUT +	M250 PL4CCSCOTHR
CCIS ORIGINATING CR QUEUE OVERFLOW PC +	M138 TF4CORQF0HR
CCIS NO XCVR FINAL TRIAL FAILURE PC +	M101 PL4NCCFTFHR
UXS, UNEXPECTED STOP FINAL TRIAL +	M249 PL4UXSFTRHR
IKF, INTEGRITY CHECK FAILURE FINAL TRIAL +	M248 PL4IKFFTRHR
ADC, CCIS ADDRESS COMPLETE SIGNAL TIMEOUT +	M245 PL4CCSADCHR
* CFD, CCIS CALL FAILURE DETECTION +	M246 PL4CCSCFDHR
** SNF, SIGNALING NETWORK FAILURE +	M247 PL4CCSSNFHR
CKF, CCIS CONTINUITY CHECK FAILURE +	M230 PL4CKFFTRHR
CPF, CONTINUITY AND POLARITY FAILURE FINAL TRIAL FAILURE +	M404 PL4CPFFTRHR
NO ANSWER SUPERVISION SENT DUE TO CCIS CONGESTION +	M601 TF4NASCCISC
MISC CONNECTING INEFFECTIVE ATTEMPTS +	M657 TF4MCNIA3HR
CCIS INWATS DATA BASE OVERLOAD +	M1335 PL4IWDBOHR
CCIS INWATS DATA BASE QUERY TIMEOUT +	M1341 PL4IWDBQTHR
CCIS INWATS NETWORK BLOCKAGE +	M1342 PL4IWCCNBHR
CCIS INWATS NETWORK CONGESTION +	M1343 PL4INCCNCHR
CCIS INWATS NO TRANSLATION DATA +	M1344 PL4IWNXLDHR
CCITT6 INCOMING COT SIGNAL TIMEOUT +	M1185 PL4C6COTOHR
CCITT6 MISC CALL IRREGULARITIES FINAL TRIAL FAILURE PC +	M1159 PL4C6MCI17H
CCITT6 GLARE FINAL TRIAL FAILURE PC +	M1160 PL4C6GLR17H
CCITT6 SNF, SIGNALING NETWORK FAILURE FINAL TRIAL FAILURE PC +	M1161 PL4C6SNF17H
CCITT6 IAM, INITIAL ADDRESS MESSAGE IRREGULARITIES +	M1264 PL4C6IAMHR
CCITT6 CKF, CONTINUITY CHECK FAILURE FINAL TRIAL FAILURE PC +	M1158 PL4C6CCF17H
CCITT6 OUTGOING ADC SIGNAL TIMEOUT +	M1186 PL4C6ADCHR
CCITT6 IAD, INCOMPLETE ADDRESS DETECTED +	M1263 PL4C6ADIHR
2 STAGE INTNL PST +	M1260 TF4SSPST3H
2 STAGE DOM PST +	M1439 TF4DOMPST3H
2 STAGE INTNL PER +	M1259 TF4SSPSE3H

Table 4. EQUIPMENT CAUSED REORDER

MEASUREMENT	FORMULA
2 STAGE DOM PER +	M1437 TF4DOMPE3H
2 STAGE INTNL PDT +	M1261 TF4SSPDT3H
2 STAGE DOM PDT +	M1440 TF4DOMPDT3H
2 STAGE INTNL MF RECEIVER NOT FOUND +	M330 TF4SSPMFR3H
2 STAGE DOM MF RECEIVER NOT FOUND +	M1438 TF4DOMMFR3H
CCITT5 DOUBLE SEIZURE OUTGOING STATE +	M1179 PL4C5DSCLFH
CCITT5 OUTGOING WAITING FOR PTS TIMEOUT +	M1180 PL4C5PTSTOH
CCITT5 UNREASONABLE SIGNAL OUTGOING STATE +	M1182 PL4C5USOHR
CCITT5 GLARE OUTGOING STATE +	M1184 PL4C5GLRHR
CCITT5 INCOMING PTS TIMEOUT +	M1291 PL4I5PTSOHR
CCITT5 INCOMING START OF PULSING TIMEOUT +	M1292 PL4I5SPTOHR
CCITT5 INCOMING INCOMPLETE ADDRESS TIMEOUT +	M1293 PL4I5IATOHR
CCITT5 URS, UNREASONABLE SIGNAL RECEIVING STATE +	M1294 PL4I5USRSHR
CCITT5 INCOMING STATE PULSING ERROR +	M1295 PL4I5PSE5HR
CCITT5 PERSISTING PTS TIMEOUT +	M1303 PL4I5PPTSHR
DOM IOC ORIGINATED PST +	M1745 PL4PSTOIOCHR
DOM IOC ORIGINATED PDT +	M1743 PL4PDTIOCHRS
DOM IOC ORIGINATED PER +	M1744 PL4PSEIOCHR
NM BLOCKED DIRECT SIGNAL CONTROL +	M1331 PL4NMDSCHR
INWATS BLOCKED BY SIGNALING LINK CONGESTION +	M1332 PL4IWBSLCHR
NO AUX CALL REGISTER +	M1333 PL4IWNAXRHR
ANNOUNCEMENT HARDWARE DUPLEX FAILURE +	M1484 PL4CCMDUPFH
LOOPING THROUGH TRANSLATE ALL DIGITS +	M1480 PL4CCMXLATH
NO VACANT ANNOUNCEMENT AVAILABLE +	M1483 PL4CCMNVAHR
ISUP OUTGOING CNI RING FAIL +	M1811 PL4ISUPOCNIRFHR
ISUP OUTGOING CNI BUFFER OVERFLOW +	M1810 PL4ISUPOCNIBOHR
ISUP TRANSCEIVER OVERFLOW +	M1814 TF4ISUPXCVF7HR
ISUP IAD, INCOMPLETE ADDRESS +	M1834 PL4ISUPIADHR
ISUP COT, CONTINUITY CHECK TIMEOUT +	M1839 PL4ISUPCOTHR
ISUP INCOMING OTHER INEFFECTIVE ATTEMPT FAILURES +	M1837 TF4IISIA3HR
ISUP URS, UNREASONABLE SIGNAL +	M1841 PL4ISUPUSISHR
ISUP INCOMING CNI BUFFER OVERFLOW +	M1847 PL4ISUPICNIBOHR
ISUP INCOMING CNI RING FAIL +	M1846 PL4ISUPICNIRFHR
ISUP ORIGINATING QUEUE OVERFLOW +	M1835 TF4ISUPORQF7HR
Q.931 INFORMATION ELEMENT FAIL +	M1816 PL4Q931IEBHR
Q.931 IAD, INCOMPLETE ADDRESS +	M1818 PL4Q931IADHR
Q.931 INCOMING CNI BUFFER OVERFLOW +	M1824 PL4Q931ICNIBOHR
Q.931 INCOMING CNI RING FAIL +	M1825 PL4Q931ICNIRFHR
Q.931 URS, UNREASONABLE SIGNAL +	M1845 PL4Q931USISHR
Q.931 OUTGOING CNI BUFFER OVERFLOW +	M1853 PL4Q931OCNIBOHR
Q.931 OUTGOING CNI RING FAIL +	M1852 PL4Q931OCNIRFHR
Q.931 INCOMING OTHER INEFFECTIVE ATTEMPT FAILURES +	M1817 TF4IQ9IA3HR
Q.931 OTHER FAILURES +	M1851 TF4Q931OFL3HR
Q.931 ORIGINATING CR QUEUE OVERFLOW +	M1823 TF4Q931ORQF7HR
Q.931 GLARE +	M1802 TF4Q931GLRF3HR
Q.931 CONFUSION RECEIVED +	M1828 PL4Q9COFRCVDHR
Q.931 CONFUSION TRANSMITTED +	M1829 PL4Q9COFXMITHR
Q.931 OUT OTHER FAILS +	

Table 4. EQUIPMENT CAUSED REORDER

MEASUREMENT	FORMULA
STC, SINGLE TRUNK CUSTOMER NO CIRCUIT +	M1826 TF4NCASTC3HR
PBX REORDER ANNOUNCEMENT +	M1833 TF4PBXROA3HR
PBX NO CIRCUIT +	M1850 TF4PBXNCA3HR
ACCESS TANDEM POST ACKNOWLEDGEMENT WINK +	M466 TF4ATPOSTACK3H
FINAL TRIAL NETWORK PATH HUNT FAILURE PC +	M176 TF4PHF3HR

* Sum of COF + RLG + RST signals received on second trial.
** Sum of MRF and no signal path.

Table 5. TOTAL CALLS ANSWERED

MEASUREMENT	FORMULA	
TOTAL CALLS ANSWERED	SUCCESSFULLY OUTPULSED CALLS -	M1545 TF4SOCA21HR
	SUCCESSFULLY OUTPULSED CALLS NOT ANSWERED	M1542 TF4USOCF21HR

Table 6. TRANSIENT CALLS LOST

MEASUREMENT	FORMULA	
TRANSIENT CALLS LOST	TRANSIENT CALLS LOST DUE TO PHASE +	M255 PL4LSTCLLHR
	TRANSIENT CALLS LOST DUE TO DIU FAILURES +	M18 PL4TLCDIUHR
	TRANSIENT CALLS LOST DUE TO VIU +	M293 PL4TLCVIUHR
	TRANSIENT CALLS LOST DUE TO DTU +	M294 PL4TLCDTUHR
	TRANSIENT CALLS LOST DUE TO ESU	M295 PL4TLCESUHR
	TRANSIENT CALLS LOST DUE TO SCS	M23 PL4TLCSCSHR
	TRANSIENT CALLS LOST DUE TO D3U	M701 PL4TLCD3UHR
	TRANSIENT CALLS LOST DUE TO IBU	M1237 PL4TLCIBUHR

Table 7. SWITCHING CUTOFF CALLS

MEASUREMENT	FORMULA	
SWITCHING CUTOFF CALLS	STABLE CALLS LOST DUE TO PHASE +	M402 PL4ESTCLLHR
	STABLE CALLS LOST DUE TO DIU FAILURES +	M1601 PL4SLCDIUHR
	STABLE CALLS LOST DUE TO VIU +	M296 PL4SLCVIUHR
	STABLE CALLS LOST DUE TO DTU +	M297 PL4SLCDTUHR
	STABLE CALLS LOST DUE TO ESU	M298 PL4SLCESUHR
	STABLE CALLS LOST DUE TO SCS	M1602 PL4SLCSCSHR
	STABLE CALLS LOST DUE TO D3U	M688 PL4SLCD3UHR

4 ESS ON-SITE OPERATIONS REPORT
MACHINE PERFORMANCE REPORT
PART 2

1. GENERAL

1.01 The Machine Performance Report Part 2 (MPR2) provides a comprehensive report of the 4 ESS system performance. It documents all maintenance related information. This report is the summation of a large number of detailed measurements which can be used by management as well as office maintenance personnel.

1.02 MPR Part 2 can be printed on an hourly (on the hour or half hour), daily, month-to-date, day-to-current hour, or monthly basis.

1.03 If the size of a count exceeds its data field capacity, the count is converted to thousands and a "K" is printed to the right of the field.

2. REPORT HEADINGS

2.01 OFFICE. Common Language Location Identification (CLLI) for the office creating the report.

2.02 PERIOD. The month and year that the data was accumulated.

2.03 DATE. The month/day/year hour minute, of the last day that the data was accumulated for this report.

2.04 REPORT TYPE. Indicates the type of accumulation for the data reported.

a. HOURLY - One hour's worth of data.
b. DAILY - The previous day's worth of data.
c. DAY TO HOUR - Today's data from midnight to the current hour's data collection.
d. MONTH TO DATE - This month's data up to and including the previous day.

2.05 CURRENT GENERIC. Current Generic Program residing in the machine.

Example: 4E<23>4B.08 SS<GGX>LL.II
SS = Machine System
GG = Generic Load
X = Export Option (Null In domestic offices)
LL = Generic Load
II = Software Change Notice (CN) Issue Number

2.06 REPORT FREQ. The printing frequency of the report.

a. SCHEDULED for the following reports:
   — HOURLY
   — DAILY
   — MONTH TO DATE
b. DEMAND for DAY TO HOUR reports.

2.07 NMDS/OSOR SYS ISS. The system's current issue of the NMDS/OSOR tape residing in the machine.

Example: 0398.0 MMYY.X
MM = Month
YY = Year
X = NMDS/OSOR Tape Dot Issue.
"0" is the first issue.

3. REPORT COMPONENTS

3.01 SYSTEM PERFORMANCE REPORT. Total base level cycles, base level cycle overload information, as well as information on CALLS ON Queue. See Table 1.

3.02 OFFICE LOAD. This category details the number of incoming and outgoing seizures, including international data. See Table 2.

3.03 ALARMS. Number of Alarms By Type - Counts of Critical, Major, Minor, Power and Software Carrier Group. See Table 3.

3.04 SYSTEM RECOVERY PHASES and ROLLBACKS. The number of system recovery phases, by type, and total phase duration time.

The total number of rollbacks for Recent Change and Network Management. See Table 4.

3.05 INTERRUPTS. For each type of interrupt, this report lists the number of single and multiple interrupts on levels A-K. See Table 5.

3.06 AUDIT ERRS FOUND. This section displays the audit errors found by client audit calls, i.e. the audits system, operational and maintenance programs, automatic and manual audit methods. See Table 6 for detailed list of errors.

3.07 NM CNTRLS INVOKED. The number of network management controls invoked.

Selective Service Protection (SSP) Call Types. Counts of standard, preferred and non-preferred calls.

See Table 7.

3.08 EQUIPMENT PERFORMANCE REPORT. A listing of equipment faults, errors and occupancy (maintenance and service) for the major pieces of equipment attached to the 1A/1B processor of the 4 ESS. See Table 8.

3.09 COMMON CHANNEL SIGNALING NETWORK PERFORMANCE. Displays indicators of the performance of the signaling network - automatic changeovers, emergency restarts, service

outage occupancy, and exception reports. Includes both domestic and international data. See Table 9.

3.10 NETWORK TERMINATED EQUIPMENT PERFORMANCE. The count of faults, maintenance occupancy and error analysis data on service circuits, trunks, CCIS VFL's and test circuits. Includes International data. See Table 10.

3.11 IMA AND RELATED CALL SET UP IRREGularitieS. Equipment related reorder counts by incoming, outgoing and connecting categories as well as abandons and CAMA failures. Includes International data. See Table 11.

3.12 DIRECT SIGNALING PERFORMANCE. Counts of INWATS, DSDC, SDN, NCD, & ITS Direct Signaling Failures. See Table 12.

3.13 SYNC NETWORK PERFORMANCE. Summary of SYNC Net System Irregularities. See Table 13.

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REPT:  MACHINE PERFORMANCE REPORT PART 2 (MPR2)     OFFICE:$@@@@@@@@@@@@@@@
PERIOD:      $@@@@@@@@ $@@@       PAGE 1 OF 3       DATE:  $@@@@@@@ $@@@
REPORT TYPE: $@@@@@@@@@@@@@@@@@@@@@       CURRENT GENERIC:  $@@@@@@@@@@@@@@@
REPORT FREQ: $@@@@@@@@                     NMDS/OSOR SYS ISS:$@@@@@

   SYSTEM PERFORMANCE REPORT
   BASE LVL CYCLES    MTC PROG RESTR     DEF PROG RESTR    CNCL OVLD IN EFF
     $@@@@@@ $          $@@@@@@ $          $@@@@@@ $          $@@@@@@ $
     CALLS ON Q         LOAD LVL 1         LOAD LVL 2         LOAD LVL 3
     !@@@@@@ !          !@@@@@@ !          !@@@@@@ !          !@@@@@@ !

   OFFICE LOAD
           INC SEIZ     !@@@@@@ !            OUT SEIZ         !@@@@@@ !
            MF          !@@@@@@ !             IT              !@@@@@@ !
            CCIS        !@@@@@@ !             TC              !@@@@@@ !
            DPIS        !@@@@@@ !             CCIS            !@@@@@@ !
            DPDD        !@@@@@@ !             MF              !@@@@@@ !
            DTMF        !@@@@@@ !             DP              !@@@@@@ !
            ISUP 2WIRE  !@@@@@@ !             DTMF            !@@@@@@ !
            ISUP 4WIRE  !@@@@@@ !             ISUP            !@@@@@@ !
            Q.931       !@@@@@@ !             Q.931           !@@@@@@ !
            INTNL       !@@@@@@ !             INTNL           !@@@@@@ !
   ALARMS
           CRITICAL     !@@@@@@ !             SCGA            !@@@@@@ !
           MAJOR        !@@@@@@ !             PWR MAJ         !@@@@@@ !
           MINOR        !@@@@@@ !             PWR MIN         !@@@@@@ !

   SYS RCVRY PHASES        (1)                (2)                (3)
             AUTO       !@@@@@@ !          !@@@@@@ !          !@@@@@@ !
             MAN        !@@@@@@ !          !@@@@@@ !          !@@@@@@ !
             MAN (4)    !@@@@@@ !
    PHASE DUR CT SEC    !@@@@@@ !
    RC ROLLBACKS        !@@@@@@ !
    NM ROLLBACKS        !@@@@@@ !

   INTERRUPTS
          SINGLE    A   !@@@@@@ !     B    !@@@@@@ !     C    !@@@@@@ !
                    D   !@@@@@@ !     E    !@@@@@@ !     F    !@@@@@@ !
                    K   !@@@@@@ !
        MULTIPLE    A   !@@@@@@ !     B    !@@@@@@ !     C    !@@@@@@ !
                    D   !@@@@@@ !     E    !@@@@@@ !     F    !@@@@@@ !

   AUDIT ERRS FOUND
    AUDITS SYSTEM       !@@@@@@ !    MANUAL REQUESTS          !@@@@@@ !
    OPERATIONAL PGMS    !@@@@@@ !    MAINTENANCE PGMS         !@@@@@@ !

    NM CNTRLS INVOKED   !@@@@@@ !

    PREFERRED CALLS     !@@@@@@ !
    STANDARD CALLS      !@@@@@@ !
    NON-PREFERRED CALLS !@@@@@@ !

 K COUNT EXPRESSED IN THOUSANDS
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Figure 1. MPR2 - PAGE 1 OF 3

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REPT:  MPR PART 2                MPR2             OFFICE:$@@@@@@@@@@@@@@@
PERIOD:      $@@@@@@@@ $@@@      PAGE 2 OF 3      DATE:  $@@@@@@@ $@@@

   EQUIPMENT PERFORMANCE REPORT
        FAULTS            ERRORS            MTC OCCY          SVC OTG OCCY
CC      $@@@@@@ $         $@@@@@@ $         $@@@@@@ $
PS      !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
CS      !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
MUP     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
AUI     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
SSD     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
XPWR    !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
API     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
PCD     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
ADS     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
 DUS    !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
 TUC    !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
BUS     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
 AUB    !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
 PSB    !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
 CSB    !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
 PUB    !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
 IFB    !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
I/O     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
 IOUS   !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
 IOUC   !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
NCSU    !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
TMSP    !@@@@@@ !         !@@@@@@ !         !@@@@@@ !          $@@@@@@ $
TSI     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !          !@@@@@@ !
D3U     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !          !@@@@@@ !
CLOCK   !@@@@@@ !         !@@@@@@ !         !@@@@@@ !          !@@@@@@ !
 NC     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !          !@@@@@@ !
 SC     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !          !@@@@@@ !
TGR                                                            !@@@@@@ !
TGC     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
TER     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !          !@@@@@@ !
CCITT 6
 TER                                       !@@@@@@ !          !@@@@@@ !
SP      !@@@@@@ !         !@@@@@@ !         !@@@@@@ !          !@@@@@@ !
VIF                                                            !@@@@@@ !
VIC     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
VIU     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !          !@@@@@@ !
DT                                                             !@@@@@@ !
DTC     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
DTU     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !          !@@@@@@ !
SCSF                                                           !@@@@@@ !
SCS     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
SCU     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !          !@@@@@@ !
DIF                                                            !@@@@@@ !
DIC     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
DIU     !@@@@@@ !         !@@@@@@ !         !@@@@@@ !          !@@@@@@ !
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Figure 2. MPR2 - PAGE 2 OF 3

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REPT:  MPR PART 2                MPR2             OFFICE:$@@@@@@@@@@@@@@@
PERIOD:      $@@@@@@@@ $@@@      PAGE 3 OF 3      DATE:  $@@@@@@@ $@@@

   COMMON CHANNEL SIGNALING NETWORK PERFORMANCE
     AUTO CHANGE OVER   EMER RESTARTS      SVC OTG OCCY    EXCEPTION REPORT
DOM     $@@@@@@ $         $@@@@@@ $         $@@@@@@ $         $@@@@@@ $
INTNL   !@@@@@@ !         !@@@@@@ !         !@@@@@@ !         !@@@@@@ !

   NETWORK TERMINATED EQUIPMENT PERFORMANCE
                           FAULTS           MTC OCCY       ERR ANAL REPTS
     SERVICE CIRCUITS     !@@@@@@ !         !@@@@@@ !
     TEST CIRCUITS        !@@@@@@ !         !@@@@@@ !
     TRUNKS-DOM           !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
     TRUNKS-INTNL         !@@@@@@ !         !@@@@@@ !         !@@@@@@ !
     CCIS VFL             !@@@@@@ !         !@@@@@@ !
     CCITT6 VFL           !@@@@@@ !         !@@@@@@ !

   IMA AND RELATED CALL SET UP IRREGS
    DOMESTIC ERO                          DOMESTIC ABANDON
     INCOMING             !@@@@@@ !       FSA                 !@@@@@@ !
     CONNECTING           !@@@@@@ !       PDA                 !@@@@@@ !
     OUTGOING             !@@@@@@ !       MAB                 !@@@@@@ !
     TERMINATING          !@@@@@@ !       OTHER               !@@@@@@ !
                                          Q.931               !@@@@@@ !
                                          ISUP                !@@@@@@ !
                                          TSPC                !@@@@@@ !

    INTERNATIONAL RO                      INTERNATIONAL ABANDON
     INCOMING             !@@@@@@ !       INTNL INC           !@@@@@@ !
     CONNECTING           !@@@@@@ !       IOC INC             !@@@@@@ !
     OUTGOING             !@@@@@@ !

    CAMA SERVICE
     ANF                  !@@@@@@ !
     AIF                  !@@@@@@ !
     AOF                  !@@@@@@ !

   DIRECT SIGNALING PERFORMANCE
    INW MISROUTED MSGS REC!@@@@@@ !
    INW FAILS-EQ          !@@@@@@ !
    INW FAILS-OTHER       !@@@@@@ !
    DSDC                  !@@@@@@ !
    SDN                   !@@@@@@ !
    NCD                   !@@@@@@ !
    DAV                   !@@@@@@ !

   SYNC NETWORK PERFORMANCE
    IRREG OCCURRENCES     !@@@@@@ !
```

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Table 1. SYSTEM PERFORMANCE REPORT

MEASUREMENT	FORMULA		
BASE LVL CYCLES	TOTAL BASE LEVEL CYCLES	M167	TF4BLCNT1HR
MTC PROG RESTR Maintenance program restricted	BASE LEVEL CYCLES WITH NONLOAD MAC OVERLOAD CONTROLS	M168	TF4STAT21HR
DEF PROG RESTR Deferred program restricted	BASE LEVEL CYCLES WITH NONLOAD SEGMENT OVERLOAD CONTROLS	M169	TF4STAT31HR
CNCL OVLD IN EFF Cancel overload in effect	BASE LEVEL CYCLES WITH MANUAL MCC CANCEL OVERLOAD IN EFFECT	M29	TF4BLCO1HR
CALLS ON Q	MF ORIGINATING Q +	M141	TF4MFQS0HR
	CCIS ORIGINATING CR Q +	M136	TF4CORQS0HR
	DP CR Q +	M132	TF4DPQS0HR
	DP ANI MF RECEIVER Q +	M118	TF4ANIQS0HR
	CAMA OPERATOR Q +	M114	TF4CAOQS0HR
	IDTS RECEIVER Q +	M669	TF4IDTSRQS0HR
	IDTS CR Q +	M710	TF4IDTSCRQS0HR
	DTMF CR RECEIVER Q +	M707	TF4IDTWKCRQS0HR
	Q.931 ORIGINATING Q +	M1860	TF4Q931ORQS7HR
	ISUP ORIGINATING Q	M1870	TF4ISUPORQS7HR
LOAD LVL 1	BASE LEVEL CYCLES WITH LOAD LEVEL 1 OVERLOAD CONTROLS	M170	TF4STAT41HR
LOAD LVL 2	BASE LEVEL CYCLES WITH LOAD LEVEL 2 OVERLOAD CONTROLS	M171	TF4STAT51HR
LOAD LVL 3	BASE LEVEL CYCLES WITH LOAD LEVEL 3 OVERLOAD CONTROLS	M172	TF4STAT61HR

Table 2. OFFICE LOAD

MEASUREMENT	FORMULA	
INC SEIZ	MF INCOMING SEIZ +	M153 TF4MFSZ1HR
	DP DELAY DIAL INCOMING SEIZ +	M154 TF4DPDD1HR
	DP IMMEDIATE START INCOMING SEIZ +	M155 TF4DPIS1HR
	IDTS INCOMING SEIZ +	M664 TF4IDTSZ1HR
	DTMF INCOMING SEIZ +	M665 TF4IDTWKSZ1HR
	CCIS INCOMING CALLS +	M156 TF4CCIN1HR
	CCITT5 +	M959 TF4C5IA1HR
	CCITT6 +	M960 TF4C6IA1HR
	ISUP 2-WIRE INCOMING SEIZ +	M1657 TF4ISUP2ISZ1HR
	ISUP 4-WIRE INCOMING SEIZ +	M1658 TF4ISUP4ISZ1HR
	Q.931 INCOMING SEIZ +	M1655 TF4Q931ISZ1HR
	INUP INCOMING SEIZ +	M1734 TF4INUP4ISZ1HR
	TUP INCOMING SEIZ	M1713 TF4ITUP4ISZ1HR
MF	MF INCOMING SEIZ	M153 TF4MFSZ1HR
CCIS	CCIS INCOMING CALLS	M156 TF4CCIN1HR
DPIS	DP IMMEDIATE START INCOMING SEIZ +	M155 TF4DPIS1HR
	IDTS DP INCOMING SEIZ	M663 TF4IDTSDPSZ1HR
DPDD	DP DELAY DIAL INCOMING SEIZ	M154 TF4DPDD1HR
DTMF	DTMF INCOMING SEIZ +	M665 TF4IDTWKSZ1HR
	IDTS INCOMING SEIZ +	M664 TF4IDTSZ1HR
	IDTS DIAL PULSE INCOMING SEIZ	M663 TF4IDTSDPSZ1HR
ISUP 2WIRE	ISUP 2WIRE INCOMING SEIZ	M1657 TF4ISUP2ISZ1HR
ISUP 4WIRE	ISUP 4WIRE INCOMING SEIZ	M1658 TF4ISUP4ISZ1HR
Q.931	Q.931 INCOMING SEIZ	M1655 TF4Q931ISZ1HR
INTNL	CCITT5 INCOMING +	M959 TF4C5IA1HR
International	CCITT6 INCOMING +	M960 TF4C6IA1HR
	TUP INCOMING SEIZ +	M1713 TF4ITUP4ISZ1HR
	INUP INCOMING SEIZ	M1734 TF4INUP4ISZ1HR
OUT SEIZ	TOTAL OUTGOING INTERTOLL TRUNK SEIZ +	M151 TF4OUTIT1HR
Outgoing seizures	TOTAL OUTGOING TOLL COMPLETING TRUNK SEIZ +	M152 TF4OUTTC1HR
	CCITT5 OUTGOING +	M1137 TF4C5OA1HR
	CCITT6 OUTGOING	M1138 TF4C6OA1HR
IT	TOTAL OUTGOING INTERTOLL TRUNK SEIZ PC	M151 TF4OUTIT1HR
TC	TOTAL OUTGOING TOLL COMP TRUNK SEIZ PC	M152 TF4OUTTC1HR
CCIS	CCIS OUTGOING PC	M240 PL4OTGACCHR
MF	MF OUTGOING ATT, MF EQUIP & OPER	M236 PL4OTGAMEHR
DP	DP OUTGOING ATT, DP OPERATOR OR BYLINK	M237 PL4OTGADEHR
DTMF	DTMF OUTGOING SEIZ	M1501 TF4ODTWKSZ1HR
ISUP	ISUP OUTGOING SZ	M1668 TF4ISUPOSZ1HR
Q.931	Q.931 OUTGOING SZ	M1656 TF4Q931OSZ1HR
INTNL	CCITT5 OUTGOING +	M1137 TF4C5OA1HR
International	CCITT6 OUTGOING	M1138 TF4C6OA1HR

Table 3. ALARMS

MEASUREMENT	FORMULA	
CRITICAL	ALARMS, CRITICAL LEVEL	M377 = PL4CRTALMHR
MAJOR	ALARMS, MAJOR LEVEL	M378 = PL4MAJALMHR
MINOR	ALARMS, MINOR LEVEL	M379 = PL4MINALMHR
SCGA	INITIAL SOFTWARE CARRIER GROUP ALARM +	M95 PL4SCGAFHR
Software carrier group alarm	CONFIRMED RECEIVED PATH FAILURE CARRIER ALARM +	M1327 PL4SCAPRFHR
	CONFIRMED TRANSIT PATH FAILURE CARRIER ALARM	M1367 PL4SCATPFHR
PWR MAJ	POWER ROOM MAJOR ALARM	M259 = PL4PWRMJ16H
PWR MIN	POWER ROOM MINOR ALARM PC	M260 = PL4PWRMI16H

Table 4. SYSTEM RECOVERY PHASES & ROLLBACKS

MEASUREMENT	FORMULA	
Phase 1 - AUTO	PHASE 1 PROGRAM REQUESTED	M381 = PL4PH1PRGHR
Phase 1 - MAN	PHASE 1 MANUAL REQUESTED	M382 = PL4PH1MANHR
Phase 2 - AUTO	PHASE 2 PROGRAM REQUESTED	M383 = PL4PH2PRGHR
Phase 2 - MAN	PHASE 2 MANUAL REQUESTED	M384 = PL4PH2MANHR
Phase 3 - AUTO	PHASE 3 PROGRAM REQUESTED	M385 = PL4PH3PRGHR
Phase 3 - MAN	PHASE 3 MANUAL REQUESTED	M386 = PL4PH3MANHR
Phase 4 - MAN	PHASE 4 MANUAL REQUESTED	M387 = PL4PH4MANHR
PHASE DUR CT SEC	PHASE DURATION COUNT IN SECONDS	M388 = PL4PHLVDRHR
RC ROLLBACKS	RECENT CHANGE ROLLBACKS	M380 = PL4RCRB12H
NM ROLLBACKS	NETWORK MANAGEMENT ROLLBACKS	M494 = PL4NMRBHR

Table 5. INTERRUPTS

MEASUREMENT	FORMULA	
Single: A	TOTAL A LEVEL INTERRUPTS	M284 = PL4TOTAITHR
Single: B	TOTAL B LEVEL INTERRUPTS	M285 = PL4TOTBITHR
Single: C	TOTAL C LEVEL INTERRUPTS	M286 = PL4TOTCITHR
Single: D	TOTAL D LEVEL INTERRUPTS	M287 = PL4TOTDITHR
Single: E	TOTAL E LEVEL INTERRUPTS	M288 = PL4TOTEITHR
Single: F	TOTAL F LEVEL INTERRUPTS	M289 = PL4TOTFITHR
Single: K	TOTAL K LEVEL INTERRUPTS	M291 = PL4TOTKITHR
Multiple: A	MULTIPLE LEVEL INTERRUPT ENDING ON A LEVEL	M292 = PL4MLTALVHR
Multiple: B	MULTIPLE LEVEL INTERRUPT ENDING ON B LEVEL	M300 = PL4MLTBLVHR
Multiple: C	MULTIPLE LEVEL INTERRUPT ENDING ON C LEVEL	M301 = PL4MLTCLVHR
Multiple: D	MULTIPLE LEVEL INTERRUPT ENDING ON D LEVEL	M302 = PL4MLTDLVHR
Multiple: E	MULTIPLE LEVEL INTERRUPT ENDING ON E LEVEL	M303 = PL4MLTELVHR
Multiple: F	MULTIPLE LEVEL INTERRUPT ENDING ON F LEVEL	M304

Table 6. AUDIT ERRS FOUND

MEASUREMENT	FORMULA
AUDIT SYSTEM	NUM OF AUDITS RUN, REQUESTED AUTOMATICALLY.

This is the sum of the following counts for
AUTOMATIC REQUESTS:

- CR IDLE LINK LIST
- CR
- INTERJECT LEVEL TIMING LINK LIST (CR, TMR)
- BASE LEVEL TIMING LINK LIST (CR, TMR)
- CR QUEUE FOR MF RECEIVER
- CR QUEUE FOR MF TRANSMITTER
- CR QUEUE FOR OPERATOR POSITION
- TRUNK REGISTER
- TR INTERJECT LEVEL ENGINEERED TIMING LIST
- TR BASE LEVEL ENGINEERED TIMING LIST
- TR INTERJECT LEVEL TIMING LINK LIST
- TR BASE LEVEL TIMING LINK LIST
- TR TRUNK MAINTENANCE HIGH AND WET TIMING LINK LIST
- NETWORK PATH ANNEX ENGINEERED LIST
- TRUNK MAINTENANCE REGISTER
- TRUNK STATUS BUSY/IDLE BITS
- INPUT/OUTPUT SYSTEM
- TR LINK LIST TRACE TO DETECT CIRCULAR LISTS
- MAINTENANCE STATUS OF TRUNKS
- RINGING AND TONE PLANT
- TMR IDLE LINK LIST
- MF XMTR, MF RCVR, CCIS XCVR TRUNK BLOCK STATUS
- LINKAGE AND IDLE TRUNKS STATUS
- AUDIT LIST B/I STATUS
- TR MF ORIGINATION QUEUE FOR CR
- DIAL PULSE-OUT WORK LIST COUNTERS
- NETWORK MAP
- SP UNIVERSAL T-BITS
- SP MISCELLANEOUS T-BITS
- TRUNK BLOCK STATUS LINKAGE AND TRUNK SUB-GROUP
- IDLE TRUNKS COUNTER
- TRUNK ERROR ANALYSIS DATA STRUCTURES
- DISK ADMINISTRATION
- SP POLLING MASK, STACK CONFIGURATION, INTEGRITY
- MONITOR AUDIT REQUEST LIST
- TRAFFIC SEPARATION COUNTERS
- TRUNK SUB-GROUP HEAD CELL INFORMATION (SATELLITE
- BIT, ADJUNCT LINKAGE, MAIN BUSY COUNTERS)
- OVERLOAD TIMING CONTROL TABLES
- CAMA OPERATOR POSITION OCCUPANCY COUNTER
- CRs WAITING FOR MF TRANSMITTER QUEUE COUNTER
- TR QUEUE FOR CR (DIAL PULSE-IN)
- FILE STORE PAGING SUPERVISOR
- LOST CR ON IDLE LINK LIST
- QUICK CHECK OF ALL TR LINK LIST HEAD CELLS
- LOST TRM ON IDLE LINK LIST
- DISK-DISK, DISK-CORE MATCH
- CORE RESIDENT GENERIC DATA HASH CHECK
- CORE RESIDENT NONGENERIC DATA HASH CHECK
- NETWORK MANAGEMENT STRUCTURES
- RECORDED ANNOUNCEMENT SYSTEM
- TRUNK MAINTENANCE DATA STRUCTURES
- CCIS LINK SECURITY DATA
- DEDICATED TSI
- CCIS CR QUEUE
- CCIS TRUNK QUERY
- MAC JOB STRUCTURES
- TMR JOB BUFFER LINK LIST

Table 6. AUDIT ERRS FOUND

MEASUREMENT	FORMULA
MANUAL REQUESTS	NUMBER OF AUDITS RUN, REQUESTED MANUALLY.

This is the sum of the following counts for
MANUAL REQUESTS:

- CR
- CR IDLE LINK LIST
- INTERJECT LEVEL TIMING LINK LIST (CR, TMR)
- BASE LEVEL TIMING LINK LIST (CR, TMR)
- CR QUEUE FOR MF RECEIVER
- CR QUEUE FOR MF TRANSMITTER
- CR QUEUE FOR OPERATOR POSITION
- TRUNK REGISTER
- TR INTERJECT LEVEL ENGINEERED TIMING LIST
- TR BASE LEVEL ENGINEERED TIMING LIST
- TR INTERJECT LEVEL TIMING LINK LIST
- TR BASE LEVEL TIMING LINK LIST
- TR TRUNK MAINTENANCE HIGH AND WET TIMING LINK LIST
- NETWORK PATH ANNEX ENGINEERED LIST
- TRUNK MAINTENANCE REGISTER
- TRUNK STATUS BUSY/IDLE BITS
- INPUT/OUTPUT SYSTEM
- TR LINK LIST TRACE TO DETECT CIRCULAR LISTS
- MAINTENANCE STATUS OF TRUNKS
- RINGING AND TONE PLANT
- TMR IDLE LINK LIST
- MF XMTR, MF RCVR, CCIS XCVR TRUNK BLOCK STATUS
- LINKING AND IDLE TRUNKS COUNTER
- AUDIT LIST B/I STATUS
- TR MF ORIGINATION QUEUE FOR CR
- DIAL PULSE-OUT WORK LIST COUNTERS
- NETWORK MAP
- SP UNIVERSAL T-BITS
- SP MISCELLANEOUS T-BITS
- TRUNK BLOCK STATUS LINKAGE AND TRUNK SUB-GROUP
- IDLE TRUNKS COUNTER
- TRUNK ERROR ANALYSIS DATA STRUCTURES
- DISK ADMINISTRATION
- SP POLLING MASK, STACK CONFIGURATION, INTEGRITY
- MONITOR AUDIT REQUEST TEST
- TRAFFIC SEPARATION COUNTERS
- TRUNK SUB-GROUP HEAD CELL INFORMATION (SATELLITE
- BIT, ADJUNCT LINKAGE, MAIN BUSY COUNTERS)
- OVERLOAD TIMING CONTROL TABLES
- CAMA OPERATOR POSITION OCCUPANCY COUNTERS
- CRs WAITING FOR MF TRANSMITTER QUEUE COUNTER
- TR QUEUE FOR CR (DIAL PULSE-IN)
- FILE STORE PAGING SUPERVISOR
- LOST CR ON IDLE LINK LIST
- QUICK CHECK OF ALL TR LINK LIST HEAD CELLS
- LOST TMR ON IDLE LINK LIST
- DISK-DISK, DISK-CORE MATCH
- CORE RESIDENT GENERIC DATA HASH CHECK
- CORE RESIDENT NONGENERIC DATA HASH CHECK
- NETWORK MANAGEMENT STRUCTURES
- RECORDED ANNOUNCEMENT SYSTEM
- TRUNK MAINTENANCE DATA STRUCTURES
- CCIS LINK SECURITY DATA
- DEDICATED TSI
- CCIS CR QUEUE
- CCIS TRUNK QUERY
- MAC JOB STRUCTURES
- TMR JOB BUFFER LINK LIST

Table 6. AUDIT ERRS FOUND

MEASUREMENT	FORMULA
OPERATIONAL PGMS	NUMBER OF ERRORS FOUND BY AUTOMATICALLY REQUESTED AUDITS.

This is the sum of the following counts for
AUTOMATIC REQUESTS:

- CR IDLE LINK LIST
- CR
- INTERJECT LEVEL TIMING LINK LIST (CR, TMR)
- BASE LEVEL TIMING LINK LIST (CR, TMR)
- CR QUEUE FOR MF RECEIVER
- CR QUEUE FOR MF TRANSMITTER
- CR QUEUE FOR OPERATOR POSITION
- TRUNK REGISTER
- TR INTERJECT LEVEL ENGINEERED TIMING LIST
- TR BASE LEVEL ENGINEERED TIMING LIST
- TR INTERJECT LEVEL TIMING LINK LIST
- TR TRUNK MAINTENANCE HIGH AND WET TIMING LINK LIST
- TR BASE LEVEL TIMING LINK LIST
- NETWORK PATH ANNEX ENGINEERED LIST
- TRUNK MAINTENANCE REGISTER
- TRUNK STATUS BUSY/IDLE BITS
- INPUT/OUT SYSTEM
- TR LINK LIST TRACE TO DETECT CIRCULAR LISTS
- MAINTENANCE STATUS OF TRUNKS
- RINGING AND TONE PLANT
- TMR IDLE LINK LIST
- MF XMTR, MF RCVR, CCIS XCVR TRUNK BLOCK STATUS
- LINKAGE AND IDLE TRUNKS COUNTER
- AUDIT LIST B/I STATUS
- TR MF ORIGINATION QUEUE FOR CR
- DIAL PULSE-OUT WORK LIST COUNTERS
- NETWORK MAP
- SP UNIVERSAL T-BITS
- SP MISCELLANEOUS T-BITS
- TRUNK BLOCK STATUS LINKAGE AND TRUNK SUB-GROUP
- IDLE TRUNKS COUNTER
- TRUNK ERROR ANALYSIS DATA STRUCTURES
- DISK ADMINISTRATION
- SP POLLING MASK, STACK CONFIGURATION, INTEGRITY
- MONITOR AUDIT REQUEST TEST
- TRAFFIC SEPARATION COUNTERS
- TRUNK SUB-GROUP HEAD CELL INFORMATION (SATELLITE
- BIT, ADJUNCT LINKAGE, MAIN BUSY COUNTERS)
- OVERLOAD TIMING CONTROL TABLES
- CAMA OPERATOR POSITION OCCUPANCY COUNTERS
- CRS WAITING FOR MF TRANSMITTER QUEUE COUNTER
- TR QUEUE FOR CR (DIAL PULSE-IN)
- FILE STORE PAGING SUPERVISOR
- LOST CR IDLE LINK LIST
- QUICK CHECK OF ALL TR LINK LIST HEAD CELLS
- LOST TRM ON IDLE LINK LIST
- DISK-DISK, DISK-CORE MATCH
- CORE RESIDENT GENERIC DATA HASH CHECK
- CORE RESIDENT NONGENERIC DATA HASH CHECK
- NETWORK MANAGEMENT STRUCTURES
- RECORDED ANNOUNCEMENT SYSTEM
- TRUNK MAINTENANCE DATA STRUCTURES
- CCIS LINK SECURITY DATA
- DEDICATED TSI
- CCIS CR QUEUE
- CCIS TRUNK QUERY
- MAC JOB STRUCTURES
- TMR JOB BUFFER LINK LIST

Table 6. AUDIT ERRS FOUND

MEASUREMENT	FORMULA
MAINTENANCE PGMS	NUMBER OF ERRORS FOUND BY MANUALLY REQUESTED AUDITS.

This is the sum of the following counts for
MANUAL REQUESTS:

- CR IDLE LINK LIST
- CR
- INTERJECT LEVEL TIMING LINK LIST (CR, TMR)
- BASE LEVEL TIMING LINK LIST (CR, TMR)
- CR QUEUE FOR MF RECEIVER
- CR QUEUE FOR MF TRANSMITTER
- CR QUEUE FOR OPERATOR POSITION
- TRUNK REGISTER
- TR INTERJECT LEVEL ENGINEERED TIMING LIST
- TR BASE LEVEL ENGINEERED TIMING LISTING
- TR INTERJECT LEVEL TIMING LINK LIST
- TR BASE LEVEL TIMING LINK LIST
- TR TRUNK MAINTENANCE HIGH AND WET TIMING LINK
- LIST
- NETWORK PATH ANNEX ENGINEERED LIST
- TRUNK MAINTENANCE REGISTER
- TRUNK STATUS BUSY/IDLE BITS
- INPUT/OUTPUT SYSTEM
- TR LINK LIST TRACE TO DETECT CIRCULAR LISTS
- MAINTENANCE STATUS OF TRUNKS
- RINGING AND TONE PLANT
- TMR IDLE LINK LIST
- MF XMTR, MF RCVR, CCIS XCVR TRUNK BLOCK
- STATUS LINKAGE AND IDLE TRUNKS COUNTER
- AUDIT LIST B/I STATUS
- TR MF ORIGINATION QUEUE FOR CR
- DIAL PULSE-OUT WORKLIST COUNTERS
- NETWORK MAP
- SP UNIVERSAL T-BITS
- SP MISCELLANEOUS T-BITS
- TRUNK BLOCK STATUS LINKAGE AND TRUNK SUB-GROUP
- IDLE TRUNKS COUNTER
- TRUNK ERROR ANALYSIS DATA STRUCTURES
- DISK ADMINISTRATION
- SP POLLING MASK, STACK CONFIGURATION, INTEGRITY
- MONITOR AUDIT REQUEST TEST
- TRAFFIC SEPARATION COUNTERS
- TRUNK SUB-GROUP HEAD CELL INFORMATION (SATELLITE
- BIT, ADJUNCT LINKAGE, MAIN BUSY COUNTER)
- OVERLOAD TIMING CONTROL TABLES
- CAMA OPERATOR POSITION OCCUPANCY COUNTER
- CRs WAITING FOR MF TRANSMITTER QUEUE COUNTER
- TR QUEUE FOR CR (DIAL PULSE-IN)
- FILE STORE PAGING SUPERVISOR
- LOST CR ON IDLE LINK LIST
- QUICK CHECK OF ALL TR LINK LIST HEAD CELLS
- LOST TMR ON IDLE LINK LIST
- DISK-DISK, DISK-CORE MATCH
- CORE RESIDENT GENERIC DATA HASH CHECK
- CORE RESIDENT NONGENERIC DATA HASH CHECK
- NETWORK MANAGEMENT STRUCTURES
- RECORDED ANNOUNCEMENT SYSTEM
- TRUNK MAINTENANCE DATA STRUCTURES
- CCIS LINK SECURITY DATA
- DEDICATED TSI
- CCIS CR QUEUE
- CCIS TRUNK QUERY
- MAC JOB STRUCTURES
- TMR JOB BUFFER LINK LIST

Table 7. NM CONTROLS and SELECTIVE SERVICE PROTECTION

MEASUREMENT	FORMULA		
NM CNTRLS INVOKED	NM CONTROLS INVOKED PC	M493	PL4NMCIHR
PREFERRED CALLS	SSP PREFERRED CALLS	M1675	TF4SSPPOA1HR
STANDARD CALLS	SSP STANDARD TYPE CALLS	M1676	TF4SSPSOA1HR
NON-PREFERRED	SSP NON-PREFERRED CALLS	M1677	TF4SSPNOA1HR

Table 8. EQUIPMENT PERFORMANCE REPORT

	MEASUREMENT		FORMULA	
EQUIP	FAULTS	ERRORS	MAINTENANCE OCCUPANCY	SERVICE OCCUPANCY
CC	CC NON-MAN DIAG - ATP'S	CC UNIT ERRORS + NONLOCATED FAULTS	CC MAINT OCC x 1.8	
PS	PS NON-MAN DIAG - ATP'S	PS UNIT ERRORS + NONLOCATED FAULTS	PS MAINT OCC x 1.8	
CS	CS NON-MAN DIAG - ATP'S	CS UNIT ERRORS + NONLOCATED FAULTS	CS MAINT OCC x 1.8	
MUP	MUP NON-MAN DIAG - ATP'S	MUP UNIT ERRORS + NONLOCATED FAULTS	MUP MAINT OCC x 1.8	
AUI	AUI NON-MAN DIAG - ATP'S	AUI UNIT ERRORS + NONLOCATED FAULTS	AUI MAINT OCC x 1.8	
SSD	SSD NON-MAN DIAG - ATP'S	SSD UNIT ERRORS + NONLOCATED FAULTS	SSD MAINT OCC x 1.8	
XPWR	XPWR NON-MAN DIAG - ATP'S	XPWR UNIT ERRORS + NONLOCATED FAULTS	XPWR MAINT OCC x 1.8	
API	API NON-MAN DIAG - ATP'S	API UNIT ERRORS + NONLOCATED FAULTS	API MAINT OCC x 1.8	
PCD	PCD NON-MAN DIAG - ATP'S	PCD UNIT ERRORS + NONLOCATED FAULTS	PCD MAINT OCC x 1.8	
ADS	DUS NON-MAN DIAG - DUS ATP'S + TUC NON-MAN DIAG - TUC ATP'S	DUS UNIT ERRORS + DUS NONLOCATED FAULTS + TUC UNIT ERRORS + TUC NONLOCATED FAULTS	(DUS MAINT OCC x 1.8) + (TUC MAINT OCC x 1.8)	
DUS	DUS NON-MAN DIAG - ATP'S	DUS UNIT ERRORS + NONLOCATED FAULTS	DUS MAINT OCC x 1.8	
TUC	TUC NON-MAN DIAG - ATP'S	TUC UNIT ERRORS + NONLOCATED FAULTS	TUC MAINT OCC x 1.8	

Table 8. EQUIPMENT PERFORMANCE REPORT

	MEASUREMENT		FORMULA	
EQUIP	FAULTS	ERRORS	MAINTENANCE OCCUPANCY	SERVICE OCCUPANCY
BUS	AUB NON-MAN DIAG - AUB ATP'S + PSB NON-MAN DIAG - PSB ATP'S + CSB NON-MAN DIAG - CSB ATP'S + PUB NON-MAN DIAG - PUB ATP'S + IFB NON-MAN DIAG - IFB ATP'S	AUB UNIT ERRORS + AUB NONLOCATED FAULTS + PSB UNIT ERRORS + PSB NONLOCATED FAULTS + CSB UNIT ERRORS + CSB NONLOCATED FAULTS + PUB UNIT ERRORS + PUB NONLOCATED FAULTS + IFB UNIT ERRORS + IFB NONLOCATED FAULTS	(AUB MAINT OCC x 1.8) + (PSB MAINT OCC x 1.8) + (CSB MAINT OCC x 1.8) + (PUB MAINT OCC x 1.8) + (IFB MAINT OCC x 1.8)	
AUB	AUB NON-MAN DIAG - ATP'S	AUB UNIT ERRORS + NONLOCATED FAULTS	AUB MAINT OCC x 1.8	
PSB	PSB NON-MAN DIAG - ATP'S	PSB UNIT ERRORS + NONLOCATED FAULTS	PSB MAINT OCC x 1.8	
CSB	CSB NON-MAN DIAG - ATP'S	CSB UNIT ERRORS + NONLOCATED FAULTS	CSB MAINT OCC x 1.8	
PUB	PUB NON-MAN DIAG - ATP'S	PUB UNIT ERRORS + NONLOCATED FAULTS	PUB MAINT OCC x 1.8	
IFB	IFB NON-MAN DIAG - ATP'S	IFB UNIT ERRORS + NONLOCATED FAULTS	IFB MAINT OCC x 1.8	
I/O	IOUS NON-MAN DIAG - IOUS ATP'S + IOUC NON-MAN DIAG - IOUC ATP'S	IOUS UNIT ERRORS + IOUS NONLOCATED FAULTS + IOUC UNIT ERRORS + IOUC NONLOCATED FAULTS	(IOUS MAINT OCC x 1.8) + (IOUC MAINT OCC x 1.8)	
IOUS	IOUS NON-MAN DIAG - ATP'S	IOUS UNIT ERRORS + NONLOCATED FAULTS	IOUS MAINT OCC x 1.8	
IOUC	IOUC NON-MAN DIAG - ATP'S	IOUC UNIT ERRORS + NONLOCATED FAULTS	IOUC MAINT OCC x 1.8	
NCSU	NCSU NON-MAN DIAG - ATP'S	NCSU UNIT ERRORS + NONLOCATED FAULTS	NCSU MAINT OCC x 1.8	
TMSP	TMSP NON-MAN DIAG - ATP'S	TMSP UNIT ERRORS + NONLOCATED FAULTS	TMSP MAINT OCC x 1.8	TMSP OUTAGE x .1
TSI	TSI NON-MAN DIAG - ATP'S	TSI UNIT ERRORS + NONLOCATED FAULTS	TSI MAINT OCC x 1.8	TSI OUTAGE x .1
D3U	D3U NON-MAN DIAG - ATP'S	D3U UNIT ERRORS + NONLOCATED FAULTS	D3U MAINT OCC x 1.8	D3U OUTAGE x .1
CLOCK	NC NON-MAN DIAG - NC ATP'S +	NC UNIT ERRORS + NC NONLOCATED FAULTS +	(NC MAINT OCC x 1.8) +	(NC OUTAGE x .1) +

Table 8. EQUIPMENT PERFORMANCE REPORT

	MEASUREMENT		FORMULA	
EQUIP	FAULTS	ERRORS	MAINTENANCE OCCUPANCY	SERVICE OCCUPANCY
	SC NON-MAN DIAG - SC ATP'S	SC UNIT ERRORS + SC NONLOCATED FAULTS	(SC MAINT OCC x 1.8)	(SC OUTAGE x .1)
NC	NC NON-MAN DIAG - ATP'S	NC UNIT ERRORS + NONLOCATED FAULTS	NC MAINT OCC x 1.8	NC OUTAGE x .1
SC	SC NON-MAN DIAG - ATP'S	SC UNIT ERRORS + NONLOCATED FAULTS	SC MAINT OCC x 1.8	SC OUTAGE x .1
TGR				TGR OUTAGE x .1
TGC	CCIS TGC NON-MAN DIAG - ATP'S	CCIS TGC UNIT ERRORS + NONLOCATED FAULTS	CCIS TGC MAINT OCC x 1.8	
TER	CCIS TER NON-MAN DIAG - ATP'S	CCIS TER UNIT ERRORS + NONLOCATED FAULTS	CCIS TER MAINT OCC x 1.8	CCIS TER OUTAGE x .1
CCITT6 TER			CCITT6 TER MAINT OCC x 1.8	CCITT6 TER OUTAGE x .1
SP	SP NON-MAN DIAG - ATP'S	SP UNIT ERRORS + NONLOCATED FAULTS	SP MAINT OCC x 1.8	SP OUTAGE x .1
VIF				VIF OUTAGE x .1
VIC	VIC NON-MAN DIAG - ATP'S	VIC UNIT ERRORS + NONLOCATED FAULTS	VIC MAINT OCC x 1.8	
VIU	VIU NON-MAN DIAG - ATP'S	VIU UNIT ERRORS + NONLOCATED FAULTS	VIU MAINT OCC x 1.8	VIU OUTAGE x .1
DT				DT OUTAGE x .1
DTC	DTC NON-MAN DIAG - ATP'S	DTC UNIT ERRORS + NONLOCATED FAULTS	DTC MAINT OCC x 1.8	
DTU	DTU NON-MAN DIAG - ATP'S	DTU UNIT ERRORS + NONLOCATED FAULTS	DTU MAINT OCC x 1.8	DTU OUTAGE x .1
SCSF				SCSF OUTAGE x .1
SCS	SCS NON-MAN DIAG - ATP'S	SCS UNIT ERRORS + NONLOCATED FAULTS	SCS MAINT OCC x 1.8	
SCU	SCU NON-MAN DIAG - ATP'S	SCU UNIT ERRORS + NONLOCATED FAULTS	SCU MAINT OCC x 1.8	SCU OUTAGE x .1
DIF				DIF OUTAGE x .1
DIC	DIC NON-MAN DIAG - ATP'S	DIC UNIT ERRORS + NONLOCATED FAULTS	DIC MAINT OCC x 1.8	
DIU	DIU NON-MAN DIAG - ATP'S	DIU UNIT ERRORS + NONLOCATED FAULTS	DIU MAINT OCC x 1.8	DIU OUTAGE x .1

Table 9. COMMON CHANNEL SIGNALING NETWORK PERFORMANCE

MEASUREMENT	FORMULA
DOMESTIC	
AUTOMATIC CHANGEOVER	VFL 1 NEAR END INITIATED AUTO CHANGEOVERS + VFL 2 NEAR END INITIATED AUTO CHANGEOVERS PC + VFL 1 FAR END INITIATED AUTO CHANGEOVERS PC + VFL 2 FAR END INITIATED AUTO CHANGEOVERS PC
EMERGENCY RESTARTS	EMERGENCY RESTART PC
SERVICE OUTAGE OCCUPANCY	TERMINAL PROHIBITED OCCUPANCY x 0.1
EXCEPTION REPORTS	VFL 1 RETRANSMISSION REQUESTS + VFL 2 RETRANSMISSION REQUESTS + VFL 1 SIGNAL UNITS IN ERROR + VFL 2 SIGNAL UNITS IN ERROR + RECEIVED REPEATED ACU + RECEIVED SKIPPED ACU + BUFFER OVERFLOW + THRESHOLD EXCEEDED
INTERNATIONAL	
AUTOMATIC CHANGEOVER	SAME FORMULA AS DOM EXCEPT FOR INTNL TERMS
EMERGENCY RESTARTS	SAME FORMULA AS DOM EXCEPT FOR INTNL TERMS
SERVICE OUTAGE OCCUPANCY	SAME FORMULA AS DOM EXCEPT FOR INTNL TERMS
EXCEPTION REPORTS	SAME FORMULA AS DOM EXCEPT FOR INTNL TERMS

NOTE: These counts are retrived for each CCIS term.

Table 10. NETWORK TERMINATED EQUIPMENT PERFORMANCE

MEASUREMENT		FORMULA	
EQUIP	FAULTS	MTC OCCY	ERR ANAL REPTS
SERVICE CIRCUITS	MF RCVR LOCATED FAULTS + MF XMTR LOCATED FAULTS + CCIS XCVR LOCATED FAULTS	MF RCVR MAINTENANCE USAGE + MF XMTR MAINTENANCE USAGE + CCIS XCVR MAINTENANCE USAGE x 1.8	
TEST CIRCUITS	ROTL OR 105 SCF + MF RCVR OR XMTR TEST SET SCF + CSTD LOCATED FAULTS	(ROTL PORT MAINT OCC + XCVR TST CKT MAINT OCC + CSTD MAINT OCC) X 1.8	
TRUNKS-DOM	OOS ROTL + OOS OTF + OOS EASF + OOS CCF + OSCG + EASF	(MF EQUIP TK USAGE + MF OPER TK USAGE + DP OPERATOR OR BYLINK TK USAGE + DP EQUIP TK USAGE + CCIS TK USAGE) x 1.8	00S EASF + EASF (DOM)
TRUNKS-INTNL	OOS CCF + OOS EASF + OSCG + EASF	CCITT5 MTC USAGE + CCITT6 MTC USAGE	00S EASF + EASF (INTNL)
CCIS VFL	CCIS VFL FAULTS	VFL MAINT OCCUPANCY x 1.8	
CCITT6 VFL	CCITT6 VFL FAULTS	CCITT6 VFL MTC OCCY x 1.8	

Table 11. IMA AND RELATED CALL SET UP IRREGULARITIES

MEASUREMENT	FORMULA	
DOMESTIC ERO		
INCOMING	PST, MF, DP AND DTMF +	M191 M193 M1770
	PDT, MF, DP AND DTMF +	M203 M205 M1773
	PER, MF, DP AND DTMF +	M207 M209 M1774
	CST, MF & DP EQUIP +	M223 M224
	COT, CCIS CONTINUITY SIGNAL TO +	M250
	IAD, CCIS INCOMPLETE ADDRESS DETECTION +	M251
	NO AUX CALL REGISTER +	M1333
	DATA BASE QUERY TIMEOUT +	M1341
	DATA BASE OVERLOAD +	M1335
	INWATS CCIS NO TRANSLATION DATA +	M1344
	INWATS CCIS NETWORK BLOCKAGE +	M1342
	INWATS CCIS NETWORK CONGESTION +	M1343
	NM BLOCKED DIRECT SIGNALING CONTROL +	M1331
	2 STAGE INTNL PER +	M1259
	2 STAGE DOM PER +	M1437
	2 STAGE INTNL PST +	M1260
	2 STAGE DOM PST +	M1439
	2 STAGE INTNL PDT +	M1261
	2 STAGE DOM PDT +	M1440
	DTMF MISC INEFFECTIVE ATTEMPTS +	M1800
	Q.931 INFORMATION ELEMENT FAILURES +	M1816
	Q.931 INCOMING INEFFECTIVE ATTEMPTS +	M1817
	Q.931 INCOMPLETE ADDRESS DETECTED +	M1818
	Q.931 CNI BUFF OVFL +	M1824
	Q.931 CNI RING FAIL +	M1825
	Q.931 CONFUSION +	M1828
	ISUP INCOMPLETE ADDRESS DETECTED +	M1834

Table 11. IMA AND RELATED CALL SET UP IRREGULARITIES

MEASUREMENT	FORMULA	
	ISUP INCOMING INEFFECTIVE ATTEMPTS +	M1837
	ISUP CONTINUITY CHECK TIMEOUT +	M1839
	ISUP UNREASONABLE SIGNAL RECEIVED +	M1841
	ISUP CNI BUFFER OVFL +	M1847
	ISUP CNI RING FAIL	M1846
CONNECTING	FINAL TRIAL NETWORK PATH HUNT FAILURE +	M176
	2 STAGE FAILED SECOND ATTEMPT +	M330
	2 STAGE MF RECEIVER NOT FOUND +	M1438
	MISC CONNECTING INEFFECTIVE ATTEMPTS +	M657
	CCIS NO TRANSCEIVER FINAL TRIAL FAILURE +	M101
	CCIS CR Q OVERFLOW +	M138
	DP CR Q OVERFLOW +	M134
	MF TRANSMITTER Q ENTRY FAILURE +	M190
	MF ORIG Q OVFL +	M1827
	DTMF CR Q OVFL +	M712
	DTMF TRANSMITTER Q FULL +	M1801
	Q.931 CR Q OVFL +	M1823
	ISUP TRANSCEIVER OVFL +	M1814
	ISUP CR Q OVFL	M1835
OUTGOING	UXS FINAL TRIAL +	M249
	IKF FINAL TRIAL +	M248
	CPF FINAL TRIAL +	M404
	ADC, CCIS SIGNAL TIMEOUT +	M245
	* CFD, CCIS CALL FAILURE DETECTION +	M246
	** SNF, CCIS SIGNAL NETWORK FAILURE +	M247
	CKF, CCIS CONTINUITY CHECK FAILURE FINAL TRIAL +	M230
	MF TRANSMITTER FINAL TRIAL OUTPULSE ERROR +	M227
	ACCESS TANDEM POST ACKNOWLEDGEMENT WINK TIMEOUT +	M466
	2STAGE DIGIT REQUEST FAILURE +	M1407
	ISUP CNI BUFFER OVFL +	M1810
	ISUP CNI RING FAIL +	M1811
	PBX REORDER ANNOUNCEMENT +	M1833
	Q.931 CONFUSION +	M1829
	Q.931 GLARE +	M1802
	Q.931 UNREASONABLE SIGNAL RECEIVED +	M1845
	Q.931 OTHER FAILS +	M1851
	Q.931 CNI BUFFER OVFL +	M1853
	Q.931 CNI RING FAIL	M1852
TERMINATING	NO ANSWER SUPERVISION SENT DUE TO CCIS CONGESTION +	M601
	LOOPING THROUGH TRANSLATE ALL DIGITS +	M1480
	NO VACANT ANNOUNCEMENT AVAILABLE +	M1483
	ANNOUNCEMENT HARDWARE DUPLEX FAILURE	M1484
INTERNATIONAL RO		
INCOMING	CCITT5 - PTS TIMEOUT ICT (6 SEC) +	M1291
	CCITT5 - START OF PULSING TIMEOUT (2 SEC) +	M1292
	CCITT5 - INCOMPLETE ADDRESS TIMEOUT (5 SEC) +	M1293
	CCITT5 - UNREASONABLE SIG REC'D +	M1294
	CCITT5 - PULSING ERROR +	M1295
	CCITT6 - INCOMPLETE ADDRESS DETECTED +	M1263
	CCITT6 - COT TIMEOUT +	M1185
	CCITT6 - IAM IRREGULARITIES +	M1264
	2STAGE INTL PER +	M1259
	2STAGE INTL PST +	M1260

Table 11. IMA AND RELATED CALL SET UP IRREGULARITIES

MEASUREMENT	FORMULA	
	2STAGE INTL PDT +	M1261
	DOM IOC ORIGINATED PDT +	M1743
	DOM IOC ORIGINATED PER +	M1744
	DOM IOC ORIGINATED PST +	M1745
	TUP INCOMPLETE ADDRESS DETECTED +	M1670
	INUP INCOMPLETE ADDRESS DETECTED +	M1157
	INUP COT	M1462
CONNECTING	FINAL TRIAL NETWORK PATH HUNT FAILURE +	M176
	2 STAGE FAILED SECOND ATTEMPT +	M330
	2 STAGE MF RECEIVER NOT FOUND +	M1438
	MISC CONNECTING INEFFECTIVE ATTEMPTS +	M657
	CCIS NO TRANSCEIVER FINAL TRIAL FAILURE +	M101
	CCIS CR Q OVERFLOW +	M138
	DP CR Q OVERFLOW +	M134
	MF TRANSMITTER Q ENTRY FAILURE +	M190
	MF ORIG Q OVFL +	M1827
	DTMF CR Q OVFL +	M712
	DTMF TRANSMITTER Q FULL +	M1801
	CAMA OPERATOR Q OVFL +	M116
	Q.931 CR Q OVFL +	M1823
	ISUP TRANSCEIVER OVFL +	M1814
	ISUP CR Q OVFL	M1835
OUTGOING	CCITT5 - DOUBLE SEIZURE +	M1179
	CCITT5 - WAITING FOR PTS TIMEOUT FINAL TRIAL +	M1180
	CCITT5 - UNREASONABLE SIGNAL FINAL TRIAL +	M1182
	CCITT5 - GLARE FINAL TRIAL +	M1184
	CCITT5 - PERSISTING PTS AFTER OUTPULSING (20 SEC) +	M1303
	CCITT6 - CKF,CONTINUITY CHECK FAILURE FINAL TRIAL +	M1158
	CCITT6 - MISC CALL IRREGULARITIES FINAL TRIAL +	M1159
	CCITT6 - GLARE FINAL TRIAL +	M1160
	CCITT6 - SIGNALLING NETWORK FAILURES FINAL TRIAL +	M1161
	CCITT6 - ADC, ADDRESS COMPLETE SIGNAL TIMEOUT +	M1186
	TUP - ADC, ADDRESS COMPLETE SIGNAL TIMEOUT +	M1857
	TUP - CKF,CONTINUITY CHECK FAILURE FINAL TRIAL +	M1753
	TUP - MISC INEFFECTIVE ATTEMPTS +	M1735
	TUP - SIGNALLING FAILURE +	M1750
	TUP - IAM, INTIAL ADDRESS MESSAGE GLARE +	M1855
	TUP - CCR, CONTINUITY CHECK REQUEST GLARE +	M1856
	INUP - ADC, ADDRESS COMPLETE SIGNAL TIMEOUT +	M1463
	INUP - CKF,CONTINUITY CHECK FAILURE FINAL TRIAL +	M1464
	INUP - MISC INEFFECTIVE ATTEMPTS +	M1465
	INUP - SIGNALLING FAILURE +	M1466
	INUP - IAM, INTIAL ADDRESS MESSAGE GLARE +	M1467
	INUP - CCR, CONTINUITY CHECK REQUEST GLARE +	M1468
DOMESTIC ABANDON		
FSA	FSA, MF EQUIPMENT +	M195
	FSA, DP EQUIPMENT +	M197
	FSA, DTMF EQUIPMENT +	M1771
	FSA, Q.931 EQUIPMENT +	M196
	FSA, ISUP EQUIPMENT	M198
PDA	PDA, MF EQUIPMENT +	M199
	PDA, DP EQUIPMENT +	M201
	PDA, DTMF EQUIPMENT +	M1772

Table 11. IMA AND RELATED CALL SET UP IRREGULARITIES

MEASUREMENT	FORMULA	
	PDA, Q.931 EQUIPMENT +	M200
	PDA, ISUP EQUIPMENT	M202
MAB	MAB, MF EQUIPMENT +	M219
	MAB, DP EQUIPMENT +	M221
	MAB, Q.931 EQUIPMENT +	M220
	MAB, ISUP EQUIPMENT	M222
OTHER	DP CR Q ABANDON +	M135
	DP ANI MF RECEIVER Q ABANDON +	M120
	CCIS ORIG Q ABANDON +	M139
	MF ORIG Q ABANDON	M140
Q.931	Q.931 OTHER ABANDON	M1819
ISUP	ISUP MISC ABANDON +	M1836
	ISUP OTHER ABANDONS	M1838
TSPC	2 STAGE ABANDON - NO DIGITS +	M1142
	2 STAGE ABANDON - SOME DIGITS RECEIVED +	M1143
	DOM 2 STAGE ABANDON - NO DIGITS +	M1435
	DOM 2 STAGE ABANDON - SOME DIGITS RECEIVED	M1436
INTERNATIONAL ABANDON		
INTNL INC	CCITT5 - INCOMING SEIZURE ABANDON +	M1318
	CCITT5 - INCOMPLETE ADDRESS ABANDON +	M1319
	CCITT5 - ABANDON AFTER INPULSING COMPLETED +	M1320
	CCITT6 - ORIGINATING CR Q ABANDON +	M834
	CCITT6 - MISC ABANDON +	M1187
	TUP - INCOMING SEIZURE ABANDON +	M955
	TUP - MISC ABANDON +	M1669
	INUP - INCOMING SEIZURE ABANDON +	M1585
	INUP - MISC ABANDON	M1586
IOC INC	DOM IOC ORIGINATED MAB +	M1740
	DOM IOC ORIGINATED PDA +	M1741
	DOM IOC ORIGINATED FSA +	M1742
CAMA SERVICE		
ANF	ANF, MF EQUIPMENT +	M211
	ANF, DP EQUIPMENT +	M213
	ANF, Q.931 EQUIPMENT +	M212
	ANF, ISUP EQUIPMENT	M214
AIF	AIF, MF EQUIPMENT +	M215
	AIF, DP EQUIPMENT +	M217
	AIF, Q.931 EQUIPMENT +	M216
	AIF, ISUP EQUIPMENT	M218
AOF	AOF, MF EQUIPMENT +	M1363
	AOF, DP EQUIPMENT +	M1365
	AOF, Q.931 EQUIPMENT +	M1364
	AOF, ISUP EQUIPMENT	M1366

* Sum of COF + RLG + RST signals received on second trial.
** Sum of MRF and no signal path.
*** Sum of DOM & INTNL TSPC ABANDON in non-ISC offices.

Table 12. DIRECT SIGNALING PERFORMANCE

MEASUREMENT	FORMULA	
INW MISROUTED MSGS REC	MISROUTED DIRECT SIGNAL MESSAGE RECEIVED	M1349
INW FAILS-EQ	DB FAILURE REPLY NONEXISTENT NPA +	M1337
	DB FAILURE REPLY UNASSIGNED NXX +	M1336
	DB QUERY TIME OUT +	M1341
	INWATS CCIS FAILURE NO TRANSLATION DATA +	M1342
	INWATS CCIS FAILURE NETWORK BLOCKAGE	M1344
INW FAILS-OTHER	NO AUX CALL REGISTER +	M1333
	NM BLOCKED DIRECT SIGNAL CONTROL +	M1331
	NM INWATS 6-DIGIT CODE CONTROL +	M1587
	NM INWATS 10-DIGIT CODE CONTROL +	M1588
	INWATS BLOCKED BY SIGNAL LINK CONGESTION +	M1332
	INWATS CCIS FAILURE NETWORK CONGESTION +	M1343
	OUTWATS NON PURCHASED NPA +	M1503
	DB FAILURE NON PURCHASED NPA +	M1338
	DB FAILURE VACANT NXX +	M1340
	DB FAILURE VACANT LINE +	M1339
	DB FAILURE OVERLOAD +	M1335
	DB FAILURE ALL LINES BUSY +	M1334
	INWATS BAND CHECK FAILURE +	M180
	CALL CONTROLLED DUE TO 10-DIGIT IDB CONTROL MANUAL +	M2040
	CALL CONTROLLED DUE TO 10-DIGIT IDB CONTROL NON PURCHASED NPA +	M2041
	CALL CONTROLLED DUE TO 10-DIGIT IDB CONTROL MASS CALLING +	M2042
	CALL CONTROLLED DUE TO 10-DIGIT IDB CONTROL VACANT CODE +	M2043
	CALL CONTROLLED DUE TO 10-DIGIT IDB CONTROL NCP OVERLOAD +	M2044
	10-DIGIT IDB MANUAL OVERFLOW +	M2051
	10-DIGIT IDB AREA OVERFLOW +	M2052
DSDC	DSDC CALLS BLOCKED DUE TO CCIS PROBLEMS +	M275
	DSDC CALLS BLOCKED DUE TO NCP OVERLOAD +	M277
	DSDC CALLS BLOCKED DUE TO NOC CONTROLS +	M279
	DSDC CALLS BLOCKED DUE TO MAS CALLING CONTROLS +	M282
	DSDC CALLS BLOCKED DUE TO DATABASE TIME OUT +	M1626
	DSDC CALLS BLOCKED DUE TO SIGNAL LINK FAILS +	M1629
	DSDC CALLS BLOCKED DUE TO RESOURCE Q OVERFLOW +	M1548
	CALL CONTROLLED DUE TO 1DSD 6-DIGIT CONTROL MANUAL +	M2045
	CALL CONTROLLED DUE TO 1DSD 10-DIGIT CONTROL MANUAL +	M2046
	CALL CONTROLLED DUE TO 1DSD 10-DIGIT CONTROL NCP OVERLOAD +	M2047
	CALL CONTROLLED DUE TO 2DSD 10-DIGIT CONTROL NCP OVERLOAD +	M2048
	CALL CONTROLLED DUE TO 2DSD 10-DIGIT CONTROL MANUAL +	M2049
	CALL CONTROLLED DUE TO 2DSD 10-DIGIT CONTROL MASS CALLING +	M2050
	10-DIGIT 1DSD MANUAL OVERFLOW +	M2053
	10-DIGIT 2DSD MANUAL OVERFLOW +	M2054
	10-DIGIT 2DSD AREA OVERFLOW +	M2055
	6-DIGIT 1DSD MANUAL OVERFLOW	M2056
SDN	SDN CALLS BLOCKED DUE TO CCIS PROBLEMS +	M273
	SDN CALLS BLOCKED DUE TO NCP OVERLOAD +	M276
	SDN CALLS BLOCKED DUE TO NOC CONTROLS +	M278
NCD	NCD QUERIES BLOCKED AT AP - NCP/NCD OVERLOAD CONTROL +	M1520
	NCD QUERIES BLOCKED AT AP - CCIS ABNORMAL REPLIES CONTROLS +	M1521
	NCD QUERIES BLOCKED AT AP - CONGESTION +	M1820
	NCD QUERIES RETURNED NETWORK BLOCKAGES +	M1525
	NCD QUERIES RETURNED NO ROUTING DATA FOR DESTINATION +	M1526
	NCD QUERIES RETURNED NETWORK OVERLOAD +	M1821
	NCD/NCP UNABLE TO PROCESS - OVERLOAD +	M1527

Table 12. DIRECT SIGNALING PERFORMANCE

MEASUREMENT	FORMULA	
	NCD/NCP UNABLE TO PROCESS - MISC +	M1528
	INVALID NCP MESSAGE DATA	M1529
DAV	DIAL-A-VIEW DIRECT ATTEMPT BLOCKAGE	M1797

Table 13. SYNC NETWORK PERFORMANCE

MEASUREMENT	FORMULA	
IRREG OCCURRENCES	FREE RUN TOTAL +	M1409
	REGULAR REFERENCE OUTAGES +	M1412
	ALTERNATE REFERENCE OUTAGES +	M1414
	REGULAR PHASE HITS +	M1417
	ALTERNATE PHASE HITS +	M1418
	REGULAR FREQUENCY OFFSETS +	M1419
	ALTERNATE FREQUENCY OFFSETS +	M1420
	REGULAR PHASE ERRORS +	M1421
	ALTERNATE PHASE ERRORS +	M1422
	REGULAR REFERENCE OOS +	M1426
	ALTERNATE REFERENCE OOS +	M1428
	REGULAR TRANSMISSION SLIPS ON REFERENCE LINES +	M1432
	ALTERNATE TRANSMISSION SLIPS ON REFERENCE LINES +	M1433
	FAST STARTS +	M1424
	FAST START TIMEOUTS +	M1423
	REG AND ALT MANUAL OOS +	M
	TRANSFERS TO ALTERNATE REFERENCE	M1430

4 ESS ON-SITE OPERATIONS REPORT
MACHINE PERFORMANCE REPORT
PART 3

1. GENERAL

1.01 The Machine Performance Report Part 3 provides a detailed look at the performance of the Synchronization Network as viewed from a No. 4 ESS environment. An overview of Synchronization Network Performance data can be found in an existing OSOR - MPR 2 page 3.

1.02 MPR Part 3 can be printed on an hourly (on the hour or half hour), daily, month-to-date, or day-to-hour basis.

2. REPORT COMPONENTS

2.01 Heading

a. Reporting Office - The CIN name for the office creating the report.

b. Report Type - Indicates hourly, daily, monthly, day-to-hour or month-to-date.

c. Date - The last day that data was accumulated for this report.

d. Time - The last time that data was accumulated for this report.

e. Report Period - Indicates the month and year that data was accumulated.

f. Report - The word "SCHEDULED" will be shown unless this is a day-to-hour report when the word "DEMAND" will be indicated.

2.02 System Irregularities - Irregularities detected in the synchronization system - See Table A for details.

TABLE A

SYSTEM IRREGULARITIES

MEASUREMENT	DESCRIPTION
Free Run total	Number of times oscillators are in a free running (non-synchronous) state.
Free Run < 10 min	Number of times free run mode lasts for less than 10 minutes.
Ref Otg/Misframes	Number of times Bell System Reference Frequency (BSRF) is lost or number of times DS1 reference misframes.
Phase hits	Number of times a step change in phase error exceeds 5 u sec.
Freq Offset	Number of times a frequency difference between the 87A oscillators and reference frequency exists greater than one part in 100,000,000.
Excessive Phase Errors	Number of times a non-phase related hit causes an error of +_ 60 u seconds from the center of the phase comparator characteristic.
Xmisn Slips on Ref lines	Number of times a frame is deleted or repeated in a digroup.
Fast Start Timeouts	Number of times synchronous locking to a reference frequency is not achieved within two hours after a fast start.
Fast Starts	Number of times the fast start mode was entered.
Ref Man OOS	Number of times a reference line was manually removed from service.
Transfer to Alt Ref's	Number of times a transfer has occurred between the regular and alternate reference line.

NOTE: Items with accompanying "duration" data have time expressed in minutes.

```
REPT:  MACHINE PERFORMANCE REPORT PART 3 (MPR3)

REPORTING OFFICE: $@@@@@@@@@@@@@@@        REPORT TYPE: $@@@@@@@@@@@@@@@@@@@@@@
DATE: $@@@@@@@@  TIME: $@@@    PAGE 1
REPORT PERIOD: $@@@@@@@@@ $@@@                                $@@@@@@@@@ REPORT

   SYSTEM IRREGULARITIES        OCCURRENCES         DURATION (MIN)
 FREE RUN TOTAL                   $@@@@@@ $         $@@@@@@
 FREE RUN <10 MIN                 !@@@@@@ !
 REF OTG/MISFRAMES         REG    !@@@@@@ !         !@@@@@@
                           ALT    !@@@@@@ !         !@@@@@@
*PHASE HITS                TOT    !@@@@@@ !
                           REG    !@@@@@@ !
                           ALT    !@@@@@@ !
*FREQ OFFSET               REG    !@@@@@@ !
                           ALT    !@@@@@@ !
*EXCESSIVE PHASE ERRORS    REG    !@@@@@@ !
                           ALT    !@@@@@@ !
 XMISN SLIPS ON REF LINES  REG    !@@@@@@ !
                           ALT    !@@@@@@ !
 FAST START TIMEOUTS              !@@@@@@ !
 FAST STARTS                      !@@@@@@ !         !@@@@@@
 REF MAN OOS               REG    !@@@@@@ !         !@@@@@@
                           ALT    !@@@@@@ !         !@@@@@@
 TRANSFERS TO ALT REF'S           !@@@@@@ !         !@@@@@@




 CURRENT GENERIC:    $@@@@@@@@@@@@@@@
 NMDS/OSOR SYS ISS:  $@@@@@
 * ONLY DETECTABLE WHEN REFERENCE LINE IS ACTIVE
```

Figure 1. MPR3 - PAGE 1 OF 1

4 ESS ON-SITE OPERATIONS REPORT
MACHINE SERVICE REPORT PART 1
DOMESTIC

1. GENERAL

1.01 The Machine Service Report Part 1 - Domestic - Provides a comprehensive service report for use by the operations forces to document the quality of service being provided at a 4 ESS switching machine complex.

1.02 All counts for this report are accumulated on an hourly basis, beginning on an hour or half hour. Report data is available for printing on an hourly, day-to-hour, daily, month-to-date and monthly basis.

2. REPORT HEADING

2.01 The heading of MSR Part 1 provides data pertinent to the office, report data and report period.

2.02 Report Office - Common Language Location Identifier (CLLI) for the office creating the report.

2.03 Report Type - Hourly, daily, monthly, day-to-hour or report month-to-date.

2.04 Date - The last day that data was accumulated for this report.

2.05 Time - The last time that data was accumulated for this report.

2.06 Report Period - The month and year that this data was accumulated.

2.07 Report - Scheduled (hourly) or demand (day to hour).

3. REPORT COMPONENTS

3.01 Count Field - If the sum of the counts exceeds the capacity of the field, the counts are converted to thousands and are indicated by the letter "K" to the right of the field.

3.02 Percent Field - All figures in this field are rounded to two decimal places.

3.03 Condensed IMA Report - This portion of the report is comprised of the incoming IMA, connecting IMA, outgoing IMA, originating IMA, and terminating IMA. The # sign adjacent to "Total Connecting IMA" indicates domestic plus International data if applicable. Table 1 details the counts and the formulas used to compile this section of the report.

3.04 Calls Lost Report - This section deals in calls lost due to failure. See Table 3.

3.05 Speed of Service Report - Table 4 details the counts and formula for this component.

3.06 CAMA Report - CAMA irregularities and failures make up this item. See Table 5.

3.07 Abandon Call Report - Table 2 details the counts and formulas used to compute these items.

```
REPT:  MACHINE SERVICE REPORT (MSR) PART 1 - DOMESTIC

REPORTING OFFICE: $@@@@@@@@@@@@@@        REPORT TYPE: $@@@@@@@@@@@@@@@@@@@@@@
DATE: $@@@@@@@@  TIME: $@@@    PAGE  1 OF 2
REPORT PERIOD: $@@@@@@@@@ $@@@                              $@@@@@@@@@ REPORT

CONDENSED INEFFECTIVE MACHINE ATTEMPT (IMA) REPORT     COUNT       PERCENT
     INCOMING IMA
          VACANT CODE (VC)                      IS-FS$@@@@@@ $      $@@.$@
               CAMA                                  !@@@@@@ !      !@@.!@
               NON-CAMA                              !@@@@@@ !      !@@.!@
          REORDER (RO)                               !@@@@@@ !      !@@.!@
               EQUIPMENT CAUSED REORDER (ERO)        !@@@@@@ !      !@@.!@
               NON-EQUIPMENT CAUSED REORDER (NRO)    !@@@@@@ !      !@@.!@
        TOTAL INCOMING IMA                           !@@@@@@ !      !@@.!@
        ADJUSTED INCOMING IMA                        !@@@@@@ !      !@@.!@
     CONNECTING IMA
        TOTAL CONNECTING IMA  #               #IS-FS!@@@@@@ !      !@@.!@
     OUTGOING IMA
          NO CIRCUIT (NC)                        OGFA!@@@@@@ !      !@@.!@
               NC-INTERTOLL (NC-IT)                  !@@@@@@ !      !@@.!@
               NC-TOLL COMPLETING (NC-TC)            !@@@@@@ !      !@@.!@
               NC-NM BLOCKED                         !@@@@@@ !      !@@.!@
               NC-STC                                !@@@@@@ !      !@@.!@
               NC-PBX                                !@@@@@@ !      !@@.!@
          REORDER (RO)                               !@@@@@@ !      !@@.!@
               EQUIPMENT CAUSED REORDER (ERO)        !@@@@@@ !      !@@.!@
               NON-EQUIPMENT CAUSED REORDER (NRO)    !@@@@@@ !      !@@.!@
        TOTAL OUTGOING IMA                           !@@@@@@ !      !@@.!@
        ADJUSTED OUTGOING IMA                        !@@@@@@ !      !@@.!@
     TERMINATING IMA
          NO CIRCUIT (ANNOUNCEMENT GROUP OVERFLOW) TA!@@@@@@ !      !@@.!@
          REORDER (RO)                               !@@@@@@ !      !@@.!@
               EQUIPMENT CAUSED REORDER (ERO)        !@@@@@@ !      !@@.!@
               NON-EQUIPMENT CAUSED REORDER          !@@@@@@ !      !@@.!@
        TOTAL TERMINATING IMA                        !@@@@@@ !      !@@.!@
        ADJUSTED TERMINATING IMA                     !@@@@@@ !      !@@.!@
     IMA TOTAL                                       !@@@@@@ !
     ADJUSTED IMA TOTAL                              !@@@@@@ !



