CAROT 2 DATA BASE (GENERIC 2)

DESCRIPTION AND REQUIREMENTS

CENTRALIZED AUTOMATIC REPORTING ON TRUNKS (CAROT)

1. GENERAL

1.01 The purpose of this section is fourfold:

(a) To describe the overall data base structure for the CAROT 2 controller

(b) To describe those aspects of the data base structure that relate to routine and demand trunk testing, circuit order testing, and test frame tape preparation procedures

(c) To describe the different methods available for inputting and updating data base information via mechanized and manual systems

(d) To describe in detail the data base requirements for filling out the various work sheets used for inputting data related to the equipment, administrative, and trunk and facility files.

1.02 This section is being reissued to:

(a) Add new ROTL (remote office test line) information.

(b) Add information on testing to gainslope circuit order limits.

(c) Incorporate trunk location address information for expanded 5XB ROTLs which was previously contained in Appendix 1.

(d) Make general corrections.

Since this reissue is a general revision, no revision arrows have been used to denote significant changes. Note that this section (190-102-203) replaces Section 190-102-310.

1.03 Parts 2 through 4 describe the data base structure, content, and input transactions. Parts 5 through 8 contain information pertaining to data base preparation, work-sheet examples, administration, and data-gathering methods. Part 9 describes the completion notice file portion of the data base as it relates to circuit order activities. Part 10 contains a list of references applicable to CAROT 2. Part 11 is a glossary of terms, acronyms, and abbreviations that appear in this document and in other documents related to CAROT 2 and associated systems.

1.04 When upgrading a CAROT 1 controller to a CAROT 2 controller, special programs are provided to convert the CAROT 1 Trunk Maintenance File (TMF) cassettes to the CAROT 2 update format. However, other portions of the data base, including equipment files (ROTL, responder, and test line records) and administrative files (control office records), must be manually converted to CAROT 2 format and updated as described in Part 5 of this section.

1.05 CAROT 2 is also used to test trunks for No. 4 Electronic Switching System (ESS) offices. Testing information from the No. 4 ESS is channeled through the Circuit Maintenance System (CMS) 1A, B to CAROT 2 via a 1200-baud dedicated data link. (CAROT 2, generic 2, may support up to three No. 4 ESS offices.) Each interface provides the following system functions:

- Reporting of CAROT 2 routine test results to CMS 1A, B

- Demanding test usage of CAROT 2 by CMS 1A, B

- Updating CAROT 2 data base by CMS 1A, B.

Further details concerning the management and updating of the CAROT 2 data base for CMS 1A, B application are given in the applicable portions of this practice.

1.06 A single CAROT 2 System can be used to perform tests for CMS 1A, B and non-CMS offices jointly. Updates for non-CMS trunks are made in the standard manner, while CMS updates are handled as prescribed for CMS.

2. DATA BASE DESCRIPTION

A. General

2.01 The CAROT 2 data base is a collection of data about the equipment used in testing trunks, the assigned control offices responsible for the maintenance of trunks, and the specified trunks to be tested.

2.02 Data stored in the CAROT 2 controller is compiled into records, which in turn are grouped into files. For purposes of this section, a record is defined as a collection of data items listed under a given name, and a file is defined as a collection of records with the same name (ie, responder records as a group can be identified as a responder file).

2.03 When stored, data records in different files are linked together into data networks, each network containing all of the data necessary to uniquely identify a specific trunk or trunk group to be tested.

B. Data Base Functions

Individual File and Record Functions

2.04 In a network, data records are arranged in specified sequences based on certain interdependent features within the network. Thus,

records are considered as having hierarchical dependencies. To illustrate the concept of a structure with hierarchical dependencies, consider the main construction phases of erecting a building. For example, the foundation must be put down before the walls, the walls must be erected before the roof, etc; the soundness of the structure depends on this logical sequence of construction phases:

(1) Foundation—Base

(2) Walls—Support

(3) Roof—Dependent.

The same logical sequence applies to building a data base. (See Fig. 1.)
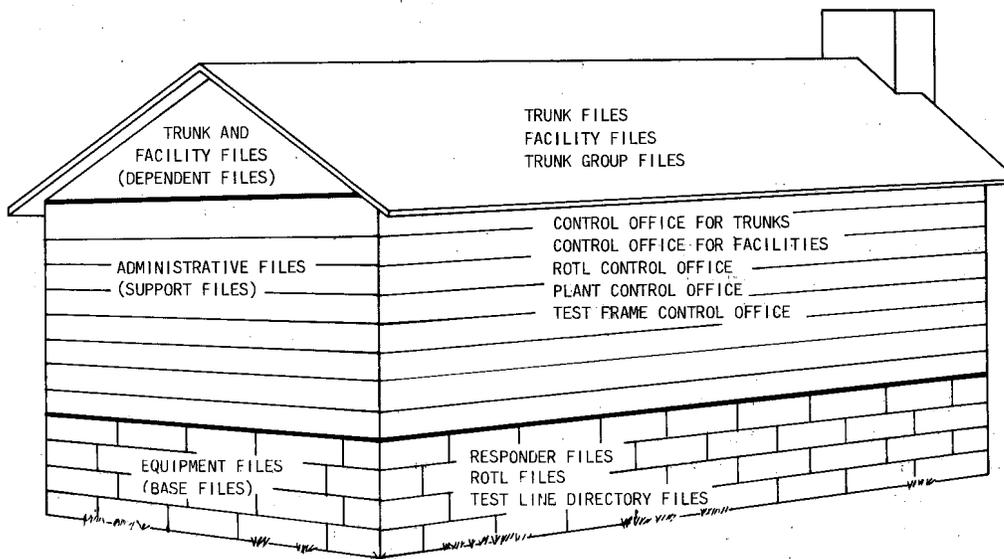
Fig. 1—Representative Construction of CAROT 2 Data Base

2.05 In this section, those data file records that function as a foundation are considered as **base** file records; those that function as walls are considered as **support** file records; and those that function as a roof are considered as **dependent** file records. Based on record function, CAROT 2 data base files are divided into three corresponding categories: (1) equipment (base), (2) administrative (support), and (3) trunk and facility (dependent).

(1) **Equipment Files:** These are the **base** files containing data about the CAROT 2 System equipment, such as 105 test lines, ROTLs, and responders.

(2) **Administrative Files:** These are the **support** files containing data related to the supervision, control, and maintenance of trunk, facility, and ROTL equipment.

(3) **Trunk and Facility Files:** These are the **dependent** files containing (a) listings of trunks according to trunk groups and associated facilities and (b) facility listings of all the trunks assigned to a specific facility. The facility of interest is the first facility that interfaces the trunk upon leaving the originating office.

2.06 A breakdown of these three data categories as related to specific data records is shown in Fig. 2.
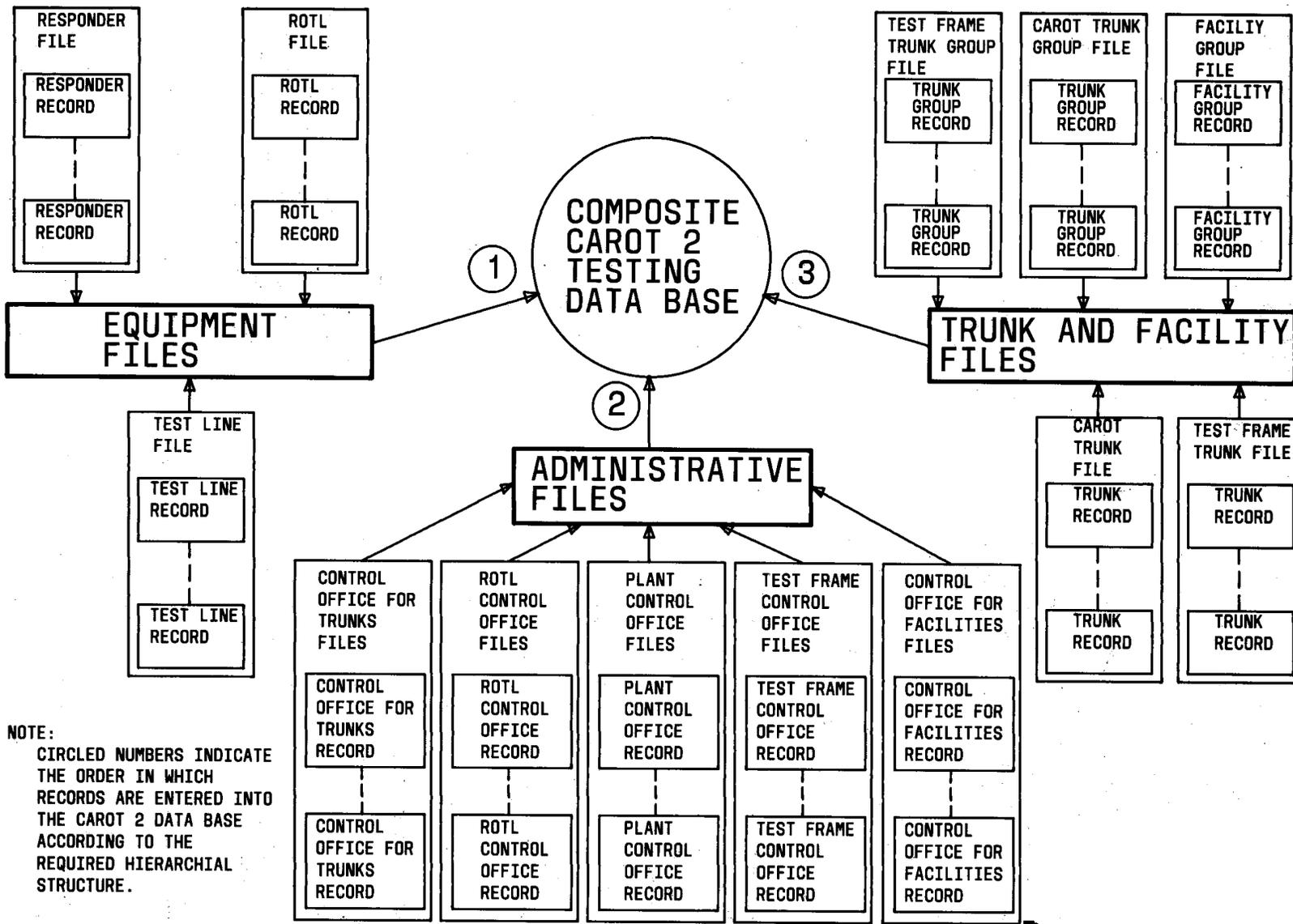
Fig. 2—CAROT 2 Testing Data Base Hierarchical Structure

Overall System Function

2.07 In addition to being categorized according to *record* function, the overall data base is divided according to *system* function. Again, there are three functional areas. Briefly, the structure is outlined as follows:

(1) *Routine and Demand Testing (RDT):*
This system function is directly concerned with making operational and transmission tests on trunks. The data records involved pertain to associated test equipment such as ROTLs, responders, and test lines used when testing individual trunks; administrative data specifying the responsible control offices for the trunks and related facilities under test; and trunk and facility data identifying those trunks under test. The RDT function includes recording and compiling test results for distribution to the responsible central offices.

(2) *Test Frame Tape Preparation (TFTP):*
This function uses information stored in the trunk-testing data file to generate punched paper tapes for use by Automatic Transmission Measuring System (ATMS) test frames to test trunks.

(3) *Circuit Order Testing and Completion (COTC):* This function provides for the storage of circuit order completion data until final trunk acceptance is reported to the responsible control office.

A more detailed description is given in Part 3.

3. DATA BASE ORGANIZATION

3.01 Part 3 describes how the CAROT 2 data base is organized into data networks to perform the normal system functions related to routine and demand trunk tests, test frame tape preparation procedures, and circuit order completion reporting tasks.

A. Routine and Demand Test (RDT)

3.02 The network structure for the RDT data base is composed of nine files as shown in Fig. 3. Each file contains specific information about a set of objects. For instance, the ROTL control office file lists the ROTLs that are used by each control office to test its controlled trunks. The interdependence of these data files is governed by

their function (base, support, or dependent) as referenced in Part 2. Therefore, a responder file is cross-referenced to the test line and ROTL files with which it is associated.
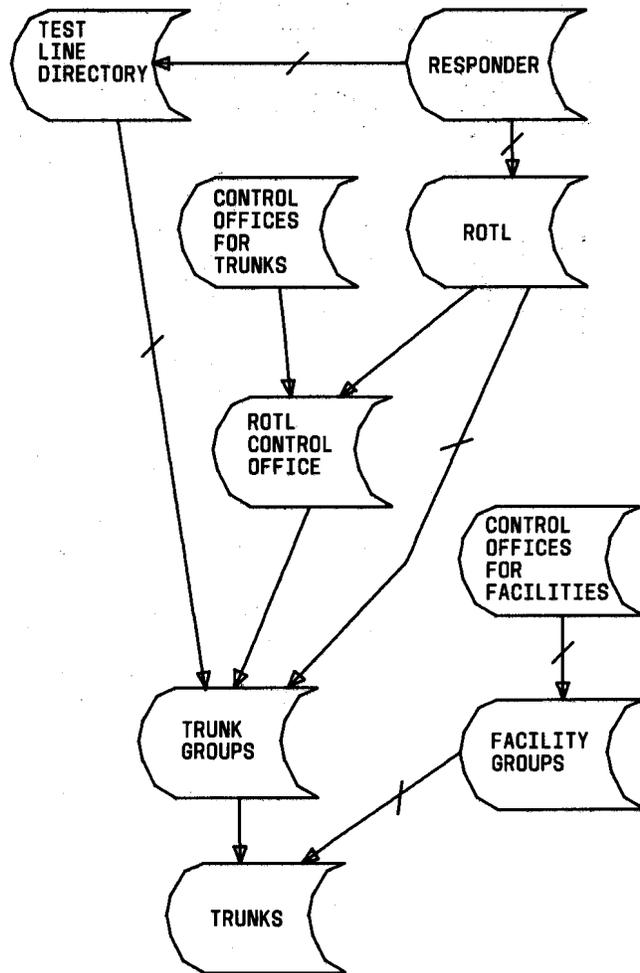
LEGEND: → ARROW POINTS TO DEPENDENT FILE.
/ SLASH INDICATES DELETION OF ENTRY IN BASE FILE IS BLOCKED IF REFERENCES TO DEPENDENT FILE EXIST. OTHERWISE, A DELETION IN A BASE FILE DELETES DATA IN DEPENDENT FILES

Fig. 3—CAROT 2 Routine and Demand Test Data Base

3.03 The logic flow depicted in Fig. 3 is indicated by the arrows pointing towards logic symbols representing the various data files. The arrows are directed towards *dependent* files. Thus, as shown in Fig. 3, trunk group data cannot be

manipulated unless a test line, control office, and ROTL related to that trunk have been previously established in the data files.

Note: Although the pictorial representation of the data files illustrated in Fig. 1 appears to be in direct conflict with that of the logic drawing of Fig. 3—ie, *base* (equipment) files are located at the *top* of Fig. 3 and *dependent* (trunk and facility) files are at the *bottom*—the interrelationships depicted in both figures are valid.

3.04 An entry in a base file cannot be deleted in most cases without first deleting related data from the associated dependent files. For example, an attempt to delete data referring to a specific responder that also is related to certain test line and ROTL data entries will cause an error condition and will not be accomplished, since the responder file acts as a base file and the test line and ROTL files act as dependent files. The correct procedure is to delete the test line and ROTL entries first and then the responder entry.

3.05 Where deletions to base files are permitted, they result in deletion of all associated dependent files. For example, deleting a control office for trunks will cause the automatic deletion of all trunk groups and trunks controlled by that office.

B. Test Frame Tape Preparation (TFTP)

3.06 Figure 4 shows the network structure of the TFTP data base. It is similar to the trunk part of the RDT data base except that it is organized around test frame offices rather than control offices and ROTLs. Test line information is carried as part of the group priming information depending on the type of test frame. Note that no equipment records (ROTL, responder, or test line) need to be input for the TFTP data base.
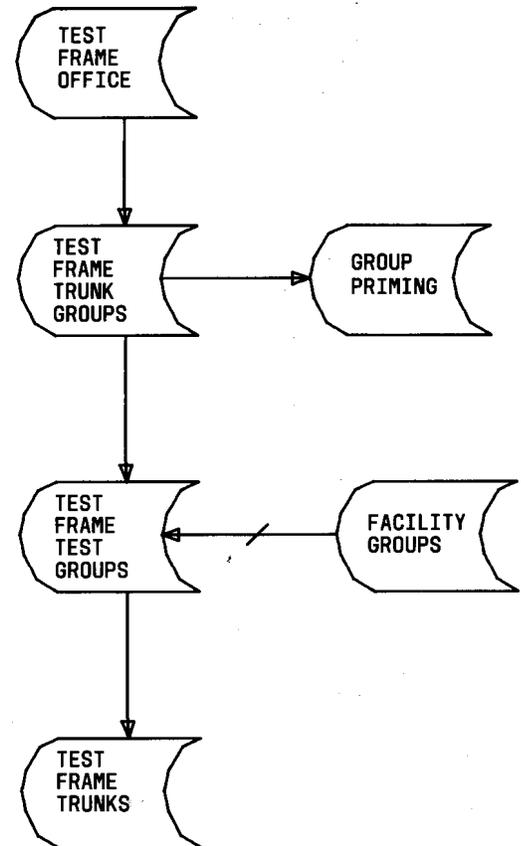
LEGEND:— ARROW POINTS TO DEPENDENT FILE.
／ SLASH INDICATES DELETION OF ENTRY IN BASE FILE IS BLOCKED IF REFERENCES TO DEPENDENT FILE EXIST. OTHERWISE, A DELETION IN A BASE FILE DELETES DATA IN DEPENDENT FILES

Fig. 4—CAROT 2 Test Frame Tape Preparation

C. Circuit Order Testing and Completion (COTC)

3.07 The network structure of this data base is shown in Fig. 5. This data base contains administrative information on each circuit order, information necessary to make a test, and information required for updating the other CAROT data bases once a circuit order has been completed. While the structure of this data base appears simple, it is deceptively so, since the actions on trunk and facility files involve complex, multirecord entries that must be linked with the test line and ROTL files in "real time" before the test can be made.
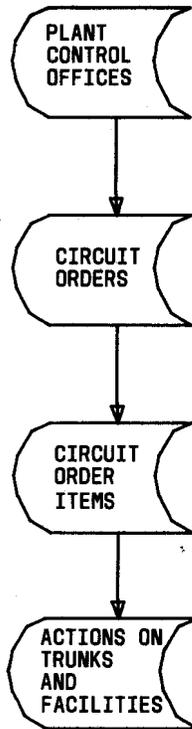
LEGEND:—► ARROW POINTS TO DEPENDENT FILE

Fig. 5—CAROT 2 Circuit Order Testing and Completion Data Base

4. DATA BASE RECORD DEFINITIONS AND INPUT TRANSACTIONS ON WORK SHEETS

4.01 The process of updating the data base for equipment, administrative, and trunk and facility files involves the interaction of many data records. Part 4 describes how to use the work sheets to initialize and update the data base. Part 4A contains general information and instructions about action codes for adding, deleting, and changing record data. Parts 4B, 4C, 4D, and 4E cover in detail how to enter the various records on work sheets for the equipment, administrative, and trunk and facility files in the required sequence. All CAROT 2 work sheets are shown and the contents of all individual record fields are fully explained. Tables are included in association with the work sheets to help define the codes needed to complete the records. Part 4F covers the use of change transactions.

A. General

Update Transactions

4.02 Within the update file certain record sequences have been designated for performing update actions to the data base. Such a sequence will be termed a transaction. When inputting update data, the records pertaining to the transaction must be entered in the assigned order of occurrence in the data base structure. Therefore, when performing an update action (addition, deletion, or change), the transactions involving the affected records must be entered in the logical sequence specified.

4.03 Required data record field designations, definitions, and logical data entry sequences for update (and initialization) actions occur in the order in which the following referenced tables are listed:

TITLE	TABLE REF
Records Required for Actions on Responders, ROTLs, and Test Lines	C
Records Required for Actions on Control and Test Frame Offices	I
Records Required for Actions on Trunk Groups and/or Test Frame Primings	O
Records Required for Actions on Facility Groups	U
Records Required for Actions on Trunks	W
Records Required for Actions on the CAROT Circuit Order Data Base	I I

Direct Access to Files

4.04 In addition to the cross-references between files, illustrated in Fig. 3 through 5, data base files have been assigned direct access "keys" that are used by the update program when update procedures are being performed. The key to a given record uniquely identifies that record and

differentiates it from other records of the same type.

4.05 Table A lists the data base files, grouped according to major categories (equipment, administrative, and trunk and facility) and cross-referenced to specified entry keys.

Action Codes

4.06 As shown on the CAROT 2 work sheets, data base entries are divided into separate data records. Before data can be entered in a record, the entry must be preceded by a slash (/) followed by a 2-letter action code. The action code indicates the type of transaction being made to the data record.

4.07 A list of action codes, their respective definitions, and assigned character positions is shown in Table B. An action code may apply to several succeeding identical transactions and need not be reentered with each transaction in this case. However, when a different transaction is initiated in a series of different transactions, the applicable action code must be entered before the associated data.

B. CMS 1A, B Input Data Transactions

4.08 When building the data base to test trunks originating from a No. 4 ESS office, equipment and administrative data records are inputted in the same manner as for a conventional (non-CMS) CAROT 2 System. However, trunk and facility records are inputted automatically via the CMS/CAROT 2 connecting data link. Trunk and facility records can be sent via the data link at any time during the day; however, these records are stored on disc and are added to the data base automatically during the update process.

4.09 When preparing data records for the No. 4 ESS office, certain unique conditions exist that must be considered in order to properly establish the CAROT 2 data base for CMS 1A, B applications. Pertinent details regarding equipment data base transactions for No. 4 ESS offices (ie, CMS 1A, B applications) are given in paragraphs 4.10 through 4.16. Details for administrative data base transactions are given in paragraphs 4.17 through 4.22.

C. Equipment Data Base Transactions

Transactions on Responders, ROTLs, and Test Lines

4.10 Equipment data base transactions must always be performed to establish a CAROT 2 data base. These transactions are necessary when initializing a conventional CAROT 2 System or a CAROT 1-to-CAROT 2 converted system, as well as a CAROT 2 System associated with CMS 1A, B.

4.11 Table C lists the data record field designations and functions and specifies the order of data entry sequences required for performing transactions on ATMS responders, ROTLs, and test lines. The associated work sheet (E-6725) for compiling related data base information is shown in Fig. 6.

4.12 Format information for completing each of the applicable data records appearing on the work sheet is detailed in each of the following referenced tables:

RECORD CODE(S)	RECORD SUBJECT/DEFINITION	TABLE REF
AD, DE, or CH	Action Code	B
RE	ATMS Responder	D
RO	ROTL	E
OD	Test Line Office	F
ID	Test Line Number	G
ED	Test Line Equipment	H

4.13 There are a maximum of four independent types of transactions that may be used when entering equipment data for a new office. They are defined as follows:

(1) Each responder in the office is entered using an RE record.

(2) Each ROTL in the office is entered using an RO record. The responder identification item in the RO record is the near-end responder directly associated with the ROTL, and this must have been previously entered using an RE record as stated in (1).

(3) If an office is to be used as a test line office, it is established in the test line file using an OD record.

(4) Each test line in the test line office is entered via a separate ID-ED record pair (see note). For more information on far-end test line numbers stored in the ID record, refer to paragraphs 4.52 through 4.59.

The applications for these transactions are described as follows:

- If the office of concern is a ROTL but not a test line office, transactions (1) and (2) are applicable.

- If the office of concern is a ROTL and a test line office, transactions (1), (2), (3), and (4) are applicable.

- If the office is a test line office with a responder and 105 test line, transactions (1), (3), and (4) are applicable.

- If the office is a test line office but has no responder, transactions (3) and (4) are applicable.

Note: A "record pair" is a term used to designate any two records that must always be entered as a pair, ie, one cannot be entered without the other. ID and ED are a record pair, as are YG and YB.

4.14 *CMS 1A, B Applications Only:* When preparing ROTL and responder records for CMS 1A, B applications, certain conditions exist that must be considered in order to properly establish the CAROT 2 data base.

- A No. 4 ESS office may contain several ROTLs, each of which can access any outgoing trunk in the office.

- Each ROTL has two "heads", which may be accessed simultaneously.

- Each ROTL is connected directly to its own responder.

- The No. 4 ESS also has several responders dedicated to 105-type test lines. These

responders are not usable by ROTLs, but each 105 test line can use any one of them.

4.15 The equipment items referenced in paragraph 4.14 should be entered in the CAROT 2 data base as follows:

- Enter one responder (RE) record containing data on one of the ROTL responders. (This is the only RE record to be entered for all ROTL responders in the office.)

- Enter one ROTL (RO) record containing data on one of the ROTLs. The responder identification item entered in this record must contain the responder identification data entered above.

4.16 If the No. 4 ESS office is to be used as a far-end office, the following additional transactions apply:

- Enter an RE record containing data on one of the 105 test line responders.

- Enter one ID-ED record pair (see note in paragraph 4.13) for each 105 test line. Each ED record should contain the identification of the 105 test line responder entered above.

- Enter non-105 test lines associated with the No. 4 ESS office in the standard manner, ie, the same as for 105-type test lines.

D. Administrative Data Base Transactions

Control Office Identification

4.17 Control office identification is the 11-character common language location identification code representing those offices having administrative responsibility for maintenance of specified trunks, facilities, circuit order plant, ROTLs, and far-end test lines. With CAROT 2, data for control offices is contained in administrative data base files, and procedures for entering data pertaining to control offices and their respective equipment areas are referred to as *administrative data base transactions.*

4.18 Administrative data base transactions must always be performed in establishing a CAROT 2 data base, whether for CMS-associated

systems, conventional CAROT 2 Systems, or CAROT 1-to-CAROT 2 conversions.

4.19   CAROT 2 work sheets for compiling control office data are shown in the figures listed:

WORK SHEET NO.	TITLE	FIG. NO.
E6726	CAROT 2 Control Office for Trunks	7
E6727	CAROT 2 Control Office for Facilities	8
E6728	CAROT 2 Circuit Order Plant Control Office	9
E6729	CAROT 2 Test Frame Office	10

4.20   Table I lists the data record designations and functions and specifies the order of data entry sequences required for transactions on the following control offices:

- Control Offices for Trunks

- ROTL Control Office for Trunk File Entries

- Control Office for Facilities

- Circuit Order Plant Control Office

- Test Frame Control Office.

4.21   Format information for completing each of the applicable data records appearing on the work sheets is detailed in each of the following referenced tables:

RECORD CODE(S)	RECORD SUBJECT/ DEFINITION	TABLE REF
AD, DE, or CH	Action Code	B
CT	Control Office for Trunks	J
RC	ROTL Control Office for Trunks	K
CF .	Control Office for Facilities	L
CP	Plant Control Office	M
OT	Test Frame Control Office	N

4.22   *CMS 1A, B Applications Only:* When preparing the CAROT 2 data base for CMS 1A, B applications, the following administrative data base transactions must be performed:

- A control office for trunks (CT) record should be entered for each 51A test position in the No. 4 ESS office. (Each test position serves as a control office.) The control office identification must correspond exactly with the naming convention established in the CMS data base. In cases where several

CMS 1B locations are served by one CAROT 2, the following information is used by CC2 to determine over which data link to send routine test results back to a CMS 1B. The parameters CMS1, CMS2, CMS3 are used to point to the physical I/O slot numbers for the CMS data links. These have a value from 1 to 3 meaning 1 = CMS link in I/O slot 15, 2 = CMS link in slot 17, and 3 = CMS link in slot 20. These may be accessed using the SET and SHOW commands on the console (see Section 190-102-202, CAROT 2 Controller Administration). In each CT record associated with a CMS, information must be given on the CMS logical slot number. (The logical slot number is a value from 1 to 3, corresponding to the parameters CMS1 to CMS3.) Thus, CC2 will read the CT record to obtain the logical slot number, such as 1, and then use the value of the proper parameter, such as CMS1, to point to the physical slot number of the data link. If character 16 of the CT record is not a zero, no routine test results will be sent over any CMS data link. If character 16 is a zero, CC2 looks at character 17 to determine over which data link to send the results. Therefore, character 17 must be set to one of the following values:

Blank
or 0—No routine test results are sent
    over any CMS data link.

    1—Routine test results will be sent
      over the CMS data link specified
      by parameter CMS1.

    2—Routine test results will be sent
      over the CMS data link specified
      by parameter CMS2.

    3—Same for CMS3.

• A control office for facilities (CF) record must also be entered for each 51A test position in the No. 4 ESS office.

• In CMS 1B operations where more than one No. 4 ESS is tested by CAROT, care must be taken to insure that different control office names (both facility and trunk control offices) are assigned for each No. 4 ESS, ie, control offices in one No. 4 ESS may be named 11, 12, and 13. However, in any other No. 4 ESS tested by the same CAROT, these same names must not be used.

• A ROTL control office for trunks (RC) record must be entered for each 51A test position employed. Each of these RC records will have the same ROTL identification but a different control office for trunks identification (one for each of the CT records).

4.23 Routine and Demand Test Data Base: The control records for the RDT data base are the CT, RC, and CF records. The first two records are included on the Control Office for Trunks Work Sheet (Fig. 7), and the third record is on the Control Office for Facilities Work Sheet (Fig. 8).

4.24 The "start summary" date entries for the CT record (Fig. 7) will be assigned in accordance with local policy. The "start testing" date entries for the RC record should be selected to correspond with the desired data to begin routine trunk testing on the given ROTL.

Note: If the CT and RC records are entered with the date entries blank, the start dates will default to the present date.

4.25 Circuit Order Testing and Completion Date Base: The record for entering the COTC data base is the plant control office (CP) record. This record is included on the Circuit Order Plant Control Office Work Sheet (Fig. 9).

4.26 Test Frame Tape Preparation Data Base: The control record for the TFTP data base is the test frame office (OT) record. This record is included on the Test Frame Office Work Sheet (Fig. 10).

Note: When entering test frame tape data into the test frame office (OT) record, tape-type data entries (character positions 24 through 38) will not be required until features utilizing these data are incorporated in the program. These characters should be left blank.

E. Trunk and Facility Data Base Transactions

General

4.27 Trunk and facility data base transactions involve entering trunk group, facility group, test parameter, and trunk priming (location address) information into the CAROT 2 data base records.

4.28 When originating the data base for a new conventional CAROT 2 System, the standard trunk and facility transactions are as described in paragraphs 4.31 through 4.86.

4.29 When converting a CAROT 1 System to a CAROT 2 System, a conversion program is employed to transfer trunk and facility data from the CAROT 1 TMF cassettes to 9-track magnetic tape in the CAROT 2 update format (see note). This data is then entered into the CAROT 2 data base using the standard update procedures, as are all future entries into the CAROT 2 data base. Records for trunk groups (YG and YB records), facility groups (GF records), and trunks (TG, TF, TH, and TT records) that apply specifically to the CAROT 1 office need *not* be prepared and entered using work sheets and paper tape. Procedures for making this conversion are described in the Task Oriented Practice (TOP) for the CAROT 2 controller, TOP 190-102-301 and CAROT data base administration, Section 190-102-201.

> *Note:* The update magnetic tape produced by the conversion program cannot be used until after the equipment and administrative records have been entered in the standard manner.

4.30 For No. 4 ESS applications, all trunk and facility transactions are automatically entered into the CAROT 2 data base via the CMS/CAROT 2 data link. Therefore, records for trunk groups (YG and YB records), facility groups (GF records), and trunks (TG, TF, TH, and TT records) under

CMS 1A, B control are *not* entered via the standard process using work sheets and paper tape or magnetic tape.

4.31 As shown in the data base hierarchy diagram (Fig. 3), trunk group records must be entered before any trunks can be entered. The trunk groups are entered by YG-YB record pairs. In addition, facility groups must be entered, via GF records, before any trunks assigned to these facilities can be entered. After the trunk groups and facility groups have been entered, trunks may be entered using sequences of TG, TF, TH or TI, and TT or TL records. Further information on these records is given in the following paragraphs.

4.32 *Trunk Group Identification:* Trunk group identification data is entered in the YG record on the Trunk Group and Test Frame Priming Work Sheet (Fig. 11) and in the TG record of the CAROT 2 Trunk File (Fig. 13) and Circuit Order (Fig. 20) Work Sheets. This represents the common language identification of trunk groups as defined in Section 795-400-100 (Common Language Circuit Identification Message Trunks). In the trunk group identification field, the name for the originating office (office A) usually appears before the name of the terminating office (office Z).