#INDICATES DOM + INTNL IF APPLICABLE --- K INDICATES THOUSANDS
```

Figure 1. MSR1 - PAGE 1 OF 2

```
REPT: MSR PART 1 - DOMESTIC     PAGE 2 OF 2

CALLS LOST REPORT                                        COUNT       PERCENT
     TRANSIENT                                 #IS-FS+OS$@@@@@@ $      $@@.$@
     ESTABLISHED                                #OGFA+TA!@@@@@@ !      !@@.!@
     ESTABLISHED CALLS LOST PER 10K OGFA+TA #        $@@@@

SPEED OF SERVICE REPORT
     TEST CALL SEIZURES                       TEST CALL!@@@@@@ !
          DELAY UNACCEPTABLE                           !@@@@@@ !      !@@.!@
     CROSS OFFICE TEST CALLS                           !@@@@@@ !
          DELAY UNACCEPTABLE                           !@@@@@@ !      !@@.!@

CAMA REPORT
     TOTAL CAMA IRREGULARITIES                      CC!@@@@@@ !      !@@.!@
          FREE CALLS                                  !@@@@@@ !      !@@.!@
          REORDER                                     !@@@@@@ !      !@@.!@
          VACANT CODE (MCA+UCA)                       !@@@@@@ !      !@@.!@
          OTHER IRREGULARITIES                        !@@@@@@ !      !@@.!@
     CAMA OPERATOR CONNECT > 5 SECONDS                !@@@@@@ !      !@@.!@
          ANF                                       ANI!@@@@@@ !      !@@.!@
          AIF                                         !@@@@@@ !      !@@.!@
          AOF                                         !@@@@@@ !      !@@.!@

     3B RECORDS LOST                            3B SENT!@@@@@@ !      !@@.!@
     NCD BLOCKED CALLS                       NCD QUERIES!@@@@@@ !      !@@.!@

ABANDON CALL REPORT
     TOTAL ABANDONS                               IS+OS!@@@@@@ !      !@@.!@
          FALSE START ABANDON (FSA)                   !@@@@@@ !      !@@.!@
          PARTIAL DIAL ABANDON (PDA)                  !@@@@@@ !      !@@.!@
          MISCELLANEOUS ABANDON (MAB)                 !@@@@@@ !      !@@.!@
          OTHER ABANDON                               !@@@@@@ !      !@@.!@
          Q.931 ABANDON                               !@@@@@@ !      !@@.!@
          ISUP ABANDON                                !@@@@@@ !      !@@.!@
     TSPC ABANDON                                     !@@@@@@ !      !@@.!@

-----------------------------BASE DATA------------------------------
     TOTAL INCOMING SEIZURES (IS)                     !@@@@@@ !
     TOTAL FALSE STARTS (FS)                          !@@@@@@ !
     TOTAL IS MINUS FS (IS-FS)                        !@@@@@@ !
     TOTAL OUTGOING FINAL ATTEMPTS (OGFA)             !@@@@@@ !
     TOTAL TERMINATING ATTEMPTS (TA)                  !@@@@@@ !
     TOTAL CAMA CALLS (CC)                            !@@@@@@ !
     TOTAL ANI CALLS (ANI)                            !@@@@@@ !
     3B RECORDS SENT                                  !@@@@@@ !
     NCD INITIAL QUERIES                              !@@@@@@ !

CURRENT GENERIC: $@@@@@@@@@@@@@@   NMDS/OSOR ISS:  $@@@@@
```

Figure 2. MSR1 - PAGE 2 OF 2

Table 1. CONDENSED IMA REPORT

MEASUREMENT	FORMULA
Incoming IMA	
VC count	CAMA VC + Non-CAMA VC
VC %	(VC Count/IS-FS) * 100
CAMA VC	Misrouted CAMA PC + Unauthorized CAMA PC
CAMA VC %	(CAMA VC Count/IS-FS) * 100
Non-CAMA VC	Vacant Code PC + INWATS Band Check Failure PC + Go-No-Go Screening + Originating INW Denied + OWATS Non-purchased NPA
Non-CAMA VC %	(Non-CAMA VC count/IS-FS) *100
Reorder Count	ERO count + NRO count
RO %	(RO count /IS-FS) * 100
ERO Count	PSTO MF, DP & DTMF Equipment + PDTO MF, DP & DTMF Equipment + PER (Pulsing Error) MF, DP & DTMF Equipment + CST, (CAMA SEIZ T/O) MF & DP Equipment + COT, CCIS Continuity Signal T/O + IAD, CCIS Incomplete Address Detection No Aux CR + DB Query T/O + DB OVLD + No Translation Data + Network Congestion + Network Blockage + DS Control + SLK Congestion + Translation Inconsistency + Unassigned External Announcement ID Q.931 Info Element Prob + Q.931 inc Other Failures + Q.931 IAD + Q.931 inc CNI Buffer OVFL + Q.931 inc CNI Ring Fail + Q.931 Confusion Fails + ISUP IAD + ISUP inc Other Fails + ISUP COT + ISUP URS + ISUP inc CNI Buffer OVFL + ISUP inc CNI Ring Fail + DTMF Other + TSRC RO +
ERO %	(ERO Count/IS-FS) * 100
NRO Count	PSTO, MF & DP Operator + PDTO, MF & DP Operator + CAMA POS Report + PER, (Pulsing Error) MF & DP Operator + DED, Incoming DP Early Digit + IWF, Incoming DP Work LIST Full + 8DR, Eighth Digit With No CR PC + CPA, Position Attached Time-out + CPD, CAMA Positions Disconnect + Miscellaneous Incoming IA + CST, (CAMA SEIZ T/O) MF and DP Operator
NRO %	(NRO Count/IS-FS) * 100
Total Incoming IMA	VC Count + RO Count
Total Incoming IMA %	(Total Incoming IMA/IS-FS) * 100
ADJ'D INC IMA	TOT INC IMA COUNT minus VC Count

Table 1. CONDENSED IMA REPORT

MEASUREMENT	FORMULA
ADJ'd INC IMA %	(ADJ'D INC IMA Count/IS-FS) * 100
Connecting IMA	
Connecting IMA (Includes Domestic plus International data for combined offices)	Final Trial Network Path Hunt Failure + MF XMTR Q Entry Failure + CCIS CR Q Overflow + DP CR Q Overflow + CAMA OPER Q Overflow + CCIS NO XCVR PC + Miscellaneous Connecting IA + 2 stage 2nd MF RCVR Not Found + DTMF CR Q Overflow + DTMF XMTR Q Full + ISUP XCVR OVFL + Q.931 CR Q OVFL + MF orig Q OVFL + ISUP CR Q OVFL
CONN IMA %	(CONN IMA Count/DOM + INTL IS-FS) * 100
Outgoing IMA	
NC Count	NCIT + NCTC + NC NM BLK'D Count + NC STC + NC PBX customer
NC %	(NC Count/OGFA) * 100
NCIT Count	NCIT
NCIT %	(NCIT Count/OGFA) * 100
NCTC Count	NCTC
NCTC %	(NCTC Count/OGFA) * 100
NC NM BLK'D Count	SDOC PC + STR PC + CANCEL TO PC + CANCEL FROM PC + Code Block BLK'd PC + Call Gapping Blocked + TSAR BLOCKED PC + D-STR PC + D-SDOC PC + D-CAN PC + D-RR PC + INW CODE Control
NC NM BLK'D %	(NC BLK'D Count/OGFA) * 100
NC - STC	No Circuit Single Trunk Customer PC
NC - Q.931 (PBX)	No Circuit PBX Customer PC
RO Count	ERO Count + NRO Count
RO %	(RO Count/OGFA) * 100
ERO Count	UXS Final Trial Measure + IKF Final Trial Measure + CPF Final Trial Measure + ADC, CCIS Signal T/O + * CFD, Call Failure Detection + ** SNF, Signaling Network Failure + CKF, CCIS Continuity Check Failure + MF XMTR Final Outpulse ERR + At Post ACK wink TO + PBX TSPC dig request + Q.931 GLR + ISUP out CNI Buffer OVFL + ISUP out CNI Ring fail + Q.931 Confusion

Table 1. CONDENSED IMA REPORT

MEASUREMENT	FORMULA
	+ PBX Reorder + Q.931 URS + Q.931 out CNI Buffer OVFL + Q.931 out CNI Ring fail + Q.931 out other fails
ERO %	(ERO Count/OGFA) *100
NRO Count	NSD Final Trial Measure + GLR Final Trial Measure + XST Final Trial Measure + Miscellaneous Outgoing IA + OWF, DP Outpulsing Work List Full
NRO %	(NRO Count/OGFA) * 100
Total Outgoing IMA Count	NC Count + RO Count
Total Out IMA %	(TOT Out IMA Count/OGFA) * 100
ADJ'D Out IMA Count	TOT Out IMA Count minus NC NM BLK'D Count
ADJ'D Out IMA %	(ADJ'D Out IMA Count/OGFA) * 100
Terminating IMA	
NC Count	Customer Call To MAS Final Trial Failure: All Ports Busy
NC %	(NC Count/TA) * 100
RO %	(RO Count/TA) * 100
ERO Count	No Answer Supervisor Sent Due To CCIS Congestion + MAS HRDWR PRE RCDG REPT Time Out + Frame OOS + Hrdwr Rcdg Compl Rept Time Out + Deferred Return Time Out + Hrdwr Duplex Failure + Operational Problem + Looping Through Translate All Digits + No MAS Vacant Announcement Available + MAS Hrdwr Duplex Failure + No Phasing Rept Rec'd From MAS Hrdwr + MAS Disk Overflow
ERO %	(ERO/TA) * 100
NRO Count	No Known Count
NRO %	(NRO/TA) * 100
Total Terminating IMA	NC Count + RO Count
Terminating IMA %	(Total Terminating IMA Count/TA) * 100
Adjusted Terminating IMA	Total Terminating IMA Count
Adjusted Terminating IMA %	(Adjusted Terminating IMA/TA) * 100
IMA Total	Total Incoming IMA Count + Total Connecting IMA Count + Total Outgoing IMA Count + Total Originating IMA Count + Total Terminating IMA Count
ADJ'D IMA Total	ADJ'D Incoming IMA Count + Connecting IMA Count + ADJ'D Outgoing IMA Count + ADJ'D Originating IMA Count + ADJ'D Terminating IMA Count

NOTE: ADJ'D IMA Total and out ADJ'D IMA Total reflect automatic removal of authorized discountable NC established via EF7 page. See Div. 10 Sec. 4s for EF7 details. DOM MSR2 P2 and DOM NSPMP P1 display discountable NC values.

---

* Sum of COF + RLG + RST signals received on second trial.

** Sum of MRF + UQL and no signal path.

Table 2. ABANDON CALL REPORT

MEASUREMENT	FORMULA
Total Abandon	FSA Count + PDA Count + MAB Count + Other Count
Total Abandons %	(TOT ABAN Count/IS+OS) * 100
FSA Count	MF + DP + DTMF FSAs
FSA %	(FSA Count/IS+OS) * 100
PDA Count	MF + DP + DTMF PDAs
PDA %	(PDA Count/IS+OS) * 100
MAB Count	MF MAB Equip & OPER Pulsing + DP MAB Equip & OPER Pulsing + CCIS, Clear Forward (CLR) Received on Incoming Trunks
MAB %	(MAB Count/IS+OS) * 100
Other Count	DP CR Q ABAN PC + CCIS ORIG CR Q ABAN PC + MF ORIG Q ABAN + DP ANI MF RCVR Q ABAN PC
Other %	(Other Count/IS+OS) * 100
Q.931 Abandon	Q.931 Other Abandons
ISUP Abandon	ISUP Misc. & Other Abandons
TSPC Count	No Digits Rec'd + Some Digits Rec'd
TSPC %	(TSPC Count/IS+OS) * 100

Table 3. CALLS LOST REPORT

MEASUREMENT	FORMULA
Transient Count	Transient Calls Lost PC DUE TO Phase + Transient Calls lost due to VIU Failure + Transient Calls lost due to DTU Failure + Transient Calls lost due to ESU Failure + Transient Calls lost due to DIU Failure Transient Calls lost due to MAU Failure
Transient %	(Transient Count/DOM + INTL IS-FS+OS) * 100
Established Count	Stable Calls lost due to Phase + Stable Calls lost due to Trunk or Band Reset + Stable Calls lost due to VIU Failure + Stable Calls lost due to DTU Failure + Stable Calls lost due to ESU Failure + Stable Calls lost due to DIU Failure + Stable Calls lost due to MAU Failure Stable Calls lost due to CXR Group Failure
Established %	(ESTABLISHED Count/DOM + INTL OGFA +TA) * 100

Table 4. SPEED OF SERVICE REPORT

MEASUREMENT	FORMULA
Test Call Seizures	MF & DP INC Delay Accept + CCIS Incoming Delay Accept + MF & DP INC Delay Unaccept + CCIS INC Delay Unaccept
Delay Unaccept	MF & DP INC Delay Unaccept + CCIS INC Delay Unaccept
Delay Unaccept %	(Delay Unaccept Count/Test Call Seizures) * 100
Cross OFC Test Call	MF to MF XOFC Delay Accept + MF to DP XOFC Delay Accept + MF to CCIS XOFC Delay Accept + DP to MF XOFC Delay Accept + DP to DP XOFC Delay Accept + DP to CCIS XOFC Delay Accept + CCIS to MF XOFC Delay Accept + CCIS to DP XOFC Delay Accept + CCIS to CCIS XOFC Delay Accept + MF to MF XOFC Delay Unaccept + MF to DP XOFC Delay Unaccept + MF to CCIS XOFC Delay Unaccept + DP to MF XOFC Delay Unaccept + DP to DP XOFC Delay Unaccept + DP to CCIS XOFC Delay Unaccept + CCIS to MF XOFC Delay Unaccept + CCIS to DP XOFC Delay Unaccept + CCIS to CCIS XOFC Delay Unaccept
Delay Unaccept	MF to MF XOFC Delay Unaccept + MF to DP XOFC Delay Unaccept + MF to CCIS XOFC Delay Unaccept + DP to MF XOFC Dealy Unaccept + DP to DP XOFC Delay Unaccept + DP to CCIS XOFC Delay Unaccept + CCIS to MF XOFC Delay Unaccept + CCIS to DP XOFC Delay Unaccept + CCIS to CCIS XOFC Delay Unaccept
Delay Unaccept	(Delay Unaccept Count/Cross Office Test Calls) * 100

Table 5. CAMA REPORT

MEASUREMENT	FORMULA
Total CAMA Irregularities	Free Calls + Reorder Count + Vacant Code Count + Other Count + ANF Count + AIF Count + A0F Count
Free Calls Count	Free Calls Measure + Call Records Lost PC
Free Call %	(Free Calls Count/TOT CAMA Calls) * 100
Reorder Count	CPD, Position Disconnect + CST, Seizure Time-out + CPA, Position Attached T/O + Operator Q Overflow
Reorder %	(Reorder Count/TOT CAMA Calls) * 100
Vacant Code Count	Misrouted CAMA PC + Unauthorized CAMA PC
VACANT Code %	(Vacant Code Count/TOT CAMA Calls) * 100
Other Irregularities	Wrong Calling Code + Match Check Failure
Other Irregularities %	(Other Irregularities Count/TOT CAMA Calls) * 100
CAMA Oper Conn Greater	CAMA Operator Connected After 5 seconds Than 5 Sec
CAMA Oper Conn Greater	(CAMA Oper Conn > 5 Sec/CAMA Calls) * 100 Than 5 Sec %
ANF Count	Other Count ANF, MF EQUIP & OPER Pulsing + ANF, DP EQUIP & OPER Pulsing
ANF %	(ANF Count/TOT ANI Calls) * 100
AIF Count	AIF, MF EQUIP & OPER Pulsing + AIF, DP EQUIP & OPER Pulsing
AIF %	(AIF Count/TOT ANI Calls * 100
AOF Count	AOF, MF EQUIP & OPER Pulsing + AOF, DP EQUIP & OPER Pulsing
AOF %	(AOF Count/TOT ANI Calls * 100
3B Records Lost Count	1A AMA Records Sent to 3B But Not Rec’d
3B Records Lost %	(3B Records Lost/1A Records Sent to 3B) * 100
NCD Blocked Call Count	Network Call Denial Blocked Calls
NCD Blocked %	(NCD Blocked/NCD Queries) * 100

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3. REPORT COMPONENTS 1

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4 ESS ON-SITE OPERATIONS REPORT
MACHINE SERVICE REPORT PART 2
DOMESTIC

1. GENERAL

1.01 The Machine Service Report Part 2 - Domestic - Provides a comprehensive service report for use by operations forces to document and trend the quality of service being provided by a 4 ESS complex.

1.02 All counts for this report are accumulated on an hourly basis beginning on an hour or half hour. Report data is available for printing on an hourly, day-to-hour, daily, month-to-date and monthly basis.

1.03 Hourly reports can be scheduled or printed automatically when an exception occurs. Scheduling information for MSR2 is found in Division 10, Section 4a.

1.04 An exception occurs when a count has equaled, or exceeded a specified threshold. The threshold values for MSR2 are adjustable per count. Division 10, Section 4h of the 4 ESS Translation Guide describes the method to adjust these thresholds.

1.05 The MSR2 THRESHOLD report is a summary page for the exceptions that have occurred in the last hour. It is divided into two columns. The left column is the actual exception, and the right column is a reference item which the exception item can be found under. This reference item is the category name e.g. "INCOMING CATEGORY" or a grouping within the category e.g "MF INC RO:"

When an established threshold is equaled or exceeded, the item and the critical category are highlighted on the next MSR2 output. The exception item and a reference item are duplicated on the MSR2 summary page which follows the regular MSR2 report as the last page of the report. The summary page is only page printed when an MSR2 THRESHOLD report is printed.

2. REPORT HEADINGS

2.01 OFFICE. Common Language Location Identification (CLLI) for the office creating the report.

2.02 CURRENT GENERIC. Current Generic Program residing in the machine.

Example: 4E<20>4B.08 SS<GGX>LL.II

SS = Machine System
GG = Generic Load
X = Export Option (Null In domestic offices)
LL = Generic Load
II = Software Change Notice (CN) Issue Number

2.03 NMDS/OSOR SYS ISS. The system's current issue of the NMDS/OSOR tape residing in the machine.

Example: 0884.0 MMYY.X

MM = Month
YY = Year
X = NMDS/OSOR Tape Dot Issue.
"0" is the first issue.

2.04 REPORT FREQ. The printing frequency of the report.

a. SCHEDULED for the following reports:
— HOURLY
— DAILY
— MONTH TO DATE
b. DEMAND for DAY TO HOUR reports.
c. THRESHOLD for threshold exception reports.

2.05 REPORT TYPE. Indicates the type of accumulation for the data reported.
a. HOURLY - One hour's worth of data.
b. DAILY - The previous day's worth of data.
c. DAY TO HOUR - Today's data from midnight to the current hour's data collection.
d. MONTH TO DATE - This month's data up to and including the previous day.

2.06 PERIOD. The month and year that the data was accumulated.

2.07 DATE. The month/day/year hour minute, of the last day that the data was accumulated for this report.

3. REPORT COMPONENTS

3.01 COUNT. This field contains the basic count data utilized by the MSR2 report. If the count value is larger than the program capacity of this field (4,000,999), the count data will be converted to "Thousands" as indicated by a "K" to the right of the field.

3.02 Exception Field. If the ratio value for an item has equaled or exceeded its threshold value, an asterisk (*) will be printed in this field. Also, five asterisks will be placed adjacent to the major category under which the count resides. These fields are blank if no threshold has been equaled or exceeded.

The threshold value is adjustable via the NMDS page EF05.

3.03 RATIO. Failure Count / Base. The base count is identified by %NAME, where NAME is an abbreviation of a base counts found in Table 13. A ":" at the end of the item without a "%NAME" identifies the base count as the last one used. For example:

```
        INCOMING CATEGORY $@@@@
           -------- --------
                              COUNT
     TOTAL INC RO:  %IS-FS$@@@@@@
     TOTAL ADJ INC RO:    !@@@@@@
```

identifies "IS-FS" as the base for "TOTAL INC RO:" and "TOTAL ADJ INC RO:"

Nearly all counts in the report are normalized for analysis purposes. Normalization is done on a "Per-Ten-Thousand" basis and printed in the Ratio field. The normalized values also serve as comparative data for thresholding functions.

4. REPORT DATA CATEGORIES

4.01 INCOMING. This section of the report contains MF, DP, CCIS (CCS6), DTMF, ISUP (CCS7) and Q.931 incoming failures. See Table 1. for details.

4.02 CONNECTING. This section contains basic connecting type failures. Connecting failures are indiscriminate of service type, Domestic/International, and must be analyzed accordingly in combined offices. See Table 2. for details.

4.03 OUTGOING. This section contains failures encountered in the outgoing call stage. These are "Final Trial" only failures. See Table 3. for details.

4.04 NO CIRCUIT. This section contains counts associated with calls blocked because of circuit busy, overload control and Network Management functions. See Table 4. for details.

4.05 VERTICAL SERVICES. This section contains call failures associated with special equipment and call processing required to provide an enhanced service. See Table 5. for details.

4.06 LOST CALLS TRANSIENT. This section contains transient calls lost due to phases or equipment failures. See Table 6. for details.

4.07 REDIRECTION SERVICES. This section contains call redirection service errors due to invalid parameters or timeouts. See Table 7. for details.

4.08 BILLING SERVICES COMPONENT. This section contains billing errors, ONI failures and ANI failures associated with CAMA and Equal Access service. See Table 8. for details.

4.09 SWITCHING CUTOFF CALLS. This section contains failures when established calls are lost due to phases or equipment failures. See Table 9. for details.

4.10 ABANDON. This section contains Abandon Call data from MF, DP, CCIS, DTMF, Q.931, ISUP, & TSPC calls. See Table 10. for details.

4.11 VACANT CODE. This section contains CAMA and Non-CAMA Vacant Code failures. See Table 11. for details.

4.12 MISCELLANEOUS. This section contains data which is "under study" and generally has not been incorporated into standard existing categories or results. See Table 12. for details.

4.13 BASE DATA. This section contains non-failure data used to calculate ratios shown in this report. See Table 13. for details.

```
REPT:  MACHINE SERVICE REPORT (MSR) PART 2-DOMESTIC OFFICE:$@@@@@@@@@@@@@@@
PERIOD:      $@@@@@@@@ $@@@       PAGE 1 OF $       DATE:  $@@@@@@@ $@@@
REPORT TYPE: $@@@@@@@@@@@@@@@@@@@@       CURRENT GENERIC:  $@@@@@@@@@@@@@@@
REPORT FREQ: $@@@@@@@@                    NMDS/OSOR SYS ISS:$@@@@@

                        NETWORK SERVICE COMPONENT
   INCOMING CATEGORY $@@@@                CONNECTING CATEGORY $@@@@
   -------- --------                      ---------- --------
                       COUNT    RATIO                          COUNT    RATIO
TOTAL INC RO:  %IS-FS$@@@@@@$$$@@@.$@TOT CONN RO:%#IS-FS+OS$@@@@@@$$$@@@.$@
TOTAL ADJ INC RO:    !@@@@@@!!!@@@.!@  PTH HNT FL:          !@@@@@@!!!@@@.!@
 MF INC RO:          !@@@@@@!!!@@@.!@  DP CR Q:             !@@@@@@!!!@@@.!@
  PST:               !@@@@@@!!!@@@.!@  MF XMTR Q:           !@@@@@@!!!@@@.!@
  PDT:               !@@@@@@!!!@@@.!@  CAMA OPER Q:         !@@@@@@!!!@@@.!@
  PER:               !@@@@@@!!!@@@.!@  CCIS CR Q:           !@@@@@@!!!@@@.!@
  OTHER:             !@@@@@@!!!@@@.!@  CCIS XCVR:           !@@@@@@!!!@@@.!@
 DP INC RO DISCOUNT  !@@@@@@!          MISC:               !@@@@@@!!!@@@.!@
 DP ADJ INC RO:      !@@@@@@!!!@@@.!@  2ND MFR FAIL:        !@@@@@@!!!@@@.!@
  PST:               !@@@@@@!!!@@@.!@  DTMF CR Q:           !@@@@@@!!!@@@.!@
  PDT:               !@@@@@@!!!@@@.!@  DTMF XMTR Q:         !@@@@@@!!!@@@.!@
  PER:               !@@@@@@!!!@@@.!@  Q.931 CR Q:          !@@@@@@!!!@@@.!@
  OTHER:             !@@@@@@!!!@@@.!@  MF ORIG Q:           !@@@@@@!!!@@@.!@
 CCIS INC RO:        !@@@@@@!!!@@@.!@  ISUP XCVR:           !@@@@@@!!!@@@.!@
  IAD:               !@@@@@@!!!@@@.!@  ISUP CR Q:           !@@@@@@!!!@@@.!@
  CTO:               !@@@@@@!!!@@@.!@
  OTHER:             !@@@@@@!!!@@@.!@
 CCIS INW RO:        !@@@@@@!!!@@@.!@
 DTMF INC RO:        !@@@@@@!!!@@@.!@ OUTGOING CATEGORY $@@@@
  PST:               !@@@@@@!!!@@@.!@ -------- --------
  PDT:               !@@@@@@!!!@@@.!@ TOTAL OUT RO:    %OTS!@@@@@@!!!@@@.!@
  PER:               !@@@@@@!!!@@@.!@  UXS:                 !@@@@@@!!!@@@.!@
  OTHER:             !@@@@@@!!!@@@.!@  IKF:                 !@@@@@@!!!@@@.!@
 ISUP INC RO:        !@@@@@@!!!@@@.!@  NSD:                 !@@@@@@!!!@@@.!@
  IAD:               !@@@@@@!!!@@@.!@  XST:                 !@@@@@@!!!@@@.!@
  CTO:               !@@@@@@!!!@@@.!@  GLR:                 !@@@@@@!!!@@@.!@
  URS:               !@@@@@@!!!@@@.!@  OWF:                 !@@@@@@!!!@@@.!@
  RING:              !@@@@@@!!!@@@.!@  ADC:                 !@@@@@@!!!@@@.!@
  BUFFER:            !@@@@@@!!!@@@.!@  CKF:                 !@@@@@@!!!@@@.!@
  OTHER:             !@@@@@@!!!@@@.!@  CFD:                 !@@@@@@!!!@@@.!@
 Q.931 INC RO:       !@@@@@@!!!@@@.!@  SNF:                 !@@@@@@!!!@@@.!@
  IAD:               !@@@@@@!!!@@@.!@  MOE:                 !@@@@@@!!!@@@.!@
  IE:                !@@@@@@!!!@@@.!@  CPF:                 !@@@@@@!!!@@@.!@
  RING:              !@@@@@@!!!@@@.!@  RING:                !@@@@@@!!!@@@.!@
  BUFFER:            !@@@@@@!!!@@@.!@  BUFFER:              !@@@@@@!!!@@@.!@
  OTHER:             !@@@@@@!!!@@@.!@  MISC:                !@@@@@@!!!@@@.!@
                                       TOT Q.931 OUT RO:    !@@@@@@!!!@@@.!@
                                        PBX RO:             !@@@@@@!!!@@@.!@
                                        RING:               !@@@@@@!!!@@@.!@
                                        BUFFER:             !@@@@@@!!!@@@.!@
                                        OTHER:              !@@@@@@!!!@@@.!@
                                        GLR:                !@@@@@@!!!@@@.!@
K=1000  RATIO=PER 10K  #=DOM+INTNL  %=BASE
```

Figure 1. MSR2 - DOMESTIC - PAGE 1 OF 3(4)

```
REPT: MSR PART 2 - DOMESTIC     PAGE 2 OF $

                                                BILLING SERVICE COMPONENT
NO CIRCUIT CATEGORY $@@@@                  BILLING ERRORS CATEGORY $@@@@
-- ------- --------                        ------- ------ --------
                          COUNT    RATIO                          COUNT    RATIO
NO CIRCUIT:%OGFA-NCNM$@@@@@@$$$@@@.$@ TOTAL BILLING ERR:%CC$@@@@@@$$$@@@.$@
IT OUT SZ             !@@@@@@!           AMA CALL RCDS LOST: !@@@@@@!!!@@@.!@
 NCIT:   %IT OUTSZ+NC!@@@@@@!!!@@@.!@  FREE CALLS:          !@@@@@@!!!@@@.!@
TC OUT SZ             !@@@@@@!          3B RCDS LOST:%3B SENT!@@@@@@!!!@@@.!@
 NCTC                 !@@@@@@!
DISCOUNTABLE NC(EF7) !@@@@@@!          ONI FAILURE CATEGORY
 NCTC ADJ:%TCOUTSZ+NC!@@@@@@!!!@@@.!@ --- ------- --------
NC PBX:               !@@@@@@!!!@@@.!@ TOT ONI FAILURES: %CC!@@@@@@!!!@@@.!@
NC STC:               !@@@@@@!!!@@@.!@  CAMA POS DISC:      !@@@@@@!!!@@@.!@
NC MAS:            %TA!@@@@@@!!!@@@.!@  CAMA OPER Q OVFL:   !@@@@@@!!!@@@.!@
NC NM BLKD:           !@@@@@@!           CAMA SZ TIMEOUT:    !@@@@@@!!!@@@.!@
                                         CAMA POS REPT:      !@@@@@@!!!@@@.!@
                                         CAMA POS TIMEOUT:   !@@@@@@!!!@@@.!@
                                        CAMA OPER Q>5 SEC:   !@@@@@@!!!@@@.!@
VERTICAL SERVICES CATEGORY $@@@@
-------- -------- --------              ANI FAILURE CATEGORY
TOTAL TERM ATT        !@@@@@@!          --- ------- --------
 PAS                  !@@@@@@!          TOT ANI FAILURES:%ANI!@@@@@@!!!@@@.!@
TSPC ATT:       %IS-FS!@@@@@@!!!@@@.!@  AIF:                !@@@@@@!!!@@@.!@
 TSPC RO:      %INC RO!@@@@@@!!!@@@.!@  AOF:                !@@@@@@!!!@@@.!@
  PST:        %TSPC RO!@@@@@@!!!@@@.!@  ANF:                !@@@@@@!!!@@@.!@
  PER:                 !@@@@@@!!!@@@.!@ CICR:               !@@@@@@!!!@@@.!@
  PDT:                 !@@@@@@!!!@@@.!@ INV NPA:            !@@@@@@!!!@@@.!@
TOTAL MAS TERM RO:%TA!@@@@@@!!!@@@.!@ EA ANI FAILS-DENIED:
SDN BLKGS:   %SDN ATT!@@@@@@!!!@@@.!@              %EA ANI!@@@@@@!!!@@@.!@
DSDC BLKGS: %DSDC ATT!@@@@@@!!!@@@.!@ EA ANI FAILS-ROUTED:
DAV BLKGS:   %DAV ATT!@@@@@@!!!@@@.!@              %EA ANI!@@@@@@!!!@@@.!@
BBC BLKGS:   %BBC ATT!@@@@@@!!!@@@.!@



LOST CALLS TRANSIENT CATEGORY $@@@@   SWITCHING CUTOFF CALLS CATEGORY $@@@@
---- ----- --------- --------          --------- ------ ----- --------
TRANSIENT: %#IS-FS+OS!@@@@@@!!!@@@.!@ SW CUTOFF CALLS:%#TCC!@@@@@@!!!@@@.!@
 PHASE:               !@@@@@@!!!@@@.!@  PHASE:              !@@@@@@!!!@@@.!@
 HARDWARE:            !@@@@@@!!!@@@.!@  HARDWARE:           !@@@@@@!!!@@@.!@
                                        Q.931 RESET: %OGFA+TA!@@@@@@!!!@@@.!@
                                        CCS7 RESET:          !@@@@@@!!!@@@.!@
                                        CCS6 RESET:          !@@@@@@!!!@@@.!@
REDIRECTION SERVICES CATEGORY $@@@@   CXR FAIL:            !@@@@@@!!!@@@.!@
----------- -------- --------
RDF INVP:     %VAL RD!@@@@@@!!!@@@.!@
RDF XLAT:             !@@@@@@!!!@@@.!@
RDF TIMR:             !@@@@@@!!!@@@.!@

K=1000  RATIO=PER 10K  #=DOM+INTNL  %=BASE
```

Figure 2. MSR2 - DOMESTIC - PAGE 2 OF 3(4)

```
DOMESTIC MACHINE SERVICE REPORT 2
     REPT: MSR PART 2 - DOMESTIC     PAGE 3 OF $

     ABANDON CATEGORY $@@@@                VACANT CODE CATEGORY $@@@@
     ------- --------                      ------ ---- --------
                              COUNT    RATIO                          COUNT    RATIO
     FSA:               %IS$@@@@@@$$$@@@.$@ VC CAMA:           %CC$@@@@@@$$$@@@.$@
      MF:                  !@@@@@@!!!@@@.!@  MCA:                  !@@@@@@!!!@@@.!@
      DP:                  !@@@@@@!!!@@@.!@  UCA:                  !@@@@@@!!!@@@.!@
      DTMF:                !@@@@@@!!!@@@.!@ VC NON CAMA:%IS-FS+OS!@@@@@@!!!@@@.!@
     PDA:                  !@@@@@@!!!@@@.!@  VCA:                  !@@@@@@!!!@@@.!@
      MF:                  !@@@@@@!!!@@@.!@  IWS:                  !@@@@@@!!!@@@.!@
      DP:                  !@@@@@@!!!@@@.!@  SCR:                  !@@@@@@!!!@@@.!@
      DTMF:                !@@@@@@!!!@@@.!@  OID:                  !@@@@@@!!!@@@.!@
     MAB:                  !@@@@@@!!!@@@.!@ CDS:                   !@@@@@@!!!@@@.!@
      MF:                  !@@@@@@!!!@@@.!@ AT DOMSAT:             !@@@@@@!!!@@@.!@
      DP:                  !@@@@@@!!!@@@.!@ RCR:                   !@@@@@@!!!@@@.!@
      CCIS:                !@@@@@@!!!@@@.!@ Q.931 (PBX):           !@@@@@@!!!@@@.!@
     OTHER:                !@@@@@@!!!@@@.!@ TSPC:                  !@@@@@@!!!@@@.!@
      DP CR Q:             !@@@@@@!!!@@@.!@
      CCIS ORIG CR Q:      !@@@@@@!!!@@@.!@ MISCELLANEOUS
      MF ORIG Q:           !@@@@@@!!!@@@.!@ -------------
      DP ANI MF REC Q:     !@@@@@@!!!@@@.!@ SILC                   !@@@@@@!
     Q.931 ABAN:           !@@@@@@!!!@@@.!@ BBFP                   !@@@@@@!
     ISUP ABAN:            !@@@@@@!!!@@@.!@ FRAUD OVERRIDE         !@@@@@@!
     TSPC ABAN:            !@@@@@@!!!@@@.!@ WFATO                  !@@@@@@!
                                            NCD                    !@@@@@@!
                                            RT OVLD                !@@@@@@!
                                            TERM IAM RCVD          !@@@@@@!



     -----------------------------BASE DATA-----------------------------
     TOTAL IS              !@@@@@@!          NCD QUERIES           !@@@@@@!
     TOTAL FS:          %IS!@@@@@@! !@@@.!@ DOM+INTNL IS-FS+OS    !@@@@@@!
     TOTAL IS-FS:          !@@@@@@! !@@@.!@ DOM+INTNL TCC         !@@@@@@!
     TOTAL DOM OTS: %IS-FS!@@@@@@! !@@@.!@ TOTAL CAMA CALLS      !@@@@@@!
     TOTAL OGFA            !@@@@@@!          TOTAL ONI CALLS       !@@@@@@!
     TOTAL TA              !@@@@@@!          TOTAL ANI CALLS       !@@@@@@!
     DSDC INC ATT          !@@@@@@!          DOM IS-FS+OS          !@@@@@@!
     DSDC HANDOFF/ASST     !@@@@@@!          OGFA +TA              !@@@@@@!
     BBC6 ATT              !@@@@@@!          SDN INC ATT           !@@@@@@!
     DAV INC ATT           !@@@@@@!          BBC24 ATT             !@@@@@@!
     VAL RD                !@@@@@@!          RING OUTAGE (SEC)     !@@@@@@!

     K=1000  RATIO=PER 10K  #=DOM+INTNL  %=BASE
```

Figure 3. MSR2 - DOMESTIC - PAGE 3 OF 3(4)

```
REPT:  MACHINE SERVICE REPORT (MSR) PART 2-DOMESTIC OFFICE:$@@@@@@@@@@@@@@@
PERIOD:      $@@@@@@@@@ $@@@       PAGE $ OF $       DATE:  $@@@@@@@@ $@@@
REPORT TYPE: $@@@@@@@@@@@@@@@@@@@@@@@       CURRENT GENERIC:  $@@@@@@@@@@@@@@@
REPORT FREQ: $@@@@@@@@@                     NMDS/OSOR SYS ISS:$@@@@@


THRESHOLD EXCEEDED---  COUNT    RATIO FROM-----------------  COUNT    RATIO
$@@@@@@@@@@@@@@@@@@@@@$@@@@@@$$$@@@.$@ $@@@@@@@@@@@@@@@@@@@@@$@@@@@@$$$@@@.$@
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K=1000  RATIO=PER 10K  #=DOM+INTNL  %=BASE
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This is "Page 4 of 4" for a regularly scheduled MSR2 domestic report. This is also "Page 1 of 1" for a MSR2 Threshold Report.

Figure 4. MSR2 - DOMESTIC - THRESHOLD SUMMARY REPORT

Table 1. INCOMING CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
TOTAL INCOMING REORDER	MF + DP + CCIS + DTMF + ISUP + Q.931
TOTAL ADJ INC RO (NON-CAMA OFC)	SAME AS TOTAL INCOMING REORDER
(CAMA OFC OR DTMF OFC WITH DTS DP SVC)	MF INC RO + 8DR DP RO + CCIS INC RO + DTMF INC RO + ISUP INC RO + Q.931 INC RO + [(DP INC RO - 8DR) - 0.02 * (DP IMMED START INC SEIZ + DTMF DTS DP INC SZ)]
MF INCOMING REORDER	PST + PDT + PER + OTHER
PST (90)	PST MF EQUIPMENT + PST MF OPERATOR
PDT (91, 794)	PDT MF EQUIPMENT + PDT MF OPERATOR
PER (46, 47, 76, 152, 154, 156, 160)	PER MF EQUIPMENT + PER MF OPERATOR
OTHER	NO COUNT AT THIS TIME
DP INC RO DISCOUNT	
(NON-CAMA NON-DTMF OFC)	"ZERO" IF NON-CAMA OFC
(CAMA OR DTMF OFC)	0.02 * (DPIS INC SEIZ + DTMF DTS DP INC SZ)
DP ADJ INC RO	TOTAL DP INC RO
(NON-CAMA NON-DTMF OFC)	
(CAMA OR DTMF OFC)	[(DP INC RO - 8DR) - 0.02 * (DPIS INC SEIZ + DTMF DTS DP INC SEIZ)] + 8DR
DP INCOMING REORDER	PST + PDT + PER + DED + IWF + 8DR + OTHER
PST (248)	PST DP EQUIPMENT + PST DP OPERATOR
PDT (124, 155, 249)	PDT DP EQUIPMENT + PDT DP OPERATOR
PER (46, 47, 93, 152)	PER DP EQUIPMENT + PER DP OPERATOR
OTHER (81, 75, 126)	DIAL PULSE EARLY DIGIT + INC DIAL PULSE WORK LIST FULL + 8TH DIAL PULSE DIGIT RECEIVED WITHOUT A CR
CCIS INCOMING REORDER	IAD + CTO + OTHER
IAD (46, 47, 152, 153, 568)	INCOMPLETE ADDRESS DETECTED
CTO (182)	CONTINUITY SIGNAL TIME-OUT
OTHER	NO COUNT AT THIS TIME
CCIS INW REORDER (159, 287, 288, 289, 295, 298, 299, 300, 301, 302)	NACR + DBQT0 + DB0 + CCFR + CCNB + OTHER
DTMF INCOMING REORDER	PST + PDT + PER + OTHER
PST (910, 922)	PST DTMF + PST DTS DTMF
PDT (911, 912, 921)	PDT DTMF + PDT DTS DTMF
PER (853, 915, 916, 917, 918, 919, 923, 924, 925, 926, 927, 930, 931, 932)	PER DTMF + PER DTS DTMF
OTHER (913, 914)	DTMF OTHER INC FAILURES
ISUP INCOMING REORDER	IAD + CTO + URS + RING + BUFFER + OTHER
IAD (897, 969)	INCOMPLETE ADDRESS DETECTED
CTO (997)	CONTINUITY SIGNAL TIMEOUT

Table 1. INCOMING CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
URS (864, 871, 873, 1002, 1004)	UNEXPECTED MESSAGE RECEIVED
RING (934, 939, 941, 945)	CNI RING BLOCKED CALLS
BUFFER (935, 937, 943, 947)	CNI BUFFER BLOCKED CALLS (OVFL)
OTHER (857, 936, 967, 977, 981)	INVALID PARAMETER + INVALID CAPABILITY + INVALID TRK STATE + INVALID IAM LENGTH
Q.931 INCOMING REORDER	IAD + IE + RING + BUFFER + OTHER
IAD (516, 678, 679, 680, 699)	INCOMPLETE ADDRESS DETECTED
IE (671, 674, 675, 676, 677)	INFORMATION ELEMENT MISSING/INVALID
RING (696)	CNI RING BLOCKED CALLS
BUFFER (695)	CNI BUFFER BLOCKED (OVFL)
OTHER (597, 673, 681, 682, 684, 685, 687, 689, 690, 692, 693, 694, 769)	INVALID, INCORRECT OR OUT OF SEQUENCE MESSAGE REC'D WHILE IN INCOMING STATE

NOTE: ALL INCOMING CATEGORY RATIOS ARE PER 10K IS-FS (INCOMING SEIZURES - FALSE STARTS)

NOTE: BRACKETED ([ ]) PORTIONS OF TOT ADJ INC RO AND DP ADJ INC RO ARE LIMITED TO VALUES EQUAL TO, OR GREATER THAN, ZERO.

Table 2. CONNECTING CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
TOTAL CONNECTING REORDER	SUM OF ALL CONNECTING FAILURES
PTH HNT FL (23, 36, 94, 98, 103, 110, 113, 184, 202, 333, 347, 381, 382, 460, 467, 475, 524, 868, 869, 971, 975)	PATH HUNT FAILURE
DP CR Q (125)	DIAL PULSE CALL REGISTER Q OVERFLOW
MF XMTR Q (111)	MF TRANSMITTER Q ENTRY FAILURE
CAMA OPER Q (27)	CAMA OPERATOR Q OVERFLOW
CCIS CR Q (198)	CCIS ORIGINATION CALL REGISTER Q OVERFLOW
CCIS XCVR (201, 493)	NO CCIS TRANSCEIVER AVAILABLE - FINAL TRIAL
MISC (22, 97, 102, 346, 895)	MISC CONNECTING REORDER
2ND MFR FAIL (332)	2 STAGE PULSING, 2ND MF RECEIVER NOT FOUND
DTMF CR Q (920)	DUAL TONE MULTIFREQUENCY CR Q OVFL
DTMF XMTR Q (954)	DUAL TONE MULTIFREQUENCY XMTR Q OVFL
Q.931 CR Q (672)	Q.931 CALL REGISTER Q OVERFLOW
MF ORIG Q (77)	MF ORIGINATION Q OVERFLOW
ISUP XCVR (973)	ISUP TRANSCEIVER OVERFLOW
ISUP CR Q (979)	ISUP CALL REGISTER Q OVERFLOW

NOTE: ALL CONNECTING RO RATIOS ARE PER 10K DOM + INTNL IS-FS + OS (INC SEIZ - FALSE STARTS + ORIG SEIZ)

Table 3. OUTGOING CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
TOTAL OUTGOING REORDER	SUM OF ALL OUTGOING FINAL TRIAL FAILURES
UXS (121, 127, 966 + EVEN FHC'S 1172 THROUGH 1250)	UNEXPECTED STOP DIAL
IKF (243)	INTEGRITY CHECK FAILURE
NSD (242, 244, 245, 854, 957, 959, 963, 1260, 1262, 1264, + 1269 THROUGH 1301)	NO START DIAL
XST (101)	EXPECTED STOP TIME-OUT
GLR (96, 112, 191, 884, 953, 961)	GLARE
OWF (117)	DIAL PULSE OUTPULSING WORK LIST FULL
ADC (177, 877)	ADDRESS COMPLETE SIGNAL TIME-OUT
CKF (204, 870)	CCIS CONTINUITY CHECK FAILURE
CFD (192)	CCIS CALL FAILURE DETECTED
SNF (167, 176, 195, 196, 203, 216)	CCIS SIGNALING NETWORK FAILURE
MOE (128, 1252, 1254, 1256, 1258)	MF TRANSMITTER OUTPULSING ERROR
CPF (100, 951)	CONTINUITY POLARITY FAILURE
RING (876, 905)	ISUP CNI RING BLOCKED CALLS
BUFFER (866, 875)	ISUP CNI BUFFER BLOCKED CALLS (OVFL)
MISC (523, 882, 885, 886, 888, 901, 902, 903, 908)	MISCELLANEOUS OUT FAILURES + ACK TO FAILURES
TOT Q.931 OUT RO	PBX + RING + BUFFER + OTHER + GLR
PBX (526, 527, 548, 549, 563, 564, 755)	FAIL, UNREASONABLE OR NO RESPONSE FROM PBX
RING (537)	Q. 931 CNI RING BLOCKED CALLS
BUFFER(538)	Q. 931 CNI BUFFER BLOCKED CALLS (OVFL)
OTHER (762, 765)	REHUNT EXHAUST + SVC MSG REC'D
GLR (761)	Q.931 GLARE

NOTE: ALL OUTGOING RO RATIOS ARE PER 10K OTS (OUT TRUNK SEIZ)

Table 4. NO CIRCUIT CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
NO CIRCUIT	NCIT + NCTC + AOOCB - (EF7 TSG OVFL)
NO CIRCUIT RATIO	IS PER 10K OGFA - NCNM
IT OUT SZ	INTERTOLL OUTGOING SEIZURES
NCIT (63)	NO CIRCUIT INTERTOLL
NCIT RATIO	IS PER 10K (IT OUT SZ + NCIT)
TC OUT SZ	TOLL CONNECT/COMPLETING OUTGOING SEIZURES
NCTC (63)	NO CIRCUIT TOLL CONNECTING/COMPLETING
DISCOUNTABLE NC (EF7)	EF7 TSG(S) OVERFLOW
NCTC ADJUSTED	NCTC - EF7 OVERFLOW
NCTC ADJUSTED RATIO	IS PER 10K (TC OUT SZ + NCTC)

Table 4. NO CIRCUIT CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
NC PBX (63, 562, 768)	PBX NETWORK CONGESTION FAILURE
NC STC (65)	SINGLE TRUNK CUSTOMER CONGESTION FAILURE
NC MAS (251)	NC MAS TERMINATING CALL
NC MAS RATIO	IS PER 10K TA
NC NM BLKD (1, 2, 3, 4, 5, 7, 8, 9, 10, 297, 310, 1006, 1007, 1011, 1012, 1013, 1015)	NO CIRCUIT NETWORK MANAGEMENT BLOCKED + CANCEL FROM AND SPRAY REROUTE BLOCKED + CANCEL TO BLOCKED + SELECTIVE DYNAMIC OVERLOAD CONTROL BLOCKED + SELECTIVE TRUNK RESERVATION BLOCKED + CODE BLOCK BLOCKED + 7 AND 10 DIGIT CODE BLOCKED + CALL GAPPING BLOCKED + 7 AND 10 DIGIT GAPPING BLOCKED + INWATS CODE CONTROL BLOCKED + TRUNK SUB-GROUP ACCESS RESTRICTED BLOCKED + DYNAMIC NON-HIERARCHICAL ROUTING (DNHR) SDOC + DNHR STR + DNHR CANCEL CONTROL + DNHR REROUTE CONTROL

NOTE: PEAK DAY (EF1 INPUT OF AUTHORIZED PEAK DAYS) NC DISCOUNT NOT APPLIED TO MSR2 NC DATA

Table 5. VERTICAL SERVICES CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
TOTAL TERM ATT	TOTAL TERMINATING ATTEMPTS
PAS	PUBLIC ANNOUNCEMENT SERVICE ATT
TSPC ATT	TWO STAGE PULSING CALL ATTEMPTS
TSPC ATT RATIO	IS PER 10K (IS-FS)
TSPC RO	TWO STAGE PULSING CALL REORDER
* TSPC RO RATIO	IS PER 10K INC RO
PST (329)	TWO STAGE PERMANENT SIGNAL TIME-OUT
PER (263, 264, 265, 267, 312, 328, 330)	TWO STAGE PULSING ERROR
PDT (331)	TWO STAGE PARTIAL DIAL TIME-OUT
TWO STAGE PST, PER AND PDT RATIOS	ARE PER 10K TSPC RO (DOM + INTNL @ NON-ISC OFFICES)
TOTAL MAS TERM RO (162, 252, 253, 254, 303, 304, 305, 307, 426, 427, 430)	HARDWARE DUPLEX FAILURE + TRANSLATE ALL DIGIT LOOP + NO SUPERVISION SENT - CCIS CONGESTION + NO VACANT ANNOUNCEMENT AVAILABLE
TOTAL MAS TERM RO RATIO	IS PER 10K TA
SDN BLKGS (532, 533, 535, 1624, 1625)	SOFTWARE DEFINED NETWORK BLOCKAGES
SDN BLKG RATIO	IS PER 10K SDN ATTEMPTS

Table 5. VERTICAL SERVICES CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
DSDC BLKGS (530, 531, 534, 536, 565, 566, 567, 574, 880, 881, 1614, 1615, 1616, 1621, 1622, 1626, 1627, 1628)	DIRECT SERVICES DIALING CAPABILITY BLOCKAGES
DSDC BLKG RATIO	IS PER 10K DSDC ATTEMPTS
DAV BLKGS (1351, 1352, 1353, 1361, 1362, 1364, 1365, 1366, 1367, 1368, 1369)	DIAL-A-VIEW SERVICE BLOCKAGES
DAV BLKG RATIO	IS PER 10K DAV ATTEMPTS
BBC BLKGS (134, 135, 136)	BROADBAND CAPABILITY (6 AND/OR 24 CKT) BLOCKAGES
BBC BLKG RATIO	IS PER 10K BBC ATTEMPTS (6 AND/OR 24 CKT)

* NOTE: AT NON-ISC LOCATIONS HANDLING EQUAL ACCESS/FULLY CODED ADDRESSING CALLS TSPC RO CONTAINS BOTH DOMESTIC AND INTERNATIONAL FAILURES. AT ISC LOCATIONS HISTORIC DOMESTIC VS. INTERNATIONAL TSPC SEPARATION WILL BE MAINTAINED.

Table 6. LOST CALLS TRANSIENT CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
TOTAL LOST CALLS TRANSIENT	TRANSIENT LOST DUE TO PHASE AND HARDWARE
PHASE	TRANSIENT LOST DUE TO PHASES
HARDWARE	VOICE INTERFACE UNIT + DIGROUP TERMINAL UNIT + ECHO SUPPRESSOR UNIT + DIGITAL INTERFACE UNIT

NOTE: ALL LOST CALL TRANSIENT RATIOS ARE PER 10K DOM + INTNL IS-FS + OS (INC SEIZ-FALSE STARTS + ORIG SEIZ)

Table 7. REDIRECTION SERVICES CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
RDF INVP:	REDIRECTION FAILURE DUE TO INVALID PARAMETERS
RDF XLAT:	REDIRECTION FAILURE DUE TO TRANSLATION OF REDIRECTION NUMBER
RDF TIMR:	REDIRECTION FAILURE DUE TO TIMER NOT STARTED

NOTE: ALL REDIRECTION SERVICES RATIOS ARE PER 10K VALID RD (VALID REDIRECTION TRIGGERS)

Table 8. BILLING SERVICE COMPONENT

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
TOTAL BILLING ERR	TOTAL BILLING ERRORS (CAMA)
AMA CALL RCDS LOST	AUTOMATIC MACHINE ACCOUNTING CALL RECORDS LOST
FREE CALLS	FREE CALLS (ONI SUSPENSION ACTIVE)
BILLING ERROR RATIOS	ARE PER 10K CC (CAMA CALLS)
3B, RCDS LOST	1B AMA RECORDS SENT TO THE 3B ATTACHED PROCESSOR BUT WERE NOT PROCESSABLE BY THE 3B
3B RCDS LOST RATIO	IS PER 10K 1B RECORDS SENT TO THE 3B.
TOTAL ONI FAILURES	TOTAL ONI FAILURES (CAMA)
CAMA POS DISC (17)	CAMA POSITION DISCONNECT
CAMA OPER Q OVFL (27)	CAMA OPERATOR QUEUE OVERFLOW
CAMA SZ TIME-OUT (31)	CAMA POSITION SEIZURE TIME-OUT
CAMA POS REPT (28)	CAMA POSITION REPORT
CAMA POS TIME-OUT (37)	CAMA POSITION TIME-OUT
CAMA OPER Q > 5 SEC	CAMA CALLS WAITING FOR OPER > 5 SEC
ONI FAILURE RATIOS	ARE PER 10K CC (CAMA CALLS)
TOTAL ANI FAILURES	TOTAL AUTOMATIC NUMBER IDENTIFIED FAILURES
AIF (11)	AUTO NUMBER IDENTIFICATION FAIL IN LOCAL OFC
AOF (12)	ANI OFFICE FAILURE
ANF (13, 14)	AUTO NUMBER FAILURE
CICR (40,41)	CARRIER IDENTIFIED CAMA RECORD BLOCKAGES
INV NPA (2010)	INVALID NPA IN BILLING OR EQUAL ACCESS ANI
ANI FAILURE RATIOS	ARE PER 10K ANI (AUTO NUMBER IDENTIFIED CALLS)
EA ANI FAILS - DENIED (780, 782, 785, 786, 789, 790, 896, 1160, 1163)	EQUAL ACCESS ANI FAILURES DENIED
EA ANI FAILS - ROUTED (781,783, 787,1709)	EQUAL ACCESS ANI FAILURES ROUTED
EA ANI RATIO	IS PER 10K EA ANI (EA ANI CALL ATTS)

Table 9. SWITCHING CUTOFF CALLS CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
TOTAL SWITCHING CUTOFF CALLS	SWITCHING CUTOFF CALLS DUE TO PHASE AND HARDWARE
PHASE	CUTOFF DUE TO PHASES
HARDWARE	VOICE INTERFACE UNIT + DIGROUP TERMINAL UNIT + ECHO SUPPRESSOR UNIT + DIGITAL INTERFACE UNIT
ALL SWITCHING CUTOFF CALL RATIOS	ARE PER 10K DOM + INTNL TCC (TOTAL CALLS COMPLETE)

Table 9. SWITCHING CUTOFF CALLS CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
Q.931 RESET	RESET MESSAGE RECEIVED ON Q.931 TRUNK
ISUP RESET	RESET MESSAGE RECEIVED ON ISUP TRUNK
CCIS RESET	COMMON CHANNEL INTEROFFICE SIGNALING TRUNK OR BAND RESET RECEIVED
CXR FAIL	LOST CALLS DUE TO CARRIER FAILURE
RESET AND CXR FAIL RATIOS	ARE PER 10K 0GFA + TA (OUTGOING FINAL ATTEMPTS PLUS TERMINATING ATT)

Table 10. ABANDON CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
FSA	MF + DP + DTMF FALSE START ABANDONS
MF (105, 106, 237)	MF FSA
DP (82, 105, 235)	DP FSA
DTMF (830, 832, 850, 852, 855)	DTMF FSA
PDA	MF + DP + DTMF PARTIAL DIAL ABANDONS
MF (238)	MF PDA
DP (236)	DP PDA
DTMF (833, 834, 835, 856)	DTMF PDA
MAB	MF + DP + CCIS + MAS
MF (18, 19, 24, 30, 32, 241, 250, 788)	MF MAB
DP (18, 19, 24, 30, 32, 241, 250, 788)	DP MAB
CCIS (179)	CCIS MAB
OTHER	MF ORIG Q + DP AND CCIS CR Q + DP ANI MF REC Q ABANDONS
DP CR Q (236)	DP CALL REGISTER Q ABANDON
CCIS ORIG CR Q (214)	CCIS ORIGINATION CALL REGISTER Q ABANDON
MF ORIG Q (80)	MF ORIGINATION Q ABANDON
DP ANI MF REC Q (20)	DP ANI MF RECEIVER Q ABANDON
MISC	XPORT ONLY COUNT
Q.931 ABAN (683, 688)	Q.931 ABANDONS
ISUP ABAN (989, 991, 993, 995)	ISUP ABANDONS
TSPC ABAN (264,265)	TWO STAGE PULSING CALL ABANDON

NOTE: ALL ABANDON RATIOS ARE PER 10K IS (INC SEIZ)

Table 11. VACANT CODE CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
VC CAMA	MCA + UCA
MCA (25, 33)	MISROUTED CAMA ANNOUNCEMENT
UCA (16, 26)	UNAUTHORIZED CAMA ANNOUNCEMENT
VC CAMA RATIOS	ARE PER 10K CC (CAMA CALLS)
VC NON-CAMA	VCA + IWS + SCR + ORIG + OID
VCA (61, 62, 150, 290, 291,	VACANT CODE ANNOUNCEMENT

Table 11. VACANT CODE CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
292, 294, 820, 821, 822, 823, 824, 826, 827, 828, 1008, 1302)	
IWS (68, 293, 892, 894)	INWATS & OUTWATS SCREENING
SCR (60)	GO-NO-GO SCREENING
OID (64, 67)	ORIGINATING INWATS DENIED
CDS (900, 949)	CALL DENIAL SCREENING BLOCKAGES
AT DOMSAT (521)	ACCESS TANDEM CALL WITH SATELLITE ICT
RCR (194)	ROUTING CATEGORY RESTRICTION BLOCKAGES
Q.931 (PBX) (561, 757)	VACANT CODE INDICATION FROM PBX LOCATION
TSPC (263, 275, 276, 323, 324, 492)	TWO STAGE DOM/INTNL CSR/OPER DIALED VC
NON-CAMA VC RATIOS	ARE PER 10K DOM IS-FS + OS (INC SEIZ - FALSE STARTS + ORIG SEIZ)

Table 12. MISCELLANEOUS CATEGORY

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
SILC (15)	SELECTIVE INCOMING LOAD CONTROL
BBFP BLKGS (158, 515)	BLUE BOX FRAUD PREVENTION BLOCKAGES
FRAUD OVERRIDE	BLUE BOX FRAUD MANUAL RING FORWARD OVERRIDE
WFATO (792)	WAITING FOR ANSWER TIMEOUT (ODA DETERMINED)
NCD (798, 799)	NETWORK CALL DENIAL BLOCKED CALLS
RT OVLD (519)	REAL TIME OVERLOAD BLOCKED CALLS
TERM IAM RCVD	TERMINATING AT IAM RECEIVED PRIORITY NOT 1 COUNT

Table 13. BASE DATA

MEASUREMENT & FINAL HANDLING CODE (FHC)	FORMULA
TOTAL IS	TOTAL INCOMING SEIZURES
TOTAL FS (82, 99, 228, 235, 237) NOTE 2	TOTAL FALSE STARTS
TOTAL IS-FS	TOTAL INC SEIZ - FALSE STARTS
TOTAL DOM OTS	TOTAL DOMESTIC OUT TRUNK SEIZURES
TOTAL OGFA	TOTAL OUTGOING FINAL ATTEMPTS
TOTAL OS	TOTAL ORIGINATING SEIZURES
TOTAL TA	TOTAL TERMINATING ATTEMPTS
DSDC INC ATT	DIRECT SERVICE DIALING CAPABILITY INCOMING ATTEMPTS
DSDC HANDOFF/ASST	DSDC CALL ASSISTS OR HANDOFFS
BBC6 ATT	BROADBAND CALL (6 CKT) ATTEMPTS
DAV INC ATT	DIAL-A-VIEW INCOMING ATTEMPTS
NCD QUERIES	NETWORK CALL DENIAL DATABASE QUERIES
DOM + INTNL IS-FS + OS	DOMESTIC + INTERNATIONAL INCOMING SEIZURES-FALSE STARTS + ORIGINATING SEIZURES

Table 13. BASE DATA

MEASUREMENT & HANDLING CODE (FHC)	FINAL FORMULA
DOM + INTNL TCC	DOMESTIC + INTERNATIONAL TOTAL CALLS COMPLETED
TOTAL CAMA CALLS	TOTAL CAMA CALLS
TOTAL ONI CALLS	TOTAL OPERATOR NUMBER IDENTIFIED CALLS
TOTAL ANI CALLS	TOTAL AUTOMATIC NUMBER IDENTIFIED CALLS
DOM IS-FS + OS	DOMESTIC INC SEIZURES MINUS FALSE STARTS PLUS ORIGINATING SEIZURES
OGFA + TA	OUTGOING FINAL ATTEMPTS PLUS TERMINATING ATT
SDN INC ATT	SOFTWARE DEFINED NETWORK INC CALLS
BBC24 ATT	BROADBAND CALL (24 CKT) ATTEMPTS
RING OUTAGE (SEC)	CNI RING OUTAGE TIME IN SECONDS
OGFA-NCNM	OUTGOING FINAL ATTEMPTS - NO CIRCUIT NETWORK MANAGEMENT
EA ANI	TOTAL EQUAL ACCESS ANI CALL ATTEMPTS
3B SENT	1B RECORDS SENT TO THE 3B
IT OUT SZ + NCIT	INTERTOLL OUTGOING SEIZURES - NO CIRCUIT INTERTOLL
TC OUTSZ + NCTC	TOLL CONNECT/COMPLETING OUTGOING SEIZURES + NO CIRCUIT TOLL CONNECTING/COMPLETING
BBC INC ATT	BROADBAND CALL (6 CKT) ATTEMPTS + BROADBAND CALL (24 CKT) ATTEMPTS

NOTE: 1. TOTAL FS RATIO AND IS-FS RATIOS ARE PER 10K IS
TOTAL DOM OTS RATIO IS PER 10K IS-FS

2. FS DATA MAY BE INFLATED DUE TO INC SZ ON IDLE 1 WO TKS...FHC 228 OR RELATED FHC'S.

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4 ESS ON-SITE OPERATIONS REPORT
INTERNATIONAL MACHINE SERVICE REPORT
PART 2

1. GENERAL

1.01 Machine Service Report Part 2 - International provides a comprehensive service report for use by Operations forces to document the quality of service being provided by an International 4 ESS switching Complex.

1.02 Accumulation of counts for this report shall be for hourly, day-to-hour, daily, month-to-date, and monthly output.

2. REPORT HEADINGS

2.01 The heading of MSR2-INTERNATIONAL provides information relative to the office, report data and report period.

2.02 REPORTING OFFICE - Circuit Identification Name (CIN) of the office creating the report.

2.03 REPORT TYPE - Hourly, Daily, Monthly, Day-to-Hour, Month-to-Date or Threshold Exceeded.

2.04 DATE - Last day that data was accumulated for this report.

2.05 TIME - Last time that data was accumulated for this report.

2.06 REPORT PERIOD - Month and year that data was accumulated.

2.07 REPORT - "DEMAND" for Day-to-Hour; "THRESHOLD" for Threshold Exceeded; "SCHEDULED" for all other reports.

3. REPORT COMPONENTS

3.01 COUNT FIELD - Counts exceeding the capacity of their particular field will be converted to "thousands" as indicated by a "K" to the right of the field.

3.02 THRESHOLD FIELD - An asterisk will be placed in this field adjacent to any percentage calculation which has equaled or exceeded its preset threshold. Five asterisks (*****) will be placed adjacent to any category containing an item which has equaled or exceeded its threshold.

3.03 REORDER REPORT - This section of MSR2 details reorder associated call failures. See Table 1.1 for counts and formulas.

3.04 DIGIT RECEPTION FAILURE REPORT - CCITT5, CCITT6, TSPC, IOC, and ATME Digit Reception Failures. See Table 2.1 for counts and formulas.

3.05 VACANT CODE REPORT - International Calls routed to Vacant Code - both single and two stage pulsing type calls. See Table 2.2 for counts and formulas.

3.06 ABANDON REPORT - International (CCITT5 and CCITT6) calls abandoned prior to completion. See Table 2.3 for counts and formulas.

3.07 CONGESTION REPORT - CCITT5 and CCITT6 Signaling Congestion Failures. See Table 2.4 for counts and formulas.

3.08 SIGNALING IRREGULARITY REPORT - Idle, incoming and outgoing state signaling irregularities encountered on CCITT5 and CCITT6 trunks. See Table 3.1 for counts and formulas.

3.09 NO CIRCUIT REPORT - Calls blocked by International NC and due to Network Management functions. See Table 3.2 for counts and formulas.

3.10 FIRST ATTEMPT FAILURE REPORT - CCITT5 and CCITT6 first attempt outgoing failures. See Table 3.3 for counts and formulas.

```
REPT:  MACHINE SERVICE REPORT (MSR) PART 2 - INTERNATIONAL

REPORTING OFFICE: $@@@@@@@@@@@@@@@        REPORT TYPE: $@@@@@@@@@@@@@@@@@@@@@@
DATE: $@@@@@@@  TIME: $@@@    PAGE  1 OF 3
REPORT PERIOD: $@@@@@@@@ $@@@                                $@@@@@@@@ REPORT

REORDER REPORT $@@@@
------- ------          COUNT   RATIO                          COUNT   RATIO
TOTAL INCOMING        $@@@@@@$          TSPC RO:      %TSPC $@@@@@@$$$@@.$@
 C5 IS-FS:       %INC !@@@@@@!$$@@.$@    PST:                !@@@@@@!!!@@.!@
 C6 IS:               !@@@@@@!!!@@.!@    PDT:                !@@@@@@!!!@@.!@
 C7T IS:              !@@@@@@!!!@@.!@    PER:                !@@@@@@!!!@@.!@
 C7I IS:              !@@@@@@!!!@@.!@   IOC RO:        %IOC !@@@@@@!!!@@.!@
 TSPC:                !@@@@@@!!!@@.!@    PST:                !@@@@@@!!!@@.!@
 IOC IS-FS:           !@@@@@@!!!@@.!@    PDT:                !@@@@@@!!!@@.!@
TOTAL INBOUND         !@@@@@@!           PER:                !@@@@@@!!!@@.!@
 IDDD:           %INB !@@@@@@!!!@@.!@ TOT OUT RO:
 OPER:                !@@@@@@!!!@@.!@    C5+C6+C7I+C7T OGSZ !@@@@@@!!!@@.!@
 ATME:                !@@@@@@!!!@@.!@  C5 OUT RO:  %C5 OGSZ !@@@@@@!!!@@.!@
TOTAL TRANSIT: %IS-FS !@@@@@@!!!@@.!@   GLR:                !@@@@@@!!!@@.!@
TOTAL OGFA            !@@@@@@!           NSD:                !@@@@@@!!!@@.!@
 C5 OGSZ:       %OGFA !@@@@@@!!!@@.!@   URS:                !@@@@@@!!!@@.!@
 C6 OGSZ:             !@@@@@@!!!@@.!@  C6 OUT RO:  %C6 OGSZ !@@@@@@!!!@@.!@
 C7T OGSZ:            !@@@@@@!!!@@.!@   ATO:                !@@@@@@!!!@@.!@
 C7I OGSZ:            !@@@@@@!!!@@.!@   CKF:                !@@@@@@!!!@@.!@
 INTERMACH OVFL SENT: !@@@@@@!!!@@.!@   MISC:               !@@@@@@!!!@@.!@
 TOTAL NC:            !@@@@@@!!!@@.!@   SNF:                !@@@@@@!!!@@.!@
TOTAL OUTBOUND        !@@@@@@!           GLR:                !@@@@@@!!!@@.!@
 IDDD:          %OUTB !@@@@@@!!!@@.!@  C7T OUT RO:%C7T OGSZ !@@@@@@!!!@@.!@
 IOTC:                !@@@@@@!!!@@.!@   ATO:                !@@@@@@!!!@@.!@
 IOC IS-FS:           !@@@@@@!!!@@.!@   CKF::               !@@@@@@!!!@@.!@
 INTERMACH OVFL REC:  !@@@@@@!!!@@.!@   MISC:               !@@@@@@!!!@@.!@
 ATME:                !@@@@@@!!!@@.!@   SNF:                !@@@@@@!!!@@.!@
TOTAL RO:   %INC+OGSZ !@@@@@@!!!@@.!@   IAM GLR:            !@@@@@@!!!@@.!@
 TOTAL INC RO:   %INC !@@@@@@!!!@@.!@   CCR GLR:            !@@@@@@!!!@@.!@
  INTNL INC RO:%INTNL !@@@@@@!!!@@.!@  C7T OUT RO:%C7I OGSZ !@@@@@@!!!@@.!@
   C5 INC RO:%C5IS-FS !@@@@@@!!!@@.!@   ATO:                !@@@@@@!!!@@.!@
    PST:              !@@@@@@!!!@@.!@   CKF:                !@@@@@@!!!@@.!@
    PDT:              !@@@@@@!!!@@.!@   MISC:               !@@@@@@!!!@@.!@
    PSG:              !@@@@@@!!!@@.!@   SNF:                !@@@@@@!!!@@.!@
    PER:              !@@@@@@!!!@@.!@   IAM GLR:            !@@@@@@!!!@@.!@
   C6 INC RO:  %C6 IS !@@@@@@!!!@@.!@   CCR GLR:            !@@@@@@!!!@@.!@
    IAD:              !@@@@@@!!!@@.!@ TELECONF ATT(ITC):    !@@@@@@!!!@@.!@
    CTO:              !@@@@@@!!!@@.!@ TOLL FREE ATT(I800):  !@@@@@@!!!@@.!@
   C7T IN RO: %C7T IS !@@@@@@!!!@@.!@
    IAD:              !@@@@@@!!!@@.!@
    CTO:              !@@@@@@!!!@@.!@
   C7I IN RO: %C7I IS !@@@@@@!!!@@.!@
    IAD:              !@@@@@@!!!@@.!@ CURRENT GENERIC:    $@@@@@@@@@@@@@@@
    CTO:              !@@@@@@!!!@@.!@ NMDS/OSOR SYS ISS:  $@@@@@
```

Figure 1. MSR2 INTERNATIONAL - PAGE 1 OF 3

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REPT: MSR PART 2 - INTERNATIONAL     PAGE 2 OF 3

DIG RECEPTION FAILS $@@@@              ABANDON REPORT $@@@@
--- --------- -----     COUNT   RATIO  ------- ------          COUNT
TOTAL D.R.F.          $@@@@@@$        INC SZ (C5+C6+IOC+C7) $@@@@@@$
 C5 DRF:   %TOTAL DRF !@@@@@@!$$@@.$@ TOTAL ABANS:  %INC SZ !@@@@@@!$$@@.$@
  OPER:               !@@@@@@!!!@@.!@  INTNL INC:%C5+6+7 IS !@@@@@@!!!@@.!@
  IDDD:               !@@@@@@!!!@@.!@   C5 ISA:      %C5 IS !@@@@@@!!!@@.!@
  TRANSIT:            !@@@@@@!!!@@.!@   C5 IA:              !@@@@@@!!!@@.!@
 C6 DRF:              !@@@@@@!!!@@.!@   C5 MISC:            !@@@@@@!!!@@.!@
  OPER:               !@@@@@@!!!@@.!@   C6 ISA:      %C6 IS !@@@@@@!!!@@.!@
  IDDD:               !@@@@@@!!!@@.!@   C6 MISC:            !@@@@@@!!!@@.!@
  TRANSIT:            !@@@@@@!!!@@.!@   C7T ISA:    %C7T IS !@@@@@@!!!@@.!@
 C7T DRF:             !@@@@@@!!!@@.!@   C7T MISC:           !@@@@@@!!!@@.!@
  OPER:               !@@@@@@!!!@@.!@   C7I ISA:    %C7I IS !@@@@@@!!!@@.!@
  IDDD:               !@@@@@@!!!@@.!@   C7I MISC:           !@@@@@@!!!@@.!@
  TRANSIT:            !@@@@@@!!!@@.!@  IOC:         %IOC IS !@@@@@@!!!@@.!@
 C7I DRF:             !@@@@@@!!!@@.!@   IOC ISA:            !@@@@@@!!!@@.!@
  OPER:               !@@@@@@!!!@@.!@   IOC IA:             !@@@@@@!!!@@.!@
  IDDD:               !@@@@@@!!!@@.!@   IOC MAB:            !@@@@@@!!!@@.!@
  TRANSIT:            !@@@@@@!!!@@.!@
 TSPC DRF:            !@@@@@@!!!@@.!@ CONGESTION REPORT $@@@@
  IOTC:               !@@@@@@!!!@@.!@ ---------- ------
  IDDD:               !@@@@@@!!!@@.!@ TOTAL CONG:     %OGSZ !@@@@@@!!!@@.!@
 IOC DRF:             !@@@@@@!!!@@.!@  CCITT5:     %C5 OGSZ !@@@@@@!!!@@.!@
ATME:       %INB ATME !@@@@@@!!!@@.!@   BY FL OP:            !@@@@@@!!!@@.!@
                                        BY FL>OP:            !@@@@@@!!!@@.!@
VACANT CODE REPORT $@@@@               CCITT6:     %C6 OGSZ !@@@@@@!!!@@.!@
------ ---- ------                      SEC:                 !@@@@@@!!!@@.!@
TOTAL VC:   %INCOMING !@@@@@@!!!@@.!@   CGC:                 !@@@@@@!!!@@.!@
 TERM:      %TOT TERM !@@@@@@!!!@@.!@   NNC:                 !@@@@@@!!!@@.!@
  IDDD:               !@@@@@@!!!@@.!@   LOS:                 !@@@@@@!!!@@.!@
  OPER:               !@@@@@@!!!@@.!@   SSB:                 !@@@@@@!!!@@.!@
  INV LD:             !@@@@@@!!!@@.!@   SEC WFA:             !@@@@@@!!!@@.!@
  MAC BLK:            !@@@@@@!!!@@.!@   CGC WFA:             !@@@@@@!!!@@.!@
 TRANSIT:  %TOT TRANS !@@@@@@!!!@@.!@   NNC WFA:             !@@@@@@!!!@@.!@
  IDDD:               !@@@@@@!!!@@.!@  CCITT7 TUP:%C7T OGSZ !@@@@@@!!!@@.!@
  OPER:               !@@@@@@!!!@@.!@   SEC:                 !@@@@@@!!!@@.!@
 TSPC:                !@@@@@@!!!@@.!@   CGC:                 !@@@@@@!!!@@.!@
  IDDD:               !@@@@@@!!!@@.!@   NNC:                 !@@@@@@!!!@@.!@
  IOTC:               !@@@@@@!!!@@.!@   LOS:                 !@@@@@@!!!@@.!@
  DOM SAT:            !@@@@@@!!!@@.!@   SSB:                 !@@@@@@!!!@@.!@
 IOC:            %IOC !@@@@@@!!!@@.!@   CFL WFA:            !@@@@@@!!!@@.!@
 ITC:            %ITC !@@@@@@!!!@@.!@   CGC WFA:            !@@@@@@!!!@@.!@
 C6 VNN:       %C6 IS !@@@@@@!!!@@.!@   NNC WFA:            !@@@@@@!!!@@.!@
 C7T VNN:     %C7T IS !@@@@@@!!!@@.!@  CCITT7INUP:%C7T OGSZ !@@@@@@!!!@@.!@
 C7I VNN:     %C7I IS !@@@@@@!!!@@.!@   SEC:                 !@@@@@@!!!@@.!@
                                        NCA:                 !@@@@@@!!!@@.!@
                                        LOS:                 !@@@@@@!!!@@.!@
                                        SSB:                 !@@@@@@!!!@@.!@
                                        SEC WFA:             !@@@@@@!!!@@.!@
                                        NCA WFA:             !@@@@@@!!!@@.!@
                                        TMA WFA:             !@@@@@@!!!@@.!@
```

Figure 2. MSR2 INTERNATIONAL - PAGE 2 OF 3

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REPT: MSR PART 2 - INTERNATIONAL     PAGE 3 OF 3

SIGNALING IRREGS $@@@@                NO CIRCUIT REPORT $@@@@
--------- ------         COUNT   RATIO -- ------- ------ COUNT         RATIO
TOTAL SIG IRREGS      $@@@@@@@        TOTAL NC:       %OGFA $@@@@@@$$$@@.$@
 C5 TOTAL:   %TOT IRR !@@@@@@!$$@@.$@  NCA:             %NC !@@@@@@!!!@@.!@
  IDLE:       %C5 IRR !@@@@@@!!!@@.!@  NM BLOCKED:          !@@@@@@!!!@@.!@
  INC <ANS:           !@@@@@@!!!@@.!@   CFB:        %NM BLK !@@@@@@!!!@@.!@
  INC >ANS:           !@@@@@@!!!@@.!@   CTB:                !@@@@@@!!!@@.!@
  INC DISC:           !@@@@@@!!!@@.!@   SDOCB:              !@@@@@@!!!@@.!@
  OUT <ANS:           !@@@@@@!!!@@.!@   STRB:               !@@@@@@!!!@@.!@
  OUT >ANS:           !@@@@@@!!!@@.!@ PEAK DAY NC DISC: %NC !@@@@@@!!!@@.!@
  OUT DISC:           !@@@@@@!!!@@.!@ NTC INTERMACH:  %SENT !@@@@@@!!!@@.!@
  MISC:               !@@@@@@!!!@@.!@ NSC INTERMACH:        !@@@@@@!!!@@.!@
 C6 TOTAL:   %TOT IRR !@@@@@@!!!@@.!@ 2 MIN ANS TO:   %OGFA !@@@@@@!!!@@.!@
  IDLE:       %C6 IRR !@@@@@@!!!@@.!@ MULTI SCAN PT         !@@@@@@!
  INC DISC:           !@@@@@@!!!@@.!@
  OUT <ANS:           !@@@@@@!!!@@.!@
  OUT DISC:           !@@@@@@!!!@@.!@ FIRST ATT FAILS $@@@@
 C7T TOTAL:  %TOT IRR !@@@@@@!!!@@.!@ ----- --- -----
  IDLE:      %C7T IRR !@@@@@@!!!@@.!@  C5 GLR:     %C5 OGSZ !@@@@@@!!!@@.!@
  INC <ANS:           !@@@@@@!!!@@.!@  C5 NSD:              !@@@@@@!!!@@.!@
  INC DISC:           !@@@@@@!!!@@.!@  C5 OPLS FAILS:       !@@@@@@!!!@@.!@
  OUT <ANS:           !@@@@@@!!!@@.!@  C6 GLR:     %C6 OGSZ !@@@@@@!!!@@.!@
  OUT DISC:           !@@@@@@!!!@@.!@  C6 SNF:              !@@@@@@!!!@@.!@
  TRANS BUF OVFL:     !@@@@@@!!!@@.!@  C7T GLR:   %C7T OGSZ !@@@@@@!!!@@.!@
  RING FAIL:          !@@@@@@!!!@@.!@  C7I GLR:   %C7I OGSZ !@@@@@@!!!@@.!@
 C7I TOTAL:  %TOT IRR !@@@@@@!!!@@.!@
  IDLE:      %C7I IRR !@@@@@@!!!@@.!@
  INC <ANS:           !@@@@@@!!!@@.!@
  INC DISC:           !@@@@@@!!!@@.!@
  OUT <ANS:           !@@@@@@!!!@@.!@
  OUT DISC:           !@@@@@@!!!@@.!@
  TRANS BUF OVFL:     !@@@@@@!!!@@.!@
  RING FAIL:          !@@@@@@!!!@@.!@
 ATME D/R:   %TOT IRR !@@@@@@!!!@@.!@
```

Figure 3. MSR2 INTERNATIONAL - PAGE 3 OF 3

TABLE 1.1

REORDER REPORT

MEASUREMENT + FINAL HANDLING CODE (FHC)	FORMULA
TOTAL INCOMING (CALLS)	(C5 IS + C6 IS + TSPC IS + IOC IS) - (C5 FS + C5 ISA + IOC FSA + IOC PDA)
C5 IS-FS	C5 IS - (C5 FS + C5 ISA)
C6 IS	C6 INC SZ
C7T IS	C7T INC SZ
C7I IS	C7I INC SZ
TSPC	INTERNATIONAL TWO STAGE CALLS
IOC IS-FS	IOC INC SZ - (IOC FSA + IOC PDA)
TOTAL INBOUND	C5 & C6 INC CUSTOMER AND OPERATOR DIALED CALLS + C5 & C6 INC AUTOMATIC TEST CALLS
IDDD	C5 & C6 INC CUSTOMER DIALED CALLS
OPER	C5 & C6 INC OPERATOR DIALED CALLS
ATME	AUTO GENERATED INC TST CALLS
TOTAL TRANSIT	TOTAL INC TRANSIT CALLS
TOTAL OGFA	TOTAL OUTGOING FINAL ATTEMPTS
C5 OGSZ	C5 OUT SEIZURES
C6 OGSZ	C6 OUT SEIZURES
C7T OGSZ	C7T OUT SEIZURES
C7I OGSZ	C7I OUT SEIZURES
INTERMACH OVFL SENT	INTERNATIONAL OVERFLOW SENT TO SUBSEQUENT ISC
TOTAL NC	TOTAL NO CIRCUIT COUNT
TOTAL OUTBOUND	OUTBOUND CUSTOMER, IOTC, IOC, & ATME CALLS + INTERNATIONAL OVERFLOW RECEIVED FROM SUBSEQUENT ISC
IDDD	CUSTOMER DIALED OUTBOUND CALLS
IOTC	IOTC DIALED OUTBOUND CALLS
IOC IS-FS	IOC DIALED OUTBOUND CALLS
INTERMACH OVFL REC	INTERNATIONAL OVERFLOW RECEIVED FROM SUBSEQUENT ISC
ATME	AUTO GENERATED OUTBOUND TST CALLS

TABLE 1.1 (CONTINUED)

REORDER REPORT

MEASUREMENT + FINAL HANDLING CODE (FHC)	FORMULA
TOTAL RO	TOTAL INCOMING + OUTGOING REORDER
TOTAL INC RO	INTERNATIONAL INC RO + TSPC INC RO + IOC INC RO
INTNL INC RO	C5 INC RO + C6 INC RO
C5 INC RO	C5 PST + PDT + PSG + PER
PST (286)	C5 PERMANENT SIG TIMEOUT
PDT (285)	C5 PARTIAL DIAL TIMEOUT
PSG (348, 350, 351, 354, 365)	C5 PERSISTING SIGNAL
PER (267, 268, 283, 355)	C5 PULSING ERROR
C6 INC RO	C6 IAD + CTO
IAD (274, 277, 278, 279, 280, 497)	C6 INCOMPLETE ADDRESS DETECTED
CTO (459)	C6 CONTINUITY CHECK TIMEOUT
C7T INC RO	C7T IAD + CTO
IAD (1409)	C7T INCOMPLETE ADDRESS DETECTED
CTO (1421)	C7T CONTINUITY CHECK TIMEOUT
C7I INC RO	C7I IAD + CTO
IAD (1763)	C7I INCOMPLETE ADDRESS DETECTED
CTO (1773)	C7I CONTINUITY CHECK TIMEOUT
TSPC RO	INTERNATIONAL TWO STAGE PST + PDT + PER
PST (329)	TSPC PERMANENT SIGNAL TIMEOUT
PDT (331)	TSPC PARTIAL DIAL TIMEOUT
PER (312, 330)	TSPC PULSING ERROR
IOC RO	INTERNATIONAL OPERATING CENTER PST + PDT + PER
PST (90)	IOC PERMANENT SIGNAL TIMEOUT
PDT (91)	IOC PARTIAL DIAL TIMEOUT
PER (76, 152, 154, 156, 160)	IOC PULSING ERROR
TOTAL OUT RO	C5 OUT REORDER + C6 OUT REORDER + C7T + C7I
C5 OUT RO	C5 GLR + NSD + URS

TABLE 1.1 (CONTINUED)