4.33 The entry in character position 45 of the YG and TG records is the CAROT directional testing code (A or Z). It is used to indicate two pieces of information: the number of directions (either one or two) in which CAROT should be able to seize and test the trunks in the group, and the direction (A to Z or Z to A) in which the trunks should be routinely tested.

> *Note:* In all cases, this character should be A or Z. The CAROT 2 does not perform tests on the same trunk in two directions. Thus, even trunk groups which are in reality 2-way, should be entered in CAROT as one-way testable (either A to Z or Z to A).

4.34 If the code indicates a one-way group (A or Z), the update program checks that a ROTL on the originating end and a test line on the terminating end exist in the data base. The originating end is defined by CAROT testing codes A and Z as office A or office Z, respectively.

Important: Although a trunk group may in reality be a 2-way group, unless ROTLs exist at both ends of the trunk it must be entered in CAROT as a one-way group in character position 45.

4.35 *Facility Group Identification:* Facility group identification data is entered in the GF record on the CAROT 2 Facility Group Work Sheet (Fig. 12), the TF record on the Trunk File Work Sheet (Fig. 13), and the GF record on the Circuit Order Work Sheet (Fig. 20). To change the facility group identification, the GN record on the Facility Group and Circuit Order Work Sheets is used in conjunction with the GF record to enter a new facility group identification to replace the old facility group identification specified in the original GF record. This identification represents the first major specific facility nearest the originating office and the terminal locations for that facility as defined in Section 795-450-100 (Common Language Facility Identification). The near-end location is designated as terminal A while the far-end location is designated as terminal Z. Control office data for facility groups is entered only on the Facility Group Work Sheet.

4.36 *Test Parameters:* Trunk testing parameters concerning the use and transmission characteristics of the trunks are entered in the TH or TI record of the CAROT 2 Trunk File Work Sheet (Fig. 13) and the Circuit Order Work Sheet (Fig. 20). Information pertaining to the testing parameters is obtained from the circuit layout record card and from Sections 660-402-300 (Loss Measurements) and 660-403-500 (Noise Measurements).

4.37 *Trunk Priming Information:* Trunk location address information for each trunk to be tested is specified in the TT or TL record on the Trunk File Work Sheet (Fig. 13) and the Circuit Order Work Sheet (Fig. 20). This data must be provided to the ROTL so that the designated trunk can be seized and tested by CAROT.

Transactions on Trunk Groups and/or Test Frame Primings

4.38 Table O lists the data record field designations and functions and specifies the order of data entry sequences required for performing transactions on trunk groups and/or test frame primings. The Trunk Group and Test Frame Priming Work Sheet (E6732) for compiling pertinent data base information is shown in Fig. 11.

4.39 Format information for completing each of the applicable data records appearing on the work sheet is detailed in each of the following referenced tables:

RECORD CODE(S)	RECORD SUBJECT/ DEFINITION	TABLE REF
AD, DE, or CH	Action Codes	B
YG	Initial Trunk Group Record Definition	P
YB	Control Office and ROTL Identification	Q
YK	No. 4 Crossbar (4XB) Automatic Outgoing Trunk Test Frame (AOTT) Priming	R
YK	Step-by-Step (SXS) AOTT Priming	S
YK	No. 5 Crossbar (5XB) Automatic Progressive Trunk Test Frame (APTT) Priming	T

4.40 *RDT Data Base Transactions:* Information for RDT tests includes trunk group data and control office and ROTL names. This data is entered on the Trunk Group and Test Frame Priming Work Sheet (Fig. 11), in the YG and YB records, respectively. (The YK record is not involved in this application.)

● Addition, deletion, or change of trunk group information must take place independently of actions on trunks.

● Addition of a trunk for which no trunk group has been entered does *not* cause the automatic addition of the group; rather an error message will result. However, deletion of a trunk group will cause the deletion of the designated trunk group and all of its trunks.

● It is important to note that trunk group transactions are entered in the combination of YG-YB record pairs.

● When entries are being made in the control office and ROTL identification (YB) record, the office A and office Z entries, when left blank, default to the office A and office Z identifications appearing in the associated trunk group (YG) record. If the referenced ROTL office has more than one ROTL, the full ROTL identification, including the count character, should be entered.

4.41 *TFTP Data Base Transactions:*
Information for the TFTP data base involving test frame priming for a trunk group is entered in the YK record on the Group and Test Frame Priming Work Sheet (Fig. 11). More than one YK record can be used. If test frame tests are performed from both ends of a trunk between No. 5 crossbar and step-by-step offices, both an APTT YK record and an AOTT YK record will be used. Character position 46 of the YG record is used to relate the YK records to the proper test frame offices just as character position 45 was used in the RDT data base.

● When test frame tape data is entered into the YB record, the control office character positions 4 through 14 must be left blank.

Transactions on Facility Groups

4.42 Table U lists the data record field designations and functions and specifies the order of data entry sequences required for performing transactions on facility groups. The Facility Group Work Sheet (E6733) for compiling pertinent data base information is shown in Fig. 12.

4.43 Format information for completing each of the applicable data records appearing on the work sheet is detailed in each of the following referenced tables:

RECORD CODE(S)	RECORD SUBJECT/ DEFINITION	TABLE REF
AD, DE, or CH	Action Codes	B
GF, GN	Facility Group Identification	V

4.44 If the name of a facility changes, as sometimes occurs due to carrier rearrangements, its name may be changed in the CAROT data base by a sequence of CH, GF, and GN records. This causes the entry under the old name to be deleted, a new entry to be made, and the cross-references to the old entry to be reestablished to the new entry. The control office name need not be entered on the GN record but must be on the GF record.

4.45 When transactions on trunks are entered via the TG, TF, TH or TI, and TT or TL record sequence (described in the next paragraphs), the facility specified in the TF record must have been previously entered as a GF record.

Transactions on Trunks

4.46 Table W lists the data record field designations and functions and specifies the order of data entry sequences required for performing transactions on trunks. The Trunk File Work Sheet (E6731) used for compiling pertinent data base information is shown in Fig. 13.

4.47 Format information for completing each of the applicable data records appearing on the work sheet is detailed in each of the following referenced tables:

RECORD CODE(S)	RECORD SUBJECT/ DEFINITION	TABLE REF
AD, DE, CH AP, DP, CP	Action Codes	B
TG	Trunk Group Record Definition	X
TF	Facility Group Identification Record Definition	Y
TH, TI	Test Parameters Record Definition	Z
TT, TL	Trunk Record Definition	AA

Note: The CAROT 2 does not perform alternate mode trunk testing. No alternate mode or alternate direction trunks should be entered into the data base. Thus, no TI or TL records will be used. In addition, character 4 of the TH and TT records (direction code) should always be zero, indicating principal direction.

4.48 To effectively use the work sheet, the concepts of principal and alternate direction and of principal and alternate traffic use must be understood. The *principal direction* of a trunk is the direction in which test calls will be placed for routine testing. It is defined by character position 45 (CAROT DIR) of the TG record as being A to Z or Z to A.

4.49 The *principal traffic use* of the trunk is the one to be used for routine testing. The trunk will be tested in an originating-end access condition and to a terminating-end test line, which are equivalent to the state of the trunk as used for the principal traffic use by subscriber connections. Any other traffic use is an alternate traffic use. Table BB lists the traffic usage codes of the testable trunks in CAROT/ROTL, the possible tests, and the types of ROTLs used. If additional traffic usage codes are assigned locally, it must be determined whether or not they are CAROT testable.

4.50 The *principal mode* of a trunk involves both principal direction and principal traffic use. A TH record contains test parameters applying to the principal mode, and a TT record contains

trunk data applying to the principal mode. The principal mode of the trunk must always be entered into the data base and it must be entered before alternate modes are entered. For CAROT 2, the principal mode relates only to the direction of routine testing for a specific CAROT; a 2-way trunk between CAROT regions would appear in both CAROT data bases but with different principal modes.

4.51 Points to remember when making transactions on trunks:

• When entering trunk priming data (TT record), set the preupdate test flag to zero until this feature is implemented in the program. After implementation, the preupdate test flag may be set to 1.

• The echo suppressor or flag (character position 31) of the TH or TI record must contain either a Ø (meaning no echo suppressor) or a 1 (meaning echo suppressor present). Blanks are not permitted.

• When changing trunk data in the trunk priming (TT) record but *not* in the associated facility group (TF) and test parameters (TH or TI) records, only one $ need be entered at the beginning of the associated TF and TH or TI records (character position 4). Unchanged *embedded* fields within the TT record can be filled in completely with $ characters instead of with a repetition of the existing unchanged data. For example, this could occur where the channel or pair number remains the same and the trunk location address changes.

• To delete individual trunks from a trunk group, when entering the trunk group (TG) and trunk priming (TT) record, all that is required in the TT record entry is the trunk number. All other entries in the TT record can be the $ character.

Test Parameter Information

#FETL Digits, Replacement Numbering Plan Area (NPA), and Replacement NNX

4.52 Far-end test line (FETL) access information is entered on the Trunk File Work Sheet, in the TH or TI data record (character positions 32 through 38), to provide access to the proper FETL. The information stored here is the number of FETL digits to outpulse (from CAROT to the ROTL), a replacement NPA code, and a replacement NNX. For trunks tested by small ROTLs, ie, step-by-step (SXS) and No. 5 crossbar (5XB) ROTL 1, this information is not necessary since FETL numbers are wired into the ROTL and not provided by CAROT. For expanded ROTLs these character positions should also be left blank in most cases. These items in the TH record are used mainly for the following situations:

(a) In expanded SXS and No. 1 crossbar/crossbar tandem (1XB/XBT) ROTLs, it may be necessary to specify the number of digits to outpulse. The replacement NNX may also be necessary to handle code conversion. See paragraphs 4.53 through 4.57.

(b) In 5XB expanded ROTLs, toll connecting and tandem originating trunks using 10X FETL numbers may require a replacement NNX. See paragraph 4.58.

(c) For all other ROTLs (ESS or 4XB), these characters should be filled in only in special situations requiring modification of the basic FETL numbers in the FETL directory. Refer to paragraph 4.60, which describes how the CAROT controller software constructs the FETL number for a trunk. This process should be understood before filling in the FETL information in the TH or TI record.

4.53 The FETL number for ROTLs such as SXS and 1XB/XBT that access trunks through test connectors must be shortened to the length expected by the far-end switch. The FETL number must also reflect any code conversion (deletion or prefix) that the originating machine would normally perform. This information must be provided in character position 32 (number of FETL digits to be outpulsed by CAROT to the ROTL) and in character positions 36 through 38 (replacement NNX after code conversion). This is further explained in paragraphs 4.55, 4.56, and 4.57.

4.54 In a 1XB/XBT for 7-digit revertive pulsing, it may be necessary to specify office brush (OB) and office group (OG) as the last two digits of the replacement NNX. In this case, specify six digits to be outpulsed.

4.55 For test connector ROTLs with variable length outpulsing, the number of digits outpulsed to the far end may vary from trunk to trunk. In SXS offices, trunks may leave the switch at different selector levels. Thus, the number of digits "used up" in switching a call through the SXS machine may vary from trunk to trunk; however, all trunks in a trunk group will usually leave at the same selector level. In any case, the far-end office expects to receive the number of digits remaining, which depends on the originating office. The number of digits remaining in SXS calls can be determined from the selector level at which the trunk originates or from common control information. In 1XB/XBT offices, it can be determined from the common control cross-connect records. This information need be entered only if other than seven or ten digits are to be outpulsed and only if the NPA or NNX is different from that found in the test line directory. For test connector ROTLs, the number of FETL digits outpulsed by CAROT to the ROTL is the same as the number of FETL digits outpulsed by the far-end switch via the trunk under test.

4.56 To ensure the proper routing of calls, common control offices sometimes examine the NNX of the called number and replace it with a substitute NNX before outpulsing to the next office in the switching network. The far-end office translates the substitute NNX and continues the switching of the call. A typical case of such code conversion may occur on a call to a class 5 office having more than one NNX with the same third digit (947 and 637, for example). A near-end office may, instead of outpulsing six or seven digits to reach a far-end address, outpulse only five. By arrangement between the two offices, the near end can outpulse 7XXXX for a 947 number, and 5XXXX for a 637 number. The far end will then recognize the prefix 5 as an indication of the 637 exchange. The code conversion used and the replacement NNX required can be obtained from common control information.

4.57 For the conditions described in paragraphs 4.55 and 4.56 (for test connector ROTLs), the ROTL must be given the number normally outpulsed at the point of the test connector. Thus, it must be given the proper number of digits as well as the "post-code conversion" form of the number. The number of digits is counted from right to left, starting at the first nonblank digit. Thus, trailing blanks in the test line directory

number, such as the blank after the 5 in "212 393 105-", are not counted in determining which digits will be outpulsed. In the above example, if the number of digits to be outpulsed were five, 93105 would be used.

4.58 For trunks outgoing from an 5XB office to tandem or toll offices (trunks which normally require a 3-digit FETL number in the format of 10X or NNX), the 5XB marker requires a far-end NNX from the ROTL to find the route relay for a trunk group. If the test call is on a trunk terminating at a tandem office, the NNX used is that of an exchange beyond the tandem office to which traffic would ordinarily be routed over the trunk under test. The 5XB marker uses the NNX along with other information to find the route relay, and then deletes the NNX before outpulsing. If the tandem office is also a toll office with a 3-digit terminating toll center (TTC) code, the TTC code may be used instead of an NNX. The use of an NNX causes problems when, for example, a direct trunk group is initiated between the 5XB office and the far-end local NNX. The FETL number for the tandem office trunk group must be changed to use some other NNX routed through the tandem office. Thus, routing changes at 5XB/ROTL offices must be coordinated with CAROT FETL directory changes. An additional difficulty occurs for trunk groups from a 5XB office to a tandem office if they carry traffic only to a foreign NPA from both the 5XB and tandem office NPAs. This situation may occur, particularly in common control switching arrangement (CCSA) networks. For this case, the 5XB marker must be provided with the NPA-NNX of an office on the far side of the tandem office. The home NPA of the tandem office cannot be used, and a replacement NPA as well as a replacement NNX must be provided in the TH or TI record.

4.59 When testing CCSA trunks, it is necessary that the FETL NPA be outpulsed (even if it is the same as the ROTL NPA). In this case, the number of FETL digits value (see Table Z character position 32) should be set to 0 (zero). This zero value will force the use of the full 10-digit FETL number. (A value of zero should only be entered if 10 digits are required.) The FETL entry in the test line directory file (OD/ID records) should also be checked to be sure that a full 10-digit test line number is specified. A replacement NPA and/or NNX may also be used

when specifying a number of FETL digits value of Ø (zero).

4.60 The test line directory stores an FETL number in the format of NPA-NNX-XXXX or NPA-000-XXXX for each traffic use of trunks terminating in the office. The terminating office and the traffic use are both used to determine the basic FETL number. For example, this basic FETL number is modified by the information in the TH or TI record, character positions 32 through 38, as follows.

(a) *ESS ROTLs:* Either NPA-NNX-XXXX or NNX-XXXX is used, depending on whether the terminating office is in the same NPA as the ESS office. (In either case, the FETL number may be of the format 10X rather than XXXX, if so specified in the test line directory.)

(b) *Expanded SXS and 1XB/XBT ROTLs:* If a replacement NNX is entered in the TH or TI record, it is substituted for the NNX in the test line directory and the number of FETL digits specified in character position 32 is used. Numbers of format NPA-000-10X are converted to 10X.

(c) *Expanded 5XB ROTL:* If a replacement NPA is entered in the TH or TI record, it is substituted for the NPA in the test line directory. If a replacement NNX is used in the TH or TI record, it is substituted for the NNX or 000 in the test line directory. If the number of digits to outpulse (character position 32) is left blank, NPA-NNX-XXXX or NNX-XXXX (NPA-NNX-10X, NPA-10X, or NNX-10X, if using the 10X-type format) is outpulsed. If the number of digits to outpulse is nonblank, the specified number of digits is outpulsed to the ROTL.

Trunk Record Information

4.61 Trunk priming (TT or TL record) information is obtained from both the office description forms and traffic information. Trunk priming varies, depending on the type of ROTL, since this information is used by the ROTL to gain access to a specific trunk. Table CC shows the trunk location addresses of the TT or TL record of the Trunk File Work Sheet and gives the contents of the character positions. The VF appearance and SMAS number as referenced to the test frame trunk location address are defined in Table DD.

They are the same as for CAROT 1 except for the 5XB APTT, where AGRA has been added and the order of appearance for ITH, IHT, ITT, and IUT has been changed.

4.62 *SXS ROTL, Small (J34305A):* The SXS ROTL gains access to a specific trunk through a test connector. The test connector number identifies the trunk uniquely and is outpulsed to the ROTL from CAROT 2. Figure 14 shows the trunk priming part of the TT or TL record of the Trunk File Work Sheet and provides a list of data items for each character position. If the ROTL is equipped for MF outpulsing, information must be provided in character position 23 to indicate the pulsing used on the particular trunk: a 1 for MF or a 2 for DP.

4.63 *5XB ROTL, Small (J23263A):* The 5XB ROTL gains access to a specific trunk through the switching network of the office. To identify a trunk, the ROTL requires the number of the trunk link frame and the busy test lead location on the trunk block relay. In addition, a route translation is needed to access one of 20 cross-connect fields containing marker priming and test line directory number information for each trunk group. Figure 14 shows the trunk priming part of the TT or TL record of the Trunk File Work Sheet and lists the data items for each character position.

4.64 *No. 1 ESS ROTL (J2H018):* The No. 1 ESS ROTL gains access to a specific trunk through the switch. It consists of software, generic programs CC- and SP-CTX6 or later, and hardware. The trunk priming information required for the Trunk File Work Sheet is a trunk location address, occupying character positions 17 through 23 of the TT or TL record and consisting of a 1-digit modifier to specify local or tandem mode and a 6-digit trunk network number (TNN).

4.65 The six digits making up the TNN (character positions 18 through 23, TT or TL record) and an explanation of each are given in Table EE. Figure 15 shows the trunk priming part of the Trunk File Work Sheet and lists the data items for each character position. The TNN designates the specific appearance of the trunk on the switch and may be initially assigned by Western Electric Company. Additions, deletions, and changes are generally administered by traffic assignment groups.

4.66 The 1-digit modifier that specifies local or tandem mode is either 0, 1, or 2. The digit 0 represents a local originating mode, meaning that the trunk can be reached only by line origination on the same machine. The digit 1 represents tandem 1 mode, and the digit 2 represents tandem 2 mode. Tandem 1 or tandem 2 controls the configuration of the trunk circuit and refers to the use of a specific isolation transformer.

4.67 If the trunk can be accessed in the tandem mode, a 1 or a 2 should be entered on the TT or TL record as the modifier digit (character position 17). Otherwise, a 0 should be entered for local originating only. However, in many systems the No. 1 ESS trunk may be accessed in both originating and tandem modes. The maximum number of components are in the transmission path when the trunk is used as local originating, and the trunk should be routinely tested in this mode. When the trunk is tested in the local mode, care must be taken to insure that the EML (entered in the TH record) includes the loss of the trunk circuit in the local mode. This EML will differ from the EML of the trunk in the tandem mode.

4.68 The No. 1 ESS ROTL can also make transmission tests of Remote Switching System (RSS) channels. The RSS channels require a total of nine digits. The modifier digit (character 17) identifies this as an RSS channel. The modifier digit may be a 7 (neither balance network nor 2DB pad switched in), 8 (balance network switched in), or 9 (2DB pad switched in). Characters 18 through 25 contain the 8-digit channel line equipment number (CLEN). Although no test line number is used for testing RSS trunks, an entry must be made in the test line directory (OD, ID, and ED records) for the terminating office in order for the trunk to be tested.

4.69 *No. 2 ESS ROTL (J2039):* The No. 2 ESS ROTL gains access to a specific trunk through the switch. It consists of software, generic program EF1 (Issue 3 or later), and hardware. The trunk priming information required for the Trunk File Work Sheet (TT or TL record, character positions 17 through 23) is a trunk modifier digit, a 3-digit trunk group number (TGN), and a 3-digit member (MEM) number. The TGN and MEM numbers are software designations for the trunk and may be initially assigned by Western Electric Company. Additions, deletions, and changes are generally administered by traffic assignment groups.

The TGN range is 066 to 511; the MEM number range is 000 to 255.

4.70 The 1-digit modifier is either 0 or 1. A 0 specifies that the trunk is to be placed in the "talk tandem off-hook" state *without* a transformer in the talking path. A 1 specifies that the trunk is to be placed in the "talk tandem off-hook" state *with* a transformer in the talking path. Figure 15 shows the trunk priming part of the Trunk File Work Sheet and lists the data items for each character position.

4.71 *No. 3 ESS ROTL:* The No. 3 ESS ROTL gains access to a specific trunk through the switch. The trunk priming information required for the Trunk File Work Sheet (TT or TL record, character positions 17 through 23) is a trunk modifier digit, a 3-digit trunk group number (TGN), and a 3-digit member (MEM) number. The TGN and MEM numbers are software designations for the trunk and may be initially assigned by Western Electric Company. Additions, deletions, and changes are generally administered by traffic assignment groups. The TGN range is 066 to 511; the MEM number range is 000 to 255.

4.72 The 1-digit modifier is either 0 or 1. A 0 specifies that the trunk is to be placed in the "talk tandem off-hook" state *without* a transformer in the talking path. A 1 specifies that the trunk is to be placed in the "talk tandem off-hook" state *with* a transformer in the talking path. Figure 15 shows the trunk priming part of the Trunk File Work Sheet and lists the data items for each character position.

4.73 *No. 4 ESS ROTL (J4A007):* The No. 4 ESS ROTL is controlled by CAROT 2. CMS 1A, B administers the CAROT 2 data base as it concerns the No. 4 ESS. The No. 4 ESS ROTL gains access to a specific trunk through the switch. The trunk priming information required is a 7-digit trunk appearance number (TAN).

4.74 *SXS ROTL-2, Expanded (J34306A and B) and SXS ROTL-3:* The expanded SXS ROTL and SXS ROTL-3 gain access to a trunk through a crossbar test connector. The test connector access point is identified by a 4-digit number to which a 1-digit pulsing identification number is added to comprise the trunk location. Table FF describes the entries required for pulsing. Figure 16 shows the trunk priming part of the

Trunk File Work Sheet and lists the data items for each character position.

4.75 The test connector information is either directly related to the selector switch or trunk equipment if it is hardwired, or assignable if the equipment is not hardwired. Test connector assignments should be made and records maintained by the organization responsible for trunk assignment. In either case, the test connector appearance should appear on all new traffic trunk orders. The office description forms described in paragraph 7.24 and the TGD form described in paragraph 7.27 should be used as references for obtaining the trunk priming information.

4.76 *1XB/XBT ROTL (J28555):* The 1XB/XBT ROTL gains access to a trunk through a test connector. The test connector number is a 5-digit number to which two digits of pulsing information are added to comprise the trunk location. Table GG describes the pulsing information required. Figure 17 shows the trunk priming portion of the Trunk File Work Sheet and lists the data items for each character position.

4.77 The test connector number (TT or TL record, character positions 17 through 21) is directly related to the office link appearance of the trunk. The office link frame appearance is assigned by the trunk assignment organization. Records are kept there and at the switching office. The relationship between office link frame appearance and ITTC appearance is documented by Western Electric T drawings.

4.78 *4XB OTIS ROTL (J1P012AJ):* The 4XB OTTS ROTL gains access to a trunk through the Outgoing Trunk Testing System (OTTS). The OTTS access is by way of the intertoll and toll connecting test connectors. The test connector number is a 5-digit number indicating the test connector appearance of a trunk. In addition, information is required on signaling class and modifiers, pad mark, switch train, and relay type. Table HH describes the priming information required. Figure 18 shows the trunk priming portion of the Trunk File Work Sheet and lists the data items for each character position.

4.79 The 4XB OTTS ROTL may be used to test common channel interoffice signaling (CCIS) trunks. In this case, characters 18, 19, and 20 will always be 700 for the signaling class and

modifiers. Also, a T register or TREG number will be used for characters 24 through 28. Figure 18 shows the trunk priming portion of the Trunk File Work Sheet and lists the data items for each character position.

4.80 *5XB ROTL-2, Expanded (J23263D, E, and F):* The 5XB ROTL gains access to a trunk through the switching network of the office. The expanded 5XB ROTL receives all of its priming information from the CAROT controller, in contrast to the small 5XB ROTL where marker priming and test line information is cross-connected in the ROTL. The expanded 5XB ROTL is more flexible and is able to access a greater number of trunks but it requires much more complex trunk location information. Figure 19 shows the trunk priming part of the Trunk File Work Sheet and lists the data items for each character position. For more detailed information on the trunk location address (TT or TL record, character positions 17 through 30), refer to Part 8.

Transactions on Circuit Orders

4.81 Table II shows the data record field designations and functions and specifies the order of data entry sequences required for performing transactions on circuit orders. The Circuit Order Work Sheet (E6730) for compiling related data base information is shown in Fig. 20.

4.82 Format information for completing each of the applicable data records appearing on the work sheet is detailed in each of the following referenced tables:

RECORD CODE(S)	RECORD SUBJECT/ DEFINITION	TABLE REF
AD, DE, CH AP, DP, CP	Action Codes	B
PC	Circuit Order Control	JJ
GF, GN	Facility Group	V
TG	Trunk Group	X
TF	Facility Group	Y
TH, TI	Test Parameters	Z
TT, TL	Trunk Record	AA
PV, PU	Circuit Order Item	KK

Note: Gainslope testing—For purposes of testing to gainslope circuit order limits, every trunk is considered to be made up of one or two facilities. Each facility is assigned a code (see Table LL), and this combination of codes makes up the gainslope class for the trunk. For example, a gainslope class of 4A (or equivalently A4) would be made up of nonrepeatered cable and an N3 carrier. This gainslope class is then used to determine the circuit order deviation limits for 400 Hz. This 2-digit code goes into characters 25 and 26 of the TH record (Table Z). If only one facility is present, enter a blank in one of the character positions. Two blanks are allowed if the facility makeup of the trunk is not known.

4.83 These are complex transactions because they are compound transactions: the circuit order contains a transaction on the COTC data base and possibly several transactions on the RDT data base which are pending and which may be performed upon completion of the circuit order. The action on the COTC data base is given a normal action code of AD, DE, or CH. In order to distinguish pending actions on the RDT, these are given action codes AP, DP, and CP.

4.84 The transactions on the RDT data base are embedded within a series of transactions on the COTC data base. It looks like this: PC, RDT transaction, PV, RDT transactions, PV, etc. The sequence of transactions is terminated by a new action code.

Updating COTC Data Base

4.85 Updating the COTC data base (adding, deleting, or changing trunk data) requires specific data records to be entered in a specific order.

4.86 A previous item must exist in the COTC data base before the /PV record with the previous item specified can be entered update. This is because these items, which are concerned about the same circuit (trunk), are linked together in order of due dates.

4.87 The supplement character should be blank unless there has been a change in the item. The supplement character tells the CAROT update system that some of the information concerning this item is to be changed in the COTC data base. If this character is not blank, the new information will overwrite the old item information at update.

4.88 Before data can be entered, some basic rules must be understood. First, the circuit order items (COIs) may be completed in any order regardless of due date (except, of course, items pertaining to the same circuit). Second, the action data (RDT update records accompanying each item) will, if the option is selected by the operating company, be used to update the RDT data base. These two rules, in turn, require that the action data associated with each COI in the data base be sufficient to accomplish the update of the RDT data base. Thus, if a trunk is being added, the action data must include the necessary records to add the trunk to the RDT data base.

4.89 A third rule to remember is that the circuit order items involving additions of new trunks, or changes to existing trunks, will be tested by CAROT before completion is allowed. In order for this to happen, the action data must contain enough information for CAROT to perform a test. This includes the ROTL which will test the trunk, the far-end test line (FETL), and the test parameter and trunk location address. Given this data, CAROT will access its own equipment files and obtain the ROTL telephone number, the FETL dialing number, and then perform the test. The method used to obtain the ROTL and FETL IDs is to require on all testable COIs that the action data include the sequence AD, YG, YB (the add of the trunk group for the trunk involved). In many cases, the trunk group will already exist in the RDT data base, and the automatic RDT update of the trunk group will be redundant. However, the YG, YB pair is essential for the CAROT System to obtain the ROTL and FETL names and thereby their telephone numbers from the equipment data base. It is not necessary that the ROTL and FETL identified in the YB record exist in the CAROT data base at the time the COI is added. It is necessary, however, that they exist when the COI is completed or tested so that the telephone numbers may be obtained. Error messages caused by duplicate adds of trunk groups and facilities with automatic RDT update of the action data are suppressed by the update system so as not to confuse other errors.

4.90 To meet the general requirements stated in paragraph 4.89, action data will be stored

in the data base. The action data stored is associated with a specific COI record. The makeup of this data depends upon the data transaction for which the COI calls. Figure 21 displays the possible transactions called for by a COI and the action data series to be stored for each.

Update Record Entry Sequence

4.91 The sequence of records input for updating the data base must be entered in a specific order to accomplish the proper transaction. The action code (AD, DE, or CH) is entered first followed by the records. The types of records involved are the PC (circuit order), the PV (circuit order item), and the action data records (RDT data base records). The AP, DP, and CP (pending add, pending delete, or pending change action) records are also used as required by COI to indicate a transaction is in progress. However, when stored as action data, and submitted for update (after completion), these records are converted to the AD, DE or CH record.

4.92 The circuit order record (PC) is next in the series of data input and indicates action data is to follow. A pending action code (AP, DP, CP) is entered between the PC and action data when transactions are in progress.

4.93 The body of the update records is the action data. This data immediately precedes the COI (PV record). When entering the data, the programs assume all action data preceding a PV, belongs to that PV record. For example, in the update record entry: AD, PC, AP, YG, YB, GF, TG, TF, TH, TT, PV, the underlined data is associated with the PV at the end of the series. As additional records are added, an additional PV will also be added to be associated with that data series. Thus, the beginning of the action data is indicated by a PC or a PV record, and ended by a PV record.

4.94 When it is necessary to enter a string of data records (for example, add several trunks to the same trunk group), the simplest way is to enter all necessary action data records with each PV record, even if it involves redundant record entry as illustrated in the following:

AD, PC, AB, YG, YB, GF, TG, TF, TH, TT, PV, AP, YG, YB, GF, TG, TF, TH, TT, PV

In the particular example the YG, YB record pair, which adds the trunk group, is repeated for each PV record. The action data will perform the indicated pending action on either the RDT or TFTP data base, or both depending on the codes entered in positions 45 and 46 of the YG and TG records. Note that duplicate sets of record strings are not necessary to perform transactions on both data bases. An A entered in both positions 45 and 46 will cause the transaction to affect both the RDT and TFTP data bases.

4.95 Although it is perfectly acceptable to enter redundant data records as explained in the previous example, the redundancy can be reduced. When entering a string of data records to, for example, add several trunks to the same trunk group, all necessary data records must be entered for the first trunk to be added followed by the PV record (example—AD, PC, AP, YG, YB, GF, TG, TF, TH, TT, PV). To enter additional trunks to the same group, merely add the new TT record data followed by a PV for each trunk. The entire input sequence data string will look like the following:

AD, PC, AP, YG, YB, GF, TG, TF, TH, TT, PV, TT, PV, TT, PV

It is important to remember that although only one action data record (TT) precedes the second, third, and fourth PV record in this update series, the entire sequence from YG, YB through TT is stored in the data base with the PV record.

4.96 Several additional rules to remember for the COTC update process are as follows:

(1) The entry of two or more pending action codes with a single PV is acceptable. However, the action data string for the subsequent PV must begin with a pending action code and therefore contain records for all levels.

(2) The supplement character may be used to identify changed COI that is stored in the data base, whether blank or nonblank, and is displayed with the COI. Thus, the user can identify which issue of COI is in the CAROT data base. It is important to understand that only one item with the same number (characters 4 through 24 of the PV record) can exist in the CAROT data base at one time.

Figure 22 contains typical examples of COTC updates.