REORDER REPORT

MEASUREMENT + FINAL HANDLING CODE (FHC)	FORMULA
GLR (378, 385, 393, 397)	C5 OUTGOING GLARE
NSD (401)	C5 NO START DIAL
URS (389, 398)	C5 UNREASONABLE SIGNAL
C6 OUT RO	C6 ATO + CKF + MISC + SNF + GLR
ATO (494)	C6 ANSWER TIMEOUT
CKF (473)	C6 CONTINUITY CHECK FAILURE
MISC (471, 477)	C6 MISCELLANEOUS OUT FAILURE
SNF (314, 468, 481, 483, 496)	C6 SIGNALING NETWORK FAILURE
GLR (479)	C6 GLARE
C7T OUT RO	C7T ATO + CKF + MISC + SNF + GLR
ATO (1556)	C7T ANSWER TIMEOUT
CKF (1551)	C7T CONTINUITY CHECK FAILURE
MISC (1558)	C7T MISCELLANEOUS OUT FAILURE
SNF (1530, 1537)	C7T SIGNALING NETWORK FAILURE
IAM GLR (1534, 1544)	C7T IAM GLARE RO
CCR GLR (1533)	C7T CCR GLARE RO
C7I OUT RO	C7I ATO + CKF + MISC + SNF + GLR
ATO (1854)	C7I ANSWER TIMEOUT
CKF (1844)	C7I CONTINUITY CHECK FAILURE
MISC (1856)	C7I MISCELLANEOUS OUT FAILURE
SNF (1839)	C7I SIGNALING NETWORK FAILURE
IAM GLR (1836, 1851)	C7I IAM GLARE RO
CCR GLR (1852)	C7I CCR GLARE RO
TELECONF ATT (ITC)	INTERNATIONAL TELECONF ATTEMPTS
TOLL FREE ATT (I800)	INTERNATIONAL TOLL FREE ATTEMPTS

TABLE 2.1

DIGIT RECEPTION FAILURE REPORT

MEASUREMENT + FINAL HANDLING CODE (FHC)	FORMULA
TOTAL DRF	TOTAL DIGIT RECEPTION FAILURES
C5 DRF	CCITT DRFS
OPER (46)	CCITT5 DRF OPERATOR DIALED CALL
IDDD (46)	CCITT5 DRF CUSTOMER DIALED CALL
TRANSIT (326, 327)	CCITT5 DRF TRANSIT CALL
C6 DRF	CCITT6 DRFS
OPER (46)	CCITT6 DRF OPERATOR DIALED CALL
IDDD (46)	CCITT6 DRF CUSTOMER DIALED CALL
TRANSIT (326, 327)	CCITT6 DRF TRANSIT CALL
C7T DRF	CCITT7 TUP DRFS
OPER (84)	CCITT7 TUP DRF OPERATOR DIALED CALL
IDDD (84)	CCITT7 TUP DRF CUSTOMER DIALED CALL
TRANSIT (1500, 1502, 1503, 1504)	CCITT7 TUP DRF TRANSIT CALL
C7I DRF	CCITT7 INUP DRFS
OPER (84)	CCITT7 INUP DRF OPERATOR DIALED CALL
IDDD (84)	CCITT7 INUP DRF CUSTOMER DIALED CALL
TRANSIT (1500, 1502, 1503, 1504)	CCITT7 INUP DRF TRANSIT CALL
TSPC DRF	INTERNATIONAL TWO STAGE DRFS
IOTC (326, 327)	TWO STAGE IOTC ORIGINATED DRF
IDDD (326, 327)	TWO STAGE CUSTOMER DIALED DRF
IOC DRF (46, 326, 327)	INTERNATIONAL OPERATING CENTER ORIGINATED DRF
ATME (272, 281)	ATME ORIGINATED DRF FAILURES

TABLE 2.2

VACANT CODE REPORT

MEASUREMENT + FINAL HANDLING CODE (FHC)	FORMULA
TOTAL VC	TERMINATING + TRANSIT + TSPC + IOC + IOTC VACANT CODE
TERM	TERMINATING IDDD + OPER + INVALID LANGUAGE DIGIT + MACHINE ADMINISTRATION BLOCKED VACANT CODE
IDDD (62, 152, 266, 273, 825)	TERM CUSTOMER DIALED VC
OPER (62, 152, 266, 273, 825)	TERM OPERATOR DIALED VC
INV LD (270)	TERM INVALID LANGUAGE DIGIT VC
MAC BLK (257, 261, 262, 520)	TERM MACHINE ADMIN CENTER BLOCKED VC
TRANSIT	TRANSIT IDDD + OPER VACANT CODE
IDDD (269, 276, 323, 324, 492)	TRANSIT CUSTOMER DIALED VC
OPER (269, 271, 276, 323, 324, 492)	TRANSIT OPERATOR DIALED VC
TSPC	INTERNATIONAL TWO STAGE IDDD + IOTC + DOM SAT VACANT CODE
IDDD (263, 276, 323, 324, 492)	TWO STAGE CUSTOMER DIALED VC
IOTC (275, 276, 323, 324, 492)	TWO STAGE INTERNATIONAL OPERATING TOLL CENTER DIALED VC
DOM SAT (316, 522)	TWO STAGE DOMESTIC SATELLITE VC
IOC (275, 276, 323, 324, 492)	INTERNATIONAL OPERATING CENTER DIALED VC
ITC (282)	INTERNATIONAL TELECONFERENCING VC
C6 VNN: (492)	C6 VACANT NATIONAL NUMBER
C7T VNN: (1565)	C7T VACANT NATIONAL NUMBER
C7I VNN: (1859)	C7I VACANT NATIONAL NUMBER

TABLE 2.3

ABANDON REPORT

MEASUREMENT + FINAL HANDLING CODE (FHC)	FORMULA
INC SZ	C5 + C6 + IOC INCOMING SEIZURES
TOTAL ABANS	TOTAL INTERNATIONAL INCOMING + IOC ABANDONS
INTNL INC	C5 ISA + IA + MISC & C6 ISA + C7 ISA + MISC ABANDONS
C5 ISA (344)	C5 INCOMING SEIZURE ABANDON
C5 IA (349)	C5 INPULSING ABANDON
C5 MISC (353)	C5 MISCELLANEOUS ABANDON
C6 ISA (504, 505, 506)	C6 CR Q ABANDON
C6 MISC (461)	C6 MISCELLANEOUS ABANDON
C7T ISA (1401, 1402)	C7T CR Q ABANDON
C7T MISC (1424, 1427, 1428)	C7T MISCELLANEOUS ABANDON
C7I ISA (1784,1785)	C7I CR Q ABANDON
C7I MISC (1771, 1781, 1782)	C7I MISCELLANEOUS ABANDON
IOC	INTERNATIONAL OPERATING CENTER ISA + IA + MAB ABANDONS
IOC ISA (237)	IOC INCOMING SEIZURE ABANDON
IOC IA (238)	IOC INPULSING ABANDON
IOC MAB (250)	IOC MISCELLANEOUS ABANDON

TABLE 2.4

CONGESTION FAILURE REPORT

MEASUREMENT + FINAL HANDLING CODE (FHC)	FORMULA
TOTAL CONG	TOTAL (C5+C6) CONGESTION FAILURES
CCITT5	TOTAL CCITT5 CONGESTION FAILURES
BY FL OP (395)	CCITT5 BUSY FLASH DURING OUTPULSING
BY FL>OP (405)	CCITT5 BUSY FLASH AFTER OUTPULSING
CCITT6	TOTAL CCITT6 CONGESTION FAILURES
SEC (489)	CCITT6 SWITCHING EQUIPMENT CONGESTION
CGC (486)	CCITT6 CIRCUIT GROUP CONGESTION
NNC (488)	CCITT6 NATIONAL NUMBER CONGESTION
LOS (487)	CCITT6 LINE OUT OF SERVICE
SSB (490)	CCITT6 SUBSCRIBER STATION BUSY
SEC WFA (499)	CCITT6 SEC WAITING FOR ANS STATE
CGC WFA (500)	CCITT6 CGC WAITING FOR ANS STATE
NNC WFA (501)	CCITT6 TUP CGC WAITING FOR ANS STATE
CCITT7 TUP	TOTAL CCITT7 TUP CONGESTION FAILURES
SEC (1559)	CCITT7 TUP SWITCHING EQUIPMENT CONGESTION
CGC (1560)	CCITT7 TUP CIRCUIT GROUP CONGESTION
NNC (1561)	CCITT7 TUP NATIONAL NUMBER CONGESTION
LOS (1566)	CCITT7 TUP LINE OUT OF SERVICE
SSB (1564)	CCITT7 TUP SUBSCRIBER STATION BUSY
CFL WFA (1573)	CCITT7 TUP CFL WAITING FOR ANS STATE
CGC WFA (1571)	CCITT7 TUP CGC WAITING FOR ANS STATE
NNC WFA (1572)	CCITT7 TUP CGC WAITING FOR ANS STATE
CCITT7 INUP	TOTAL CCITT7 INUP CONGESTION FAILURES
SEC (1871)	CCITT7 INUP SWITCHING EQUIPMENT CONGESTION
NCA (1868)	CCITT7 INUP
LOS (1866)	CCITT7 INUP
SSB (1861)	CCITT7 INUP

TABLE 2.4 (CONTINUED)

CONGESTION FAILURE REPORT

MEASUREMENT + FINAL HANDLING CODE (FHC)	FORMULA
SSB (1886)	CCITT7 INUP SUBSCRIBER STATION BUSY
SEC WFA (1886)	CCITT7 INUP SEC WAITING FOR ANS STATE
NCA WFA (1884)	CCITT7 INUP NCA WAITING FOR ANSWER
TMA WFA (1885)	CCITT7 INUP TMA WAITING FOR ANS STATE

TABLE 3.1

SIGNALING IRREGULARITY REPORT

MEASUREMENT + FINAL HANDLING CODE (FHC)	FORMULA
TOTAL SIG IRREGS	C5 + C6 + C7T + C7I + ATME SIGNALING IRREGULARITIES
C5 TOTAL	C5 IDLE + INC < ANS + INC > ANS + INC DISC + OUT < ANS + OUT > ANS + OUT DISC + MISC IRREGS
IDLE (341, 342, 343, 387)	C5 IRREG ON IDLE TRUNK
INC < ANS (358, 368)	C5 INC IRREG BEFORE ANSWER
INC > ANS (361, 367)	C5 INC IRREG AFTER ANSWER
INC DISC (362, 366, 371, 372, 415)	C5 INC IRREG DURING DISCONNECT
T{ OUT < ANS (350, 351, 354, 359, 407, 408, 408, 409, 411) T}	C5 OUT IRREG BEFORE ANSWER
OUT > ANS (360, 410, 412, 414)	C5 OUT IRREG AFTER ANSWER
OUT DISCONNECT (422)	C5 OUT IRREG DURING DISCONNECT
MISC (418, 420, 421)	C5 MISCELLANEOUS IRREG
C6 TOTAL	C6 IDLE + INC DISC + OUT < ANS + OUT DISC IRREGS
IDLE (431 THROUGH 458)	C6 IRREG ON IDLE TRUNK
INC DISC (466,503)	C6 INC IRREG DURING DISCONNECT
OUT < ANS (498)	C6 OUT IRREG BEFORE ANSWER
OUT DISC (462)	C6 OUT IRREG DURING DISCONNECT
C7T TOTAL	C7T IDLE + INC<ANS + INC DISC + OUT < ANS + OUT DISC + TRANS BUF OVFL + RING FAIL
IDLE (1411, 1417, 1426)	C7T IRREG ON IDLE TRUNK
INC <ANS (1403, 1404, 1418, 1419)	C7T INC IRREG DURING DISCONNECT
INC DISC (1412)	C7T INC IRREG DURING DISCONNECT
OUT < ANS (1541)	C7T OUT IRREG BEFORE ANSWER
OUT DISC (1574, 1600, 1601)	C7T OUT IRREG DURING DISCONNECT
TRANS BUF OVFL: (1405, 1408, 1531, 1538, 1554)	C7T TRANSFER BUFFER OVERFLOW
RING FAIL (1406, 1407, 1532)	C7T RING FAILURES

TABLE 3.1 (CONTINUED)

SIGNALING IRREGULARITY REPORT

MEASUREMENT + FINAL HANDLING CODE (FHC)	FORMULA
C7I TOTAL	C7I IDLE + INC<ANS + INC DISC + OUT < ANS + OUT DISC + TRANS BUF OVFL + RING FAIL
IDLE (1788)	C7I IRREG ON IDLE TRUNK
INC <ANS (1777, 1778, 1786, 1787)	C7I INC IRREG DURING DISCONNECT
INC DISC (1783)	C7I INC IRREG DURING DISCONNECT
OUT < ANS (1858)	C7I OUT IRREG BEFORE ANSWER
OUT DISC (1887)	C7I OUT IRREG DURING DISCONNECT
TRANS BUF OVFL: (1775, 1833, 1845, 1849)	C7I TRANSFER BUFFER OVERFLOW
RING FAIL (1776, 1850, 1834, 1846)	C7I RING FAILURES
ATME D/R (141, 142, 145, 147, 369, 370)	AUTO TEST DIRECTOR/RESPONDER IRREG

TABLE 3.2

NO CIRCUIT REPORT

MEASUREMENT + FINAL HANDLING CODE (FHC)	FORMULA
TOTAL NC	NCA (C5 + C6 OGT) + AOOCB + NC NM BLOCKED
NCA (311)	INTERNATIONAL NO CIRCUIT (C5 + C6 OGT)
AOOCB (340)	INTERNATIONAL AUTOMATIC OUT OF CHAIN BLOCKED NC
NM BLOCKED	INTERNATIONAL NETWORK MANAGEMENT BLOCKED NC
CFB (339)	CANCEL FROM BLOCKED NC
CTB (338)	CANCEL TO BLOCKED NC
SDOCB (336)	SELECTIVE DYNAMIC OVERLOAD CONTROL BLOCKED NC
STRB (337)	SELECTIVE TRUNK RESERVATION BLOCKED NC
PEAK DAY NC DISC*	PEAK DAY (EF1 DESIGNATED) NC AUTOMATICALLY DISCOUNTED FROM MONTH-TO-DATE & MONTHLY DATA
NTC INTRMCH GP (169)	NTC SIGNAL RECEIVED ON OVFL TSG TO SUBSEQUENT ISC
NSC INTRMCH GP (170)	NSC SIGNAL RECEIVED ON OVFL TSG TO SUBSEQUENT ISC
2 MIN ANS TO (407)	2-MINUTE ANSWER TIMEOUT
MULTI SCAN PT (352, 373, 399, 406, 413, 423)	MULTI SCAN POINT FAILURE

*NOTE: See Division 10, Section 4a for peak day NC discount day input data.

TABLE 3.3

FIRST ATTEMPT FAILURE REPORT

MEASUREMENT + FINAL HANDLING CODE (FHC)	FORMULA
C5 GLR (377, 384, 386)	C5 GLARE
C5 NSD (400)	C5 NO START DIAL
C5 OPLS FAIL (392, 394, 396)	C5 OUTPULSING FAILURE
C6 GLR (478)	C6 GLARE
C6 SNF (469, 480, 482, 495)	C6 SIGNALING NETWORK FAIL
C7T GLR (1543)	C7T GLARE
C7I GLR (1835)	C7I GLARE

4 ESS ON-SITE OPERATIONS SYSTEM
DOMESTIC AND INTERNATIONAL MSR-2
THRESHOLD ASSIGNMENT PAGE
EF05

1. GENERAL

1.01 Threshold assignment page EF5 provides the user with a method of establishing variable "levels of concern" for service affecting components of Domestic and International Machine Service Report Part 2.

When an established threshold is equaled or exceeded, the critical category is highlighted on the next MSR2 output.

2. OPERATION

2.01 Thresholds are initially set at the predetermined value of 9999.99 for Domestic data and 115.00 for International data through loading the Network Management (NM) tape. These initial thresholds can be changed to more "Operational" values through utilization of page EF5 in the Network Management Display System (NMDS).

2.02 The initial EF5 display page allows selection of one of nineteen MSR2 "Categories" in which thresholds are to be changed (Incoming, No Circuit, Abandon, etc.). When a "Category" has been selected and entered, a display is returned listing all components within the selected category plus threshold windows showing current threshold values. Changes to these values may be accomplished by directly overwriting old thresholds with new thresholds and entering them into the system.

2.03 Unacceptable input data will trigger a flashing "ERROR" message on the display screen which will continue to flash until the error is corrected. No data will be allowed to enter the system while an error state exists.

2.04 An "Inhibit" option is available on a per category basis which allows the user to control the output of MSR2 "Threshold" type reports on peak days or during periods of severe or prolonged network or switching difficulties.

2.05 When a "+" is entered in the inhibit window of any "Category" display, MSR2 "Threshold" report generation for all components of that specific category is halted. All other MSR2 categories will continue to generate "Threshold" reports should a threshold be equaled or exceeded under their domain.

2.06 MSR2 "Scheduled" reports will continue to highlight with asterisks those components and categories where thresholds have been equaled or exceeded even though they may be under an inhibit status.

2.07 The basic EF5 display contains a passive inhibit window which is used to indicate whether or not any MSR2 category is currently inhibited. A "+" is shown in this window if one or more categories is inhibited and a blank in this window indicates no inhibits exist.

```
EF5   MSR PART 2 THRESHOLDS            DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [                          ]
   VALID "CATEGORIES" ARE:
   INCOMING                  [       ]                          [       ]
   CONNECTING                [       ]                          [       ]
   OUTGOING                  [       ]                          [       ]
   NO CIRCUIT                [       ]                          [       ]
   VERT SVCS                 [       ]                          [       ]
   LOST CALLS                [       ]                          [       ]
   BILLING ERRORS            [       ]                          [       ]
   CUTOFF CALLS              [       ]                          [       ]
   ABANDON                   [       ]                          [       ]
   VACANT CODE               [       ]                          [       ]
   REORDER-1 INTNL           [       ]                          [       ]
   REORDER-2 INTNL           [       ]                          [       ]
   DIG RECEPT FAILS          [       ]                          [       ]
   VACANT CODE-INTNL         [       ]                          [       ]
   ABANDON-INTNL             [       ]                          [       ]
   CONGESTION                [       ]                          [       ]
   SIGNALING IRREGS          [       ]                          [       ]
   NO CIRCUIT-INTNL          [       ]                          [       ]
   1ST ATT FAILS             [       ]                          [       ]
                                                  DIRECTORY[  ]   P[    ]
```

Figure 1. BASIC DISPLAY

```
EF5   MSR PART 2 THRESHOLDS            DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [INCOMING                  ]
   INCOMING                            INCOMING
   TOTAL INC RO:         IS-FS[    .  ] DTMF INC RO:          IS-FS[    .  ]
   TOTAL ADJ INC RO:           [    .  ]  PST:                      [    .  ]
    MF INC RO:                 [    .  ]  PDT:                      [    .  ]
     PST:                      [    .  ]  PER:                      [    .  ]
     PDT:                      [    .  ]  OTHER:                    [    .  ]
     PER:                      [    .  ] ISUP INC RO:               [    .  ]
     OTHER:                    [    .  ]  IAD:                      [    .  ]
    DP ADJ INC RO:             [    .  ]  CTO:                      [    .  ]
     PST:                      [    .  ]  URS:                      [    .  ]
     PDT:                      [    .  ]  RING:                     [    .  ]
     PER:                      [    .  ]  BUFFER:                   [    .  ]
     OTHER:                    [    .  ]  OTHER:                    [    .  ]
    CCIS INC RO:               [    .  ] Q.931 INC RO:              [    .  ]
     IAD:                      [    .  ]  IAD:                      [    .  ]
     CTO:                      [    .  ]  IE:                       [    .  ]
     OTHER:                    [    .  ]  RING:                     [    .  ]
    CCIS INW RO:               [    .  ]  BUFFER:                   [    .  ]
                               [       ]  OTHER:                    [    .  ]
                               [       ]                           [       ]
                                                    DIRECTORY[  ]   P[    ]
```

Figure 2. INCOMING

```
EF5   MSR PART 2 THRESHOLDS              DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [CONNECTING                  ]
   CONNECTING                            NO CIRCUIT
   TOT CONN RO:      #IS-FS+OS[    .   ] NO CIRCUIT:       OGFA-NCNM[       ]
    PTH HNT FL:                [    .   ]  NCIT:          IT OUTSZ+NC[       ]
    DP CR Q:                   [    .   ]  NCTC ADJUSTED: TC OUTSZ+NC[       ]
    MF XMTR Q:                 [    .   ] NC PBX                      [       ]
    CAMA OPER Q:               [    .   ] NC STC:                     [       ]
    CCIS CR Q:                 [    .   ] NC MAS:                  TA[       ]
    CCIS XCVR:                 [    .   ]                           [       ]
    MISC:                      [    .   ]                           [       ]
    2ND MFR FAIL:              [    .   ]                           [       ]
    DTMF CR Q:                 [    .   ]                           [       ]
    DTMF XMTR Q:               [    .   ]                           [       ]
    Q.931 CR Q:                [    .   ]                           [       ]
    MF ORIG Q:                 [    .   ]                           [       ]
    ISUP XCVR:                 [    .   ]                           [       ]
    ISUP CR Q:                 [    .   ]                           [       ]
                               [        ]                           [       ]
                               [        ]                           [       ]
                               [        ]                           [       ]
                               [        ]                           [       ]
                                                        DIRECTORY[  ]   P[    ]
```

Figure 3. CONNECTING AND NO CIRCUIT

```
EF5   MSR PART 2 THRESHOLDS              DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [OUTGOING                    ]
   OUTGOING                              OUTGOING
   TOTAL OUT RO:           OTS[    .  ]  TOT Q.931 OUT RO:       OTS[    .  ]
    UXS:                      [    .  ]   PBX RO:                    [    .  ]
    IKF:                      [    .  ]   RING:                      [    .  ]
    NSD:                      [    .  ]   BUFFER:                    [    .  ]
    XST:                      [    .  ]   OTHER:                     [    .  ]
    GLR:                      [    .  ]   GLR:                       [    .  ]
    OWF:                      [    .  ]                             [       ]
    ADC:                      [    .  ]                             [       ]
    CKF:                      [    .  ]                             [       ]
    CFD:                      [    .  ]                             [       ]
    SNF:                      [    .  ]                             [       ]
    MOE:                      [    .  ]                             [       ]
    CPF:                      [    .  ]                             [       ]
    RING:                     [    .  ]                             [       ]
    BUFFER:                   [    .  ]                             [       ]
    MISC:                     [    .  ]                             [       ]
                              [       ]                             [       ]
                              [       ]                             [       ]
                              [       ]                             [       ]
                                                        DIRECTORY[  ]   P[    ]
```

Figure 4. OUTGOING

```
EF5   MSR PART 2 THRESHOLDS             DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [VERT SVCS                  ]
   VERT SVCS                            LOST CALLS
   MAS RCDG ATT:            TA[    .  ] TRANSIENT:        #IS-FS+OS[    .  ]
    INV ATT:          RCDG ATT[    .  ]  PHASE:                     [    .  ]
   TSPC ATT:             IS-FS[    .  ]  HARDWARE:                  [    .  ]
    TSPC RO:            INC RO[    .  ]                             [    .  ]
     PST:               TSPC RO[    .  ]                             [    .  ]
     PER:                     [    .  ]                             [    .  ]
     PDT:                     [    .  ]                             [    .  ]
   TOTAL MAS ORIG RO:       OS[    .  ]                             [    .  ]
   TOTAL MAS TERM RO:       TA[    .  ]                             [    .  ]
   SDN BLKGS:           SDN ATT[    .  ]                             [    .  ]
   DSDC BLKGS:         DSDC ATT[    .  ]                             [    .  ]
   DAV BLKGS:           DAV ATT[    .  ]                             [    .  ]
   BBC BLKGS:           BBC ATT[    .  ]                             [    .  ]
                              [       ]                             [    .  ]
                              [       ]                             [       ]
                              [       ]                             [       ]
                              [       ]                             [       ]
                              [       ]                             [       ]
                              [       ]                             [       ]
                                                        DIRECTORY[  ]   P[    ]
```

Figure 5. VERTICAL SERVICES AND LOST CALLS

```
EF5   MSR PART 2 THRESHOLDS            DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [BILLING ERRORS            ]
BILLING ERRORS                         BILLING ERRORS
TOTAL BILLING ERR:          CC[    .  ] TOT ANI FAILURES:       ANI[    .  ]
 AMA CALL RCDS LOST:          [    .  ]  AIF:                      [    .  ]
 FREE CALLS:                  [    .  ]  AOF:                      [    .  ]
3B RCDS LOST:          3B SENT[    .  ]  ANF:                      [    .  ]
DIR SVCS NO SCAR:           DS[    .  ] CICR:                      [    .  ]
TOT ONI FAILURES:           CC[    .  ] INV NPA:                   [    .  ]
 CAMA POS DISC:               [    .  ] EA ANI FAILS DENIED: EA ANI[    .  ]
 CAMA OPER Q OVFL:            [    .  ] EA ANI FAILS ROUTED: EA ANI[    .  ]
 CAMA SZ TIMEOUT:             [    .  ]                            [       ]
 CAMA POS REPT:               [    .  ]                            [       ]
 CAMA POS TIMEOUT:            [    .  ]                            [       ]
CAMA OPER Q>5 SEC:            [    .  ]                            [       ]
                              [       ]                            [       ]
                              [       ]                            [       ]
                              [       ]                            [       ]
                              [       ]                            [       ]
                              [       ]                            [       ]
                              [       ]                            [       ]
                              [       ]                            [       ]
                                                        DIRECTORY[  ]   P[    ]
```

Figure 6. BILLING ERRORS

```
EF5   MSR PART 2 THRESHOLDS              DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [CUTOFF CALLS              ]
CUTOFF CALLS                            VACANT CODE
SW CUTOFF CALLS:               [    .  ] VC CAMA:                  CC[    .  ]
 PHASE:                        [    .  ]  MCA:                      [    .  ]
 HARDWARE:                     [    .  ]  UCA:                      [    .  ]
Q.931:                         [    .  ] VC NON CAMA:       IS-FS+0S[    .  ]
ISUP:                          [    .  ]  VCA:                      [    .  ]
CCIS RESET:             OGFA+TA[    .  ]  IWS:                      [    .  ]
CXR FAIL:                      [    .  ]  SCR:                      [    .  ]
                               [       ]  ORIG:                     [    .  ]
                               [       ]  OID:                      [    .  ]
                               [       ] CDS:                       [    .  ]
                               [       ] AT DOMSAT:                 [    .  ]
                               [       ] RCR:                       [    .  ]
                               [       ] Q.931 (PBX):               [    .  ]
                               [       ] TSPC:                      [    .  ]
                               [       ]                            [       ]
                               [       ]                            [       ]
                               [       ]                            [       ]
                               [       ]                            [       ]
                               [       ]                            [       ]
                                                        DIRECTORY[  ]   P[    ]
```

Figure 7. CUTOFF CALLS AND VACANT CODE

```
EF5   MSR PART 2 THRESHOLDS              DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [ABANDON                     ]
   ABANDON                               ABANDON
    FSA:                      IS[    .  ] OTHER:                     IS[    .  ]
     MF:                        [    .  ]  DP CR Q:                    [    .  ]
     DP:                        [    .  ]  CCIS ORIG CR Q:             [    .  ]
     DTMF:                      [    .  ]  MF ORIG Q:                  [    .  ]
    PDA:                        [    .  ]  DP ANI MF REC Q:            [    .  ]
     MF:                        [    .  ]  MISC:                       [    .  ]
     DP:                        [    .  ] Q.931 ABAN:                  [    .  ]
     DTMF:                      [    .  ] ISUP ABAN:                   [    .  ]
    MAB:                        [    .  ] TSPC ABAN:                   [    .  ]
     MF:                        [    .  ]                              [       ]
     DP:                        [    .  ]                              [       ]
     CCIS:                      [    .  ]                              [       ]
     MAS:                       [    .  ]                              [       ]
                                [       ]                              [       ]
                                [       ]                              [       ]
                                [       ]                              [       ]
                                [       ]                              [       ]
                                [       ]                              [       ]
                                [       ]                              [       ]
                                                      DIRECTORY[  ]   P[    ]
```

Figure 8. ABANDON

```
EF5    MSR PART 2 THRESHOLDS            DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
       INHIBIT ( )
   CATEGORY [REORDER-1 INTNL            ]
   REORDER-1 INTNL                      REORDER-1 INTNL
    C5 IS-FS:             %INC[    .  ]  INTERMACH OVFL REC:        [    .  ]
    C6 IS:                    [    .  ]  ATME:                      [    .  ]
    C7T IS:                   [    .  ]  TOTAL RO:         %INC+OGSZ[    .  ]
    C7I IS:                   [    .  ]   TOTAL INC RO:         %INC[    .  ]
    TSPC:                     [    .  ]    INTNL INC RO:      %INTNL[    .  ]
    IOC IS-FS:                [    .  ]     C5 INC RO:     %C5 IS-FS[    .  ]
    IDDD:                 %INB[    .  ]      PST:                   [    .  ]
    OPER:                     [    .  ]      PDT:                   [    .  ]
    ATME:                     [    .  ]      PSG:                   [    .  ]
   TOTAL TRANSIT:       %IS-FS[    .  ]      PER:                   [    .  ]
    C5 OGSZ:             %OGFA[    .  ]     C6 INC RO:        %C6 IS[    .  ]
    C6 OGSZ:                  [    .  ]      IAD:                   [    .  ]
    C7T OGSZ:                 [    .  ]      CTO:                   [    .  ]
    C7I OGSZ:                 [    .  ]     C7T IN RO:       %C7T IS[    .  ]
    INTERMACH OVFL SENT:      [    .  ]      IAD:                   [    .  ]
    TOTAL NC:                 [    .  ]      CTO:                   [    .  ]
    IDDD:                 %OUTB[    .  ]     C7I IN RO:       %C7I IS[    .  ]
    IOTC:                     [    .  ]      IAD:                   [    .  ]
    IOC IS-FS:                [    .  ]      CTO:                   [    .  ]
                                                        DIRECTORY[  ]   P[    ]
```

Figure 9. REORDER 1-INTNL

```
EF5   MSR PART 2 THRESHOLDS             DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [REORDER-2 INTNL            ]
   REORDER-2 INTNL                      REORDER-2 INTNL
     TSPC RO:            %TSPC[    .  ]   MISC:                    [    .  ]
      PST:                    [    .  ]   SNF:                     [    .  ]
      PDT:                    [    .  ]   GLR:                     [    .  ]
      PER:                    [    .  ]  C7T OUT RO:      %C7T OGSZ[    .  ]
     IOC RO:             %IOC[    .  ]   ATO:                     [    .  ]
      PST:                    [    .  ]   CKF:                     [    .  ]
      PDT:                    [    .  ]   MISC:                    [    .  ]
      PER:                    [    .  ]   SNF:                     [    .  ]
   TOT OUT RO:      %C5+C6OGSZ[    .  ]   IAM GLR:                 [    .  ]
    C5 OUT RO:        %C5 OGSZ[    .  ]   CCR GLR:                 [    .  ]
     GLR:                     [    .  ]  C7I OUT RO:      %C7I OGSZ[    .  ]
     NSD:                     [    .  ]   ATO:                     [    .  ]
     URS:                     [    .  ]   CKF:                     [    .  ]
    C6 OUT RO:        %C6 OGSZ[    .  ]   MISC:                    [    .  ]
     ATO:                     [    .  ]   SNF:                     [    .  ]
     CKF:                     [       ]   IAM GLR:                 [    .  ]
                              [       ]   CCR GLR:                 [    .  ]
                              [       ] TELECONF ATT(ITC)          [    .  ]
                              [       ] TOLL FREE ATT(I800)        [    .  ]
                                                    DIRECTORY[  ]   P[    ]
```

Figure 10. REORDER 2-INTNL

```
EF5   MSR PART 2 THRESHOLDS             DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [DIG RECEPT FAILS           ]
   DIG RECEPT FAILS                     DIG RECEPT FAILS
    C5 DRF:         %TOTAL DRF[    .  ]  IOC DRF:                  [    .  ]
     OPER:                     [    .  ]  ATME DRF:        %INB ATME[    .  ]
     IDDD:                     [    .  ]                           [    .  ]
     TRANSIT:                  [    .  ]                           [    .  ]
    C6 DRF:                    [    .  ]                           [    .  ]
     OPER:                     [    .  ]                           [    .  ]
     IDDD:                     [    .  ]                           [    .  ]
     TRANSIT:                  [    .  ]                           [    .  ]
    C7T DRF:                   [    .  ]                           [    .  ]
     OPER:                     [    .  ]                           [    .  ]
     IDDD:                     [    .  ]                           [    .  ]
     TRANSIT:                  [    .  ]                           [    .  ]
    C7I DRF:                   [    .  ]                           [    .  ]
     OPER:                     [    .  ]                           [    .  ]
     IDDD:                     [    .  ]                           [    .  ]
     TRANSIT:                  [       ]                           [    .  ]
    TSPC DRF:                  [       ]                           [    .  ]
     IOTC:                     [       ]                           [    .  ]
     IDDD:                     [       ]                           [    .  ]
                                                        DIRECTORY[  ]   P[    ]
```

Figure 11. DIG RECEPT FAILS

```
EF5   MSR PART 2 THRESHOLDS              DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [VACANT CODE-INTNL          ]
   VACANT CODE-INTNL                    ABANDON-INTNL
   TOTAL VC:          %INCOMING[    .  ] TOTAL ABANS:        %INC SZ[    .  ]
    TERM:             %TOT TERM[    .  ]  INTNL INC:%C5+C6+C7+IOC IS[    .  ]
     IDDD:                      [    .  ]   C5 ISA:            %C5 IS[    .  ]
     OPER:                      [    .  ]   C5 IA:                   [    .  ]
     INV LD:                    [    .  ]   C5 MISC:                 [    .  ]
     MAC BLK:                   [    .  ]   C6 ISA:            %C6 IS[    .  ]
    TRANSIT:         %TOT TRANS[    .  ]   C6 MISC:                 [    .  ]
     IDDD:                      [    .  ]   C7T ISA:          %C7T IS[    .  ]
     OPER:                      [    .  ]   C7T MISC:                [    .  ]
    TSPC:                 %TSPC[    .  ]   C7I ISA:          %C7I IS[    .  ]
     IDDD:                      [    .  ]   C7I MISC:                [    .  ]
     IOTC:                      [    .  ]  IOC:               %IOC IS[    .  ]
     DOM SAT:                   [    .  ]   IOC ISA:                 [    .  ]
    IOC:                   %IOC[    .  ]   IOC IA:                  [    .  ]
    ITC:                   %ITC[    .  ]   IOC MAB:                 [    .  ]
    C6 VNN:              %C6 IS[       ]                            [       ]
    C7T VNN             %C7T IS[       ]                            [       ]
    C7I                 %C7I IS[       ]                            [       ]
                               [       ]                            [       ]
                                                          DIRECTORY[   ]   P[    ]
```

Figure 12. VACANT CODE-INTNL AND ABANDON-INTNL

```
EF5   MSR PART 2 THRESHOLDS             DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [CONGESTION                ]
   CONGESTION                           CONGESTION
   TOTAL CONG:           %OGSZ[    .  ]  CCITT7 TUP:      %C7T OGSZ[    .  ]
    CCITT5:          %C5 OGSZ[    .  ]   SEC:                       [    .  ]
     BY FL OP:              [    .  ]   CGC:                       [       ]
     BY FL>OP:              [    .  ]   NNC:                       [       ]
    CCITT6:          %C6 OGSZ[    .  ]   LOS:                       [       ]
     SEC:                   [    .  ]   SSB:                       [       ]
     CGC:                   [    .  ]   CFL WFA:                   [       ]
     NNC:                   [    .  ]   CGC WFA:                   [       ]
     LOS:                   [    .  ]   NNC WFA:                   [       ]
     SSB:                   [    .  ]  CCITT7 INUP:     %C7I OGSZ[       ]
     SEC WFA:               [    .  ]   SEC:                       [       ]
     CGC WFA:               [    .  ]   NCA:                       [       ]
     NNC WFA:               [    .  ]   LOS:                       [       ]
                            [    .  ]   SSB:                       [       ]
                            [    .  ]   SEC WFA:                   [       ]
                            [    .  ]   NCA WFA:                   [       ]
                            [    .  ]   TMF WFA:                   [       ]
                            [    .  ]                              [       ]
                            [    .  ]                              [       ]
                                                    DIRECTORY[   ]  P[    ]
```

Figure 13. CONGESTION

```
EF5   MSR PART 2 THRESHOLDS            DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [SIGNALING IRREGS          ]
   SIGNALING IRREGS                    SIGNALING IRREGS
   C5 TOTAL:          %TOT IRR[    .  ] C7T TOTAL:         %C7T TOT[    .  ]
    IDLE:              %C5 IRR[    .  ]  IDLE TOTAL:       %C7T IRR[    .  ]
    INC <ANS:                  [    .  ]  INC <ANS:                  [    .  ]
    INC >ANS:                  [    .  ]  INC DISC:                  [    .  ]
    INC DISC:                  [    .  ]  OUT <ANS:                  [    .  ]
    OUT <ANS:                  [    .  ]  OUT DISC:                  [       ]
    OUT >ANS:                  [    .  ]  TRANS BUF OVFL:            [       ]
    OUT DISC:                  [    .  ]  RING FAIL:                 [       ]
    MISC:                      [    .  ] C7I TOTAL:         %TOT IRR[       ]
   C6 TOTAL:          %TOT IRR[    .  ]  IDLE TOTAL:       %C7I IRR[       ]
    IDLE:              %C6 IRR[    .  ]  INC <ANS:                  [       ]
   INC DISC:                   [    .  ]  INC DISC:                  [       ]
   OUT <ANS:                   [    .  ]  OUT <ANS:                  [       ]
   OUT DISC:                   [    .  ]  OUT DISC:                  [       ]
                               [       ]  TRANS BUF OVFL:            [       ]
                               [       ]  RING FAILS:                [       ]
                               [       ] ATME D/R:          %TOT IRR[       ]
                               [       ]                            [       ]
                               [       ]                            [       ]
                                                    DIRECTORY[   ]   P[    ]
```

Figure 14. SIGNALING IRREGS

```
EF5   MSR PART 2 THRESHOLDS              DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
      INHIBIT ( )
   CATEGORY [NO CIRCUIT-INTNL            ]
   NO CIRCUIT-INTNL                      1ST ATT FAILS
   TOTAL NC:              %OGFA[    .   ] C5 GLR:             %C5 OGSZ[    .   ]
    NCA:                    %NC[    .   ] C5 NSD:                     [    .   ]
    NM BLOCKED:                [    .   ] C5 OPLS FAIL:               [    .   ]
     CFB:               %NM BLK[    .   ] C6 GLR:             %C6 OGSZ[    .   ]
     CTB:                       [    .   ] C6 SNF:                     [        ]
     SDOCB:                     [    .   ] C7T GLR:           %C7T OGSZ[        ]
     STRB:                      [    .   ] C7I GLR:           %C7I OGSZ[        ]
   PEAK DAY NC DISC:        %NC[    .   ]                               [        ]
   NTC INTRMCH GP:        %SENT[    .   ]                               [        ]
   NSC INTRMCH GP:            [    .   ]                               [        ]
   2 MIN ANS TO:          %OGFA[    .   ]                               [        ]
                              [    .   ]                               [        ]
                              [        ]                               [        ]
                              [        ]                               [        ]
                              [        ]                               [        ]
                              [        ]                               [        ]
                              [        ]                               [        ]
                              [        ]                               [        ]
                              [        ]                               [        ]
                                                        DIRECTORY[   ]   P[    ]
```

Figure 15. NO CIRCUIT-INTNLS AND 1ST ATT FAILS

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4 ESS ON-SITE OPERATIONS REPORT
NETWORK SWITCHING PERFORMANCE MEASUREMENT PLAN
NSPMP-OFFICE REPORT-DOMESTIC

1. GENERAL

1.01 The Network Switching Performance Measurement Plan (NSPMP) is designed to assess the level of network switching performance as viewed from a 4 ESS switching office. It represents a composite view of the effectiveness of maintenance, administration & engineering forces.

1.02 The plan is based on data that is readily available from other sources such as Machine Service Report (MSR), Machine Performance Report (MPR), Machine Load & Service Summary (MLSS), Network Management display pages and various alarm and exception reports.

1.03 Data for this report is accumulated for DAILY, MONTH-TO-DATE, MONTHLY and PREVIOUS MONTH output.

2. HEADING

2.01 Retention code = Manual entry retention code for this report.

2.02 Report Period = Month and Year report data accumulated.

2.03 Reporting Office = CLLI code for office creating report.

2.04 Report Type = DAILY, MONTH-TO-DATE, MONTHLY or PREVIOUS MONTH.

2.05 Current Generic = Generic program residing in the switching machine.

Example: 4E<11>4B.14

SS<GG>LL.II

SS = MACHINE SYSTEM

GG = GENERIC LOAD

LL = DEVELOPMENT LOAD

II = CHANGE NOTICE NUMBER

2.06 Report = The word "SCHEDULED" will appear unless the report is a previous month report when the word "DEMAND" will appear.

2.07 NMDS/OSOR System Issue = NMDS/OSOR tape issue residing in the machine.

Example: 0886.0

MMYY.X

MM = MONTH

YY = YEAR

.X = NM TAPE DOT ISSUE

2.08 Date = Last data accumulation day included in a given report.

2.09 Time = Last data accumulation hour included in a given report.

2.10 NC DISC DAY = On daily reports only, a "Y" is printed if the report day has been pre-designated as a NO CIRCUIT DISCOUNT DAY or an "N" appears if the report day is NOT a discount day. On Month-To-Date and Monthly reports a "BLANK" will appear. AUTHORIZED NC DISCOUNT DAYS include New Years Day, Valentine Day, Easter Sunday, Mothers Day, Fathers Day, Thanksgiving Day, Christmas Eve Day, Christmas Day and New Years Eve Day. On these days extremely high NC failure rates historically are caused by heavy call volumes rather than by switching or network failures. For this reason, providing the authorized day has been predesignated via scheduling page EF1 (see Section 4A of TG4 Division 10 for NSPMP NC DISC DAY input instructions), NC failures will automatically be discounted from DAILY INDEX computations and excluded from MONTH-TO-DATE and MONTHLY NC accumulations.

2.11 DISC DAYS YTD = The number of NC discount days utilized YEAR-TO-DATE (number of days for which NC failures have automatically been removed from INDEX calculations). This number is internally limited to NINE per calendar year which equals the number of AUTHORIZED NC DISCOUNT DAYS/year.

3. REPORT COMPONENTS

3.01 NETWORK ELEMENT INDEX - One of two component categories used to compute a TOTAL INDEX. NETWORK ELEMENTS include FACILITY, NO CIRCUIT, VACANT CODE, ABANDONS, BILLING, VERTICAL SERVICE, INCOMING REORDER and OUTGOING REORDER.

3.02 INTERNAL ELEMENT INDEX - Second of two component categories used to compute a TOTAL INDEX. INTERNAL ELEMENTS include CONNECTING REORDER, BILLING, VERTICAL SERVICE, SWITCHING CUTOFF CALL & TRANSIENT LOST CALL.

3.03 FAILURE COUNT - Accumulated count of events over the report period - If the count value exceeds 4,000,999 the data is converted to thousands as indicated by a "K" adjacent to the count field.

3.04 PERFORMANCE RATIO - FAILURE COUNTS divided by appropriate BASE COUNTS normalized to a PER TEN THOUSAND level.

3.05 PERFORMANCE OBJECTIVE - This item is used only on pages 3 through 5 of the REPORT. "PERF OBJ" is a predetermined FAILURE RATIO equal to 95.5% INDEX POINT achievement. This also equates to the lowest "O" BAND performance level. Failure Ratios HIGHER than the PERF OBJ will result in less than 95.5% INDEX POINT achievement ("L" BAND) while Failure Ratios LOWER than the PERF OBJ will result in greater than 95.5% INDEX POINT achievement ("O" or "H" BAND). The Performance Objective values maybe modified using the Display Page EF08 (see Section 4d).

3.06 THRESHOLD INDICATOR - PAGE 1 of the REPORT: DAILY REPORT = Shows the NUMBER of ITEMS achieving LESS THAN 95.5% INDEX POINTS (OBJECTIVE THRESHOLD) within a given NETWORK or INTERNAL ELEMENT. MONTH-TO-DATE REPORT = Shows the NUMBER of DAYS during the report month when ONE OR MORE ITEMS within a given ELEMENT has achieved LESS THAN 95.5% INDEX POINTS. MONTH-TO-DATE and DAILY reports also show with a single asterisk immediately to the right of the NUMBER whether one or more ITEMS within that ELEMENT has achieved LESS THAN 47.75% INDEX POINTS.

3.07 THRESHOLD INDICATOR - Pages 3 through 5 of the REPORT: DAILY and MONTH TO DATE REPORTS = Shows ONE ASTERISK if the achieved INDEX POINT value is LESS THAN 95.5% but EQUAL TO or MORE THAN 47.75% for any ITEM within an ELEMENT. Shows TWO ASTERISKS if the achieved INDEX POINT value is LESS THAN 47.75% for any ITEM within an ELEMENT.

3.08 COMPUTED INDEX - The ratio of ACHIEVED INDEX POINTS to MAXIMUM ACHIEVABLE INDEX POINTS normalized to a per 100 (%) level.

3.09 MAX POINTS - The MAXIMUM ATTAINABLE POINT VALUE for any ELEMENT or ITEM performing at a 100% achievement level.

3.10 INDEX POINTS - The ACHIEVED INDEX POINT VALUE for an ELEMENT or ITEM.

3.11 BAND - The ALPHA CHARACTER representing OVERALL performance of an ELEMENT or FAMILY OF ELEMENTS: "H" BAND = attainment of AT LEAST 98.5% of max available points, "O" BAND = attainment of LESS THAN 98.5% but EQUAL TO or GREATER THAN 95.5% of max available points and "L" BAND = attainment of LESS THAN 95.5% of max available points.

3.12 TOTAL INDEX - THE sum of RESULTS from NETWORK ELEMENTS and INTERNAL ELEMENTS providing an overall BANDING CHARACTER of "H", "O" or "L".

3.13 REVENUE IMPACT - This function will show the effect of CATEGORY/ELEMENT failures on REVENUE and is currently under development.

4. MAINTENANCE LEVEL INDICATORS

Measurements which identify POTENTIAL service affecting problems.

4.01 SOFTSPOT STATUS - A summary of the softspot status for the four major MAINTENANCE CATEGORIES shown on page two. A number will be shown indicating how many of a maximum number of items in each CATEGORY have equaled or exceeded a preset THRESHOLD VALUE.

4.02 MEDIAN - An AVERAGE performance level determined from historical data.

4.03 THRESHOLD - A changeable performance level which generates a SOFTSPOT FLAG when equaled or exceeded. The THRESHOLD values maybe modified using the Display Page EF08 (see Section 4d).

4.04 TOTAL PERFORMANCE - SOFTSPOT STATUS - The number of performance indicators of the total number of performance indicators which have scored an asterisk (*) in the SOFTSPOT window.

5. BASE DATA COUNTS

5.01 Call specific data used as denominators for failure ratio calculations or data provided for informational purposes.

6. REPORT SCHEDULING

6.01 The NSPMP report has been split into two scheduling entities. An ABBREVIATED ("NSPMPA" on scheduling page EF1) 2 page summary report consisting of only pages 1 & 2 and a TOTAL ("NSPMPT" on scheduling page EF1) five page detailed report. BOTH report types are available on a DAILY and MONTH-TO-DATE basis as well as on a PREVIOUS MONTH (demand) basis.

7. DATA FORMULAS

7.01 THE contents of each of the MAJOR CATEGORIES shown on page one under NETWORK ELEMENTS, INTERNAL ELEMENTS and MAINTENANCE LEVEL INDICATORS are shown individually as indented ITEMS under those same categories on pages two through five. Contents of each ITEM is described in detail in TABLE A, TABLE

B or TABLE C respectively.

8. ACRONYMS

8.01 See Div. 10 Sec. 4a GLOSSARY in this TRANSLATION GUIDE for definitions of the acronyms used in OSOR reports.

TABLE A

NSPMP NETWORK ELEMENTS
CATEGORY FORMULAS

CATEGORY		FORMULA
FACILITY TOT		
SLIPS	=	SUM OF ALL DIGROUP SLIPS ON A TOTAL OFFICE BASIS. (NOTE: THIS COUNT NOT AFFECTED BY INIT:DGSTAT MESSAGES)
OOF'S	=	SUM OF ALL DIGROUP OUT-OF-FRAME COUNTS ON A TOTAL OFFICE BASIS. (NOTE: THIS COUNT NOT AFFECTED BY INIT:DGSTAT MESSAGES)
CXR FAIL	=	CALLS LOST DUE TO CARRIER FAILURES.
	***	(NOTE: ALL FACILITY RATIOS ARE PER 10K OGFA+TA)
NO CKT TOT		
NM BLKD	=	CANCEL FROM + CANCEL TO + SPRAY REROUTE + SELECTIVE DYNAMIC OVERLOAD CONTROL + SELECTIVE TRUNK RESERVATION + CALL GAPPING + INWATS CODE CONTROL + TRUNK SUB-GROUP ACCESS RESTRICTION. (DNHR BLOCKAGES INCLUDED)
NCIT	=	NO CIRCUIT INTERTOLL.
NCTC ADJ	=	NO CIRCUIT TOLL CONNECTING/COMPLETING MINUS THE OVER-FLOW FROM TRUNK SUB-GROUPS LISTED ON EF7 NM DISPLAY PAGE.
STC	=	NO CIRCUIT TO A SINGLE TRUNK CUSTOMER.
MAS	=	NO PATH TO A MAS ANNOUNCEMENT ON A DEDICATED TSI.
PBX	=	NO CIRCUIT TO A PBX CUSTOMER LOCATION.
	***	(NOTE: ALL NO CIRCUIT RATIOS ARE PER 10K OGFA)
VC TOT		
CAMA	=	MISROUTED CAMA + UNAUTHORIZED CAMA.
NON CAMA	=	INWATS & OUTWATS SCREENING + GO-NO-GO SCREENING + ORIGINATING VC + ORIGINATING INWATS DENIED + ACCESS TANDEM CALL WITH SATELLITE INCOMING TRUNK + TWO STAGE DOM/INTNL CUSTOMER/OPERATOR DIALED VC.
CDS	=	CALL DENIAL SCREENING.
RCR	=	ROUTING CATEGORY RESTRICTED.
Q.931	=	VC INDICATION RECEIVED FROM A PBX LOCATION SERVED BY Q.931 TRUNKS.
	***	(NOTE: ALL VC RATIOS ARE PER 10K DOM IS-FS+OS)
ABANDONS TOT		
PDA	=	MF + DP + DTMF PARTIAL DIAL ABANDONS.
MAB	=	MF + DP + CCIS + MAS MISCELLANEOUS ABANDONS.
OTHER	=	MF ORIGINATING Q + DP CR Q + CCIS CR Q + DP ANI MF REC Q ABANDONS.
ISUP	=	ISDN USER PART ABANDONS.
TSPC	=	TWO STAGE PULSING CALL ABANDONS (DOMESTIC ONLY)

TABLE A (CONTINUED)

NSPMP NETWORK ELEMENTS
CATEGORY FORMULAS

CATEGORY		FORMULA
ABANDONS - (CONTINUED)		
Q.931	=	ABANDONS OCCURRING ON Q.931 INCOMING TRUNKS.
	***	(NOTE: ALL ABANDON RATIOS ARE PER 10K IS-FS)
BILLING TOT		
ONI FAIL	=	CAMA POSITION DISCONNECT + CAMA OPERATOR QUEUE OVERFLOW + CAMA POSITION SEIZURE TIME-OUT + CAMA POSITION REPORT + CAMA POSITION TIMEOUT.
ANI FAIL	=	AUTOMATIC NUMBER IDENTIFICATION FAIL IN LOCAL OFFICE + AUTOMATIC NUMBER IDENTIFICATION OFFICE FAILURE + AUTOMATIC NUMBER FAILURE (BAD BILLING NUMBER DIGITS).
EA ANI FAIL	=	ANI FAIL ON EQUAL ACCESS INCOMING TRUNK.
EANR	=	UNEXPECTED ANI RECEIVED ON EA CALL NOT REQUIRING ANI.
	***	(NOTE: ALL BILLING RATIOS ARE PER 10K CC + EA ANI ATT)
VERT SVC TOT		
MAS ORIG RO	=	ABORTED CALLBACK TO DIRECT PRODUCER.
MAS TERM RO	=	PAS ANSWER NOT SENT DUE TO CCIS CONGESTION + DIR PROD UPDATE; MAS HARDWARE PRE RCDG REPORT TIME OUT + MAS RCDG UPDATE; FRAME OUT OF SERVICE + MAS RCDG UPDATE; MAS HARDWARE RCDG COMPLETE TIME OUT + MAS RCDG UPDATE; DEFERRED RETURN TIME OUT + MAS RCDG UPDATE; HARDWARE DUPLEX FAILED + MAS RCDG UPDATE; OPERATIONAL PROBLEM + MAS RCDG UPDATE; MAS DISK OVERFLOW + PAS FAIL; LOOPING THROUGH TRANSLATE ALL DIGITS + MAS TERMINATING NC + PAS FAIL; NO VACANT ANNOUNCEMENT + PAS FAIL; MAS HARDWARE DUPLEX FAILED + PAS FAIL; PHASING REPORT TIME-OUT.
TSPC RO	=	TWO STAGE PULSING CALL PST + PER + PDT. NOTE: AT NON-ISC OFFICES BOTH DOMESTIC FAILS AND INTERNATIONAL OUTBOUND FAILS ARE INCLUDED; AT ISC OFFICES, ONLY DOMESTIC FAILS ARE SHOWN.
SDN BLKGS	=	SOFTWARE DEFINED NETWORK BLOCKAGE DUE TO OVERLOAD AT NCP + NOC CONTROLS + DIRECT SIGNALING MESSAGE FAILURE + ISUP RESET MESSAGE RECEIVED + ISUP LOOP ACKNOWLEDGEMENT FAIL ON CONTINUITY RECHECK.
DSDC BLKGS	=	DIRECT SERVICES DIALING CAPABILITY BLOCKAGE DUE TO DSDC MAS CALLING + OVERLOAD AT NCP + NOC CONTROLS + DIRECT SIGNALING MESSAGE FAILURE + NCP RESPONSE TIME-OUT + SIGNALING LINK FAILURE OR CONGESTION + DIRECT SIGNALING NETWORK BLOCKAGE + Q ON BUSY LIMIT REACHED + SUBSEQUENT LEG REHUNT NOT ALLOWED ON MEET-ME TELECONFERENCE CALL + SUBSEQUENT CALL NOT COMPLETE WHILE HUNTING FOR AN NSC FOR A MEET-ME TELECONFERENCE CALL.

TABLE A (CONTINUED)

NSPMP NETWORK ELEMENTS
CATEGORY FORMULAS

CATEGORY		FORMULA
VERT SVC - (CONTINUED)		
BBC BLKGS	=	BROADBAND CAPABILITY (6 AND 24 CIRCUIT) BLOCKAGES DUE TO ILLEGAL DATA ASSOCIATED WITH MASTER TRUNK + NETWORK PATH HUNT RESERVATION FAILURE FOR EITHER MASTER OR SLAVE TRUNK + INCOMING SLAVE TRUNK FOUND BUSY DURING SETUP ACTIONS.
	***	(NOTE: ALL VERTICAL SERVICE RATIOS ARE PER 10K VERTICAL SERVICE INCOMING ATTEMPTS)
TOT INC RO		
MF	=	MULTIFREQUENCY PERMANENT SIGNAL TIME-OUT + PARTIAL DIAL TIME-OUT + PULSING ERROR.
DP (ADJ)	=	DIAL PULSE PERMANENT SIGNAL TIME-OUT + PARTIAL DIAL TIME-OUT + PULSING ERROR + EARLY DIGIT RECEIVED + INCOMING WORKLIST FULL + 8th DIGIT RECEIVED WITH NO CR ATTACHED. NOTE: THE "(ADJ)" CONNOTATION IS INCLUSIVE OF A 2 PULSE IMMEDIATE START INCOMING SEIZURE DISCOUNT (COMMONLY KNOWN AS THE "CAMA" DISCOUNT) AND/OR A 2 DUAL-TONE MULTIFREQUENCY DIAL TONE START DIAL PULSE INCOMING SEIZURE DISCOUNT WHERE APPLICABLE.
CCS6	=	CCIS INCOMPLETE ADDRESS DETECTED + CONTINUITY TIMEOUT.
CCS6 INW	=	NO AUX CALL REGISTER + DATA BASE QUERY TIME-OUT + DATA BASE OVERLOAD + CCS6 DIRECT SIGNALING CONTROL + CCS6 NETWORK BLOCKAGE + CCS6 NETWORK CONGESTION + CCS6 SIGNALING LINK CONGESTION + DATA BASE REPLY OF NO INW TRANSLATION DATA.
DTMF	=	DUAL TONE MULTIFREQUENCY PERMANENT SIGNAL TIME-OUT+ PARTIAL DIAL TIME-OUT + PULSING ERROR + GREATER THAN 10 DIGITS RECEIVED WHILE IN CALL SET-UP STATE.
ISUP	=	ISDN USER PART INCOMPLETE ADDRESS DETECTED + CONTINUITY CHECK TIME-OUT + UNREASONABLE SIGNAL RECEIVED + CNI RING BLOCKED CALLS + CNI RING BUFFER OVERFLOW BLOCKED CALLS + INVALID CALL PARAMETER + INVALID CALL CAPABILITY + INVALID TRUNK STATE + INVALID IAM LENGTH.
Q.931	=	INCOMPLETE ADDRESS DETECTED + MISSING OR INVALID INFORMATION ELEMENT + CNI RING BLOCKED CALLS + CNI RING BUFFER OVERFLOW + OUT-OF-SEQUENCE OR INCORRECT OR INVALID MESSAGE RECEIVED WHILE IN INCOMING CALL STATE.
	***	(NOTE: ALL INCOMING RO RATIOS ARE PER 10K IS-FS)
TOT OUT RO		NOTE: ALL OUT RO COUNTS ARE "FINAL TRIAL" OCCURRENCES.
UXS	=	UNEXPECTED STOP ENCOUNTERED DURING OUTPULSING.
IKF	=	INTEGRITY CHECK FAILURE.
NSD	=	NO START DIAL SIGNAL RECEIVED.

TABLE A (CONTINUED)

NSPMP NETWORK ELEMENTS
CATEGORY FORMULAS

CATEGORY		FORMULA
OUT RO - (CONTINUED)		
XST	=	EXPECTED STOP-GO TIME-OUT ENCOUNTERED.
GLR	=	GLARE WITH FAR END CONTROLLING TRUNK.
OWF	=	DIAL PULSE OUTPULSING WORKLIST FULL.
ADC	=	ADDRESS COMPLETE SIGNAL TIME-OUT.
CKF	=	CONTINUITY CHECK FAILURE.
CFD	=	CALL FAILURE DETECTED.
SNF	=	SIGNALING NETWORK FAILURE.
MOE	=	MF TRANSMITTER OUTPULSING ERROR.
CPF	=	CONTINUITY POLARITY FAILURE.
MISC	=	MISCELLANEOUS ACCESS TANDEM POST ACKNOWLEDGEMENT WINK TIME-OUT + 2nd STAGE DIGIT REQUEST FROM A PBX.
RT OVLD	=	CALLS BLOCKED DUE TO REAL TIME OVERLOAD CONTROL.
CAMA OPER Q	=	CAMA OPERATOR ANSWER TIME GREATER THAN 5 SECONDS.
Q.931	=	GLARE + CONFUSED STATE + PBX REORDER ANNOUNCEMENT + UNREASONABLE SIGNAL RECEIVED + REHUNT LIMIT REACHED + SERVICE MESSAGE RECEIVED DURING CALL SETUP.
	***	(NOTE: ALL OUT RO RATIOS ARE PER 10K OTS)

TABLE B

NSPMP INTERNAL ELEMENTS
CATEGORY FORMULAS

CATEGORY		FORMULA
TOT CONN RO		NOTE: ALL CONN RO COUNTS ARE "FINAL TRIAL" OCCURRENCES.
PTH HNT FL	=	PATH HUNT FAILURES.
DP CR Q	=	DIAL PULSE CALL REGISTER QUEUE OVERFLOW.
MF XMTR Q	=	MULTIFREQUENCY TRANSMITTER QUEUE OVERFLOW.
CCS6 CR Q	=	CCS6 CALL REGISTER QUEUE OVERFLOW.
CCS6 XCVR	=	CCS6 TRANSCEIVER NOT AVAILABLE FOR COT CHECK.
RING	=	ISUP AND Q.931 INCOMING/OUTGOING CNI RING FAIL BLOCKAGES.
BUFFER	=	ISUP AND Q.931 INCOMING/OUTGOING CNI BUFFER OVERFLOW.
MISC	=	NO 2nd RECEIVER FOUND ON A DP ANI CALL + UNABLE TO MAKE CONNECTION TO 2nd MF RECEIVER ON MF CALL + 2nd MF TRANSMITTER NOT FOUND AFTER NETWORK FAIL + CCITT5 2nd NO RECEIVER FOUND FAILURE + EA OUTWATS NO SCAR AVAILABLE.
2nd MFR FL	=	TWO STAGE 2nd MF RECEIVER NOT FOUND.
DTMF CR Q	=	DUAL TONE MULTIFREQUENCY CALL REGISTER QUEUE OVERFLOW.
DTMF XMTR Q	=	DUAL TONE MULTIFREQUENCY TRANSMITTER QUEUE OVERFLOW.
MF ORIG Q	=	MULTIFREQUENCY ORIGINATION QUEUE OVERFLOW.
ISUP XCVR	=	ISDN USER PART TRANSCEIVER NOT AVAILABLE FOR COT CHECK.
ISUP CR Q	=	ISDN USER PART CALL REGISTER QUEUE OVERFLOW.
Q.931 CR Q	=	Q.931 CALL REGISTER QUEUE OVERFLOW.
	***	(NOTE: ALL CONNECTING RO RATIOS ARE PER 10K DOMESTIC + INTERNATIONAL IS-FS+OS)
TOT BILLING		
AMA RCD LST	=	AUTOMATIC MESSAGE ACCOUNTING RECORD LOST.
FREE CALLS	=	FREE CALLS DUE TO ONI SUSPENSION BEING ACTIVE.
3B RCD LOST	=	3B PROCESSOR BILLING RECORD LOST.
	***	(NOTE: ALL BILLING RATIOS ARE PER 10K CAMA CALLS + EA ANI CALLS)
TOT VERT SVC		
T/C INC SVC	=	ICREJ + ICNANI + ICTR + ICDSU + ICAB + ICDB + ICLEV2 + ICSOFT INCOMING FAILS DETECTED BY THE TELECONFERENCING FRAME.
		SEE 3B OUTPUT "MSR T/C FRAME REPORT" FOR DETAILS.

TABLE B (CONTINUED)

NSPMP INTERNAL ELEMENTS
CATEGORY FORMULAS

CATEGORY		FORMULA
VERT SVC - (CONTINUED)		
T/C OUT SVC	=	OGTR + OGDSU + OGAB + OGDB + OGLEV2 + OGSOFT + LLP + CCTR + CCDSU + CCAB + CCDB + CCLEV2 + CCSOFT OUTGOING FAILS DETECTED BY THE TELECONFERENCING FRAME.
		SEE 3B OUTPUT "MSR T/C FRAME REPORT" FOR DETAILS.
DSD SVC	=	ICREG + ILLANN + INVCMD + INVDTA FAILS DETECTED BY THE DIRECT SERVICES DIALING CAPABILITY FRAME.
		SEE 3B OUTPUT "MSR DSD FRAME REPORT" FOR DETAILS.
	***	(NOTE: ALL VERTICAL SERVICE RATIOS ARE PER 10K T/C + DSD FRAME ATTEMPTS)
SW CUTOFFS		
PHASE	=	ESTABLISHED CALLS LOST DUE TO PHASES.
HARDWARE	=	ESTABLISHED CALLS LOST DUE TO VOICE INTERFACE UNIT + DIGROUP TERMINAL + ECHO SUPPRESSOR UNIT + DIGITAL INTERFACE UNIT + MAS UNIT FAILURES.
	***	(NOTE: SWITCHING CUTOFF RATIOS ARE PER 10K DOMESTIC AND INTERNATIONAL ANSWERED CALLS)
TRANS LOST		
PHASE	=	TRANSIENT CALLS LOST DUE TO PHASES.
HARDWARE	=	TRANSIENT CALLS LOST DUE TO VOICE INTERFACE UNIT + DIGITAL INTERFACE UNIT + MAS UNIT + DIGROUP TERMINAL UNIT + ECHO SUPPRESSOR UNIT FAILURES.
	***	(NOTE: ALL TRANSIENT RATIOS ARE PER 10K DOMESTIC + INTERNATIONAL IS-FS+OS)

TABLE C

MAINTENANCE LEVEL INDICATORS
CATEGORY FORMULAS

CATEGORY		FORMULA
1A PERFORMANCE		
PHASE 1 & 2	=	AUTO + MANUAL PHASE 1's AND PHASE 2's.
PHASE 3	=	AUTO + MANUAL PHASE 3's.
PHASE 4	=	MANUAL PHASE 4's.
TOTAL PHASE DUR	=	TOTAL PHASE DURATION IN SECONDS FOR ALL PHASES AUTO AND MANUAL.
INTERRUPTS	=	SINGLE (A, B, C, D, E, F & K) + MULTIPLE (A, B, C, D, E & F) INTERRUPTS.
AUDIT ERRORS	=	SYSTEM + OPERATIONAL PROGRAM + MANUAL REQUEST + MAINTENANCE PROGRAM AUDIT ERRORS.
	***	(NOTE: INTERRUPT & AUDIT ERROR RATIOS ARE PER 10K IS-FS)
3B PERFORMANCE		
3B INITIALIZATIONS	=	SUM OF HARDWARE AUTO, SOFTWARE AUTO AND MANUAL INITIALIZATIONS AT ALL LEVELS AS SHOWN ON 3B "OP PMCR" REPORT PART 1.
3B FAULTS	=	SUM OF EQUIPMENT FAULTS FOR "CU", "DFC" AND "MHD" AS SHOWN ON 3B "OP PMCR" REPORT PART 1, PAGE 2.
3B ERRORS	=	SUM OF EQUIPMENT ERRORS FOR "CU", "DFC" AND "MHD" AS SHOWN ON 3B "OP PMCR" REPORT PART 1, PAGE 2.
3B INTERRUPTS	=	SUM OF "0", "1" AND "2" LEVEL INTERRUPTS AS SHOWN ON 3B "OP PMCR" REPORT PART 1, PAGE 1.
3B AUDIT ERRORS	=	SUM OF AUDIT ERRORS FOR ALL EQUIPMENT TYPES SHOWN ON "OP PMCR" REPORT PART 1, PAGE 1.
	***	(NOTE: 3B INTERRUPT & AUDIT ERROR RATIOS ARE PER 10K IS-FS)
MISC EQUIP PERFORMANCE		
COMMON EQUIP FAULTS	=	CC + PS + CS + MCC + API + PCD + DUS + TUC + AUB + PSB + CSB + PUB + IOUS + IOUC + TMSP + TSI + NC + SC + CCS6 TGC + CCS6 TER + SP + VIC + VIU + DTC + DTU + ESC + ESU + DIC + DIU + NCSU + PUC + MAU FAULTS.
COMMON EQUIP ERRORS	=	CC + PS + + CS + MCC + API + PCD + DUS + TUC + AUB + PSB + CSB + PUB + IOUS + IOUC + TMSP + TSI + NC + SC + CCS6 TGR + CCS6 TER + SP + VIC + VIU + DTC + DTU + ESC + ESU + DIC + DIU + NCSU + PUC + MAU ERRORS.
NETWK TERM EQ FAULTS	=	MF RECEIVER + MF TRANSMITTER + CCS6 TRANSCEIVER FAULTS + TRUNK OOS-ROTL + TRUNK OOS-OPERATOR TEST FAIL + TRUNK OOS-ERROR ANALYSIS FAIL + ROTL & 105 RESPONDER SELF CHECK FAIL + MF RECEIVER & TRANSMITTER TEST SET SELF CHECK FAIL + COMMON SYSTEM TONE DETECTOR LOCATED FAULT.

TABLE C (CONTINUED)

MAINTENANCE LEVEL INDICATORS
CATEGORY FORMULAS

CATEGORY		FORMULA
MISC EQUIP PERFORMANCE - (CONTINUED)		
NETWK TERM EQ ERRORS	=	DOMESTIC + INTNL TRUNK ERROR ANALYSIS REPORTS.
	***	(NOTE: COMMON EQUIPMENT FAULTS & ERRORS AND NETWORK TERMINATED EQUIPMENT FAULTS & ERRORS RATIOS ARE PER 10K DOM + INTNL IS-FS+OS)
DSD/TC FRAME EQ PERF	=	SUM OF "ALRM I", "ALRM J", "AUDA" AND "AUDM" DATA FOR T/C AND/OR DSD FRAMES AS SHOWN ON "MPR T/C" AND/OR "MPR DSD" REPORTS.
	***	(NOTE: DSD/TC FRAME EQ PERF RATIO IS PER 10K DSD+T/C FRAME ATTEMPTS)
CNI RING OUTAGE(SEC)	=	TOTAL NUMBER OF "RING DOWN" SECONDS AS SHOWN ON "SMR AMPRHR" RING REPORT (RING PERF CATEGORY).
CCS PERFORMANCE		
CCS6 CHANGEOVERS	=	VFL1 & 2 NEAR & FAR END INITIATED AUTOMATIC CHANGEOVERS.
CCS6 EXCEPT REPTS	=	VFL1 & 2 RETRANSMISSION REQUESTS + SIGNAL UNITS IN ERROR + REPEATED ACU RECEIVED + SKIPPED ACU RECEIVED + BUFFER OVERLOAD THRESHOLD EXCEEDED + BUFFER OVERFLOWS.
CCS6 RESTARTS	=	CCS6 EMERGENCY RESTARTS.
CCS6 RESET	=	CCS6 RESET MESSAGES RECEIVED.
	***	(NOTE: CCS6 RATIOS ARE PER 10K CCS6 IS)
CCS7 CHANGEOVERS, EXCEPTION REPORTS AND RESTARTS	=	COUNTS PARALLEL TO HISTORIC CCS6 SIGNALING DATA (OR THEIR EQUIVALENT) AS SHOWN ON RING REPORT "SMR ASNPR1 HR".
CCS7 RESET	=	CCS7 RESET MESSAGES RECEIVED.
	***	(NOTE: CCS7 RATIOS ARE PER 10K ISUP IS)
Q.931 CHANGEOVERS, EXCEPTION REPORTS AND RESTARTS	=	COUNTS PARALLEL TO HISTORIC CCS6 SIGNALING DATA (OR THEIR EQUIVALENT) AS SHOWN ON RING REPORT "SMR ASNPR1 HR".
Q.931 RESET	=	Q.931 RESET MESSAGES RECEIVED.
	***	(NOTE: Q.931 RATIOS ARE PER 10K Q.931 IS)

TABLE D

BASE DATA COUNTS

DOM IS	=	DOMESTIC INCOMING SEIZURES.
DOM FS	=	DOMESTIC FALSE STARTS.
DOM IS-FS	=	DOMESTIC INCOMING SEIZURES - FALSE STARTS.
DOM IS-FS+OS	=	DOMESTIC INCOMING SEIZURES MINUS FALSE STARTS PLUS ORIGINATING SEIZURES.
DOM+INTNL IS-FS+OS	=	DOMESTIC PLUS INTERNATIONAL INCOMING SEIZURES MINUS FALSE STARTS PLUS ORIGINATING SEIZURES.
DOM OTS	=	DOMESTIC OUTGOING TRUNK SEIZURES.
DOM OGFA	=	DOMESTIC OUTGOING FINAL ATTEMPTS.
DOM OS	=	DOMESTIC ORIGINATING SEIZURES.
DOM TA	=	DOMESTIC TERMINATING ATTEMPTS.
DOM TCC	=	DOMESTIC TOTAL CALLS COMPLETED.
DOM + INTNL TCC	=	DOMESTIC PLUS INTERNATIONAL TOTAL CALLS COMPLETED.
TOT CAMA CALLS (CC)	=	TOTAL CAMA ORIGINATED CALLS.
TOT ANI CALLS	=	CAMA CALLS WITH AUTOMATIC NUMBER IDENTIFICATION.
TOT ONI CALLS	=	OPERATOR NUMBER IDENTIFIED CAMA CALLS PLUS ANI CALL FAILURES ROUTING TO AN OPERATOR FOR COMPLETION.
TOT ANS CALLS	=	SUCCESSFULLY OUTPULSED INTERNATIONAL PLUS DOMESTIC CALLS MINUS UNANSWERED CALLS.
BBC ATT(6+24)	=	BROADBAND CAPABILITY ATTEMPTS. INCLUDES 6 (384kb) AND 24 (1536 kb) CIRCUIT ATTEMPTS).
BBFP	=	BLUEBOX FRAUD PREVENTION BLOCKED CALLS.
CC+EA ANI ATT	=	CAMA CALLS PLUS EQUAL ACCESS ANI ATTEMPTS.
DISCOUNT NC (EF7)	=	AUTHORIZED TRUNK SUBGROUP OVERFLOW WHICH IS AUTOMATICALLY DEDUCTED FROM NCTC DATA. AUTHORIZED TRUNK SUBGROUPS ARE ENTERED VIA NETWORK MANAGEMENT DISPLAY PAGE EF7 USING A NETWORK MANAGEMENT TERMINAL.
DSDC+T/C FRAME ATT	=	DIRECT SERVICES DIALING ATTEMPTS PLUS TELECONFERENCE ATTEMPTS AS DETERMINED BY THEIR RESPECTIVE FRAMES.
EA ANI ATT	=	EQUAL ACCESS ANI ATTEMPTS.
ISUP ATT	=	ISDN USER PART INCOMING ATTEMPTS (CCS7).
NCD BLKD CALLS	=	NETWORK CALL DENIAL BLOCKED CALLS.
Q.931 INC ATT	=	Q.931 INCOMING ATTEMPTS.
SDN INC ATT	=	SOFTWARE DEFINED NETWORK INCOMING ATTEMPTS.
SWITCHED MINUTES	=	USAGE IN HUNDRED CALL SECONDS (CCS) FOR SWITCHED CALLS REACHING A "WAITING FOR ANSWER" STATE.

TABLE D (CONTINUED)

BASE DATA COUNTS

TSPC ATT	=	TWO STAGE PULSING CALL ATTEMPTS. NOTE: INCLUDES BOTH DOMESTIC AND INTERNATIONAL TSPC INCOMING ATTEMPTS AT DOMESTIC ONLY OFFICES AND CONTAINS ONLY DOMESTIC TSPC INCOMING ATTEMPTS AT ISC OFFICES.
VERT SVC ATT	=	PAS TERMINATING ATT + DIRECT PRODUCER ATT + SDN ATT + BBC6 ATT + BBC24 ATT + DSD ATT + TSPC ATT. NOTE: INCLUDES BOTH DOMESTIC AND INTERNATIONAL TSPC INCOMING ATTEMPTS AT DOMESTIC ONLY OFFICES AND CONTAINS ONLY DOMESTIC TSPC INCOMING ATTEMPTS AT ISC OFFICES.
3B RECORDS SENT	=	AMA RECORDS SENT FROM THE 1A TO THE 3B PROCESSOR.
CCIS INC CALLS	=	COMMON CHANNEL INTEROFFICE SIGNALING INCOMING CALLS.

```
REPT: NSPMP - OFFICE REPORT - DOMESTIC    FORM E6976A  RET. CODE __-_____
                  4ESS NETWORK SWITCHING PERFORMANCE MEASUREMENT PLAN
                                PAGE 1 OF $

     REPORT PERIOD: $@@@@@@@@ $@@@          REPORTING OFFICE:  $@@@@@@@@@@@@@@
     REPORT TYPE:   $@@@@@@@@@@@@@@         CURRENT GENERIC:   $@@@@@@@@@@@@@@
     REPORT:        $@@@@@@@@               NMDS/OSOR SYS ISS: $@@@@@
     DATE AND TIME: $@@@@@@@  $@@@          NC DISC DAY ($) DISC DAYS YTD ($)

     SVC QUALITY     FAIL_CNT   PER_R         TI   C_INDX MPTS IPTS  BND REV_IMP
     INDICATORS        [A]       [D]         [F]    [G]   [H]  [I]  [J]   [K]

     +NETWORK ELEMENTS

     300 FACILITY    $@@@@@@ $ $@@@.$@        $@$  $@@.$@  8.0 $@.$@ [$] $@@@@@
     310 NO CIRCUIT  !@@@@@@ ! !@@@.!@        !@!  !@@.!@  4.0 !@.!@ [!] !@@@@@
     320 VACANT CODE !@@@@@@ ! !@@@.!@        !@!  !@@.!@  2.5 !@.!@ [!] !@@@@@
     330 ABANDONS    !@@@@@@ ! !@@@.!@        !@!  !@@.!@  3.0 !@.!@ [!] !@@@@@
     340 BILLING     !@@@@@@ ! !@@@.!@        !@!  !@@.!@  6.0 !@.!@ [!] !@@@@@
     350 VERT SVCS   !@@@@@@ ! !@@@.!@        !@!  !@@.!@  3.0 !@.!@ [!] !@@@@@
     400 IN REORDER  !@@@@@@ ! !@@@.!@        !@!  !@@.!@  7.0 !@.!@ [!] !@@@@@
     410 OUT REORDER !@@@@@@ ! !@@@.!@        !@!  !@@.!@ 16.0 !@.!@ [!] !@@@@@
                                                                 ____ _____ _____
     430 ----------- INDEX:NETWORK ELEMENTS ------ !@@.!@ 49.5 !@.!@ [!] !@@@@@

     +INTERNAL ELEMENTS

     440 CONN REORDER!@@@@@@ ! !@@@.!@        !@!  !@@.!@ 22.5 !@.!@ [!] !@@@@@
     500 BILLING     !@@@@@@ ! !@@@.!@        !@!  !@@.!@ 10.0 !@.!@ [!] !@@@@@
     510 VERT SVCS   !@@@@@@ ! !@@@.!@        !@!  !@@.!@  4.5 !@.!@ [!] !@@@@@
     520 SW CUTOFFS  !@@@@@@ ! !@@@.!@        !@!  !@@.!@ 10.5 !@.!@ [!] !@@@@@
     530 TRANS LOST  !@@@@@@ ! !@@@.!@        !@!  !@@.!@  3.0 !@.!@ [!] !@@@@@
                                                                 ____ _____ _____
     540 ----------- INDEX:INTERNAL ELEMENTS ----- !@@.!@ 50.5 !@.!@ [!] !@@@@@

     ================================================================================
     550 TOTAL INDEX (430 [I] + 540 [I]):     MAX=(100.00)   [$@@.$@] BAND=[$$]
     ================================================================================

     MAINTENANCE LEVEL INDICATORS                                      T_HOLD    SS
                                                                         [P]     [Q]

     200 +1A/1B PERFORMANCE           (SOFTSPOT STATUS)                   $@  OF   6

     210 +3B PERFORMANCE              (SOFTSPOT STATUS)                   !@  OF   5

     220 +MISC EQUIP PERFORMANCE      (SOFTSPOT STATUS)                   !@  OF   6

     230 +CCS PERFORMANCE             (SOFTSPOT STATUS)                   !@  OF  12

     _____________________________________________________________________________
     250 +TOTAL PERFORMANCE           (SOFTSPOT STATUS)                   !@  OF  29
      ============================================================================
      BAND H = 98.5->100       BAND O = 95.5->98.49       BAND L = 0.00->95.49
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FIGURE 1 - SHEET 1

NSPMP DOMESTIC - SAMPLE

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4ESS NSPMP-DOM: OFC:$@@@@@@@@@@@@@@@ MO:$@@@@@@@@ YEAR:$@@@     PAGE 2 OF $

     MAINTENANCE LEVEL          FAIL_CNT      PER_R      MEDIAN     T_HOLD   SS
     INDICATORS                   [A]          [D]        [O]        [P]    [Q]
     200 +1A/1B PERFORMANCE ----------(SOFTSPOT STATUS) ------------ $@  OF  6
     201   PHASE 1 & 2 OCCURR'S $@@@@@@ $                  2.00    $@@@.$@   $
     202         3 OCCURRENCES  !@@@@@@ !                   0.00    !@@@.!@   !
     203         4 OCCURRENCES  !@@@@@@ !                   0.00    !@@@.!@   !
     204   TOT PHASE DUR (SEC)  !@@@@@@ !                  72.00    !@@@.!@   !
     205   INTERRUPTS           !@@@@@@ !    $@@@.$@       0.20    !@@@.!@   !
     206   AUDIT ERRORS         !@@@@@@ !    !@@@.!@       0.85    !@@@.!@   !
     210 +3B PERFORMANCE ------------(SOFTSPOT STATUS) ------------ !@  OF  5
     211   INITIALIZATIONS      !@@@@@@ !                   0.00    !@@@.!@   !
     212   EQUIPMENT FAULTS     !@@@@@@ !                   0.00    !@@@.!@   !
     213   EQUIPMENT ERRORS     !@@@@@@ !                   0.00    !@@@.!@   !
     214   INTERRUPTS           !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     215   AUDIT ERRORS         !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     220 +MISC EQUIP PERFORMANCE -----(SOFTSPOT STATUS) ------------ !@  OF  6
     221   COMMON EQUIP FAULTS  !@@@@@@ !    !@@@.!@       0.03    !@@@.!@   !
     222                ERRORS  !@@@@@@ !    !@@@.!@       0.36    !@@@.!@   !
     223   NTWK TERM EQ FAULTS  !@@@@@@ !    !@@@.!@      10.59    !@@@.!@   !
     224                ERRORS  !@@@@@@ !    !@@@.!@       2.24    !@@@.!@   !
     225   DSD/TC FRAME EQ PERF !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     226   CNI RING OUTAGE (SEC)!@@@@@@ !                   0.00    !@@@.!@   !
     230 +CCS PERFORMANCE ------------(SOFTSPOT STATUS) ------------ !@  OF  12
     231   CCS6 CHANGEOVERS     !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     232   CCS6 EXCEPT REPTS    !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     233   CCS6 RESTARTS        !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     234   CCS6 RESET           !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     235   CCS7 CHANGEOVERS     !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     236   CCS7 EXCEPT REPTS    !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     237   CCS7 RESTARTS        !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     238   CCS7 RESET           !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     239   Q.931 CHANGEOVERS    !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     240   Q.931 EXCEPT REPTS   !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     241   Q.931 RESTARTS       !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     242   Q.931 RESET          !@@@@@@ !    !@@@.!@       0.00    !@@@.!@   !
     250 +TOTAL PERFORMANCE ----------(SOFTSPOT STATUS) ------------ !@  OF  29

     =========================== BASE DATA COUNTS ===========================
     260  DOM IS               !@@@@@@ !  280  BBC ATT(6+24)          $@@@@@@ $
     261  DOM FS               !@@@@@@ !  281  BBFP                   !@@@@@@ !
     262  DOM IS-FS            !@@@@@@ !  282  CC+EA ANI ATT           !@@@@@@ !
     263  DOM IS-FS+OS         !@@@@@@ !  283  DISCOUNT NC (EF7)      !@@@@@@ !
     264  DOM+INTNL IS-FS+OS   !@@@@@@ !  284  DSDC + T/C FRAME ATT   !@@@@@@ !
     265  DOM OTS              !@@@@@@ !  285  EA ANI ATT             !@@@@@@ !
     266  DOM OGFA             !@@@@@@ !  286  ISUP ATT               !@@@@@@ !
     267  DOM TA               !@@@@@@ !  287  NCD BLKD CALLS         !@@@@@@ !
     270  DOM OGFA+TA          !@@@@@@ !  290  Q.931 INC ATT          !@@@@@@ !
     271  DOM TCC              !@@@@@@ !  291  SDN INC ATT            !@@@@@@ !
     272  DOM+INTNL TCC        !@@@@@@ !  292  SWITCHED MINUTES       !@@@@@@ !
     273  TOT CAMA CALLS (CC)  !@@@@@@ !  293  TSPC ATT               !@@@@@@ !
     274  TOT ANI CALLS        !@@@@@@ !  294  VERT SVC ATT           !@@@@@@ !
     275  TOT ONI CALLS        !@@@@@@ !  295  3B RECORDS SENT        !@@@@@@ !
     276  DOM+INTNL ANS CALLS  !@@@@@@ !  296  CCIS INC CALLS         !@@@@@@ !
```

FIGURE 1 - SHEET 2

NSPMP DOMESTIC - SAMPLE

```
4ESS NSPMP-DOM: OFC:$@@@@@@@@@@@@@@@ MO:$@@@@@@@@ YEAR:$@@@     PAGE 3 OF 5

     SVC QUALITY     FAIL_CNT   PER_R   PER_O  TI  C_INDX MPTS IPTS  BND REV_IMP
     INDICATORS        [A]       [D]     [E]   [F]   [G]   [H]  [I]  [J]   [K]

     +NETWORK ELEMENTS

     300 FACILITY    $@@@@@@@ $ $@@@.$@ $@@@.$@     $@@.$@  8.0 $@.$@ [$] $@@@@@
     301  SLIPS      !@@@@@@@ ! !@@@.!@ !@@@.!@ $@  !@@.!@  2.0 !@.!@     !@@@@@
     302  OOF'S      !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  2.0 !@.!@     !@@@@@
     303  CXR FAIL   !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  4.0 !@.!@     !@@@@@
     310 NO CIRCUIT  !@@@@@@@ ! !@@@.!@ !@@@.!@     !@@.!@  4.0 !@.!@ [!] !@@@@@
     311  NM BLKD    !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     312  NCIT       !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@     !@@@@@
     313  NCTC ADJ   !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@     !@@@@@
     314  STC        !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     315  MAS        !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     316  PBX        !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     320 VACANT CODE !@@@@@@@ ! !@@@.!@ !@@@.!@     !@@.!@  2.5 !@.!@ [!] !@@@@@
     321  CAMA       !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     322  NON CAMA   !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     323  CDS        !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     324  RCR        !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     325  Q.931      !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     330 ABANDONS    !@@@@@@@ ! !@@@.!@ !@@@.!@     !@@.!@  3.0 !@.!@ [!] !@@@@@
     331  PDA        !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     332  MAB        !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     333  OTHER      !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     334  ISUP       !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     335  TSPC       !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     336  Q.931      !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.5 !@.!@     !@@@@@
     340 BILLING     !@@@@@@@ ! !@@@.!@ !@@@.!@     !@@.!@  6.0 !@.!@ [!] !@@@@@
     341  ONI FAIL   !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@     !@@@@@
     342  ANI FAIL   !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@     !@@@@@
     343  EA ANI FAIL!@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  2.0 !@.!@     !@@@@@
     344  EANR       !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  2.0 !@.!@     !@@@@@
     350 VERT SVC    !@@@@@@@ ! !@@@.!@ !@@@.!@     !@@.!@  3.0 !@.!@ [!] !@@@@@
     351  MAS TERM RO!@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.6 !@.!@     !@@@@@
     352  TSPC RO    !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.6 !@.!@     !@@@@@
     353  SDN BLKGS  !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.6 !@.!@     !@@@@@
     354  DSDC BLKGS !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.6 !@.!@     !@@@@@
     355  BBC BLKGS  !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  0.6 !@.!@     !@@@@@
```

FIGURE 1 - SHEET 3

NSPMP DOMESTIC - SAMPLE

```
4ESS NSPMP-DOM: OFC:$@@@@@@@@@@@@@@@ MO:$@@@@@@@@ YEAR:$@@@     PAGE 4 OF 5

     SVC QUALITY      FAIL_CNT   PER_R   PER_O  TI  C_INDX MPTS IPTS  BND REV_IMP
     INDICATORS         [A]       [D]     [E]   [F]   [G]   [H]  [I]  [J]   [K]

     +NETWORK ELEMENTS (CONT'D)

     400 IN REORDER  $@@@@@@@ $ $@@@.$@ $@@@.$@     $@@.$@  7.0 $@.$@ [$] $@@@@@
     401  MF          !@@@@@@@ ! !@@@.!@ !@@@.!@ $@  !@@.!@  1.0 !@.!@      !@@@@@
     402  DP (ADJ)    !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     403  CCS6        !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     404  CCS6 INW    !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     405  DTMF        !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     406  ISUP        !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     407  Q.931       !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     410 OUT REORDER !@@@@@@@ ! !@@@.!@ !@@@.!@     !@@.!@ 16.0 !@.!@ [!] !@@@@@
     411  UXS         !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     412  IKF         !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     413  NSD         !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     414  XST         !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     415  GLR         !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     416  OWF         !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     417  ADC         !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     418  CKF         !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     419  CFD         !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     420  SNF         !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     421  MOE         !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     422  CPF         !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     423  MISC        !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     424  RT OVLD     !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     425  CAMA OPER Q!@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@
     426  Q.931       !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.0 !@.!@      !@@@@@

     430 ----------- INDEX:NETWORK ELEMENTS ------ !@@.!@ 49.5 !@.!@ [!] !@@@@@
      ------------------------------------------------------------------------

     +INTERNAL ELEMENTS

     440 CONN REORDER!@@@@@@ ! !@@@.!@ !@@@.!@     !@@.!@ 22.5 !@.!@ [!] !@@@@@
     441  PTH HNT FL !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     442  DP CR Q    !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     443  MF XMTR Q  !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     444  CCS6 CR Q  !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     445  CCS6 XCVR  !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     446  RING       !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     447  BUFFER     !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     448  MISC       !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     449  2ND MFR FL !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     450  DTMF CR Q  !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     451  DTMF XMTR Q!@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     452  MF ORIG Q  !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     453  ISUP XCVR  !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     454  ISUP CR Q  !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
     455  Q.931 CR Q !@@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@      !@@@@@
```

FIGURE 1 - SHEET 4

NSPMP DOMESTIC - SAMPLE

```
4ESS NSPMP-DOM: OFC:$@@@@@@@@@@@@@@@ MO:$@@@@@@@@ YEAR:$@@@     PAGE 5 OF 5

     SVC QUALITY     FAIL_CNT   PER_R   PER_O  TI  C_INDX MPTS IPTS  BND REV_IMP
     INDICATORS        [A]       [D]     [E]   [F]   [G]   [H]  [I]  [J]   [K]

     +INTERNAL ELEMENTS (CONT'D)

     500 BILLING     $@@@@@@ $ $@@@.$@ $@@@.$@     $@@.$@ 10.0 $@.$@ [$] $@@@@@
     501  AMA RCD LST!@@@@@@ ! !@@@.!@ !@@@.!@ $@  !@@.!@  3.4 !@.!@     !@@@@@
     502  FREE CALLS !@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  3.3 !@.!@     !@@@@@
     503  3B RCD LOST!@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  3.3 !@.!@     !@@@@@
     510 VERT SVCS   !@@@@@@ ! !@@@.!@ !@@@.!@     !@@.!@  4.5 !@.!@ [!] !@@@@@
     511  T/C INC SVC!@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@     !@@@@@
     512  T/C OUT SVC!@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@     !@@@@@
     513  DSD SVC    !@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@     !@@@@@
     520 SW CUTOFFS  !@@@@@@ ! !@@@.!@ !@@@.!@     !@@.!@ 10.5 !@.!@ [!] !@@@@@
     521  PHASE      !@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  5.3 !@.!@     !@@@@@
     522  HARDWARE   !@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  5.2 !@.!@     !@@@@@
     530 TRANS LOST  !@@@@@@ ! !@@@.!@ !@@@.!@     !@@.!@  3.0 !@.!@ [!] !@@@@@
     531  PHASE      !@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@     !@@@@@
     532  HARDWARE   !@@@@@@ ! !@@@.!@ !@@@.!@ !@  !@@.!@  1.5 !@.!@     !@@@@@

     540 ----------- INDEX:INTERNAL ELEMENTS ----- !@@.!@ 50.5 !@.!@ [!] !@@@@@
     ------------------------------------------------------------------------

     430 ----------- INDEX:NETWORK ELEMENTS ------ !@@.!@ 49.5 !@.!@ [!] !@@@@@

     ========================================================================
     550 TOTAL INDEX (430 [I] + 540 [I]):     MAX=(100.00)   [$@@.$@]  BAND=[$]
     ========================================================================
```

FIGURE 1 - SHEET 5

NSPMP DOMESTIC - SAMPLE

4 ESS ON-SITE OPERATIONS REPORT
NETWORK SWITCHING PERFORMANCE MEASUREMENT PLAN
NSPMP - OFFICE REPORT - INTERNATIONAL

1. GENERAL

1.01 This plan is designed to provide a measurement of the level of Network Switching Performance as viewed by a Toll 4 ESS Switching Office with international service. It is a composite view of how effectively the forces of maintenance, administration, and engineering are performing together.