4.97 The PU record is used when a circuit order that cancels a previously issued circuit order is added to the data base. The PU record identifies the circuit order item to be deleted from the COTC data base when the canceling item is completed. The item that is specified in the /PU record need not be in the COTC data base when the item in the /PV record is entered at update. Note that the PU record is part of the action data associated with a canceling PV. That is, a PU record contains the COI which is canceled by the following PV record. The record sequence for adding a COI of type cancel is AD, PC, DI, PU, and PV.

F. Change Transactions

General

4.98 This part describes those data manipulation aspects related to making changes to existing records. The sequence for entering data to implement a change transaction requires that a CH command precede the revised record. For example, with a given ROTL as identified in character positions 4 through 15 of an RO record, a CH, RO sequence of ROTL input records causes the CAROT 2 controller to replace existing data in the data base with new data as entered in character positions 16 through 73 of the new RO record. Once the CH command is entered it will remain in effect for successive change transactions and need not be repeated for each change entry. Thus, the sequence of CH, RO, RE, and CT records will cause changes to be made in the given ROTL, responder, and control office for trunks records consecutively. Tables MM, NN, and OO show which records must be entered and in what order, for each type of change transaction permitted.

4.99 The character $ will be used to fill in data items comprising data fields on records that do not require a change for the transaction taking place. If the last nonblank character appears somewhere before the end of the data record and the nonblank character is a $, the remaining characters of the record will be filled in by the update routines with the character $. This will have the effect of not changing data items appearing after the character $ for the remainder of the record. A given *field* within a record must not contain a mixture of $ characters and data. Thus, each *field* must contain either all $ characters or all data.

4.100 For some records, changes are permitted on all data items within the record; while for others, only certain data items within the record can be changed. Implementation of the types of changes permitted is determined by the structure of the specific record to be altered. When making changes to records containing key items, no changes can be made to the identification key.

Large-Scale Data Base Changes

4.101 For those items that are not changeable by using the CH transaction, the necessary procedure to follow involves the addition of the new record containing the proper data, and then the deletion of the old record. This process often involves the deletion and addition of many other records lower in the hierarchy than the initial incorrect record. For example, if a ROTL identification changes, all trunk groups and trunks assigned to the old ROTL must be deleted and then reentered using the new ROTL identification. Such transactions obviously may involve a large number of records. To facilitate making bulk changes of data the select program is employed.

4.102 *Select Program:* The select (SELEC) program examines the existing data base and constructs a file of records that can be produced on disc, paper tape, magnetic tape, line printer, or operator console. The paper tape is punched in a form suitable for direct input using the update program. The output on disc is used for storage and editing purposes and is also suitable for direct input via the update program. Outputs on the line printer and operator console are strictly for viewing purposes. For a more detailed explanation of the SELEC and EDIT instructions, refer to Section 190-102-206 (CAROT 2 Data Base Manipulation Using the Select Program and Text Editor).

Details of Individual Record Changes

4.103 Points to be mindful of when making responder and ROTL transactions are these:

- A change in responder (RE) record data will require corresponding changes in associated records (eg, RO, ID, and ED records).

• To change the identification of a responder, the following data record transactions must be made in sequence:

   (1) Add the new responder identification RE record.

   (2) Change all RO records containing the old responder ID so that they contain the new responder ID.

   (3) Change all ID-ED record pairs containing the old responder ID so that they contain the new responder ID.

   (4) Delete the old responder RE record.

4.104 The following paragraphs discuss all of the data records that can be altered using change transactions. Detailed listings are included for each record, itemizing the data to be filled in for each character position.

Responder File

4.105 Change transactions for responder information are implemented by entering a revised RE record. The following is a detailed listing of data items contained within this record. It should be noted that while *all* data items are listed, *only those marked with an asterisk (*)* can be altered via a CH transaction.

• RE Record—Responder

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	RE
4—26	Responder ID
27—29	*Responder Type
30—32	*Responder Options Code

ROTL File

4.106 Change transactions for ROTL files are implemented by entering a revised RO record. When new responder data is to be entered in this record, the same data must have been previously entered via the RE record. The data items contained in this record are as follows (only those items marked with an asterisk [*] can be revised via a CH transaction):

• RO Record—ROTL

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	RO
4—15	Office ID (Includes count character, position 15, for the number of ROTLs that access the same sets of trunks. When left blank, this character defaults to zero [∅].)
16—18	*ROTL Type
19	*2- or 4-Wire
20	*Make-Busy Flag
21—32	*ROTL Telephone Number
33—36	*Routine Test Startup Time
37	*No. of ROTLs That Test Same Set of Trunks
38	*No. of Heads per ROTL for CAROT Testing
39—50	*Alternate ROTL ID
51—73	*New Responder ID (A new responder must have been previously entered via the RE record.)

4.107 The following conditions may make it necessary to change a ROTL ID or to change the ROTL to which trunk groups are assigned:

   (1) A change in the common language name of the ROTL office

   (2) The addition of another ROTL to the same office, causing the count character (position 15 of the RO record) to change for some trunk groups

(3) The initial assignment of trunk groups to the wrong ROTL.

4.108 To make a change in the ROTL identification (character positions 4 through 15 of the RO record), the following transactions must be made:

(1) Add an RO record containing the new ROTL ID.

(2) Add new RC records containing the new ROTL ID.

(3) If there are trunk groups assigned to the old ROTL that are to be reassigned to the new ROTL, these must first be deleted using a DE-YG-YB series. (The YB record used for the deletion must be the same as when the groups were added initially.) This transaction also deletes all the trunks in these trunk groups. The SELEC program should be used **before** these groups are deleted, to produce a file of the trunk groups and trunks for subsequent reentry into the data base.

(4) Enter trunk groups and trunks to be assigned to the new ROTL, using the YG-YB record pairs with the new ROTL identification in the YB record. The EDIT program should be used to edit the YB records such that they contain the new ROTL ID.

(5) Delete the old RC and RO records (in that order), provided no trunk groups are still assigned to the old ROTL.

Test Line Office File

4.109 Change transactions for test line office files are implemented by entering a revised OD record. The data items contained in this record are as follows (only the item marked with an asterisk [*] can be revised via a CH transaction):

● OD Record—Test Line

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	OD
4—14	Office ID
15—19	*Switching System Type

4.110 Since the office ID part of the OD record (character positions 4 through 14) cannot be changed directly by using a CH transaction, the following procedure must be performed to make office ID changes:

(1) Add the new test line office (OD record).

(2) Add the proper test lines, using ID-ED record pairs containing the new test line office ID.

(3) Delete the old test lines and then delete the old test line office **if the data base contains no trunk groups that terminate at the old office.**

(4) If trunk groups do terminate at the old test line office, follow the procedures in either (a) or (b):

(a) If none of the trunk groups terminating at the old test line office are to be reentered into the data base, perform the following steps:

(1) Delete trunk groups.

(2) Delete old test lines.

(3) Delete old test line office.

(b) If trunk groups terminating at the old test line office are to be reentered with the new test line office, perform the following steps:

(1) Use SELEC program to make a file containing the related trunk groups and trunks.

(2) Delete trunk groups.

(3) Delete old test lines.

(4) Delete old test line office.

(5) Edit file and reenter during the update process.

Test Line File

4.111 Change transactions for test line data are implemented by entering a revised ID record followed by a revised ED record (ID-ED record pair). The data items contained in these records are as follows (only those items marked with an asterisk [*] can be revised via a CH transaction):

● ID Record—Test Line Number

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	ID
4—14	Office ID
15—17	Test Line Type
18—28	*Test Line Telephone Number
29—46	Traffic Use List
47—58	Location

● ED Record—Test Line Equipment

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	ED
4—26	*Responder ID
27	*No. of Test Lines in Hunting Group
28	*Option Code for Test Line
29—44	*Test Line Priming for ROTL (If this entry consists of all 9s, the HOTL is deleted from the record.)

4.112 If changes are to made in the record but not in the ED record, the ED record must still be entered as part of the ID-ED record pair, but the data items in the ED record may be filled in with $.

4.113 To change the test line office identification, test line type, and other entries in the ID-ED record pair that are not changeable via a CH transaction, use the following procedures:

(1) Ascertain that the test line office identification to be changed in the ID record has been previously changed in the OD record (see paragraph 4.101).

(2) Delete the old ID-ED record pair(s).

(3) Add new ID-ED record pair(s) containing the revised data.

(4) To delete a HOTL entry, enter all 9s in character positions 29 through 44 of the ED record.

4.114 *Control Office for Trunks File:* Change transactions for control office for trunks files are implemented by entering a revised CH record. The data items contained in this record are as follows (only those items marked with an asterisk [*] can be revised via a CH transaction):

● CT Record—Control Office for Trunks

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	CT
4—14	Control Office ID
15—26	*Dispersal Telephone Number
27—29	*Equipment Code for Dispersal
30—37	*Data Management Summary Interval Starts
38—45	Data Index Summary Interval Starts

4.115 To change the control office identification item in a CT record, the following steps are required:

(1) Add a new CT record containing the correct ID.

(2) Delete the old CT record containing the old ID.

4.116 When a control office for trunks is deleted from the data base (DE, CT), *all trunk groups and trunks assigned to the control office are deleted automatically.* Therefore, unless the intent is to delete all these trunks, the SELEC program should be used to produce a file of the trunks assigned to the old control office before the old control office is deleted. This input file can then be edited and reentered as assigned to the new control office.

4.117 *ROTL Control File:* Change transactions for ROTL control office files are implemented by entering a revised RC record. The data items contained in this record are as follows (only those items marked with an asterisk [*] can be revised via a CH transaction):

• RC Record—ROTL Control

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	RC
4—15	ROTL ID
16—26	Control Office for Trunks ID
27—29	*Q1 Value for Loss
30—37	*Date to Start Testing Daily Trunks
38—45	*Date to Start Testing Biweekly Trunks
46—53	*Date to Start Testing Biweekly Trunks
54—61	*Date to Start Testing Monthly Trunks
62—69	*Date to Start Testing Quarterly Trunks

4.118 To change the ROTL or control office identification entries in the RC record

(items that cannot be revised using a CH transaction), the succeeding steps must be followed:

(1) Add the new ROTL (RO record) and control office for trunks (CT record), if not already in the data base.

(2) Add the new RC record.

(3) Delete the old RC record *if there are no trunk groups assigned to the old ROTL control office.*

(4) If there are any trunk groups assigned to the old ROTL control office, follow these procedures:

(a) Use the SELEC program to make a tape copy of the file containing the related trunk groups and trunks.

(b) Delete the trunk groups.

(c) Delete the old RC record.

(d) Edit the file containing the old YB record and reenter the trunk groups and trunks with the proper ROTL control office data in the YB record.

4.119 *Control Office for Facilities File:* Change transactions for control office for facilities files are implemented by entering a revised CF record. Data items contained in this record are as follows (only those items marked with an asterisk [*] can be revised via a CH transaction):

• CF Record—Control Office for Facilities

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	CF
4—14	Control Office ID
15—26	*Dispersal Telephone Number
27—29	*Equipment Code for Dispersal

4.120 To change the control office for facilities identification entry (an item that cannot

be revised using a CH transaction), the following steps must be performed:

(1) Add the new CF record.

(2) Change all facility group (GF) records associated with the old control office for facilities.

(3) Delete the old CF record.

4.121 Test Frame Office File: Change transactions for test frame office files are implemented by entering a revised OT record. Data items contained in this record are as follows (only those items marked with an asterisk [*] can be revised via a CH transaction):

• OT Record—Test Frame Office

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	OT
4—14	Office ID
15—20	*Test Frame Type
21—23	*Issue Number

4.122 To change the test frame office identification entry (an item that cannot be revised using a CH transaction), the following steps must be performed:

(1) Add the new OT record.

(2) Using the SELEC program, initialize an input file of all trunk groups and trunks associated with the old test frame office identification.

(3) Delete these trunk groups.

(4) Edit the SELEC file so that the proper test frame office appears in the YB records.

(5) Add the edited SELEC file during update.

4.123 Trunk Group File (CAROT or Test Frame): Change transactions for trunk group test parameter files can be implemented via a special type of YB record. Trunk group identification and application codes contained in the YG record and control office and ROTL identification data contained in the standard YB record can only be revised using the delete and add transactions.

4.124 To implement a CH transaction using the special YB record, use the following procedure:

(1) Enter the applicable YG record, as it appears in the data base.

(2) Enter the special YB record containing the data changes. Only the data items containing the corrected data need be filled in with data; all other items in the record must contain $ characters.

4.125 The following is a listing of data record items that are contained in the YG and special YB records (only those items marked with an asterisk [*] can be revised via a CH transaction):

• YG Record—Trunk Group

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	YG
4—43	Trunk Group ID
45	CAROT Testing Code
46	Test Frame Testing Code

• YB Record—Trunk Group Test Parameters

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	YB
4	*Impedance
5	*Test Pad Level
6	*Rering Flag

7—8	*Transmission Schedule Code (test frame only)
9—10	*Index Code
11—13	*EML
14—15	*Circuit Order Loss Limit
16—17	*Circuit Order Noise Maintenance Limit
18—19	*Noise Immediate-Action Limit
20—21	*Return-Loss Class
22—23	*Gainslope Class
24—25	*Noise-With-Tone Limit
26—27	*P/AR Limit
28	*Echo Suppressor
29	*No. of Far-End Test Line Digits to Outpulse
30—32	*Replacement NPA
33—35	*Replacement NNX
36—37	*Operation Test Schedule Code (test frame only)

4.126 The special YB record does not resemble the standard YB record as listed on the Trunk Group and Test Frame Priming Work Sheet, E6732, but more closely resembles the TH record shown on the Trunk File Work Sheet, E6731. This special YB record facilitates making test parameter changes applicable to the whole trunk group. A data item change via this method affects all trunks within a trunk group: ie, for the same data item category if different values have been initially assigned to specified trunks within the same trunk group, the different values will be replaced by the single value entered via the special YB record change. To revise test parameter data for different test parameter categories imbedded within a given trunk group, refer to the single-trunk change transaction guidelines given in paragraphs 4.122 through 4.125.

4.127 *Facility Group File:* Change transactions for facility group files are implemented by entering revisions via GF-GN record pairs. Data items contained in these records are as follows (only those items marked with an asterisk [*] can be revised via a CH transaction):

• GF Record—Facility Group

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	GF
4—41	Facility ID
42—52	*Control Office for Facility ID

• GN Record—New Facility Group

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	GN
4—41	*New Facility ID
42—52	*Control Office for Facility ID

4.128 When entering a control office identification change, the GF record must contain the revised control office identification and the GN record should contain $ characters.

4.129 To revise the facility identification itself, the GF record must contain the old facility identification and $ characters for the associated control office. The companion GN record in this case must contain the revised facility identification and $ characters for the control office.

4.130 When a GN record for a new facility is to be entered, there must be no other facility listed in the data base with the same name; otherwise, an error message will result and the new GN record entry will be aborted.

4.131 *Trunk File:* Change transactions for trunk files containing trunk records (CAROT principal mode, CAROT alternate mode, test frame principal mode, test frame alternate mode) are implemented by entering revised records in the

hierarchical sequence of TG, TF, TH, and TT records for the principal mode; and TG, TF, TI, and TL for the alternate mode. Data items contained in these records are as follows (only those items marked with an asterisk [*] can be revised via a CH transaction):

● TG Record—Trunk Group

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	TG
4—43	Trunk Group ID
44	Trunk and Facilities Maintenance System
45	CAROT Testing Code
46	Test Frame Testing Code

● TF Record—Facility Group

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	TF
4—41	*Facility ID

● TH or TI Record—Test Parameters

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	TH (Principal Mode) or TI (Alternate Mode)
4	Direction
5—6	Traffic Use
7	*Impedance
8	*Test Pad Level
9	*Rering Flag
10—11	*Transmission Test Schedule Code
12—13	*Index Code
14—16	*EML
17—18	*Circuit Order Loss Limit
19—20	*Noise Maintenance Limit
21—22	*Noise Immediate-Action Limit
23—24	*Return-Loss Class
25—26	*Gainslope Class
27—28	*Noise-With-Tone Limit
29—30	*P/AR Limit
31	*Echo Suppressor Flag
32	*No. of Far-End Test Line Digits to Outpulse
33—35	*Replacement NPA
36—38	*Replacement NNX
39—40	*Operational Test Schedule Code

● TT or TL Record—Trunk Priming

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	TT (Principal Mode) or TL (Alternate Mode)
4	Direction
5—6	Traffic Use
7—11	Trunk Number
12—16	*Channel Number
17—30	*Trunk Priming (CAROT)
31	Pretest
32—50	*Trunk Priming (Test Frame)

4.132 The TG, TF, TH, and TT record series or the TG, TF, TI, and TL record series can be used to change the following data items:

(a) The facility to which trunks in the associated TT records are assigned

(b) Test parameters for a subset of trunks within a trunk group.

Trunks whose test parameters are to be changed are entered as TT records following the entry of the associated TH records. If no changes are to be made in the TF and TH records (ie, the changes are to be made only in the TT records), the TF and TH records need contain only $ characters. Data base changes of the type referenced above are greatly facilitated by the use of the SELEC program.

> *Note:* If the revised test parameter value is the same for the entire trunk group, the special YG-YB change transaction described in paragraph 4.123 should be used.

4.133 When using this record series to enter a revised facility group identification in the TF record, this action merely changes the facility to which the trunks listed in the associated TT records are assigned. This action does not change the facility group identification stored in the data base. To accomplish a facility group identification change, the GF-GN record change described in paragraph 4.127 should be used.

4.134 If the facility record referenced in the TF record has not been previously entered via a GF record, an error message will result when data base changes are attempted.

4.135 *K Priming for Test Frame File:* Change transactions for test frame K priming files can be implemented provided the direction and traffic use for that priming data have been established. Priming changes are implemented by entering the YG record first and then the revised YK record. The data items for these records are as follows (only those items marked with an asterisk [*] can be revised via a CH transaction):

● YG Record—Trunk Group

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	YG
4—43	Trunk Group ID
44	Trunk and Facilities Maintenance System
45	CAROT Testing Code
46	Test Frame Testing Code

● YK Record—Test Frame Priming

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	YK
4	Direction Code
5—6	Traffic Use
7	*Control Flag
8—61	*Test Frame Priming

4.136 *Change Transaction for Circuit Order Data Base:* Change transactions for the CP record are permitted as shown in this paragraph. Change transactions are also permitted for the PV record as shown. *However, if a change transaction on a circuit order item (PV) is associated with action data in the input record string (see paragraphs 4.91 through 4.97) the new action data will replace the action data existing in the data base for the item (*).* Note also that the circuit order record (PC) has no changeable fields.

● CP Record—Plant Control Office

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	CP
4—14	PCO ID

15—29	*Telephone Number and Equipment Code for Test Results Dispersal
30—44	*Telephone Number and Equipment Code for Management Results Dispersal
45—52	*Date to Begin Accumulating Management Summary Data on Circuit Order Activity

• PV Record—Circuit Order Item

CHAR POS	DATA ITEM
1	/—Beginning of Line
2—3	PV
4—24	Circuit Order and Item Number
25	*Supplement Character
26	Item Action Code
27	Item Type
28	Circuit Order Testable Flag
29	CAROT Completion Flag
30	Automatic COTC Update Flag
31	Automatic RDT Update Flag
32—39	*Due Date for Completion
40—41	Blanks
42—63	CLO and Item Number of Previous COI (The action data associated with the original COI is replaced by the new action data.)

5. INPUT FILE PREPARATION, LOADING, AND ASSOCIATED ERRORS

A. Input File Preparation

5.01 The input file consists of a group of data records assembled on an input medium of magnetic tape, paper tape, cards, or the CRT console from which data may be entered into the CAROT 2 data base. American Standard Code

Information Interchange (ASCII) code is used. The general flow of data will be from CAROT 2 work sheets to paper tape or cards or magnetic tape, and eventually to disc.

5.02 The preparation of the input files will normally be done at one central location specializing in transferring data from work sheets to paper tapes or cards. Therefore, details pertaining to the general techniques of preparing data in these forms will not be covered in this section except for those cases where exceptions to the general rule occur.

5.03 Detailed instructions for loading the input files via the various mediums onto the disc and into the CAROT 2 data base are given in TOP 190-102-301 (CAROT 2 Controller).

Paper Tape Input

5.04 The following details apply when preparing an input file on paper tape:

• A 1-inch wide, 8-level paper teletypewriter tape is used for CAROT 2 input file paper tapes. Ordering information is specified in Section 801-250-171.

• Records can be of variable length up to a maximum of 80 alphanumeric characters.

• The limits of a record are defined as those data elements appearing between successive carriage return and line feed commands.

• The CAROT 2 input file does not require a start-of-file record. Instead, the designated action code (ie, AD, DE, CH, etc) serves as the introduction.

• Each record must be terminated by a carriage return and line feed.

• When inputting successive records of the same type (ie, all additions, deletions, or changes), the applicable action code need be entered only once at the beginning of a group of specified entries. The only time it will be necessary to enter another action code on the same tape is when there is a change in action code for subsequent record entries.

• An end-of-file record containing /END is required at the end of each reel of tape.

• The beginning and end of a paper tape should contain at least 5 or 6 inches of feed holes for convenient loading.

• When using paper tapes in a single-update run, the process may involve entering several individual paper tapes, sequentially. The input data can be prepared on more than one paper tape, which then must be entered according to the record entry sequence as determined by the hierarchical structure of the data base.

• A record containing a RUBOUT character will be ignored by the CAROT 2 Update program. Therefore, when an error occurs while entering a record on tape, the RUBOUT key must be struck and followed by a carriage return and line feed. The record should then be reentered correctly.

Magnetic Tape Input

5.05 The following details apply when preparing an input file on magnetic tape:

• Nine-track, IBM-compatible magnetic tape is used.

• Data is recorded at the density of 800 or 1600 characters per inch (CPI), depending on the compatibility with the magnetic tape drive used at the CAROT center.

• Data records must be extended to 80 characters with blanks and blocked in 320-character, 4-record blocks.

• If the tape is unlabeled, it must have an 80-character block at the beginning. This block will be printed to identify the tape. If the tape is labeled, the standard label records will be expected. These are VOL 1, HDR 1, HDR 2, EOF; DATA BLOCKS, EOF; and EOV1, EOF. For further information regarding tape labels, refer to the AT&T general letter (72-04-163, M456A), entitled Magnetic Tape Standards for Interchange.

B. Procedures for Initial Load and Updates of Data Base Records

Data Entry Sequences

5.06 Before attempting to input any data into the CAROT 2 controller data base via the update process, the following records must be entered as a data base initialization procedure via the controller console. (R means operate the RETURN key; ___ means operate the SPACE bar.)

    /AD R
    /CFNOT_KNOWN R
    /RENOT_KNOWN R
    /GFNONE_ENTERED R
    /END R

5.07 Once these records are in the data base, any of the following actions is allowable:

(a) Leave the responder ID blank in the RO and ED records.

(b) Leave the control office for facilities ID blank in the GF or GN record.

(c) Leave the facility group ID blank in the GF record.

These blank items may be used when the information on the responder ID, facility group ID, or control office for facilities ID is not available or is nonexistent.

• The responder record entry (RE NOT KNOWN) permits the subsequent addition of non-105 type test lines (ie, test lines not associated with a responder) to the data base.

• The control office for facilities record entry (CF NOT KNOWN) permits the subsequent addition of facility group (GF) records which are not assigned to any control office. Thus, the control office for facilities item in that GF record can be left blank and will default to the "not known" category.

• The facility group record entry (GF NONE ENTERED) permits the subsequent addition of trunks that are not assigned to a facility group. Therefore, in the record entry sequence of AD, TG, TF, TH, and TT,

leaving all blanks in the TF record will cause these trunks to be assigned to the "none entered" facility group.

5.08 For an initial load of the CAROT 2 data base or for conversion from the CAROT 1 to the CAROT 2 data base, the order in which data records must be inputted follows the specified sequence of entering equipment records first, administrative records second, and trunk and facility records last. As mentioned previously, for all trunks controlled by CMS 1A, B, only the equipment and administrative records need be entered via the standard method using paper tape, cards, or magnetic tape; trunk and facility data is entered via the connecting CMS/CAROT 2 data link.

5.09 Data may be entered by either manual or automatic processes. *Console updating* (manual) involves the use of the cathode-ray tube (CRT) console keyboard for making small additions or changes to the data base. *Automatic updating* involves the use of 9-track magnetic tape or paper tape, disc file, paper cards, or the CMS 1A, B data link.

5.10 It is recommended that the input data for an initial load be prepared at a centralized data processing center on 9-track magnetic tape. This data will then be entered using the automatic update process. However, the input data for an initial load may exist in the form of paper tape or cards. To produce paper tapes or cards for the automatic update process, the work sheets should be filled out using the definitions given in Tables B through HH (for routine trunk tests and test frame records) and in Tables II through KK (for circuit order work). These work sheets should then be used to generate paper tape or cards. The order in which the records are typed using the work sheets is described in the following paragraphs.

5.11 *Equipment Data Base Transactions:* These transactions are performed first and pertain to those records containing equipment-related data for all ROTL and test line offices that are to exist in the testing network. The records involved include the RE, RO, OD, ID, and ED records as required for each office. (See paragraph 4.13.)

5.12 *Administrative Data Base Transactions:* These transactions pertain to entering those records containing administrative data for the control offices that exist in the testing network. These records are entered after the equipment records and will include the CT, RC, CF, CP (if the circuit order data base is required), and OT (if the test frame data base is required) records. (See paragraphs 4.17 through 4.24.)

5.13 *Trunk and Facility Data Base Transactions:* These are transactions for entering record data pertaining to trunk groups, facility groups, testing parameters, and trunk identification for those trunks that are the objective of the test effort. These are the last groups of records to be entered and will include a YG-YB record pair for each CAROT trunk group and a YG-YB-YK record set for each test frame trunk group followed by the TG, TF, TH or TI, and TT or TL records. Trunks are added to the data base by a series of TG, TF, TH or TI, and TT or TL records.

(a) The TH or TI records may be followed by as many TT or TL records as there are trunks assigned to the same test parameters (TH record) and facility group (TF record). *Example:* TG, TF, TH, TT, TT, TT . . .

(b) If the test parameters change but not the facility group or trunk group, a new TH or TI record must be entered followed by its associated TT or TL records. *Example:* TG, TF, TH, TT, TT, TT, TH, TT, TT . . .

(c) If the facility group within the trunk group changes, a new TF record must be entered followed by its TH or TI and TT or TL records. *Example:* TG, TF, TH, TT, TT, TT, TF, TH, TT, TT, TT . . .

(d) When a new trunk group is to be entered, a new TG record followed by TF, TH or TI, and TT or TL records is necessary. *Example:* TG, TF, TH, TT, TT, TT, TG, TF, TH, TT, TT, TT, TT . . .

5.14 The sequence described in paragraph 5.13 must be followed to ensure that the hierarchical constraints of the data base structure are satisfied, thereby avoiding errors when subsequently adding trunks and facilities to the data base. Tables MM, NN, and OO summarize the data record transactions (cross-referenced to work-sheet types applicable to RDT, TFTP, and COTC system operations, respectively). Transactions are listed in the order

in which they must be entered according to the established data base hierarchy shown in Fig. 2. These tables list the data records as related to addition, deletion, and change transactions when making equipment, administrative, and trunk and facility data entries.

5.15 When establishing a completely new CAROT 2 data base (with no previous CAROT 1 data base to build from), the referenced procedures are somewhat flexible as long as the hierarchical constraints are satisfied. (See Fig. 2, 3, 4, and 5.) An example of this flexibility is that instead of entering all of the sets of interrelated equipment records (ie, RE, RO, OD, ID, and ED) grouped on a per-office basis, certain records can be entered as a group of the same type (ie, all REs, then all ROs, then all ODs, then all ID-ED pairs) as long as the hierarchical structure is maintained in the building process. The order of record entry sequences following this procedure is detailed in paragraph 5.16. This approach makes it easier to check the accuracy of the data before entering it into the data base. This is done by obtaining a printout of the data prepared on magnetic tape, paper tape, or cards. An erroneous data entry on the printout then becomes more apparent since it will break the repetitious visual pattern established by valid data entries of multiple RE, RO, OD, etc, records. (See Fig. 54A.)

5.16 The following is a listing of recommended data entry sequences for inputting records according to specified central offices. (See notes at end of listing.)

Equipment Records

[RE, RE, RE ... RE]
[RO, RO, RO ... RO]
[OD, OD, OD ... OD]
[ID-ED, ID-ED, ID-ED ... ID-ED]

Administrative Records

[CT, CT, CT ... CT]
[RC, RC, RC ... RC]
[CF, CF, CF ... CF]
[CP, CP, CP ... CP]
[OT, OT, OT ... OT]

Trunk and Facility Records

[GF, GF, GF ... GF]
[YG-YB, YG-YB, YG-YB ... YG-YB]
$$\begin{bmatrix} \text{TG, TF, TH or TI, TT or TL ... TL or TL} \\ \vdots \\ \text{TG, TF, TH or TI, TT or TL ... TL or TL} \end{bmatrix}$$

OR

[GF, GF ... GF, YG-YB, YG-BY ... YG-YB]
$$\begin{bmatrix} \text{TG, TF, TH or TI, TT or TL ... TT or TL} \\ \vdots \\ \text{TG, TF, TH or TI, TT or TL ... TT or TL} \end{bmatrix}$$

OR

[GF, GF, GF ... GF]
$$\begin{bmatrix} \text{YG-YB, TG, TF, TH or TI, TT or TL ... TT or TL} \\ \vdots \\ \text{YG-YB, TG, TF, TH or TI, TT or TL ... TT or TL} \end{bmatrix}$$

OR

$$\begin{bmatrix} \text{YG-YB, GF, TG, TF, TH or TI, TT or TL ... TT or TL} \\ \text{TG, TF, TH or TI, TT or TL ... TT or TL} \end{bmatrix}$$

Note 1: Individual records are designated by a 2-letter code, ie, RE or RO, etc.

Note 2: Record pairs are designated by two record codes separated by a hyphen, ie, ID-ED.

Note 3: Record listings are shown in the recommended sequence for ease of data entry. Those records enclosed in brackets are intended to be submitted as a single-entry unit, eg, a single-paper tape. That is, all RE records are entered at one time, after which all RO records are entered at one time, etc. For trunk and facility records, the sequence can be to enter all GF records at one time, then all YG-YB record pairs at one time, then all associated TG, TF, TH or TI, TT or TL ... TT or TL records, repeating this last group of record entries as required for all trunk

groups established via YG-YB record pair entries.

Converting From CAROT 1 to CAROT 2

5.17 When coverting from a CAROT 1 to a CAROT 2 data base, follow the same sequence listed in paragraph 5.17 for equipment and administrative records. However, to enter trunk and facility data, the CAROT 2 program for converting CAROT 1 TMFs to an acceptable CAROT 2 data base may be employed. For this procedure, refer to TOP 190-102-301 (CAROT 2 Controller) and Section 190-102-201 (Data Base Administration). It is emphasized that in order for the data base conversion to be effective, the CAROT 1 TMFs must be in the most recent CAROT 1 format, including FETL information (number of digits to outpulse, replacement NPA, and NNX) where necessary.

Interfacing With CMS 1A, B

5.18 When interfacing with CMS 1A, B, the procedures for entering equipment and administrative data records are the same as for a conventional (non-CMS) CAROT 2 System. However, the trunk and facility records are inputted automatically via the CMS/CAROT 2 connecting data link. The trunk and facility records can be sent at any time during the day. However, these records are stored on disc and are entered into the data base during the update process. Refer to Part 4 of this section for specific details regarding the entry of equipment and administrative records for a No. 4 ESS office.

C. Errors to Avoid When Loading Data

Data Entry Sequences

5.19 The order in which data records are entered, revised, or deleted in the CAROT 2 data base must occur in a prescribed sequence. If an attempt is made to enter a record out of sequence, the effort is aborted for the intended entry, and an error message code is outputted. These codes are defined in Section 190-102-201 (Data Base Administration).

5.20 When the *automatic updating* process is being used, an erroneous entry will be detected and ignored and the update process will continue until completed. The seriousness of the consequences will vary, depending upon the magnitude and type of data entry. If the data entry error involves records comprising equipment (ROTLs and test lines) or administrative (control offices for ROTLs, test lines, or trunks) files, those offices assigned to the trunks to be tested (according to the equipment and administrative file assignments) will not be entered into the RDT data base and therefore will not be tested.