1.02 The plan is based on data that is readily available in other forms such as the Machine Service Report (MSR), Machine Performance Report (MPR), Machine Load Service Summary (MLSS), Network Management Reports, and various alarms and exception reports.

1.03 Accumulation of counts for this report. Counts for this report are accumulated for daily, month-to-date, monthly, and previous month output.

2. HEADING

2.01 Report Period = Month and Year this data was accumulated.

2.02 Reporting Office = CLLI name for the office creating the report.

2.03 Report Type = Daily, Monthly, Month-To-Date or Previous Month.

2.04 Current Generic = Current Generic residing in the machine.

Example: 4E<8>4B.08

SS<GX>LL.II

SS = Machine System

G = Generic Load

X = Xport Option (Null in DOM OFC)

LL = Generic Load Point Number

II = Software Change Notice (CN) Issue Number

2.05 Report = The word scheduled will appear unless this is a Previous Month report, then the word Demand will appear.

2.06 NMDS/OSOR System Issue = The current issue of the system NMDS/OSOR tape residing in the machine.

Example: 0883.0

MMYY.X

MM = Month

YY = Year

X = NMDS/OSOR Tape Dot Issue

2.07 Date = Last day that data was accumulated for this report.

2.08 Time = Last time that data was accumulated for this report.

2.09 NC DISC DAY = On daily reports only, a "Y" is printed if the report day has been predesignated as a No Circuit Discount day and an "N" is printed if the report day is not a No Circuit Discount day. A blank will appear on month-to-date and monthly reports. When this feature becomes active, authorized NC Discount days will be determined on a per office basis. On those days, extremely high NC call failure rates (historically) will be caused by heavy calling rather than by machine or network failures. For that reason, providing that the authorized day has been pre-identified via scheduling page EF1 (see Section 4A of Division 10 for NSPMP NC DISC day input instructions) NC failures will automatically be discounted from index computations and excluded from month-to-date and monthly accumulations.

2.10 DISC DAYS YTD = The number of NC Discount days utilized year-to-date (number of days for which NC failures have automatically been removed from index calculations). This number is limited internally to nine per calendar year.

3. REPORT COMPONENTS

3.01 Service Index - The component of international categories used to compute the office index.

3.02 Count Field - The Count Field contains the accumulated count of events for the period covered by the report.

If the sum of the counts exceeds 4,000,999 the data is converted to thousands and a "K" is printed to the right of the count field.

3.03 Ratio Field - The Ratio Field contains the normalization of accumulated counts to a rate which is the number of occurrences per 10K base counts.

The integers in the count field are divided by the specified base counts and the result is multiplied by ten thousand. The result is rounded to the nearest two decimal places. The three numbers to the left of the decimal point will be placed in the left window. The two numbers to the right of the decimal point will be placed in the right window.

3.04 Index Band - The Index Band indicates performance levels as Bands (O) Objective, (L)

Low, (U) Unsatisfactory.

The band is determined by applying the ratio figure to the appropriate weighting and banding tables and extracting the Band Letter and placing it in the appropriate category Band Window. In an ISC office, a Band will not be calculated for "IOC" and "NO CIRCUIT" categories.

3.05 Office Index - This is a Band Letter O, L, or U representing the Office Index for international service.

Computation of Office Index - The Office Index for international offices is computed by using the appropriate ratio, weighting and band table for Service Index categories, obtaining the matching weight factor for the computed ratio for each category, applying the sum of these weight factors to the total Office Index Table and obtaining the Office Index Band Letter. The Band Letter is entered in the Office Index Window. IOC and NC data are excluded from office index computations at this time.

3.06 Base Data Counts - These are the base counts of incoming seizures and call attempts and outgoing call attempts which are used as denominators in normalizing the accumulated counts of each component.

3.07 Performance Indicators - Performance Indicators are indicators which identify potential service degradation.

3.08 Median, Threshold and Soft Spots Fields - A table contains a fixed set of Median and Threshold Ratios for each indicator against which the computed ratio is compared. If the computed ratio is greater than or equal to the Threshold, an "X" appears in the Soft Spot Window for that category. The Median Ratio is used by office personnel to determine office standing relative to the performance of all INTNL offices.

3.09 Total Performance - Total Performance is an indication of Soft Spot status and is the number of the Performance Indicator categories of the total Performance Indicator categories which have scored an "X" in a Soft Spot Window.

3.10 Non-Calculable Data - The system has a Non-Calculable Data default which is three (3) @'s converted to decimal which produces the number 4210752 in an Integer Window and will skew the rest of the line to the right.

4. REPORT SCHEDULING

4.01 This report may be scheduled on a daily, month-to-date, monthly or previous month basis using NMDS/OSOR display page EF1. Use the "NSPMPT" option rather than "NSPMPA" option when scheduling this report with the 0887.0 and later NETWORK MANAGEMENT tape. Daily and Month-To-Date reports are scheduled in the same manner as other existing OSOR reports. The Monthly report is the scheduled Month-To-Date report which appears on the first day of the new month. The Previous Month report is a Demand report and is generated by placing a plus (+) next to the items "NSPMPT", "INTNL" and "Demand". A channel must be specified as is the normal case for report scheduling.

TABLE A

SERVICE INDEX

CATEGORY		FORMULA
INCOMING FAILURE COUNT	=	CCITT5 + CCITT6 Incoming Failure Count
TOTAL INCOMING FAILURES	=	C5 Proceed To Send Signal Timeout + C5 Start Of Pulsing Timeout + C5 Incomplete Address Timeout + C5 Unreasonable Signal Receiving State + C5 Pulsing Errors + C6 Incomplete Address Detected + C6 Continuity Timeout + C6 IAM Irregs
INCOMING FAILURE RATIO	=	Total Inc Fails/(Intnl IS-FS) * 10000.
OUTGOING FAILURE COUNT	=	Total International Outgoing Reorder.
TOTAL OUTGOING REORDER	=	C5 Double Seizures Clear Forward + Unreasonable Signals During Outpulsing + C5 Persisting Proceed to Send Signal After Outpulsing + C6 Address Complete Signal Timeout + C6 Continuity Check Failure + C6 Miscellaneous Irregularities + C6 Signaling Network Failure + CCITT6 Glare Final Trial Failure PC + CCITT5 Outgoing Stage Glare Final Trial + CCITT5 OUtgoing Waiting for PTS Timeout Final Trial
C6 MISC IRREGULARITIES	=	Receipt Of Confusion Signal Or Release Guard Signal During Setup Of Outgoing Call, Or Blocking Signal After Sending IAM And Before Any Backward Signal Has Been Received PC.
OUTGOING FAILURE RATIO	=	Total Out Fails/Intnl Outgoing Attempts * 10000
TSPC FAILURE COUNT	=	TSPC Pulsing Errors + TSPC Permanent Signal Timeout + TSPC Partial Dial Timeout
TSPC FAILURE RATIO	=	TSPC Fails/Intnl Two Stage Pulsing ATT * 10000.
IOC FAILURE COUNT	=	IOC PST + IOC PDT + IOC PER
IOC FAILURE RATIO	=	(IOC FAILS/IOC IS-FS)* 10000

NO CIRCUIT COUNT	=	INTNL NC + INTNL NM

TABLE A (CONTINUED)

SERVICE INDEX

CATEGORY		FORMULA
NO CIRCUIT RATIO	=	(No Circuit Count)/(INTNL OGFA) * 10000.
INDEX BAND	=	A Letter O, L or U From The Weighting And Banding Tables, Indicating The Performance Range Of A Service Category.

NOTE: IOC and NC categories are not banded at this time due to lack of historical data upon which to base ratio, weight and band tables.

TABLE B

OFFICE INDEX

CATEGORY	**FORMULA**
	A Letter O, L Or U From The Office Index Table.

TABLE C

BASE DATA COUNTS

CATEGORY		FORMULA
TOTAL INTERNATIONAL IS (C5+C6)	=	CCITT #5 + CCITT #6 INC SEIZ
INTL IS-FS	=	(C5 IS + C6 IS) - C5 FS
INTNL OGFA (C5+C6)	=	C5 OUT SEIZ + C6 OUT SEIZ
TSPC	=	TWO STAGE PULSING ATTEMPTS
IOC IS-FS	=	LOCAL IOC OPERATOR INCOMING ATTEMPTS - FS
TOTAL OGFA	=	INTNL NC + INTNL NC NM + INTNL AOOCB + CCITT #5 OUT SEIZ + CCITT 6 OUT SEIZ + INTNL OVERFLOW SENT (INTERMACHINE OVFL)
INTERMACH OVFL SENT	=	INTNL OUTBOUND CALLS SENT TO SUBSEQUENT ISC OFFICE VIA DEDICATED OVERFLOW TRUNKS.
TOTAL TRANSIT	=	INCOMING TRANSIT ATTEMPTS
LINK HOURS IN SVC	=	TOTAL C6 LINK HRS IN SERVICE

TABLE D

PERFORMANCE INDICATORS

CATEGORY		FORMULA
VC TERMINATING	=	TERM IDDD VC + TERM OPER VC + TERM SCREENED + MAC BLKD + INV LANGUAGE DIG
RATIO	=	(TERM VC/TOT TERM CALLS)* 10000
VC TRANSIT	=	TRANSIT IDDD VC + TRANSIT OPER VC
RATIO	=	(TRANS VC/TOT TRANSIT CALLS)* 10000
VC TSPC	=	IDDD TSPC VC + IOTC TSPC VC + TSPC REC'D ON DOM SAT ICT
RATIO	=	(TSPC VC/TSPC ATTEMPTS)* 10000
VC IOC	=	LOCAL IOC ORIG VC
RATIO	=	(IOC VC/LOCAL IOC INC ATTEMPTS)* 10000
ABAN INTNL INC	=	CCITT #5 INC ABAN + CCITT #6 INC ABAN
RATIO	=	(INTNL INC ABAN/INTNL IS)* 10000
ABAN IOC	=	LOCAL IOC ORIG ABAN
RATIO	=	(IOC ABAN/LOCAL IOC INC ATTEMPTS)* 10000
SIGNALING IRREGS C5 (NON IDLE)	=	CCITT #5 INC, OUTGOING AND MISC SIG IRREGS
RATIO	=	(C5 SIG IRREGS/C5 IS-FS + OGSZ)* 10000
SIGNALING IRREGS C6 (NON IDLE)	=	CCITT #6 INC AND OUTGOING SIG IRREGS
RATIO	=	(C6 SIG IRREGS/C6 IS + OGSZ)* 10000
SIGNALING IRREGS C7T (NON IDLE)	=	CCITT #7 TUP INC AND OUTGOING SIG IRREGS
RATIO	=	(C7T SIG IRREGS/C6 IS + OGSZ)* 10000
SIGNALING IRREGS C7I (NON IDLE)	=	CCITT #7 INUP INC AND OUTGOING SIG IRREGS
RATIO	=	(C7I SIG IRREGS/C7I IS + OGSZ)* 10000
CONGESTION C5	=	CCITT5 CONGESTION FAILURES
RATIO	=	(C5 CONGESTION FAILS/C5 OUT ATTS)* 10000
CONGESTION C6	=	CCITT6 CONGESTION FAILURES
RATIO	=	(C6 CONGESTION FAILS/C6 OUT ATTS)* 10000

TABLE D (CONTINUED)

PERFORMANCE INDICATORS

CATEGORY		FORMULA
CONGESTION C7T	=	CCITT7T CONGESTION FAILURES
RATIO	=	(C7T CONGESTION FAILS/C7T OUT ATTS)* 10000
CONGESTION C7I	=	CCITT7I CONGESTION FAILURES
RATIO	=	(C7I CONGESTION FAILS/C7I OUT ATTS)* 10000
CCITT6 SIG NETWORK LINK FAILURE COUNT	=	VFL Near-End Initiated Automatic Changeovers + VFL Far-End Initiated Automatic Changeovers PC.
CCITT6 SIG NETWORK LINK FAILURE RATIO	=	[(VFL Near-End Initiated Automatic Changeovers + VFL Far-End Initiated Automatic Changeovers)/(CCITT6 LINK HRS IN SVC)] * 10000.
CCITT6 SIG NETWORK OUTAGE TIME FAILURE COUNT	=	(Service Outage OCC * 0.1)/2. Note Count Is Terminal Occupancy In 10 Sec Scan, Indicates Pair Outage.
CCITT6 SIG NETWORK OUTAGE TIME FAILURE RATIO	=	[((Service Outage OCC * 0.1)/2)/(CCITT6 LINK HRS IN SVC)] * 10000.
CCITT6 SIG NETWORK INC SIG UNITS IN ERROR FAILURE COUNT	=	VFL Signal Units In Error
CCITT6 SIG NETWORK INC SIG UNITS IN ERROR FAILURE RATIO	=	VFL Signal Units In Error/CCITT6 LINK HRS IN SVC * 10000.
CCITT6 SIG NETWORK OUT SIG UNIT ERROR FAILURE COUNT	=	VFL Retransmission Requests
CCITT6 SIG NETWORK OUT SIG UNIT ERROR FAILURE RATIO	=	VFL Retransmission Requests/CCITT6 Link Hrs in SVC * 10000.

TABLE D (CONTINUED)

PERFORMANCE INDICATORS

CATEGORY		FORMULA
MEDIAN RATIO	=	A Fixed Set Of Ratios From The Performance Indicators Median And Threshold Table Used By Office Personnel To Determine Office Standing Relative To Median Performance.
THRESHOLD RATIO	=	A Fixed Set Of Ratios from The Performance Indicators Median And Threshold Table Against Which The Failure Ratio Is Compared.
SOFT SPOT	=	The Failure Ratio Is Compared with The Threshold Ratio By Performance Indicator Category. If The Failure Ratio Is Greater Than Or Equal To The Threshold Ratio An "X" Is Entered In The Soft Spot Window For that Indicator Category.

TABLE E

INTERNATIONAL
PERFORMANCE INDICATORS
MEDIAN AND THRESHOLD RATIOS

	MEDIAN	THRESHOLD
VC TERMINATING	462.68	773.72
VC TRANSIT	188.09	623.56
VC TSPC	428.92	494.84
VC IOC	185.75	586.67
ABANDONED CALLS INTNL INC	141.84	223.00
ABANDONED CALLS IOC	548.03	1611.91
SIG IRREGS C5	253.85	416.11
SIG IRREGS C6	49.88	80.05
SIG IRREGS C7T	0.00	999.99
SIG IRREGS C7I	0.00	999.99
C5 CONGESTION	0.00	999.99
C6 CONGESTION	0.00	999.99
C7T CONGESTION	0.00	999.99
C7I CONGESTION	0.00	999.99
CCITT6 SIG NET		
LINK FAILURES	0.00	999.99
OUTAGE TIME	0.00	999.99
INC SU ERRORS	0.00	999.99
OUT SU ERRORS	0.00	999.99

TABLE F

TOTAL PERFORMANCE (SOFTSPOT STATUS)

CATEGORY		FORMULA
SOFTSPOTS OF TOTAL PERFORMANCE INDICATOR CATEGORIES	=	This Status Displays The Number Of Performance Indicator Categories Which Are Greater Than Or Equal To Threshold Values.

TABLE G

INTERNATIONAL SWITCHING SERVICE
INCOMING

RATIO*	WEIGHT	BAND	RATIO*	WEIGHT	BAND
63.64	60.00	O	336.31	52.80	U
188.91	59.70	O	339.56	52.50	U
253.55	59.40	O	342.80	52.20	U
257.55	59.10	O	346.05	51.90	U
274.05	58.80	O	349.30	51.60	U
303.04	58.50	O	352.54	51.30	U
310.29	58.20	O	355.79	51.00	U
313.91	57.90	O	359.04	50.70	U
315.73	57.60	O	362.28	50.40	U
317.54	57.30	O	365.53	50.10	U
318.26	57.00	L	368.77	49.80	U
319.71	56.70	L	372.02	49.50	U
320.75	56.40	L	385.00	48.30	U
321.38	56.10	L	417.47	45.30	U
321.92	55.80	L	449.93	42.30	U
322.38	55.50	L	482.39	39.30	U
322.74	55.20	L	518.10	36.00	U
323.01	54.90	L	550.56	33.00	U
323.19	54.60	L	583.02	30.00	U
323.28	54.30	L	647.94	24.00	U
323.33	54.00	L	712.86	18.00	U
326.57	53.70	L	777.79	12.00	U
329.82	53.40	U	842.71	6.00	U
333.07	53.10	U	908.20	0.00	U

* IF THE COMPUTED RATIO FALLS BETWEEN TWO VALUES, USE THE HIGHER VALUE (I. E., POORER PERFORMANCE RATIO).

TABLE H

INTERNATIONAL SWITCHING SERVICE
OUTGOING

RATIO*	WEIGHT	BAND	RATIO*	WEIGHT	BAND
17.06	30.00	O	236.35	26.40	U
28.29	29.85	O	241.27	26.25	U
39.30	29.70	O	245.65	26.10	U
50.12	29.55	O	250.19	25.95	U
60.74	29.40	O	254.29	25.80	U
71.18	29.25	O	258.19	25.65	U
81.45	29.10	O	261.93	25.50	U
91.56	28.95	O	265.51	25.35	U
101.50	28.80	O	272.30	25.05	U
111.31	28.65	O	278.65	24.75	U
120.97	28.50	L	284.65	24.45	U
130.49	28.35	L	290.35	24.15	U
139.88	28.20	L	298.41	23.70	U
149.14	28.05	L	322.19	22.20	U
158.29	27.90	L	342.69	20.70	U
167.32	27.75	L	357.46	19.50	U
176.23	27.60	L	374.42	18.00	U
185.04	27.45	L	390.07	16.50	U
193.75	27.30	L	404.66	15.00	U
202.35	27.15	L	434.90	12.00	U
210.86	27.00	L	470.53	9.00	U
218.56	26.85	L	516.22	6.00	U
225.15	26.70	U	598.46	3.00	U
231.02	26.55	U	748.59	0.00	U

* IF THE COMPUTED RATIO FALLS BETWEEN TWO VALUES, USE THE HIGHER VALUE (I.E., POORER PERFORMANCE RATIO).

TABLE I

INTERNATIONAL SWITCHING SERVICE
TSPC INC

RATIO*	WEIGHT	BAND	RATIO*	WEIGHT	BAND
13.12	10.00	O	25.74	8.80	U
18.35	9.95	O	25.89	8.75	U
21.16	9.90	O	26.04	8.70	U
21.55	9.85	O	26.19	8.65	U
22.51	9.80	O	26.34	8.60	U
24.06	9.75	O	26.49	8.55	U
24.45	9.70	O	26.64	8.50	U
24.65	9.65	O	26.79	8.45	U
24.74	9.60	O	26.94	8.40	U
24.84	9.55	O	27.09	8.35	U
24.88	9.50	L	27.24	8.30	U
24.95	9.45	L	27.39	8.25	U
25.01	9.40	L	28.00	8.05	U
25.04	9.35	L	29.50	7.55	U
25.07	9.30	L	31.00	7.05	U
25.09	9.25	L	32.50	6.55	U
25.11	9.20	L	34.01	6.05	U
25.12	9.15	L	35.51	5.55	U
25.13	9.10	L	37.01	5.05	U
25.14	9.05	L	39.87	4.00	U
25.18	9.00	L	42.87	3.00	U
25.29	8.95	L	45.88	2.00	U
25.44	8.90	U	48.88	1.00	U
25.59	8.85	U	52.09	0.00	U

* IF THE COMPUTED RATIO FALLS BETWEEN TWO VALUES, USE THE HIGHER VALUE (I.E., POORER PERFORMANCE RATIO).

TABLE J

TOTAL OFFICE INDEX

When The Sum Of Weight Factors = N Then

	BAND
95.5 <= N <= 100	O
89.5 <= N < 95.5	L
N < 89.5	U

```
REPT: NSPMP-OFFICE REPORT-INTERNATIONAL   FORM E6976B  RET. CODE 20R-01000
            4 ESS NETWORK SWITCHING PERFORMANCE MEASUREMENT PLAN
                              PAGE 1 OF 1
REPORT PERIOD: $@@@@@@@@ $@@@          REPORTING OFFICE:  $@@@@@@@@@@@@@@
REPORT TYPE:   $@@@@@@@@@@@@@@         CURRENT GENERIC:   $@@@@@@@@@@@@@@
REPORT:        $@@@@@@@@               NMDS/OSOR SYS ISS: $@@@@@
DATE AND TIME: $@@@@@@@  $@@@          NC DISC DAY ($) DISC DAYS YTD ($)
SERVICE INDEX                     FAILURE   FAILURE     INDEX
                                   COUNT     RATIO       BAND
  INTNL INCOMING                $@@@@@@ $  $@@.$@        $
  OUTGOING                      !@@@@@@ !  !@@.!@        !
  TSPC RO                       !@@@@@@ !  !@@.!@        !
  IOC RO                        !@@@@@@ !  !@@.!@
  TOTAL NC                      !@@@@@@ !  !@@.!@
OFFICE INDEX                                             $
                           BASE DATA COUNTS
  TOTAL INTNL IS (C5+C6)  $@@@@@@ $  TOTAL OGFA               $@@@@@@ $
  INTNL IS-FS             !@@@@@@ !  INTERMACH OVFL SENT      !@@@@@@ !
  INTNL OGFA (C5+C6)      !@@@@@@ !  TOTAL TRANSIT            !@@@@@@ !
  TSPC                    !@@@@@@ !  LINK HOURS IN SVC        !@@@@@@ !
  IOC IS-FS               !@@@@@@ !
PERFORMANCE INDICATORS          FAILURE   FAILURE  MEDIAN  THRESHOLD  SOFT
 NETWORK PERFORMANCE             COUNT     RATIO    RATIO    RATIO    SPOT
  VACANT CODE:  TERMINATING....$@@@@@@ $  $@@@.$@  $@@@.$@  $@@@.$@     $
                TRANSIT        !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
                TSPC           !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
                IOC            !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
  ABANDONS:     INTNL INC......!@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
                IOC            !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
  SIG. IRREGS:  C5 IRREGS......!@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
                C6 IRREGS      !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
                C7T IRREGS     !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
                C7I IRREGS     !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
  CONGESTION:   C5 CONG........!@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
                C6 CONG        !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
                C7T CONG       !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
                C7I CONG       !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
 MACHINE PERFORMANCE
  CCITT #6 SIG NET
   LINK FAILURES               !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
   OUTAGE TIME                 !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
   INC SU ERRORS               !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
   OUT SU ERRORS               !@@@@@@ !  !@@@.!@  !@@@.!@  !@@@.!@     !
TOTAL PERFORMANCE  (SOFTSPOT STATUS)                          $@ OF $@
 K = THOUSANDS    4210752 = UNCALCULABLE DATA
```

FIGURE 1

NSPMP INTERNATIONAL SAMPLE

4 ESS ON-SITE OPERATIONS SYSTEM DOMESTIC NSPMP PERFORMANCE MODIFICATION ASSIGNMENT PAGE EF08

1. GENERAL

1.01 The display page EF08 provides the user at a NMDT with a method of establishing variable SOFTSPOT Threshold and Performance Objective values for Pages 2 through 5 of the Network Switching Performance Measurement Plan (NSPMP).

2. OPERATION

2.01 The SOFTSPOT Thresholds and Performance Objectives are initially set to predetermined values through loading the Network Management (NM) tape. These initial values can be changed to more "Operational" values through utilization of page EF8 in the Network Management Display System (NMDS). The values displayed in Figures 2 through 5 are the initial values input into the system.

2.02 The initial display of the EF8 page will show the performance objectives for NSPMP Page 3. Any one of the three pages that contains performance objectives can be selected when a "+" is entered next to the desired NSPMP page. When a "PAGE" has been selected and entered, a display is returned listing all CATEGORYs and associated performance objective VALUES. Changes to these values may be accomplished by directly overwriting old performance objectives with new performance objectives and entering them into the system.

2.03 The SOFTSPOT Thresholds may be modified when a "+" is entered next to PAGE 2. When "PAGE 2(+) THRESHOLD" has been selected and entered, a display is returned listing all CATEGORYs and associated Threshold VALUES. Changes to these values may be accomplished by directly overwriting old Thresholds with new Thresholds and entering them into the system.

2.04 Unacceptable input data will trigger a flashing "ERROR" message on the display screen along with the input area that is also in error and will continue to flash until the error is corrected. No data will be allowed to enter the system while an error state exists.

```
EF8   NSPMP PERFORMANCE MODIFICATION  DATA TIME $@@@@  $@@@@@@  SENT AT $@@@@@@@
     CATEGORY       VALUE         CATEGORY       VALUE
 1A PH 1&2 OCCURS <   0.01>   CCS CCS7 RESTRTS <   2.19>
 1A PH 3 OCCURS   <   0.01>   CCS Q931 CHNGOVR <9999.99>      SELECT:
 1A PH 4 OCCURS   <   0.01>   CCS Q931 EXCEPT  < 155.12>  DESIRED PAGE OF
 1A TOT PH DUR    <   0.01>   CCS Q931 RESTRTS <  75.63>  THE NSPMP FOR
 1A INTERRUPTS    <   0.09>                    <       >  MODIFICATION OF:
 1A AUD ERRORS    <   0.42>                    <       >
 3B INITS         <   0.01>                    <       >  PAGE 2( )S THRESHOLD
 3B EQ FAULTS     <   0.01>                    <       >  PAGE 3( )  PERF OBJ
 3B EQ ERRORS     <   0.08>                    <       >  PAGE 4( )  PERF OBJ
 3B INTERRUPTS    <   0.01>                    <       >  PAGE 5( )  PERF OBJ
 3B AUD ERRORS    <   0.16>                    <       >
 MISC COM EQ FLTS <   0.02>                    <       >
 MISC COM EQ ERRS <   0.24>                    <       >
 MISC NET EQ FLTS <  12.56>                    <       >
 MISC NET EQ ERRS <   0.68>                    <       >
 MISC DSD FRM PRF <  13.29>                    <       >
 MISC CNI RING OT <1923.88>                    <       >
 CCS CCS6 CHNGOVR <   0.30>                    <       >
 CCS CCS6 EXCEPT  <  76.62>                    <       >
 CCS CCS6 RESTRTS <   0.01>                    <       >
 CCS CCS7 CHNGOVR <  10.96>                    <       >
 CCS CCS7 EXCEPT  <2604.08>                     DIRECTORY[  ]   P[    ]
```

FIGURE 1

NSPMP PAGE 2 CATEGORY
SOFTSPOT THRESHOLDS

```
EF8   NSPMP PERFORMANCE MODIFICATION  DATA TIME $@@@@  $@@@@@@  SENT AT $@@@@@@@
     CATEGORY       VALUE         CATEGORY       VALUE
 FACILITY TOT     <   3.87>    TSPC            <   0.01>
  SLIPS           <  20.00>    Q.931           <   0.01>      SELECT:
  OOF S           <  12.00>   BILLING TOT      <1135.92>  DESIRED PAGE OF
  CXR FAIL        <   3.92>    ONI FAIL        <   0.01>  THE NSPMP FOR
 NO CKT TOT       < 136.77>    ANI FAIL        <   0.01>  MODIFICATION OF:
  NM BLKD         <  90.15>    EA ANI FAIL     <   0.14>
  NCIT            <   5.97>    EANR            <1133.77>  PAGE 2( )  THRESHOLD
  NCTC ADJ        <   6.56>   VERT SVC TOT     <   9.02>  PAGE 3( )S PERF OBJ
  STC             <   0.01>    MAS ORIG RO     <   0.01>  PAGE 4( )  PERF OBJ
  MAS             <   0.01>    MAS TERM RO     <   0.01>  PAGE 5( )  PERF OBJ
  PBX             <  35.66>    TSPC RO         <   0.87>
 VC TOT           <  73.35>    SDN BLKGS       <   0.01>
  CAMA            <   0.01>    DSDC BLKGS      <   7.72>
  NON CAMA        <  74.05>    BBC BLKGS       <   0.01>
  CDS             <   1.01>                    <       >
  RCR             <   0.01>                    <       >
  Q.931           <   0.01>                    <       >
 ABANDONS TOT     < 134.04>                    <       >
  PDA             <  42.52>                    <       >
  MAB             <  39.96>                    <       >
  OTHER           <   0.11>                    <       >
  ISUP            <  22.38>                      DIRECTORY[  ]   P[    ]
```

FIGURE 2

NSPMP PAGE 3 CATEGORY
PERFORMANCE OBJECTIVES

```
EF8   NSPMP PERFORMANCE MODIFICATION  DATA TIME $@@@@  $@@@@@@  SENT AT $@@@@@@@
     CATEGORY       VALUE         CATEGORY       VALUE
 TOT INC RO       <  11.78>    RT OVLD         <   0.01>
  MF              <   8.68>    CAMA OPER Q     <   0.01>      SELECT:
  DP (ADJ)        <   0.20>    Q.931           <   0.01>  DESIRED PAGE OF
  CCS6            <   1.12>   TOT CONN RO      <   0.12>  THE NSPMP FOR
  CCS6 INW        <   0.28>    PTH HNT FL      <   0.01>  MODIFICATION OF:
  DTMF            <   2.23>    DP CR Q         <   0.01>
  ISUP            <   0.01>    MF XMTR Q       <   0.01>  PAGE 2( )  THRESHOLD
  Q.931           <   0.01>    CCS6 CR Q       <   0.01>  PAGE 3( )  PERF OBJ
 TOT OUT RO       <   3.13>    CCS6 XCVR       <   0.02>  PAGE 4( )S PERF OBJ
  UXS             <   0.02>    RING            <   0.01>  PAGE 5( )  PERF OBJ
  IKF             <   0.37>    BUFFER          <   0.01>
  NSD             <   1.89>    MISC            <   0.01>
  XST             <   0.01>    2ND MFR FL      <   0.01>
  GLR             <   0.44>    DTMF CR Q       <   0.01>
  OWF             <   0.01>    DTMF XMTR Q     <  44.15>
  ADC             <   0.34>    MF ORIG Q       <   0.52>
  CKF             <   0.25>    ISUP XCVR       <   0.01>
  CFD             <   0.06>    ISUP CR Q       <   0.01>
  SNF             <   0.21>    Q.931 CR Q      <   0.01>
  MOE             <   0.01>                    <       >
  CPF             <   0.01>                    <       >
  MISC            <   0.01>                          DIRECTORY[  ]   P[    ]
```

FIGURE 3

NSPMP PAGE 4 CATEGORY
PERFORMANCE OBJECTIVES

```
EF8   NSPMP PERFORMANCE MODIFICATION  DATA TIME $@@@@  $@@@@@@  SENT AT $@@@@@@@
     CATEGORY       VALUE         CATEGORY       VALUE
 TOT BILLING      <   0.01>                    <       >
  AMA RCD LST     <   0.01>                    <       >      SELECT:
  FREE CALLS      <   0.01>                    <       >  DESIRED PAGE OF
  3B RCD LOST     <   0.01>                    <       >  THE NSPMP FOR
  DS NO SCAR      <   0.01>                    <       >  MODIFICATION OF:
 TOT VERT SVC     <   9.23>                    <       >
  T/C INC SVC     <   2.88>                    <       >  PAGE 2( )  THRESHOLD
  T/C OUT SVC     <   9.93>                    <       >  PAGE 3( )  PERF OBJ
  DSD SVC         <   0.33>                    <       >  PAGE 4( )  PERF OBJ
 SW CUTOFFS       <   1.67>                    <       >  PAGE 5( )S PERF OBJ
  PHASE           <   0.50>                    <       >
  HARDWARE        <   0.12>                    <       >
  ISUP RESET      <   0.01>                    <       >
  CCS6 RESET      <   1.62>                    <       >
  Q.931 RESET     <   0.01>                    <       >
 TRANS LOST       <   0.01>                    <       >
  PHASE           <   0.01>                    <       >
  HARDWARE        <   0.01>                    <       >
                  <       >                    <       >
                  <       >                    <       >
                  <       >                    <       >
                  <       >                     DIRECTORY[  ]   P[    ]
```

FIGURE 4

NSPMP PAGE 5 CATEGORY
PERFORMANCE OBJECTIVES

4 ESS ON-SITE OPERATIONS REPORT
TRAFFIC SEPARATIONS SUMMARY REPORT (SSR)
(4E8 AND LATER GENERIC PROGRAMS)

1. GENERAL

1.01 The Traffic Separations Summary Report (SSR) for 4E8 and later Generic Programs provides an expanded view of data relative to traffic separations, investment/expense studies, geographic call flow studies, Network Management studies and access/leasing considerations.

The Traffic Separations Summary Report report is also referred to as the "SEPSUM" report.

1.02 This two page report contains 64 assignable output positions/categories and a "TOTAL CELL" fixed position category containing the sum of all cell data except for cell 0 (audits) and cell 1 (intra-office test calls). The report is schedulable for hourly, day-to-hour, daily and month-to-date output on any of the available Network Management Display System Terminals.

1.03 Output data for SSR reports is made available through joint use of EF-4 page (4 ESS TG-4 Division 10, Section 4m) and ODA form 406J (4 ESS TG-4 Division 6, Section 6j).

1.04 Following the heading, the standard output format has 65 categories of which 64 are assignable on site. Any ASCII label of up to 12 characters may be used to identify each category. The machine administrator identifies the cells which are to be summed for each category. Labels and cell assignments are changeable on site by means of a CRT display (page EF4 NMDS/OSOR). Each output category will have Peg Count and Usage data adjacent to it. The Peg Count and Usage outputs will print a number up to 9 billion plus (ten digits with commas). Usage will be expressed in CCS.

1.05 TOTAL CELL, appearing in position 0 of the report, is the 65th category. This category represents the sum of all cells except cell 0 (audits) and cell 1 (intra-office test calls). The category label and cell assignments for this position cannot be changed or made manually; this is an automatic action. Total cell is represented by position 0 on input page EF4 of the NMDS/OSOR system.

1.06 Any report position which has a count of zero will show one zero in the Peg Count and CCS columns. Any position which is not assigned will print NOT ASSIGNED. A position which has no active cells assigned will be labeled NOT ASSIGNED on the output report regardless of label assigned on page EF4.

1.07 Each report position may be initialized in the following ways. On the second of each month at 0001 the previous month-to-date is initialized for all positions automatically and the first day of the new month is stored. By using page EF4 of the NMDS/OSOR, the user may initialize any position immediately or at a designated day of the coming week. When choosing a day of the week, initialization occurs at time 0001 of the day specified. The user may also enter NOT ASSIGNED as a category label for any position other than TOTAL CELL. This will overwrite all active cell assignments to not active for that position and initialize that position immediately. The latest initialize time for each report position is stored to be printed on the output report.

2. REPORT HEADINGS

2.01 REPT: - The name of the report.

2.02 REPORTING OFFICE - CLLI code name for the office creating the report.

2.03 REPORT TYPE - The duration of the collection period of the report such as monthly, month to date, daily, hourly or day to hour.

2.04 DATE AND TIME - The end date and end hour of the collection period. Example: HOURLY REPORT, 09/22/76 1100, represents the data from 1000 to 1100 on September 22, 1976. The output report for 1100 would be printed at 1100 and contain data from 1000 to 1100.

2.05 REPORT PERIOD - Month and year this data was accumulated.

2.06 REPORT - The word SCHEDULED will appear unless this is a day to hour report then the word DEMAND will appear.

2.07 Current Generic = Current Generic residing in the machine.

Example: 4E<3>4B.08

SS<GX>LL.II

SS = Machine System

G = Generic Load

X = Xport Option (Null in DOM OFC)

LL = Generic Load Point Number

II = Software Change Notice (CN) Issue Number

2.08 NMDS/OSOR System Issue - The current issue of the system NMDS/OSOR tape residing in the machine.

Example: 1281.0

MMYY.X

MM = Month

YY = Year

X = NMDS/OSOR Tape Dot Issue

3. REPORT COMPONENTS

3.01 Category - Any ASCII label of up to 12 characters used to identify a summation of cell assignments.

3.02 Peg Count - The accumulated count of events for the period covered by the report.

3.03 CCS - Represents the usage in hundred call seconds for the period covered by the report.

3.04 START ACCUMULATION - The date and time under the heading START ACCUMULATION represents the last time the adjacent report position was initialized, except on an hourly report. On an hourly report this date and time is the day and starting hour of the accumulation.

```
REPT:  TRAFFIC SEPARATIONS SUMMARY REPORT

REPORTING OFFICE:  $@@@@@@@@@@@@@@        REPORT TYPE:  $@@@@@@@@@@@@
DATE:  $@@@@@@@        TIME:  $@@@        PAGE 1 OF 2
REPORT PERIOD:  $@@@@@@@@ $@@@                        $@@@@@@@@ REPORT

POS   CATEGORY        PEG COUNT             CCS               START ACCUM
--- ------------    -------------      -------------          -----------

 0  TOTAL CELL      $$@$@$@$@$@$@      $$@$@$@$@$@$@          $@/$@  $@@@

 1  $@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
 2  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
 3  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
 4  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@

 5  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
 6  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
 7  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
 8  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@

 9  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
10  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
11  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
12  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@

13  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
14  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
15  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
16  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@

17  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
18  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
19  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
20  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@

21  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
22  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
23  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
24  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@

25  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
26  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
27  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
28  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@

29  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
30  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
31  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
32  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@          !@/!@  !@@@
                                          CURRENT GENERIC:     $@@@@@@@@@@@@@@@
                                          NMDS/OSOR SYS ISS:   $@@@@@
```

FIGURE 1 - SHEET 1

TRAFFIC SEPARATIONS SUMMARY REPORT
(4E8 AND LATER GENERIC PROGRAMS)

```
    REPT:  TRAFFIC SEPARATIONS SUMMARY REPORT

                                  PAGE  2  OF  2

POS   CATEGORY        PEG COUNT            CCS             START ACCUM
--- ------------    ------------      -------------        ----------

33  $@@@@@@@@@@@@    $$@$@$@$@$@$@      $$@$@$@$@$@$@$@      $@/$@  $@@@
34  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
35  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
36  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@

37  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
38  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
39  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
40  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@

41  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
42  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
43  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
44  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@

45  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
46  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
47  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
48  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@

49  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
50  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
51  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
52  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@

53  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
54  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
55  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
56  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@

57  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
58  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
59  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
60  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@

61  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
62  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
63  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
64  !@@@@@@@@@@@@    !!@!@!@!@!@!@      !!@!@!@!@!@!@!@      !@/!@  !@@@
```

FIGURE 1 - SHEET 2

TRAFFIC SEPARATIONS SUMMARY REPORT
(4E8 AND LATER GENERIC PROGRAMS)

REPT: TRAFFIC SEPARATIONS SUMMARY REPORT

REPORTING OFFICE: KSCY MO 09 04T REPORT TYPE: MONTH-TO-DATE
DATE: 09/22/76 TIME: 2400 PAGE 1 OF 2
REPORT PERIOD: SEPTEMBER 1976 SCHEDULED REPORT

POS	CATEGORY	PEG COUNT	CCS	START ACCUM
0	TOTAL CELL	1,234,567,890	1,234,567,890	09/01 0000
1	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
2	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
3	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
4	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
5	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
6	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
7	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
8	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
9	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
10	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
11	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
12	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
13	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
14	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
15	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
16	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
17	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
18	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
19	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
20	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
21	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
22	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
23	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
24	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
25	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
26	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
27	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
28	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
29	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
30	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
31	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
32	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000

CURRENT GENERIC: 4E<7>4B.01
NMDS/OSOR SYS ISS: 0378.1

FIGURE 2 - SHEET 1

TRAFFIC SEPARATIONS SUMMARY REPORT
SAMPLE
(4E8 AND LATER GENERIC PROGRAMS)

REPT: TRAFFIC SEPARATIONS SUMMARY REPORT

PAGE 2 OF 2

POS	CATEGORY	PEG COUNT	CCS	START ACCUM
33	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
34	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
35	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
36	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
37	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
38	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
39	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
40	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
41	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
42	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
43	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
44	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
45	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
46	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
47	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
48	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
49	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
50	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
51	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
52	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
53	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
54	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
55	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
56	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
57	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
58	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
59	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
60	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
61	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
62	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
63	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000
64	CATEGORY	1,234,567,890	1,234,567,890	09/01 0000

FIGURE 2 - SHEET 2

TRAFFIC SEPARATIONS SUMMARY REPORT
SAMPLE
(4E8 AND LATER GENERIC PROGRAMS)

4 ESS ON-SITE OPERATIONS REPORT
TRAFFIC SEPARATIONS SUMMARY
ASSIGNMENT DISPLAY PAGE
FOR 4E8 AND LATER GENERIC PROGRAMS
EF4

1. GENERAL

1.01 Separations Summary Assignment display page EF4 for 4E8 and later Generic Programs provides the Machine Administrator and the means to assign selected cells containing INSEP-DESEP data to output categories on the Traffic Separations Summary Report. Actual INSEP-DESEP data is made available to EF4 transactions through Traffic Separations Cell Groupings specified by Machine Administrators via 4 ESS entry form 406J. See 4 ESS Translation Guide Division 6, Section 6j.

1.02 EF4 contains 1024 cells (0 thru 1023) spread over 16 rows of 64 cells each. Each row of 64 cells is divided into 6 blocks of 10 cells and 1 block of 4 cells (See Figures 1 and 2).

1.03 Cell Assignments may be made to a total of 64 output categories on the Traffic Separations Summary Report via report position, category and cell number windows. Report position and category windows locate and name INSEP-DESEP data on the Traffic Separations Summary Report. Individual cell assignments dictate which cells containing INSEP-DESEP data are included in a position/category.

1.04 Report position zero (0) is reserved for "TOTAL CELL" data on the Traffic Separations Summary Report. EF4 display for "REPT POS" zero (0) will show (Y)s in all cell locations except cell 0 (audits) and cell 1 (intra-office test calls). Dots (.) indicating that cells 0 and 1 are not part of the total cell data for position zero of the Traffic Separations Summary Report while (Y)s indicate that all other cells are summed in position 0 data. Total cell output data is an automated function for all Separations Summary Reports. EF4 display for position zero may not be overwritten.

1.05 Initial EF4 displays for positions 1 through 64 will show a dot (.) in all cell locations. Cell zero (audits) may be overwritten but will be ignored by the system. Cell 1 is reserved for intra-office test calls. Cell 1023 is a default cell for any INSEP-DESEP combinations not assigned to a cell.

2. OPERATION

2.01 In order to make cell assignments to a position/category for output on the Traffic Separation Summary Report, the user requests EF-4 page via a Network Management terminal. The basic EF-4 display will be returned showing blanks in REPT POS, Category and Initialize windows. All cell assignment windows will contain a (.). The user must then type a number from 0 to 64 in the REPT POS window and depress the send key. The selected REPT POS number entered corresponds to one of the 65 output positions/categories of the Traffic Separations Summary Report.

2.02 The returned EF4 display will show the entered REPT POS number, category label (name previously assigned by the user or not assigned) and a dot (.) or (Y) at each cell location. (A dot (.) indicates cell(s) not being summed into the displayed REPT POS/category data for the Traffic Separations Summary Report and a (Y) indicates cell(s) being summed into the displayed REPT POS/category data for the Traffic Separations Summary Report. Initialize windows will show the last action input by the user (+ or blank). The NOW window will always show blank. Day-of-week windows will show blank if the time for initialization is past.

2.03 From this point the user has the option of several actions: (Actions 1 through 3 do not apply when REPT POS selected is 0).

1. The user may change the category label by typing in up to 12 characters in the CATEGORY window. By typing in "NOT ASSIGNED" in the CATEGORY window the user initializes the existing counts for that position and overwrites all "y" assignments with ".", NOT ASSIGNED will be printed on the output report.

2. If the user changes the category label to anything other than "NOT ASSIGNED" and fails to enter a "y" in at least one cell, the label entered will be replaced by "NOT ASSIGNED". Any report position which has no "y" assigned will be labeled "NOT ASSIGNED".

3. The user may alter cell assignments as desired by overwriting a period of "y" in the appropriate cell location. Any character other than "." or "y" causes an error message. Cell 0 is reserved for audits and is not assignable.

4. The existing counts for the position may be zeroed at a predetermined time by typing a "+" in the appropriate INITIALIZE window. A "+" in the NOW window zeroes the Month-To-Date and Day-to-Hour counters immediately. A "+" in the day of the week windows zeroes the MTD counter at 0000 of the day specified. More than one initialize time may be specified in one action. Any character other than a "+" is treated as a

blank.

5. In order to change the report position displayed the user must type the number of the new position desired in the REPT POS window.

6. Position 0 may be input for the purpose of initializing the total cell count. When position 0 is displayed, it represents the TOTAL CELL assignment and the only allowable action is the initialize action. The user may not alter the category label or cell assignments for position 0. A change attempted on this position will be ignored.

2.04 After the user has made the changes desired, depressing the send key will cause the data displayed on the CRT to be transmitted and activated.

2.05 All counts are initialized each month automatically. At time 0001 on the second of each month the previous MTD is zeroed and the first day of the new month is stored. The date and time of the latest initialization for each report position is stored to be printed on the output report.

2.06 When an error is encountered the word "ERROR" will be displayed in the ERROR window and an indication of where the error exists will be displayed in the MESSAGE window. If the user inputs digits other than 0 through 64 in the REPT POS window, the MESSAGE window will indicate REPT POS. Any character other than a "." or a "y" in cell locations will show cells in the MESSAGE window. No data is stored if an error is encountered.

2.07 After making assignments on Page EF4, a copy of the page may be printed locally on the DS40 to be kept as a record of existing assignments.

2.08 Detailed information on the Traffic Separations Summary Report can be found in 4 ESS TG-4, Division 10, Section 4l.

```
EF4    TRAF SEP SUM CELL ASSIGNMENTS     DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@
REPT POS [$@]                  CATEGORY [$@@@@@@@@@@@]       $@@@@@@@@@@

CELL           1          2          3          4          5          6
NO. 0123456789 0123456789 0123456789 0123456789 0123456789 0123456789 0123
    $@@@@@@@@@@ $@@@@@@@@@@ $@@@@@@@@@@ $@@@@@@@@@@ $@@@@@@@@@@ $@@@@@@@@@@ $@@@
 64 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
128 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
192 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
256 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
320 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
384 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
448 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@

512 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
576 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
640 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
704 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
768 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
832 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
896 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
960 !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@@@@@@@@ !@@@
INITIALIZE   NOW($)  SUN($)  MON($)  TUE($)  WED($)  THU($)  FRI($)  SAT($)
                                                DIRECTORY [$@]  P[$@@@]
```

FIGURE 1

EF-4 DISPLAY PAGE
(4E8 AND LATER GENERIC PROGRAMS)

```
EF4    TRAF SEP SUM CELL ASSIGNMENTS    DATA TIME 00:00         SENT AT 00:00:00
REPT POS [01]                  CATEGORY [ TOTAL LOCAL]

CELL           1          2          3          4          5          6
NO. 0123456789 0123456789 0123456789 0123456789 0123456789 0123456789 0123
    .......YYY .......YYY YYYYYY.... .......... .......... .......... ....
 64 .......... YYYYY..... ....YYYY.. .......... .......... .......... ....
128 YYYYYY.... .......... .......... .......... .......... .......... ....
192 .......... .......... .......... .......... .......... .......... ....
256 .......... .......... .......... .......... .......... .......... ....
320 .......... .......... .......... .......... .......... .......... ....
384 .......... .......... .......... .......... .......... .......... ....
448 .......... .......... .......... .......... .......... .......... ....

512 .......... .......... .......... .......... .......... .......... ....
576 .......... .......... .......... .......... .......... .......... ....
640 .......... .......... .......... .......... .......... .......... ....
704 .......... .......... .......... .......... .......... .......... ....
768 .......... .......... .......... .......... .......... .......... ....
832 .......... .......... .......... .......... .......... .......... ....
896 .......... .......... .......... .......... .......... .......... ....
960 .......... .......... .......... .......... .......... .......... ....
INITIALIZE   NOW( )  SUN( )  MON( )  TUE( )  WED( )  THU( )  FRI( )  SAT( )
                                                DIRECTORY [  ]   P[   ]
```

EF4 sample display showing cells 7 through 9, 17 through 25, 74 through 78, 88 through 91 and 128 through 133 being summed for output in position 1 (TOTAL LOCAL) of Traffic Separations Summary Reports.

FIGURE 2

EF-4 EXAMPLE DISPLAY PAGE
(4E8 AND LATER GENERIC PROGRAMS)

4 ESS ON-SITE OPERATIONS REPORT
FAR END NETWORK REPORT (FEN)

1. GENERAL

1.01 The Far End Network Report provides a view of selected service measurements relative to a Far End Network (FEN). A FEN represents connections between a 4 ESS SWITCHING MACHINE and another CARRIER or COMPANY via one or more Trunk Sub-groups (TSG).

1.02 FENs are uniquely defined through a combination of FEN IDENTIFICATION (FENID) characters and a FEN CLASS. FENIDs consists of up to six alphanumeric characters assigned by the machine administrator on a TSG or TSG family basis within a FEN class. A FEN class may be any of the ten classes listed below which are also assigned by the machine administrator:

1) ACCESA - Connections to an Interexchange Carrier (IEC) or International Carrier (INC) and the 4 ESS is used by a Bell Operating Company (BOC) as an Access Tandem (AT).

2) ACCESI - Connections to an International Carrier (INC) and the 4 ESS is used by an IEC.

3) ACCESO - Connections to an operating company.

4) OWATS - Connections to a Private Branch Exchange (PBX) carrying only outward WATS traffic.

5) PBX - Connections to a Private Branch Exchange.

6) INTNL - Connections to offices outside World Zone 1 and the 4 ESS is used as an International Switching Center (ISC).

7) POTS - Connections to a switching machine serving either a Local Access Transport Area (LATA) of the BOC owning/sharing the 4 ESS, the Continental United States/POTS (CUSP) network of the IEC owning/sharing the 4ESS, or some other FEN to be treated similarly.

8) CAMA - Specifies that a Trunk Sub-group is terminated in an office which delivers traffic on CAMA trunks.

9) CMC - Specifies that a Trunk Sub-group connects an Access Tandem and a Cellular Mobile Carrier (CMC).

10) OEO - Specifies an access tandem TSG connects to an Other End Office (OEO) - meaning an Equal Access End Office owned by a different company.

1.03 A separate report for each selected FEN class will print on a daily basis when scheduled on EF1 page. Each report will contain data for all FENIDS relative to the particular class. FENIDS will be listed in the order stored in the 4 ESS. A maximum of 255 FENs (class/ID combinations) are available.

1.04 All FEN REPORTS are single page except for "ACCESA" which is a two page output. Page 2 of the "ACCESA" report contains a more specific set of failure data relative to EQUAL ACCESS vs DIRECT CONNECT service. Page one is identical to the other FEN CLASS output.

2. REPORT COMPONENTS

2.01 CLASS - FEN reports are output on a per-FEN-CLASS basis. There are seven available classes. Data on any output report is relative only to its particular FEN CLASS.

2.02 Heading

1. Reporting office - The CIN name for the office creating the report.
2. Report type - FEN Reports are limited to only DAILY Reports.
3. Date - Last day that data was accumulated for this report.
4. Time - End time for data appearing on this report.
5. Page - Page 1 of 1, 1 of 2, 2 of 2, etc. (A maximum of 40 data lines are available per report page.)
6. Report period - Indicates month and year data was accumulated for this report.
7. Report - This entry will always be "scheduled."
8. Current generic - This entry will show the current Generic Program residing in the machine.
9. NMDS/OSOR system issue - This entry will show the NM tape identity residing in the machine.

2.03 Page 1 Components - All Reports

1. ID - FEN Identification Characters (FENID)
2. IS-FS - "Incoming Seizures minus False Starts" for TSG(s) in the associated FENID.
3. In RO - Incoming Reorders occurring on TSG(s) in the associated FENID.

4. Out SZ - Outgoing seizures occurring on TSG(s) in the associated FENID.
5. Out RO - Outgoing Reorders occurring on TSG(s) in the associated FENID.

2.04 Page Two Components - "ACCESA" Only

1. ID - FEN identification characters (FENID).
2. EA OS - EQUAL ACCESS outgoing seizures.
3. EA OVFL - EQUAL ACCESS TSG overflow.
4. SSD D - Second start dial failure on a DIRECT CONNECT TSG.
5. SSD AT - Second start dial failure on an ACCESS TANDEM TSG.
6. UXS D - Unexpected stop failure on a DIRECT CONNECT TSG.
7. UXS AT - Unexpected stop failure on an ACCESS TANDEM TSG.
8. PAW D - Post address wink time-out failure on a DIRECT CONNECT TSG.
9. PAW AT - Post address wink time-out failure on an ACCESS TANDEM TSG.

TABLE A

Count Data

Page One - All Reports

Measurement + Final Handling Code (FHC)	**Formula**
Incoming Seizures - False Starts (82, 99, 228, 235, 237)	FEN INC Seiz - False Starts
In RO (46, 47, 75, 76, 81, 90, 91, 93, 124, 126, 152, 153, 154, 155, 156, 159, 160, 182, 248, 249, 287, 288, 289, 295, 298, 299, 300, 301, 302, 516, 565, 566, 567, 568, 671, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 684, 685, 687, 689, 690, 692, 693, 694, 695, 696, 699, 769, 853, 871, 873, 890, 891, 897, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 921, 922, 923, 924, 925, 926, 927, 930, 931, 932, 934, 935, 936, 937, 939, 941, 943, 945, 947, 967, 969, 977, 981, 997)	FEN Incoming Reorder
Outgoing Seizures	FEN Out Seiz
Out RO (96, 100, 101, 112, 117, 121, 127, 128, 167, 176, 177, 191, 192, 195, 196, 203, 204, 216, 242, 243, 244, 245, 523, 526, 527, 537, 538, 548, 549, 563, 564, 755, 761, 762, 765, 854, 866, 870, 875, 876, 877, 882, 884, 885, 886, 888, 901, 902, 903, 905, 908, 951, 953, 957, 959, 961, 963, 966)	FEN (FINAL TRIAL) OUT REORDER Note: The Final Handling Codes 901, 902 and 903 for Post Address Wink included as part of the OUT REORDER count for page 1 of the FEN report are for non-SSP type calls in an Access Tandem switch. This distinguishes them from the PAW D and PAW AT found on page 2 of the ACCESA FEN report which are for SSP-type calls only.

TABLE B

Count Data

Page Two - "ACCESA" Only

Measurement + Final Handling Code (FHC)		**Formula**
EA OS		EQUAL ACCESS OUT SEIZURES
EA OVFL		EQUAL ACCESS CALL OVERFLOW
SSD D	(1260, 1270, 1271, 1272, 1273)	SECOND START DIAL (FINAL TRIAL) FAILURES ON DIRECT CONNECT TRUNKS TO AN INTERNATIONAL/ INTERLATA CARRIER
SSD AT	(1264, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1290, 1291, 1292, 1293)	SECOND START DIAL (FINAL TRIAL) FAILURES ON OUTGOING CALLS TO AN INTERNATIONAL/INTERLATA CARRIER VIA AN ACCESS TANDEM
UXS D	(1172, 1174, 1176, 1178, 1180, 1182, 1184, 1186, 1188, 1190, 1192, 1236, 1238, 1240, 1242, 1244, 1246, 1248, 1250)	SECOND UNEXPECTED STOP (FINAL TRIAL) FAILURES ON DIRECT CONN-ECT TRUNKS TO AN INTERNATIONAL/ INTERLATA CARRIER
UXS AT	(1194, 1196, 1198, 1200, 1202, 1204, 1206, 1208, 1210, 1212, 1214, 1216, 1218, 1220, 1222, 1224, 1226, 1228, 1230, 1232, 1234)	SECOND UNEXPECTED STOP (FINAL TRIAL) FAILURES ON OUTGOING CALLS TO AN INTERNATIONAL/ INTERLATA CARRIER VIA AN ACCESS TANDEM
PAW D	(1262,1269, 1274, 1275, 1276, 1277, 1298, 1299, 1300, 1301)	SECOND POST ADDRESS WINK TIME-OUT (FINAL TRIAL) FAILURES ON DIRECT CONNECT TRUNKS TO AN INTERNATIONAL/INTERLATA CARRIER FOR SSP-TYPE CALLS ONLY
PAW AT	(1286, 1287, 1288, 1289, 1294, 1295, 1296,1297)	SECOND POST ADDRESS WINK TIME-OUT (FINAL TRIAL) FAILURES ON OUTGOING CALLS TO AN INTER-NATIONAL/INTERLATA CARRIER VIA AN ACCESS TANDEM FOR SSP-TYPE CALLS ONLY

```
REPT:  FAR END NETWORK (FEN)     CLASS $@@@@@

REPORTING OFFICE:  $@@@@@@@@@@@@@@        REPORT TYPE:  $@@@@@@@@@@@@@@@@@@@@
DATE:  $@@@@@@@  TIME:  $@@@     PAGE $ OF  $
REPORT PERIOD:  $@@@@@@@@  $@@@                                  $@@@@@@@@ REPORT
CURRENT GENERIC:  $@@@@@@@@@@@@@@                    NMDS/OSOR SYS ISS:  $@@@@@

  ID      IS-FS     IN RO    OUT SZ    OUT RO

$@@@@@  $@@@@@@$  $@@@@@@$  $@@@@@@$  $@@@@@@$
!@@@@@  !@@@@@@!  !@@@@@@!  !@@@@@@!  !@@@@@@!
```

```
REPT: FAR END NETWORK (FEN)    CLASS $@@@@@

                                PAGE $ OF $


  ID    EA OS  EA OVFL  SSD D  SSD AT   UXS D  UXS AT   PAW D  PAW AT
$@@@@@ $@@@@@$ $@@@@@$ $@@@@@$ $@@@@@$ $@@@@@$ $@@@@@$ $@@@@@$ $@@@@@$
!@@@@@ !@@@@@! !@@@@@! !@@@@@! !@@@@@! !@@@@@! !@@@@@! !@@@@@! !@@@@@!
```

4 ESS ON-SITE OPERATIONS REPORT
MACHINE LOAD SERVICE SUMMARY (MLSS)
Generic: 4E25

1. GENERAL

1.01 The MLSS is a report containing one hour of data beginning on the hour or half hour. It is used by the Machine Administrator and Traffic Engineer to monitor machine performance, capability and the interaction of critical office components.

2. REPORT HEADINGS

2.01 The heading of the MLSS provides data pertinent to the office, report data and report period.

2.02 OFFICE. Common Language Location Identification (CLLI) for the office creating the report.

2.03 PERIOD. The MLSS Report Study Period in the form of "Beginning time - Ending time". Where "Beginning time" is the time of day that the accumulation of this data was started. "Ending time" is the time of day that the accumulation of this data was collected.

The time format is
hhmm
where hh is hour from 00-23,
and mm is minutes, either 00 or 30.

2.04 DATE. This is the month/day/year, of the day that the data was accumulated for this report.

2.05 CURRENT GENERIC. Current Generic Program residing in the machine.

Example: 4E<20>4B.08 SS<GGX>LL.II

SS = Machine System
GG = Generic Load
X = Export Option (Null In domestic offices)
LL = Generic Load
II = Software Change Notice (CN) Issue Number

2.06 NMDS/OSOR SYS ISS. The system's current issue of the NMDS/OSOR tape residing in the machine.

Example: 0884.0 MMYY.X

MM = Month
YY = Year
X = NMDS/OSOR Tape Dot Issue.
"0" is the first issue.

3. REPORT COMPONENTS (MLSS, LDR & LSR)

3.01 COUNT FIELD. All counts are for 60 minute intervals, on the hour or half hour. If a sum of counts exceeds the capacity of the field, the counts are converted to thousands and marked by the letter K to the right of the field. PC = Peg Count

3.02 CCS FIELD. CCS is not measured directly, but is computed as the occupancy count multiplied by the scan rate and divided by 100, e.g., (occupancy count of 360 * 10 second scan rate)/100=36CCS. Scan rates are either 10, 180 or 900 seconds.

3.03 HT FIELD. All holding times are computed as CCS*100/count, and expressed in seconds.

3.04 % FIELD. Percent is rounded to one or two decimals, depending on the space available.

3.05 C/ET FIELD. is the unit count per type Equivalent one way trunk (E1WT) of the corresponding direction (I-incoming, O-Outgoing) and signalling type (e.g. MF, DP, CCIS).

3.06 CCSCAP FIELD. CCS capacity assumes 100% occupancy, and is computed using one of the following methods:

- 36CCS, times the number of units
- Poisson Tables
- A calculation shown for the specific item.

3.07 ASTERISK (*). is used as: a questionable data indicator when measurements are out of a predefined "normal" range; and a key item indicator for the selection of high days and busy hours.

3.08 QUESTIONABLE DATA INDICATOR (*). is indicated in the asterisk column preceding a measurement being directly or indirectly evaluated. An asterisk in this column indicates that the associated measurement has failed the specified range test, e.g., 97-100%, or that a related measurement has failed.

3.09 KEY ITEM (*). is identified by an asterisk capped column or a statement "KEY ON _____" in LSR and LDR reports. This item is used to rank order the high days and months, and identify the busy hour. In the LDR an additional column, " ", will display an * to mark the busy hour. Tie hours will be marked as high.

3.10 TRUNK FIELD. Trunk acronyms are defined in the formulas for trunks in Tables 2.1 - 2.13.

Acronym	Definition
2 WAY	Two way trunk with the incoming and outgoing signaling characteristic
2W-IN	Two way trunk with the incoming signaling characteristic
2W-OUT	Two way trunk with the

outgoing signaling characteristic

1W-IN One way trunk with the incoming signaling characteristic

1W-OUT One way trunk with the outgoing signaling characteristic

E1WT-I Equivalent one way trunk with the incoming signaling characteristic

E1WT-O Equivalent one way trunk with the outgoing signaling characteristic

3.11 OCCUPANCY. is the total accumulated time a class of devices was found service or maintenance busy during a specified period, when scanned at intervals of 10, 180 or 900 seconds. The count multiplied by the scan rate equals the occupancy, and further division by 100 equals CCS.

4. REPORT COMPONENTS - MLSS PAGE 1

4.01 INCOMING SEIZURES. Includes false start abandons, permanent signals and continuity test failures as well as incoming calls. Table 1.1. details the counts, percentage per signalling type to the total incoming seizures, and C/ET formulas used to compute these items.

4.02 OUTGOING ATTEMPTS. Table 1.2. details the outgoing attempts, percentage per signalling type to the total outgoing attempts, and C/ET formulas used to compute these items.

4.03 INTERNATIONAL TRAFFIC. Table 1.3. details the International Incoming Operator Calls, and percentage to the total international incoming attempts.

4.04 PAS INCOMING TRAFFIC. Table 1.4. details the total PAS terminating attempts, and percentage to the total incoming attempts.

4.05 DSDC INCOMING TRAFFIC. Table 1.5. details the initial and subsequent DSDC incoming attempts, and percentage to the total incoming attempts.

4.06 SECOND STAGE PULSING ATTEMPTS. Table 1.6. details the domestic and international pulsing attempts, and percentage to the total incoming attempts.

4.07 ISAIC NSCX TRAFFIC. Table 1.7. details the NSCX calls and failures, and error percentage to the number of NSCX calls.

4.08 LNP TRAFFIC. Table 1.8. details the LNP queries, query successes, ported (query responses containing an LRN) calls and ISUP-release message counts and associated ratios.

4.09 INCOMING CALLS. An incoming seizure for which at least one digit has been received. This should equal the total incoming seizure counts minus the counts for false starts and permanent signal time outs. Table 1.9. details the counts, percentage per signalling type to the corresponding incoming seizures, C/ET, and questionable data indicator formulas used to compute these items.

4.10 COMPLETED CALL. Table 1.10. details the total calls completed from a trunk perspective including various final trial failures,and signalling failures, percentage to the corresponding outgoing attempts, and C/ET formulas used to compute these items.

4.11 DNHR Table 1.11. details the via toll switch and teminating toll switch incoming calls, and crankbacks, and percentage to the total incoming seizures.

4.12 RTNR. Table 1.12. details egress busy crankbacks and queries for RTNR.

4.13 ORCAP INFORMATION. Table 1.13. details the office real time capacity counts and formulas used to compute these items.

5. REPORT COMPONENTS - MLSS PAGE 2

5.01 TRUNK ASSIGNMENTS. Tables 2.1 through 2.13. detail the counts and formulas used to compute the trunk assignments per signalling type. The assignments are categorized as incoming and outgoing, one way and two way, total, and equivalent one way incoming and outgoing.

5.02 TIME DIVISION NETWORK. Table 2.14. details the counts and formulas used to compute TSI terminations, total calls and nail-ups.

5.03 CNI BUFFER INFORMATION. Table 2.15. details the counts and formulas used to compute CNI incoming and outgoing buffer information.

5.04 1A/1B PROCESSOR. Table 2.16. details the counts and formulas used to compute detailed processor information for the four 15-minute periods prior to the end of the hour, and the total hour’s worth of data. This information includes incoming seizures handled during each time period, base level cycle average length, overloads, usage, and maintenance interrupts.

6. REPORT COMPONENTS - MLSS PAGE 3

6.01 CALL REGISTERS. Table 3.1. details the counts and formulas used to compute the CCS, occupancy percentage, and holding time for the various call registers.

6.02 CALL REGISTER Q. Table 3.2. details the counts and formulas used to compute register queue CCS, occupancy percentage and holding time per signalling type.

6.03 CALL REGISTER Q OVERFLOWS. Table 3.3. details the counts and formulas used to compute the queue overflows and their percentage.

7. REPORT COMPONENTS - MLSS PAGE 4

7.01 SERVICE CIRCUITS + Q. Table 4.1, 4.2. details the counts and formulas used to compute CCS, occupancy percentage, and holding time for the various multifrequency receiver and transmitter service circuits.

7.02 CCIS + ANN SERVICE CKTS. Table 4.3, 4.4. details the counts and formulas used to compute CCS, occupancy percentage, and holding time for the CCIS transceiver, announcement, and tone service circuits.

7.03 POISSON CAPACITY TABLE. Table 4.5. is the used to get the CCS capacity values for the number of service circuits installed (e.g. MF Receiver service circuits, DTMF Receiver service circuits, MF Transmitter service circuits)

8. REPORT COMPONENTS - MLSS PAGE 5

8.01 BILLING SERVICE. Table 5.1. details the counts and formulas used to compute CCS, occupancy percentage, and holding time for the resources used to provide billing services. Automatic Message Accounting (AMA), and International Call Detailed Recording (ICDR), summary information is also detailed in Table 5.1.

8.02 BILLING INFORMATION. Table 5.2. details the counts and formulas used to compute the counts of the various calltypes occuring during the data collection interval.

8.03 TRAFFIC FOR ANT AND AHRNA. Table 5.3. details the counts and formulas used to compute the counts and percentages for these types of calls.

```
REPORT MACHINE LOAD AND SERVICE SUMMARY     MLSS    OFFICE:$@@@@@@@@@@@@@@@
PERIOD:$@@@-$@@@                  PAGE 1 OF 5       DATE:  $@@@@@@@@
                                                    CURRENT GENERIC:  $@@@@@@@@@@@@@@@
TRAFFIC                                             NMDS/OSOR SYS ISS:$@@@@@
LINE   ITEM     COUNT   %    BASE C/ET     ITEM     COUNT   %    BASE C/ET
---- --------  ------ ---- ------ ----   --------  ------ ---- ------ ----
100  INC SEIZ  $@@@@@             $@.$   INC CALL $$@@@@@ $@.$ TOT IS $@.$
101   MF       !@@@@@ $@.$ TOT IS !@.!    MF      !!@@@@@ !@.! MF  IS !@.!
102   DP       !@@@@@ !@.! TOT IS !@.!    DP      !!@@@@@ !@.! DP  IS !@.!
103   DTMF     !@@@@@ !@.! TOT IS !@.!    DTMF     !@@@@@ !@.! DTM IS !@.!
104   DTS      !@@@@@ !@.! TOT IS !@.!    DTS      !@@@@@ !@.! DTS IS !@.!
105   CCIS     !@@@@@ !@.! TOT IS !@.!    CCIS    !!@@@@@ !@.! CC  IS !@.!
106   Q931     !@@@@@ !@.! TOT IS !@.!    Q931     !@@@@@ !@.! Q93 IS !@.!
107   ISUP     !@@@@@ !@.! TOT IS !@.!    ISUP     !@@@@@ !@.! ISU IS !@.!
108    LCC     !@@@@@ !@.! ISU IS !@.!    TUP      !@@@@@ !@.! TUP IS !@.!
109    OTHER   !@@@@@ !@.! ISU IS !@.!    INUP     !@@@@@ !@.! INP IS !@.!
110    ETC     !@@@@@ !@.! ISU IS !@.!    CCITT5  !!@@@@@ !@.! C-5 IS !@.!
111    OCC     !@@@@@ !@.! ISU IS !@.!    CCITT6  !!@@@@@ !@.! C-6 IS !@.!
112    LSP     !@@@@@ !@.! ISU IS !@.!
113   TUP      !@@@@@ !@.! TOT IS !@.!  COMP CALL !!@@@@@ !@.! OUT AT !@.!
114   INUP     !@@@@@ !@.! TOT IS !@.!    IT+TC    !@@@@@ !@.! OUT AT !@.!
115   CCITT5   !@@@@@ !@.! TOT IS !@.!    RETRIAL  !@@@@@ !@.! OUT AT
116   CCITT6   !@@@@@ !@.! TOT IS !@.!    CCITT5   !@@@@@ !@.! C-5 AT !@.!
117                                       CCITT6   !@@@@@ !@.! C-6 AT !@.!
120  OUT ATT  $!@@@@@ !@.! TOT IC !@.!   DNHR ------------------------------
121   MF       !@@@@@ !@.! TOT AT !@.!    VTS INC  !@@@@@ !@.! TOT INC
122   DP       !@@@@@ !@.! TOT AT !@.!    TTS INC  !@@@@@ !@.! TOT INC
123   DTMF     !@@@@@ !@.! TOT AT !@.!    CB SENT  !@@@@@ !@.! VTS INC
124   CCIS     !@@@@@ !@.! TOT AT !@.!    CB RECT  !@@@@@
125   Q931     !@@@@@ !@.! TOT AT !@.!   RTNR ------------------------------
126   ISUP     !@@@@@ !@.! TOT AT !@.!    EBC SENT !@@@@@
127   TUP      !@@@@@ !@.! TOT AT !@.!    EBC REC  !@@@@@
128   INUP     !@@@@@ !@.! TOT AT !@.!    QRY SENT !@@@@@
129   CCITT5   !@@@@@ !@.! TOT AT !@.!    QRY REC  !@@@@@
130   CCITT6   !@@@@@ !@.! TOT AT !@.!   ORCAP INFORMATION ----------------
131  INTERNATIONAL TRAFFIC ------------    INWATS (INC)       $@@@@@
132   IOC      !@@@@@ !@.! INTL CALL      SDN ATTEMPTS (INC) !@@@@@
133  PAS INC TRAFFIC ------------------    CACHE HITS         !@@@@@
134   CALL     !@@@@@ !@.! IN CALL        FALSE STARTS ABAN  !@@@@@
135  DSDC INC TRAFFIC -----------------    NCD QUERIES        !@@@@@
136   INT ATT  !@@@@@ !@.! IN CALL        PCP BN QUERIES     !@@@@@
137   SUB ATT  !@@@@@ !@.! IN CALL        PCP BN DATA FOUND  !@@@@@
138  SECOND STAGE PULSING ATTEMPTS ----    PCP FAX SFDRTO     !@@@@@
139   DOM      !@@@@@ !@.! IN CALL        CAMA ANI           !@@@@@
140   INT      !@@@@@ !@.! IN CALL        CAMA ONI           !@@@@@
141  ISAIC NSCX-----------------------    WIDE BAND H0 ATT   !@@@@@
142   NSCX CALL!@@@@@ !@.! IN CALL        WIDE BAND H11 ATT  !@@@@@
143   INV ID   !@@@@@ !@.! NSCXCAL       SSP-800 (BOC) QUER !@@@@@
144   SCU      !@@@@@ !@.! NSCXCAL        EA (INC) SSP BOC   !@@@@@
150  LNP------------------------------    EA (OUT) SSP BOC   !@@@@@
151   QRYS     !@@@@@ !@.! IN CALL        CAS-NCP MSGS SENT  !@@@@@
152   QRYS-S   !@@@@@ !@.! LNP QRYS       CAS-NCP MSGS REC   !@@@@@
153   PORTED   !@@@@@ !@.! LNP QRYS
154   ISUP-REL !@@@@@
```

Figure 1. MLSS - PAGE 1 OF 5

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REPORT:MACHINE LOAD AND SERVICE SUMMARY     MLSS    OFFICE:$@@@@@@@@@@@@@@@
PERIOD:$@@@-$@@@                  PAGE 2 OF 5       DATE:  $@@@@@@@

TRUNK ASSIGNMENTS
LINE TRUNKS  2 WAY  2W-IN  2W-OUT 1W-IN  1W-OUT TOTAL  E1WT-I E1WT-O
---- ------  ------ ------ ------ ------ ------ ------ ------ ------
200      MF  $@@@@@ $@@@@@ $@@@@@ $@@@@@ $@@@@@ $@@@@@ $@@@@@ $@@@@@
201      DP  !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@
202    DTMF  !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@
203     DTS         !@@@@@        !@@@@@        !@@@@@ !@@@@@
204    CCIS  !@@@@@                !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@
205    Q931  !@@@@@                !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@
206    ISUP  !@@@@@                !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@
207    TUP   !@@@@@                !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@
208    INUP  !@@@@@                !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@
209  CCITT5  !@@@@@                !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@
210  CCITT6  !@@@@@                !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@
211   TOTAL  !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@ !@@@@@
212   NO-OUTPULSING        !@@@@@        !@@@@@

TIME DIVISION NETWORK

             SPC
     ITEM    INS   CCSCAP    CCS    COUNT  %OCC     HT   CCS/ET
     ------  ----  ------  ------  ------- -----  -----  ------
220 TSI-TERM   $@@  $@@@.$K $@@@.$K $@@@@@@ $@@.$  $@@.$
222 TOT CALLS               !@@@.!K !@@@@@@        !@@.!  $@@.$@
222 NAIL-UPS                !@@@.!K !@@@@@@

CNI BUFFER INFORMATION

     ITEM       INS      CCS     COUNT    OVFL
     --------  ------   ------   ------   ------
230  ACIINBUF  $@@@@@   $@@@@@   $@@@@@   $@@@@@
231  ACIOUTBUF !@@@@@   !@@@@@   !@@@@@   !@@@@@

1A/1B PROCESSOR
             15-MINUTE PERIODS BEGINNING AT:      HOUR
     ITEM      $@@@     $@@@     $@@@     $@@@    TOTAL
     -------   ------   ------   ------   ------   ------
240 INC ATT    $@@@@@   $@@@@@   $@@@@@   $@@@@@   $@@@@@
    BLC:
241  MS AVG   $!@@@@@  $!@@@@@  $!@@@@@  $!@@@@@  $!@@@@@
242  SEC USG  !!@@@@@  !!@@@@@  !!@@@@@  !!@@@@@  !!@@@@@
243  PEG CNT   !@@@@@   !@@@@@   !@@@@@   !@@@@@   !@@@@@
244  OVLD PC   !@@@@@   !@@@@@   !@@@@@   !@@@@@   !@@@@@
245   % OVLD   $@@.$@   $@@.$@   $@@.$@   $@@.$@   $@@.$@
246  CAN-OVL   !@@@@@   !@@@@@   !@@@@@   !@@@@@   !@@@@@
    MTC ITRP:
247  MS USG    !@@@@@   !@@@@@   !@@@@@   !@@@@@   !@@@@@
248  PEG CNT   !@@@@@   !@@@@@   !@@@@@   !@@@@@   !@@@@@
```

Figure 2. MLSS - PAGE 2 OF 5

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REPORT:MACHINE LOAD AND SERVICE SUMMARY     MLSS    OFFICE:$@@@@@@@@@@@@@@@
PERIOD:$@@@-$@@@                  PAGE 3 OF 5       DATE:  $@@@@@@@

REGISTERS

LINE    ITEM      INS  CCSCAP    CCS    COUNT %OCC     %      HT
---- ------------ ---- ------  ------  ------ -----  -----  -----
300  CALL REG     $@@@ $@@@@@ $$@@@.$ $$@@@@@ $@@.$        $$@.$@
301   MF                                !@@@@@
302   DP                                !@@@@@
303   DTMF                              !@@@@@
304   Q931                              !@@@@@
305   ISUP                              !@@@@@
306   TUP                               !@@@@@
307   INUP                              !@@@@@
308   CCIS                              !@@@@@
309   CCITT 5                           !@@@@@
310   CCITT 6                           !@@@@@
311   MISC CR                           !@@@@@
312  QOB REG      $@@@ $@@@@@  !@@@.!  !@@@@@ !@@.!          !@.!@
313  SVA REG      !@@@ !@@@@@  !@@@.!  !@@@@@ !@@.!          !@.!@
314  AHRNA REG    !@@@ !@@@@@  !@@@.!  !@@@@@ !@@.!          !@.!@
315  CPA REG      !@@@ !@@@@@  !@@@.!  !@@@@@ !@@.!          !@.!@

CALL REGISTER Q

320   MF ORIG                !!@@@.! !!@@@@@               !!@.!@
321   DP           !@@@ !@@@@@ !!@@@.! !!@@@@@ !@@.!        !!@.!@
322   DTS          !@@@ !@@@@@  !@@@.!  !@@@@@ !@@ !         !@.!@
323   Q931         !@@@ !@@@@@  !@@@.!  !@@@@@ !@@ !         !@.!@
324   ISUP         !@@@ !@@@@@  !@@@.!  !@@@@@ !@@ !         !@.!@
325   TUP          !@@@ !@@@@@  !@@@.!  !@@@@@ !@@.!         !@.!@
326   INUP         !@@@ !@@@@@  !@@@.!  !@@@@@ !@@.!         !@.!@
327   CCIS         !@@@ !@@@@@ !!@@@.! !!@@@@@ !@@.!        !!@.!@
328   CCITT5                    !@@@.!  !@@@@@                !@.!@
329   CCITT6       !@@@ !@@@@@  !@@@.!  !@@@@@ !@@.!         !@.!@

CALL REGISTER Q OVERFLOWS

340   DP CR Q                           !@@@@@        $@@.$
341   DTS CR Q                          !@@@@@        !@@.!
342   Q931 CR Q                         !@@@@@        !@@.!
343   ISUP CR Q                         !@@@@@        !@@.!
344   TUP CR Q                          !@@@@@        !@@.!
345   INUP CR Q                         !@@@@@        !@@.!
346   CCIS CR Q                         !@@@@@        !@@.!
347   CCITT6 CR Q                       !@@@@@        !@@.!
348  MF RCVR BBF                        !@@@@@        !@@.!
```

Figure 3. MLSS - PAGE 3 OF 5

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REPORT:MACHINE LOAD AND SERVICE SUMMARY     MLSS    OFFICE:$@@@@@@@@@@@@@@@
PERIOD:$@@@-$@@@                  PAGE 4 OF 5       DATE:  $@@@@@@@

SERVICE CKTS + Q

LINE  ITEM         INS  CCSCAP     CCS    COUNT %OCC       HT    OVFL     %
----------------- ---- ------  ------  ------ -----  ------  ------ -----
400 MFR SVC       $@@@ $@@@@@  $@@@@@  $@@@@@ $@@.$   $@.$@
401  MFR-ONI-BBF  !@@@ !@@@@@ $!@@@@@ $!@@@@@ !@@.!  $!@.!@
402  MFR BBF      !@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@
403  MFR DTMF     !@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@
404  MFR DTMF GETS!@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@
405  MFR MTC                   !@@@@@
406  MFR 2SDC Q                !@@@@@  !@@@@@          !@.!@
407  MFR DTS Q                 !@@@@@  !@@@@@          !@.!@
408  MFR DTMF Q                !@@@@@  !@@@@@          !@.!@
409  MFR DTMF PCP Q            !@@@@@  !@@@@@          !@.!@
410  PCP RCV SAN                                       !@.!@
411  PCP RCV 1+SACDS                                   !@.!@
412  PCP RCV MUVF                                      !@.!@
413  PCP RCV FAX S&F                                   !@.!@
     MFR DTMF
414   DTD PCP                        !@@@@@
415   DTD IDTS                       !@@@@@

     MFT Q + SD
420   Q ATTEMPT                      !@@@@@
421   Q ENTRY FLR                   !!@@@@@                      $$@@.$
422   START DIAL              !$@@@.$                 !!@.!@
423   MF TRMTR Q       !@@@@@  !@@@.!  !@@@@@ !@@.!   !@.!@
424  MF TRMTR SVC !@@@ !@@@@@ !!@@@@@ !!@@@@@ !@@.!  !!@.!@
425  DTMF TRMTR   !@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@
426  DTMF TRMTR Q      !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@
427  MF TRMTR MTC              !@@@@@

430 CCIS XCVR SVC !@@@ !@@@@@ !!@@@@@ !!@@@@@ !@@.!  !!@.!@  $@@@@@ !@@.!
431    MTC                    !@@@@@

440 ANN + TONES   !@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@  !@@@@@ !@@.!
441 NCSX SVC      !@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@  !@@@@@ !@@.!
442    MTC                    !@@@@@
443 SCNB SVC      !@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@  !@@@@@ !@@.!
444    MTC                    !@@@@@
445 SETA SVC      !@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@  !@@@@@ !@@.!
446    MTC                    !@@@@@
447 SETC SVC      !@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@  !@@@@@ !@@.!
448    MTC                    !@@@@@
449 SETD SVC      !@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@  !@@@@@ !@@.!
450    MTC                    !@@@@@
451 SETE SVC      !@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@  !@@@@@ !@@.!
452    MTC                    !@@@@@
453 SETF SVC      !@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@  !@@@@@ !@@.!
454    MTC                    !@@@@@
455 SETG SVC      !@@@ !@@@@@  !@@@@@  !@@@@@ !@@.!   !@.!@  !@@@@@ !@@.!
456    MTC                    !@@@@@
```

Figure 4. MLSS - PAGE 4 OF 5

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REPORT:MACHINE LOAD AND SERVICE SUMMARY      MLSS     OFFICE: $@@@@@@@@@@@@
PERIOD:$@@@-$@@@                  PAGE 5 OF 5         DATE:   $@@@@@@@@

BILLING  SERVICE
LINE    ITEM      INS  SVC    CCSCAP   CCS    COUNT   %OCC     HT    OVFL
----  ----------  --- -----  ------- ------- ------  -----   -----  -----
500   TOT CALLS                                $@@@@@
501   ANI FLRS                                 !@@@@@
      CAMA
502    OP POS    $@@@ $@@.$  $@@@@@@ $@@@@@@ !@@@@@  $@@.$  $$@@.$
503    OPR Q     !@@@        !@@@@@@ !@@@@@@ !@@@@@  !@@.!   !@@.!  $@@@@
504    Q-ED>5 SEC                               !@@@@@
505   DP MFR Q                         !@@@@@@ !@@@@@
506   REC REG    !@@@        !@@@@@@ !@@@@@@ !@@@@@  !@@.!   !@@.!

      AMA ITEM             COUNT  OVFL   ICDR ITEM             COUNT
      -----------------    ------ -----  -----------------    ------
510    EBAF MODULES       $@@@@@          ORIG                $@@@@@
511    BILLING RCDS       !@@@@@          PURGE SETUP         !@@@@@
512    TOT BILL RCDS IC/OC!@@@@@          OOS                 !@@@@@
513    RCDS DEFER         !@@@@@ $@@@@    ATIME               !@@@@@
514    DEFER BUF FULL     !@@@@@          TRACER              !@@@@@
515    DEFER RCDS LOST    !@@@@@          CINMAP              !@@@@@
516    DEFER RCDS FMTD    !@@@@@
517    CDR EVENTS         !@@@@@

BILLING INFORMATION
      CALLTYPE   PEGCNT   CALLTYPE   PEGCNT    CALLTYPE    PEGCNT
      --------   ------   --------   ------    ----------  ------
520   INCTOIC    $@@@@@   ATTERM     $@@@@@    TACV        $@@@@@
521   PBEAV      !@@@@@   ATTORIG    !@@@@@    SMPRT       !@@@@@
522   PBEAD      !@@@@@   STNPD      !@@@@@    ASANT       !@@@@@
523   BSDN       !@@@@@   DA3DGTS    !@@@@@    SSANT       !@@@@@
524   DSDC       !@@@@@   DA7DGTS    !@@@@@    ICTONATT    !@@@@@
525   TELECON    !@@@@@   INWACD     !@@@@@    SSP/800     !@@@@@
526   CICR       !@@@@@   INWTOD     !@@@@@    TIMECHNG    !@@@@@
527   DAV        !@@@@@   OUTWATS    !@@@@@    NEW TOLL    !@@@@@
528   INWSTAT    !@@@@@   SWATS      !@@@@@    NEW SPEC    !@@@@@
529   ATTCAMA    !@@@@@   EA800      !@@@@@    NEW OTHER   !@@@@@
530   NATTCAMA   !@@@@@   NILDS      !@@@@@    NEW MISC    !@@@@@
531   MEG        !@@@@@   HROFL      !@@@@@    NEW IL      !@@@@@
532   SDNORG     !@@@@@   CSDCTA     !@@@@@
533   CMCO       !@@@@@   OACV       !@@@@@

TRAFFIC
LINE   ITEM     COUNT   %    BASE          ITEM     COUNT   %    BASE
---- --------  ------ ---- ------        --------  ------ ---- ------
     ANT                                 AHRNA
540   TOT ANT  $@@@@@ $@.$ IN CALL        PNL CALL $@@@@@ $@.$ IN CALL
541   INV RTG  !@@@@@ !@.! TOT ANT        VAL RD   !@@@@@ !@.! IN CALL
542   IDB RTG  !@@@@@ !@.! TOT ANT
543   DSD TO   !@@@@@ !@.! TOT ANT
544   IDB VC   !@@@@@ !@.! TOT ANT
545   NCP ACC  !@@@@@ !@.! TOT ANT
546   NCP REPL !@@@@@ !@.! TOT ANT
```

Figure 5. MLSS - PAGE 5 OF 5

Table 1.1. INCOMING SEIZURES

MEASUREMENT	FORMULA
Total Incoming Seizure, Count	MF Incoming Seizure PC + DP Delay Dial Incoming Seizure PC + DP Immediate Start Incoming Seizure PC + CCIS Incoming Calls PC + CCITT #5 Incoming Seizure PC + CCITT #6 Incoming Seizure PC + DTMF Incoming Seizure PC + IDTS Incoming Seizure PC + Q931 Incoming Seizure PC + ISUP 2-Wire Incoming Seizure PC + ISUP 4-Wire Incoming Seizure PC + TUP Incoming Seizure PC + INUP Incoming Seizure PC
Total Incoming Seizure, C/ET	Total Incoming Seizure, Count/Total E1WT-I
MF, Count	MF Incoming Seizure PC
MF, % Total Incoming Seizure	Incoming Seizure MF, Count *100/ Total Incoming Seizure, Count
MF, C/ET	Incoming Seizure MF, Count/MF E1WT-I
DP, Count	DP Delay Dial Incoming Seizure PC + DP Immediate Start Incoming Seizure PC + IDTS Dial Pulst Incoming Seizure PC
DP, % Total Incoming Seizure	Incoming Seizure DP, Count *100/ Total Incoming Seizure, Count
DP, C/ET	Incoming Seizure DP, Count/DP E1WT-I
DTMF, Count	DTMF Incoming Seizure PC
DTMF, % Total Incoming Seizure	Incoming Seizure DTMF, Count *100/ Total Incoming Seizure, Count
DTMF, C/ET	Incoming Seizure DTMF, Count/DTMF E1WT-I
DTS, Count	DTS Incoming Seizure PC
DTS, % Total Incoming Seizure	Incoming Seizure DTS, Count *100/ Total Incoming Seizure, Count
DTS, CT/ET	Incoming Seizure DTS, Count/DTS E1WT-I
CCIS, Count	CCIS Incoming Seizure PC
CCIS, % Total Incoming Seizure	Incoming Seizure CCIS, Count *100/ Total Incoming Seizure, Count
CCIS, C/ET	Incoming Seizure CCIS, Count/CCIS E1WT-I
Q931, Count	Q931 Incoming Seizure PC
Q931, % Total Incoming Seizures	Incoming Seizure Q931, Count *100/ Total Incoming Seizure, Count
Q931, C/ET	Incoming Seizure Q931, Count/Q931 E1WT-I
ISUP, Count	ISUP 2-Wire Incoming Seizure PC + ISUP 4-Wire Incoming Seizure PC
ISUP, % Total Incoming Seizures	Incoming Seizure ISUP, Count *100/ Total Incoming Seizure, Count

Table 1.1. INCOMING SEIZURES

MEASUREMENT	FORMULA
ISUP, C/ET	Incoming Seizure ISUP, Count/ISUP E1WT-I/G308/T51
LCC, Count	ISUP LCC Incoming Seizure PC
LCC, % ISUP	Incoming Seizure ISUP LCC, Count *100/ ISUP, Count
LCC, C/ET	Incoming Seizure ISUP LCC, Count/ISUP E1WT-I
OTHER, Count	ISUP OTHER Incoming Seizure PC
OTHER, % ISUP	Incoming Seizure ISUP OTHER, Count *100/ ISUP, Count
OTHER, C/ET	Incoming Seizure ISUP OTHER, Count/ISUP E1WT-I
ETC, Count	ISUP ETC Incoming Seizure PC
ETC, % ISUP	Incoming Seizure ISUP ETC, Count *100/ ISUP, Count
ETC, C/ET	Incoming Seizure ISUP ETC, Count/ISUP E1WT-I
OCC, Count	ISUP OCC Incoming Seizure PC
OCC, % ISUP	Incoming Seizure ISUP OCC, Count *100/ ISUP, Count
OCC, C/ET	Incoming Seizure ISUP OCC, Count/ISUP E1WT-I
LSP, Count	ISUP LSP Incoming Seizure PC
LSP, % ISUP	Incoming Seizure ISUP LSP, Count *100/ ISUP, Count
LSP, C/ET	Incoming Seizure ISUP LSP, Count/ISUP E1WT-I
TUP, Count	TUP Incoming Seizure PC
TUP, % Total Incoming Seizure	Incoming Seizure TUP, Count *100/ Total Incoming Seizure, Count
TUP, C/ET	Incoming Seizure TUP, Count/TUP E1WT-I
INUP, Count	INUP Incoming Seizure PC
INUP, % Total Incoming Seizure	Incoming Seizure INUP, Count *100/ Total Incoming Seizure, Count
INUP, C/ET	Incoming Seizure INUP, Count/INUP E1WT-I
CCITT-5, Count	CCITT-5 Incoming Attempts
CCITT-5, % Total Incoming Seizure	Incoming Seizure CCITT-5, Count *100/ Total Incoming Seizure, Count
CCITT-5, CT/ET	Incoming Seizure CCITT-5, Count/CCITT-5 E1WT-I
CCITT-6, Count	CCITT-6 Incoming Attempts
CCITT-6, % Total Incoming Seizure	Incoming Seizure CCITT-6, Count *100/ Total Incoming Seizure, Counts
CCITT-6, C/ET	Incoming Seizure CCITT-6, Count/CCITT-6 E1WT-I

Table 1.2. OUTGOING ATTEMPTS

MEASUREMENT	FORMULA
Total Outgoing Attempts, Count	Outgoing Att, MF EQPT Pulsing PC + Outgoing Att, DP EQPT Pulsing PC + CCIS Outgoing Att PC + CCITT-5 Outgoing Att + CCITT-6 Outgoing Att +

Table 1.2. OUTGOING ATTEMPTS

MEASUREMENT	FORMULA
	DTMF Outgoing Att. + Q931 Outgoing Att. + ISUP Outgoing Att + TUP Outgoing Att + INUP Outgoing Att - 5*(Wide Band H0 Attempts) - 23*(Wide Band H11 Attempts)
Total Outgoing Attempts, % Total Incoming Call	Total Outgoing Attempts, Count *100/ Total Incoming Call, Count
Total Outgoing Attempts, "*"	Indicates that the "%" ratio is not in the 98-100% Range
Total Outgoing Attempts, C/ET	Total Outgoing Attempts, Count/Total E1WT-O
MF, Count	Outgoing Attempts, MF EQPT Pulsing PC
MF, % Total Outgoing Attempts	Outgoing Attempts MF, Count *100/Total Outgoing Attempts, Count
MF, C/ET	Outgoing Attempts MF, Count/MF E1WT-O
DP, Count	Outgoing Attempts, DP EQPT Pulsing PC
DP, % Total Outgoing Attempts	Outgoing Attempts DP, Count *100/Total Outgoing Attempts, Count
DP, C/ET	Outgoing Attempts DP, Count/DP E1WT-O
DTMF, Count	DTMF Outgoing Att PC
DTMF, % Total Outgoing Attempts	Outgoing Attempts DTMF, Count *100/Total Outgoing Attempts, Count
DTMF, C/ET	Outgoing Attempts DTMF, Count/DTMF E1WT-O
CCIS, Count	CCIS Outgoing Att PC
CCIS, % Total Outgoing Attempts	Outgoing Attempts CCIS, Count *100/Total Outgoing Attempts, Count
CCIS, C/ET	Outgoing Attempts CCIS, Count/CCIS E1WT-0
Q931, Count	Q931 Outgoing Att PC
Q931, % Total Outgoing Attempts	Outgoing Attempts Q931 Count *100/Total Outgoing Attempts, Count
Q931, C/ET	Outgoing Attempts Q931 Count/Q931 E1WT-O
ISUP, Count	ISUP Outgoing Att PC
ISUP, % Total Outgoing Attempts	Outgoing Attempts ISUP Count *100/Total Outgoing Attempts, Count
ISUP, C/ET	Outgoing Attempts ISUP Count/ISUP E1WT-O
TUP, Count	TUP Outgoing Att PC
TUP, % Total Outgoing Attempts	Outgoing Attempts TUP Count *100/Total Outgoing Attempts, Count
TUP, C/ET	Outgoing Attempts TUP Count/TUP E1WT-O
INUP, Count	INUP Outgoing Att PC
INUP, % Total Outgoing Attempts	Outgoing Attempts INUP Count *100/Total Outgoing Attempts, Count
INUP, C/ET	Outgoing Attempts INUP Count/INUP E1WT-O

Table 1.2. OUTGOING ATTEMPTS

MEASUREMENT	FORMULA
CCITT-5, Count	CCITT-5 Outgoing Attempts PC
CCITT-5, % Total Outgoing Attempts	Outgoing Attempts CCITT-5 Count *100/Total Outgoing Attempts, Count
CCITT-5, C/ET	Outgoing Attempts CCITT-5 Count/CCITT-5 E1WT-O
CCITT-6, Count	CCITT-6 Out Going Attempts PC
CCITT-6, % Total Outgoing Attempts	Outgoing Attempts CCITT-6 Count *100/Total Outgoing Attempts, Count
CCITT-6, C/ET	Outgoing Attempts CCITT-6 Count/CCITT-6 E1WT-O

Table 1.3. INTERNATIONAL TRAFFIC

MEASUREMENT	FORMULA
IOC, Count	CCITT-5 & CCITT-6 Incoming Operator Calls
IOC, % Total INTL Incoming	CCITT-5, CCITT-6 Incoming Operator Calls *100/CCITT-5 & CCITT-6 Incoming Attempts

Table 1.4. PAS INC TRAFFIC

MEASUREMENT	FORMULA
Call, Count	Total PAS Terminating Attempts PC
Call, % Incoming Call	PAS Incoming Traffic, Count * 100/Total Incoming Call, Count

Table 1.5. DSDC INC TRAFFIC

MEASUREMENT	FORMULA
INT ATT, Count	DSDC Initial Query Incoming
INT ATT, % Incoming Call	DSDC INT ATT, Count *100/Total Incoming Call, Count
SUB ATT, Count	Subsequent Query Incoming
SUB ATT, % Incoming Call	DSDC SUB ATT, Count *100/Total Incoming Call, Count

Table 1.6. SECOND STAGE PULSING ATTEMPTS

MEASUREMENT	FORMULA
DOM, Count	Domestic Second Stage Pulsing Attempts PC
DOM, % Incoming Call	Second Stage Pulsing Attempts DOM, Count *100/Total Incoming Call, Count
INT, Count	International Second Stage Pulsing Attempts PC
INT, % Incoming Call	Second Stage Pulsing Attempts INT, Count *100/Total Incoming Call, Count

Table 1.7. ISAIC NSCX

MEASUREMENT	FORMULA
NSCX CALL, Count	NSCX Set S Seizures PC + NSCX Set S Overflow PC

Table 1.7. ISAIC NSCX

MEASUREMENT	FORMULA
NSCX CALL, % Incoming Call	ISAIC NSCX Call, Count * 100/Total Incoming Call, Count
INV ID, Count	NSCXS Invalid Announcement ID PC
INV ID, % NSCX Call	ISAIC NSCX INV ID, Count *100/ISAIC NSCX Call, Count
SCU, Count	NSCX Caller Interaction Failed At SCU PC
SCU, % NSCX Call	ISAIC NSCX SCU, Count *100/ISAIC NSCX Call, Count

Table 1.8. LNP

MEASUREMENT	FORMULA
LNP QRYS, Count	LNP database query attempts PC
LNP QRYS, % Incoming Call	LNP database query attempts PC, Count * 100/Total Incoming Call, Count
LNP QRYS-S, Count	LNP database query success PC
LNP QRYS-S, % LNP QRYS	LNP database query success PC, Count *100/LNP QRYS, Count
LNP PORTED, Count	LNP ported (query responses containing an LRN) PC
LNP PORTED, % LNP QRYS	LNP ported calls PC, Count *100/LNP QRYS, Count
LNP ISUP-REL, Count	LNP ISUP release messages PC

Table 1.9. INCOMING CALLS

MEASUREMENT	FORMULA
Incoming Calls, Count	MF Incoming Seizure PC + DP Delay Dial Incoming Seizure PC + DP Immediate Start Incoming Seizure PC + CCIS Incoming Calls PC + CCITT #5 Incoming Seizure PC + CCITT #6 Incoming Seizure PC + DTMF Incoming Seizure PC + IDTS Incoming Seizure PC + Q931 Incoming Seizure PC + ISUP Incoming Seizure PC + TUP Incoming Seizure PC + INUP Incoming Seizure PC + PSTO MF Equipment Pulsing - PSTO DP Equipment Pulsing - PSTO DTMF Equipment Pulsing - PSTO Q.931 Pulsing - PSTO ISUP OR Bylink Pulsing - FSA MF Equipment Pulsing - FSA DP Equipment Pulsing - FSA DTMF Equipment - FSA Q.931 Pulsing - FSA ISUP OR Bylink Pulsing - COT Signal T/O - Incoming Address Detected - CCITT6 Orig CR Q Abandons -

Table 1.9. INCOMING CALLS

MEASUREMENT	FORMULA
	CCITT6 Incoming COT Signal Timeout -
	CCITT6 Misc Abandon -
	CCITT6 Incomplete Address Detected -
	CCITT6 IAM Irregularities -
	CCITT5 False Seizure Timeout -
	CCITT5 Incoming PTS Timeout -
	CCITT5 Incoming Start Of Pulsing Timeout -
	CCITT5 Incoming Incomplete Address Timeout -
	CCITT5 Unreasonable Signal Receiving State -
	CCITT5 Incoming Stage Pulsing Error -
	CCITT5 Incoming Seizure Abandon -
	CCITT5 Incomplete Address Abandon -
	CCITT5 Abandon After Inpulsing Completed -
	INTL Translation Fail To Few/Many DIG-CCITT6 ICT -
	INTL Translation Fail To Few/Many DIG-CCITT5 ICT -
	INTL Translation Fail To Few/Many DIG-IOC ICT -
	Domestic IOC Originated PDA -
	Domestic IOC Originated FSA -
	Domestic IOC Originated PDT -
	Domestic IOC Originated PSE -
	Domestic IOC Originated PSTO -
	DTMF Equipment PDT -
	DTMF Equipment PSE -
	DTMF Misc Ineffective Attempts -
	Q.931 Information Element Problem PC -
	Q.931 Incoming Failure IA PC -
	Q.931 Incomplete Address Detected PC -
	Q.931 Incoming CNI Ring Overflow PC -
	Q.931 Incoming CNI Ring Failure PC -
	Q.931 Confusion Received PC -
	ISUP IAD Detected PC -
	ISUP Incoming Failure IA PC -
	ISUP COT Timeout -
	ISUP Unreasonable Signal Received PC -
	ISUP Incoming CNI RING Failure PC -
	ISUP Incoming CNI RING OVFL PC -
	ITUP Incomplete Address Detected -
	ITUP Incoming Seizure Abandon PC -
	ITUP Misc Abandon PC -
	ITUP Incoming Dialed Vacant Code -
	INUP Incoming Address Detected -
	INUP COT Timeout -
	INUP Incoming Seizure Abandon PC -
	INUP Incoming Dialed Vacant Code -
	INUP Misc Abandon PC -
	IDTS Dial Pulse Incoming Seizure PC
Incoming Calls, % Total Incoming Seizure	Incoming Calls, Count *100/Total Incoming Seizure, Count
Incoming Calls, C/ET	Incoming Calls, Count/Total E1WT-I
MF, Count	Incoming Seizure MF, Count +
	PSTO, MF Equipment Pulsing -

Table 1.9. INCOMING CALLS

MEASUREMENT	FORMULA
	PSTO Q.931 Pulsing -
	FSA, MF Equipment Pulsing PC -
	FSA Q.931 Pulsing -
	INTL Translation Fail To Few/Many DIG-IOC ICT -
	Domestic IOC Originated PDA -
	Domestic IOC Originated FSA -
	Domestic IOC Originated PDT -
	Domestic IOC Originated PSE -
	Domestic IOC Originated PSTO
MF, % MF Incoming Seizure	Incoming calls MF, Count *100/Incoming Seizure MF, Count
MF, "*"	Indicates that the "%" ratio is not in the 97-100% Range
MF, C/ET	Incoming calls MF, Count/MF E1WT-I
DP, Count	DP Delay Dial Incoming Seizure PC +
	DP Immediate start Incoming Seizure PC +
	IDTS Incoming Seizure PC +
	PSTO DP Equipment Pulsing -
	PSTO ISUP OR Bylink Pulsing -
	FSA DP Equipment Pulsing -
	FSA ISUP OR Bylink Pulsing
DP, % DP Incoming Seizure	Incoming Calls DP, Count *100/Incoming Seizure DP, Count
DP, "*"	Indicates that the "%" ratio is not in the 85-100% Range
DP, C/ET	Incoming Calls DP, Count/DP E1WT-I
DTMF, Count	DTMF Incoming Seizure PC +
	DTMF Equipment PSTO -
	DTMF Equipment FSA -
	DTMF Equipment PDT -
	DTMF Equipment PSE -
	DTMF Misc Ineffective Attempts
DTMF, % DTMF Incoming Seizure	Incoming Calls DTMF, Count *100/Incoming Seizure DTMF, Count
DTMF, C/ET	Incoming Calls DTMF, Count/DTMF E1WT-I
DTS, Count	DTS Incoming Calls PC
DTS, % DTS Incoming Seizure	Incoming Calls DTS, Count *100/Incoming Seizure DTS, Count
DTS, C/ET	Incoming Calls DTS, Count/DTS E1WT-I
CCIS, Count	CCIS Incoming Seizures PC -
	Incomplete Address Detected -
	COT Signal T/O
CCIS, % CCIS Incoming Seizure	Incoming Calls CCIS, Count *100 /Incoming Seizure CCIS, Count
CCIS, "*"	Indicates that the "%" ratio is not in the 99-100% Range
CCIS, C/ET	Incoming Calls CCIS, Count/CCIS E1WT-I
Q931, Count	Q.931 Incoming Seizures -
	Q.931 Information Element Problem PC -
	Q.931 Incoming Failure IA PC -

Table 1.9. INCOMING CALLS

MEASUREMENT	FORMULA
	Q.931 Incomplete Address Detected PC -
	Q.931 Incoming CNI Ring Overflow PC -
	Q.931 Incoming CNI Ring Failure PC -
	Q.931 Confusion Received PC
Q931, % Q931 Incoming Seizure	Incoming Calls Q931, Count *100/Incoming Seizure Q931, Count
Q931, C/ET	Incoming Calls Q931, Count/Q931 E1WT-I
ISUP, Count	ISUP Incoming Seizure PC +
	ISUP IAD Detected PC -
	ISUP Incoming Failure IA PC -
	ISUP COT Timeout -
	ISUP Unreasonable Signal Received PC -
	ISUP Incoming CNI RING Failure PC -
	ISUP Incoming CNI RING OVFL PC
ISUP, % ISUP Incoming Seizure	Incoming Calls ISUP, Count *100/Incoming Seizures ISUP, Count
ISUP, C/ET	Incoming Calls ISUP, Count/ISUP E1WT-I
TUP, Count	TUP Incoming Seizure PC +
	ITUP Incomplete Address Detected -
	ITUP Incoming Seizure Abandon PC -
	ITUP Misc Abandon PC -
	ITUP Incoming Dialed Vacant Code
TUP, % TUP Incoming Seizure	Incoming Calls TUP, Count *100/Incoming Seizures TUP, Count
TUP, C/ET	Incoming Calls, TUP Count/TUP E1WT-I
INUP, Count	INUP Incoming Seizure PC +
	INUP Incoming Address Detected -
	INUP COT Timeout -
	INUP Incoming Seizure Abandon PC -
	INUP Incoming Dialed Vacant Code -
	INUP Misc Abandon PC
INUP, % INUP Incoming Seizure	Incoming Calls INUP, Count *100/Incoming Seizures INUP, Count
INUP, C/ET	Incoming Calls INUP, Count/INUP E1WT-I
CCITT-5, Count	CCITT #5 Incoming Seizure PC +
	CCITT5 False Seizure Timeout -
	CCITT5 Incoming PTS Timeout -
	CCITT5 Incoming Start Of Pulsing Timeout -
	CCITT5 Incoming Incomplete Address Timeout -
	CCITT5 Unreasonable Signal Receiving State -
	CCITT5 Incoming Stage Pulsing Error -
	CCITT5 Incoming Seizure Abandon -
	CCITT5 Incomplete Address Abandon -
	CCITT5 Abandon After Inpulsing Completed -
	INTL Translation Fail To Few/Many DIG-CCITT5 ICT
CCITT-5, % CCITT-5 Incoming Seizures	Incoming Calls CCITT-5, Count *100/Incoming Seizures CCITT-5, Count
CCITT-5, "*"	Indicates that the "%" ratio is not in the 97-100% Range
CCITT-5, C/ET	Incoming Calls CCITT-5, Count/CCITT-5 E1WT-I

Table 1.9. INCOMING CALLS

MEASUREMENT	FORMULA
CCITT-6, Count	CCITT #6 Incoming Seizure PC + CCITT6 Orig CR Q Abandons - CCITT6 Incoming COT Signal Timeout - CCITT6 Misc Abandon - CCITT6 Incomplete Address Detected - CCITT6 IAM Irregularities - INTL Translation Fail To Few/Many DIG-CCITT6 ICT
CCITT-6, % CCITT-6 Incoming Seizures	Incoming Calls CCITT-6, Count *100/Incoming Seizure CCITT-6, Count
CCITT-6, "*"	Indicates that the "%" ratio is not in the 99-100% Range
CCITT-6, C/ET	Incoming Calls CCITT-6, Count/CCITT-6 E1WT-I

Table 1.10. COMPLETED CALL COUNTS

MEASUREMENT	FORMULA
Total Completed Calls, Count	Domestic plus International Calls completed Outgoing Intertoll Trunk Seizure + Outgoing Toll Completing Trunk Seizure + CCITT5 Outgoing Attempts + CCITT6 Outgoing Attempts + PAS Terminating Attempts + INUP Outgoing Seizures + ITUP Outgoing Seizures + DP Outpulsing Worklist Full - MF XMTR Final Trail Outpulse Error - CKF Final Trail Failure - GLARE Final Trail - NSD Final Trail - XST Final Trail - ADC Signal Timeout - Call Fail Detection - Signal Network Fail - IKF Final Trail - UXS Final Trail - CPF Final Trail Failure - Access Tandem Post Acknowledgment Wink - Misc Outgoing Ineffective Attempts - CCITT6 Continuity Check Failure Final Trial Failure PC - CCITT6 Misc Call Irregularities Final Trial Failure PC - CCITT6 Glare Final Trial Failure PC - CCITT6 Signalling Ntwk Failures Final Trial Failure PC - CCITT6 Outgoing ADC Signal Timeout - CCITT5 Outgoing State Double Seizure - CCITT5 Outgoing Waiting For PTS Timeout Final Trial - CCITT5 Unreasonable Signal Outgoing State Final Trial - CCITT5 Outgoing Stage Glare Final Trail - CCITT5 Persisting PTS After Outpulsing - Second Stage Digit Request Failure - Customer Call To Announcement Failures - ISUP Outgoing CNI Ring Overflow PC - ISUP Outgoing CNI Ring Failure PC -

Table 1.10. COMPLETED CALL COUNTS

MEASUREMENT	FORMULA
	PBX Reorder Announcement PC -
	Q.931 Final Trial Glare PC -
	Q.931 Confusion Transmitted PC -
	Q.931 Unreasonable Signal Received PC -
	Q.931 Other Failures PC -
	Q.931 Outgoing CNI Ring FaILure PC -
	Q.931 Outgoing CNI Ring Buffer Overflow PC -
	ITUP CKF Final Trial Failure -
	ITUP Misc Outgoing Ineffective Attempts -
	ITUP Signaling Failure -
	ITUP IAM Glare OGT Perf Counts -
	ITUP CCR Glare OGT Perf Counts -
	ITUP ADC Signal Timeout -
	INUP ADC Timeout -
	INUP CKC Final Trail Failure -
	INUP Misc Outgoing Ineffective Attempts -
	INUP Signalling Failure -
	INUP IAM Glare OGT Perf Counts -
	INUP CCR Glare OGT Perf Counts -
	5*(Wide Band H0 Attempts) -
	23*(Wide Band H11 Attempts)
Total Completed Calls, % Total Outgoing Attempts	Total Completed Calls, Count *100/Total Outgoing Attempts, Count
Total Completed Calls, "*"	Indicates that the "%" ratio is not in the 98-100% Range
Total Completed Calls, C/ET	Total Completed Calls, Count/Total E1WT-0
IT + TC Out, Count	Outgoing Intertoll Trunk Seizure +
	Outgoing Toll Completing Trunk Seizure
IT + TC Out, % Total Outgoing Attempts	Completed Calls IT + TC Out, Count *100/Total Outgoing Attempts, Count
IT + TC Out, C/ET	Completed Calls IT + TC Out, Count/Domestic Total E1WT-0
Retrial, Count	Total Retrial Outgoing Attempts
Retrial, % Total Outgoing Attempts	Retrial PC *100/Total Outgoing Attempts, Count
CCITT-5 Count	CCITT5 Outgoing Attempts +
	CCITT5 Outgoing State Double Seizure -
	CCITT5 Outgoing Waiting For PTS Timeout Final Trial -
	CCITT5 Unreasonable Signal Outgoing State Final Trial -
	CCITT5 Outgoing Stage Glare Final Trail -
	CCITT5 Persisting PTS After Outpulsing
CCITT-5, % CCITT-5 Outgoing Attempts	Completed Calls CCITT-5, Count *100/Outgoing Attempts CCITT-5, Count
CCITT-5, C/ET	Completed Calls CCITT-5, Count/CCITT-5 E1WT-0
CCITT-6, Count	CCITT6 Outgoing Attempts +
	CCITT6 Continuity Check Failure Final Trial Failure PC -
	CCITT6 Misc Call Irregularities Final Trial Failure PC -
	CCITT6 Glare Final Trial Failure PC -
	CCITT6 Signalling Ntwk Failures Final Trial Failure PC -

Table 1.10. COMPLETED CALL COUNTS

MEASUREMENT	FORMULA
	CCITT6 Outgoing ADC Signal Timeout
CCITT-6, % CCITT-6 Outgoing Attempts	Completed Calls CCITT-6, Count *100/Outgoing Attempts CCITT-6, Count
CCITT-6, C/ET	Completed Calls CCITT-6, Count/CCITT-6 E1WT-O

Table 1.11. DNHR

MEASUREMENT	FORMULA
VTS Inc, Count	VTS Incoming Calls PC
VTS Inc % Total Incoming Seizure	DNHR VTS Inc, Count *100/Total Incoming Seizure, Count
TTS Inc, Count	TTS Incoming Calls PC
TTS Inc, % Total Incoming Seizure	DNHR TTS Inc, Count *100/Total Incoming Seizure, Count
CB Sent, Count	DNHR Crankbacks Sent PC
CB Sent, % VTS INC	DNHR CB Sent, Count *100/DNHR VTS Inc, Count
CB Rec, Count	DNHR Crankbacks Received PC

Table 1.12. RTNR

MEASUREMENT	FORMULA
EBC Sent, Count	RTNR Egress Busy Crankbacks Sent PC
EBC Rec, Count	RTNR Egress Busy Crankbacks Received PC
QRY Sent, Count	RTNR Queries Sent PC
QRY Rec, Count	RTNR Queries Received PC

Table 1.13. ORCAP INFORMATION

MEASUREMENT	FORMULA
Inwats (Inc)	INWATS Calls Reaching CCIS OSO
SDN Attempts (Inc)	SDN Initial Query (Total Attempts)
Cache Hits	Cache Table Hits PC
False Starts Abandon	FSA, MF Equipment Pulsing + FSA, Q.931 Pulsing + FSA, DP Equipment Pulsing + FSA, ISUP Or Bylink Pulsing + FSA, DTMF Equipment
NCD Queries	Total Attempts to Send NCD Query
PCP BN Queries	Query Attempts For DC And SA LDS + Query Attempts For SA WATS + Query Attempts For MEGACOM And DC WATS + Trigger Table Query Attempts
PCP BN Data Found	PCP BN Data Found For DC And SA LDS + PCP BN Data Found For SA WATS +

Table 1.13. ORCAP INFORMATION

MEASUREMENT	FORMULA
	PCP BN Data Found For MEGACOM And DC WATS + Trigger Table Data Found + Destination Number Trigger Table Data Found
PCP FAX SRDRTO	PCP FAX S&F DTMF Receiver Timeout PC
CAMA ANI	CAMA Operator Q + DP ANI MF Receiver Q + DP CR Q + CCIS ORIG CR Q + MF ORIG Q Seizure + IDTS Receiver Q Seizures + IDTMFWK CR Receiver Q Seizure PC + IDTS CR QUEUE Seizure PC + Q.931 ORIG Q Seizure PC + ISUP ORIG Q Seizure PC
CAMA ONI Count	ONI And ANI Failures And Multi-Party Failures
Wide Band H0 Attempts	Broadband Call (6-ckt) Incoming Seizures PC
Wide Band H11 Attempts	Broadband Call (24-ckt) Incoming Seizures PC
SSP-800 (BOC) Queries	BOC SSP Initial Query Total PC
EA (Inc) SSP BOC	BOC SSP EA Incoming Seizures PC
EA (Out) SSP BOC	BOC SSP EA or Feature Group D Outgoing Seizures PC
CAS-NCP MSGS SENT	CAS-NCP/4ESS Message Queries Sent PC
CAS-NCP MSGS REC	CAS-NCP/4ESS Message Queries Received PC

Table 2.1. DP TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
DP 2Way	2Way Trunk, DP In, DP Out
DP 2W-In	2Way Trunk, DP In, MF Out/2 + DP In, DPLS Out/2 + DP In, STD Out/2 + DP In, No Outpulsing Out/2
DP 2W-Out	2Way Trunk, MF In, DP Out/2 + DPLS In, DP Out/2 STD In, DP Out/2 DTS In, DP Out/2 DTMF In, DP Out/2
DP 1W-In	1Way Trunk, DP In + DPLS In + STD In
DP 1W-Out	1Way Trunk, DP Out + DPLS Out + STD Out
DP Total	DP 2W + DP 2W-In + DP 2W-Out + DP 1W-In + DP 1W-Out
DP E1WT-I	(DP 2W/2) + DP 2W-In + DP 1W-In
DP E1WT-0	(DP 2W/2) + DP 2W-Out + DP 1W-Out

Table 2.2. NO-OUTPULSING TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
NOP 2W-Out	2Way Trunk, MF In, NOP Out/2 + DP In, NOP Out/2 + DTS In, NOP Out/2 + DTMF In, NOP Out/2
NOP 1W-Out	1Way Trunk, No-Outpulsing Out

Table 2.3. MF TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
MF 2Way	2Way Trunk, MF in, MF Out
MF 2W-In	2Way Trunk, MF In, DP Out/2 + MF In, No Outpulsing Out/2
MF 2W-Out	2Way Trunk, DP In, MF Out/2 + DTS In, MF Out/2 + DTMF In, MF Out/2

Table 2.3. MF TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
MF 1W-In	1Way Trunk, MF In
MF 1W-Out	1Way Trunk, MF Out
MF Total	MF 2Way + MF 2W-In + MF 2W-Out + MF 1W-In + MF 1W-Out
MF E1WT-I	(MF 2Way/2) + MF 2W-In + MF 1W-In
MF E1WT-0	(MF 2Way/2) + 2W-Out + MF 1W-Out

Table 2.4. DTMF TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
DTMF 2Way	2Way Trunk, DTMF In, DTMF Out
DTMF 2W-In	2Way Trunk, DTMF In, MF Out/2 + DTMF In, DP Out/2 + DTMF In, No Outpulsing Out/2
DTMF 2W-Out	2Way Trunk, DTS In, DTMF Out/2
DTMF 1W-In	1Way Trunk, DTMF In
DTMF 1W-Out	1Way Trunk, DTMF Out
DTMF Total	DTMF 2W + DTMF 1W-In + DTMF 1W-Out
DTMF E1WT-I	(CCIS 2Way/2) + DTMF 1W-In
DTMF E1WT-0	(CCIS 2Way/2) + DTMF 1W-Out

Table 2.5. DTS TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
DTS 2W-In	2Way Trunk, DTS In, MF Out/2 + DTS In, DP Out/2 + DTS In, No Outpulsing Out/2 + DTS In, DTMF Out/2
DTS 1W-In	1Way Trunk, DTS In
DTS Total	DTS 2W-In + DTS 1W-In
DTS E1WT-I	DTS 2W-In + DTS 1W-In

Table 2.6. CCIS TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
CCIS 2Way	2Way Trunk, CCIS In, CCIS Out
CCIS 1W-In	1Way Trunk, CCIS In
CCIS 1W-Out	1Way Trunk, CCIS Out
CCIS Total	CCIS 2W + CCIS 1W-In + CCIS 1W-Out
CCIS E1WT-I	(CCIS 2Way/2) + CCIS 1W-In
CCIS E1WT-0	(CCIS 2Way/2) + CCIS 1W-Out

Table 2.7. CCITT-5 TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
CCITT-5 2Way	2Way Trunk CCITT-5 IN, CCITT-5 OUT
CCITT-5 1W-In	1Way Trunk CCITT-5 IN
CCITT-5 1W-Out	1Way Trunk CCITT-5 OUT
CCITT-5 Total	CCITT-5 2Way + CCITT-5 1W-IN + CCITT-5 1W Out
CCITT-5 E1WT-I	(CCITT-5 2Way/2) + CCITT-5 1W-In
CCITT-5 E1WT-O	(CCITT-5 2Way/2) + CCITT-5 1W-Out

Table 2.8. CCITT-6 TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
CCITT-6 2Way	2Way Trunk CCITT-6 In, CCITT-6 Out
CCITT-6 1W-In	1Way Trunk CCITT-6 In
CCITT-6 1W-Out	1Way Trunk CCITT-6 Out
CCITT-6 Total	CCITT-6 2Way + CCITT-6 1W-In, + CCITT-6 1W-Out
CCITT-6 E1WT-I	(CCITT-6 2Way/2) + CCITT-6 1W-In
CCITT-6 E1WT-O	(CCITT-6 2Way/2) + CCITT-6 1W-Out

Table 2.9. Q931 TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
Q931 2Way	2Way Trunk, Q931 In, Q931 Out
Q931 1W-In	1Way Trunk, Q931 In
Q931 IW-Out	1Way Trunk, Q931 Out
Q931 Total	Q931 2W + Q931 1W-In +

Table 2.9. Q931 TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
	Q931 1W-Out
Q931 E1WT-I	(Q931 2Way/2) + Q931 1W-In
Q931 E1WT-0	(Q931 2Way/2) + Q931 1W-Out

Table 2.10. ISUP TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
ISUP 2Way	2Way Trunk ISUP In, ISUP Out
ISUP 1W-In	1Way Trunk ISUP In
ISUP 1W-Out	1Way Trunk ISUP Out
ISUP Total	ISUP 2W + ISUP 1W-In + ISUP 1W-Out
ISUP E1WT-I	(ISUP 2Way/2) + ISUP 1W-In
ISUP E1WT-O	(ISUP 2Way/2) + ISUP 1W-Out

Table 2.11. TUP TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
TUP 2Way	2Way Trunk TUP In, TUP Out
TUP 1W-In	1Way Trunk TUP In
TUP 1W-Out	1Way Trunk TUP Out
TUP Total	TUP 2W + TUP 1W-In + TUP 1W-Out
TUP E1WT-I	(TUP 2Way/2) + TUP 1W-In
TUP E1WT-O	(TUP 2Way/2) + TUP 1W-Out

Table 2.12. INUP TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
INUP 2Way	2Way Trunk INUP In, INUP Out
INUP 1W-In	1Way Trunk INUP In
INUP 1W-Out	1Way Trunk INUP Out
INUP Total	INUP 2W + INUP 1W-In + INUP 1W-Out
INUP E1WT-I	(INUP 2Way/2) + INUP 1W-In
INUP E1WT-O	(INUP 2Way/2) + INUP 1W-Out

Table 2.13. TOTAL TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
Total, 2Way	MF 2Way + DP 2Way + CCIS 2Way + DTMF 2Way + Q931 2Way + CCITT-5 2Way + CCITT-6 2Way + ISUP 2Way + TUP 2Way + INUP 2Way
Total, 2W-In	MF 2W-In + DP 2W-In + DTMF 2W-In + DTS 2W-In
Total, 2W-Out	MF 2W-Out + DP 2W-Out + DTMF 2W-Out
Total, 1W-In	MF 1W-In + DP 1W-In + CCIS 1W-In + DTS 1W-IN + CCITT-5 1W-In, + CCITT-6 1W-In + DTMF 1W-In + Q931 1W-In + ISUP 1W-In + TUP 1W-In + INUP 1W-In
Total, 1W-Out	MF 1W-Out + DP 1W-Out + CCIS 1W-Out + DTMF 1W-Out + Q931 1W-Out + CCITT-5 1W-Out, + CCITT-6 1W-Out + ISUP 1W-Out + TUP 1W-Out + INUP 2W-Out
Total, Trunks	Total, 2W + Total 2W-In + Total 2W-Out + Total 1W-In + Total 1W-Out
Total, E1WT-I	MF E1WT-I + DP E1WT-I + CCIS E1WT-I + DTSE 1WT-I +

Table 2.13. TOTAL TRUNK ASSIGNMENTS

MEASUREMENT	FORMULA
	DTMF E1WT-I + CCITT-5 E1WT-I + CCITT-6 E1WT-I + Q931 E1WT-I + ISUP E1WT-I + TUP E1WT-I + INUP E1WT-I
Total, E1WT-O	MF E1WT-O + DP E1WT-O + CCIS E1WT-O + DTMF E1WT-O + Q931 E1WT-O + CCITT-6 E1WT-O, + CCITT-6 E1WT-O + ISUP E1WT-O + TUP E1W-O + INUP E1WT-O

Table 2.14. TIME DIVISION NETWORK

MEASUREMENT	FORMULA
TSI-TERM, SPC Ins	Number of SPC in office
TSI-TERM, CCSCAP	Number of Max NTWK Connections *36
TSI-TERM, CCS	(Network Total OCC/5) *9
TSI-TERM, Count	Network Path Hunt Success PC
TSI-TERM, %OCC	(Network Total OCC/5) *100/(Number of Max NTWK Connections *4)
TSI-TERM, HT	TSI-TERM, CCS *100/TSI-TERM, Count
TOT CALLS, CCS	One Hour Separation Summary
TOT CALLS, Count	Network Path Hunt Success PC - MF Reciever Seizure - DTMF Reciever Seizure - MF Transmitter Seizure - DTMF Transmitter Seizure - CCIS Transmitter Seizure - Announcement Group Seizures
TOT CALLS, HT	TOT CALLS, CCS *100/TOT CALLS, Count
TOT CALLS, CCS/ET	TOT CALLS CCS, Meas/Total E1WT Excluding No-Outpulsing Trunks
NAIL-UPS, CCS	Total Number of NAIL-UP CCS
NAIL-UPS, Count	Total NAIL-UP Buffer Count

Table 2.15. CNI BUFFER INFORMATION

MEASUREMENT	FORMULA
ACIINBUF, Ins	Number of ACI Incoming Buffers Installed
ACIINBUF, CCS.	ACI Incoming Buffer Occupancy
ACIINBUF, Count	ACI Incoming Buffer Messages PC
ACIINBUF, OVFL	Q931 Incoming CNI Ring Overflow PC + ISUP Incoming CNI Ring Overflow PC
ACI OUT BUF Ins	Number of ACI Outgoing Buffers Installed
ACI OUT BUF CCS	ACI Outgoing Buffer Occupancy
ACI OUT BUF Count	ACI Outgoing Buffer Messages PC
ACI OUT BUF OVFL	Q931 Outgoing CNI Ring Overflow PC + ISUP Outgoing CNI Ring Overflow PC

Table 2.16. 1A/1B PROCESSOR

MEASUREMENT	FORMULA
15-Minute Periods Beginning At:	The Data is Displayed in 15-minute Periods for the time HHMM. Where HH is the hour, and MM is the minutes.
Hour Total	The sum of the quarter hour data.
INC ATT	Domestic and International Incoming Seizure PC See Table 1.1: Total Incoming Seizure, Count

Table 2.16. 1A/1B PROCESSOR

MEASUREMENT	FORMULA
Base Level Cycles	
BLC, MS Avg	Average Base Level Cycle Length in Milliseconds
BLC, MS Avg, "*"	Indicates that the BLC MS Avg is not in the 11-35 Millisecond Range
BLC, Sec USG	900 - (Phase Level Duration Count + Interrupt Level Duration Count)/ 100
BLC, Sec USG, "*"	Indicates that the BLC MS Avg is Flagged
BLD, Peg Cnt	Base Level Cycle PC
BLC, OVLD PC	NON-LOAD MAC OVLD BLC + NON-LOAD SEG OVLD BLC + LOAD LVL 1 OVLD BLC + LOAD LVL 2 OVLD BLC + LOAD LVL 3 OVLD BLC
BLC, %OVLD	BLC, OVLD PC *100/BLC, Peg Cnt
BLC, CAN-OVL	BLC With Manual MCC Cancel Overload In Effect PC
Maintenance Interrupts	
MTC ITRP, MS USG	Interrupt Level Duration Count *10
MTC ITRP, Peg Cnt	Total of A-K Level PC for Single + Multilevel Interrupts

Table 3.1. REGISTERS

MEASUREMENT	FORMULA
Call Registers, Ins	Number of Call Registers Installed
Call Registers, CCSCAP	(Number of Call Registers Installed - 25)*36 / 1.1
Call Registers, "*"	Indicates that "Call Reg HT" is Flagged
Call Registers, CCS	Call Registers Total OCC/10
Call Registers, Count	MF CR Seizure PC + DP CR Seizure PC + CCIS CR Seizure PC + Misc CR Seizure PC + DTMF CR Seizure PC + CCITT-5 CR Seizure PC + CCITT-6 CR Seizure PC + TUP CR Seizure PC + INUP CR Seizure PC + Q931 CR Seizure PC + ISUP CR Seizure PC
Call Registers, %OCC	Call Registers, CCS *100/Call Registers, CCSCAP
Call Registers, HT	Call Registers, CCS *100/Call Registers, Count
Call Registers, "*"	Indicates that the "HT" ratio is not in the 2-5 Second Range
MF, Count	MF CR Seizure PC
DP, Count	DP CR Seizure PC
DTMF, Count	DTMF CR, Seizure PC
Q931, Count	Q931 CR, Seizure PC
ISUP, Count	ISUP CR, Seizure PC
TUP, Count	TUP CR, Seizure PC
INUP, Count	INUP CR, Seizure PC
CCIS, Count	CCIS CR, Seizure PC
CCITT-5, Count	CCITT-5 CR Seizure PC
CCITT-6, Count	CCITT-6 CR Seizure PC
Misc CR, Count	CR used for Misc Test Calls
QOB Registers, Ins	Number of QOB Registers Installed
QOB Registers, CCSCAP	Number of QOB Registers Installed * 36
QOB Registers, CCS	QOB Registers Total OCC/10
QOB Registers, Count	QOB Register Seizure PC
QOB Registers, %OCC	QOB Registers, CCS *100/QOB Registers, CCSCAP
QOB Registers, HT	Call Registers, CCS *100/QOB Registers, Count
SVA Registers, Ins	Number of Service Assist CR assigned Registers Installed
SVA Registers, CCSCAP	Number of SVA Registers Installed * 36
SVA Registers, CCS	SVA Registers Total OCC/10
SVA Registers, Count	SVA Register Seizure PC
SVA Registers, %OCC	SVA Registers, CCS *100/SVA Registers, CCSCAP
SVA Registers, HT	Call Registers, CCS *100/SVA Registers, Count
AHRNA Registers, Ins	Number of AHRNA Registers Installed

Table 3.1. REGISTERS

MEASUREMENT	FORMULA
AHRNA Registers, CCSCAP	Number of AHRNA Registers Installed * 36
AHRNA Registers, CCS	AHRNA Registers Total OCC/10
AHRNA Registers, Count	AHRNA Register Seizure PC
AHRNA Registers, %OCC	AHRNA Registers, CCS *100/AHRNA Registers, CCSCAP
AHRNA Registers, HT	Call Registers, CCS *100/AHRNA Registers, Count
CPA Registers, Ins	Number of CPA CR Registers Installed
CPA Registers, CCSCAP	Number of CPA Registers Installed * 36
CPA Registers, CCS	CPA Registers Total OCC/10
CPA Registers, Count	CPA Register Seizure PC
CPA Registers, %OCC	CPA Registers, CCS *100/CPA Registers, CCSCAP
CPA Registers, HT	Call Registers, CCS *100/CPA Registers, Count

Table 3.2. CALL REGISTER Q

MEASUREMENT	FORMULA
MF Orig Q, CCS	MF Origination Queue OCC/10
MF Orig Q, "*"	Indicates that "MF Orig Q HT" is Flagged
MF Orig Q, Count	MF Origination Queue Seizure PC
MF Orig Q, "*"	Indicates that "MF Orig Q HT" is Flagged
MF Orig Q, HT	MF Orig Q, CCS *100/MF Orig Q, Count
MF Orig Q, "*"	Indicates that the "HT" ratio is not in the 0-1 (Sec *10) Range
DP CR Q, Ins	Number of DP CR, Q Installed
DP CR Q, CCSCAP	DP CR Q Size *36
DP CR Q, "*"	Indicates that "DP CR Q HT" is Flagged
DP CR Q, CCS	DP CR Queue OCC/10
DP CR Q, "*"	Indicates that "DP CR Q HT" is Flagged
DP CR Q, Count	DP CR Queue Seizure PC
DP CR Q, %OCC	DP CR Q, CCS *100/DP CR Q, CCSCAP
DP CR Q, HT	DP CR Q, CCS *100/DP CR Q, Count
DP CR Q, "*"	Indicates that the "HT" ratio is not in the 0-1 (Sec *10) Range
DTS CR Q, Ins	Number of DTS CR, Q Installed
DTS CR Q, CCSCAP	DTS CR Q Size *36
DTS CR Q, CCS	DTS CR Q OCC/10
DTS CR Q, COUNT	DTS CR Q Seizure PC
DTS CR Q, %OCC	DTS CR Q, CCS *100/DTS CR Q, CCSCAP
DTS CR Q, HT	DTS CR Q, CCS *100/DTS CR Q, Count
Q931 CR Q, Ins	Number of Q931 CR, Q Installed
Q931 CR Q, CCSCAP	Q931 CR Q Size *36

Table 3.2. CALL REGISTER Q

MEASUREMENT	FORMULA
Q931 CR Q, CCS	Q931 CR Q OCC/10
Q931 CR Q, COUNT	Q931 Orig CR Q Seizure PC
Q931 CR Q, %OCC	Q931 CR Q, CCS *100/Q931 CR Q, CCSCAP
Q931 CR Q, HT	Q931 CR Q, CCS *100/Q931 CR Q, Count
ISUP CR Q, Ins	Number of ISUP CR, Q Installed
ISUP CR Q, CCSCAP	ISUP CR Q Size *36
ISUP CR Q, CCS	ISUP Orig CR Q OCC/10
ISUP CR Q, COUNT	ISUP CR Q Seizure PC
ISUP CR Q, %OCC	ISUP CR Q, CCS *100/ISUP CR Q, CCSCAP
ISUP CR Q, HT	ISUP CR Q, CCS *100/ISUP CR Q, Count
TUP CR Q, Ins	Number of TUP CR Q, Installed
TUP CR Q, CCSCAP	TUP CR Q Size *36
TUP CR Q, CCS	TUP Orig CR Q OCC/10
TUP CR Q, Count	TUP Orig CR Q Seizure PC
TUP CR Q, %OCC	TUP CR Q, CCS *100/TUP CR Q, CCSCAP
TUP CR Q, HT	TUP CR Q, CCS *100/TUP CR Q, Count
INUP CR Q, Ins	Number of INUP CR Q, Installed
INUP CR Q, CCSCAP	INUP CR Q Size *36
INUP CR Q, CCS	INUP Orig CR Q OCC/10
INUP CR Q, Count	INUP Orig CR Q Seizure PC
INUP CR Q, %OCC	INUP CR Q, CCS *100/INUP CR Q, CCSCAP
INUP CR Q, HT	INUP CR Q, CCS *100/INUP CR Q, Count
CCIS CR Q, Ins	Number of CCIS CR Q, Installed
CCIS CR Q, CCSCAP	CCIS CR Q Size *36
CCIS CR Q, CCS	CCIS Orig CR Q OCC/10
CCIS CR Q, Count	CCIS Orig CR Q Seizure PC
CCIS CR Q, %OCC	CCIS CR Q, CCS *100/CCIS CR Q, CCSCAP
CCIS CR Q, HT	CCIS CR Q, CCS *100/CCIS CR Q, Count
CCITT-5 CR Q, CCS	CCITT-5 Orig CR Q OCC/10
CCITT-5 CR Q, Count	CCITT-5 Orig Q Seizure PC
CCITT-5 CR Q, HT	CCITT-5 CR Q, CCS *100/CCITT-5 CR Q, Count
CCITT-6 CR Q, Ins	Number of CCITT-6 CR Q, Installed
CCITT-6 CR Q, CCSCAP	CCITT-6 CR Q Size *36
CCITT-6 CR Q, CCS	CCITT-6 Orig CR Q OCC/10
CCITT-6 CR Q, Count	CCITT-6 Orig CR Q Seizure PC
CCITT-6 CR Q, %OCC	CCITT-6 CR Q CCS *100/CCITT-6 CR Q, CCSCAP
CCITT-6 CR Q, HT	CCITT-6 CR Q CCS *100/CCITT-6 CR Q, Count

Table 3.3. CALL REGISTER Q OVERFLOWS

MEASUREMENT	FORMULA
DP CR Q OVFL, Count	DP CR Queue Overflow PC
DP CR Q OVFL, %	DP CR Q OVFL, Count *100 / (DP CR Q Seizure, Count + DP CR Q OVFL, Count)
DTS CR Q OVFL, Count	DTS CR Q Overflow PC
DTS CR Q OVFL, %	DTS CR Q OVFL Count *100 / (DTS CR Q Seizure, Count + DTS CR Q OVFL, Count)
Q931 CR Q OVFL, Count	Q931 CR Q Overflow PC
Q931 CR Q OVFL, %	Q931 CR Q OVFL Count *100 / (Q931 CR Q Seizure, Count + Q931 CR Q OVFL, Count)
ISUP CR Q OVFL, Count	ISUP CR Q Overflow PC
ISUP CR Q OVFL, %	ISUP CR Q OVFL Count *100 / (ISUP CR Q Seizure, Count + ISUP CR Q OVFL, Count)
TUP CR Q OVFL, Count	TUP CR Q Overflow PC
TUP CR Q OVFL, %	TUP CR Q OVFL Count *100 / (TUP CR Q Seizure, Count + TUP CR Q OVFL, Count)
INUP CR Q OVFL, Count	INUP CR Q Overflow PC
INUP CR Q OVFL, %	INUP CR Q OVFL Count *100 / (INUP CR Q Seizure, Count + INUP CR Q OVFL, Count)
CCIS CR Q OVFL, Count	CCIS Orig CR Q Overflow PC
CCIS CR Q OVFL, %	CCIS CR Q OVFL, Count *100 / (CCIS CR Q Seizure, Count + CCIS CR Q OVFL, Count)
CCITT6 CR Q OVFL, Count	CCITT6 Orig CR Q Overflow PC
CCITT6 CR Q OVFL, %	CCITT6 CR Q OVFL, Count *100 / (CCITT6 CR Q Seizure, Count + CCITT6 CR Q OVFL, Count)
MF RCVR BBF OVFL, Count	MF RCVR BBF OVFL PC
MF RCVR BBF OVFL, %	MF RCVR BBF OVFL COUNT *100 / (BBF MF RCVR Seizure, Count + MF RCVR BBF OVFL, Count)

Table 4.1. SERVICE CIRCUITS + Q: MF Recievers

MEASUREMENT	FORMULA
MFR SVC, Ins	Number of MF Receivers Installed
MFR SVC, CCSCAP	POISSON CAPACITY TABLE .001 Values for CCSCAP are valid for 0 through 600 installed circuits.
MFR SVC, CCS	MF Receiver Service OCC/10
MFR SVC, Count	MF Receiver Seizure PC
MFR SVC, %OCC	MFR SVC, CCS *100/MFR SVC, CCSCAP
MFR SVC, HT	MFR SVC, CCS *100/MFR SVC, Count
MFR-ONI-BBF, Ins	Number of MF Receivers Installed - BBF MF Receiver Usage - CAMA Position Occupancy
MFR-ONI-BBF, CCSCAP	POISSON CAPACITY TABLE .001 Values for CCSCAP are valid for 0 through 600 installed circuits.
MFR-ONI-BBF, CCS	(MF Receiver Service Occupancy - BBF MF Receiver Usage - CAMA Position Occupancy)/10
MFR-ONI-BBF, "*"	Indicates that "MFR-ONI-BBF HT" is Flagged
MFR-ONI-BBF, Count	MF Reciever Service PC - BBF MF Receiver Seizure - ONI And ANI Failures And Multi-Party Failures
MFR-ONI-BBF, "*"	Indicates that "MFR-ONI-BBF HT" is Flagged
MFR-ONI-BBF, %OCC	MFR-ONI-BBF, CCS *100/MFR-ONI-BBF, CCSCAP
MFR-ONI-BBF, HT	MFR-ONI-BBF, CCS *100/MFR-ONI-BBF, Count
MFR-ONI-BBF, "*"	Indicates that the "%" ratio is not in the 2-4 Second Range
MFR BBF, Ins	Number of Blue Box Fraud MF Receivers Installed
MFR BBF, CCSCAP	POISSON CAPACITY TABLE .001 Values for CCSCAP are valid for 0 through 600 installed circuits.
MFR BBF, CCS	BBF MF Reciever Occupancy PC/10
MFR BBF, Count	BBF MF Reciever Seizure PC
MFR BBF, %OCC	MFR BBF, CCS *100/MFR BBF, CCSCAP
MFR BBF, HT	MFR BBF, CCS *10/MFR BBF, Count
MFR DTMF, Ins	Number of DTMF Receivers Installed
MFR DTMF, CCSCAP	POISSON CAPACITY TABLE .001 Values for CCSCAP are valid for 0 through 600 installed circuits.
MFR DTMF, CCS	DTMF Receiver Occupancy PC/10
MFR DTMF, Count	DTMF Receiver Seizure PC
MFR DTMF, %OCC	MFR DTMF, CCS *100/MFR DTMF CCSCAP
MFR DTMF, HT	MFR DTMF, CCS *10/MFR DTMF, Count
MFR MTC, CCS	MF Receiver Maintenance Usage *18/10
MFR 2SDC Q, CCS	(Second Stage Pulsing MF Receiver Q Accumulated Total Occupancy PC)/10

Table 4.1. SERVICE CIRCUITS + Q: MF Recievers

MEASUREMENT	FORMULA
MFR 2SDC Q, Count	Second Stage Pulsing MF Receiver Q Seizure PC
MFR 2SDC Q, HT	MFR 2SDC Q, CCS *100/MFR 2SDC Q, Count
MFR DTS Q, CCS	MFR DTS Q Occupancy/10
MFR DTS Q, Count	MFR DTS Q Seizure PC
MFR DTS Q, HT	MFR DTS Q, CCS *100/MFR DTS Q, Count
MFR DTMF Q, CCS	MFR DTMF Q Accumulated Total Occupancy PC/10
MFR DTMF Q, Count	MFR DTMF Q Seizure PC
MFR DTMF Q, HT	MFR DTMF Q, OCC *10/MFR DTMF Q, Count
MFR DTMF PCP Q, CCS	PCP DTMF Q Accumulated Total Occupancy PC/10
MFR DTMF PCP Q, Count	PCP DTMF Q Seizure PC
MFR DTMF PCP Q, HT	MFR DTMF PCP Q, OCC *10/MFR DTMF PCP Q, Count
PCP RCV SAN, HT	PCP Receiver Holding Time In Sec For SAN
PCP RCV 1+SACDS, HT	PCP Receiver Holding Time In Sec For 1+SACDS
PCP RCV MUVF, HT	PCP Receiver Holding Time In Sec For MUVF
PCP RCV FAX S&F, HT	PCP Receiver Holding Time In Sec For FAX S&F
MFR DTMF	
DTD PCP, Count	PCP Call Subjected To Excessive Delay Count (i.e. Wait On DTMF Receiver Queue = or > 2 Sec)
DTD IDTS, Count	IDTS Dial Tone Delay Timing > 2Sec

Table 4.2. SERVICE CIRCUITS + Q: MFT Q + SD

MEASUREMENT	FORMULA
Q Attempt, Count	MF Transmitter Queue Entry Attempts
Q Entry FLR, Count	MF Transmitter Queue Entry Failure
Q Entry FLR, "*"	Indicates that "Q Entry FLR %" is Flagged
Q Entry FLR, %	Q Entry FLR, Count *100/ (Q Attempt, Count + Q Entry FLR, Count)
Q Entry FLR, "*"	Indicates that the "%" ratio is not in the 0-1% Range
START DIAL, CCS	MF Transmitter Queue Entry Time Occupancy/10
START DIAL, "*"	Indicates that "START DIAL HT" is Flagged
START DIAL, HT	START DIAL, CCS *100/MF Transmitter Queue Entry Attempts PC
START DIAL, "*"	Indicates that the "HT" ratio is not in the 0-1 (Sec *10) Range
MF TRMTR Q, CCSCAP	MFX Installed *72

Table 4.2. SERVICE CIRCUITS + Q: MFT Q + SD

MEASUREMENT	FORMULA
MF TRMTR Q, CCS	MF XMTR Q Occupancy/10
MF TRMTR Q, Count	MF XMTR Queue
MF TRMTR Q, %OCC	MF TRMTR Q, CCS *100/MF TRMTR Q, CCSCAP
MF TRMTR Q, HT	MF TRMTR Q, CCS *100/MF TRMTR Q, Count
MF TRMTR SVC, Ins	Number of MFX Installed
MF TRMTR SVC, CCSCAP	If MFX Installed is less than 8 then CCSCAP equals zero. If MFX Installed is greater than or equal to 8 and less than 244 then CCSCAP equals (MXF Installed-8)*35.3 If MFX Installed is greater than or equal to 244 then CCSCAP equals MFX Installed * 32.4
MF TRMTR SVC, CCS	MF XMTR Service Occupancy/10
MF TRMTR SVC, Count	MF XMTR Seizures
MF TRMTR SVC, %OCC	MF TRMTR SVC, CCS *100/MF TRMTR SVC, CCSCAP
MF TRMTR SVC, HT	MF TRMTR SVC, CCS *100/MF TRMTR SVC, Count
DTMF TRMTR SVC, Ins	Number of DTMF Transmitters Installed
DTMF TRMTR SVC, CCSCAP	If DTMF TRMTR Installed is less than 8 then CCSCAP equals zero. If DTMF TRMTR Installed is greater than or equal to 8 and less than 244 then CCSCAP equals (DTMF TRMTR Installed-8)*35.3 If DTMF TRMTR Installed is greater than or equal to 244 then CCSCAP equals DTMF TRMTR Installed * 32.4
DTMF TRMTR SVC, CCS	DTMF Transmitter Service Occupancy
DTMF TRMTR SVC, Count	DTMF Transmitter Seizure PC
DTMF TRMTR SVC, %OCC	DTMF TRMTR SVC, CCS *100/DTMF TRMTR SVC, CCSCAP
DTMF TRMTR SVC, HT	DTMF TRMTR SVC, CCS *100/DTMF TRMTR SVC, Count
DTMF TRMTR Q, CCSCAP	Number of DTMF Transmitters Installed *72
DTMF TRMTR Q, CCS	DTMF Transmitter Q Occupancy/10
DTMF TRMTR Q, Count	DTMF Transmitter Q Seizure PC
DTMF TRMTR Q, %OCC	DTMF TRMTR Q, CCS *100/DTMF TRMTR Q, CCSCAP
DTMF TRMTR Q, HT	DTMF TRMTR Q, CCS *100/DTMF TRMTR Q, Count
MF TRMTR MTC, CCS	MF XMTR Maintenance Usage *18/10

Table 4.3. SERVICE CIRCUITS + Q: CCIS XCVR

MEASUREMENT	FORMULA
CCIS XCVR SVC, Ins	Number of CCIS XCVR's Installed
CCIS XCVR SVC, CCSCAP	POISSON CAPACITY TABLE .001 Values for CCSCAP are valid for 0 through 600 installed circuits.
CCIS XCVR SVC, CCS	CCIS XCVR Service Occupancy/10
CCIS XCVR SVC, Count	CCIS XCVR Service Seizure PC
CCIS XCVR SVC, %OCC	CCIS XCVR SVC, CCS *100/CCIS XCVR SVC, CCSCAP
CCIS XCVR SVC, HT	CCIS XCVR SVC, CCS *100/CCIS XCVR SVC, Count
CCIS XCVR MTC, CCS	CCIS XCVR Maintenance Occupancy *18/10
CCIS XCVR OVFL, Count	CCIS XCVR Overflow PC
CCIS XCVR OVFL, %	CCIS XCVR OVFL, Count *100/ (CCIS XCVR SVC, Count + CCIS XCVR OVFL, Count)

Table 4.4. SERVICE CIRCUITS + Q: ANNOUNCEMENT AND TONES

MEASUREMENT	FORMULA
Ann & Tones, Ins	Number of Dedicated TSI Connections
Ann & Tones, CCSCAP	Ann & Tones, Ins *36
Ann & Tones, CCS	Dedicated TSI-0 Occupancy/10
Ann & Tones, Count	Total Announcement and Tone Group Seizure PC
Ann & Tones, %OCC	Ann & Tones, CCS *100/Ann & Tones, CCSCAP
Ann & Tones, HT	Ann & Tones CCS *100/Ann & Tones, Count
Ann & Tones OVFL, Count	Dedicated TSI-0 Overflow PC
Ann & Tones OVFL, %	Ann & Tones OVFL, Count *100/ (Ann & Tones, Count + Ann & Tones OVFL, Count)
NSCX SVC, Ins	Number of Dedicated TSI Connections
NSCX SVC, CCSCAP	NSCX SVC, Ins *36
NSCX SVC, CCS	NSCX Set S Service Occupancy PC
NSCX SVC, Count	NSCX Set S Seizure PC
NSCX SVC, %OCC	NSCX SVC, CCS *100/NSCX SVC, CCSCAP
NSCX SVC, HT	NSCX SVC CCS *100/NSCX SVC, Count
NSCX SVC OVFL, Count	NSCX Set S Overflow PC
NSCX SVC OVFL, %	NSCX SVC OVFL, Count *100/ (NSCX SVC, Count + NSCX SVC OVFL, Count)
NSCX SVC MTC, CCS	NSCX Set S Maintenance Occupancy/10
SCNB SVC, Ins	Number of Dedicated TSI Connections
SCNB SVC, CCSCAP	SCNB SVC, Ins *36
SCNB SVC, CCS	NSCX Set B Service Occupancy PC
SCNB SVC, Count	NSCX Set B Seizure PC
SCNB SVC, %OCC	SCNB SVC, CCS *100/SCNB SVC, CCSCAP
SCNB SVC, HT	SCNB SVC CCS *100/SCNB SVC, Count
SCNB SVC OVFL, Count	NSCX Set B Overflow PC
SCNB SVC OVFL, %	SCNB SVC OVFL, Count *100/ (SCNB SVC, Count + SCNB SVC OVFL, Count)
SCNB SVC MTC, CCS	NSCX Set B Maintenance Occupancy/10

Table 4.4. SERVICE CIRCUITS + Q: ANNOUNCEMENT AND TONES

MEASUREMENT	FORMULA
SETA SVC, Ins	Number of Dedicated TSI Connections
SETA SVC, CCSCAP	SETA SVC, Ins *36
SETA SVC, CCS	NSCX Set A Service Occupancy PC
SETA SVC, Count	NSCX Set A Seizure PC
SETA SVC, %OCC	SETA SVC, CCS *100/SETA SVC, CCSCAP
SETA SVC, HT	SETA SVC CCS *100/SETA SVC, Count
SETA SVC OVFL, Count	NSCX Set A Overflow PC
SETA SVC OVFL, %	SETA SVC OVFL, Count *100/ (SETA SVC, Count + SETA SVC OVFL, Count)
SETA SVC MTC, CCS	NSCX Set A Maintenance Occupancy/10
SETC SVC, Ins	Number of Dedicated TSI Connections
SETC SVC, CCSCAP	SETC SVC, Ins *36
SETC SVC, CCS	NSCX Set C Service Occupancy PC
SETC SVC, Count	NSCX Set C Seizure PC
SETC SVC, %OCC	SETC SVC, CCS *100/SETC SVC, CCSCAP
SETC SVC, HT	SETC SVC CCS *100/SETC SVC, Count
SETC SVC OVFL, Count	NSCX Set C Overflow PC
SETC SVC OVFL, %	SETC SVC OVFL, Count *100/ (SETC SVC, Count + SETC SVC OVFL, Count)
SETC SVC MTC, CCS	NSCX Set C Maintenance Occupancy/10
SETD SVC, Ins	Number of Dedicated TSI Connections
SETD SVC, CCSCAP	SETD SVC, Ins *36
SETD SVC, CCS	NSCX Set D Service Occupancy PC
SETD SVC, Count	NSCX Set D Seizure PC
SETD SVC, %OCC	SETD SVC, CCS *100/SETD SVC, CCSCAP
SETD SVC, HT	SETD SVC CCS *100/SETD SVC, Count
SETD SVC OVFL, Count	NSCX Set D Overflow PC
SETD SVC OVFL, %	SETD SVC OVFL, Count *100/ (SETD SVC, Count + SETD SVC OVFL, Count)
SETD SVC MTC, CCS	NSCX Set D Maintenance Occupancy/10
SETE SVC, Ins	Number of Dedicated TSI Connections
SETE SVC, CCSCAP	SETE SVC, Ins *36
SETE SVC, CCS	NSCX Set E Service Occupancy PC
SETE SVC, Count	NSCX Set E Seizure PC
SETE SVC, %OCC	SETE SVC, CCS *100/SETE SVC, CCSCAP
SETE SVC, HT	SETE SVC CCS *100/SETE SVC, Count
SETE SVC OVFL, Count	NSCX Set E Overflow PC
SETE SVC OVFL, %	SETE SVC OVFL, Count *100/ (SETE SVC, Count + SETE SVC OVFL, Count)
SETE SVC MTC, CCS	NSCX Set E Maintenance Occupancy/10
SETF SVC, Ins	Number of Dedicated TSI Connections
SETF SVC, CCSCAP	SETF SVC, Ins *36
SETF SVC, CCS	NSCX Set F Service Occupancy PC

Table 4.4. SERVICE CIRCUITS + Q: ANNOUNCEMENT AND TONES

MEASUREMENT	FORMULA
SETF SVC, Count	NSCX Set F Seizure PC
SETF SVC, %OCC	SETF SVC, CCS *100/SETF SVC, CCSCAP
SETF SVC, HT	SETF SVC CCS *100/SETF SVC, Count
SETF SVC OVFL, Count	NSCX Set F Overflow PC
SETF SVC OVFL, %	SETF SVC OVFL, Count *100/ (SETF SVC, Count + SETF SVC OVFL, Count)
SETF SVC MTC, CCS	NSCX Set F Maintenance Occupancy/10
SETG SVC, Ins	Number of Dedicated TSI Connections
SETG SVC, CCSCAP	SETG SVC, Ins *36
SETG SVC, CCS	NSCX Set G Service Occupancy PC
SETG SVC, Count	NSCX Set G Seizure PC
SETG SVC, %OCC	SETG SVC, CCS *100/SETG SVC, CCSCAP
SETG SVC, HT	SETG SVC CCS *100/SETG SVC, Count
SETG SVC OVFL, Count	NSCX Set G Overflow PC
SETG SVC OVFL, %	SETG SVC OVFL, Count *100/ (SETG SVC, Count + SETG SVC OVFL, Count)
SETG SVC MTC, CCS	NSCX Set G Maintenance Occupancy/10

Table 4.5. POISSON CAPACITY TABLE

Index	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
0	1	1	2	7	15	27	40	55	71	88
10	107	126	145	166	187	208	231	253	276	299
20	323	346	370	395	419	444	469	495	520	545
30	571	597	624	650	676	703	729	756	783	810
40	837	865	892	919	947	975	1003	1030	1058	1086
50	1115	1143	1171	1200	1228	1256	1285	1313	1342	1371
60	1400	1428	1457	1486	1516	1544	1574	1603	1632	1661
70	1691	1720	1750	1779	1809	1838	1868	1898	1927	1957
80	1986	2016	2046	2076	2106	2136	2166	2196	2226	2256
90	2286	2317	2346	2377	2407	2437	2468	2498	2528	2559
100	2589	2620	2650	2681	2711	2742	2772	2803	2834	2864
110	2895	2926	2956	2987	3018	3049	3080	3110	3141	3172
120	3203	3234	3265	3296	3327	3358	3389	3420	3451	3482
130	3513	3544	3575	3607	3638	3669	3700	3732	3763	3794
140	3825	3857	3888	3919	3951	3982	4013	4045	4076	4108
150	4139	4171	4202	4234	4265	4297	4328	4360	4391	4423
160	4455	4486	4518	4549	4581	4613	4644	4676	4708	4740
170	4771	4803	4835	4866	4898	4930	4962	4994	5026	5057
180	5089	5121	5153	5185	5217	5249	5281	5312	5344	5376
190	5408	5440	5472	5504	5536	5568	5600	5632	5664	5696
200	5728	5760	5792	5824	5856	5889	5920	5952	5085	6017
210	6050	6082	6114	6146	6178	6211	6243	6275	6307	6339
220	6372	6404	6436	6468	6500	6533	6565	6597	6630	6662
230	6695	6727	6759	6791	6823	6856	6888	6920	6953	6985
240	7018	7050	7082	7115	7147	7180	7212	7244	7277	7310
250	7343	7375	7407	7440	7472	7505	7537	7570	7602	7635
260	7668	7700	7732	7765	7797	7830	7862	7895	7927	7961
270	7994	8026	8059	8091	8124	8157	8189	8222	8254	8287
280	8320	8352	8385	8417	8450	8483	8515	8548	8581	8614
290	8647	8679	8712	8745	8778	8811	8843	8876	8909	8942
300	8975	9007	9040	9073	9106	9139	9171	9204	9237	9270
310	9303	9335	9368	9401	9434	9467	9499	9532	9565	9598
320	9632	9664	9697	9730	9763	9796	9828	9861	9894	9927
330	9961	9993	10026	10059	10092	10125	10157	10190	10223	10257
340	10291	10323	10356	10389	10422	10456	10488	10521	10554	10587
350	10621	10653	10686	10719	10752	10786	10818	10851	10884	10914
360	10951	10983	11016	11049	11082	11116	11149	11182	11215	11248
370	11282	11314	11347	11380	11413	11447	11480	11513	11546	11579
380	11613	11646	11679	11712	11745	11779	11812	11845	11878	11911
390	11945	11978	12011	12044	12077	12111	12144	12177	12210	12243
400	12277	12310	12343	12376	12409	12443	12476	12509	12542	12575
410	12609	12642	12675	12708	12742	12775	12808	12842	12875	12908
420	12942	12975	13008	13041	13075	13108	13141	13175	13208	13241

Table 4.5. POISSON CAPACITY TABLE

Index	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
430	13275	13308	13341	13374	13408	13441	13474	13508	13541	13574
440	13608	13641	13674	13708	13741	13775	13808	13841	13875	13908
450	13942	13975	14008	14042	14075	14109	14142	14175	14209	14242
460	14276	14309	14342	14376	14409	14443	14476	14509	14543	14576
470	14610	14643	14676	14710	14743	14777	14810	14843	14877	14911
480	14945	14978	15011	15045	15078	15112	15145	15178	15212	15245
490	15279	15312	15345	15379	15412	15446	15479	15513	15546	15580
500	15614	15647	15680	15714	15748	15782	15815	15849	15882	15916
510	15949	15982	16016	16049	16083	16117	16150	16184	16217	16251
520	16285	16318	16351	16385	16419	16453	16486	16520	16553	16587
530	16621	16654	16688	16721	16755	16789	16822	16856	16889	16923
540	16956	16989	17023	17057	17090	17124	17158	17191	17225	17259
550	17293	17326	17360	17393	17427	17461	17494	17528	17561	17595
560	17629	17662	17696	17730	17763	17797	17831	17864	17898	17932
570	17966	17999	18033	18066	18100	18134	18168	18201	18235	18269
580	18303	18336	18370	18404	18437	18471	18505	18538	18572	18606
590	18640	18672	18706	18740	18774	18808	18841	18875	18909	18943
600	18977									

Table 5.1. BILLING SERVICE

MEASUREMENT	FORMULA
TOT CALLS, Count	Total CAMA Calls PC
ANI Failure, Count	ANF,MF Equipment Pulsing + ANF,Q.931 Pulsing + ANF,DP Equipment Pulsing + ANF,ISUP OR BYLINK Pulsing + AIF,MF Equipment Pulsing + AIF,Q.931 Pulsing + AIF,DP Equipment Pulsing + AIF,ISUP OR BYLINK Pulsing + AOF,MF Equipment Pulsing, Measurement + AOF,Q.931 Pulsing + AOF,DP Equipment Pulsing, Measurement + AOF,ISUP OR BYLINK Pulsing, Measurement
CAMA	
OP POS, Ins	CAMA Operator Positions Installed
OP POS, SVC	CAMA Operator Position Occupancy/360
OP POS, CCSCAP	CAMA Operator Position Occupancy*18
OP POS, CCS	Total CAMA Operator Positions Service Occupancy/10
OP POS, Count	Total CAMA Operator Positions Seizure PC
OP POS, %OCC	CAMA SVC, CCS *100/OP POS, Ins *20
OP POS, HT	CAMA SVC, SVC CCS *100/CAMA SVC Count
OP POS, "*"	Indicates that the "HT" ratio is not in the 5-10 Second Range
OPR Q, Ins	Total CAMA Operator Q Size
OPR Q, CCSCAP	CAMA Q Size *36
OPR Q, CCS	CAMA Operator Queue Occupancy/10
OPR Q, Count	CAMA Operator Queue Seizure PC
OPR Q, %OCC	CAMA OPR Q, CCS *100/CAMA OP Q, CCSCAP
OPR Q, HT	CAMA OPR Q, CCS *100/CAMA Opr Q, Count
OPR Q, OVFL	CAMA Operator Queue Overflow PC
Q-ED>5 SEC, Count	CAMA Calls Queued Over 5 Seconds PC
DP MFR Q, CCS	DP ANI MF Receiver Queue OCC/10
DP MFR Q, Count	DP ANI MF Receiver Queue Seizure PC
REC Registers, Ins	Number of Recording Registers Installed
REC Registers, CCSCAP	Number of REC Registers Installed * 36
REC Registers, CCS	REC Registers Total OCC/10
REC Registers, Count	REC Register Seizure PC
REC Registers, %OCC	REC Registers, CCS *100/REC Registers, CCSCAP
REC Registers, HT	Call Registers, CCS *100/REC Registers, Count
AMA ITEMs	
EBAF Modules, Count	AMA EBAF Modules Added To Record
BILLING RCDS, Count	AMA Billing Records Made PC

Table 5.1. BILLING SERVICE

MEASUREMENT	FORMULA
TOT BILL RCDS IC/OC, Count	Sum of all the Billing Information in Table 5.2
RCDS DEFER, Count	AMA Records Deferred PC
RCDS DEFER, OVFL	AMA Records Deferrable But Not Deferred PC
DEFER BUF FULL	AMA Records Deferred-Buffer Overflow PC
DEFER RCDS LOST	AMA Records Lost While Deferred
DEFER RCDS FMTD	AMA Records Deferred While Formatted
CDR EVENTS	CDR Total Events PC
ICDR ITEMs	
ORIG, Count	ICDR Origination Events
PURGE SETUP, Count	ICDR Purge Setup Events
OOS, Count	ICDR OOS Events
ATIME, Count	ICDR ATME Events
TRACER, Count	ICDR Tracer Events
CINMAP, Count	ICDR CINMAP Events

Table 5.2. BILLING INFORMATION

MEASUREMENT	FORMULA
INCTOIC, Count	International to INTER-LATA Call
PBEAV, Count	PBX + Equal Access Voice PC
PBEAD, Count	PBX + Equal Access Data PC
BSDN, Count	Basic SDN PC
DSDN, Count	Direct Services Dialing Capability PC
TELCON, Count	Teleconferencing Record PC
CICR, Count	Carried Identification CAMA Records PC
DAV	Dial-A-View Records PC
INWSTAT, Count	INWATS Statistical + Hourly INWATS Overflow PC
ATTCAMA, Count	AT&T CAMA Records PC
NATTCAMA, Count	Non-AT&T CAMA Records PC
MEG, Count	MEGACOM Records PC
SDNORG, Count	SDN Originating Access Record PC
CMCO	Cellular Mobile Carrier To Non-AT&T Office Records PC
ATTERM, Count	AT Terminating Access Record PC
ATTORIG, Count	AT Originating Access Record PC
STNPD, Count	Station Paid Record PC
DA3DGTS, Count	CAMA 411 Directory Assistance Record PC
DA7DGTS, Count	CAMA 555-1212 Directory Assistance Record PC
INWACD, Count	Terminating INWATS ACD Record PC
INWTOD, Count	INWATS Billing Records For TOD (Record Made For Local Offices)
OUTWATS, Count	OUTWATS Record PC
SWATS, Count	SWITCHED WATS Record PC
EA800, Count	Equal Access Translated 800 PC
NILDS, Count	International Long Distance Service PC
HROFL, Count	INWATS Hourly Overflow PC

Table 5.2. BILLING INFORMATION

MEASUREMENT	FORMULA
CSDCTA, Count	CSDC Term Access PC
OACV, Count	Originating Access Charge Verification PC
TACV, Count	Terminating Access Charge Verification Records PC
SMPRT, Count	Sampling Rate Charge (For Access Charge Verification)
ASANT, Count	ACI SID/ANI To Terminating End Record PC
SSANT, Count	SADC SID/ANI To Terminating End PC
ICTONATT, Count	Outbound International Carrier to Non-AT&T Test Calls PC
SSP/800, Count	BOC SSP Interlata Carrier PC
TIMECHNG, Count	Time Change Records PC
NEW TOLL, Count	New Records, TOLL Category PC
NEW SPEC, Count	New Records, Special Category PC
NEW OTHER, Count	New Records, Other Category PC
NEW MISC, Count	New Records, Miscellaneous Category PC
NEW IL, Count	New Records, Access Category PC

Table 5.3. TRAFFIC

MEASUREMENT	FORMULA
ANT	
TOT ANT, Count	Total Alternate Number Calls Routed PC
TOT ANT, % Total Incoming Call, Count	TOT ANT, Count *100/ Total Incoming Call, Count
INV RTG, Count	ANT Invalid Routing Number PC
INV RTG, % TOT ANT	INV RTG, Count *100/ TOT ANT, Count
IDB RTG, Count	ANT IDB Timeout PC
IDB RTG, % TOT ANT	IDB RTG, Count *100/ TOT ANT, Count
DSD TO, Count	ANT DSD Timeout PC
DSD TO, % TOT ANT	DSD TO, Count *100/ TOT ANT, Count
IDB VC, Count	ANT IDB Vacant Code PC
IDB VC, % TOT ANT	IDB VC, Count *100/ TOT ANT, Count
NCP ACC, Count	ANT Unable To Access NCP PC
NCP ACC, % TOT ANT	NCP ACC, Count *100/ TOT ANT, Count
NCP REPL, Count	ANT Failure To Reply From NCP PC
NCP REPL, % TOT ANT	NCP REPL, Count *100/ TOT ANT, Count
AHRNA	
PNL CALL, Count	Call Redirection Potential Calls PC
PNL CALL, % Total Incoming Call, Count	PNL CALL, Count *100/ Total Incoming Call, Count
VAL RD, Count	Call Redirection Valid Redirection Triggers PC
VAL RD, % Total Incoming Call, Count	VAL RD, Count *100/ Total Incoming Call, Count

4 ESS ON-SITE OPERATIONS REPORT
LOAD SERVICE REPORT (LSR)

1. GENERAL

1.01 The LSR is an engineering report summarizing a rolling years worth of data collected at a busy hour specified for an engineering item. Two busy hours may be specified for an engineering item, also separate data is kept for the Monday through Friday period and Sunday. Therefore, four different LSR reports are specifiable for each engineering item.