- If a data entry error involves the identification of a control office for trunks, those trunks assigned to that control office will not be tested.

- If the data entry error involves all the offices in the data base, no testing will take place.

- If the data entry error involves trunk groups or trunks assigned to specific offices, only those intended entries will be affected; the offices not involved will be tested as usual.

5.21 During he update process, error messages are outputted on the line printer when loading errors occur. This information is used to identify the type of loading error so that the appropriate corrections can be reentered in a later update procedure.

5.22 When the *console updating* (manual) process is being used for making small additions or changes to the data base, an erroneous data entry will be detected immediately via the appropriate error message printed out on the CRT and/or line printer. Since by their very nature the data entries are small, affecting usually trunk groups and/or trunks, the consequences are not too severe. Since this method of data entry is done in "real time," the error can be recognized, the necessary correction can be made, and the data can be reentered.

Input File Preparation

5.23 To minimize data entry errors, strict adherence to the details given in paragraphs 5.04 and 5.05 concerning the preparation of data on paper tape, cards, and magnetic tape, respectively, must be observed.

6. WORK-SHEET EXAMPLES FOR INITIAL DATA BASE LOAD AND SUBSEQUENT UPDATES

General

6.01 Data base transactions involve the following data manipulations:

● Filling out data records on specified work sheets

● Transferring information from work sheets to punched paper cards or punched paper tape

● Transferring data from paper cards or tape to 9-track magnetic tape.

6.02 The content of this part will be confined to the preparation of CAROT 2 work sheets for those types of trunks that are testable via CAROT (see Table BB). The preparation of resultant paper tape, paper cards, and 9-track magnetic tape will be accomplished at a centralized data processing center and, therefore, will not be covered in this section. Details covered in this part pertain to those efforts involved in completing work sheets for the initial establishment of a data base and for subsequent revisions of the data base to accommodate an expanding system. Examples of completed work sheets are provided in Fig. 23 through 52 to illustrate data record transactions involved when entering data for RDT and TFTP system operations. Figure 53 shows the development of the CAROT 2 System configuration as it evolves from the initial data base load through updates 1, 2, and 3. Figure 54 shows printouts of data contained in the example work sheets for the initial data base load and subsequent updates 1, 2, and 3. This figure shows how the record data would appear when a paper tape of input records is printed out by a teletypewriter for visual examination.

6.03 Before beginning the initial loading of the data base, certain "not known" categories must be initialized. Details regarding the entry of "not known" categories are given in paragraph 5.06.

Initial Data Base Load

6.04 The following paragraphs cover the data transactions involved in establishing a typical initial data base, via the update process, for a CAROT universe encompassing four switching offices. Two of the offices in the examples will have ROTLs associated with them and all four will have test lines.

6.05 The data base transactions comprising the initial data base load establish the RDT data base. A listing of applicable data record transactions and sequences related to the RDT data base is given in Table MM.

6.06 *Equipment Files:* As stated before, the equipment files must be entered first. They include those data records representing offices containing responders, ROTLs, and test lines that comprise the CAROT 2 trunk testing network. The equipment data record entries are compiled on the CAROT 2 Responder, ROTL, and Test Line Work Sheet.

6.07 Examples of Responder, ROTL, and Test Line Work Sheets containing data record entries for adding equipment offices to the data base are shown in Fig. 23, 24, 25, and 26.

6.08 *Administrative Files:* The administrative files contain records of those central offices that are assigned the maintenance responsibility for the trunks and facilities undergoing tests by CAROT. Entry of an office into the administrative files also designates that office as the control office for two additional functions:

(1) Requesting copies of the previous night's test results via the remote terminal

(2) Receiving the periodic management summary and TTMI reports that list test results according to control office identification.

6.09 For each control office entered in the administrative files, the identification of the associated ROTL is included. (There will be instances when several ROTLs will be under control of a single office as well as instances when several offices will share a common ROTL.) Also included are start dates for the management and TTMI summaries as well as start dates for periodic test intervals (daily, weekly, biweekly, etc).

6.10 The administrative data record entries are compiled on the CAROT 2 Control Office for Trunks and Control Office for Facilities Work Sheets. Examples of the Control Office for Trunks

Work Sheet containing data record entries for adding control office assignments to the data base are shown in Fig. 27 and 28.

6.11 Trunk and Facility Files: The trunk and facility files contain those data records pertaining to trunk group, facility group, test parameters, and trunk data for the principal and alternate test directions. Data for initial trunk group and facility group entries is recorded on the CAROT 2 Trunk Group and Test Frame Priming Work Sheet and the Facility Group Work Sheet, respectively. Subsequently, record entries for trunk and facility group identification, trunk testing parameters, and trunk priming data are compiled on the CAROT 2 Trunk File Work Sheet.

6.12 The initial trunk group data record entries as compiled on the CAROT 2 Trunk Group and Test Frame Priming Work Sheet consist of the trunk type with near- and far-end terminal designations, and the control office with near- and far-end ROTL and FETL designations for the respective terminals. Examples of work sheets containing data record entries for adding trunk group assignments to the data base are shown in Fig. 29, 30, and 31.

6.13 The initial facility group data record entries as compiled on the Facility Group Work Sheet consist of the facility designation and type, near- and far-end terminal designations, and the associated control office identification. If a control office for facilities is assigned, the control office field (character positions 42 through 52) can be used for this purpose. If this field is left blank, the CAROT 2 controller will automatically assign the facility to the default control office category called "not known". This is possible only if the initialization of the "not known" category has been performed as described in paragraph 5.06. An example of a facility group record (GF) entry on the Facility Group Work Sheet is shown in Fig. 32.

6.14 Trunk-related data record entries as compiled on the CAROT 2 Trunk File Work Sheet consist of trunk group and associated facility group identifications. Also included are trunk testing parameters along with trunk priming data for individually identified trunks appearing within specified facility groups. Examples of Trunk File Work Sheets containing typical record entries appear in Fig. 33 and 34.

6.15 Following is a summary of all the data records entered in the typical initial load represented by the work-sheet examples shown in Fig. 23 through 34.

WORK-SHEET EXAMPLE	INITIAL LOAD SUMMARY
Fig. 23	AD, RE, RO, OD, ID, ED, ID, ED
Fig. 24	RE, OD, ID, ED, ID, ED
Fig. 25	OD, ID, ED, ID, ED
Fig. 26	RE, RO, OD, ID, ED, ID, ED
Fig. 27	CT, RC
Fig. 28	CT, RC
Fig. 29	YG, YB
Fig. 30	YG, YB
Fig. 31	YG, YB
Fig. 32	GF, GF, GF
Fig. 33	TG, TF, TH, TT, TT, TF, TH, TT
Fig. 34	TG, TF, TH, TT, END

6.16 The records referenced in Fig. 23 through 32, if entered serially on a single-paper tape, would appear in the sequence AD, RE, RO, OD, ID, ED, ID, ED, RE, OD, . . . TG, TF, TH, TT, END. These same records, when entered using the grouped sequencing arrangement described in paragraph 5.15, would appear as shown in Fig. 54A.

6.17 The CAROT 2 System equipment configuration represented by the data compiled on the above work-sheet examples and entered during the initial load of the data base is shown in Fig. 53A. **Important:** No trunk can be entered using the Trunk File Work Sheet (via TG, TF, TH, and TT records) until the associated trunk group identified in the TG record and the facility group identified in the TF record have been entered via the YG, YB, and GF records.

Update 1

6.18 The first update to the data base (initialized in the examples given in paragraphs 6.04 through 6.17) consists of data record additions and deletions. An example of a typical first update is represented by the following transactions:

Add:

Two responders

Two ROTLs

One test line

One administrative control office

Three trunks to existing trunk group.

Delete:

One trunk from existing trunk group.

6.19 Examples of update 1 data entered on the Responder, ROTL, and Test Line Work Sheet are shown in Fig. 35 and 36.

6.20 An example of using the Control Office for Trunks Work Sheet to enter update 1 records is shown in Fig. 37.

6.21 Figures 38 and 39 show examples of update 1 addition and deletion records entered on the Trunk File Work Sheet.

6.22 Following is a summary of all the data records entered during the update 1 data base load exemplified in Fig. 35 through 39.

WORK-SHEET EXAMPLE	UPDATE 1 SUMMARY
Fig. 35	AD, RE, RO, ID, ED
Fig. 36	RE, RO
Fig. 37	CT, RC, RC
Fig. 38	TG, TF, TH, TT, TT, TT
Fig. 39	DE, TG, TT, END

6.23 The CAROT 2 System equipment reconfiguration represented by the data compiled on the work sheets referenced previously and entered as the first update of the initial data base is shown in Fig. 53B. Figure 54B shows a printout of data contained in those work-sheet examples pertaining to update 1 of the data base.

Update 2

6.24 The second update of the previously established data base could typically consist of adding a new trunk group to an existing office file and changing priming information for four trunk records.

6.25 An example of update 2 record entries adding trunk group and control office data to the data base via the Trunk Group and Test Frame Priming Work Sheet is shown in Fig. 40.

6.26 Figure 41 shows an example of using the Trunk File Work Sheet to enter update 2 records changing trunk priming for four trunks previously entered into the data base.

6.27 Following is a summary of all data records entered during the update 2 data base load exemplified in Fig. 40 and 41.

WORK-SHEET EXAMPLE	UPDATE 2 SUMMARY
Fig. 40	AD, YB, YB
Fig. 41	CH, TG, TF, TH, TT, TT, TT, TT, END

6.28 The CAROT 2 System equipment configuration represented by data compiled on the work sheets referenced previously remains unchanged. Therefore, the equipment configuration shown in Fig. 53B applies to the data base resulting from update 2 changes. Figure 54C shows a printout of data contained in those work-sheet examples pertaining to update 2 of the data base.

Update 3

6.29 A typical third update of the established data base consists of the following data transactions:

Add:

Three new trunks

One 5XB APTT test frame office.

Change:

Option code for a responder

Startup testing time of a ROTL

Startup date for management and index summary reports

Identification of a responder.

6.30 The 5XB APTT test frame office data base transactions comprise the initial load for the test frame tape preparation (TFTP) data base. A listing of the TFTP data record transactions and entry sequences is given in Table NN.

6.31 Data record transactions adding three trunks to the data base are shown in the example record entries on the CAROT 2 Trunk Group and Test Frame Priming Work Sheet (Fig. 42), the Facility Group Work Sheet (Fig. 43), and the Trunk File Work Sheet (Fig. 44). In this case, a new trunk group and a new facility group must be entered first, since the new trunks were not associated with trunk and facility groups already established in the data base.

6.32 The addition of a 5XB APTT test frame office and associated trunk data to the data base is accomplished as shown by the examples given in Fig. 45 through 48. The update 3 record entries shown in the examples involve the CAROT 2 work sheets listed:

Test Frame Office—Fig. 45

Trunk Group and Test Frame Priming—Fig. 46

Facility Group—Fig. 47

Trunk File—Fig. 48.

6.33 A change in the responder option code and ROTL testing startup time is entered on the Responder, ROTL, and Test Line Work Sheet as shown by the example in Fig. 49.

6.34 Changes in the management and index summary report start dates for an existing control office and the ROTL testing startup time are entered on the Control Office for Trunks Work Sheet. (See example, Fig. 50.)

6.35 Data entries required for changing the identity of a responder involve the Responder, ROTL, and Test Line Work Sheet (see Fig. 51 and 52 for examples). This change must be accomplished by making the following record entries in the order listed:

(1) Responder record (RE)—Add the new responder identification (Fig. 51).

(2) ROTL record (RO)—Change all ROTL records associated with the old responder identification to be consistent with the new responder identification (Fig. 51).

(3) Test line office identification record (ID) and responder office identification record (ED)—Change all test line and responder office identification records associated with the old responder identification to be consistent with the new responder identification (Fig. 51).

(4) Responder record (RE)—Delete the old responder identification (Fig. 52). If desired, the old responder can remain associated with the test lines (via the original ID and ED records), but the new responder must be associated with a ROTL. In this case omit the transactions specified in (3) and (4).

6.36 A summary of all the data records entered during the update 3 data base load exemplified in Fig. 42 through 52 is as follows:

WORK-SHEET EXAMPLE	UPDATE 3 SUMMARY
Fig. 42	AD, YG, YB
Fig. 43	GF

Fig. 44	TG, TF, TH, TT, TT, TT, TI, TL, TL, TL
Fig. 45	OT
Fig. 46	YG, YB, YK
Fig. 47	GF
Fig. 48	TG, TF, TH, TT
Fig. 49	CH, RE, RO
Fig. 50	CT, RC
Fig. 51	AD, RE, CH, RO, ID, ED
Fig. 52	DE, RE, END

6.37 The CAROT 2 System equipment reconfiguration represented by data transactions compiled on the referenced work sheets and entered as the third update of the established data base is shown in Fig. 53. Figure 54D shows a printout of data contained in these work-sheet examples.

7. DATA BASE ADMINISTRATION

A. Data Base Gathering Methods

General

7.01 This part describes the procedures involved in compiling CAROT 2 data base information related to ROTLs and to those trunks capable of being tested via the ROTLs.

7.02 The details cover the CAROT 2 System controlling small and expanded SXS ROTLs, SXS ROTL-3, small and expanded 5XB ROTLs, 1XB and XBT ROTLs, and No. 1, No. 2, and No. 3 ESS ROTLs. Because priming information for the expanded 5XB ROTL is more complex than for the other ROTLs, a more detailed description is included in Part 8.

7.03 The forms used in the various phases of data collecting and all of the ROTL data required on them are covered in Part 7B; however, instructions for use of some of the office description forms may be found in Section 800-102-100 (ATMS and Associated Testing Arrangements, Centralized Tape and Card Administration).

Responsibilities of ROTL Offices and CAROT Centers

7.04 To establish the appropriate data base for trunk testing operation, office description forms and trunk group description forms should be completed for each ROTL office. This information will then be transferrred to the Trunk File and Trunk and Facility Group Work Sheets for each trunk outgoing from a ROTL. Related information on each ROTL, responder, and test line, and on the respective control offices must also be entered on the designated work sheets. To accommodate test frame tape and circuit order completion operations, related information must be entered on the appropriate work sheets.

7.05 The initial data must be an accurate record of those equipment and trunk areas involved as of a predetermined date; and to ensure the continued accuracy of the data base, methods must be established to incorporate all additions, deletions, and changes as they are subsequently reported.

7.06 Additional supporting information required by the CAROT center, other than that just described, may be found in the following sections:

(a) Section 660-402-300 for loss deviation guides

(b) Section 660-403-500 for noise limits, if not provided on the circuit layout record card.

7.07 Since methods of record keeping, trunk design and provision, and information distribution vary within the Bell System, an objective of the CAROT/ROTL universe must be to combine as much data as possible close to its source, by either manual or mechanized methods. This will allow the CAROT center to receive one complete input record for each trunk. Equally important, it will allow most of the convert-and-prepare process to take place outside the CAROT center. Part 7B provides more specific information about the data forms available for data compiling; and Part 4 tells how to complete the CAROT 2 work sheets.

Data Base Information Flow

7.08 Initially, much of the information required to establish the CAROT 2 controller data base may have to be obtained from records and physical inventories in the central offices involved. However, once the data base has been established, as much information as possible should be obtained

from other sources so that involvement of central office forces is minimized.

7.09 Information required to access and test trunks can be classified as trunk identification, facility identification, transmission parameters, trunk priming (trunk channel or pair number and trunk location address), test line, responder and ROTL type, and telephone numbers. As shown in Fig. 55, information is available from three primary sources:

(1) Facility and equipment assignment group, referred to as the engineering circuit design and provision group

(2) Trunk and common control assignment groups

(3) Central office operations groups.

The appropriate engineering, assignment, and operating groups should forward copies of all circuit layout records, traffic and trunk orders, and in-effect notices, together with changes in test connector assignment, to the circuit provision organization functioning as the mechanized data base support group. This data will then be forwarded to the CAROT center on 9-track magnetic tape.

7.10 While the activities of these various functional groups are often correlated, each source may also act independently. For example, the facility assigned to a specific trunk may be changed without a simultaneous change in the trunk equipment assignment, and vice versa. A machine-load-and-balance adjustment may occur independently as a result of equipment additions and changing traffic patterns in an office. Since screening and coordinating data inputs for the data base is the responsibility of the CAROT center, the full cooperation of all groups should be obtained early in CAROT implementation, and formal methods should be established to assure a timely and accurate flow of information.