1. Incoming Busy Hour, Monday through Friday.
2. Outgoing Busy Hour, Monday through Friday.
3. Incoming Busy Hour, Sunday.
4. Outgoing Busy Hour, Sunday.

The busy hours may be different for Monday through Friday versus Sunday, and may be different for each engineering item specified:

1. CCIS Transceivers
2. CAMA Operators
3. Call Registers
4. MF Receivers
5. MF Transmitters
6. Time Division Network
7. DTMF Receivers
8. DTMF Transmitters
9. 1B Processors

An LSR determines the 15 high days and the monthly averages for the past year.

A demand request for an LSR is made by specifying the engineering item, the Incoming and/or Outgoing busy hour and Monday through Friday or Sunday classification. The data accumulation transaction for LSR's must also be scheduled since the busy hour must be established.

2. REPORT HEADING

2.01 The heading of the LSR provides data pertinent to the office, report data and report period.

2.02 REPORT OFFICE - Circuit Identification Name (CIN) for the office creating the report, e.g., KSCYMØ0904T.

2.03 DATE - is the date LSR data was accumulated.

2.04 PERIOD - LSR Report Study Period.

2.05 ENGR. PERIOD - As specified by the Switching Engineer, e.g., 12/76 to 12/77.

2.06 ENGD. CAPACITY - not defined.

2.07 PLANNED UTILIZATION - As specified by the Switching Engineer, available to 2 decimal places.

3. REPORT COMPONENTS (MLSS, LDR & LSR)

3.01 **COUNT FIELD** - All counts are for 60 minute intervals, on the hour or half hour. If a sum of counts exceeds the capacity of the field, the counts are converted to thousands and marked by the letter K to the right of the field.

CCS FIELD - CCS is not measured directly but is computed as the occupancy count multiplied by the scan rate and divided by 100, e.g., 360* 10/100 = 36 CCS. Scan rates are 10 or 180 seconds.

HT FIELD - All holding times are computed as CCS* 100/count, and expressed in seconds.

% FIELD - Percent is rounded to one or two decimals, depending on space available.

CT/ET FIELD - is the unit count per type (MF, CCIS, DP) equivalent one way trunk (E1WT) - I - incoming, O - outgoing).

CCSCAP FIELD - CCS capacity assumes 100% occupancy, 36 CCS, times the number of units, or use Poisson tables.

ASTERISK (*) - is used as: a multiplication operation in the formulas; a questionable data indicator when measurements are out of limits; and a key item indicator for the selection of high days and busy hours.

QUESTIONABLE DATA INDICATOR (*) - is indicated in the asterisk column proceeding a measurement being directly or indirectly evaluated. An asterisk in this column indicates that the associated measurement has failed the specified range test, e.g., 97-100%, or that the related measurement has failed.

KEY ITEM (*) - is identified by an asterisk capped column or a statement "Key on _____" in LSR and LDR reports. This item is used to rank order the high days and months, and identify the busy hour. In the LDR and additional column, " ", will display an asterisk to mark the busy hour. Tie hours will be marked as high.

3.02 CCIS XCVR - Table 1. details the counts and formulas used to compute these items.

3.03 CCIS CALL REG Q - Table 2. details the counts and formulas used to compute these items.

3.04 CAMA POSITIONS - Table 3. details the counts and formulas used to compute these items.

3.05 MF RECEIVER - Table 4. details the counts and formulas used to compute these items.

3.06 MF ORIG Q + DP ANI RCVR Q - Table 5. details the counts and formulas used to compute these items.

3.07 MF TRANSMITTER - Table 6. details the counts and formulas used to compute these items.

3.08 MF TRANSMITTER Q - Table 7. details the counts and formulas used to compute these items.

3.09 MF TRANSMITTER Q + SD - Table 8. details the counts and formulas used to compute these items.

3.10 TIME DIVISION NETWORK - Table 9. details the counts and formulas used to compute these items.

3.11 1A/1B PROCESSOR - Table 10. details the counts and formulas used to compute these items.

3.12 CALL REGISTER + MF ORIG Q - Table 11. details the counts and formulas used to compute these items.

3.13 DP CALL REGISTER Q - Table 12. details the counts and formulas used to compute these items.

3.14 DTMF Receiver - Table 13. details the counts and formulas used to compute these items.

3.15 DTMF Transmitter - Table 14. details the counts and formulas used to compute these items.

```
REPT: LOAD SERVICE                          OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                             ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@    ENGR CAPAC: $@@.$@ %
CCIS XCVR           PAGE 1 OF 2             PLANNED UTILIZATION: $@@.$@ %


15 HIGH DAYS

                        *
             MTC       SVC       PEG    %                  ATT   WKG
HOUR  DATE   CCS *     CCS *   COUNT UTILZ OVFL *     HT   /EQV   EQV
---- ----- ----- - ------ - ------ ----- ---- - ----- ----- -----
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AVERAGE OF 10 BUSIEST DAYS

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3 BUSIEST MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 1. LSR CCIS TRANSCEIVERS - PAGE 1 OF 2

```
REPT: LOAD SERVICE                          OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                             ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@    ENGR CAPAC: $@@.$@ %
CCIS CALL REG Q        PAGE 2 OF 2          PLANNED UTILIZATION: $@@.$@ %

KEY ON CCIS XCVR SVC CCS

15 HIGH DAYS

                        Q PEG    %     Q   %          %
HOUR  DATE *  Q CCS *  COUNT UTILZ ABAN  ABAN OVFL  OVFL *    HT
---- ----- - ------ - ------ ----- ---- ----- ---- ----- - -----
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AVERAGE OF 10 BUSIEST DAYS

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3 BUSIEST MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 2. LSR CCIS TRANSCEIVERS - PAGE 2 OF 2

Table 1. CCIS TRANSCEIVERS

MEASUREMENT	FORMULA
# HI	# OF DAYS KEY DATA WAS HIGH FOR THIS LINE
MTC CCS	CCIS XCVR MTCE USAGE * 18/10 * # OF DAYS DATA ACCUM
* SVC CCS	CCIS XCVR ACCUM SVC OCC/(10 * # OF DAYS DATA ACCUM)
PEG COUNT	CCIS XCVR SEIZ PC/# OF DAYS DATA ACCUM.
% UTILZ	SVC CCS * 100/(# XCVR's CCS CAPACITY * # OF DAYS DATA ACCUM)
OVFL	CCIS XCVR OVERFLOW PC/# OF DAYS DATA ACCUM
HT	SVC CCS * 100/PEG COUNT
CCS/EQV	SVC CCS/CCIS E1WT-0 * # OF DAYS DATA ACCUM
WKG EQV	CCIS E1WT-0

Table 2. CCIS CALL REG Q SEIZURES

MEASUREMENT	FORMULA
Q CCS	CCIS ORIG CR Q ACCUM TOT OCC/(10 * # OF DAYS DATA ACCUM)
Q PEG COUNT	CCIS ORIG CR Q PC
% UTILZ	Q CCS * 100/(CCIS CR Q SIZE * 36 * # OF DAYS DATA ACCUM)
Q ABAN	CCIS ORIG CR Q ABANDON PC/# OF DAYS DATA ACCUM
% ABAN	Q ABAN * 100/Q PEG COUNT
OVFL	CCIS ORIG CR Q OVERFLOW PC/ # OF DAYS DATA ACCUM
% OVFL	OVFL * 100/(Q PEG COUNT + OVFL)
Q HT	Q CCS * 100/Q PEG COUNT

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REPT: LOAD SERVICE                          OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                             ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@    ENGR CAPAC: $@@.$@ %
CAMA POSITIONS        PAGE 1 OF 1           PLANNED UTILIZATION: $@@.$@ %


15 HIGH DAYS

                          %  ONI    *          %
             AVG   ONI POS  HT,   SVC   SVC SVC   SVC      OP
HOUR  DATE   OCC COUNT UTL MINS   CCS COUNT UTL    HT *  Q HT ABAN DIS
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AVERAGE OF 10 BUSIEST DAYS

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3 BUSIEST MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 3. LSR CAMA POSITIONS - PAGE 1 OF 1

Table 3. CAMA POSITIONS

MEASUREMENT	FORMULA
AVG OCC	CAMA POSN'S ACCUM OCC CNT/(360 * # OF DAYS DATA ACCUM)
ONI COUNT	(OPERATOR NUMBER IDENTIFICATION PC + AUTO NUMBER IDENT MULTI-PARTY CALLS PC + AUTO NUMBER IDENT OFFICE FAILURE PC) /# OF DAYS DATA ACCUM
% POS UTL	CAMA POSN'S ACCUM OCC CNT * 10/(# CAMA POSITIONS INSTALLED * # OF DAYS DATA ACCUM * 20)
ONI HT, MINS	CAMA POSN'S ACCUM OCC CNT/(6 * ONI COUNT)
* SVC CCS	TOTAL CAMA POSN'S ACCUM SVC OCC CNT/ (10 * # OF DAYS DATA ACCUM)
SVC COUNT	TOTAL CAMA POSN'S SEIZ PC/ # OF DAYS DATA ACCUM
% SVC UTL	TOTAL CAMA POSN'S ACCUM SVC OCC CNT * 100/CAMA POSN'S ACCUM OCC CNT
SVC HT	SVC CCS *100/SVC COUNT
*(OP Q HT)	* INDICATES "OP Q HT" IS OUT OF THE 5 to 10 SEC. RANGE
OP Q HT	CAMA OPR Q ACCUM TOT OCC CNT * 10/CAMA OPR Q PC
ABAN	CAMA OPR Q ABANDON PC/# OF DAYS DATA ACCUM
DISC	CAMA POSN'S DISCONNECT PC/# OF DAYS DATA ACCUM

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REPT: LOAD SERVICE                          OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                             ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@    ENGR CAPAC: $@@.$@ %
MF RECEIVER         PAGE 1 OF 2             PLANNED UTILIZATION: $@@.$@ %


15 HIGH DAYS

                        *
              MTC       SVC       PEG    %              HT   ATT   WKG
HOUR  DATE    CCS *     CCS *   COUNT UTILZ    HT * - ONI  /EQV   EQV 2SDC Q
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AVERAGE OF 10 BUSIEST DAYS

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3 BUSIEST MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 4. LSR MF RECEIVER - PAGE 1 OF 2

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DATE: $@@@@@@@@                             ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@    ENGR CAPAC: $@@.$@ %
MF ORIGINATING Q +        PAGE 2 OF 2       PLANNED UTILIZATION: $@@.$@ %
DP ANI MF RCVR Q

KEY ON MF RCVR SVC CCS

15 HIGH DAYS
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AVERAGE OF 10 BUSIEST DAYS

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3 BUSIEST MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 5. LSR MF RECEIVER - PAGE 2 OF 2

Table 4. MF RECEIVER

MEASUREMENT	FORMULA
MTC CCS	MF RCVR MTC USAGE * 18/ (10 * # OF DAYS DATA ACCUM)
*(SVC CCS)	* INDICATES "HT-ONI" IS FLAGGED
* SVC CCS	MF RCVR ACCUM SVC OCC CNT/ (10 * # OF DAYS DATA ACCUM)
* (PEG COUNT)	* INDICATES "HT-ONI" IS FLAGGED
PEG COUNT	MF RCVR SEIZ PC/# OF DAYS DATA ACCUM
% UTILIZ	SVC CCS * 100/ (MF RCVR'S CCS CAPACITY * # OF DAYS DATA ACCUM)
HT	SVC CCS * 100/PEG COUNT
* (HT-ONT)	* INDICATES "HT-ONI" IS OUT OF 2 TO 4 SEC. RANGE
HT -ONI	(MF RCVR ACCUM SVC OCC CNT- CAMA POSN'S ACCUM SVC OCC CNT) * 10/PEG COUNT
CCS/EQV	SVC CCS * 10/# OF DAYS DATA ACCUM * MF E1WT-I
* (ONI CCS)	* INDICATES "HT-ONI" IS FLAGGED
ONI CCS	CAMA POSN'S ACCUM SVC OCC CNT/ (10 * # OF DAYS DATA ACCUM)
*(ONI-PC)	* INDICATES "HT-ONI" IS FLAGGED
ONI PC	(ONI PC + ANI MULTI PARTY PC + ANI FAILURE PC)/# OF DAYS DATA ACCUM
WKG EQV	MF E1WT-I

Table 5. MF ORIG Q + DP ANI RCVR Q

MEASUREMENT	FORMULA
*(ORIG Q CCS)	* INDICATES "ORIG Q HT" IS FLAGGED
ORIG Q CCS	MF ORIG Q ACCUM TOT OCC CNT/(10 * # OF DAYS DATA ACCUM)
*(ORIG Q COUNT)	* INDICATES "ORIG Q HT" IS FLAGGED
ORIG Q COUNT	MF ORIG Q PC/# OF DAYS DATA ACCUM
ORIG Q ABAN	MF ORIG Q ABANDON PC/# OF DAYS DATA ACCUM
*(ORIG Q HT)	* INDICATES THE "ORIG Q HT * 10" IS OUT OF THE 0 TO 1 (SEC * 10) RANGE
ORIG Q HT	ORIG Q CCS * 100/ORIG Q COUNT
*(ANI Q CCS)	* INDICATES "ANI Q HT" IS FLAGGED
ANI Q CCS	DP ANI MF RCVR Q ACCUM TOT OCC CNT/ (10 * # OF DAYS DATA ACCUM)
*(ANI Q COUNT)	* INDICATES "ANI Q HT" IS FLAGGED
ANI Q COUNT	DP ANI MF RCVR Q PC/# OF DAYS DATA ACCUM
*(ANI Q HT)	* INDICATES "ANI Q HT * 10" IS OUT OF THE 0 TO 1 (SEC 0 10) RANGE
ANI Q HT	DP ANI MF RCVR Q ACCUM TOT OCC CNT * 10/DP ANI MF RCVR QPC

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ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@    ENGR CAPAC: $@@.$@ %
MF TRANSMITTER         PAGE 1 OF 3          PLANNED UTILIZATION: $@@.$@ %


15 HIGH DAYS

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              MTC       SVC       PEG    %             ATT   WKG
HOUR  DATE    CCS *     CCS *   COUNT UTILZ *     HT  /EQV   EQV
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AVERAGE OF 10 BUSIEST DAYS

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3 BUSIEST MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 6. LSR MF TRANSMITTER - PAGE 1 OF 3

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MF TRANSMITTER Q        PAGE 2 OF 3         PLANNED UTILIZATION: $@@.$@ %

KEY ON MF TRMTR SVC CCS

15 HIGH DAYS

                         Q PEG  Q %
HOUR  DATE *  Q CCS *  COUNT UTILZ *  Q HT
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AVERAGE OF 10 BUSIEST DAYS

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3 BUSIEST MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 7. LSR MF TRANSMITTER - PAGE 2 OF 3

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MF TRANSMITTER Q + SD     PAGE 3 OF 3       PLANNED UTILIZATION: $@@.$@ %

KEY ON MF TRMTR SVC CCS

15 HIGH DAYS

                    Q         Q      % Q
HOUR  DATE * ATTEMP * ENT FL * ENT FL * SD CCS * SD HT
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AVERAGE OF 10 BUSIEST DAYS

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3 BUSIEST MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 8. LSR MF TRANSMITTER - PAGE 3 OF 3

Table 6. MF TRANSMITTER

MEASUREMENT	FORMULA
MTC CCS	MF XMTR MTCE USAGE * 18/ (10 * # OF DAYS DATA ACCUM)
* (*SVC CCS)	* INDICATES "HT" IS FLAGGED
* SVC CCS	MF XMTR ACCUM SVC OCC CNT/ (10 * # OF DAYS DATA ACCUM)
* (PEG COUNT)	MF XMTR SEIZ PC/# OF DAYS DATA ACCUM
% UTILIZ	SVC CCS * 100/ (MF XMTR'S CCS CAP * # OF DAYS DATA ACCUM)
* (HT)	* INDICATES "HT" IS OUT OF 1 TO 2 SECOND RANGE
HT	SVC CCS * 100/ PEG COUNT
CCS EQV	SVC CCS/ # OF DAYS DATA ACCUM * MF E1WT-0
WKG EQV	MF E1WT-0

Table 7. MF TRANSMITTER Q

MEASUREMENT	FORMULA
Q CCS	MF XMTR Q ACCUM TOT OCC CNT/(10 * # OF DAYS DATA ACCUM)
Q PEG COUNT	MF XMTR Q PC/# OF DAYS DATA ACCUM
Q ABAN	MF XMTR Q ABANDON PC
Q % UTILZ	Q CCS * 100/ (72 * # OF DAYS DATA ACCUM * MF XMTR'S INSTALLED)
Q HT	Q CCS * 100/ Q PEG COUNT

Table 8. MF TRANSMITTER Q + SD

MEASUREMENT	FORMULA
*(Q ATTEMP)	* INDICATES "% Q ENT FL" IS FLAGGED
Q ATTEMP	MF XMTR Q ENTRY ATTEMPS PC/# OF DAYS DATA ACCUM
*(Q ENT FL)	* INDICATES "% Q ENT FL" IS FLAGGED
Q ENT FL	MF XMTR Q ENTRY FAILURE PC/# OF DAYS DATA ACCUM
*(% Q ENT FL)	* INDICATES "% Q ENT FL" IS OUT OF 0 TO 1% RANGE
% Q ENT FL	MF XMTR Q ENTRY FAILURE * 100/(MF XMTR Q ENTRY ATTEMPTS PC + MF XMTR Q ENTRY FAILURE PC)
*(SD CCS)	* INDICATES "SD HT" IS FLAGGED
SD CCS	MF XMTR Q ENTRY TIME PC/(10 * # OF DATY DATA ACCUM)
*(SD HT)	* INDICATES THE "SD HT * 10" IS OUT OF THE 0 TO 1 (SEC * 10) RANGE
SD HT	SD CCS * 100/ Q ATTEMPT

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TIME DIVISION NETWORK     PAGE 1 OF 1       PLANNED UTILIZATION: $@@.$@ %


15 HIGH DAYS

                *
              TDNET   %         PH       PH      PH      %PH           CCS   WKG
HOUR  DATE      CCS UTILZ     SUCC *   FAIL *   IMA *    IMA  PH HT   /EQV   EQV
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AVERAGE OF 10 BUSIEST DAYS

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3 BUSIEST MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 9. LSR TIME DIVISION NETWORK - PAGE 1 OF 1

Table 9. TIME DIVISION NETWORK

MEASUREMENT	FORMULA
* TDNET CCS	(NTWK ACCUM TOT OCC CNT/(5 * # OF DAYS DATA ACCUM) * 9
% UTILZ	(NTWK ACCUM TOT OCC CNT/(5 * # OF DAYS DATA ACCUM) * 100/(MAX NUMBER OF NTWK CONNECTIONS * 4)
* (PH SUCC)	* INDICATES "% PH IMA" IS FLAGGED
PH SUCC	NTWK PATH HUNT SUCCESS PC/# OF DAYS DATA ACCUM
* (PH FAIL)	NTWK PATH HUNT FAILURE PC/# OF DAYS DATA ACCUM
* (PH IMA)	* INDICATES "% PH IMA" IS FLAGGED
PH IMA	FINA TRIAL NTWK PATH HUNT FAILURE PC/# OF DAYS DATA ACCUM
* (% PH IMA)	* INDICATES "% PH IMA" IS OUT OF THE 0 to L% RANGE
% PH IMA	PH IMA * 100/ (PH SUCC + PH FAIL)
PH HT	(NTWK ACCUM TOT OCC CNT/5) * 9 * 100/ NTWK PATH HUNT SUCCESS PC
CCS/EQV	(NTWK ACCUM TOT OCC CNT/ (5 * # OF DAYS DATA ACCUM) * 9 (TOTAL E1WT-I + TOTAL E1WT-0)
WKG EQV	TOTAL E1WT-I + TOTAL W1WT-0

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ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@    ENGR CAPAC: $@@.$@ %
1A/1B PROCESSOR       PAGE 1 OF 1           PLANNED UTILIZATION: $@@.$@ %


15 HIGH DAYS

                *
              MS  SEC   INC   PEG   OVLD
HOUR  DATE  * AVG USG   SEIZ  COUNT COUNT  NL-NO NL-MC NL-SG LL-1 LL-2 LL-3
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AVERAGE OF 10 BUSIEST DAYS

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3 BUSIEST MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 10. LSR 1A/1B PROCESSOR - PAGE 1 OF 1

Table 10. 1A/1B PROCESSOR

MEASUREMENT	FORMULA
(MS AVG)	* INDICATES " * MS AVG" IS OUT OF 11 TO 35 MSEC RANGE
* MS AVG	AVG QTR HOUR BASE LEVEL CYCLE LENGTH IN MILLISECONDS/# OF DAYS DATA ACCUM
*(SEC USG)	* INDICATES "MS AVG" IS FLAGGED
SEC USG	900-(INTERRUPT LEVEL DURATION + PHASE LEVEL DURATION)/(100 * # OF DAYS DATA ACCUM)
PEG COUNT	BASE LEVEL CYCLE PC/# OF DAYS DATA ACCUM
OVLD COUNT	(BLC PC, NON LOAD MAC OVLD CONT IN EFF + BLC PC, NON LOAD SEG. OVLD CONT IN EFF + BLC PC, LOAD LEVEL 1 OVLD CONT IN EFF + BLC PC, LOAD LEVEL 2 OVLD CONT IN EFF + BLC PC, LOAD LEVEL 3 OVLD CONT IN EFF)/ # OF DAYS DATA ACCUM
% OVLD	OVLD COUNT * 100 / BLC PC
*(NL-NO)	* INDICATES "MS AVG" IS FLAGGED
NL-NO	(BASE LEVEL CYCLE PC - (BASE LEVEL CANCEL OVLD IN EFFECT PC + OVLD COUNT))/ # OF DAYS DATA ACCUM
NL-MC	BLC PC, NON LOAD MAC OVLD CONT. IN EFF /# OF DAYS DATA ACCUM
NL-SG	BLC PC, NON LOAD SEG OVLD CONT IN EFF /# OF DAYS DTA ACCUM
LL-1	BLC PC, LOAD LEVEL 1 OVLD CONT IN EFF /# OF DAYS DATA ACCUM
LL-2	BLC PC, LOAD LEVEL 2 OVLD CON IN EFF /# OF DAYS DATA ACCUM
LL-3	BLC PC, LOAD LEVEL 3 OVLD CON IN EFF /# OF DAYS DATA ACCUM

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ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@    ENGR CAPAC: $@@.$@ %
CALL REGISTER + MF ORIG Q   PAGE 1 OF 3     PLANNED UTILIZATION: $@@.$@ %


15 HIGH DAYS


                 *    CR PEG    %                      Q PEG    Q
HOUR  DATE * CR CCS *  COUNT UTILZ * CR HT *  Q CCS *  COUNT ABAN *  Q HT
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AVERAGE OF 10 BUSIEST DAYS

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3 BUSIEST MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 11. LSR CALL REGISTER - PAGE 1 OF 3

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DP CALL REGISTER Q      PAGE 2 OF 3         PLANNED UTILIZATION: $@@.$@ %

KEY ON CR CCS

15 HIGH DAYS

                        Q PEG                 Q %          8 DIGT
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AVERAGE OF 10 BUSIEST DAYS

           ! !@@@.! ! !@@@@@ !@@@@@ !@@@@@ !@@.! ! !@.!@ !@@@@@

3 BUSIEST MONTHS AVERAGES

!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@@ !@@@@@ !@@.! ! !@.!@ !@@@@@
!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@@ !@@@@@ !@@.! ! !@.!@ !@@@@@
!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@@ !@@@@@ !@@.! ! !@.!@ !@@@@@

AVERAGE OF 3 BUSIEST MONTHS

           ! !@@@.! ! !@@@@@ !@@@@@ !@@@@@ !@@.! ! !@.!@ !@@@@@

REMAINING MONTHS AVERAGES

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!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@@ !@@@@@ !@@.! ! !@.!@ !@@@@@
```

Figure 12. LSR CALL REGISTER - PAGE 2 OF 3

```
REPT: LOAD SERVICE                          OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                             ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@-$@@@@@@@      ENGR CAPAC: $@@.$@ %
QOB REG                       PAGE 3 OF 3   PLANNED UTILIZATION: $@@.$@ %

KEY ON CR CCS

15 HIGH DAYS
                          QOB
                QOB       PEG  QOB     QOB
HOUR  DATE      CCS      COUNT UTILZ     HT
----  -----   ------    ------ -----   -----
$@@@ $@/$@   $@@@@@@   $@@@@@ $@@.$  $@.$@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@

AVERAGE OF 10 BUSIEST DAYS

             !@@@@@@   !@@@@@ !@@.!  !@.!@

3 BUSIEST MONTHS AVERAGES

!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@

AVERAGE OF 3 BUSIEST MONTHS

             !@@@@@@   !@@@@@ !@@.!  !@.!@

REMAINING MONTHS AVERAGES

!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
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!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
!@@@ !@/!@   !@@@@@@   !@@@@@ !@@.!  !@.!@
```

Figure 13. LSR CALL REGISTER - PAGE 3 OF 3

Table 11. CALL REGISTER + MF ORIG Q + CR ANNEX + QOB

MEASUREMENT	FORMULA
(CR CCS)	* INDICATES "CR HT" IS FLAGGED
* CR CCS	CR ACCUM TOTAL OCC CNT/ (10 * # OF DAYS DATA ACCUM)
*(CR PEG COUNT)	* INDICATES "CR HT" IS FLAGGED
CR PEG COUNT	(MF CR SEIZ PC + DP CR SEIZ PC + CCIS CR SEIZ PC)/# OF DAYS DATA ACCUM
% UTILZ	CR CCS * 100/ (CR's CCS CAPACITY * # OF DAYS DATA ACCUM)
*(CR HT)	* INDICATES "CR HT" IS OUT OF THE 2 TO 5 SECOND RANGE
CR HT	CR CCS * 10/CR PEG COUNT
*(Q CCS)	* INDICATES "Q HT" IS FLAGGED
Q CCS	MF ORIG Q ACCUM TOT OCC CNT/(10 * # OF DAYS DATA ACCUM)
*(Q PEG COUNT)	* INDICATES "Q HT" IS FLAGGED
Q PEG COUNT	MF ORIG Q PC/# OF DAYS DATA ACCUM
Q ABAN	MF ORIG Q ABANDON PC/# OF DAYS DATA ACCUM
*(Q HT)	* INDICATES THE "Q HT * 10" IS OUT OF THE 0 TO 1 (SEC * 10) RANGE
Q HT	MF ORIG Q ACCUM TOT OCC CNT * 10/MF ORIG Q PC
CR ANNEX CCS	CR ANNEX TOTAL OCC COUNT/(10 * # OF DAYS ACCUM)
CR ANNEX COUNT	CR ANNEX SEIZURE PC
CR ANNEX % UTILZ	CR ANNEX CCS * 100/(CR ANNEX CCS CAPACITY * # OF DAYS DATA ACCUM)
CR ANNEX HT	CR ANNEX CCS * 10/CR ANNEX PEG COUNT
QOB CCS	QOB TOTAL OCC COUNT/(10 * # OF DAYS DATA ACCUM)
QOB COUNT	QOB SEIZURE PC
QOB % UTILZ	QOB TOTAL CCS * 100/(QOB CCS CAPACITY * # OF DAYS DATA ACCUM)
QOB HT	QOB TOTAL OCC COUNT/(10 * # OF DAYS DATA ACCUM)

Table 12. DP CALL REGISTER Q

MEASUREMENT	FORMULA
*(Q CCS)	* INDICATES "Q HT" IS FLAGGED
Q CCS	DP CR Q ACCUM TOT OCC CNT/(10 * # OF DAYS DATA ACCUM)
*(Q PEG COUNT)	* INDICATES "Q HT" IS FLAGGED
Q PEG COUNT	DP CR Q PC/# OF DAYS DATA ACCUM
Q ABAN	DP CR Q ABANDON PC/# OF DAYS DATA ACCUM
Q OVFL	DP CR Q OVERFLOW PC/# OF DAYS DATA ACCUM
Q % UTILIZ	Q CCS * 100/(DP CR Q SIZE * # OF DAYS ACCUM * 36)
*(Q HT)	* INDICATES THE "Q HT * 10" IS OUT OF THE 0 TO 1 (SEC * 10) RATIO
Q HT	Q CCS * 100/Q PEG COUNT
8 DIGT W/O CR	EIGHTH DIGIT WITH NO CALL REGISTER PC

```
REPT: LOAD SERVICE                          OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                             ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@    ENGR CAPAC: $@@.$@ %
DTMF RECEIVER       PAGE 1 OF 3             PLANNED UTILIZATION: $@@.$@ %


15 HIGH DAYS

                 *
                SVC       PEG    %            ATT
HOUR  DATE *    CCS *  COUNT UTILZ *    HT  /EQV
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$@@@ $@/$@ $ $@@@@@ $ $@@@@@ $@@.$ $ $@.$@ $@@.$
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!@@@ !@/!@ ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
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AVERAGE OF 10 BUSINESS DAYS

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3 BUSINESS MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

!@@@ !@/!@ ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
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Figure 14. LSR DTMF RECEIVER - PAGE 1 OF 3

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REPT: LOAD SERVICE                          OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                             ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@    ENGR CAPAC: $@@.$@ %
DTMF CR/RCVR  Q           PAGE 2 OF 3       PLANNED UTILIZATION: $@@.$@ %

KEY ON DTMF RCVR SVC CCS

15 HIGH DAYS

                              Q     Q
HOUR  DATE *  Q CCS *  COUNT  ABAN *  Q HT
---- ----- - ------ - ------ ----- - -----
$@@@ $@/$@ $ $@@@.$ $ $@@@@@ $@@@@ $ $@.$@
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!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
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!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
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!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@

AVERAGE OF 10 BUSINESS DAYS

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3 BUSINESS MONTHS AVERAGES

!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
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!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@

AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 15. LSR DTMF RECEIVER - PAGE 2 OF 3

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REPT: LOAD SERVICE                          OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                             ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@-$@@@@@@@      ENGR CAPAC: $@@.$@ %
  IDTS RCVR  Q            PAGE 3 OF 3       PLANNED UTILIZATION: $@@.$@ %

KEY ON DTMF RCVR SVC CCS

15 HIGH DAYS

                              Q     Q
HOUR  DATE *  Q CCS *  COUNT  ABAN *  Q HT
---- ----- - ------ - ------ ----- - -----
$@@@ $@/$@ $ $@@@.$ $ $@@@@@ $@@@@ $ $@.$@
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!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
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!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
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AVERAGE OF 10 BUSINESS DAYS

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3 BUSINESS MONTHS AVERAGES

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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
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```

Figure 16. LSR DTMF RECEIVER - PAGE 3 OF 3

Table 13. DTMF RECEIVER

MEASUREMENT	FORMULA
*(SVC CCS)	* INDICATES "HT" IS FLAGGED
*SVC CCS	DTMF RCVR ACCUM SVC OCC CNT/(10 * # OF DAYS DATA ACCUM)
*(PEG COUNT)	* INDICATES "HT" IS FLAGGED
PEG COUNT	DTMF RCVR SEIZ PC/* # OF DAYS DATA ACCUM
% UTILZ	DTMF SVC CCS * 100/(DTMF RCVR'S CSSCAP * # OF DAYS DATA ACCUM)
*	* INDICATES DTMF RCVR IS OUT OF 2 TO 4 SEC RANGE
HT	DTMF SVC CCS * 100/PEG COUNT
Q CCS	DTMF Q ACCUM TOT OCC/(10 * # OF DAYS DATA ACCUM)
Q PEG COUNT	DTMF Q PC
Q ABAN	DTMF Q ABANDON PC/# OF DAYS DATA ACCUM
Q HT	DTMF Q CCS * 100/Q PEG COUNT
Q CCS	IDTS RCVR Q ACCUM TOT OCC/(10 * # OF DAYS DATA ACCUM)
Q PEG COUNT	IDTS RCVR Q PC
Q ABAN	IDTS RCVR Q ABANDON PC/# OF DAYS DATA ACCUM
Q HT	IDTS RCVR Q CCS * 100/Q PEG COUNT

```
REPT: LOAD SERVICE                          OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                             ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@    ENGR CAPAC: $@@.$@ %
DTMF TRANSMITTER       PAGE 1 OF 2          PLANNED UTILIZATION: $@@.$@ %


15 HIGH DAYS

                 *
                SVC       PEG    %             ATT   WKG
HOUR  DATE *    CCS *  COUNT UTILZ *    HT  /EQV   EQV
---- ----- - ------ - ------ ----- - ----- ----- -----
$@@@ $@/$@ $ $@@@@@ $ $@@@@@ $@@.$ $ $@.$@ $@@.$ $@@@@
!@@@ !@/!@ ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.! !@@@@
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AVERAGE OF 10 BUSINESS DAYS

           ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.! !@@@@

3 BUSINESS MONTHS AVERAGES

!@@@ !@/!@ ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.! !@@@@
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AVERAGE OF 3 BUSIEST MONTHS

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REMAINING MONTHS AVERAGES

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Figure 17. LSR DTMF TRANSMITTER - PAGE 1 OF 2

```
REPT: LOAD SERVICE                          OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                             ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@    ENGR CAPAC: $@@.$@ %
DTMF TRANSMITTER Q      PAGE 2 OF 2         PLANNED UTILIZATION: $@@.$@ %


15 HIGH DAYS

                          Q PEG  Q %
HOUR  DATE *  Q CCS *  COUNT UTILZ *  Q HT
---- ----- - ------ - ------ ----- - -----
$@@@ $@/$@ $ $@@@.$ $ $@@@@@ $@@.$ $ $@.$@
!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
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!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@.! ! !@.!@

AVERAGE OF 10 BUSINESS DAYS

           ! !@@@.! ! !@@@@@ !@@.! ! !@.!@

3 BUSINESS MONTHS AVERAGES

!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@.! ! !@.!@

AVERAGE OF 3 BUSIEST MONTHS

           ! !@@@.! ! !@@@@@ !@@.! ! !@.!@

REMAINING MONTHS AVERAGES

!@@@ !@/!@ ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
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Figure 18. LSR DTMF TRANSMITTER - PAGE 2 OF 2

Table 14. DTMF TRANSMITTER

MEASUREMENT	FORMULA
(*SVC CCS)	* INDICATES "HT" IS FLAGGED
*SVC CCS	DTMF ACCUM SVC OCC CNT/(10 * # OF DAYS DATA ACCUM)
*(PEG COUNT)	DTMF SEIZ PC/# OF DAYS DATA ACCUM
% UTILIZ	SVC CCS * 100/(DTMF CCSCAP * # OF DAYS DATA ACCUM)
* (HT)	* INDICATES "HT" IS OUT OF 1 TO 2 SECOND RANGE
HT	SVC CCS * 100/PEG COUNT
CCS EQV	SVC CCS/# OF DAYS DATA ACCUM DTMF E1WT-0
WKG EQV	DTMF E1WT-0
Q CCS	DTMF Q ACCUM TOT OCC/(10 * # OF DAYS DATA ACCUM)
Q PEG COUNT	DTMF Q PC
% UTILIZ	Q CCS * 100/(DTMF Q SIZE * 36 * # OF DAYS DATA ACCUM)
Q ABAN	DTMF Q ABANDON PC/# OF DAYS DATA ACCUM
Q HT	Q CCS * 100/Q PEG COUNT

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4 ESS ON-SITE OPERATIONS REPORT
LOAD DISTRIBUTION REPORT (LDR)

1. GENERAL

1.01 The LDR is used to determine the busy hour and the distribution of load for an office engineering item. A separate LDR may be scheduled for seven engineering items:

1. CCIS TRANSCEIVERS
2. CAMA OPERATOR POSITIONS
3. CALL REGISTERS
4. MF RECEIVERS
5. MF TRANSMITTERS
6. TIME DIVISION NETWORK
7. DTMF RECEIVERS
8. DTMF TRANSMITTER
9. 1A/1B PROCESSOR

An LDR contains data on a contiguous 14.5 hour period. A report is made on 28 hourly intervals, overlapping on the hour and half hour.

An LDR may be scheduled for any 14.5 hour period, i.e., midnight may occur within the period. Scheduling is done separately for each engineering item. Output occurs at the end of the 14.5 hour interval. The scheduling operation itself may be done at any time prior to the end of the 14.5 hour period. Upon output, the LDR deschedules itself - this is the only schedule report for which this is done.

All of the data required for the LDR is contained in the MLSS data base. Additional Long Term Storage will be required when a 5 day LDR is provided.

2. REPORT HEADING

2.01 The heading of the LDR provides data pertinent to the office, report data and report period.

2.02 REPORT OFFICE - Circuit Identification Name (CIN) for the office creating the report, e.g., KSCYMO0904T.

2.03 DATE - is the date LDR data was accumulated.

2.04 PERIOD - LDR Report Study Period.

2.05 ENGR. PERIOD - As specified by the Switching Engineer, e.g., 12/76 to 12/77.

2.06 ENGD CAPACITY - not defined.

2.07 PLANNED UTILIZATION - As specified by the Switching Engineer, available to 2 decimal points.

3. REPORT COMPONENTS (MLSS, LDR, LSR)

3.01 **COUNT FIELD** - All counts are for 60 minute intervals, on the hour or half hour. If a sum of counts exceeds the capacity of the field, the counts are converted to thousands and marked by the letter K to the right of the field.

CCS FIELD - CCS is not measured directly but is computed as the occupancy count multiplied by the scan rate and divided by 100, e.g., 360* 10/100 = 36 CCS. Scan rates are 10 or 180 seconds.

HT FIELD - All holding times are computed as CCS* 100/count, and expressed in seconds.

% FIELD - Percent is rounded to one or two decimals, depending on space available.

CT/ET FIELD - is the unit count per type (MF, CCIS, DP) equivalent one way trunk (E1WT) - (I - Incoming, O - Outgoing).

CCSCAP FIELD - CCS capacity assumes 100% occupancy, 36 CCS, times the number of units, or use Poisson tables.

ASTERISK (*) - is used as: A multiplication operator in the formulas; a questionable data indicator when measurements are out of limits; and a key item indicator for the selection of high days and busy hours.

QUESTIONABLE DATA INDICATOR (*) - is indicated in the asterisk column preceding a measurement being directly or indirectly evaluated. An asterisk in this column indicates that the associated measurement has failed the specified range test; e.g., 97-100%, or that the related measurement has failed.

KEY ITEM (*) - is identified by an asterisk capped column or a statement "Key on ____" in LSR and LDR reports. This item is used to rank order the high days and months, and identify the busy hour. In the LDR an additional column, " ", will display an asterisk to mark the busy hour. Tie hours will be marked as high.

3.02 CCIS XCVR - Table 1. details the counts and formulas used to compute these items.

3.03 CALL REGISTERS - Table 2. details the counts and formulas used to compute these items.

3.04 CAMA POSITIONS - Table 3. details the counts and formulas used to compute these items.

3.05 MF RECEIVER - Table 4. details the counts and formulas used to compute these items.

3.06 MF TRANSMITTER - Table 5. details the counts and formulas used to compute these items.

3.07 TIME DIVISION NETWORK - Table 6. details the counts and formulas used to compute these items.

3.08 1A/1B PROCESSOR - Table 7. details the counts and formula used to compute these items.

3.09 DTMF RECEIVER - Table 8. details the counts and formulas used to compute these items.

3.10 DTMF TRANSMITTER - Table 9. details the counts and formulas used to computer these items.

```
REPT: LOAD DISTRIBUTION                    OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@   ENGR CAPAC: $@@.$@ %
CCIS XCVR           PAGE 1 OF 2            PLANNED UTILIZATION: $@@.$@ %


WKG EQV $@@@@@

                      *
       #   MTC       SVC       PEG    %                  ATT
 HOUR HI   CCS *     CCS *   COUNT UTILZ OVFL *     HT   /EQV
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Figure 1. LDR CCIS XCVR - PAGE 1 OF 2

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REPT: LOAD DISTRIBUTION                    OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@    ENGR CAPAC: $@@.$@ %
CCIS CALL REG Q        PAGE 2 OF 2         PLANNED UTILIZATION: $@@.$@ %


KEY ON CCIS XCVR SVC CCS


      #             Q PEG    %     Q   %          %
 HOUR HI *  Q CCS *  COUNT UTILZ ABAN  ABAN OVFL  OVFL *  Q HT
 ---- -- - ------ - ------ ----- ---- ----- ---- ----- - -----
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```

Figure 2. LDR CCIS XCVR - PAGE 2 OF 2

Table 1. CCIS XCVR + CCIS ORIG CR Q

MEASUREMENT	FORMULA
# HI	# OF DAYS KEY DATA WAS HIGH FOR THIS LINE
MTC CCS	CCIS XCVR MTCE USAGE * 18/10 * # OF DAYS DATA ACCUM
* SVC CCS	CCIS XCVR ACCUM SVC OCC/(10 * # OF DAYS DATA ACCUM)
PEG COUNT	CCIS XCVR SEIZ PC/# OF DAYS DATA ACCUM
% UTILZ	SVC CCS * 100/# XCVR's CCSCAP * # OF DAYS DATA ACCUM)
OVFL	CCIS XCVR OVERFLOW PC/# OR DAYS DATA ACCUM
HT	SVC CCS * 100/PEG COUNT
CCS/EQV	SVC CCS/CCIS E1WT-0 * # OF DAYS DATA ACCUM
WKG EQV	CCIS E1WT-0
Q CCS	CCIS ORIG CR Q ACCUM TOT OCC/(10 * # OF DAYS DATA ACCUM)
Q PEG COUNT	CCIS ORIG CR Q PC
% UTILZ	Q CCS * 100/(CCIS CR Q SIZE * 36 * # OF DAYS DATA ACCUM)
Q ABAN	CCIS ORIG CR Q ABANDON PC/# OF DAYS DATA ACCUM
% ABAN	Q ABAN * 100/Q PEG COUNT
OVFL	CCIS ORIG CR Q OVERFLOW PC/ # OF DAYS DATA ACCUM
% OVFL	OVFL * 100/(Q PEG COUNT + OVFL)
Q HT	Q CCS * 100/Q PEG COUNT

```
REPT: LOAD DISTRIBUTION                    OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@   ENGR CAPAC: $@@.$@ %
CALL REGISTER + MF ORIG Q    PAGE 1 OF 3   PLANNED UTILIZATION: $@@.$@ %
```

HOUR	# HI	*	CR CCS	*	CR PEG COUNT	% UTILZ	*	CR HT	*	Q CCS	*	Q PEG COUNT	Q ABAN	*	Q HT
$$@@@	$	$	$@@@@@	$	$@@@@@	$@@.$	$	$@.$@	$	$@@@.$	$	$@@@@@	$@@@	$	$@.$@
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Figure 3. LDR CALL REGISTERS - PAGE 1 OF 3

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REPT: LOAD DISTRIBUTION                    OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@    ENGR CAPAC: $@@.$@ %
DP CALL REGISTER Q       PAGE 2 OF 3       PLANNED UTILIZATION: $@@.$@ %


KEY ON CR CCS


      #             Q PEG                Q %          8 DIGT
 HOUR HI *  Q CCS *  COUNT Q ABAN Q OVFL UTILZ *  Q HT W/O CR
 ---- -- - ------ - ------ ------ ------ ----- - ----- ------
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Figure 4. LDR CALL REGISTERS - PAGE 2 OF 3

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DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@-$@@@@@@@     ENGR CAPAC: $@@.$@ %
QOB REG                      PAGE 3 OF 3   PLANNED UTILIZATION: $@@.$@ %


KEY ON CR CCS


                      QOB
       #     QOB     PEG      %    QOB
 HOUR HI     CCS    COUNT  UTILZ    HT
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Figure 5. LDR CALL REGISTERS - PAGE 3 OF 3

Table 2. CALL REG + MF ORIG Q + CR ANNEX + QOB

MEASUREMENT	FORMULA
(CR CCS)	* INDICATES "CR HT" IS FLAGGED
* CR CCS	CR ACCUM TOTAL OCC CNT/(10 * # OF DAYS DATA ACCUM)
*(CR PEG	* INDICATES "CR HT" IS FLAGGED COUNT)
CR PEG	(MF CR SEIZ PC + DP CR SEIZ PC + CCIS CR COUNTSEIZ PC) / (# OF DAYS DATA ACCUM)
% UTILZ	CR CCS * 100/(CR CSSCAP * # OF DAYS DATA ACCUM)
*(CR HT)	* INDICATES "CR HT" IS OUT OF THE 2 TO 5 SECOND RANGE
CR HT	CR CCS * 10/CR PEG COUNT
*(Q CCS)	* INDICATES "Q HT" IS FLAGGED
Q CCS	MF ORIG Q ACCUM TOT OCC CNT/(10 * # OF DAYS DATA ACCUM)
*(Q PEG	* INDICATES "Q HT" IS FLAGGED COUNT)
Q PEG COUNT	MF ORIG Q PC/# OF DAYS DATA ACCUM
Q ABAN	MF ORIG Q ABANDON PC/# OF DAYS DATA ACCUM
*(Q HT)	* INDICATES THE "Q HT * 10" IS OUT OF THE 0 TO 1 (SEC * 10) RANGE
Q HT	MF ORIG Q ACCUM TOT OCC CNT * 10/MF ORIG Q PC
*(Q CCS)	* INDICATES "Q HT" IS FLAGGED
Q CCS	DP CR Q ACCUM TOT OCC CNT/(10 * # OF DAYS DATA ACCUM)
*(Q PEG	* INDICATES "Q HT" IS FLAGGED COUNT)
Q PEG COUNT	DP CR Q PC/# OF DAYS DATA ACCUM
Q ABAN	DP CR Q ABANDON PC/# OF DAYS DATA ACCUM
Q OVFL	DP CR Q OVERFLOW PC/# OF DAYS DATA ACCUM
Q % UTILZ	Q CCS * 100/(DP CR Q SIZE * # OF DAYS ACCUM * 36)
*(Q HT)	* INDICATES THE "Q HT * 10" IS OUT OF THE 0 TO 1 (SEC * 10) RATIO
Q HT	Q CCS * 100/Q PEG COUNT
8 DIGT W/O	EIGHTH DIGIT WITH NO CALL REGISTER PC CR
CR ANNEX CCS	CR ANNEX TOTAL OCC.COUNT/(10 * # OF DAYS DATA ACCUM)

Table 2. CALL REG + MF ORIG Q + CR ANNEX + QOB

MEASUREMENT	FORMULA
CR ANNEX COUNT	CR ANNEX SEIZURE PC
CR ANNEX % UTILZ	CR ANNEX TOTAL CCS * 100 / (CR ANNEX CCSCAP * # OF DAYS DATA ACCUM)
CR ANNEX HT	CR ANNEX CCS * 10/CR ANNEX SEIZURE PC
QOB CCS	QOB TOTAL OCC COUNT/10 * # OF DAYS DATA ACCUM
QOB COUNT	QOB SEIZURE PEG COUNT
QOB % UTILZ	QOB TOTAL CCS * 100/(QOB CCSCAP * # OF DAYS DATA ACCUM)
QOB HT	QOB TOTAL OCC COUNT/QOB SEIZURE PC

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REPT: LOAD DISTRIBUTION                    OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@   ENGR CAPAC: $@@.$@ %
CAMA POSITIONS        PAGE 1 OF 1          PLANNED UTILIZATION: $@@.$@ %
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HOUR	HI	# AVG OCC	ONI COUNT	% POS UTL	ONI HT, MINS	* SVC CCS	SVC COUNT	% SVC UTL	SVC HT *	OP Q HT	ABAN	DISC
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Figure 6. LDR CAMA POSITIONS - PAGE 1 OF 1

Table 3. CAMA POSITIONS

MEASUREMENT	FORMULA
AVG OCC	CAMA POSN'S ACCUM OCC CNT/(360 * # OF DAYS DATA ACCUM)
ONI COUNT	(OPERATOR NUMBER IDENTIFICATION PC + AUTO NUMBER IDENT MULTI-PARTY CALLS PC + AUTO NUMBER IDENT OFFICE FAILURE PC)/# OF DAYS DATA ACCUM
% POS UTL	CAMA POSN'S ACCUM OCC CNT * 10/(# CAMA POSITIONS INSTALLED * # OF DAYS DATA ACCUM * 20)
ONI HT, MINS	CAMA POSN'S ACCUM OCC CNT/(6 * ONI COUNT)
* SVC CCS	TOTAL CAMA POSN'S ACCUM SVC OCC CNT/(10 * # OF DAYS DATA ACCUM)
SVC COUNT	TOTAL CAMA POSN'S SEIZ PC/# OF DAYS DATA ACCUM
% SVC UTL	TOTAL CAMA POSN'S ACCUM SVC OCC CNT * 100/ CAMA POSN'S ACCUM OCC CNT
SVC HT	SVC CCS *100/SVC COUNT
*(OP Q HT)	* INDICATES "OP Q HT" IS OUT OF THE 5 TO 10 SEC RANGE
OP Q HT	CAMA OPR Q ACCUM TOT OCC CNT * 10/CAMA OPR Q PC
ABAN	CAMA OPR Q ABANDON PC/# OF DAYS DATA ACCUM
DISC	CAMA POSN'S DISCONNECT PC/# OF DAYS DATA ACCUM

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DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@-$@@@@@@@     ENGR CAPAC: $@@.$@ %
MF RECEIVER           PAGE 1 OF 2          PLANNED UTILIZATION: $@@.$@ %


WKG EQV $@@@@@

                      *
       #   MTC       SVC       PEG    %             HT   ATT      ONI      ONI
 HOUR HI   CCS *     CCS *   COUNT UTILZ    HT * - ONI  /EQV *   CCS *     PC
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Figure 7. LDR MF RECEIVER - PAGE 1 OF 2

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DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@   ENGR CAPAC: $@@.$@ %
MF ORIGINATING Q +      PAGE 2 OF 2        PLANNED UTILIZATION: $@@.$@ %
DP ANI MF RCVR Q

KEY ON MF RCVR SVC CCS


      #     ORIG   ORIG Q ORIGQ    ORIG      ANI    ANI Q     ANI
 HOUR HI *  Q CCS *  COUNT  ABAN *  Q HT *  Q CCS *  COUNT *  Q HT
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Figure 8. LDR MF RECEIVER - PAGE 2 OF 2

Table 4. MF RECEIVER

MEASUREMENT	FORMULA
MTC CCS	MF RCVR MTC USAGE * 18/(10 * # OF DAYS DATA ACCUM)
*(SVC CCS)	* INDICATES "HT-ONI" IS FLAGGED
* SVC CCS	MF RCVR ACCUM SVC OCC CNT/(10 * # OF DAYS DATA ACCUM)
* (PEG COUNT)	* INDICATES "HT-ONI" IS FLAGGED
PEG COUNT	MF RCVR SEIZ PC/# OF DAYS DATA ACCUM
% UTILZ	SVC CCS * 100/(MF RCVR'S CSSCAP * # OF DAYS DATA ACCUM)
HT	SVC CCS * 100/PEG COUNT
* (HT-ONI)	* INDICATES "HT-ONI" IS OUT OF 2 TO 4 SEC RANGE
HT-ONI	(MF RCVR ACCUM SVC OCC CNT - CAMA POSN'S ACCUM SVC OCC CNT) * 10/PEG COUNT
CCS/EQV	SVC CCS * 10/# OF DAYS DATA ACCUM * MF E1WT-I
* (ONI CCS)	* INDICATES "HT-ONI" IS FLAGGED
ONI CCS	CAMA POSN'S ACCUM SVC OCC CNT/(10 * # OF DAYS DATA ACCUM)
*(ONI-PC)	* INDICATES "HT-ONI" IS FLAGGED
ONI PC	(ONI PC + ANI MULTI PARTY PC + ANI FAILURE PC)/# OF DAYS DATA ACCUM
WKG EQV	MF E1WT-I

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REPT: LOAD DISTRIBUTION                  OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                          ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@-$@@@@@@@   ENGR CAPAC: $@@.$@ %
MF TRANSMITTER         PAGE 1 OF 3       PLANNED UTILIZATION: $@@.$@ %


WKG EQV $@@@@@

                      *
       #   MTC       SVC       PEG    %             ATT
 HOUR HI   CCS *     CCS *   COUNT UTILZ *     HT   /EQV
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Figure 9. LDR MF TRANSMITTER - PAGE 1 OF 3

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ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@    ENGR CAPAC: $@@.$@ %
MF TRANSMITTER Q        PAGE 2 OF 3        PLANNED UTILIZATION: $@@.$@ %


KEY ON MF TRMTR SVC CCS


       #              Q PEG  Q %
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Figure 10. LDR MF TRANSMITTER - PAGE 2 OF 3

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ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@   ENGR CAPAC: $@@.$@ %
MF TRANSMITTER Q + SD     PAGE 3 OF 3      PLANNED UTILIZATION: $@@.$@ %


KEY ON MF TRMTR SVC CCS


       #         Q         Q       % Q
 HOUR HI * ATTEMP * ENT FL * ENT FL * SD CCS * SD HT
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Figure 11. LDR MF TRANSMITTER - PAGE 3 OF 3

Table 5. MF TRANSMITTER

MEASUREMENT	FORMULA
MTC CCS	MF XMTR MTCE USAGE * 18/(10 * # OF DAYS DATA ACCUM)
* (*SVC CCS)	* INDICATES "HT" IS FLAGGED
* SVC CCS	MF XMTR ACCUM SVC OCC CNT/(10 * # OF DAYS DATA ACCUM)
* (PEG COUNT)	MF XMTR SEIZ PC/# OF DAYS DATA ACCUM
% UTILIZ	SVC CCS * 100/(MF XMTR'S CCSCAP * # OF DAYS DATA ACCUM)
* (HT)	* INDICATES "HT" IS OUT OF 1 TO 2 SECOND RANGE
HT	SVC CCS * 100/PEG COUNT
CCS EQV	SVC CCS/# OF DAYS DATA ACCUM * MF E1WT-0
WKG EQV	MF E1WT-0

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REPT: LOAD DISTRIBUTION                    OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@   ENGR CAPAC: $@@.$@ %
TIME DIVISION NETWORK     PAGE 1 OF 1      PLANNED UTILIZATION: $@@.$@ %


WKG EQV $@@@@@

                *
       #   TDNET    %         PH       PH      PH      %PH           CCS
 HOUR HI      CCS UTILZ *    SUCC *   FAIL *  IMA *    IMA   PH HT  /EQV
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Figure 12. LDR TIME DIVISION NETWORK - PAGE 1 OF 1

Table 6. TIME DIVISION NETWORK

MEASUREMENT	FORMULA
* TDNET CCS	(NTWK ACCUM TOT OCC CNT/(5 * # OF DAYS DATA ACCUM) * 9
% UTILZ	(NTWK ACCUM TOT OCC CNT/(5 * # OF DAYS DATA ACCUM) * 100/(MAX NUMBER OF NTWK CONNECTIONS * 4)
* (PH SUCC)	* INDICATES "% PH IMA" IS FLAGGED
PH SUCC	NTWK PATH HUNT SUCCESS PC/# OF DAYS DATA ACCUM
* (PH FAIL)	NTWK PATH HUNT FAILURE PC/# OF DAYS DATA ACCUM
* (PH IMA)	* INDICATES "% PH IMA" IS FLAGGED
PH IMA	FINA TRIAL NTWK PATH HUNT FAILURE PC/# OF DAYS DATA ACCUM
* (% PH IMA)	* INDICATES "% PH IMA" IS OUT OF THE 0 TO L% RANGE
% PH IMA	PH IMA * 100/(PH SUCC + PH FAIL)
PH HT	(NTWK ACCUM TOT OCC CNT/5) * 9 * 100/NTWK PATH HUNT SUCCESS PC
CCS/EQV	(NTWK ACCUM TOT OCC CNT/(5 * # OF DAYS DATA ACCUM) * 9 (TOTAL E1WT-I + TOTAL E1WT-0)
WKG EQV	TOTAL E1WT-I + TOTAL W1WT-0

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DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@-$@@@@@@@     ENGR CAPAC: $@@.$@ %
1A/1B PROCESSOR              PAGE $ OF 2   PLANNED UTILIZATION: $@@.$@ %



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       #     MS    SEC    INC    PEG    OVLD
 HOUR HI * AVG * USG    SEIZ   COUNT  COUNT   NL-NO NL-MC NL-SG  LL-1 LL-2 LL-3
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Figure 13. LDR 1A/1B PROCESSOR - PAGE 1(2) OF 2

Table 7. 1A/1B PROCESSOR

MEASUREMENT	FORMULA
* (* MS AVG)	* INDICATES "* MS AVG" IS OUT OF 11 TO 35 MSEC RANGE
* MS AVG	AVG QTR HOUR BASE LEVEL CYCLE LENGTH IN MILLISECONDS/# OF DAYS DATA ACCUM
*(SEC USG)	* INDICATES "MS AVE" IS FLAGGED
SEC USG	900-(INTERRUPT LEVEL DURATION + PHASE LEVEL DURATION)/(100 * # OF DAYS DATA ACCUM)
PEG COUNT	BASE LEVEL CYCLE PC/# OF DAYS DATA ACCUM
OVLD COUNT	(BLC PC, NON LOAD MAC OVLD CONT IN EFF + BLC PC, NON LOAD SEG. OVLD CONT IN EFF + BLC PC, LOAD LEVEL 1 OVLD CONT IN EFF + BLC PC, LOAD LEVEL 2 OVLD CONT IN EFF + BLC PC, LOAD LEVEL 3 OVLD CONT IN EFF)/ # OF DAYS DATA ACCUM
% OVLD	OVLD COUNT * 100/BLC PC
*(NL-NO)	* INDICATES "MS AVG" IS FLAGGED
NL-NO	(BASE LEVEL CYCLE PC- (BASE LEVEL CANCEL OVLD IN EFFECT PC + OVLD COUNT))/# OF DAYS DATA ACCUM
NL-MC	BLC PC, NON LOAD MAC OVLD CONT. IN EFF/# OF DAYS DATA ACCUM
NL-SG	BLC PC, NON LOAD SEG OVLD CONT IN EFF/# OF DAYS DATA ACCUM
LL-1	BLC PC, LOAD LEVEL 1 OVLD CONT IN EFF/# OF DAYS DATA ACCUM
LL-2	BLC PC, LOAD LEVEL 2 OVLD CON IN EFF/# OF DAYS DATA ACCUM
LL-3	BLC PC, LOAD LEVEL 3 OVLD CON IN EFF/# OF DAYS DATA ACCUM

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DTMF RECEIVER          PAGE 1 OF 3         PLANNED UTILIZATION: $@@.$@ %


WKG EQV $@@@@@

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       #        SVC       PEG    %             ATT
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Figure 14. LDR DTMF RECEIVER - PAGE 1 OF 3

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DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@   ENGR CAPAC: $@@.$@ %
DTMF CR/RCVR Q         PAGE 2 OF 3         PLANNED UTILIZATION: $@@.$@ %


KEY ON DTMF RCVR SVC CCS


       #                    Q     Q
 HOUR HI  *  Q CCS *  COUNT  ABAN *  Q HT
 ---- --  - ------ - ------ ----- - -----
$$@@@  $  $ $@@@.$ $ $@@@@@ $@@@@ $ $@.$@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
```

Figure 15. LDR DTMF RECEIVER - PAGE 2 OF 3

```
REPT: LOAD DISTRIBUTION                    OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@@   ENGR CAPAC: $@@.$@ %
IDTS RCVR Q            PAGE 3 OF 3         PLANNED UTILIZATION: $@@.$@ %


KEY ON DTMF RCVR SVC CCS


       #                    Q     Q
 HOUR HI  *  Q CCS *  COUNT  ABAN *  Q HT
 ---- --  - ------ - ------ ----- - -----
$$@@@  $  $ $@@@.$ $ $@@@@@ $@@@@ $ $@.$@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
!!@@@  !  ! !@@@.! ! !@@@@@ !@@@@ ! !@.!@
```

Figure 16. LDR DTMF RECEIVER - PAGE 3 OF 3

Table 8. DTMF RECEIVER

MEASUREMENT	FORMULA
* (SVC CCS)	* INDICATES "HT" IS FLAGGED
* SVC CCS	DTMF RCVR ACCUM SVC OCC CNT/(10 * # OF DAYS DATA ACCUM)
* (PEG COUNT)	* INDICATES "HT" IS FLAGGED
PEG COUNT	DTMF RCVR SEIZ PC/# OF DAYS DATA ACCUM
% UTILIZ	DTMF SVC CCS * 100/(DTMF RCVR'S CSSCAP * # OF DAYS DATA ACCUM)
*	* INDICATES DTMF RCVR IS OUT OF 2 TO 4 SECOND RANGE
HT	DTMF SVC CCS * 100/PEG COUNT
Q CCS	DTMF Q ACCUM TOT OCC/(10 * # OF DAYS DATA ACCUM)
Q PEG COUNT	DTMF Q PC
Q ABAN	DTMF Q ABANDON PC/# OF DAYS DATA ACCUM
Q HT	DTMF Q CCS * 100/Q PEG COUNT
Q CCS	IDTS RCVR Q ACCUM TOT OCC/(10 * # OF DAYS DATA ACCUM)
Q PEG COUNT	IDTS RCVR Q PC
Q ABAN	IDTS RCVR Q ABANDON PC/# OF DAYS DATA ACCUM
Q HT	IDTS RCVR Q CCS * 100/Q PEG COUNT

```
REPT: LOAD DISTRIBUTION                    OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@-$@@@@@@@     ENGR CAPAC: $@@.$@ %
DTMF TRANSMITTER       PAGE 1 OF 2         PLANNED UTILIZATION: $@@.$@ %


WKG EQV $@@@@@

                 *
       #        SVC       PEG    %             ATT
 HOUR HI   *    CCS *   COUNT UTILZ *     HT   /EQV
 ---- --   - ------ - ------ ----- - ----- -----
$$@@@  $  $ $@@@@@ $ $@@@@@ $@@.$ $ $@.$@ $@@.$
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
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!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
!!@@@  !  ! !@@@@@ ! !@@@@@ !@@.! ! !@.!@ !@@.!
```

Figure 17. LDR DTMF TRANSMITTER - PAGE 1 OF 2

```
REPT: LOAD DISTRIBUTION                    OFFICE: $@@@@@@@@@@@@@@@
DATE: $@@@@@@@@                            ENGR PERIOD: $@@@@ TO $@@@@
ACCUMULATION PERIOD: $@@@@@@@@-$@@@@@@@    ENGR CAPAC: $@@.$@ %
DTMF TRANSMITTER Q     PAGE 2 OF 2         PLANNED UTILIZATION: $@@.$@ %


KEY ON DTMF TRMTR SVC CCS


       #              Q PEG  Q %
 HOUR HI *  Q CCS *  COUNT UTILZ *  Q HT
 ---- -- - ------ - ------ ----- - -----
$$@@@  $ $ $@@@.$ $ $@@@@@ $@@.$ $ $@.$@
!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
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!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
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!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
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!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
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!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
!!@@@  ! ! !@@@.! ! !@@@@@ !@@.! ! !@.!@
```

Figure 18. LDR DTMF TRANSMITTER - PAGE 2 OF 2

Table 9. DTMF TRANSMITTER

MEASUREMENT	FORMULA
* (*SVC CCS)	* INDICATES "HT" IS FLAGGED
* SVC CCS	DTMF ACCUM SVC OCC CNT/(10 * # OF DAYS DATA ACCUM)
* (PEG COUNT)	DTMF SEIZ PC/# OF DAYS DATA ACCUM
% UTILIZ	SVC CCS * 100/(DTMF CCSCAP * # OF DAYS DATA ACCUM)
* (HT)	* INDICATES "HT" IS OUT OF 1 TO 2 SECOND RANGE
HT	SVC CCS * 100/PEG COUNT
CCS EQV	SVC CCS/# OF DAYS DATA ACCUM * DTMF E1WT-0
WKG EQV	DTMF E1WT-0
Q CCS	DTMF Q ACCUM TOT OCC/(10 * # OF DAYS DATA ACCUM)
Q PEG COUNT	DTMF Q PC
% UTILZ	Q CCS * 100/(DTMF Q SIZE * 36 * # OF DAYS DATA ACCUM)
Q ABAN	DTMF Q ABANDON PC/# OF DAYS DATA ACCUM
Q HT	Q CCS * 100/Q PEG COUNT

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4 ESS ON-SITE OPERATIONS SYSTEM
DOMESTIC CIN ENTRY FORM
FOR DISCOUNTABLE OVERFLOW TSG'S
EF7

1. GENERAL

1.01 Entry form EF7 provides the user with a method of loading and storing in the NMDS/OSOR system a list of Trunk Sub-Groups (TSG's) whose overflow is discountable under historical precedence from IMA and INDEX calculations (ACP 234-020-005 will describe parameters under which a TSG may qualify for overflow discount consideration). Generally, ACD and choke network TSG's are subjected to high rates of overflow by design rather than from equipment or operational deficiencies. This type of overflow should not contribute toward a reduced office performance level by becoming part of IMA or index computations. Using EF7, discountable overflow will automatically be removed from the Domestic MSR1 (IMA) and Domestic NSPMP (Index) reports.

1.02 Specifically, EF7 was designed to provide a mechanism to remove from the historic NCTC register overflow from AUTHORIZED TOLL CONNECTING/COMPLETING trunk subgroups which NORMALLY peg NCTC.

This fact dictates the following "criteria" for all trunk subgroups placed on EF7 page:

a. TSG "TYPE OF TRUNK" (TOT) cannot be IT, STC or PBX (overflow from these TOT'S does not score the NCTC register therefore cannot be removed from NCTC DATA without creating a negative...16677... number).

b. TSG must be a "FINAL GROUP" having no alternate route (NON-FINAL groups overflow and complete calls on alternate routes without pegging NCTC; therefore, again a negative number situation would develop if NON-FINAL overflow pegs are removed from NCTC).

c. TSG cannot have a "NM CONTROL" active while on EF7 page (NM controls supersede normal NCTC pegging with NM control register pegging resulting in a negative number as described in a) above).

2. OPERATION

2.01 EF7 is a single page three column grid having nineteen elements per column. Each element of nineteen characters will accommodate a TSG input in the standard Circuit Identification Name (CIN) format. CIN's may be entered by typing the appropriate CIN in any element (spaces between key elements of CIN are not necessary during input process) and entering the page into the system. Normal response to an entered page is to reprint the input CIN's (with spaces between key parts) as confirmation of storage for discountable overflow reference by the NMDS/OSOR program.

2.02 Invalid CIN entries will not be accepted by the system and an error state will be created as evidenced by a flashing "ERROR" message in the page header. The column containing the error will also flash and the invalid CIN will be converted to flashing "at" (@) signs. No EF7 data will be accepted by the system while an error state exists.

2.03 Duplicate CIN entries will also cause a flashing error message in the page header. If the duplicate CIN'S reside in the same column, the first appearance of the duplicate will be deleted and the remaining entry will be added to the next available open slot in the column. If the duplicate CIN's appear in different columns, the header error message will flash and the user must find and remove the duplicate entry. No EF7 data will be accepted by the system while an error state exists.

2.04 Discountable overflow on TSG'S established via EF7 CIN input will be summed at the normal OSOR time boundaries. The total discountable overflow will automatically be subtracted from outgoing and total ADJ'd Domestic IMA (MSR1 report) as well as the No Circuit (NC) portion of the Domestic NSPMP report. The total discountable overflow value will be shown as "Discountable NC" on Page 2 of The Domestic MSR 2 report.

```
EF7    OVERFLOW DISCOUNT CIN'S                  DATA TIME $@@@@  $@@@@  SENT AT $@@@@@@@

       _________CIN_________    _________CIN_________    _________CIN_________

      <$@@@@@@@@@@@@@@@@@@@@>  <$@@@@@@@@@@@@@@@@@@@@>  <$@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
      <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>  <@@@@@@@@@@@@@@@@@@@@>
                                                          DIRECTORY[  ]   P[  ]
```

FIGURE 1

TRUNK SUB-GROUPS WITH DISCOUNTABLE OVERFLOWS

TRANSLATION GUIDE
TG-4

DIVISION 12

CNI DATA MANAGEMENT SYSTEM (DMS)

LUCENT TECHNOLOGIES PROPRIETARY
Use pursuant to Company Instruction

CNI RECENT CHANGES USING THE CNI DATABASE MANAGEMENT SYSTEM

1. INTRODUCTION

The following is a list of the major paragraphs of this division and a short description of what it pertains to.

1. INTRODUCTION - Describes the major paragraphs.
2. DESCRIPTION OF THE DATA MANAGEMENT SYSTEM - Describes the Data Management System (DMS) and provides a general procedure for its use.
3. WORKING WITH THE DATA MANAGEMENT SYSTEM - Describes the application of various features pertaining to the data base and DMS.
4. FUNCTION DESCRIPTIONS FOR THE DATA MANAGEMENT SYSTEM - Provides a brief description of each of the functions used in DMS. The necessary data items, the dependencies and restrictions placed on these data items, and typical displays of the functions used in DMS are also provided for each DMS function.
5. GLOSSARY - Contains a list of terms and definitions and a list of acronyms and abbreviations.

2. DESCRIPTION OF THE DATA MANAGEMENT SYSTEM

2.01 USE OF THE ACRT AND PRINTER

The administration of the CNI data base is done via the Data Management System (DMS). The administrative terminal (ACRT) has been provided for the specific task of Recent Change and Verify (RCV) of the CNI data base. DMS is designed to be used with the ACRT in the local office. In the local office, the terminal used for the ACRT may be a DEC VT102*, a DATAMEDIA§ Colorscan 10, or a Colorgraphics MVI100†. The ACRT should be accompanied by an AROP (Administrative Read-Only Printer) although the use of one is not required. This printer can be used to obtain a hard copy of any action that takes place at the ACRT. In the local office the AROP is a DATASPEED‡ 40.

The ACRT is set up such that a user can obtain a printed copy of any display which appears on the screen. Once the user obtains the desired display on the screen, depress the "SHIFT" key and the "ENTER/PRINT" key of the right hand key pad simultaneously. This causes the display on the screen to be printed on the AROP.

2.02 CONTROL OF CURSOR ON DISPLAY

To aid the user in creating an order and to control the location of the cursor on the display, some special characters have been created. When these characters are entered as the first character in certain fields, a special action is performed as described below.

<CR> The carriage return <CR> entered into any field leaves only that field unchanged and positions the cursor at the next field which can be modified.

<BS> Entering the backspace <BS> character, or a series of backspaces in any field erases the last n characters from the input if entered prior to the carriage return. DMS does not see these characters, so any characters entered past the end of the field and erased in this manner, remain on the display but do not affect the input to the field.

% The "%" character entered into any field clears the screen and redraws the display. Whatever data was on the display is retained. The user has the option to use the displayed value (by hitting <CR>) or entering another value.

^ Inserting "^" into the first field of any display signals DMS to conclude that phase of input and continue on to the next input phase.

= Entering the "=" character in any field on a recent change or recall causes the order to abort. If the "=" character is entered while creating a recent change order, anything entered is cleared and the order is deleted. Using the "=" character on a recall retains the original order unchanged.

> When ">" is entered into a field it signifies that all fields are to remain as they appear from that field to the end of the current display.

< Entering the "<" character into any field allows the user to back up to the previous changeable field in the current display.

; Entering the ";" character into a field causes the default value (if any) to be entered into that field. If no default value exists, an error message is generated.

: A ":" character entered into a field enters the default value for each field in the display. This mode of entry stops at the first succeeding field in the display which does not have a default value specified.

& The ampersand (&) entered into any field except the first field in a display copies the entry in the field immediately prior to the current field into the current field. If the two fields are not compatible, an error is generated.

? The "?" character entered into any field generates a message explaining the expected input to that field. To

---

* Registered trademark of Digital Equipment Corporation.

† Registered trademark of Colorgraphics Corporation.

‡ Registered trademark of AT&T.

§ Trademark of Datamedia Corporation.

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Use pursuant to Company Instruction

determine the valid ranges for any data field in any display enter a "?".

2.03 RECENT CHANGE SCENARIO

The sequence of output messages in Figure 1 is an example of what appears on the MCRT and printed on the MROP when a recent change order is processed which updates CNI data.

An additional message may appear within the sequence when the data is also backed up to the disk. Figure 2 shows the format of these messages.

2.04 INITIALIZING THE DATA MANAGEMENT SYSTEM

Initializing the CNI-DMS should be done during ring growth. This is accomplished by entering the following input message specifying a "HIGH" level DMS initialization.

INIT:DMS HIGH

It may also be necessary to reinitialize DMS at some later date. Certain events could occur that cause the DMS to get "hung up" and prevent the user from logging on or progressing with one of the DMS functions. This condition could be caused by the termination of the DMS monitor process by some other means than using the "quit" command (such as turning the terminal off without quitting DMS). When this occurs, the user should attempt to restore DMS to a sane state with a "LOW" level initialization using the following input message.

INIT:DMS LOW

If the low level initialization doesn't restore DMS to a satisfactory sane state then the "HIGH" level initialization is necessary. The user should be aware that the process used to restore DMS with a high level initialization erases the system status file and deletes any existing orders and their associated error files. The mail and errorlog files remain intact though, to enable the user to diagnose the cause of the "hang up". Also, a message is appended to the mail file to inform all users (local and remote) that a DMS initialization has occurred.

2.05 INHIBITING RECENT CHANGE

Due to the nature of some commands, it is necessary to restrict their use to avoid the same process or conflicting processes from occurring simultaneously. Therefore, those commands which are capable of activating a recent change order and thus are capable of altering the CNI data base are restricted to one user at any given time. To avoid confusion in the processor, only one user is allowed access to the activation, recent change, or recall command at any given time. For example, if a user attempts an "re" command while another user is using one of the restricted commands, the following message would be displayed and the user would be returned to the DMS command line.

recall CURRENTLY RESTRICTED -- TRY LATER

Note: The error message tells the user that the command specified which the user wished to access is restricted. Therefore, if the user attempts to access the recent change command while another user is using one of the restricted commands, "rc" would replace the "/dmsload/systemload/recall" in the error message displayed in the example above.

There are times when it is necessary to prevent all users from performing any changes to the CNI data base. One such time is during the disk backup of the data base. To fulfill this need, the following commands have been provided to inhibit all users from performing recent changes, restore the users ability to perform recent changes, and to check the status as to the users ability to perform recent changes.

a. The following PDS command inhibits changes to the CNI Data Base. When this command is entered, all users are prevented from performing recent changes.

INH:RCV:ON

b. The PDS command with option "OFF" restores all users ability to recent change the CNI Data Base.

INH:RCV:OFF

c. The PDS command with option "STATUS" allows the user to check the status of users ability to change the CNI Data Base.

INH:RCV:STATUS

32 RING REPT LOG CDBA CNIDBA.C 194 2774332446
PROCESSING RC ORDER OF TYPE 50
10/31/86 12:32:44 #001314

32 RING REPT LOG CDBA CNIDBAK.C 220 2774334048
PROCESSING COMPLETE
10/31/86 12:32:46 #001315

32 RING REPT LOG CDBA CNIDBA.C 391 2774334153
RC ORDER COMPLETE
10/31/86 12:32:46 #001316

Figure 1. *Recent Change Example Messages*

33 RING REPT LOG CDBA CNIDBA.C 272 2774373260
RC DISK UPDATE COMPLETE
10/31/86 12:33:25 #001323

Figure 2. *Disk Update Example Message*

Should a user attempt either the "act", "rc" or "re" command, while changes to data base are inhibited, the following message would be displayed.

recent change CURRENTLY INHIBITED -- TRY LATER

2.06 RECENT CHANGE LOGFILE

All recent change orders entered via the Data Management System (DMS) are recorded in the Recent Change (RC) Log file. Recent change orders are stored in the RC Log file regardless of their status (whether it be ACTIVATED, ACTFAILED, INCORE, or PENDING). Table 3 illustrates the meaning of each state.

Use of the Recent Change Logfile

The contents of the RC Log file can only be accessed via DMS. Several of the DMS commands use the contents of the RC Log file for various purposes. Some examples of the use of the RC Log file are listed below according to the DMS command needed for the action.

recall (1) Modify an existing order to meet the users present needs.
(2) List the orders present in the RC Log file.
(3) Append additional items to an existing order.

adm (1) Copy an existing order for another application.
(2) Delete an entry from the RC Log file.
(3) Check the status of an order.
(4) List the orders associated with a certain user ID.

Backup of the Recent Change Log File

The RC Log file resides in the CNI data base and is therefore backed up along with the data base. The backup copy of the RC Log file is only as current as the backup data base since they are done at the same time. Should the data base be restored from a backup copy, all of the changes made since the last backup would be lost.

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TABLE 1. Recent Change Types for Incore Changes

RC types changing CNI tables		
Type	**Function**	**Description**
100	lkdata	update CCS7 link data
101-102	-	Not applicable
103	ofdata	change office data
104	ofdata	add office data
105	cevent	add entries to the CET
106	cevent	delete entries from the CET
107	cevent	change entries in the CET
108	histfd	add entries to the HFDT
109	histfd	delete entries from the HFDT
110	histfd	change entries in the HFDT
111	schedl	add entries to Scheduler Table
112	schedl	delete entries from Scheduler Table
113	schedl	change entries in Scheduler Table
114	except	add entries to Exception Table
115	except	delete entries from Exception Table
116	except	change entries in Exception Table
117	vuname	add entries to UVDT
118	vuname	delete entries from UVDT
119	updvue	add measurements to entry in UVDT
120	updvue	delete measurements from entry in UVDT
121	clsrout	add/chg routing for a PC
122	clsrout	delete routing for a PC
123-131	-	Not applicable
132	lkdata	update pbx node data
133	lkdata	update pbx link data
134-137	-	Not applicable
138	lsrout	add CCITT7 international routing
139	lsrout	delete CCITT7 international routing
140	lsrout	change CCITT7 international routing
141-143	-	Not applicable
144	lkdata	change link node data for CCITT7 nodes
145	gttran	change global title translations
146	gttran	delete global title translations
147-149	-	Not applicable
150	timers	office (scope) timers and parameters
151	timers	linkset (scope) timers and thresholds
152	-	Not applicable
153	timers	link (scope) timers and thresholds

2.07 ORDER NUMBER RESTRICTIONS

All actions of the recent change command are capable of changing the contents of the CNI data base. In order to reference changes to the CNI data base, an order number is required for all

TABLE 2. Recent Change Types for Disk Backup

RC types to update disk		
Type	**Function**	**Description**
200-201	-	Not applicable
202	update	office identification data on disk
203	update	link data on disk for a given link
204	update	the Critical Event Table on disk
205	update	Exception Table on disk
206	update	History File Descriptor Table on disk
207	update	Scheduler Table on disk
208	update	User View Descriptor Table on disk
209	(c)lsrout	copy routing information to disk
210-212	-	Not applicable
213	lsrout	CCITT7 routing data on disk
214	-	Not applicable
215	gttran	global title translation on disk

TABLE 3. Recent Change Status List

Status	Description
PENDING	This state is the default state. When the order is not in any other state, it will be in the default state.
INCORE	An order in this state means that the order has been successfully activated **in core memory only** and has **not** been backed up to the disk yet.
ACTIVATED	An order in this state has been successfully activated in **both** the core memory and on to disk. This order cannot be recalled or activated and should eventually be deleted.
ACTFAILED	An order in this state failed to be activated. The reason(s) for the failure can be found in the error log.

such actions. For an order number to be valid it must conform to the following restrictions:

a. The first two characters must be numeric.

b. The third character indicates the type of user initiating the recent change order. Orders entered by the remote administration should have either an "X", "x", "T", "t", "M", or "m" as the third character of the order number. Each of these letters has a special meaning to the remote organization that creates the order number. All orders entered by the local user must have "Y" or "y" as the third character of the order number.

c. The remaining 9 characters must be numeric. The suggested format of these digits is MMDDYY### where MM is the current month DD is the current day, YY is the current year, and ### is from 000 to 499 for the local user and from 500-999 for the remote user.

EXAMPLE: 31Y122587020 would be a valid entry of the order number for a local user.

Order numbers cannot be duplicated in the DMS Recent Change (RC) Log file. Any order number contained in the RC Log file will not be accepted as valid for the "rc" command.

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2.08 DESCRIPTION OF POINT CODES

Each office in the CCIS network is assigned a unique 9 digit number called a point code. This point code uniquely identifies a specific office. Point codes can be broken up in different ways depending on whether ANSI standard point codes are being used or not.

ANSI Standard Point Codes

The 9 digits of the point code represent the network ID, cluster ID, and member. The first three digits of the point code represent the network ID of this office. The next three digits represent the cluster ID of this office. The last three digits represent the member within the cluster of this office. In the following example, the ANSI standard point code 123012077 will be broken up into it's component parts.

123 012 077
A B C

123 - The value over the letter A represents the network ID of the office. The network ID of this office is 123. Network ID's can range from 0-255.

012 - The value over the letter B represents the cluster ID of this office. In the example above, this office has a cluster ID of 012. Cluster ID's can range from 0-255.

077 - The value over the letter C represents the member number of this office within the cluster. In the above example, the number 077 depicts a specific end office within cluster 012. Member numbers also range from 0-255.

Non-ANSI Standard Point Codes

The 9 digits of the point code represent the network ID, local region, cluster ID, and member. The first three digits of the point code represent the network ID of this office. The next two digits represent the local region of this office. The next digit represents the cluster ID of this office. The last three digits represent the member within the cluster of this office. In the following example, the point code 254084132 is separated into the network ID, region, cluster ID, and member that it represents.

254 08 4 132
A B C D

254 - The value over the letter A represents the network ID of the office. As previously mentioned, this value always equals 254 for the AT&T network.

08 - The value over the letter B represents the local region of this office. In the example above, this office resides in region 08. The CCIS network is divided into several geographic regions. The local region is the region in which the local office resides. There can be up to 32 valid regions (00 - 31).

4 - The value over the letter C represents the cluster ID. The cluster ID depicts the type of office (populated or unpopulated). In the example above, the value 04 represents a populated cluster within region 08. Unpopulated clusters represent mated STPs, such that the control STP is assigned the value of 0 and the noncontrol STP is assigned the value of 1. Presently, values 2 and 3 are not used. Populated clusters are groups of end offices within a region. There can be up to 4 populated clusters within a region which are assigned the values of 4 - 7.

132 - The value over the letter D represents the member number of this office within the cluster. In the above example, the number 132 depicts a specific end office within cluster 4 of region 08. A populated cluster can have 256 members (end offices) assigned to it ranging in value from 000 to 255. An unpopulated cluster can only have one member whose value must equal zero.

A local point code is assigned with its office identification data. Every link that routes to that office is assigned a far end point code equal to the point code of the office being routed to. For most links the far end point code is calculated for the user using its components (i.e., network ID, region, cluster ID, and member). For A links, the user must assign the far end point code along with the link data for that link.

3. WORKING WITH THE DATA

MANAGEMENT SYSTEM

3.01 GETTING INTO THE DATA MANAGEMENT SYSTEM

The Data Management System (DMS) is designed to enable the user to build recent change orders to manage the CNI data base. DMS prompts the user for each data item as it is needed, check the data entered by the user, and issue a recent change order. This recent change order is then checked for errors and passed to the application to update the specified data table. This heading describes DMS and the commands used to manage the CNI data base.

To gain access to DMS, enter the following PDS command:

RCV:DMS<CR>

Upon gaining access to DMS, the user is prompted for a login ID. If the ID entered has not been previously established as a valid ID, the user is not permitted to proceed. If the system manager login ID is entered, the user is prompted for the manager's password. Should the entered password be invalid, the user is not permitted to proceed.

The generic program is delivered with a standard password.

This standard password should be changed immediately after the generic is loaded at each site.

Each site should have its own password, which should be changed periodically.

After successfully logging into DMS , the following is displayed:

THERE'S MAIL

THERE ARE x ORDERS IN THE SYSTEM

where "x" represents the total number of orders (0 - 200) known to DMS. The message "THERE'S MAIL" appears if mail exists in the system mail file. For more information about where mail comes from and what it's used for, see the mail command. If there is no mail in the mail file, no indication appears on the screen.

The DMS command line is then displayed. The DMS command line contains a list of the commands available to the user. The cursor is positioned just to the right of the DMS command line prompting the user to enter the desired command. The user may enter the full command name or the first two characters (the highlighted characters) for the desired command appearing in the DMS Command line, followed by a carriage return. The DMS command line looks like this:

ENTER: ve, rc, recall, check, act, adm, mail, menu, quit:

where the abbreviation "ve" means verify, "rc" means recent change, "act" means activate, and "adm" means administration.

Should a carriage return only be entered, the prompt line is repeated.

Note: All alphabetic inputs to DMS, whether in lowercase or uppercase characters, are mapped to lowercase for use by DMS. All alphabetic outputs returned to the user are displayed as lowercase characters.

Most commands require some type of argument. The command and its required argument can either be input independently on separate prompt lines or input together on the DMS command line. If the user doesn't enter a necessary argument with the command on the DMS command line, a prompt for the argument is displayed on the screen. In the example, the verify command (ve) and its argument (the function ofdata) are entered together on the same DMS command line.

ENTER: ve, rc, recall, check, act, adm, mail, menu, quit: ve ofdata

If there is an error in the entry of the command or argument, an error message is displayed and the user is prompted for another entry.

3.02 VERIFY (ve) COMMAND

The purpose of the verify command is to display data currently stored in the data base. The verify command requires one of the DMS functions as an argument. Enter the function name when the following prompt appears:

ENTER FUNCTION:

The "menu" command can be used to reference the list of valid functions. If there is an error in the entry of the command or function, an error

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message is displayed and the user is prompted for another entry. Once a valid function name has been entered, additional information (indexing information) needs to be entered by the user in order to determine exactly what portion of the data base the user wishes to verify.

In many cases it requires more than one page of display to show all of the desired data base information. In such cases, each page of the display prompts the user with a "HIT RETURN TO CONTINUE LIST" message at the bottom of the screen. Hitting return in these cases causes the next page of data to be displayed. If the user does not wish to see the other pages, enter a "q" or "Q" to terminate the process.

When all of the data concerning this set of indexing information has been displayed, the user is returned to the DMS Command line if multiple verifies are not permitted. If multiple verifies are permitted for the specified function, the user is prompted with "HIT RETURN TO CONTINUE" verifying other entries in the data base. If the user wishes to verify another entry in the data base, another set of indexing information can be provided by entering a carriage return and then the next set of indexing information. If the user does not wish to verify another entry, enter a "q" or "Q" to terminate the process.

3.03 RECENT CHANGE (rc) COMMAND

The recent change (rc) command can be used to create a recent change order, have error checks executed on the order and have the order put to incore memory. Due to the nature of the "rc" command, its availability is restricted. Only one user is permitted to access either the "rc", "recall", or "act" command at any given time. Should a user attempt to access one of these restricted commands after another user has begun using one of them, an error message is displayed and the user is returned to the DMS command line.

The "rc" command requires one of the DMS functions as its argument. Once the recent change command has been entered, the user is required to enter a function name. The function name can be entered as an argument on the DMS command line with the "rc" command (e.g. rc ofdata). If the function name was not entered as part of the command line, the user is prompted for the function as follows:

ENTER FUNCTION:

If the specified function is not valid, an error message is displayed and the user is reprompted for a valid function name. A list of the available DMS functions can be referenced using the "menu" command.

Once a valid function name has been entered, the user is prompted for an order number as follows.

ENTER ORDER NUMBER:

The order number entered is then used as a reference to perform future modifications to the order and more importantly, to obtain status information about the order.

Once a valid order number has been entered, DMS prompts the user for a description of the order as follows.

ENTER ORDER DESCRIPTION:

The purpose of the order description is to associate a phrase with the order to make it easier to reference. The phrase can be up to 145 characters in length and can say anything that helps the user associate the order number with the action performed by the order.

Once the order description has been entered, DMS prompts the user for the type of action to be performed. If only one action is permitted for the specified function, there is no prompting for the action type. If the function specified provides for more than one action, the user is prompted to enter the action type with a prompt similar to the one shown below.

ENTER ACTION: add, chg, del:

where "chg" represents change and "del" represents delete.

The prompt lists the actions which are valid for the specified function. Each of these actions are described below.

Once the order is built, DMS automatically runs error checks against the order. If DMS uncovers some errors in the order, then the error messages are displayed and also placed in the order's error file. At this time the order remains marked as "pending" in the system status file.

If the DMS error checks pass, then DMS attempts the activation of the order. In order to activate the order, several processes outside of DMS are invoked. These processes may refuse the recent change for various reasons. Upon refusing the request, these processes provide error messages to DMS outlining the reasons for failing to activate the order. DMS places these error messages into the order's error file and marks the order as "failed" in the system status file. Thus, although DMS may respond with a message indicating the DMS error checks passed (i.e., "NO ERRORS ENCOUNTERED"), other problems may occur which can cause the order to fail. Mail is always sent to the user upon completion of the activation process indicating whether the order passed or failed.

Add (add) Action

The "add" action indicates the addition of new data which does not currently exist in the data base. Once the add action has been entered, the user is prompted to enter various data items to be assigned with the recent change order. This action may not be available for all functions.

Change (chg) Action

The "chg" action is used to modify data that currently exists in the data base. Once the change action has been entered, the user will be prompted for certain indexing information to determine which data needs to be changed. Once the data has been identified, it is displayed for the user. The user can then change the appropriate data and skip over the data that will not change. This action may not be available for all functions.

Delete (del) Action

The "del" action removes existing data from the data base. Once the delete action has been entered, the user is prompted for the indexing information necessary to identify the data to be removed. DMS often requires all the data to be deleted be explicitly identified to ensure that the user indeed wants to remove that data. This action may not be available for all functions.

3.04 RECALL (re) COMMAND

The "recall" command is used to display and/or revise an order which has previously been generated with the "rc" command. Due to the nature of the "recall" command, its availability is restricted. Only one user is permitted to access either the "rc", "recall", or "act" command at any given time. Should a user attempt to access one of these restricted commands while another user is using one of them, an error message is displayed and the user is returned to the DMS command line.

The "recall" command requires a valid order number as its argument. If the order number is not entered with the "recall" command then the user is prompted for the order number:

ENTER ORDER NUMBER:

Once the user enters a valid order number, the user is prompted for the action to be taken on the order.

ENTER ACTION: modify, list, append:

The first two characters of the action are used by DMS to determine the action requested; therefore, "mo" is considered the equivalent of "modify". These actions are discussed briefly in the following paragraphs.

Note: The on-site user is not allowed to revise any order which was input by the remote administration organization. In these cases, "list" is the only valid action.

Modify (mo) Action

Under the "modify" action, the user is permitted to change the contents of the order. If the order was created with the "rc" command, the order is submitted for error checks and activation upon completion of the modifications. The "modify" action prompts the user for the action to be pursued with the following display.

ENTER ACTION: <CR>, edit, save:

The first two characters are sufficient to determine the action (i.e., "sa" would be interpreted as the equivalent of "save"). Each of the actions permissible under the "modify" action is discussed as follows:

<CR> A carriage return indicates no modifications are requested for the item displayed, continue to the next item.

edit "Edit" allows the user to move through the display one field at a time to make any changes desired.

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The user is not permitted to change any indexing field since this information was originally used to retrieve data from memory. The user is not permitted to change any data item that is used to determine which other data items are contained in the item. Error checks for consistency between previous entries or entries following the current entry are not performed unless the user edits a field defined as an increasing field. In this case the entered value must be equal to or greater than the existing value.

save "Save" terminates the recall session but any modifications made to the original order are retained.

quit "Quit" retains the original order with no changes applied. The user is then returned to the DMS command line.

List (li) Action

If "li" for "list" is specified, the current contents of the order are displayed for the user.

Append (ap) Action

For the "append" action, the sequence of events is identical to that required for a recent change. However, for "recall" a new order is not created. The new entries are instead appended or added to the original order. If the order was created with the "rc" command, error checks are performed on the new items, however these items are not checked against the items in the original order. If the modified order passes the DMS error checks, activation of the order is attempted. If there are errors in the modified order, the error messages are displayed and the user is returned to the DMS command line.

3.05 CHECK (ch) COMMAND

The "check" command allows the user to error check an individual recent change. The "check" command requires an order number as its argument. To specify an individual order, enter the order number when prompted by the following command line.

ENTER ORDER NUMBER:

The error messages for each individual order are displayed as shown below and the user is returned to the DMS command line.

ERROR MESSAGES FOR ORDER: 31Y000555000 FUNCTION: ofdata
Item 001: <error message>
Item 012: <error message>

Should the order contain no errors, the message shown below is displayed and the user is returned to the DMS command line.

NO ERRORS ENCOUNTERED IN ORDER: 31Y000555000

3.06 ACTIVATE (ac) COMMAND

The "activate" command is used to activate a recent change. The user can enter an order # to activate an incore order to disk. An individual order may be "pending" because it failed an error check when entered. If the order had failed because it depended upon some data item(s) which were incorrect or not present in the data base, then the user could change or add the necessary data item(s) with other recent change orders and then use the "act" command to activate this order.

Due to the nature of the "activate" command, its availability is restricted. Only one user is permitted to access either the "rc", "recall", or "act" command at any given time. Should a user attempt to access one of these restricted commands after another user has begun using one of them, an error message is displayed and the user is returned to the DMS command line.

Activation (order #) Option

The "activate" command requires an order number as an argument. The order number may be entered on the command line along with the "activate" command or can be entered separately when the user is prompted as shown below.

ENTER ORDER NUMBER:

Should the order number not exist, or the order already be successfully activated, the request to activate is denied and one of the error messages shown below is displayed to indicate why the request was denied.

ORDER NUMBER 31Y000555000 DOES NOT EXIST

ORDER NUMBER 31Y000555000 HAS ALREADY BEEN ACTIVATED

Upon entering a valid order number, activation is attempted and the user is returned to the DMS Command line. The user can determine the results of the activation command from the status information for the order (see "adm" command).

3.07 ADMINISTRATE (adm) COMMAND

The "adm" command is used to administer status information concerning the activation of an order, or a group of orders. The "adm" command has 5 options associated with it. One of these options is required as an argument to the "adm" command. The user can either enter the option on the DMS command line in conjunction with the "adm" command or enter it separately as prompted by DMS. Listed below are the possible "adm" options.

ENTER adm OPTION: copy, delete, error, status, users:

The option is matched on the first character of the option only; therefore, "s" is considered equivalent to "status". If the users entry does not match one of the valid "adm" options appearing on the screen, an error message is displayed and the user is prompted for another option.

Copy (c) Option

Upon entering the option "copy", the user is prompted for the order number to be copied. The order number specified can be any order which presently exists in the system status file. If the order number does not currently exist in the system, an error message is displayed and the user is prompted for another order number.

The user is also prompted for the order number to which the order should be copied. Since the copy command is only available to the on-site user, the new order number must specify a "y" or "Y" for the third character. If the new order number is invalid or the order number already exists in the DMS system, an error message is displayed and the user is prompted for another new order number.

Once a valid order number has been entered, the user is prompted for a description of the new order. If no description is desired, a <CR> alone is sufficient. The copy option is now attempted. If the copy is successful, the following message is returned.

ORDER NUMBER 06Y000000000 COPIED TO ORDER NUMBER 06Y000000001

If DMS cannot find the order that the user specifies to be copied, the copy cannot be executed and the following message is returned.

ORDER NUMBER 06Y000000000 DOES NOT EXIST

If the user specifies a remote order to be copied, the copy is not executed and the following message is returned.

ORDER NUMBER 06X000000000 MUST BE DESIGNATED AS A LOCAL ORDER

If the user specifies an existing order as the new copied order, the copy cannot be executed and the following message is returned.

ORDER NUMBER 06Y000000000 CURRENTLY EXISTS; MUST BE DELETED FIRST

Another possible reason for failure could be that the system already contains the maximum number of orders allowed. Therefore, there is no room to store the new order being created by the copy.

Delete (d) Option

The "delete" option is used to delete either a single order or a range of orders from the system status file. When the delete option is specified, the user is asked whether a single order or a range of order numbers is to be deleted.

ENTER delete OPTION: range, order#:

To delete a single order number simply specify the desired order number at the prompt line as follows.

ENTER delete OPTION: range, order#: 06y000123600

In response, the following message is returned to inform the user the specified order number has been deleted.

ORDER# 06Y000123600 DELETED

The following message is returned if the order number does not exist.

ORDER# 06Y000123600 DOES NOT EXIST

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In either case the user is then prompted for another delete option. To return to the DMS command line simply enter "q".

To delete a range of order numbers, specify the range option at the delete option prompt as follows.

ENTER delete OPTION: range, order#: range

The user is prompted for the range of order numbers to be deleted as follows:

ENTER lower ORDER#:

ENTER upper ORDER#:

The DMS checks to see if any orders exist within the range specified. If no order numbers exist, the following error message is displayed and the user is returned to the delete option prompt.

NO ORDERS EXIST WITHIN SPECIFIED RANGE

If orders exist within the range specified, the following message is returned for each order number within the range specified.

ORDER NUMBER 06Y000000000 DELETED

The user is then returned to the delete option prompt. To return to the DMS command line, enter "q".

Error (e) Option

If the user enters the "error" option, the user is prompted for the order number or the error file to be displayed.

ENTER error OPTION: errorlog, order#:

errorlog If the user entered "errorlog" or "e", the DMS errorlog file (which contains system error message) is displayed. The errorlog file is displayed one screen at a time. The user is required to hit the carriage return between each page. If the user does not wish to see the next page, a "q" or "Q" can be entered to terminate the session. When the entire contents of the errorlog have been displayed, the user is asked if the errorlog should be removed or saved. Only the system administrator is allowed to remove the errorlog.

order# When an order number is entered, DMS checks to see that the order number exists in the DMS system. If the order number does not exist, the following message is displayed and the user is returned to the DMS command line.

ORDER NUMBER 06Y000000000 DOES NOT EXIST

If the order number does exist, the error messages are displayed and the user is returned to the DMS command line. If there are no error messages for the specified order number, a message is displayed to inform the user and the user is returned to the DMS command line.

Following the successful display of an error file, the user is returned to the error command line. The user can return to the DMS command line by entering a "q" or "Q".

Status (s) Option

The administration "status" option enables the user to check the condition of orders existing in the CNI data base. If "status" or "s" is entered, the user is prompted for a status option:

ENTER status OPTION: list, uid, function, order#:

where "l" represents list, "u" represents uid, and "f" represents function. Should the user make an invalid entry, an error message is displayed and the user is prompted to enter another option. Below the available options for "adm status" are described.

list The "list" option causes the status information for all active orders to be displayed. The display contains a header, followed by the status of all the active orders in the DMS system as shown in table 4

Once all the orders have been displayed, the user is prompted for another status option.

uid In the "uid" option the user is prompted for a user ID for which the status information is requested. The user ID entered is checked to determine that the user is a valid DMS user. If the entered user ID is not valid, the following message is displayed.

USER ID <uid> DOES NOT EXIST

OPTION TO CONTINUE SEARCH? (y/n)

Entering a "y" at this point implies that although the user ID is not valid, there may be orders associated with it. Thus, the search continues just as if the user ID was valid.

If the entered user ID is valid or if the user opted to continue the search on an invalid user ID, the DMS status information is displayed for all orders entered by the specified user ID. If no orders exist for the user ID specified, an error message is displayed and the user is prompted for another "status" option.

function When the "function" option is entered, the user is prompted to enter the DMS function which was used to create the order(s) in question. Once a DMS function has been entered, DMS checks to see if it is a valid function. If the user enters an invalid function, an error message is displayed, and the user is prompted to enter another function.

When a valid function name has been entered, a display (see table 5) is displayed containing the status information for each order entered for that function name.

If no orders exist for the function entered, an error message indicating this condition is displayed and the user is prompted for another "status" option. Following the successful completion of a status option, the user is prompted to enter another status option.

Users (u) Option

The "users" option is restricted to use by the system manager. If any other user requests this option, a message is displayed to inform the user that this option is restricted and the user is returned to the "adm" option line. If the user is the system manager, he/she is prompted for the desired option.

ENTER users OPTION: add, chg, del, list:

The "users" option is determined by DMS interpreting the first character of the option entered; therefore, "a" is equivalent to "add". If an invalid option is entered, an error message is displayed and the user is prompted to enter another option. The options available for "users" are described below.

add In the "add" option the user is prompted for the user ID to be added. This ID must consist of one to four alphanumeric characters. DMS checks the entered user ID to determine that it does not presently exist in DMS. The new user ID may be entered on the same line as the "add" request (i.e., "add kfw"). Once a newly entered ID has been accepted by DMS, a message is displayed informing the administrator of the outcome.

chg The "chg" option is used to change the system manager's ID, password, or both. When the "chg" option is entered, the user is prompted for the new system manager ID. The new ID may be entered on the same line as the "chg" request (i.e., "chg mgr") if desired. The new user ID must be one to four alphanumeric characters.

The new ID that the system manager enters cannot exist in the system. The only exception to this is the current system manager's ID can be entered as the new ID without causing an error.

Once the newly entered user ID has been accepted by DMS, the user is prompted for a password. There are no restrictions on the password entered.

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TABLE 4. Example of DMS order listing

ORDER#	FUNC	ACTSTAT	ACTDATE	DESCRIPTION
06Y310001000	**lkinfo**	**PENDING**	**Jan 2 12:03**	**add a link**
06Y310002000	**lkinfo**	**INCORE**	**Jan 2 02:23**	**change state**
06Y310003000	**schedl**	**ACTFAILED**	**Jan 4 08:45**	**add SCHD entry**
06Y310003001	**schedl**	**ACTIVATED**	**Jan 4 08:47**	**add SCHD entry**

TABLE 5. Example of DMS order listing

ORDER#	FUNC	ACTSTAT	ACTDATE	DESCRIPTION
06Y330041000	**lkdata**	**PENDING**	**Dec 30 01:12**	**add a link**
06Y310002000	**lkdata**	**ACTIVATED**	**Dec 30 03:59**	**change state**
06Y450011000	**lkdata**	**ACTFAILED**	**Jan 04 11:27**	**delete a link**

However, only the first eight characters of the password are recognized by DMS. The password is not displayed for security reasons.

Once the new password is entered, the user is prompted to re-enter the password. If the password entered the second time matches the password entered the first time, it is considered valid and a message is displayed to inform the user that the new password has been accepted and is now in effect. The user is then returned to the users prompt line awaiting another option.

Should the password entered the second time not match the password entered the first time, an error message is displayed. The user is then placed back at the "users" option line and the password remains unchanged.

If any error occurs while changing the administrator ID, the current ID and the password are retained and the user is returned to the "users" option line.

del If the user enters the "del" option, the user is prompted for the user ID which should be deleted. The ID to be deleted must consist of one to four alphanumeric characters. DMS checks to determine if that user ID exists in the DMS system. If the user ID to be deleted exists in the system, the DMS users program deletes the user ID and a message is displayed informing the user of the outcome.

Note: The manager's ID can only be changed, not deleted.

list If the user entered "list" as an option the current list of valid DMS user IDs are displayed.

3.08 MAIL (ma) COMMAND

The mail command causes the contents of the mail file to be displayed. The mail file is a special file where the results of all attempts to change the data base are recorded along with other pertinent news. Once the "mail" file contents are displayed, the user has the option of saving (entering "y") or removing (entering "n") the file. If new mail has just arrived, the mail file is retained. The following messages are samples of what is displayed when the user enters the "mail" command.

Order 31Y000555000 Activation Failed on Tue Sep 27 10:18:25 1983

Order 31Y000556000 Activated Successfully on Wed Sep 28 11:20:20 1983.

3.09 MENU (me) COMMAND

If the user enters the "menu" command, all available DMS functions are displayed. Those functions identified with an asterisk are verify only functions. A typical "menu" display would look something like figure 3

3.10 QUIT (qu) COMMAND

If the user enters "qu" on the DMS command line, the DMS session in which the user is involved is terminated. The user is returned to the PDS shell from which the DMS shell was invoked.

3.11 GENERAL PROCEDURE FOR RECENT CHANGE AND VERIFY

The following general procedure is designed for use with the recent change (rc) and verify (ve) commands. These two commands will be stressed throughout the remainder of this document.

a. **access DMS** - Gain access to the DMS system through the PDS command: **RCV:DMS<CR>**.

b. **enter ID** - DMS will prompt the user to enter a valid user ID. If the user ID entered is the system manager's, DMS will prompt the user for the manager's password.

c. **enter command** - The DMS command line will appear, showing a list of the available commands. The DMS command line and the commands themselves have been described in detail in the previous pages. However, this procedure and the remaining portion of this document will be devoted to the first two of these commands "ve" (verify) and "rc" (recent change).

d. **enter function** - DMS will prompt the user to enter the function which is to be used. These functions are listed with the menu command. If the user enters the verify command, steps 5, 6, and 7 will be skipped since they are only used with the recent change (rc) command.

e. **enter order number** - This step is only necessary for the recent change (rc) command.

f. **enter a description of the order** - The user is only prompted for the description of the order when building a recent change order with the recent change (rc) command. The order description is optional, simply hit a **<CR>** if no description is desired. The purpose of the order description is to associate a phrase with the order to make it easier to reference. The phrase can be up to 145 characters in length and can say anything that will help the user associate the order number with the action performed by the order.

g. **enter action** - DMS will prompt the user to enter the desired action within the scope of the command and function previously defined. When only one action is available for a given function, that action will be performed. If multiple actions are available, the alternatives will be listed and the user will be prompted to select and enter one. Again, this step is only necessary for the recent change (rc) command. The three possible actions are listed below and briefly explained.

   1. **the add action** - When the add action is selected, the user will be prompted to enter an item number. Once a valid item number is entered, DMS will continue to prompt the user for various data items necessary for that particular function. The cursor will be positioned over the first underscore just to the right of the data item to be entered. Each time a value is input (when the <CR> is depressed), the cursor will automatically move to the next data item in a predefined sequence. Once all the data items are input, the user will be returned to the DMS command line if multiple items are not allowed. If multiple items are

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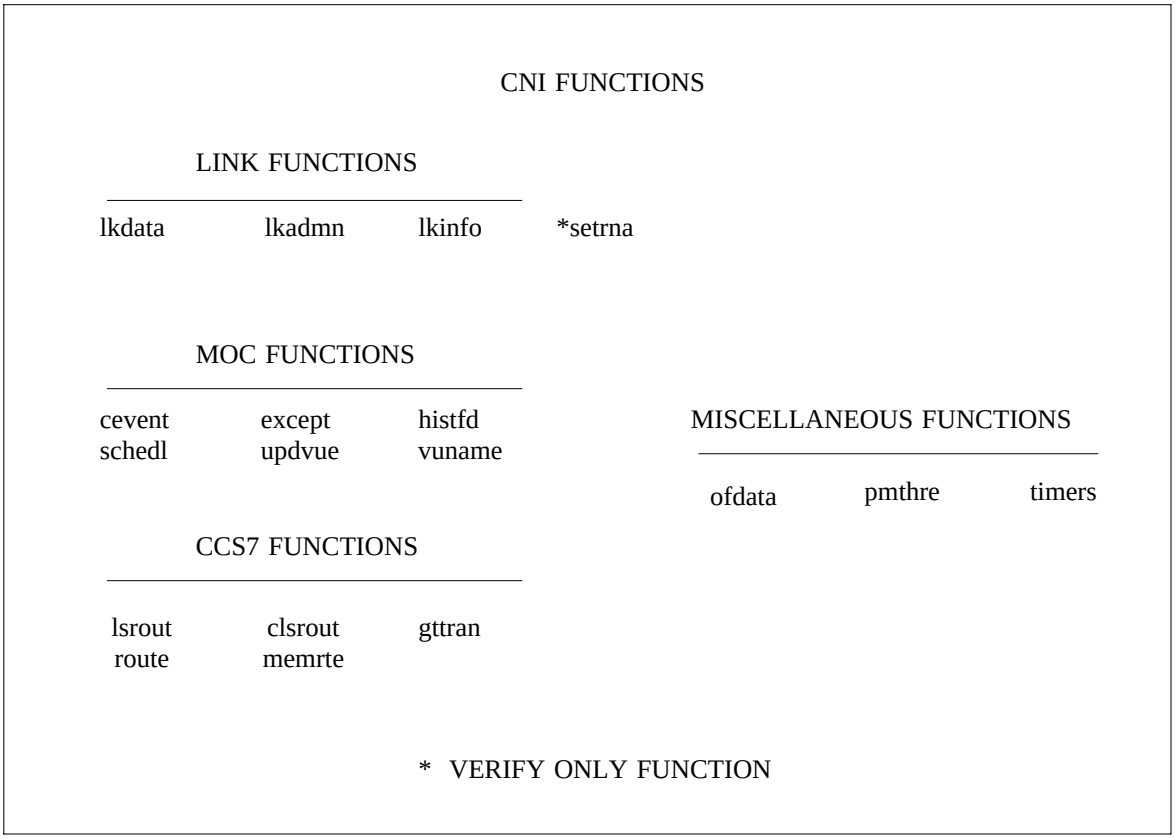

Figure 3. DMS Menu page example

allowed, the user can either perform the add action again with another set of data or terminate the session. To terminate the session and return to the DMS command line, enter a "^" in the first field of the new display (i.e., the item number).

2. **the change action -** When the change action is selected, the user will be prompted to enter the item number. Once a valid item number is entered, DMS will prompt the user to enter various indexing data items to define the set of data the user desires to change. When all the indexing data items are entered, the set of data items indexed will appear on the screen along with their assigned values. The cursor will be positioned over the first data item value available for change by the user. If the cursor is positioned over a value that is correct and doesn't need to be changed, the user should move to the next value by hitting <CR>. This will position the cursor over the next value available for change by the user. If the cursor is positioned over a data item that needs to be changed, the user should enter the new value, followed by <CR>. After each entry (change or no change) the cursor will progress to the next data item available for change in a predefined sequence. The user should continue through the sequence changing those values which need to be changed, and passing those values which are correct. This process should be continued until the last data item of the sequence is entered. If no multiple actions are allowed, the cursor will then be positioned at the DMS command line awaiting a new command. If multiple actions are allowed, the user can either perform the change action again or terminate

the session. To terminate the session and return to the DMS command line, enter a "^" in the first field of the new display.

3. **the delete action -** When the delete action is selected, DMS will prompt the user to enter the item number. Once a valid item number is entered, DMS will continue to prompt the user for indexing data items necessary for that particular function. The cursor will be positioned over the first underscore just to the right of the data item to be entered. Each time a value is input (when <CR> is depressed), the cursor will automatically move to the next data item in the predefined sequence until the set of data to be deleted is defined. When this process is complete, the delete action will be complete. If no multiple actions are allowed, the cursor will be positioned at the DMS command line awaiting a new command. If multiple actions are allowed, the user can either delete another set of data or terminate the session. To terminate the session and return to the DMS command line, enter a "^" in the first field of the new display.

h. **data** - Each function has a particular set of data relating to it. Most data will be stored in tables which can be viewed with the verify command. In most cases, certain indexing data items are required to define which set of data is being accessed. Any alterations which need to be done to a particular data set for a particular function can be done with the recent change command and one of its three possible actions. In the *Function Description* heading, each of the DMS functions are described. Within the description of each function, the dependencies and restrictions, valid ranges of values for each data item, and an example set of data for that particular function can be found.

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4. FUNCTION DESCRIPTIONS FOR THE DATA MANAGEMENT SYSTEM

4.01 GENERAL

This heading contains a description of the various functions used for adding, changing, deleting and/or verifying data stored in the CNI data base.

The procedures used to invoke DMS and the use of the DMS commands are provided in the *Description of Data Management System*, heading of this manual. This heading is intended to guide the user in the creation of recent change orders in relation to a specific function via DMS.

The description of each function provides the sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of that function's actions.

4.02 THE CEVENT FUNCTION

A CCIS network critical event is recorded any time an event potentially affecting network operations is recognized. Whenever any critical event occurs, notification must be forwarded to the appropriate center immediately. These critical event messages are directed to their destination by the Critical Event Table (CET) which contains the critical event name, destination number, message type, and threshold. The destination is used to direct the message to the specified center. The message type will determine which report generator will be used to produce either a long or short form report. The threshold will either allow the report to be sent (when 1) or prevent the report from being sent (when not 1).

The "cevent" function controls the critical event information in the CNI CET. The "cevent" function can be used to add or delete one or more critical event name and destination pair entries, change the message type or threshold associated with one or more critical event name and destination pair entries, or verify the destination entries assigned to the specified critical event name in the CNI critical event table.

This heading provides a sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of "cevent" actions.

Reference

Common Channel Signaling System Common Network Interface (CNI) 4ESS Switch System Description Manual 234-100-120.

Required Information

The "**ADD**" action is used to add one or more critical event name/ destination pair entries to the CET. The "**DEL**" action is used to delete one or more critical event name and destination pair entries from the CET. The "**CHG**" action is used to change the message type or threshold associated with one or more critical event name and destination pair entries. Table 6 gives an overview of all the possible critical event informations items that are available to add, change, or delete critical event information in the CET.

The "**VER**" command is used to verify the destination numbers assigned to the specified critical event name in the CET. To verify the destination numbers assigned to a critical event name the user will be prompted for the critical event name. Once this data item has been entered, the destinations, message types, and thresholds associated with the specified critical event are returned.

Dependencies and Restrictions

a. For the add, change, and delete actions:

   1. Item numbers must be in ascending order.
   2. The critical event name specified must exist in the CNI critical event table (generically defined).
   3. The critical event name and destination pair cannot be duplicated in the order.
   4. An entered message type will only be valid if it already exists in the CNI office involved (generically defined).

b. For the add action:

   1. When all multiples are processed, the number of new critical event name and destination pair entries cannot exceed the number of entries available. The total number of CET entries allowed is 1280.
   2. The destination number cannot already be assigned for the critical event name.
   3. The destination number must be valid, therefore it must already exist in the CNI office involved as an equipped output class in the Equipment Configuration Data (ECD).

c. For the change action, the destination number must already be assigned for the critical event name.

d. For the delete action, the destination number, message type, and threshold must match an entry for the specified critical event.

e. For the verify command:

   1. The critical event name specified must exist in the CNI CET

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TABLE 6. Critical Event Information Items

DATA ITEM	DATA TYPE	RANGE
ITEM	numeric	1 to 999
EVENT NAME	alphabetic	C.E. Name
DESTINATION	numeric	0 to 255
MESSAGE TYPE	alphabetic	Type
THRESHOLD	numeric	0 to 1

Figure 4. Critical Event (cevent) - (add) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: cevent  ACTION: add  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD

                              CRITICAL EVENTS

 ITEM      EVENT NAME      DESTINATION      MESSAGE TYPE     THRESHOLD
 ----      ----- ----      -----------      ------- ----     ----------
  001       c7por               001          cmcelrpt           1
  002       c7bolr              001          cmcelrpt           1
  003       c7lcon1x            001          cmcelrpt           1
  004       c7lcdis1x           001          cmcelrpt           1
```

(generically defined).

2. At least one destination number has to be assigned to each critical event name specified.

Figure 5. Critical Event (cevent) - (chg) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: cevent  ACTION: chg  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                          CRITICAL EVENTS

              ITEM:                          001
              EVENT NAME:                    c7lcon1x
              DESTINATION:                   001
              MESSAGE TYPE:                  cmcelrpt
              THRESHOLD:                     1
```


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Figure 6. Critical Event (cevent) - (ver) Page Examples

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: cevent             ACTION: ver            OFFICE: NPVLILIH2MD


                          CRITICAL EVENTS

                     EVENT NAME:   c6fldcol

         DESTINATION      MESSAGE TYPE     THRESHOLD
         ------------     ------- ----     ----------
            001             cmcerrpt          1
            002             cmcelrpt          0
            133             cmcesrpt          0
            232             cmcelrpt          1
```

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: cevent             ACTION: ver            OFFICE: NPVLILIH2MD

                          CRITICAL EVENTS

                         EVENT NAME:   all

      EVENT NAME      DESTINATION      MESSAGE TYPE     THRESHOLD
      ----- -----     ------------     ------- ----     ----------
       c7por              001           cmcelrpt          1
       c7pore             001           cmcelrpt          1
       c7bolr             001           cmcelrpt          1
       c7bolre            001           cmcelrpt          1
       c7lcon1x           001           cmcelrpt          1
       c7lcdis1x          001           cmcelrpt          1
       c7lcabm1x          001           cmcelrpt          1
       c7lcon2x           001           cmcelrpt          1
       c7lcdis2x          001           cmcelrpt          1
       c7lcabm2x          001           cmcelrpt          1
       c7lcon3x           001           cmcelrpt          1
       c7lcdis3x          001           cmcelrpt          1
          .                .               .              .
          .                .               .              .
          .                .               .              .
       c7ssaf             040           cmcelrpt          1
       c7ssaf             040           cmcesrpt          1
```

4.03 THE CLSROUT FUNCTION

The "clsrout" function is used to install routing for the CCS7 network for all clusters that are not directly connected to the 4ESS switch (i.e. access via an STP) and use combined linkset routing. Typically this is for routing to other switches, databases and non-local STPs using alias pointcodes. Routing must be installed for every cluster that contains a switch, databases or non-local STP.

Starting in 4ap11, "clsrout" can be used for routing from UNITEL switches using a network indicator of 236. UNITEL switches are identical to AT&T switches with the exception of their network indicator.

The "clsrout" function supports both ANSI standard and AT&T formats for inputting local network data. In the ANSI standard, the cluster field is the entire middle 8 bits of the pointcode. In the AT&T format, the middle 8 bits of the pointcode are divided into 5 bits called region and 3 bits called cluster. Note that non-local network routing is always entered as ANSI standard.

This heading provides a sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of "clsrout" actions.

Required Information

The user is prompted for the network ID and cluster ID for all actions. The combined link set number is then prompted for. For AT&T in the local network, the region is also prompted for. For the "**VER**" command, the assigned data items are returned. *Dependencies and Restrictions*

a. For the add and delete actions:

    1. Item numbers must be in ascending order.

    2. All cluster IDs must be in the same network in the order. In other words, to put in routing to multiple networks, one order per network is necessary.

    3. For AT&T in the local network only - All cluster IDs must be in the same region in the order.

    4. The network ID/cluster ID combination can not be duplicated in the order.

b. For the add action:

    1. Routing can not be added if routing to a network/cluster combination already exists. If the routing must be changed, then the currently existing data must be deleted first in a separate order, and then the new data may be added.

    2. The linkset must be an equipped combined linkset. A combined linkset is made up of two direct linksets. The lkdata function is used to define the linkset and combined linkset of a CCS7 link.

    3. The network ID may equal any network in the range 1 to 255.

c. For the delete action:

    1. The network ID/cluster ID combination must already be assigned.

    2. The combined linkset in the order must match the current data currently in routing.

d. For the verify command, the network ID/cluster ID combination must be assigned. For AT&T network local pointcodes, the region number must also be assigned.

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TABLE 7. Combined Link Set Routing (clsrout) Information Items (CCS7)

USED BY	DATA ITEM	DATA TYPE	RANGE
AT&T, LEC	ITEM	numeric	1 to 999
AT&T, LEC	LINK TYPE	alphabetic	ccs7
AT&T	CLUSTER ID	numeric	0 to 7
AT&T	REGION	numeric	0 to 31
LEC	CLUSTER ID	numeric	0 to 255
AT&T, LEC	NETWORK ID	numeric	1 to 255
AT&T, LEC	COMBINED LINK SET	numeric	0 to 255

TABLE 8. Combined Link Set Routing (clsrout) Information Items (CCITT7)

DATA ITEM	DATA TYPE	RANGE
ITEM	numeric	1 to 999
LINK TYPE	alphabetic	ccitt7
POINT CODE	numeric	intl point code format "wcccm" w is 2 to 7 ccc is 0 to 255 m is 0 to 7
PREFERRED CLS	numeric	1 to 255
ALTERNATE CLS	numeric	0 if unused 1 to 255 if used

Figure 7. Combined Link Set Routing (clsrout, AT&T local network) - (add) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: clsrout  ACTION: add  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                  COMBINED LINK SET CLUSTER ROUTING


                      ITEM:                 001
                      LINK TYPE ID:         ccs7
                      NETWORK INDICATOR:    254

                      REGION:               06
                      CLUSTER ID:           05
                      COMBINED LINK SET:    03
```

Figure 8. Combined Link Set Routing (clsrout, LEC) - (add) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: clsrout  ACTION: add  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                  COMBINED LINK SET CLUSTER ROUTING


                      ITEM:                 001
                      LINK TYPE ID:         ccs7
                      NETWORK INDICATOR:    230


                      CLUSTER ID:           100
                      COMBINED LINK SET:    03
```

Figure 9. Combined Link Set Routing (clsrout, ccitt7) - (add) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: clsrout  ACTION: add  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                       COMBINED LINK SET CLUSTER ROUTING


                      ITEM:                 001
                      LINK TYPE ID:         ccitt7

                      POINT CODE:           42005
                      PREFERRED CLS:        022
                      ALTERNATE CLS:        024
```


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4.04 THE EXCEPT FUNCTION

In the Exception Table (EXCP) the user can request that a measurement appear in a report only when it exceeds a threshold value. While the report is being generated, the threshold value is compared to the measurement value. The measurement then appears in the report only if it has exceeded the specified threshold value. All the threshold values are assigned to their related measurement IDs under a group name stored in the EXCP. Whenever a view contains a measurement ID with an exception, an identical view must appear in the EXCP under the appropriate group name. However, should it be desirable to use the same view with different threshold values, the view must then be assigned to more than one exception group specifying different threshold values.

The "except" function controls information contained in the EXCP. The "except" function can be used to add an exception group to the EXCP, change the threshold associated with one or more measurement IDs within an exception group, delete an exception group from the EXCP, or verify the measurement IDs and thresholds assigned to the specified exception group in the EXCP.

This heading provides a sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of "except" actions.

Reference

Common Channel Signaling System Common Network Interface (CNI) 4ESS Switch System Description Manual 234-100-120.

Required Information

The "**ADD**" action is used to add a new exception group to the EXCP in a CNI office. The sequence of data items listed in table 9 is required for this action. The "**CHG**" action is used to change the threshold associated with one or more measurement IDs within an exception group. For this action, the user is prompted for an item number, group name, and view name. The measurement IDs and thresholds assigned to the specified exception group are returned available for change. The "**DEL**" action is used to delete an exception group from EXCP. For this action, the user is prompted for an item number, group name, and view name.

The "**VER**" command is used to verify the measurement IDs assigned to the exception group specified. The user is prompted for the group name and view name. Once these data items have been entered, measurement IDs, and thresholds are returned.

Dependencies and Restrictions

a. For the add, change, and delete actions:

   1. The item numbers must be in ascending order.
   2. The view name must exist in the CNI office involved.

b. For the add action:

   1. The group name cannot exist in the CNI exception table.
   2. The number of used group names must be less than the maximum number of entries allowed (50).
   3. The group name and view name must be consistent throughout the order.
   4. Each new measurement ID for the view name must be valid (generically defined). Entries must exist in the order for all of the measurement IDs in the view.
   5. The measurement ID cannot be duplicated within the order.
   6. The number of available measurement IDs must be greater than or equal to the number of measurement IDs being added. The total number of available entries is 2500.

c. For the change action:

   1. The group name must exist in the CNI exception table and the view name must match the current view name assigned to the group.
   2. The group name and view name must be consistent throughout the order.
   3. The measurement ID must be assigned to the specified group name.

TABLE 9. Exception (except) Information Items

DATA ITEM	DATA TYPE	RANGE
ITEM	numeric	1 to 999
GROUP NAME	alphabetic	name
VIEW NAME	alphabetic	name
MEASUREMENT ID	alphabetic	id
THRESHOLD	numeric	0 to 2147483647

4. The measurement ID cannot be duplicated within the order.

d. For the delete action:

1. The group name must exist in the CNI exception table and the view name must match the current view name assigned to the group.

2. The group to be deleted cannot be used by a schedule report.

e. For the verify command:

1. The group name must exist in the CNI exception table.

2. At least one measurement ID must be assigned to the group name entered.

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Figure 10. Exception (except) - (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: except            ACTION: ver          OFFICE: NPVLILIH2MD


                          EXCEPTION DATA


   ITEM     GROUP NAME     VIEW NAME     MEASUREMENT ID     THRESHOLD
   ----     ----------     ---------     --------------     ---------
   001        ce2001         ce200            l7bolr        0000000001
   002        ce2001         ce200            l7bolrt       0000000060
   003        ce2001         ce200            l7fld         0000000001
   004        ce2001         ce200            l7fldt        0000000090
```

Figure 11. Exception (except) - (chg) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: except  ACTION: chg  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                          EXCEPTION DATA


                ITEM:                          001
                GROUP NAME:                    ce2001
                VIEW NAME:                     ce200
                MEASUREMENT ID:                l7bolrt

                THRESHOLD:                     0000000300
```

Figure 12. Exception (except) - (del) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: except  ACTION: del  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                              EXCEPTION DATA



                    ITEM:                          001
                    GROUP NAME:                    ce2001
                    VIEW NAME:                     ce200
```

Figure 13. Exception (except) - (add) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: except  ACTION: add  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                            EXCEPTION DATA


    ITEM     GROUP NAME     VIEW NAME     MEASUREMENT ID     THRESHOLD
    ----     ----------     ---------     --------------     ---------
    001        ce2001         ce200            l7bolr        0000000001
    002        ce2001         ce200            l7bolrt       0000000060
    003        ce2001         ce200            l7fld         0000000001
    004        ce2001         ce200            l7fldt        0000000090
```


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4.05 THE GTTRAN FUNCTION

The purpose of the gttran function is to allow the ability to select a global title translator based on service type. Global title translations are typically performed at an STP to translate called or calling number for a DCIS or TCAP service and decide which database (SCP, NCP, etc.) will perform the final translations. The value of the translation type corresponds to the values input on the 4E Recent Change form 626, and ODA forms 406C and 406R. This function allows the user to assign the pointcodes of the STP on a per translation type basis. The pointcodes may be either alias pointcodes or real pointcodes. Note that in either case, valid MTP routing for the chosen pointcodes must be already assigned via the lsrout (direct linksets to STPs) or the clsrout form (combined linkset routing). By segregating based on service type, different STPs for different service types may used to perform the global title translation.

For each translation type, two pointcodes are entered. Traffic will be load balanced evenly between those two pointcodes. If it is desired for all traffic to go to only one pointcode, then the same pointcode should be entered twice (EVEN STP PC and ODD STP PC on the form).

A special case translation type is 256, which acts as a default type for unassigned types (unassigned types have value 000000000). For example, if a message has service type 250 and the gttran values for 250 are 000000000, then the value for translation type 256 will be used instead. If all global title translations for all services will be done at the same STP, then translation type 256 can be populated and the rest left at 000000000.

Required Information

The **"CHG"** action is used to modify translations for a specific service type, includes changes from 000000000 to valid pointcode(s).

The **"DEL"** action changes a translation from valid pointcode(s) back to 000000000.

In both cases, the user must input translation type, the first pointcode (call EVEN STP PC) and the second pointcode (call ODD STP PC). Note that the ODD and EVEN PC names are a misnomer in the sense that the pointcodes do not have to end in a even or odd number, but instead symbolize the even and odd STPs.

The **"VER"** action can be used verify to verify the two pointcodes given the translation type.

Dependencies and Restrictions

a. For the change and delete actions:

   1. The item numbers must be in ascending order.
   2. The network identification field of the point code must be in the range 1 to 255.
   3. The cluster field of the point code must be range. For ANSI standard users (LEC and all nonlocal network) the range is 0 to 255. For AT&T local network, the range is 0 to 7.
   4. For non-ANSI standard point code only (AT&T), the region of the point code must be in the range 0 to 31.
   5. For non-ANSI standard point code only (AT&T), if real STP point codes are used (cluster equal to 0 or 1), then the member number must equal 0.
   6. The member number must be in the range 0 to 255.
   7. Valid MTP routing (inserted via the lsrout or the clsrout forms) must exist for all point codes to be inserted.

b. For delete action only:

   1. The point codes entered must match the current assignment for the requested translation type.

TABLE 10. Global Title Translation (gttran) Data Items

GTTRAN DATA ITEMS	DATA TYPE	RANGE
ITEM NUMBER	numeric	001 to 999
TRANSLATION TYPE	numeric	0 to 256
EVEN STP PC	numeric	9 characters
ODD STP PC	numeric	9 characters

Figure 14. Global Title Translator (gttran) - (chg) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: gttran   ACTION: chg  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                      GLOBAL TITLE TRANSLATIONS

                      ITEM:                001

                      TRANSLATION TYPE:    256
                      EVEN STP PC:         254250000
                      ODD  STP PC:         254251000
```


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4.06 THE HISTFD FUNCTION

The CNI collects measurements for reports in 5 and multiples of 15 minute accumulator files. The History File Descriptor Table (HFDT) allows the user to specify the time interval desired. Once this table is established, it should not be necessary to change its contents often, if at all. All history files contain the same measurements. The only difference between two files is the start time and length of the time interval. The "histfd" function controls information contained in the HFDT. The "histfd" function can be used to add one or more new history file record numbers to the HFDT, change history file information associated with one or more history file record numbers, delete one or more history records from the HFDT, or verify history file information associated with one or more history file record numbers.

This heading provides a sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of "histfd" actions.

Reference

Common Channel Signaling System Common Network Interface (CNI) 4ESS Switch System Description Manual 234-100-120.

Required Information

The "**ADD**" action is used to add one or more new history file record numbers to the HFDT. The "**CHG**" action is used to change the history file information associated with one or more record numbers. The "**DEL**" action is used to delete one or more history file record numbers from the HFDT.

The "**VER**" command is used to verify history file information associated with one or more record numbers in the HFDT. Once the record number has been entered, the data items returned are the history file name, when, repeat, action, source name (if action is not null), coverage (if action is add), and disposition (if action is copy).

Dependencies and Restrictions

a. For the add, change, and delete actions:

   1. The item numbers must be in ascending order.
   2. The record number and history file name pair cannot be duplicated within the order.
   3. The history file name entered cannot be equal to lpm, cm_l15m, or l15m. These are predefined by the measurement process.
   4. The disposition for a record containing an add action is "void".

b. For the add action:

   1. The record number and history file name pair cannot already exist in the HFDT.
   2. The number of record numbers to be added cannot exceed the number of entries available. The total number of available entries is 200.
   3. The source file name specified must already exist in the HFDT as a history file name with a smaller record number or as one of the predefined files lpm or l15m.

c. For the change action:

   1. The record number and history file name pair must already exist in the HFDT and the history file name cannot be changed.
   2. The source file name specified must already exist in the HFDT as a history file name or as one of the predefined files lpm or l15m.

d. For the delete action:

   1. The record number and history file name must already exist in the HFDT.
   2. The history file name cannot be in use by the schedule report table.
   3. The remaining history information must match the current entry.

e. For the verify command:

   1. The record number must be assigned in the HFDT (for a single record).
   2. At least one record number must be assigned in the HFDT (for all).

TABLE 11. History File Descriptor (histfd) Information Items

DATA ITEM	DATA TYPE	RANGE
ITEM	numeric	1 to 999
RECORD NUMBER	numeric	0 to 29999
HISTORY FILE NAME	alphabetic	name
WHEN	numeric	1 to 288
REPEAT	alphabetic	y, n, yes, no
ACTION	alphanumeric	add, copy, null
SOURCE NAME	alphabetic	name
COVERAGE	numeric	1 to 288
DISPOSITION	alphanumeric	cont, stop

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Figure 15. History File Descriptor (histfd) - (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: histfd             ACTION: ver            OFFICE: NPVLILIH2MD


                      HISTORY FILE DESCRIPTORS


               RECORD NUMBER:                 00010

               HISTORY FILE NAME:             c30m
               WHEN:                          003
               REPEAT:                        yes
               ACTION:                        add
               SOURCE NAME:                   l15m
               COVERAGE:                      30
               (DISPOSITION):                 (stop)
```

```
  ***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
  FUNCTION: histfd             ACTION: ver            OFFICE: NPVLILIH2MD


                      HISTORY FILE DESCRIPTORS


RECORD  HISTORY FILE  WHEN  REPEAT  ACTION  SOURCE NAME  COVERAGE  DISP'TION
------  ------------  ----  ------  ------  -----------  --------  ---------
00010    c30m         003    yes     add    l15m            006      stop
00020    l30m         006    yes     copy   c30m            000      stop
00030    chrm         006    yes     add    l30m            012      stop
00040    lhrm         012    yes     copy   chrm            000      stop
00050    cday         012    yes     add    lhrm            288      stop
00060    lday         010    no      copy   cday            000      stop
```

Figure 16. History File Descriptor (histfd) - (chg) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: histfd  ACTION: chg  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                    HISTORY FILE DESCRIPTORS


              ITEM:                          002
              RECORD NUMBER:                 00010

              HISTORY FILE NAME:             c30m
              WHEN:                          003
              REPEAT:                        yes
              ACTION:                        add
              SOURCE NAME:                   l15m
              COVERAGE:                      30
              DISPOSITION:                   stop
```

Figure 17. History File Descriptor (histfd) - (add) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: histfd  ACTION: add  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                    HISTORY FILE DESCRIPTORS


               ITEM:                          002
               RECORD NUMBER:                 00010
               HISTORY FILE NAME:             c30m
               WHEN:                          003
               REPEAT:                        yes
               ACTION:                        add
               SOURCE NAME:                   l15m
               COVERAGE:                      30
```


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4.07 THE LKADMN FUNCTION

The "lkadmn" function is used to supplement the "lkdata" and "lkinfo" functions to provide data for DCHAN, CCS7 and CCITT7 links. The data items that are changeable using the "lkadmn" function all have default values that are assigned during link growth using either the "lkdata" function or the "lkinfo" function.

Changing the defaults is optional to the user. For DCHAN links, the "lkadmn" function is used to populated Temporary Signaling Connection (TSC) data, such as billing number and engineering data for TSCs. For CCS7/CCITT7 links, the "lkadmn" function is used to change link buffer sizes and error thresholds on the link. This may be necessary if satellite links are used instead of terrestrial links.

Required Information

The only valid actions are "**CHG**" and "**VER**". All new links are added via either the "lkdata" function or the "lkinfo" function. Note that to change any of data on this form, the major state of link must be set to unavailable. Therefore, to change data, use one DMS order to change the major state to unavailable and make all the desired changes. Then, use a second DMS order to change to major state back to available.

Dependencies and Restrictions

For DCHAN links, the total number of CIRCUIT CALLS and TEMP SIGNALING CONNECTIONS for all the links equipped on the node should not exceed 512.

For CCITT7 links:

1. RECEIVE QUEUE SIZE + TRANSMIT QUEUE SIZE <= 18000
2. RETRANSMIT QUEUE SIZE <= TRANSMIT QUEUE SIZE
3. CONGESTION ONSET THRESHOLD <= RECEIVE QUEUE SIZE
4. CONGESTION ABATEMENT THRESHOLD >= 20
5. CONGESTION ABATEMENT THRESHOLD < (CONGESTION ONSET THRESHOLD - 40)
6. SUERM-SU ERROR RATE THRESHOLD >= 64
7. NORMAL AERM-SU ERROR RATE THRESHOLD > 0
8. EMERGENCY AERM-SU ERROR RATE THRESHOLD > 0

For CCS7 1.544 Mbps links:

1. CONGESTION ABATEMENT THRESHOLD < (CONGESTION ONSET THRESHOLD - 40)
2. TRANSMIT QUEUE SIZE <= CONGESTION DISCARD THRESHOLD LEVEL 3 + 13342
3. RECEIVE QUEUE SIZE >= 1024
4. 10000 >= CONGESTION ONSET THRESHOLD >= 1000
5. CONGESTION ABATEMENT THRESHOLD <(CONGESTION ONSET THRESHOLD - 40)
6. 10000 >= CONGESTION ABATEMENT THRESHOLD >= 1000
7. 250,000 >= TRANSMIT QUEUE SIZE >= 20,000
8. TIN > 0 , TIE > 0
9. 41280 >= RETRANSMIT QUEUE SIZE >= 2280

TABLE 12. Link (lkadmn) Data Items for DCHAN

DCHAN NODE DATA ITEMS	DATA TYPE	RANGE	DEFAULT
ITEM NUMBER	numeric	001 to 999	none
GROUP NUMBER	numeric	00 to 63	none
MEMBER NUMBER	numeric	01 to 15	none
LINK TYPE ID	alphanumeric	dchan	
LINK	alphanumeric	li40-0	none
		li40-1	
		li40-2	
		li40-3	
		li41-0	
		li41-1	
		li41-2	
		li41-3	
LACID	numeric	0 to 255	none
		1024 to 1279	
LINK SPEED	alphanumeric	64cn/d	none
		64ri/d	
LINK TYPE	alphabetic	simplex	none
		primary	
		secondary	
MAJOR STATE	alphabetic	unequipped	none
		unavailable	
		available	
BILLING NUMBER	numeric	0000000000 to 9999999999	0000000000
NUMBERING PLAN TYPE	alphabetic	nanp	none
		apn	
CIRCUIT CALLS	numeric	0 to 511	0
TEMP SIGNALING CONNECTIONS	numeric	0 to 511	0
CCV THRESHOLD	numeric	0 to 255	60
FACILITY ID	numeric	0 to 31	0

TABLE 13. Link (lkadmn) Data Items for CCITT7

CCITT7 NODE DATA ITEMS	DATA TYPE	RANGE	DEFAULT
ITEM NUMBER	numeric	001 to 999	none
GROUP NUMBER	numeric	00 to 63	none
MEMBER NUMBER	numeric	01 to 15	none
LINK TYPE ID	alphanumeric	ccitt7/ccs7	
MAJOR STATE	alphabetic	unequipped	none
		unavailable	
		available	
RECEIVE QUEUE SIZE	numeric	0 to 17999	1024
TRANSMIT QUEUE SIZE	numeric	0 to 17999	16000
RETRANSMIT QUEUE SIZE	numeric	0 to 17999	2048
CONGESTION ONSET THRESHOLD	numeric	0 to 17999	300
CONGESTION ABATEMENT THRESHOLD	numeric	20 to 39	20
NORMAL AERM-SU ERROR RATE THRESHOLD	numeric	0 to 99999	4
EMERGENCY AERM-SU ERROR RATE THRESHOLD	numeric	0 to 99999	1

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TABLE 14. Link (lkadmn) Data Items for CCS7

CCS7 NODE DATA ITEMS	DATA TYPE	RANGE	DEFAULT
ITEM NUMBER	numeric	001 to 999	none
GROUP NUMBER	numeric	00 to 63	none
MEMBER NUMBER	numeric	01 to 15	none
LINK TYPE ID	alphanumeric	ccs7	
MAJOR STATE	alphabetic	unequipped unavailable available	none
RECEIVE QUEUE SIZE (Note1)	numeric	0 to 32767	2006 (1.544Mbps)
	numeric	0 to 17999	2006 (56Kbps)
TRANSMIT QUEUE SIZE (Note1)	numeric	0 to 250000	205151 (1.544Mbps)
	numeric	0 to 17999	16000 (56Kbps)
RETRANSMIT QUEUE SIZE (Note1)	numeric	0 to 41280	30000 (1.544Mbps)
	numeric	0 to 17999	910 (56Kbps)
CONGESTION ONSET THRESHOLD (Note1)	numeric	0 to 10000	4800 (1.544Mbps)
	numeric	0 to 17999	300 (56Kbps)
CONGESTION ABATEMENT THRESHOLD (Note1)	numeric	0 to 9960	2400 (1.544Mbps)
	numeric	20 to 39	20 (56Kbps)
NORMAL AERM-SU ERROR RATE THRES(Tin)	numeric	0 to 99999	4
EMERGENCY AERM-SU ERROR RATE THRES(Tie)	numeric	0 to 99999	1
N1 LIMIT OF MSU'S IN THE RETRANS BUFFER	numeric	1 to 1023	1023

NOTE 1: Since link speed is not an input field on lkadmn out of range values may be entered but will fail during order execution

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lkadmn   ACTION: chg  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                      LINK ADMINISTRATION

                      ITEM:                 001
                      GROUP - MEMBER:       32-04
                      LINK TYPE ID:         dchan
                      LINK:                 li40-1

 LACID:           1060        BILLING NUMBER:                  3125551212
 LINK SPEED:      64ri/d      NUMBERING PLAN TYPE:             nanp
 LINK TYPE:       second      CIRCUIT CALLS:                   128
 MATE NODE:       09-04        TEMP SIGNALLING CONNECTIONS:    128
 MATE LINK:       li41-0      FACILITY ID:                     0
                              CCV THRESHOLD:                   60
                              MAJOR STATE:                     unavailable
```

Figure 18. Link administration form (lkadmn) for dchan

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lkadmn   ACTION: chg  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                      LINK ADMINISTRATION
                      ITEM:                 001
                      GROUP - MEMBER:       28-10
                      LINK TYPE ID:         ccitt7
```

Figure 19. Link administration (lkadmn) for ccitt7 Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 05/19/95  TIME: 17:43 *****
FUNCTION: lkadmn   ACTION: chg  ORDER: 25Y121212125   OFFICE: NPVLILIH2MD



                    LINK ADMINISTRATION

                    ITEM:                 001
                    GROUP - MEMBER:       00 - 03
                    LINK TYPE ID:         ccs7

            MAJOR STATE:                              unavailable
            RECEIVE QUEUE SIZE:                       02006
            TRANSMIT QUEUE SIZE:                      205151
            RETRANSMIT QUEUE SIZE                     30000
            CONGESTION ONSET THRESHOLD:               04800
            CONGESTION ABATEMENT THRESHOLD:            2400
            NORMAL AERM-SU ERROR RATE THRESHOLD:      00004
            EMERGENCY AERM-SU ERROR RATE THRESHOLD: 00001
            N1 LIMIT OF MSU'S IN THE RETRANS BUFFER 1023
```

Figure 20. Link administration (lkadmn) for ccs7 Page Example

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4.08 THE LKDATA FUNCTION

The "lkdata" function is used to manage the link configuration data of each link on the CNI ring. Certain data items are required to describe each link associated with a particular link. Some of these data items and their values are dependent upon the link type and link protocol.

This heading provides a sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of "lkdata" actions.

Required Information

The "**ADD**" action is used to add link configuration data for a particular link. The following tables list the data items required to add link configuration data for CCS7, D-Channel, and SADC links. The tables also show which data items are required for each link type. Whenever a link is added, the major state is set to "unavailable". The "chg" action of this function must then be used to change the major state. The "**CHG**" action is used to change existing link configuration data for a particular link. For the "chg" action, an item number and group - member will be prompted for and the rest of the data items listed in the tables below will be displayed and available for change. The "**VER**" command is used to verify the link configuration data of a particular link. The user is prompted for the group - member number and the link data associated with the specified link is returned.

Dependencies and Restrictions

The "lkdata" function can only be used by the on-site user. Therefore, all lkdata orders involved must contain a "y" or "Y" as the third character of the order number. (Remote users should use the "lkinfo" function)

A. For the add and change actions:

1. The first 6 characters of each CLLI must be alphabetic. The last 5 characters of each CLLI must be alphanumeric.
2. For all CCS7 links,
   - No other link can have a combined link set equal to the link set value of this link.
   - Links with the same far end point code, must also be assigned the same link set, far end CLLI, far end function, and link type.
   - Links with the same far end point code must have unique signaling link codes.
   - Links with different far end point codes cannot have the same link set.
   - The default T1 XMIT CLOCK MODE is mnl-slave.
3. The far end point code cannot equal the local point code.
4. If the mate link is equipped, it must have this link specified as its mate.
5. At least one of the link sets in the combined link set must be unassigned or the specified link set must match one of the already assigned link sets of the combined link set specified.
6. Links with the same far end point code must also have the same combined link set.
7. No other link can have a link set equal to the combined link set value of the link.

B. For the add action:

1. The link must be unequipped.
2. The signaling link information being added must not currently exist.

C. For the change action:

1. The link must already be equipped.
2. The signaling link information being changed must already exist.
3. A present major state of "available" can only be changed to a new major state of "unavailable". A present major state of "unavailable" can be changed to either "available" or "unequipped".
4. The mate field cannot be changed while the major state of the former is "available".

TABLE 15. Link (lkdata) Data Items for CCS7

CCS7 LINK DATA ITEMS	DATA TYPE	RANGE
ITEM NUMBER	numeric	001 to 999
GROUP NUMBER	numeric	00 to 63
MEMBER NUMBER	numeric	01 to 15
LINK TYPE ID	alphanumeric	ccs7
LINK SPEED	numeric	56000,15440
TRANSMISSION MEDIUM	alphabetic	terrestrial,satellite
FACILITY ACCESS TYPE	alphanumeric	ds0a,modem
LINK INTERFACE TYPE	alphanumeric	li,lier,li4s,li4d,lid0
ENCRYPTED	alphabetic	no,n for LEC and non-local pc yes, y for local AT&T pc
FAR END FUNCTION	numeric	00000 for LEC and non-local pc 00001 to 32767 for local AT&T pc
FAR END CLLI	alphanumeric	11 characters
LINK SET	numeric	001 to 255
SIGNALING LINK CODE	numeric	00 to 15
LINK TYPE	alphabetic	a,e
T1 XMIT CLOCK MODE	alphabetic	mnl-master,mnl-slave
ERROR CORRECTION	alphabetic	basic,pcr
MATE GROUP	numeric	00 to 63
MATE MEMBER	numeric	01 to 15
COMBINED LINK SET	numeric	001 to 255
FAR END POINT CODE	numeric	format of "nnncccmmm" for LEC "nnn" is 001 to 255 "ccc" is 000 to 255 "mmm" is 000 to 255 format of "nnnrrcmmm" for AT&T "nnn" is 001 to 255 "rr" is 00 to 31 "c" is 4 to 7 "mmm" is 000 to 255
LINK SET ASSOCIATED PC	numeric	format of FAR END PC
MAJOR STATE	alphabetic	available unavailable unequipped

5. Before the major state can be changed to "available":
   - No link other than the mate link specified can have the link in the order specified as its mate.
   - The mate link data must exist.

D. The delete action is not permitted with the "lkdata" function. Link data is removed when the link's major state is recent changed to "unequipped".

E. To de-grow D channel links and grow them back, the LI4 EQUIPPAGE field must be set to none for the change action after D channel links' major states are changed to unequipped.

F. For the verify command, the link must be assigned.

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TABLE 16. Link (lkdata) Data Items for D-channel

D-CHANNEL NODE DATA ITEMS	DATA TYPE	RANGE
ITEM NUMBER	numeric	001 to 999
GROUP NUMBER	numeric	00 to 63
MEMBER NUMBER	numeric	01 to 15
LINK TYPE ID	alphanumeric	dchan
LI4 EQUIPPAGE	alphanumeric	none, li40, li41, both
FACILITY ACCESS TYPE	alphanumeric	t1fa
CONTROL NODE (group)	numeric	00 to 63
CONTROL NODE (member)	numeric	01 to 15
LACID	numeric	0-255, 1024-1279
LINK SPEED	alphanumeric	64cn/d,64ri/d
LINK TYPE	alphabetic	simplex primary secondary
MATE NODE (group)	numeric	00 to 63
MATE NODE (member)	numeric	01 to 15
MATE LINK	alphanumeric	0, li40-0, li40-1 primary secondary
MAJOR STATE	alphabetic	unequipped unavailable available

D-CHANNEL LINK DATA ITEMS	DATA TYPE	RANGE
ITEM NUMBER	numeric	001 to 999
GROUP NUMBER	numeric	00 to 63
MEMBER NUMBER	numeric	01 to 15
LINK TYPE ID	alphanumeric	dchanlink
LINK	alphanumeric	0,li40-0,li40-1 li40-2,li40-3 li41-0,li41-1 li41-2,li41-3
LACID	numeric	0-255, 1024-1279
LINK SPEED	alphanumeric	64cn/d,64ri/d
LINK TYPE	alphabetic	simplex primary secondary
MATE NODE (group)	numeric	00 to 63
MATE NODE (member)	numeric	01 to 15
MATE LINK	alphanumeric	0, li40-0, li40-1 li40-2, li40-3 li41-0, li41-1 li41-2, li41-3
BILLING NUMBER	numeric	0000000000 to 9999999999
NUMBERING PLAN TYPE	alphabetic	nanp,apn
CIRCUIT CALLS	numeric	0 to 511
TEMP SIGNALING CONNECTIONS	numeric	0 to 511
FACILITY ID	numeric	0 to 31
CCV THRESHOLD	numeric	0 to 255
MAJOR STATE	alphabetic	unequipped unavailable available

TABLE 17. Link (lkdata) Data Items for SADC

SADC NODE DATA ITEMS	DATA TYPE	RANGE
ITEM NUMBER	numeric	001 to 999
GROUP NUMBER	numeric	00 to 63
MEMBER NUMBER	numeric	01 to 15
LINK TYPE ID	alphanumeric	sadc
LI4 EQUIPPAGE	alphanumeric	none, li40, li41, both
FACILITY ACCESS TYPE	alphanumeric	modem
SADC-CHANNEL LINK DATA ITEMS	**DATA TYPE**	**RANGE**
LACID	numeric	0 to 255 1024 to 1279
LINK SPEED	alphanumeric	56n/b
MAJOR STATE	alphabetic	uneq, unav, avail

TABLE 18. Link (lkdata) Data Items for CCITT7

CCITT7 LINK DATA ITEMS	DATA TYPE	RANGE
ITEM NUMBER	numeric	001 to 999
GROUP NUMBER	numeric	00 to 63
MEMBER NUMBER	numeric	01 to 15
LINK TYPE ID	alphanumeric	ccitt7
LINK SPEED	numeric	64000

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ERROR CORRECTION MODE	alphabetic	basic,pcr
FAR END CLLI	alphanumeric	11 characters
LINK SET	numeric	001 to 255
SIGNALING LINK CODE	numeric	00 to 15
LINK TYPE	alphabetic	g,w
FACILITY ACCESS TYPE	alphabetic	t1fa
TRANSMISSION MEDIUM	alphabetic	terrestrial satellite
CONTROL NODE (GROUP)	numeric	00 to 63
CONTROL NODE (MEMBER)	numeric	01 to 15
COMBINED LINK SET	numeric	000-255
FAR END POINT CODE	numeric	format of "wcccm" "w" is 2 to 7 "ccc" is 000 to 255 "m" is 0 to 7
MAJOR STATE	alphabetic	available unavailable unequipped

Figure 21. Link Data (craft) CCS7 - (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lkdata            ACTION: ver            OFFICE: NPVLILIH2MD

                          LINK INFORMATION

                      GROUP - MEMBER:      00 - 01
                      LINK TYPE ID:        ccs7


   LINK SPEED           56000          TRANSMISSION MEDIUM  terrestrial
   ENCRYPTED            yes            MATE GROUP - MEMBER  32 - 01
   FAR END FUNCTION     00598          COMBINED LINK SET    004
   FAR END CLLI         chcgilclms2    FACILITY ACCESS TYPE  modem
   LINK SET             001            LINK INTERFACE TYPE   li
   SIGNALING LINK CODE  01             FAR END POINT CODE   254250000
   LINK TYPE            a              LINKSET ASSOCIATE PC 000000000
   ERROR CORRECTION     basic          MAJOR STATE          available
```

Figure 22. Link Data (craft) CCS7 - (add) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 05/19/95  TIME: 17:27 *****
FUNCTION: lkdata   ACTION: add  ORDER: 25Y121212121     OFFICE: NPVLILIH2MD

                          LINK INFORMATION

                     ITEM:                 001
                     GROUP - MEMBER:       00 - 01
                     LINK TYPE ID:         ccs7


   LINK SPEED           15440          T1 XMIT CLOCK MODE   mnl-slave
   FAR END FUNCTION     00598          MATE GROUP - MEMBER  32 - 01
   FAR END CLLI         chcgilclms2    COMBINED LINK SET    004
   LINK SET             001            FAR END POINT CODE   254250000
   SIGNALING LINK CODE  01             LINKSET ASSOCIATE PC 000000000
   LINK TYPE            a              MAJOR STATE          available
```

Figure 23. Link Data (craft) CCS7 - (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 05/19/95  TIME: 17:27 *****
FUNCTION: lkdata              ACTION: ver             OFFICE: NPVLILIH2MD

                          LINK INFORMATION


                     GROUP - MEMBER:       00 - 01
                     LINK TYPE ID:         ccs7


   LINK SPEED           15440          T1 XMIT CLOCK MODE   mnl-slave
   FAR END FUNCTION     00598          MATE GROUP - MEMBER  32 - 01
   FAR END CLLI         chcgilclms2    COMBINED LINK SET    004
   LINK SET             001            FAR END POINT CODE   254250000
   SIGNALING LINK CODE  01             LINKSET ASSOCIATE PC 000000000
   LINK TYPE            a              MAJOR STATE          available
```


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Figure 24. Link Data (craft) D-Channel (dchan) - (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lkdata             ACTION: ver           OFFICE: NPVLILIH2MD


                          LINK INFORMATION
                     GROUP - MEMBER:      00 - 04
                     LINK TYPE ID:        dchan

  LI4 EQUIPPAGE            both        CONTROL NODE            00 - 04
  FACILITY ACCESS TYPE     t1fa


                  -------- li40 --------         -------- li41 --------
               0     1       2      3      0      1      2      3
 ------------------------------------------------------------------------
  LACID        32     33      34     35     36     37     38     39
  LINK SPEED 64ri/d  64ri/d  64ri/d 64ri/d 64ri/d 64ri/d 64ri/d  64ri/d
  LINK TYPE  simplex primary second second second second second primary
  MATE NODE  00-00    32-04   32-04  32-04  32-04  32-04  32-04   32-04
  MATE LINK  li40-0  li40-1   li40-2 li40-3 li41-0  li41-1 li41-2  li41-3
  MAJOR STATE avail  unav   unav   avail  unav   avail   unav   avail
```

Figure 25. Link Data (craft) D-Channel (dchanlink) - (chg) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 07/29/96  TIME: 13:42 *****
FUNCTION: lkdata   ACTION: chg  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD



                     LINK INFORMATION

                     ITEM:                001
                     GROUP - MEMBER:      00-04
                     LINK TYPE ID:        dchanlink
                     LINK:                li40-0

 LACID:          0032       BILLING NUMBER:                0000000000
 LINK SPEED:     64ri/d     NUMBERING PLAN TYPE:           nanp
 LINK TYPE:      primary    CIRCUIT CALLS:                 000
 MATE NODE:      32-03       TEMP SIGNALLING CONNECTIONS:   032
 MATE LINK:      li40-3     FACILITY ID:                   000
                            CCV THRESHOLD:                 000
                            MAJOR STATE:                   available
```

Figure 26. Link Data (craft) SADC - (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lkdata             ACTION: ver           OFFICE: NPVLILIH2MD


                          LINK INFORMATION


                     GROUP - MEMBER:      00 - 03
                     LINK TYPE ID:        sadc


 LI4 EQUIPPAGE             both
 FACILITY ACCESS TYPE      modem

                 -------- li40 --------      -------- li41 --------
                0      1      2      3      0      1      2      3
-------------------------------------------------------------------------
 LACID          1050   1051   1052    1053    1054    1055  1056    50
 LINK SPEED     56n/b  56n/b  56n/b  56n/b  56n/b  56n/b  56n/b  56n/b
 MAJOR STATE    avail  unav   unav   avail  unav   avail  unav   avail
```

Figure 27. Link Data (craft) CCITT7 - (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lkdata             ACTION: ver            OFFICE: NPVLILIH2MD


                           LINK INFORMATION


                      GROUP - MEMBER:      28 - 10
                      LINK TYPE ID:        ccitt7


   LINK SPEED             64000          FACILITY ACCESS TYPE  t1fa
   ERROR CORRECTION MODE  pcr            TRANSMISSION MEDIUM   satellite
   FAR END CLLI           parsfc01ms1    CONTROL NODE          28 - 11
   LINK SET               022
   SIGNALING LINK CODE    01             COMBINED LINK SET     000
   LINK TYPE              w              FAR END POINT CODE    40044
                                         MAJOR STATE           available
```


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4.09 LKINFO FUNCTION

The "lkinfo" function is used by the remote administration organization to manage the link configuration data of each link on the CNI ring. Certain data items are required to describe each link provided in the signaling network. Some of these items and item values are dependent upon the link type and the link protocol.

This heading provides a sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of "lkinfo" actions.

Required Information

The "**ADD**" action is used to add link configuration data for a particular link. The following tables list the data items required to add link configuration data for CCS7, D-Channel, and SADC links. The tables also show which data items are required for each link type. Whenever a link is added, the major state is set to "unavailable". The "chg" action of this function must then be used to change the major state. The "**CHG**" action is used to change existing link configuration data for a particular link. For the "chg" action, an item number and group - member will be prompted for and the rest of the data items listed in the tables below will be displayed and available for change. The "**VER**" command is used to verify the link configuration data of a particular link. The user is prompted for the group - member number and the link data associated with the specified link is returned.

Dependencies and Restrictions The "lkinfo" function can only be used by the remote administration organization. Therefore, all orders involved with "lkinfo" must not contain a "y" or "Y", "t" or "T", or "m" or "M" as the third character of the order number since this would indicate an on-site user order. (On-site users should use the "lkdata" function)

A. For the add and change actions:

1. Most, if not all, of the data to be added (or changed) by this function should be obtained from the remote administration organization.
2. The first 6 characters of each CLLI must be alphabetic. The last 5 characters of each CLLI must be alphanumeric.
3. For all CCS7 links,
   - No other link can have a combined link set equal to the link set value of this link.
   - Links with the same far end point code, must also be assigned the same link set, far end CLLI, far end function, and link type.
   - Links with the same far end point code must have unique signaling link codes.
   - Links with different far end point codes cannot have the same link set.
   - The T1 XMIT CLOCK MODE field is not available to the "chg" and "add" actions. It is defaulted to "mnl-slave" with the "add" action..
4. The far end point code cannot equal the local point code.
5. If the mate link is equipped, it must have this link specified as its mate.
6. At least one of the link sets in the combined link set must be unassigned or the specified link set must match one of the already assigned link sets of the combined link set specified.
7. Links with the same far end point code must also have the same combined link set.
8. No other link can have a link set equal to the combined link set value of the link.

B. For the add action:

1. The link must be unequipped.
2. The signaling link information being added must not currently exist.

C. For the change action:

1. The link must already be equipped.
2. The signaling link information being changed must already exist.
3. A present major state of "available" can only be changed to a new major state of "unavailable". A present

TABLE 19. Link Info (lkinfo) Data Items for CCS7

CCS7 LINK DATA ITEMS	DATA TYPE	RANGE
ITEM NUMBER	numeric	001 to 999
GROUP NUMBER	numeric	00 to 63
MEMBER NUMBER	numeric	01 to 15
LINK TYPE ID	alphanumeric	ccs7
LINK SPEED	numeric	56000,64000
TRANSMISSION MEDIUM	alphabetic	terrestrial,satellite
FACILITY ACCESS TYPE	alphanumeric	ds0a,modem
LINK INTERFACE TYPE	alphanumeric	li,lier,li4s,li4d,lid0
ENCRYPTED	alphabetic	no,n for LEC and non-local pc yes, y for local AT&T pc
FAR END FUNCTION	numeric	00000 for LEC and non-local pc 00001 to 32767 for local AT&T pc
FAR END CLLI	alphanumeric	11 characters
LINK SET	numeric	001 to 255
SIGNALING LINK CODE	numeric	00 to 15
LINK TYPE	alphabetic	a,e
T1 XMIT CLOCK MODE	alphabetic	mnl-master,mnl-slave
ERROR CORRECTION	alphabetic	basic,pcr
MATE GROUP	numeric	00 to 63
MATE MEMBER	numeric	01 to 15
COMBINED LINK SET	numeric	001 to 255
FAR END POINT CODE	numeric	format of "nnncccmmm" for LEC "nnn" is 001 to 255 "ccc" is 000 to 255 "mmm" is 000 to 255 format of "nnnrrcmmm" for AT&T "nnn" is 001 to 255 "rr" is 00 to 31 "c" is 4 to 7 "mmm" is 000 to 255
LINK SET ASSOCIATED PC	numeric	format of FAR END PC
MAJOR STATE	alphabetic	available unavailable unequipped

major state of "unavailable" can be changed to either "available" or "unequipped".

4. The mate field cannot be changed while the major state of the former is "available".

5. Before the major state can be changed to "available":

   - No link other than the mate link specified can have the link in the order specified as its mate.
   - The mate link data must exist.

D. The delete action is not permitted with the "lkinfo" function. Link data is removed when the link's major state is recent changed to "unequipped".

E. For the verify command, the link must be assigned.

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TABLE 20. Link Info (lkinfo) Data Items for D-channel

D-CHANNEL NODE DATA ITEMS	DATA TYPE	RANGE
ITEM NUMBER	numeric	001 to 999
GROUP NUMBER	numeric	00 to 63
MEMBER NUMBER	numeric	01 to 15
LINK TYPE ID	alphanumeric	dchan
LI4 EQUIPPAGE	alphanumeric	none, li40, li41, both
FACILITY ACCESS TYPE	alphanumeric	t1fa
CONTROL NODE (group)	numeric	00 to 63
CONTROL NODE (member)	numeric	01 to 15
D-CHANNEL LINK DATA ITEMS	**DATA TYPE**	**RANGE**
LACID	numeric	0 to 255
		1024 to 1279
LINK SPEED	alphanumeric	64cn/d 64ri/d
LINK TYPE	alphabetic	simplex, primary, second
MATE NODE (group)	numeric	00 to 63
MATE NODE (member)	numeric	01 to 15
MATE LINK	alphanumeric	0, li40-0, li40-1
		li40-2, li40-3
		li41-0, li41-1
		li41-2, li41-3
MAJOR STATE	alphabetic	uneq, unav, avail

TABLE 21. Link Info (lkinfo) Data Items for SADC

SADC NODE DATA ITEMS	DATA TYPE	RANGE
ITEM NUMBER	numeric	001 to 999
GROUP NUMBER	numeric	00 to 63
MEMBER NUMBER	numeric	01 to 15
LINK TYPE ID	alphanumeric	sadc
LI4 EQUIPPAGE	alphanumeric	none, li40, li41, both
FACILITY ACCESS TYPE	alphanumeric	modem
SADC-CHANNEL LINK DATA ITEMS	**DATA TYPE**	**RANGE**
LACID	numeric	0 to 255
		1024 to 1279
LINK SPEED	alphanumeric	56n/b
MAJOR STATE	alphabetic	uneq, unav, avail

TABLE 22. Link Info (lkinfo) Data Items for CCITT7

CCITT7 LINK DATA ITEMS	DATA TYPE	RANGE
ITEM NUMBER	numeric	001 to 999
GROUP NUMBER	numeric	00 to 63
MEMBER NUMBER	numeric	01 to 15
LINK TYPE ID	alphanumeric	ccitt7
LINK SPEED	numeric	64000
ERROR CORRECTION MODE	alphabetic	basic,pcr
FAR END CLLI	alphanumeric	11 characters
LINK SET	numeric	001 to 255

SIGNALING LINK CODE	numeric	00 to 15
LINK TYPE	alphabetic	w
FACILITY ACCESS TYPE	alphabetic	t1fa
TRANSMISSION MEDIUM	alphabetic	terrestrial satellite
CONTROL NODE (GROUP)	numeric	00 to 63
CONTROL NODE (MEMBER)	numeric	01 to 15
COMBINED LINK SET	numeric	000
FAR END POINT CODE	numeric	format of "wcccm" "w" is 2 to 7 "ccc" is 000 to 255 "m" is 0 to 7
MAJOR STATE	alphabetic	available unavailable unequipped

Figure 28. Link Info (lkinfo) CCS7 Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lkinfo             ACTION: ver            OFFICE: NPVLILIH2MD

                            LINK INFORMATION

                       GROUP - MEMBER:      00 - 01
                       LINK TYPE ID:        ccs7


   LINK SPEED           56000          TRANSMISSION MEDIUM  terrestrial
   ENCRYPTED            yes            MATE GROUP - MEMBER  32 - 01
   FAR END FUNCTION     00598          COMBINED LINK SET    004
   FAR END CLLI         chcgilclms2    FACILITY ACCESS TYPE  modem
   LINK SET             001            LINK INTERFACE TYPE   li
   SIGNALING LINK CODE  01             FAR END POINT CODE   254250000
   LINK TYPE            a              LINKSET ASSOCIATE PC 000000000
   ERROR CORRECTION     basic          MAJOR STATE          available
```


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Figure 29. Link Info (lkinfo) CCS7 Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 05/19/95  TIME: 17:27 *****
FUNCTION: lkinfo   ACTION: chg  ORDER: 25Y121212121     OFFICE: NPVLILIH2MD

                          LINK INFORMATION

                    ITEM:                 001
                    GROUP - MEMBER:       00 - 01
                    LINK TYPE ID:         ccs7


  LINK SPEED           15440          MATE GROUP - MEMBER  32 - 01
  FAR END FUNCTION     00598          COMBINED LINK SET    004
  FAR END CLLI         chcgilclms2    FAR END POINT CODE   254250000
  LINK SET             001            LINKSET ASSOCIATE PC 000000000
  SIGNALING LINK CODE  01
  LINK TYPE            a
```

Figure 30. Link Info (lkinfo) D-Channel - (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lkinfo            ACTION: ver          OFFICE: NPVLILIH2MD


                        LINK INFORMATION
                    GROUP - MEMBER:      00 - 04
                    LINK TYPE ID:        dchan

  LI4 EQUIPPAGE           both       CONTROL NODE           00 - 04
  FACILITY ACCESS TYPE    t1fa


                 -------- li40 --------        -------- li41 --------
              0     1       2      3      0      1      2      3
 ------------------------------------------------------------------------
 LACID        32     33      34     35     36     37     38     39
 LINK SPEED 64ri/d  64ri/d  64ri/d 64ri/d 64ri/d 64ri/d 64ri/d  64ri/d
 LINK TYPE  simplex primary second second second second second primary
 MATE NODE  00-00    32-04   32-04  32-04  32-04  32-04  32-04   32-04
 MATE LINK  li40-0  li40-1   li40-2 li40-3 li41-0  li41-1 li41-2  li41-3
 MAJOR STATE avail  unav   unav   avail  unav   avail   unav   avail
```

Figure 31. Link Info (lkinfo) SADC - (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lkinfo             ACTION: ver           OFFICE: NPVLILIH2MD


                          LINK INFORMATION


                     GROUP - MEMBER:      00 - 03
                     LINK TYPE ID:        sadc


 LI4 EQUIPPAGE             both
 FACILITY ACCESS TYPE      modem

                 -------- li40 --------      -------- li41 --------
                0      1      2      3      0      1      2      3
-------------------------------------------------------------------------
 LACID          1050   1051   1052    1053    1054    1055  1056    50
 LINK SPEED     56n/b  56n/b  56n/b  56n/b  56n/b  56n/b  56n/b  56n/b
 MAJOR STATE    avail  unav   unav   avail  unav   avail  unav   avail
```

Figure 32. Link Info (lkinfo) CCITT7 - (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lkinfo             ACTION: ver            OFFICE: NPVLILIH2MD


                          LINK INFORMATION


                     GROUP - MEMBER:      28 - 10
                     LINK TYPE ID:        ccitt7


   LINK SPEED             64000          FACILITY ACCESS TYPE  t1fa
   ERROR CORRECTION MODE  pcr            TRANSMISSION MEDIUM   satellite
   FAR END CLLI           parsfc01ms1    CONTROL NODE          28 - 11
   LINK SET               022
   SIGNALING LINK CODE    01             COMBINED LINK SET     000
   LINK TYPE              w              FAR END POINT CODE    40044
                                         MAJOR STATE           available
```


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4.10 LSROUT FUNCTION

The "lsrout" function is used for both domestic CCS7 and international CCITT7 for routing to direct linksets. For CCS7, the "lsrout" function is used to add, delete, and verify the link set routing to an STP. The 4ESS switch uses this to route directly to the home STPs via the A links. Also, starting with the 4AP8 generic, routing can be done to an STP in a non-local network (E link). Starting in 4ap11, "lsrout" can be used for routing from UNITEL switches using a network indicator of 236. UNITEL switches are identical to AT&T switches with the exception of the network indicator. Routing to each directly connected STP is necessary for CCS7 MTP network management and for accessing the STP for global title translations (see function gttran for more on GTT).

The "lsrout" function supports both ANSI standard and AT&T formats for inputting local network data. In the ANSI standard, the cluster field is the entire middle 8 bits of the pointcode. In the AT&T format, the middle 8 bits of the pointcode are divided into 5 bits called region and 3 bits called cluster. Note that non-local network routing is always entered as ANSI standard.

For CCITT7, the "lsrout" function is used to add, change, delete, and verify routing via the "W" links to a foreign administration. Both a preferred and alternate linkset are input. The alternate linkset is optional; a value of 0 will cause only the preferred linkset to be used. When both preferred and alternate linksets are used, then all traffic will go over the preferred linkset unless there is total outage on the preferred linkset, then all traffic will be sent over the alternate linkset. There is no load balancing between the preferred and alternate linkset. Typically, preferred and alternate linksets are used for terrestrial and satellite links respectively. If load sharing over both terrestrial and satellite is desired, then use just the preferred link set and put all links in the same linkset. If terrestrial links are to be used with satellite as backup, then put all the links in the terrestrial in the preferred linkset and the links to the satellite in the alternate linkset.

This heading provides a sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of "lsrout" actions.

Required Information

For all actions, the user is prompted for "link type", which must be either "ccs7" or "ccitt7". For CCS7 actions, the user is prompted for the "cluster ID". If the action is "**ADD**" or "**DEL**", the link set is prompted for. Starting in 4ap8, the user is also prompted for "network ID", and all actions are based on the network ID/cluster ID combination. For the "**VER**" command, the link set is returned.

For CCITT7 actions, the user is prompted for the international pointcode. If the action is "**ADD**", "**CHG**", or "**DEL**", the preferred and alternate linksets are prompted for. If the action is "**VER**", the the preferred and alternate linksets are returned.

Dependencies and Restrictions

a. For the add and delete actions for CCS7:

   1. Item numbers must be in ascending order.
   2. The cluster IDs cannot be duplicated in the order.
   3. 4ap8 and beyond - All cluster IDs must be in the same network in the order. In other words, to put in routing to multiple networks, one order per network is necessary.

b. For the add action for CCS7:

   1. The linkset must be equipped, i.e. there must be links assigned via the lkdata function in the linkset.
   2. The links assigned to the linkset must be CCS7 links (not CCITT7 links).
   3. The linkset can not be a combined linkset, it must be a direct linkset to a STP.
   4. Each linkset is associated with a far end pointcode, as assigned using the lkdata function. The routing data and the linkset far end pointcode must be consistent. To route to one of the local STPs, the linkset to that specific STP must be used. For example, if the linkset to the local even STP is LS 1 and the cluster number of that STP is 8, then on the lsrout form, LINKSET must be set

TABLE 23. Link Set Routing (lsrout) Information Items (CCS7)

USED BY	DATA ITEM	DATA TYPE	RANGE
AT&T, LEC	ITEM	numeric	1 to 999
AT&T, LEC	LINK TYPE	alphabetic	ccs7
AT&T	CLUSTER ID	numeric	0 to 7
AT&T	REGION	numeric	0 to 31
LEC	CLUSTER ID	numeric	0 to 255
AT&T, LEC	NETWORK ID	numeric	1 to 255
AT&T, LEC	LINK SET	numeric	1 to 255

TABLE 24. Link Set Routing (lsrout) Information Items (CCITT7)

DATA ITEM	DATA TYPE	RANGE
ITEM	numeric	1 to 999
LINK TYPE	alphabetic	ccitt7
POINT CODE	numeric	intl point code format "wcccm" w is 2 to 7 ccc is 0 to 255 m is 0 to 7
PREFERRED LINK SET	numeric	1 to 255
ALTERNATE LINK SET	numeric	0 if unused 1 to 255 if used

to 1 for CLUSTER ID 8.

5. Routing can not be added if routing to a network/cluster combination already exists. If the routing must be changed, then the currently existing data must be deleted first in a separate order, and then the new data may be added.

c. For the delete action for CCS7:

1. The network/cluster ID must be assigned.

2. The linkset in the order must match the linkset data currently in routing.

d. For the verify command for CCS7:

1. For clusters, the cluster must be assigned.

2. For Network Interconnect routing starting in 4ap8, the network/cluster combination must be assigned.

e. For the add, change and delete actions for CCITT7:

1. Item numbers must be in ascending order.

f. For the add action for CCITT7:

1. The international pointcode can not already exist in routing.

2. There must be an empty slot to put the new data. Routing to only 64 international pointcodes maximum is allowed.

3. The international pointcode is a five digit number of the form "wcccm", where "w" is the world zone; "ccc" is the country code; and "m" is the member number. The range of "w" is 2 to 7, "ccc" is 0 to 255, and "m" is 0 to 7.

4. The preferred linkset must be equipped, i.e. there must be links assigned via the lkdata function in the linkset.

5. The links assigned to the preferred linkset must be CCITT7 links (not CCS7 links).

6. The alternate linkset can not equal the preferred linkset.

7. If the value of the alternate linkset is not 0, then the linkset must be

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equipped with CCITT7 links.

g. For the change action for CCITT7:

   1. Routing for the international pointcode must already exist.
   2. The preferred linkset must be equipped, i.e. there must be links assigned via the lkdata function in the linkset.
   3. The links assigned to the preferred linkset must be CCITT7 links (not CCS7 links).
   4. The alternate linkset can not equal the preferred linkset.
   5. If the value of the alternate linkset is not 0, then the linkset must be equipped with CCITT7 links.

h. For the delete action for CCITT7:

   1. Routing for the international pointcode must already exist.

i. For the verify action for CCITT7:

   1. Routing for the international pointcode must exist.

Figure 33. Link Set Routing (lsrout) - LEC add Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lsrout  ACTION: add  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                        LINK SET CLUSTER ROUTING


                      ITEM:                 001
                      LINK TYPE ID:         ccs7
                      NETWORK INDICATOR:    230

                      CLUSTER ID:           161
                      LINK SET:             002
```

Figure 34. Link Set Routing (lsrout) - AT&T add Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lsrout  ACTION: add  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                        LINK SET CLUSTER ROUTING


                      ITEM:                 001
                      LINK TYPE ID:         ccs7
                      NETWORK INDICATOR:    254

                      REGION:               21
                      CLUSTER ID:           1
                      LINK SET:             002
```


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Figure 35. Link Set Routing (lsrout) - ccitt7 add Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: lsrout  ACTION: add  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                       LINK SET CLUSTER ROUTING


                     ITEM:                 001
                     LINK TYPE ID:         ccitt7

                     POINT CODE:           42005
                     PREFERRED LINK SET:    022
                     ALTERNATE LINK SET:    024
```

4.11 MEMRTE FUNCTION

The "memrte" function is used to install routing for the LEC SS7 network between the 4ESS switch and non-home STPs. The "memrte" functions performs this routing on a member level basis. The routing capabilities provided by "memrte" between a signal end point (SEP) and another STP are as follows:

- provide E-link connection between switches and other STP pairs
- at SEPs, designate E-links as primary signaling links for direct message routing to different mated STP pairs
- at SEPs, use A-links as backup links under certain conditions - also known as alternate access
- provide routing of SS7 messages over E-links
- at SEPs, provide simultaneous support of routing over A-links and E-links
- provisioning of E-links as backup routes only

This heading provides a sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of "memrte" actions.

Required Information

Add option is used for the conversion from cluster routing to member routing, also known as full point code routing (fpcr). This form allows the users enter a range of members instead of entering just one member per recent change item for add option. The *first member id* field specifies the lower limit member number and the *last member id* field specifies the upper limit member number in the cluster. All the members in the cluster to be converted to fpcr must be entered in one order. If there is only one member in the cluster, the same number will be entered for both the first and last member IDs.

Change option is used to change the primary, first alternate, and/or second alternate routes.

Delete option is used to delete a member routing.

Only one member is allowed per recent change for change and delete options and verify.

Dependencies and Restrictions

a. The ELINK feature bit in ACI translation is turned on.

b. The item numbers are in ascending order.

c. The network id must be consistent throughout an order.

d. The cluster id must be consistent throughout an order.

e. The member id can not be duplicated in an order.

f. For add option, the input value of the last member entered must be greater than or equal to that of the first member.

g. For add and change options, the alternate link set 1 must not be provisioned if there is no primary link set,

h. For add and change options, the alternate link set 2 must not be provisioned if there is no alternate link set 1.

i. For add option, if the primary route is a direct link set, then
   - The point code entered must match the point code for that link set.
   - If the link set is part of a combined link set and there is no other link set in the combined link set, then this is an error.
   - If the link set is part of a combined link set, and there is a another direct link set in that combined link set, then the other direct link set must be provisioned as the first alternate route.

j. For add and change options, if the primary route is a combined link set, then
   - The point code entered must not match any point code in the link set data.

k. For delete and change options, the routing flag in the network, cluster, and member level can not be NO_RTE.

l. For delete option, the primary, first alternate, and second alternate link sets entered must match the current routing assignments.

m. The maximum of 256 (MEMCLU) items in one order for delete and change options.

n. The maximum of 256 members in one order for add option.

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TABLE 25. Member Routing (memrte) Data Items

DATA ITEM	DATA TYPE	RANGE
ITEM	numeric	001 to 999
NETWORK ID	numeric	1 to 254
CLUSTER ID	numeric	0 to 255
FIRST MEMBER ID	numeric	0 to 255
LAST MEMBER ID	numeric	0 to 255
MEMBER ID	numeric	0 to 255
PRIMARY ROUTE	numeric	0 to 127
ALTERNATE1 ROUTE	numeric	0 to 127
ALTERNATE2 ROUTE	numeric	0 to 127

Figure 36. Member Routing (add) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/94  TIME: 13:42 *****
FUNCTION: memrte             ACTION: add            OFFICE: NPVLILIH2MD




                              MEMBER ROUTING


                         ITEM:                  001
                         NETWORK ID:            246
                         CLUSTER ID:            003
                         FIRST MEMBER ID:       001
                         LAST MEMBER ID:        234
                         PRIMARY ROUTE:         001
                         ALT1 ROUTE:            003
                         ALT2 ROUTE:            000
```

Figure 37. Member Routing (chg/del) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/94  TIME: 13:42 *****
FUNCTION: memrte             ACTION: chg            OFFICE: NPVLILIH2MD




                              MEMBER ROUTING


                         ITEM:                  001
                         NETWORK ID:            246
                         CLUSTER ID:            003
                         MEMBER ID:             001
                         PRIMARY ROUTE:         001
                         ALT1 ROUTE:            003
                         ALT2 ROUTE:            000
```


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4.12 OFDATA FUNCTION

Each office has a set of data items which uniquely identify this office and its location in the CCS network. The "ofdata" function is one of the first recent changes done in a new office. The "ofdata" function is also used if the established office data needs to be changed as the CCS network grows. In summary, the "ofdata" function is provided to allow the user to control their identifying office data within the CCS network.

This heading provides a sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of "ofdata" actions.

Required Information

The "**ADD**" action is used to add new office information to the CNI data base. The "**CHG**" action is used to change existing office information in a CNI data base.

Note that in local international pointcode is an optional field. The entry for "ISC W/CCITT7" should be set to "no" if the office has no CCITT7 links. The entry "ISC POINT CODE" only is displayed if the answer to "ISC W/CCITT7" is "yes".

The "**VER**" command is used to verify CNI office identification and location data. The office data is displayed as soon as this action is entered. All the data items entered above are displayed for a verify with two exceptions. An item number will not be present and the local point code will be an additional data item.

Dependencies and Restrictions

a. For the add and change actions:

   1. The third character of all order numbers associated with the "ofdata" function must be a "y" or "Y" since office data can only be added and changed locally.

   2. The first six characters of the local and mate CLLI codes must be alphabetic characters while the following five characters can be alphabetic and/or numeric.

b. For the add action, no office data can exist in the office involved.

c. For the change action, office data must exist in the office involved.

d. The delete action is not permitted with the "ofdata" function.

e. For the verify command, office data must exist in the office involved.

f. MTP Restart is a restricted feature and must be purchased before it can be activated (yes).

TABLE 26. Office Identification (ofdata) Data Items

DATA ITEM	DATA TYPE	RANGE
ITEM	numeric	001 to 999
LOCAL CLLI	alphabetic	11 characters
SRST TIMER	numeric	00000 to 86400
MTP RST	alphabetic	yes or no
LOCAL POINT CODE	numeric	format of "nnncccmmm" for LEC "nnn" is 001 to 255 "ccc" is 000 to 255 "mmm" is 000 to 255 format of "nnnrrcmmm" for AT&T "nnn" is 001 to 255 "rr" is 00 to 31 "c" is 4 to 7 "mmm" is 000 to 255
ALIAS POINT CODE	numeric	format of LOCAL POINT CODE
ISC W/CCITT7	alphabetic	yes or no
ISC POINT CODE	numeric	format of "wcccm" "w" is 2 to 7 "ccc" is 000 to 255" "m" is 0 to 7

Figure 38. Office Data (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: ofdata            ACTION: ver           OFFICE: NPVLILIH2MD


                CNI OFFICE IDENTIFICATION AND POSITION

                  LOCAL POINT CODE     254254076
                  LOCAL CLLI           npvlilih2md
                  SRST TIMER           00001
                  MTP RST              no
                  ISC W/CCITT7         yes
                  ISC POINT CODE       52005

                        ALIAS POINT CODE LIST

              254254077      254254078      254254079
              254254080      254254081      254254082
                             254254083
```

Figure 39. Office Data (chg) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: ofdata            ACTION: chg           OFFICE: NPVLILIH2MD



                CNI OFFICE IDENTIFICATION AND POSITION

                  ITEM                 001
                  LOCAL POINT CODE     254254076
                  LOCAL CLLI           npvlilih2md
                  SRST TIMER           00001
                  MTP RST              yes
                  ISC W/CCITT7         yes
                  ISC POINT CODE       52005

                        ALIAS POINT CODE LIST

               254254077      254254078      254254079
               254254080      254254081      254254082
                              254254083
```

4.13 THE PMTHRE FUNCTION

The *pmthre function* provides a capability for allowing the 15 minute and 24 hour thresholds in the ULN to be changed and verified.

The thresholds are supported as listed in the tables in this section. Using this function, their values can be altered within the limits of the "ALLOWABLE RANGES" shown in the tables.

Required Information

Threshold values may only be changed, and verified; the "add" action is not supported. The user will be prompted for a link to be verified or changed. **CHG action**

The CHG action allows the threshold values to be changed at any time. The user benefits from using the CHG action over the ADD action in that the current threshold values are shown on the screen. **VER action**

The VER action allows the current threshold values to be examined.

Dependencies and Restrictions

a. For the change action:

    1. Threshold values requested must be within the prescribed ranges (as reflected in Tables 27 - 28).

    2. Thresholds may only be modified on a per link basis.

    3. The group-member given must be the group-member for a HSAL.

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TABLE 27. CCS7 BROADCAST EVENT 15 MINUTE THRESHOLD

DESCRIPTION	ALLOWABLE VALUES	DEFAULT (octets)
Errored Seconds(sec)	1 to 900	15
Burst Seconds(sec)	1 to 900	15
Severely Errored Seconds(sec)	1 to 900	5
Failed Signal States(sec)	1 to 900	2
Failed Seconds(sec)	1 to 900	5
Slips(sec)	1 to 900	1

TABLE 28. CCS7 BROADCAST EVENT 24 HOUR THRESHOLD

DESCRIPTION	ALLOWABLE VALUES	DEFAULT (octets)
Errored Seconds(sec)	1 to 65535	4320
Burst Seconds(sec)	1 to 65535	600
Severely Errored Seconds(sec)	1 to 65535	90
Failed Signal States(dimensionless)	1 to 65535	4
Failed Seconds(sec)	1 to 65535	90
Slips(sec)	1 to 65535	4

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 05/19/95 TIME:  19:12*******
FUNCTION: pmthre                ACTION: ver               OFFICE: NPVLIL01MS1

                         LINK TRANSMISSION PARAMETERS


                            GROUP - MEMBER:  00 - 03

    BROADCAST EVENT 15 MINUTE THRESHOLD

    ERRORED SECONDS  015                    BURST SECONDS    015
    SEVERELY ERRORED 005                    FAILED SIGNAL    002
    FAILED SECONDS   005                    SLIPS            001

    BROADCAST EVENT 24 HOUR THRESHOLD

    ERRORED SECONDS  04320                  BURST SECONDS    00600
    SEVERELY ERRORED 00090                  FAILED SIGNAL    00004
    FAILED SECONDS   00090                  SLIPS            00004
```

Figure 40. Example - *ver* option for *transmission parameter* threshold

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 05/19/95 TIME:  19:13*******
FUNCTION: pmthre    ACTION: chg   ORDER: 25Y121212125     OFFICE: NPVLIL01MS1

                         LINK TRANSMISSION PARAMETERS

                            ITEM:            001
                            GROUP - MEMBER:  00 - 03

 BROADCAST EVENT 15 MINUTE THRESHOLDS

 ERRORED SECONDS 015    UPDATE(y/n) yes  BURST SECONDS   015    UPDATE(y/n) yes
 SEVERELY ERROR  005    UPDATE(y/n) yes  FAILED SIGNAL   002    UPDATE(y/n) yes
 FAILED SECONDS  005    UPDATE(y/n) yes  SLIPS           001    UPDATE(y/n) yes

 BROADCAST EVENT 24 HOUR THRESHOLDS

 ERRORED SECONDS  04320 UPDATE(y/n) yes  BURST SECONDS    00600 UPDATE(y/n) yes
 SEVERELY ERRORED 00090 UPDATE(y/n) yes  FAILED SIGNAL    00004 UPDATE(y/n) yes
 FAILED SECONDS   00090 UPDATE(y/n) yes  SLIPS             00004 UPDATE(y/n) yes
```

Figure 41. Example - *chg* option for *transmission parameter* threshold

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4.14 ROUTE FUNCTION

The "route" function is used to install routing for the LEC SS7 network between the 4ESS switch and non-home STPs. The "route" functions performs this routing on a cluster level basis. The "route" function provides a scheme whereby switches will be able to force SS7 signaling message traffic to directly route on specific combined linksets to other STP pairs. The routing capabilities provided by "route" are as follows:

- assign linksets and and route types to a point code entry in the routing data tables
- provide the capability to change from a non-FPCR cluster to a FPCR cluster and vice-versa with the signaling links, signaling routes, and signaling points in any state

The routing flag is a new concept to the DMS user. The value of upopclu in the routing flag is used when CCS7 routing to an STP is provisioned. The value of popclu in the routing flag is used when CCS7 routing to an end office is provisioned.

Dependencies and Restrictions

a. The feature bit in ACI translation is on.

b. The item numbers are in ascending order.

c. The network id must be consistent throughout an order.

d. The cluster id can not be duplicated in an order.

e. For add/chg option, the alternate link set 1 must not be provisioned if there is no primary link set,

f. For add/chg option, the alternate link set 2 must not be provisioned if there is no alternate link set 1.

g. For add and change options, if the primary route is a direct link set, then

   - The network id and cluster id entered must match the point code for that link set.
   - If the link set is part of a combined link set and there is no other link set in the combined link set, then this is an error.
   - If the link set is part of a combined link set, and there is a another direct link set in that combined link set, then the other direct link set must be provisioned as the first alternate route.

h. For add and change options, if the primary route is a combined link set, then

   - The network id and cluster id entered must not match any point code in the link set data.

i. For delete and change options, routing must be defined at the network and cluster level

j. For delete option, the primary, first alternate, and second alternate link sets entered must match the current routing assignments.

k. The maximum of 255 (MEMCLU-1) items in one order.

TABLE 29. Routing (route) Data Items

DATA ITEM	DATA TYPE	RAN
ITEM	numeric	001 to
NETWORK ID	numeric	1 to 2
CLUSTER ID	numeric	0 to 2
ROUTING FLAG	alphabetic	popclu,up
PRIMARY ROUTE	numeric	0 to 1
ALTERNATE1 ROUTE	numeric	0 to 1
ALTERNATE2 ROUTE	numeric	0 to 1

Figure 42. Routing (chg/add/del) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/94  TIME: 13:42 *****
FUNCTION: memrte             ACTION: add            OFFICE: NPVLILIH2MD



                              MEMBER ROUTING


                        ITEM:                  001
                        NETWORK ID:            254
                        CLUSTER ID:            003
                        ROUTING FLAG:          popclu
                        PRIMARY ROUTE:         001
                        ALT1 ROUTE:            003
                        ALT2 ROUTE:            000
```


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4.15 THE SCHEDL FUNCTION

With all ingredients of a report defined in the HFDT, EXCP, and UVDT, the Scheduler Table (SCHD) gathers all the information and specifies how and when the report should be generated. In the SCHD the user can assign the report name and destination of the report. The user determines the report type to be used in the generation of the report. To generate the report, a report generator needs access to the location of all the other information pertaining to the report stored in the other MOC tables. If the report is exception related then all thresholds must have been previously assigned to a group name in the Exception Table (EXCP). If the report is traffic related (not exception) then the group name is null. All the measurement IDs desired in the report must have been previously assigned to a view name in the User View Descriptor Table (UVDT). The length of time to be covered in the report must have been previously assigned to a history file name in the History File Descriptor Table (HFDT). With all this information a report can be generated after the activation time. The report can then be repeated if the user so designates with an entry under repeat. The user can specify that certain reports not be generated if it is empty (contains all zeroes). A report can be output to a file (polled) or sent to a spooler output class (autonomous) or both. The user can also delay the output of a report up to 5 minutes.

The "schedl" function controls information contained in the SCHD. The "schedl" function can be used to add one or more new reports, change the schedule report information associated with one or more SCHD entries, delete one or more SCHD entries, or verify the schedule information associated with one or more SCHD entries.

This heading provides a sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of "schedl" actions.

Reference

Common Channel Signaling System Common Network Interface (CNI) 4ESS Switch System Description Manual 234-100-120.

Required Information

The **ADD** action is used to add one or more new schedule reports to the SCHD. The **DEL** action is used to delete one or more SCHD entries. The following sequence of information is required to perform both of these actions.

The **CHG** action is used to change the schedule report information associated with one or more SCHD entries. The user is prompted for the report name. The data items assigned to that entry are returned available for change.

The **VER** command is used to verify the schedule information associated with one or more SCHD entries. The user is prompted for the report name. The data items returned are destination, report type, group name, view name, history file name, activation time, and repeat. If the user enters "all" for the report name, the entire contents of the Scheduler Table are returned.

Dependencies and Restrictions

a. For the add, change, and delete actions:

   1. Item numbers must be in ascending order.
   2. The report name cannot be duplicated within the order.
   3. The destination must be equipped in the Equipment Configuration Data (ECD).
   4. To be a valid entry, the report type must exist in the report generator array in the CNI office involved (generically defined).
   5. If the report generator specified by the report type is assigned to core memory, the history file must be "lpm". If the report generator specified by the report type is assigned to disk memory, the history file must exist in the HFDT.
   6. If the report name is "sm30mpr", the history file name cannot be "lpm" nor "l15m".
   7. If the group name entered is not equal to "null", the group name must be assigned in the EXCP.
   8. The user view specified must be assigned in the UVDT.

TABLE 30. Scheduler Table (schedl) Information Items

DATA ITEM	DATA TYPE	RANGE
ITEM	numeric	1 to 999
REPORT NAME	alphabetic	name
DESTINATION	numeric	0 to 255
REPORT TYPE	alphabetic	type
GROUP NAME	alphanumeric	name
VIEW NAME	alphabetic	name
HISTORY FILE NAME	alphabetic	name
ACTIVATION TIME (hhmm)	numeric	0 to 2359
REPEAT	numeric	0 to 288

9. If the group name specified is not "null", and the view name specified must be assigned to that group name in EXCP.
10. The history file name (if not "lpm" or "l15m") must be assigned in the HFDT.
11. The minutes, specified by the second two digits of the activation time, must be less than 60.
12. If the "print if empty" field is no, the report type must be cmnfdiskex, cmnflpmex, or sm30mpr.
13. If the "output type" equals polled (p) or both (b), the report type must be cmnflpm, cmnflpmex, cmnfdisk, or cmnfdiskex.
14. If the "output type" equals polled (p) or both (b), the report name must be 8 characters in length and the last 4 of the 8 characters must equal XXXX.
15. If the history file name equals lpm, the output delay must be less than or equal to 150.

b. For the add action:

1. When all multiples are processed, the number of new entries to be added to the SCHD plus the current entries cannot exceed the maximum number of entries allowed (200).
2. The report name specified cannot be assigned in the SCHD.

c. For the change action, the report name must be assigned in the SCHD.

d. For the delete action:

1. The report name must be assigned in the SCHD.
2. The destination, report type, group name, view name, history file name, activation time, and repeat field must match an entry for the report name specified. The report type is determined by the type of report generator specified

e. For the verify command:

1. The report name must be assigned in the SCHD.
2. If the user specifies "all" for the report name, at least one report name must exist in the CNI Data Base.

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Figure 43. Scheduler Table (schedl) - (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: schedl             ACTION: ver            OFFICE: NPVLILIH2MD

                           REPORT SCHEDULING


                REPORT NAME:                    cexcpnm

                DESTINATION                     123
                REPORT TYPE                     cmeasmt
                GROUP NAME                      ce2001
                VIEW NAME                       ce200
                ACTIVATION TIME (hhmm)          1200
                REPEAT                          096
```

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: schedl             ACTION: ver            OFFICE: NPVLILIH2MD

                           REPORT SCHEDULING

                  REPORT NAME:                   all

    REPORT NAME      REPORT TYPE      VIEW NAME      ACTIVATION TIME
              DESTINATION      GROUP NAME      HISTORY FILE   REPEAT
    ------------------------------------------------------------------
    a30mpr30         am30mpr          a30mpr30               0000
                  091             a30mpr         130m           048
    amprhr           ammpr            ampr                   0000
                  091                             lhrm           024
    aseprhr          amsepr           asepr                  0000
                  091                             lhrm           024
```

Figure 44. Scheduler Table (schedl) - (chg) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: schedl  ACTION: chg  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                          REPORT SCHEDULING


                  ITEM                            001
                  REPORT NAME                     cexcpnm

                  DESTINATION                     001
                  REPORT TYPE                     cmeasmt
                  GROUP NAME                      ce2001
                  VIEW NAME                       ce200
                  HISTORY FILE NAME               130m
                  ACTIVATION TIME (hhmm)          1200
                  REPEAT                          048
```

Figure 45. Scheduler Table (schedl) - (add) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: schedl  ACTION: add  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                          REPORT SCHEDULING


                  ITEM                            001
                  REPORT NAME                     cexcpnm
                  DESTINATION                     001
                  REPORT TYPE                     cmeasmt
                  GROUP NAME                      ce2001
                  VIEW NAME                       ce200
                  HISTORY FILE NAME               130m
                  ACTIVATION TIME (hhmm)          1200
                  REPEAT                          048
```


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4.16 SETRNA FUNCTION (verify only)

The "setrna" function is used to verify the CCS7 links (group - member numbers) assigned to a link set. This heading provides the sequence of data items required for the verify command, the dependencies and restrictions placed on these data items, and typical DMS displays of the "setrna" function.

Required Information

The user will be prompted for the link set to be verified. The assigned links and their present link state are returned where "u" represents the unavailable and "a" represents the available major state. In addition, information concerning link sets which are related to this link set will also be displayed. The following table shows the restrictions on the link set input.

Dependencies and Restrictions

a. The add, change, and delete actions are not permitted with the "setrna" function.

b. For the verify command:

   1. If the link set is a combined link set, then its two member link sets are displayed (if only one appears, the second member has not been assigned yet).

   2. If the link set belongs to a combined link set, then the combined link set to which it belongs is displayed.

   3. If the link set is a direct link set and does NOT belong to a combined link set, then the associated link sets will be blank.

   4. At least one link must be assigned to the link set in the available or unavailable link state.

TABLE 31. Link Set, Ring Node Address (setrna) Information Items

DATA ITEM	DATA TYPE	RANGE
LINK SET	numeric	1 to 255
ASSOCIATED LINK SETS	numeric	1 to 255
GROUP	numeric	00 to 63
MEMBER	numeric	01 to 15

Figure 46. Linkset - Ring Node Address (ver only) Page Examples

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: setrna             ACTION: ver            OFFICE: NPVLILIH2MD


                 LINK SET TO PHYSICAL LINK ASSIGNMENTS

                            LINK SET:  002

                       ASSOCIATED LINK SETS  008

                            GROUP - MEMBER
                           ---------------
                               00 - 03
                               00 - 06
                               32 - 03
```


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4.17 THE TIMERS FUNCTION

The *timers function* provides a capability for allowing Signaling System Number 7 (SS7) Message Transfer Part (MTP) and Signaling Connection and Control Part (SCCP) protocol timers and thresholds to be changed and verified.

Several timers and thresholds are supported as listed in the tables in this section. Using this function, their values can be altered within the limits of the "ALLOWABLE RANGES" shown in the tables and according to the following stipulations. (Each of the T1.111.X timers are associated with domestic CCS7 links; the Q.70X timers are associated with international CCITT7 links.)

Timers for which one office value exists in the switch include:

T1.111.4	T8, T10, T11, T16, T18 T20, T21, T25, T28, T29
T1.112.4	T(stat.info), T(coord.chg), T(ignore SST), T(rtg.stat.info)
Q.704	T8, T10, T11, T16, T21 T22, T23, T24
Q.714	T(stat.info), T(coord.chg), T(ignore SST)

Timers which exist for every link set include:

T1.111.4	T1, T2, T3, T4, T5, T6, T12, T13, T14, T15, T17, T19
Q.704	T1, T2, T3, T4, T5, T6, T12, T13, T14, T17, T17, T19

Each of these timers can be changed on a per link set or all link sets (domestic/international, as applicable) basis.

Timers which exist for every link include:

T1.111.3	T1, T2, T3, T4N, T4E, T5, T6, T7
T1.111.7	T1, T2
Q.703	T1, T2, T3, T4N, T4E, T5, T6, T7
Q.707	T1, T2

Thresholds defined at a per link level are:

T1.111.3	SUERM
T1.111.4	Abatement levels 1-3, Onset levels 1-3, Discard levels 1-3
Q.703	SUERM
Q.704	Abatement level 1, Onset level 1, Discard level 1

Error Interval Monitor (EIM) Parameters defined at a per link level are:

eim_t - T,Error threshold to warn level 3,
eim_u - U,Counter increment value(octets),
eim_d - D,Counter decrement value(octets),
eim_i - I,Monitoring interval(milliseconds),

Note: The above timers, thresholds, or parameters that are defined on a per link basis may also be changed on a per link set or all links scope. This can only be done with the ADD action and all links in the scope must be of the same speed (i.e. 1.544Mbps or 56Kbps).

Required Information

Timer and threshold values may be added, changed, and verified. Since default values are available in all switches, "adding" timer values is essentially equivalent to changing them.[1] For the ADD action, a *SCOPE* may be requested; it will inform CNI of the level of add requested. Possible values for the scope include "one link," "one link set," "all domestic link sets" (for CCS7 links), "all international link sets" (for CCITT7 links).

ADD action

The ADD action is used to replace existing timers, threshold, or parameter values. If a scope of "all domestic link sets" or "all international link sets" is to be used, this option must be selected (the CHG option is limited to individual links and link sets).

Examples of use of the ADD function are given in Figures 46 - 64. Note that an entry must be

1. Use of the word "timer" alone refers to timers, thresholds. and parameters unless specifically noted otherwise.

made for each timer as well as each *UPDATE(y/n)* field. Specific timers for which no modification is required can be so designated with an *"N"* in the UPDATE field.

Valid SCOPE values for the ADD option are:

one_lk	modify specified timers for a specific link
one_ls	modify specified timers for a specific link set. If the LINKID is ccs7, all links in the link set must have the same speed (1.544Mbps/56Kbps).
all	modify specified timers for all domestic links or all international links depending on the LINKID of the order (ccs7 or ccitt7). If the LINKID is ccs7, all ccs7 links must have the same speed (1.544Mbps or 56Kbps).

CHG action

The CHG action allows the timer and threshold values to be changed at any time. The user benefits from using the CHG action over the ADD action in that the current timer and threshold values are shown on the screen.

No scope is entered for the CHG action since the scope is determined by the type of TIMER. Based on the TIMER specified, the appropriate set of timers is listed with current values shown. As with the ADD option, an entry must be made for each field, including all *UPDATE(y/n)* data. The current value can be selected by simply entering a return.

VER action

The VER action allows the current timer and threshold values to be examined. No scope is entered for the VER action since the scope is determined by the type of TIMER.

Dependencies and Restrictions

a. For the add and change actions:

   1. Timer, threshold, or parameter values requested must be within the prescribed ranges (as reflected in Tables 32 - 45).

   2. Modifications to times, thresholds, or parameters that are defined on a per link basis may be performed on a per link set or all links scope. This can only be done with the ADD action and all links in the scope must be of the same speed (i.e. 1.544Mbps or 56Kbps).

3. Values entered for T1.111.3 or Q.703 timers must be a multiple of 20msec.

4. For threshold timers on the 1.544Mbps links, the following must hold true.

   - 49150 <= Abatement Threshold Level1
   - Abatement Threshold Level1 < Onset Threshold Level1
   - Onset Threshold Level1 < Discard Threshold Level1
   - Discard Threshold Level1 < Abatement Threshold Level2
   - Abatement Threshold Level2 < Onset Threshold Level2
   - Onset Threshold Level2 < Discard Threshold Level2
   - Discard Threshold Level2 < Abatement Threshold Level3
   - Abatement Threshold Level3 < Onset Threshold Level3
   - Onset Threshold Level3 < Discard Threshold Level3 <= 191809

5. For threshold timers on the 56Kbps links, the following must hold true.

   - 1 <= Abatement Threshold Level1
   - Abatement Threshold Level1 < Onset Threshold Level1
   - Onset Threshold Level1 < Discard Threshold Level1
   - Discard Threshold Level1 < Abatement Threshold

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Level2

- Abatement Threshold Level2
  < Onset Threshold Level2
- Onset Threshold Level2
  < Discard Threshold Level2
- Discard Threshold Level2
  <= Abatement Threshold Level3
- Abatement Threshold Level3
  < Onset Threshold Level3
- Onset Threshold Level3
  < Discard Threshold Level3

TABLE 32. T1.111.4 TIMERS

ID	DESCRIPTION	ALLOWABLE RANGE	NSD DEFAULT	LEC DEFAULT
T1	Delay to avoid message missequencing on changeover	0500 to 1200 msec	0500	1000
T2	Waiting for changeover acknowledgement	0700 to 2000 msec	0700	1000
T3	Time controlled diversion - delay to avoid incorrect sequencing on changeback	0500 to 1200 msec	0500	1000
T4	Waiting for changeback acknowledgement (1st attempt)	0500 to 1200 msec	0500	1000
T5	Waiting for changeback acknowledgement (2nd attempt)	0500 to 1200 msec	0500	1000
T6	Delay to avoid message missequencing on controlled rerouting	05 to 12 100msec	05	10
T12	Waiting for uninhibited acknowledgement	0800 to 1500 msec	1500	1000
T13	Waiting for force uninhibit	0800 to 1500 msec	0800	1000
T14	Waiting for inhibition acknowledgement	2k to 3k msec	2k	3k
T15	Waiting for repeat signaling route set congestion test	2 to 3 sec	3	3
T17	Delay to avoid oscillation of initial alignment failure and link restart	0800 to 1500 msec	0800	1000
T19	Failed link craft referral timer	180k to 600k msec	180k	480k
	Per Office Only Timers			
T8	Transfer-prohibited inhibited timer	0800 to 1200 msec	0800	1000
T10	Waiting to repeat "signaling route set test" msg	30 to 60 sec	30	30
T11	Transfer-restricted timer	30 to 90 sec	30	30
T16	Waiting for route set congestion status update	1400 to 2000 msec	1400	1400
T18	Transfer-cluster-restricted timer	30 to 90 sec	30	30
T20	Waiting to repeat local inhibit test	90k to 120k msec	120k	120k
T21	Waiting to repeat remote inhibit test	90k to 120k msec	120k	120k
T25	Timer at SEP waiting for TRA message	0 to 60 sec	NA	32
T28	Timer at SEP waiting for TRW message	0 to 60 sec	NA	5
T29	Timer when either TRA sent in response to expected TRA/TRW or when no TRA received after traffic is restarted	30 to 90 sec	NA	62

TABLE 33. T1.111.3 TIMERS

ID	DESCRIPTION	ALLOWABLE RANGE (ms)	NSD DEFAULT (ms)	LEC DEFAULT (ms)	ALLOWABLE RANGE 1.544Mbps (ms)	1.544Mbps DEFAULT (ms)
T1	Aligned/ready	13k to 30k	13k	13k	16k to 151k	151k
T2	Not aligned	5k to 14k	11.8k	11.8k	5k to 14k	14k
T3	Aligned	5k to 14k	11.8k	11.8k	5k to 14k	14k
T4N	Normal prove-in	2070 to 2530	2300	2300	3k to 30k	30k
T4E	Emergency prove-in	540 to 660	600	600	3k to 10k	3k
T5	Local congestion	80 to 120	80	80	80 to 120	80
T6	Remote congestion	3k to 6k	3k	3k	3k to 6k	3k
T7	Excessive delay of ack	500 to 2k	1k	1k	500 to 2k	500

TABLE 34. T1.111.7 TIMERS

ID	DESCRIPTION	ALLOWABLE RANGE (sec)	NSD DEFAULT (sec)	LEC DEFAULT (sec)
T1	Supervision timer for signaling link test acknowledgement message (equal to or greater than T6 of T1.111.3)	4 to 12	10	10
T2	Interval timer for sending signaling link test messages	30 to 90	30	30

TABLE 35. T1.112.4 TIMERS - **Per Office Only Timers**

ID	DESCRIPTION	ALLOWABLE RANGE (sec)	NSD DEFAULT (sec)	LEC DEFAULT (sec)
T(stat.info)	Delay between requests for subsystem information	30 to 90	30	30
T(coord.chg)	Wait for grant for subsystem to go out of service	30 to 90	30	30
T(ignore SST)	Delay for subsystem between receiving grant to go out of service and actually going out of service	30 to 90	30	30
T(rtg.stat.info)	Delay between requests for subsystem routing status information	30 to 30	30	30

TABLE 36. CCITT Q.704 TIMERS

ID	DESCRIPTION	ALLOWABLE RANGE	ISC DEFAULT
T1	**Delay to avoid message missequencing on changeover**	**0500 to 1200 msec**	**0800**
T2	Waiting for changeover acknowledgement	0700 to 2000 msec	1400
T3	Time controlled diversion - delay to avoid invalid sequencing on changeback	0500 to 1200 msec	0800
T4	Waiting for changeback acknowledgement (first attempt)	0500 to 1200 msec	0800
T5	Waiting for changeback acknowledgement (second attempt)	0500 to 1200 msec	0800
T6	Delay to avoid message missequencing on controlled rerouting	05 to 12 100msec	08
T12	Waiting for uninhibited acknowledgement	0800 to 1500 msec	1000
T13	Waiting for force uninhibit	0800 to 1500 msec	1000
T14	Waiting for inhibition acknowledgement	2k to 3k msec	3k
T15	Waiting for repeat signaling route set congestion test	2 to 3 sec	3
T17	Delay to avoid oscillation of initial alignment failure and link restart	0800 to 1500 msec	0800
T19	Failed link craft referral timer	180k to 600k msec	180k
	Per Office Only Timers		
T10	Waiting to repeat "signaling route set test" message	30 to 60 sec	30
T11	Transfer-restricted timer	30 to 90 sec	30
T16	Waiting for route set congestion status update	1400 to 2000 msec	1400
T21	Waiting to restart traffic routed through adjacent signaling point	30 to 60 sec	30
T22	Waiting to repeat local inhibit test	180k to 360k msec	180k
T23	Waiting to repeat remote inhibit test	180k to 360k msec	180k
T24	Stabilizing timer after removal of local processor outage	0500 to 1000 msec	0500

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TABLE 37. CCITT Q.703 TIMERS

ID	DESCRIPTION	ALLOWABLE RANGE (ms)	ISC DEFAULT (ms)
T1	Aligned/ready	4k to 50k	45k
T2	Not aligned	5k to 150k	41k
T3	Aligned	1000 to 1500	1500
T4N	Normal prove-in	7500 to 9500	8200
T4E	Emergency prove-in	400 to 600	500
T5	Local congestion	80 to 120	120
T6	Remote congestion	3k to 6k	3k
T7	Excessive delay of acknowledgement	500 to 2k	2k

TABLE 38. CCITT Q.707 TIMERS

ID	DESCRIPTION	ALLOWABLE RANGE (ms)	ISC DEFAULT (ms)
T1	Supervision timer for signaling link test acknowledgement message (equal to or greater than T6 of T1.111.3)	4 to 12	4
T2	Interval timer for sending signaling link test messages	30 to 90	30

TABLE 39. CCITT Q.714 TIMERS - **Per Office Only Timers**

ID	DESCRIPTION	ALLOWABLE RANGE (sec)	ISC DEFAULT (sec)
T(stat.info)	Delay between requests for subsystem information	30 to 90	30
T(coord.chg)	Wait for grant for subsystem to go out of service	30 to 90	30
T(ignore SST)	Delay for subsystem between receiving grant to go out of service and actually going out of service	30 to 90	30

TABLE 40. T1.111.3 THRESHOLDS

DESCRIPTION	ALLOWABLE RANGE (signaling units)	NSD DEFAULT (signaling units)	LEC DEFAULT (signaling units)
Signal Unit Error Rate Monitor	64 to 192	192	64

TABLE 41. T1.111.4 LINK CONGESTION CONTROL THRESHOLDS (Transmission)

DESCRIPTION	NSD DEFAULT (octets)	LEC DEFAULT (octets)	ALLOWABLE RANGE
Abatement threshold level 1	00820	00820	00001 - 32767
Level 1 onset threshold	03072	03072	00001 - 32767
Level 1 discard threshold	06042	06042	00001 - 32767
Abatement threshold level 2	07680	07680	00001 - 32767
Level 2 onset threshold	08295	08295	00001 - 32767
Level 2 discard threshold	10855	10855	00001 - 32767
Abatement threshold level 3	10855	10855	00001 - 32767
Level 3 onset threshold	10956	10956	00001 - 32767
Level 3 discard threshold	11571	11571	00001 - 32767

TABLE 42. T1.111.4 (1.544 Mbps) LINK CONGESTION CONTROL THRESHOLDS (Transmission)

DESCRIPTION	ALLOWABLE RANGE	DEFAULT (octets)
Abatement threshold level 1	49150 - 191809	81118
Level 1 onset threshold	49150 - 191809	83060
Level 1 discard threshold	49150 - 191809	106233
Abatement threshold level 2	49150 - 191809	107325
Level 2 onset threshold	49150 - 191809	108175
Level 2 discard threshold	49150 - 191809	125208
Abatement threshold level 3	49150 - 191809	125214
Level 3 onset threshold	49150 - 191809	126058
Level 3 discard threshold	49150 - 191809	139339

TABLE 43. CCS7 1.544Mbps ERROR INTERVAL MONITOR PARAMETERS (EIM)

DESCRIPTION	ALLOWABLE VALUES	DEFAULT (octets)
T,Error rate threshold to warn level 3(octets)	20000 to 600000	577169
U,Counter increment value(octets)	80 to 150000	144292
D,Counter decrement value(octets)	1 to 10000	9308
I,Monitoring interval(milliseconds)	15 to 120	100

TABLE 44. CCITT Q.703 THRESHOLD

DESCRIPTION	ALLOWABLE RANGE (signaling units)	NSD DEFAULT (signaling units)	LEC DEFAULT (signaling units)
Signal Unit Error Rate Monitor	64 to 192	192	64

TABLE 45. CCITT Q.704 LINK CONGESTION CONTROL THRESHOLDS (Transmission)

DESCRIPTION	ISC DEFAULT (octets)	ALLOWABLE VALUES
Abatement threshold level 1	1600	00001 - 32767
Level 1 onset threshold	3200	00001 - 32767
Level 1 discard threshold	12000	00001 - 32767

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 04/24/95 TIME:  13:23*******
FUNCTION: timers               ACTION: ver              OFFICE: NPVLILIH1MD



                    PROTOCOL TIMERS AND PARAMETERS

                            LINKID  ccs7

                            TIMER   t1.111.4

                            LINK SET 003

    T1   0500  UPDATE(y/n) yes          T2   0700    UPDATE(y/n) yes
    T3   0500  UPDATE(y/n) yes          T4   0500    UPDATE(y/n) yes
    T5   0500  UPDATE(y/n) yes          T6   05      UPDATE(y/n) yes
    T12  1500  UPDATE(y/n) yes          T13  0800    UPDATE(y/n) yes
    T14  2000  UPDATE(y/n) yes          T15  3       UPDATE(y/n) yes
    T17  0800  UPDATE(y/n) yes          T19  180000  UPDATE(y/n) yes
```

Figure 47. Example - *ver* option for *ccs7 t1.111.4* timers

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```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 04/24/95 TIME:  13:29*******
FUNCTION: timers               ACTION: ver              OFFICE: NPVLILIH1MD



                    PROTOCOL TIMERS AND PARAMETERS

                            LINKID  ccs7

                            TIMER   t1.111.3

                            GROUP-MEMBER 00 - 01
                            LINK SPEED   56000
    T1  13000 UPDATE(y/n) yes              T2  11800 UPDATE(y/n) yes
    T3  11800 UPDATE(y/n) yes              T4N 2300  UPDATE(y/n) yes
    T4E 600   UPDATE(y/n) yes              T5  080   UPDATE(y/n) yes
    T6  3000  UPDATE(y/n) yes              T7  1000  UPDATE(y/n) yes
                         SUERM  192     UPDATE(y/n) yes
```

Figure 48. Example - *ver* option for *ccs7 t1.111.3* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 05/19/95 TIME:  18:40*******
FUNCTION: timers               ACTION: ver              OFFICE: NPVLIL01MS1



                    PROTOCOL TIMERS AND PARAMETERS

                            LINKID  ccs7

                            TIMER   t1.111.3

                            GROUP-MEMBER 00 - 03
                            LINK SPEED   15440
    T1  151000     UPDATE(y/n) yes          T2   14000     UPDATE(y/n) yes
    T3   14000     UPDATE(y/n) yes          T4N  30000     UPDATE(y/n) yes
    T4E  03000     UPDATE(y/n) yes          T5     080     UPDATE(y/n) yes
    T6    3000     UPDATE(y/n) yes          T7    0500     UPDATE(y/n) yes
```

Figure 49. Example - *ver* option for *ccs7 t1.111.3* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 04/24/95 TIME:  13:29*******
FUNCTION: timers               ACTION: ver              OFFICE: NPVLILIH1MD



                    PROTOCOL TIMERS AND PARAMETERS

                            LINKID  ccs7

                            TIMER   t1.111.7

                            GROUP-MEMBER 00 - 01
                    T1  10              UPDATE(y/n) yes
                    T2  30              UPDATE(y/n) yes
```

Figure 50. Example - *ver* option for *ccs7 t1.111.7* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 04/24/95 TIME:  13:30*******
FUNCTION: timers               ACTION: ver              OFFICE: NPVLILIH1MD



                    PROTOCOL TIMERS AND PARAMETERS

                            LINKID  ccs7

                            TIMER   office



    T8    0800        UPDATE(y/n) yes     T10   30         UPDATE(y/n) yes
    T11   30          UPDATE(y/n) yes     T16   1400       UPDATE(y/n) yes
    T18   30          UPDATE(y/n) yes     T20   120000     UPDATE(y/n) yes
    T21   120000      UPDATE(y/n) yes     T25   32         UPDATE(y/n) yes
    T28   05          UPDATE(y/n) yes     T29   62         UPDATE(y/n) yes
    T(stat.info)  30  UPDATE(y/n) yes     T(coord.chg)  30 UPDATE(y/n) yes
    T(ignore SST) 30  UPDATE(y/n) yes     T(rtg.info)   30 UPDATE(y/n) yes
```

Figure 51. Example - *ver* option for *ccs7 office* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 04/24/95 TIME:  13:31*******
FUNCTION: timers               ACTION: ver              OFFICE: NPVLILIH1MD



                    PROTOCOL TIMERS AND PARAMETERS

                            LINKID  ccs7

                            TIMER   threshold

                            GROUP-MEMBER 00 - 01
                            LINK SPEED   56000
 ABATEMENT LVL1 00820 UPDATE(y/n) yes    ONSET LVL1     03072 UPDATE(y/n) yes
 DISCARD LVL1   06042 UPDATE(y/n) yes    ABATEMENT LVL2 07680 UPDATE(y/n) yes
 ONSET LVL2     08295 UPDATE(y/n) yes    DISCARD LVL2   10855 UPDATE(y/n) yes
 ABATEMENT LVL3 10855 UPDATE(y/n) yes    ONSET LVL3     10956 UPDATE(y/n) yes
 DISCARD LVL3   11571 UPDATE(y/n) yes
```

Figure 52. Example - *ver* option for *ccs7 threshold* timers

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```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 05/19/95 TIME:  18:42*******
FUNCTION: timers               ACTION: ver              OFFICE: NPVLIL01MS1



                    PROTOCOL TIMERS AND PARAMETERS

                            LINKID  ccs7

                            TIMER   threshold

                            GROUP-MEMBER 00 - 03
                            LINK SPEED   15440
 ABATEMENT LVL1 081118 UPDATE(y/n) yes   ONSET LVL1     083060 UPDATE(y/n) yes
 DISCARD LVL1   106233 UPDATE(y/n) yes   ABATEMENT LVL2 107325 UPDATE(y/n) yes
 ONSET LVL2     108175 UPDATE(y/n) yes   DISCARD LVL2   125208 UPDATE(y/n) yes
 ABATEMENT LVL3 125214 UPDATE(y/n) yes   ONSET LVL3     126058 UPDATE(y/n) yes
 DISCARD LVL3   139339 UPDATE(y/n) yes
```

Figure 53. Example - *ver* option for *ccs7 threshold* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 05/19/95 TIME:  18:43*******
FUNCTION: timers               ACTION: ver              OFFICE: NPVLIL01MS1



                    PROTOCOL TIMERS AND PARAMETERS

                            LINKID  ccs7

                            TIMER   eim

                            GROUP-MEMBER 00 - 03
    T. LEVEL 3 OF HIGH ERROR RATE THRESHOLD 577169    UPDATE(y/n) yes
    U. EIM COUNTER INCREMENT VALUE          144292    UPDATE(y/n) yes
    D. EIM COUNTER DECREMENT VALUE          09308     UPDATE(y/n) yes
    I. MONITORING INTERVAL                  100       UPDATE(y/n) yes
```

Figure 54. Example - *ver* option for *ccs7 eim* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 05/19/95 TIME:  19:01*******
FUNCTION: timers    ACTION: add   ORDER: 25Y121212125     OFFICE: NPVLIL01MS1



                    PROTOCOL TIMERS AND PARAMETERS

                            ITEM    001
                            LINKID  ccs7
                            TIMER   t1.111.4
                            SCOPE one_ls
                            LINK SET 001

    T1   _____  UPDATE(y/n) ___          T2   _____    UPDATE(y/n) ___
    T3   _____  UPDATE(y/n) ___          T4   _____    UPDATE(y/n) ___
    T5   _____  UPDATE(y/n) ___          T6   __       UPDATE(y/n) ___
    T12  _____  UPDATE(y/n) ___          T13  _____    UPDATE(y/n) ___
    T14  _____  UPDATE(y/n) ___          T15  _        UPDATE(y/n) ___
    T17  _____  UPDATE(y/n) ___          T19  _______  UPDATE(y/n) ___
```

Figure 55. Example - *Add* option for *ccs7 t1.111.4* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 05/19/95 TIME:  19:03*******
FUNCTION: timers    ACTION: add   ORDER: 25Y121212125     OFFICE: NPVLIL01MS1



                    PROTOCOL TIMERS AND PARAMETERS

                            ITEM    001
                            LINKID  ccs7
                            TIMER   t1.111.3
                            SCOPE one_lk
                            GROUP-MEMBER 00 - 03
                            LINK SPEED   15440
    T1  _______     UPDATE(y/n) ___          T2   ______     UPDATE(y/n) ___
    T3  _______     UPDATE(y/n) ___          T4N  ______     UPDATE(y/n) ___
    T4E ______      UPDATE(y/n) ___          T5     ___      UPDATE(y/n) ___
    T6   ____       UPDATE(y/n) ___          T7    ____      UPDATE(y/n) ___
```

Figure 56. Example - *Add* option for *ccs7 t1.111.3* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 05/19/95 TIME:  19:04*******
FUNCTION: timers    ACTION: add   ORDER: 25Y121212125     OFFICE: NPVLIL01MS1



                    PROTOCOL TIMERS AND PARAMETERS

                            ITEM    001
                            LINKID  ccs7
                            TIMER   t1.111.7
                            SCOPE one_lk
                            GROUP-MEMBER 00 - 03
                    T1  __              UPDATE(y/n) ___
                    T2  __              UPDATE(y/n) ___
```

Figure 57. Example - *Add* option for *ccs7 t1.111.7* timers

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```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 05/19/95 TIME:  19:05*******
FUNCTION: timers    ACTION: add   ORDER: 25Y121212125     OFFICE: NPVLIL01MS1



                     PROTOCOL TIMERS AND PARAMETERS

                             ITEM    001
                             LINKID  ccs7
                             TIMER   eim
                             SCOPE  one_lk
                             GROUP-MEMBER 00 - 03
    T. LEVEL 3 OF HIGH ERROR RATE THRESHOLD _______    UPDATE(y/n) ___
    U. EIM COUNTER INCREMENT VALUE          _______    UPDATE(y/n) ___
    D. EIM COUNTER DECREMENT VALUE          ______     UPDATE(y/n) ___
    I. MONITORING INTERVAL                  ___        UPDATE(y/n) ___
```

Figure 58. Example - *Add* option for *ccs7 eim* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 05/19/95 TIME:  19:06*******
FUNCTION: timers    ACTION: add   ORDER: 25Y121212125     OFFICE: NPVLIL01MS1



                     PROTOCOL TIMERS AND PARAMETERS

                             ITEM    001
                             LINKID  ccs7
                             TIMER   office



    T8    ____         UPDATE(y/n) ___     T10   __          UPDATE(y/n) ___
    T11   __           UPDATE(y/n) ___     T16   ____        UPDATE(y/n) ___
    T18   __           UPDATE(y/n) ___     T20   ______      UPDATE(y/n) ___
    T21   ______       UPDATE(y/n) ___     T25   __          UPDATE(y/n) ___
    T28   __           UPDATE(y/n) ___     T29   __          UPDATE(y/n) ___
    T(stat.info)  __   UPDATE(y/n) ___     T(coord.chg)  __  UPDATE(y/n) ___
    T(ignore SST) __   UPDATE(y/n) ___     T(rtg.info)   __  UPDATE(y/n) ___
```

Figure 59. Example - *Add* option for *ccs7 office* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 05/19/95 TIME:  19:07*******
FUNCTION: timers    ACTION: add   ORDER: 25Y121212125     OFFICE: NPVLIL01MS1



                     PROTOCOL TIMERS AND PARAMETERS

                             ITEM    001
                             LINKID  ccs7
                             TIMER   threshold
                             SCOPE  one_lk
                             GROUP-MEMBER 00 - 03
                             LINK SPEED   15440
 ABATEMENT LVL1 _______ UPDATE(y/n) ___   ONSET LVL1     _______ UPDATE(y/n) ___
 DISCARD LVL1   _______ UPDATE(y/n) ___   ABATEMENT LVL2 _______ UPDATE(y/n) ___
 ONSET LVL2     _______ UPDATE(y/n) ___   DISCARD LVL2   _______ UPDATE(y/n) ___
 ABATEMENT LVL3 _______ UPDATE(y/n) ___   ONSET LVL3     _______ UPDATE(y/n) ___
 DISCARD LVL3   _______ UPDATE(y/n) ___
```

Figure 60. Example - *Add* option for *ccs7 threshold* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 08/30/95 TIME:  20:12*******
FUNCTION: timers               ACTION: ver               OFFICE: NPVLILIH2MD



                     PROTOCOL TIMERS AND PARAMETERS

                             LINKID  ccitt7

                             TIMER   q.704

                             LINK SET  022

    T1   0800  UPDATE(y/n) yes          T2   1400    UPDATE(y/n) yes
    T3   0800  UPDATE(y/n) yes          T4   0800    UPDATE(y/n) yes
    T5   0800  UPDATE(y/n) yes          T6   08      UPDATE(y/n) yes
    T12  1000  UPDATE(y/n) yes          T13  1000    UPDATE(y/n) yes
    T14  3000  UPDATE(y/n) yes          T15  2       UPDATE(y/n) yes
    T17  1000  UPDATE(y/n) yes          T19  180000  UPDATE(y/n) yes
```

Figure 61. Example - *ver* option for *ccitt7 q.704* timers

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```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 08/30/95 TIME:  20:06*******
FUNCTION: timers               ACTION: ver              OFFICE: NPVLILIH2MD



                    PROTOCOL TIMERS AND PARAMETERS

                            LINKID  ccitt7

                            TIMER   q.703

                            GROUP-MEMBER 28 - 11

    T1  45000 UPDATE(y/n) yes              T2  041000 UPDATE(y/n) yes
    T3  1500  UPDATE(y/n) yes              T4N 8200   UPDATE(y/n) yes
    T4E 500   UPDATE(y/n) yes              T5  120    UPDATE(y/n) yes
    T6  3000  UPDATE(y/n) yes              T7  2000   UPDATE(y/n) yes
                         SUERM  064     UPDATE(y/n) yes
```

Figure 62. Example - *ver* option for *ccitt7 q.703* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 08/30/95 TIME:  20:13*******
FUNCTION: timers               ACTION: ver              OFFICE: NPVLILIH2MD



                    PROTOCOL TIMERS AND PARAMETERS

                            LINKID  ccitt7

                            TIMER   q.707

                            GROUP-MEMBER 28 - 11
                  T1  04              UPDATE(y/n) yes
                  T2  60              UPDATE(y/n) yes
```

Figure 63. Example - *ver* option for *ccitt7 q.707* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 08/30/95 TIME:  20:14*******
FUNCTION: timers               ACTION: ver              OFFICE: NPVLILIH2MD



                    PROTOCOL TIMERS AND PARAMETERS

                            LINKID  ccitt7

                            TIMER   threshold

                            GROUP-MEMBER 28 - 11
    ABATEMENT LVL 01600 UPDATE(y/n) yes        ONSET LVL 03200 UPDATE(y/n) yes
    DISCARD LVL   12000 UPDATE(y/n) yes
```

Figure 64. Example - *ver* option for *ccitt7 threshold* timers

```
****** CNI DATA MANAGEMENT SYSTEM  ******* DATE: 08/30/95 TIME:  20:15*******
FUNCTION: timers               ACTION: ver              OFFICE: NPVLILIH2MD



                    PROTOCOL TIMERS AND PARAMETERS

                            LINKID  ccitt7

                            TIMER   office



    T10  30           UPDATE(y/n) yes     T11  30          UPDATE(y/n) yes
    T16  1400         UPDATE(y/n) yes     T21  30000       UPDATE(y/n) yes
    T22  180000       UPDATE(y/n) yes     T23  180000      UPDATE(y/n) yes
    T24  0500         UPDATE(y/n) yes     T(stat.info)  30 UPDATE(y/n) yes
    T(coord.chg) 30   UPDATE(y/n) yes     T(ignore SST) 30 UPDATE(y/n) yes

                    *** T21 - T24 ARE ONLY FOR ISC CUSTOMERS !!! ***
```

Figure 65. Example - *ver* option for *ccitt7 office* timers

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4.18 THE UPDVUE FUNCTION

Inevitably, the needs of users will change. Therefore, it will become necessary to receive more, fewer, or simply different measurements in a specified report. Rather than generate a new view and delete the existing one, the user can add or delete measurement IDs assigned to an existing view name in the User View Descriptor Table (UVDT). This will allow a new report containing only the resulting list of measurements in the UVDT under that user view name to be generated. If this user view is used for an exception report, then the change will also be experienced in the group name in the Exception Table. If the action is add, the measurement ID is added to the view name. If the view is used by an exception group, the measurement ID and a threshold of zero is also added to its associated group name in the Exception Table. If the action is delete, the measurement ID is deleted from the view name. If the view is used by an exception group, the measurement ID and its assigned threshold is also deleted from its associated group name in the Exception Table.

The "updvue" function controls information pertaining to a particular user view name within the UVDT. The "updvue" function can be used to add one or more measurement IDs to an existing user view name or delete one or more measurement IDs associated with a user view name in the UVDT.

This heading provides a sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of "updvue" actions.

Reference

Common Channel Signaling System Common Network Interface (CNI) 4ESS Switch System Description Manual 234-100-120.

Required Information

The "**ADD**" action is used to add one or more measurement IDs to an existing user view. The new measurement ID is also added to any exception group using the view name; the threshold for the measurement ID is set to zero. The following data items are required to add measurement IDs to the UVDT in a CNI office. The "**DEL**" action is used to delete one or more measurement IDs associated with a user view name. The measurement ID is also deleted from any exception group using the view name. The following sequence of data items is required to delete measurement IDs from a user view name in the UVDT.

Dependencies and Restrictions

a. For the add and delete actions:

   1. Item number must be in ascending order.
   2. The view name must be consistent throughout the order.
   3. The view name entered must be assigned in the user view table in the CNI office involved.
   4. The view name and measurement ID pair cannot be duplicated in the order.
   5. The specified measurement ID must exist in the CNI office involved (generically defined).

b. For the add action:

   1. The measurement ID cannot be assigned to the specified view name.
   2. The number of measurement IDs to be added plus the number of measurement IDs already assigned to the UVDT, cannot exceed the maximum of 2500 entries.
   3. The number of measurement IDs to be added multiplied by the number of exception groups using the view in table EXCP plus the number of measurement IDs already assigned to the EXCP cannot exceed the maximum of 2500 entries.

c. For the delete action:

   1. The measurement ID specified must already be assigned to the specified view name.
   2. At least one measurement ID must remain assigned following activation of the recent change order.

d. The change action and verify command are not available with the "updvue" function.

TABLE 46. Update View (updvue) Information Items

DATA ITEM	DATA TYPE	RANGE
ITEM	numeric	1 to 999
VIEW NAME	alphabetic	name
MEASUREMENT ID	alphabetic	id

Figure 66. Critical Event (cevent) - (add) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: updvue  ACTION: add  ORDER: 06Y000555000   OFFICE: NPVLILIH2MD


                          UPDATE VIEW NAME

          ITEM          VIEW NAME          MEASUREMENT ID
          ----          ----------          --------------
           001             ct100                16mgsx
           002             ct100                16mgsr
           003             ct100                16mgxv0
           004             ct100                16mgxv1
```


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4.19 THE VUNAME FUNCTION

The CNI system takes a wide variety of measurements, with different measurements relevant to different users. Once the user determines which measurements would be applicable to their present needs, a view can be entered containing only those measurements in the User View Descriptor Table (UVDT). Assigned to each user view name is a list of the desired measurement IDs.

The "vuname" function controls the information contained in the CNI user view table. The "vuname" function can be used to add new user views to the CNI user view table or delete unnecessary user views from the CNI user view table.

This heading provides a sequence of data items required for each action, the dependencies and restrictions placed on these data items, and typical DMS displays of "vuname" actions.

Reference

Common Channel Signaling System Common Network Interface (CNI) 4ESS Switch System Description Manual 234-100-120.

Required Information

The **ADD** action is used to add new user view names to the UVDT. The sequence of data items in table 47 are required to perform this action. in a CNI office. The user will be prompted for an item number and the user view name for this action. The **VER** command is used to verify the measurement IDs assigned to a user view name. For this action, the user is prompted for the user view name. The measurement IDs assigned to the view name specified are returned.

Dependencies and Restrictions

a. For the add action:

   1. Item numbers must be in ascending order.
   2. A view name and measurement ID pair cannot be duplicated in an order.
   3. A measurement ID will only be valid if it already exists in the CNI office involved (generically defined).
   4. The view name must remain constant throughout the order.
   5. The view name cannot already be assigned in the UVDT.
   6. The maximum number of view names (50) cannot already be assigned.
   7. The number of new measurement IDs plus the number of measurement IDs previously assigned in the UVDT cannot exceed the maximum number of entries allowed (2500).

b. For the delete action:

   1. Item numbers must be in ascending order.
   2. The view name must be assigned in the UVDT.
   3. The view name to be deleted cannot be used by any exception table entry nor by any schedule table entry.

c. For the verify command:

   1. The view name must be assigned in the UVDT.
   2. At least one ID must be assigned to each view name specified.

TABLE 47. View Name (vuname) Information Items

DATA ITEM	DATA TYPE	RANGE
ITEM	numeric	1 to 999
VIEW NAME	alphabetic	Name
MEASUREMENT ID	alphabetic	Id

Figure 67. View Name (vuname) - (ver) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: vuname             ACTION: ver            OFFICE: npvlilih2md


                         USERS VIEW DESCRIPTORS


                          VIEW NAME:    ct100

                            MEASUREMENT ID
                            --------------
                               magansr
                               magansx
                               sur
                               sux
```

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: vuname             ACTION: ver            OFFICE: npvlilih2md


                         USERS VIEW DESCRIPTORS

                            VIEW NAME:    all


                  VIEW NAME               MEASUREMENT ID
                  ---------               --------------
                    ct100                    magansr
                    ct100                    magansx
                    ct100                    sur
                    ct100                    sux
                      .                        .
                      .                        .
                      .                        .
```


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Figure 68. View Name (vuname) - (del) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: vuname  ACTION: del  ORDER: 06Y000555000   OFFICE: npvlilih2md



                        USERS VIEW DESCRIPTORS


                         ITEM:          001
                         VIEW NAME:     ct100
```

Figure 69. View Name (vuname) - (add) Page Example

```
***** CNI DATA MANAGEMENT SYSTEM ***** DATE: 04/23/86  TIME: 13:42 *****
FUNCTION: vuname  ACTION: add  ORDER: 06Y000555000   OFFICE: npvlilih2md


                        USERS VIEW DESCRIPTORS


             ITEM          VIEW NAME          MEASUREMENT ID
             ----          ---------          ---------------
             001             ct100                mgansr
             002             ct100                mgansx
             003             ct100                sur
             004             ct100                sux
```

5. GLOSSARY

5.01 List of Terms and Definitions

This part provides a list of terms and definitions used. The definitions are provided to clarify the meaning of terms and to insure uniformity in 4ESS documentation.

Domain Non Zero address	An address is a designation of a function or a node or pair of nodes, used within the network to accomplish a routing of a message to a node where the corresponding function is performed. The address is broken down into an A field and a B field, although the B field is not always used.
A field	In Domain Non Zero Routing a destination is specified by a domain & address combination. The address is divided into 2 three digit fields. The first three digit field is called the A field. For three digit routing, the A field is sufficient to route the direct signaling message without the B field.
alias pointcode	An alias pointcode is a CCS7 pointcode that is an alternate pointcode for an STP. Routing to the STP can be done by either the real point code or the alias point. Typically, alias point codes are in different clusters than the real point codes, so routing can be diversified.
bndinfo	The Band Information Table stores a list of all the links that are assigned band translations. Each link or mated pair of links that uses band translations is allocated a slot in the "bndinfo" table.
broadcast	This term applies to both network messages and ring messages. A broadcast message is a message that is sent either to all nodes (without specifying a node address) or to many selected nodes, simultaneously.
buffer congestion	The buffers in the 4ESS consist of a certain number of words of data. When the number of messages received/transmitted by a buffer during some time period is excessive, the buffer occupancy increases. As occupancy reaches certain levels, associated levels of congestion are triggered, and in some cases, controls are activated.
B field	In Domain Non Zero Routing a destination is specified by a domain & address combination. The address is divided into 2 three digit fields. The second three digit field is called the B field. For six digit routing, the A field is not sufficient to route the direct signaling message so a supplementary table containing all the B fields associated with a particular domain & A field combination is established.
channel	A software entity used by the IMS subsystem to allow the processes within nodes to communicate. There are 256 channels that ring messages may use. When a message is sent from one node to another, a node address and a channel number will get the message to the intended receiver (a process within the receiving node).
circular file	NOT the wastebasket. This is a disk file used to store recent information (e.g., CNCE messages). As new information is input to the file, the oldest information is "bumped out", and thus, the

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	file is always the same size.
cluster	A cluster is a network node or group of network nodes in the same region within the CCS7 network. There are two types of clusters: populated and unpopulated.
cluster member	A cluster member is a single node within a cluster. A cluster member is used to uniquely identify a specific node within a known cluster.
collection period	Measurement data in the 4ESS is collected continuously. The data is stored in discrete time intervals for subsequent use in reports, messages, etc. Upon output, the collection period refers to the time span over which the data being output was gathered and stored.
combined link set	A CCS7 combined link set is similar to a CCIS6 combined pool in the same relation as a CCIS6 pool is similar to a CCS7 link set.
combined pool	Two signaling link pools out of any single node that terminate upon two different far end nodes but which carry direct signaling traffic destined for a common function are combined for purposes of signaling link load balancing. These pools, a maximum of which is two, are referred to as a combine pool (eg, all of the A links out of any TSPS or switching office; all the B links out of an STP to an STP pair in another region).
CLLI	Each office or location which communicates with the 4ESS is assigned a Common Language Location Identification number. This number uniquely identifies a particular node in the CCIS network.
critical event	Events (or occurrences) in the the CCIS network are recorded and output to users. Certain events are most important and must be reported to users immediately. These events cause CCIS network critical event (CNCE) messages to be output in real time.
critical event handler	The software responsible for formulating and outputting CNCE messages. This software is resident in the central processor.
demand report	A report is a formatted presentation of current measurement data. The MOCT controls the outputting of reports (i.e., what data is used and when a report can be output). Demand reports can be requested at any time (the appropriate data is specified in the MOCT).
DCIS	**D**estination C**CIS** is a routing method used in the 2STP that uses CCIS6 message formats; but uses the routing network management, and link layer functions of CCS7. This interworking protocol allows the STP to pack direct signaling messages into a CCS7 message package to be transmitted on a CCS7 link.
Direct Signaling Message	A direct signaling message is a message in the CCIS network transmitted from any node to any other node using a routing scheme based upon the address of the destination irrespective of the point of origination or the band defined paths through the network.
domain	The domain is used with the address A field and B field to identify the destination and to

	determine the route taken by the message through the network. Only three of the eight domain codes are used. Domain zero enables messages to be routed on the basis of function number for all nodes in the network. The other domains are used for specific applications.
dual VFL	A dual Voice Frequency Link (VFL) consists of two parallel CCIS6 links whose origin and destination are identical. In this setup, one of the links serves as a backup while the other is in service. If the link that is in service fails, the roles of the two links are reversed. The backup link becomes the service link and the failed link becomes the backup. In the 2STP, most type A and E links are used in this setup, while type B, C, and D links are backup up in another manner.
ECIS	**E**mbedded C**CIS** is a routing method used in the 4ESS that uses the message formats, and routing and network management functions of CCIS6; but, the link layer functions of CCS7. This interworking protocol allows the STP to pack banded messages into a CCS7 message package to be transmitted on a CCS7 link.
emergency restart	When a link fails, it cannot carry its normal load. If all alternate paths are unable to carry the load, the link is marked as in emergency restart and corrective action is begun.
encryption	Encryption is a security feature which can be used with links operating at either 4800 or 56000 bits per second (not 2400).
flagging	Since all ring nodes contribute some portion of the data used to accumulate measurements, a measurement could have an erroneous value if one or more ring nodes do not report their values to the central processor. When a report does not represent its normal set of measurement data, it is flagged.
function number	A function number is a unique 15 bit binary number assigned to each node or separately identifiable function in the CCIS network. It is used to identify a function and to route messages to the node where the function is performed. Function numbers are assigned to each user office, each STP, and each peripheral function.
function	A function is a role performed at a node with regard to its use of the direct signaling capability of the CCIS network (eg, the message switching capability of an STP; the particular message processing function of a switching office or data base). Similar roles performed at two or more different nodes are considered to be separate functions. Thus, there may be more than one user of a given function.
group and member number	There can be up to 960 link nodes in a 4ESS office. These 960 link nodes are divided up into 64 groups (00 - 63) and each group is assigned 15 members. A particular link node on the ring is designated by its assigned group - member number. When a link is defined in the data base, the link node that the link is connected to in the 4ESS office is specified by its assigned group - member number.

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layer number — When a link is assigned to a pool, it must be assigned a unique layer number for the specified pool. It is possible to assign up to 19 links to each pool because there are 19 layer numbers available per pool.

Link Interface — The **L**ink **I**nterface is the portion of a link node that interfaces the node processor to the signaling link facility. This circuit does a minimal amount of processing. It relies on node processor software to interface to the system.

link set routing — CCS7 routing uses a point code to identify the destination of a message. Link set routing is used when a message is translated by the 4ESS to an outgoing link set according to the destination point code contained in the message.

link set — When a CCS7 link is assigned to a link set, it must be assigned a unique signaling link code for the specified link set. It is possible to assign up to 16 CCS7 links to each link set because there are 16 unique signaling link codes available per link set. The signaling link code is the CCS7 equivalent of the CCIS6 layer number.

link speed — A CCS7 link transmits information at 56000 bits per second.

link type — The link type is defined by the use of the link. There are 2 types of links connected to the 4ESS: A and E. They are defined below.

A Access signaling links (A links) can be either analog or digital. The analog A links interconnect an end office (all offices assigned to a local cluster) with a control and mate STP in the office home region.

E Extension signaling links (E links) interconnect an area's switching offices with control and mate STPs in other regions.

LIS destination — The Link Integrity Status (LIS) destination number is a function number representing a node in the CCS network that collects information related to encrypted links.

load balancing — A process by which signaling traffic is distributed over two or more signaling or message routes, in view of traffic equalization or security. Under normal conditions, direct signaling message traffic is distributed over all of the signaling links in the pool in such a way that all the signaling links in the pool carry equal amounts of total traffic including direct signaling and banded messages. This means that a signaling link carrying more banded traffic than other signaling links in a pool will carry less direct signaling traffic than those other signaling links. This also means that routes which consist of two pools will have total traffic equally distributed among all the signaling links in both pools. In this way, imbalance of the total traffic load carried by two pools in a single route (because they also may each separately constitute a route to two independent functions) will be offset by the distribution of total traffic over the combined pool.

major state — The major state indicates the status of the link. The three

possible states are listed below and defined.

available	The link configuration data, physical to logical link assignment, and CCIS6 pool to point code assignment have been made for the link. The link is now available for service and traffic can now be directed to this link by establishing routing data.
unavailable	The link configuration data has been provided for this link. Additional data may need to be defined before this link can be used to handle traffic.
unequipped	No application data is assigned for this link.

meminfo — The Member Information Table stores a list of all the clusters using member routing. Each cluster that uses member routing is allocated a slot in the "meminfo" table.

network indicator — The network indicator identifies a long distance carrier. The network indicator for AT&T is 254.

Node Processor — The **N**ode **P**rocessor is the CPU portion of a ring node. It controls and schedules the processes in the ring node.

overflow — When buffer occupancy exceeds some predetermined level. If related to link transmit/receive buffers, this term means the buffer is full and additional messages are necessarily discarded. If related to ring buffers (overflow states), it does not necessarily mean any buffer is full. But, messages may be discarded according to some congestion strategy. Usually associated with some onset and abatement thresholds.

overload — The load on some resource is excessive. This could be a lack of real-time (in the case of IUN overload) or it could be a forewarning of buffer overflow (in the buffer overload case). The later is synonymous with buffer congestion. Messages may be discarded even though the buffer is not full. Usually associated with some onset and abatement thresholds.

physical link — A physical link is a representation of a signaling data link as it connects to a ring. A physical link is specified by its group and member number and virtual link number.

point code — A 9 digit number uniquely identifying a node from all other nodes in the CCIS network. The 9 digits are broken into 4 parts which represent the network ID, local region of the node, cluster ID, and cluster member number. This 9 digit number is assigned to every node in the CCIS network and is used to specify the destination of a message in CCS7 routing.

pool number — A set of CCIS6 links going to the same destination are grouped into a pool.

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populated cluster	A populated cluster is a group of up to 256 network nodes within the same region of the CCS7 network.
raw measurement	The data values taken from buffers in the ring nodes. After a value is aggregated with the corresponding value from other nodes, it is a measurement. This measurement is cumulated with new values over time to be output after some collection period has elapsed.
region number	The CCIS network is divided up into 7 regions. Each region is assigned a region number which identifies that region for such purposes as routing.
report generator	The program that outputs the report. Fixed format reports use report generators that specify the measurements and format. Flexible format reports use generators that require a "view" in the MOCT. When a report must be output, the appropriate generator is determined from entries in the MOCT.
Ring Interface	A **R**ing **I**nterface is one of two circuits in a ring node that interfaces the node processor to the ring. Each RI can access either ring 0 or ring 1 to insert messages onto, or remove messages from, the active ring. The heart of the circuit is a FIFO buffer that provides access to the ring, yet allows messages to circulate in the ring independent of the node.
route type	The route type indicates the kind of links (or pools) that are used to route to the intended destination (i.e. A links, B links, combined B link pool, C links, D & E links, or CCS7 links).
route	A route identifies a pool (or combined pool) of signaling links out of any node which, for a particular network function, can be used to send messages to that function (eg, the B links out any STP which terminate on either of the two mate STPs in another region for the function of general direct signaling message switching toward the other region; also the A links out of an STP which terminate on a switching office).
scheduled report	A report is a formatted presentation of current measurement data. The CNI MOCT controls the outputting of reports (i.e., what data is used and when a report can be output). Scheduled reports are output at specified times.
self looped	A link is self looped when both ends of the signaling link terminate on the same ring node. All messages sent over the link are looped back, thus being received by the transmitting on the same link.
shared data library	A set of data in main memory that is accessible by many different programs. This mechanism is used to communicate information (such as measurement data) between subsystems and processes.
signaling link code	A field of the label in the signaling network management messages, which indicates the particular signaling link to which the message refers among those interconnecting the two involved signaling points.
signaling path	Signaling paths are routes

	through the CCIS network, comprised of one or more signaling links, over which signaling messages are transferred from one office to another.
slot	One of a limited number of entries in a data table.
suplinfo	The Supplementary Information Table stores a list of all the domain - A field combinations using six digit routing. Each A field that uses six digit routing is allocated a slot in the "suplinfo" table.
tgrinfo	The Trigger Band Information Table stores a list of all the links using trigger bands. Each CCIS6 link and each CCS7 virtual link that uses a trigger band is allocated a slot in the "tgrinfo" table.
threshold	This term has several meanings; in general, it is a predetermined value at which certain actions are taken. When referring to measurements in the MOCT, it is the level at which the value is included on an exception report. When referring to a traffic measurement, it is usually an error level at which various corrective actions are needed. When referring to various types of congestion in the ring, it is the level at which the associated equipment enters certain states.
transient data	Measurements are stored for at most 24 hours. The files are cleared and reused at intervals specified in the MOCT. Thus, the measurement values are considered transient.
translation number	A translation number is the equivalent of a CCIS6 route number.
translation type	A translation type defines whether a certain translation number is associated with a simplex or duplex destination. A simplex destination is accessed by only one network node. A duplex destination can be accessed by either of two mated network nodes.
trigger band	A trigger band is a band used to transmit network management messages (i.e. Dynamic Overload Control (DOC) messages) related to a particular trunk group.
unpopulated cluster	An unpopulated cluster is defined as an STP within a region of the CCS7 network.
view	This is the list of measurements (and exceptions) specified for a report in the MOCT. The view picks a subset of the entire measurement data set.
vlinfo	The Virtual Link Information Table stores a list of all the CCS7 links using trigger bands. Each CCS7 link using a trigger band is allocated a slot in the "vlinfo" table.

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5.02 List of Acronyms and Abbreviations

The following is a list of the acronyms and abbreviations used. Acronyms and abbreviations may have more than one meaning, thus, an acronym or abbreviation may appear in this list more than once. This list is provided to insure uniformity in all 4ESS documentation.

TERM	MEANING
ACRT	Administrative Cathode Ray Tube
ACU	Acknowledgement Unit
AROP	Administrative Receive Only Printer
BX.25	AT&T modified X.25 protocol
C15M	Current 15 Minute history file
C30M	Current 30 Minute history file
CCIS	Common Channel Interoffice Signaling
CCIS6	message format conforming to domestic version of CCITT 6 signaling (equivalent to CCS6)
CCITT	International Telegraph and Telephone Consultative Committee (Comite Consultatif International Telegraphique et Telephonique)
CCS6	Common Channel Signaling System 6 (equivalent to CCIS6)
CCS7	message format conforming to domestic version of CCITT 7 signaling (equivalent to SS7)
CCV	Credit Card Validation
CDAY	Current Day history file
CET	Critical Event Table
CHRM	Current Hour history file
CLLI	Common Language Location Identification
CNCE	CCIS Network Critical Event
CNCELOG	CCIS Network Critical Event Logfile
CNI	Common Network Interface
DBA	Data Base Administration
DCIS6	destination routed CCIS6
DMERT	Duplex Multi-Environment Real-Time
DMS	Data Management System
DOC	Dynamic Overload Control
DSDC	Direct Services Dialing Capability
ECD	Equipment Configuration Data
ECIS6	Embedded CCIS6
ELT	Emergency Load Transfer
EMR	Emergency Restart
EXCP	Exception Table (MOCT)
HFDT	History File Descriptor Table (MOCT)
IAM	Initial Address Message
IFB	Interframe Buffer
IMS	Interprocess Message Switch
INWATS	Inward Wide Area Telecommunications Service
KW	Key Word
L15M	Last 15 Minute history file
L30M	Last 30 Minute history file
LDAY	Last Day history file
LHRM	Last Hour history file
LI	Link Interface
LIS	Link Integrity Status
LPM	Last 5 Minute measurement source
MCRT	Maintenance Cathode Ray Tube
MNM	member
MOCT	Measurement Output Control Table
MPR	Machine Performance Report
MUM	Multiunit Message
NCP	Network Control Point
NP	Node Processor
PDS	Program Documentation Standards
PO	Program Operation
POTS	Plain Old Telephone Service
PRO	Processor Outage
PSC	Processor Congestion
PTC	point code
RAC	Ring Access Controller
RC/V	Recent Change and Verify
RINGEX	5 minute ring exception report
RNA	Ring Node Address
ROP	Receive Only Printer
RPC	Ring Peripheral Controller

RTTY	remote teletypewriter
SCCP	Signaling Connection Control Part
SCHD	Scheduler Table (MOCT)
SEPR	Signaling Equipment Performance Report
SLK	signaling link
SNPR1	Signaling Network Performance Report, part one
SNPR2	Signaling Network Performance Report, part two
SRST	Signaling Route Set Test
SS7	Signaling System 7 (equivalent to CCS7)
STP	Signal Transfer Point
SU	Signal Unit
TRB	trigger band
UDS	Unitdata Service
UI	User Interface
ULN	Universal Link Node (1.544Mbps)
UVDT	User View Descriptor Table (MOCT)
VFL	Voice Frequency Link
VL	Virtual Link
2STP	No. 2 Signal Transfer Point
4ESS	No. 4 Electronic Switching System
30MPR	30 minute Marginal Performance Report

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