Trunk File Preparation

7.11 The local methods used to gather the data base information required to generate the trunk file for the CAROT System should be established well in advance of the actual start of automatic testing by the controller.

7.12 Once these methods have been established, the collection of data should be started and the trunk files prepared prior to the turnup of the ROTLs. Some factors to consider in advance preparation are as follows:

(a) Size and number of trunk groups to be tested

(b) Availability of information required for the trunk file

(c) Number of updates that would occur because of rearrangements during the advance preparation stage.

7.13 As stated in paragraph 7.07, an objective must be to combine as much data as possible close to its source and to provide one input to the CAROT center. The next three paragraphs outline types of administrative interaction methods utilized between trunk and common control assignment, circuit provision, and operating organizations that lead to an efficient and straightforward initial load and update process.

Trunk File Initial Load Process

7.14 This process for gathering ROTL data for the initial load should minimize the involvement of the central office forces and allow most of the convert-and-prepare process to occur outside the CAROT center.

7.15 As shown in Fig. 56, the CAROT center is responsible for identifying testable trunk groups. If the ROTL installed is an ESS or small electromechanical ROTL, the trunk assignment organization will provide the per-trunk priming information and pass this information directly to the circuit provision organization. If the ROTL installed is an expanded electromechanical ROTL, the trunk assignment organization will prepare a trunk group description (TGD) form and enter the per-trunk priming information on the TGD form. The trunk assignment organization will then forward the TGD form to the common control assignment organization. The common control assignment organization is responsible for providing the trunk group priming information on the TGD form and then forwarding the form to the circuit provision organization. The circuit provision organization is responsible for the convert-and-prepare process and for providing facility assignment and transmission parameter information.

Trunk File Update Process

7.16 As shown in Fig. 57, the responsibilities of the different organizations for the update process are the same as for the initial load process except that the CAROT center is not responsible for identifying testable trunk groups. It is important to note that for 1XB/XBT ROTLs and for expanded SXS and 5XB ROTLs, when the trunk activity does not affect the entire trunk group, TGD forms are not required.

B. Input Data Forms and Examples

General

7.17 This part describes forms used when collecting data for both CAROT 1 and CAROT 2 Systems. For CAROT 2 applications, these forms provide a means for compiling data into the required formats for subsequent entry into the data base. The forms involved and their applications are as follows:

> *Office Description Forms:* These forms are used in the initial assembly of information related to arrangements for automatic trunk testing in each office, ROTL directory numbers, and test connector assignments.

> *Trunk Group Description Forms:* These forms are used in the initial assembly of trunk group dependent data as related to expanded SXS, expanded 5XB, and 1XB/XBT ROTLs.

> *CAROT 2 Work Sheets:* The work sheets are used in the intermediate phase of data manipulation. They are used to format information derived from other sources, ie, office description forms, trunk group description forms, etc, for entry into the CAROT 2 data base via the manual or mechanized data entry processes.

7.18 A listing of forms that will be useful in collecting CAROT 2 data base information follows. Those forms identified by reference numbers enclosed in parentheses may be ordered from Western Electric Company, and those that are not must be reproduced locally.

Office Description Form
Trunk Maintenance File Data

SXS ROTL Office
(ODF-D CAROT)

Office Description Form
Trunk Maintenance File Data
No. 5XB ROTL Office
(ODF-C CAROT)

Office Description Form
Trunk Maintenance File Data

Expanded Step-by-Step ROTL Office
and SXS ROTL-3 Office
(ODF-E CAROT)

Office Description Form
Trunk Maintenance File Data
Expanded Step-By-Step ROTL Office
and SXS ROTL-3 Office
(ODF-F CAROT)

Office Description Form
Trunk Maintenance File Data
1XB/XBT ROTL Office
(ODF-G CAROT)

Expanded Step-by-Step ROTL
and SXS ROTL-3
Trunk Group Description Form

Crossbar Tandem and No. 1 Crossbar ROTL
Trunk Group Description Form

Expanded No. 5 Crossbar ROTL
Trunk Group Description Form

CAROT 2 Responder, ROTL, and Test Line
Work Sheet (E6725)

CAROT 2 Control Office for Trunks
Work Sheet (E6726)

CAROT 2 Control Office for Facilities
Work Sheet (E6727)

CAROT 2 Circuit Order Plant Control Office
Work Sheet (E6728)

CAROT 2 Test Frame Office
Work Sheet (E6729)

CAROT 2 Circuit Order
Work Sheet (E6730)

CAROT 2 Trunk File
Work Sheet (E6731)

CAROT 2 Trunk Group and Test Frame
Priming Work Sheet (E6732)

CAROT 2 Facility Group
Work Sheet (E6733).

Office Description Forms

7.19 Office description forms are used to aid in assembling information required at the CAROT center for trunk priming. These forms will be needed initially and from time to time as changes occur in testing arrangements.

7.20 *Small SXS ROTL Office:* Form ODF-D (Fig. 58) is provided for use with small SXS ROTLs. This testing arrangement uses a test connector to gain access to trunks. Since test connector positions are directly cabled or permanently assigned to the trunk relay equipment, the test connector assignment should be entered on this form. This form is then used as a translation table by the CAROT center to translate trunk relay assignments appearing on the traffic trunk order into trunk priming digits on the Trunk File Work Sheet. This information (assignments) must be determined before installation so that WECo can cable and cross-connect. The form should be filled out at the time of assignment and updated as office rearrangements occur.

7.21 *Small 5XB ROTL Office:* Form ODF-C (Fig. 59) is used to record the route translation assignments for the 20 trunk groups that can be tested via a small 5XB ROTL. This form should be filled out when the cross-connections are assigned during ROTL installation and updated as trunk groups are added or disconnected.

7.22 For 5XB ROTL offices using 160-point trunk link frames, there is a fixed relationship between the trunk equipment assignment (switch, level, and appearance) made by traffic and the test access information (busy test lead) required as part of the ROTL priming. Tables PP and QQ provide the information necessary to translate from one to the other.

7.23 For 5XB ROTL offices using 200-point trunk link frames (miniswitch), the relationship between the trunk equipment assignment (switch,

level, and appearance) made by traffic and the test access information (busy test lead) is flexible and may be assigned in the central office. This arrangement makes CAROT data base administration quite complicated. Effort should be made to have traffic assign the busy test leads or make assignments inflexible as given in Table QQ. Traffic should, in either case, provide the information on the traffic trunk order.

7.24 *Expanded SXS ROTL Office and SXS ROTL-3 Office:* Form ODF-E (Fig. 60) is used to prepare a table relating equipment or selector switch assignment to test connector appearance for expanded SXS ROTLs and SXS ROTL-3 when the test connector appearances are permanently cabled. Information for this table can be obtained from Western Electric T drawings. Form ODF-F (Fig. 61) is used to record the cross-connect assignments of assignable test connector appearances for the offices.

7.25 *1XB/XBT ROTL Office:* Form ODF-G (Fig. 62) is used to prepare a table that may be used to convert office link frame appearances to ITTC appearances for 1XB/XBT ROTL offices. Information for the table may be obtained from Western Electric T drawings. The T drawings may be used directly, if convenient.

Trunk Group Description Forms

7.26 Trunk group description (TGD) forms are used for expanded SXS, SXS ROTL-3, expanded 5XB, and 1XB/XBT ROTL offices to collect dependent data for trunk groups. These forms will be needed initially and from time to time as changes occur in testing arrangements that affect the trunk group.

7.27 *Expanded SXS ROTL Office and SXS ROTL-3 Office:* Figure 63 shows a form which may be used to collect trunk group dependent information for expanded SXS ROTL and SXS ROTL-3 offices. The number of FETL digits and the replacement NNX may be transferred directly to character positions 32 and 36 through 38 in the TH or TI record of the Trunk File Work Sheet. Character position 23 in the TT or TL record may be determined as shown in Fig. 64.

7.28 *1XB/XBT ROTL Office:* The form shown in Fig. 65 may be used to collect the trunk group dependent data for 1XB/XBT

ROTL offices. The number of FETL digits and the replacement NNX may be transferred directly to character positions 32 and 36 through 38 in the Th or TI record of the Trunk File Work Sheet. Character positions 22 and 23 in the TT or TL record may be determined as shown in Fig. 66 and 67.

7.29 Expanded 5XB ROTL Office: When initializing a 5XB ROTL data base or adding a new trunk group, a form similar to the one shown in Fig. 68 can be used to provide a permanent record of the trunk group dependent data. The form can also be used as a reference when future per-trunk actions are taken on the trunk group.

7.30 The trunk group location address on the TGD form may be moved directly to the Trunk File Work Sheet TT or TL record character positions as follows:

TGD CHAR	TT/TL RECORD CHAR POS
TYP	17
TR	23
MG	24
CTA	25
CU	26
CRU	27
CG	28

If 2-digit, 5-digit, or XII translation (TR = 4, 9, or 5, respectively) is used, or if no translation is used (TR = 6 or 7), the number of FETL digits must be used to specify the number of digits in the test line number outpulsed by CAROT to the ROTL and acted on by the translator. It may be left blank in other cases. If code conversion is used, an NPA-NNX, NPA, or NNX which may be routed over the trunk group (paragraph 4.58) must be specified, with consideration given to the previously specified route advance, class, rate treatment, and translation information. Ordinarily, this need not be entered and may be left blank since the NPA and NNX or TTC of the distant office will normally already appear in the entry for the distant office test line directory.

CAROT 2 Work Sheets

7.31 The process of entering data onto the CAROT 2 work sheets is described in Part 4 of this section. Details for entering information into the various data records are provided under the applicable equipment, administrative, and trunk and facility data base categories.

C. Data Base Update Methods

7.32 The CAROT 2 data base may be updated by magnetic tape provided by a mechanized records system or by cards or punched paper tape containing data entered on manual records (work sheets). These methods can be used for entering data pertaining to routine and demand trunk (RDT) tests, test frame tape preparation (TFTP) procedures, and circuit order testing and completion (COTP) work.

Update From Mechanized Records System

7.33 The CAROT 2 data base may be updated from an update file on 9-track, IBM-compatible, magnetic tape written by a mechanized records system. As shown in Fig. 69, the tape is read by an RDT update process that then updates the RDT data base. This, in turn, supports the process in servicing the requests placed by craft personnel. If the TFTP process is implemented, its data base is updated from the same input file.

7.34 The process of updating the COTC data base for implementing circuit order testing is shown in Fig. 70. Information on pending circuit orders is passed from the mechanized records system to CAROT 2 on the COTC update tape as the circuit orders are issued. The information is held in the COTC data base for the purpose of testing only, ie, craft personnel can ask for normal demand tests of the trunk by circuit layout order number. The completion would then be reported through established channels back to the mechanized records system, and when the order became effective, the mechanized system would update CAROT 2 by deleting the pending order from the COTC data base and adding it to the RDT data base (or changing or deleting the circuit from the RDT data base). In this scheme CAROT 2 has no control over the circuit order completion.

7.35 The COTC process is shown in Fig. 71. When craft personnel have finished circuit order testing and have reported the completion to CAROT 2, the completion is entered in the CAROT 2 data base. This causes a flag to be set on the trunk, if it exists in the RDT data base, to prevent routine testing until the RDT data base has been updated to reflect the circuit order work. The completion is also marked in the COTC data base so that the completion-report-generation process will issue a completion notice back to the mechanized records system and put it on the completion report printed at the CAROT center. The mechanized records system must return the proper updates back to CAROT once the circuit order completion is accepted and becomes effective. It is not advisable to implement updates to the COTC and RDT data bases at the CAROT center, since the completion report may well be rejected by the mechanized records system. Local updates (ie, at the CAROT center) to COTC and RDT data bases would then cause the CAROT 2 and mechanized records system data bases to diverge.

7.36 Completion reporting will be implemented so that the CAROT System will reject a completion report unless the trunk has passed the circuit order test limits for those tests that CAROT can perform. A rejection may be overridden by a second completion message, but this will be noted on the completion notice file. Such overrides may be legitimate since the capability for correcting information in the COTC data base by remote terminal request may not have been provided.

Update From Manual Records

7.37 To update the data base using the manual process, a clerk assembles data from manual records and enters it on cards or 8-level paper tape. Once the data is entered, the CAROT System proceeds as before. Figure 72 shows the manual-update process for the RDT data base. Information on pending circuit orders can also be assembled manually and entered on cards or paper tape as shown in Fig. 73. To avoid entering the data manually more than once (ie, once to the COTC data base and then to the RDT data base), local COTC update and local RDT update processes are enabled, causing updates to the COTC and RDT data bases after the completions have been reported. Cross-checks between the CAROT data base and manual records must be made manually to prevent divergence of the two data bases.

Update in Mixed Systems

7.38 All of the processes that would be obtained by overlaying Fig. 69 through 73 can coexist in the same CAROT center. The update software is not changed to enable one process or another; rather, the input data is changed. Details concerning circuit order record items used to enable circuit order testing, circuit order completion, and local RDT data base updating are covered in Part 4D. Mixed systems might occur where some parts of a company have a mechanized records system and other parts have a manual one; or where completions on message trunks could be accepted through CAROT 2 but completions to CCSA trunks would have to be completed manually.

Operation of Update Software

7.39 The update software is arranged to operate at a set time each day as specified to the CAROT 2 controller by the operator. Prior to this time, paper tape must be placed in the reader and the magnetic tape must be mounted if any data is to be entered into the data base. Updating can then run unattended. There are advantages to attended operation since a backup copy of the data base can be written onto another magnetic tape immediately after updating. Procedures for performing update procedures are given in TOP 190-102-301 (CAROT 2 Controller).

CAROT Audit Tape

7.40 The CAROT audit tape is generated by the CAROT 2 controller, via the ASIN program. It provides a 9-track magnetic tape copy of the CAROT 2 controller data base as recovered from disc storage and arranged in the format employed by the Update program to update the data base. Figure 74 depicts the data sources comprising the audit tape.

7.41 The audit tape is primarily intended to be used by the mechanized data base center to verify the content accuracy of the CAROT 2 controller data base as compared to the data retained in the circuit layout record file located at the mechanized data base center.

7.42 An audit tape containing the complete CAROT 2 controller data base can also be used to reload the system data base in the event of a data base crash. This is possible since the

tape, as outputted by the ASIN program, contains the data base arranged in the same format as the update tapes prepared by the mechanized data base. When an audit tape is used to reload the data base, the data must be treated as "add-in" information.

7.43 The ASIN program allows the selection of one or more data files or all of the files comprising the CAROT 2 controller data base. The CAROT trunk and trunk group files can be selected by the assigned control office or trunk group identification. The test frame trunk and trunk group files can be selected by the assigned control office or trunk group identification. The following is a list of files that may be included on an audit tape:

- Responder Files

- ROTL Files

- Test Line Directory Files

- Control Office for Facilities Files

- Control Office for Trunks Files

- Test Frame Control Office Files

- Facility Group Files

- CAROT Trunk and Trunk Group Files

- Test Frame Trunk and Trunk Group Files.

7.44 When an audit tape containing only CAROT 2 trunk-related data (TT or TL record information) is generated, additional information representing an extension of the TT or TL record is outputted on the tape. This information consists of data accumulated during the last routine test of the trunk identified by the trunk record. This extension of data appears *only* on the audit tape.

7.45 Items referenced in the extension of the TT or TL record according to character position are the following:

CHAR POS   **DATA ITEM**

51—52   Month

53—54   Day

55—56   Year

57—60   Time (based on 24-hour clock)

61—62   Call Disposition 1

63—64   Call Disposition 2

65—68   Far-to-Near Level Test

69—72   Near-to-Far Level Test

73—74   Near-End Noise Level

75—76   Far-End Noise Level

77—78   Call Disposition 3

79—80   Call Disposition 4

7.46 The call dispositions (character positions 61 through 64 and 77 through 80) are recorded for the four test attempts made in each routine test run. Thus, if a trunk was reported busy on all four test attempts during the first test run and an answer was received on the first attempt during the second test run, the corresponding call dispositions are these:

1st Test Run: BUSY BUSY BUSY BUSY
2nd Test Run: ANSWER BUSY BUSY BUSY

Note that the call dispositions corresponding to those test attempts not acted upon during the second test run are not updated and therefore retain the status recorded during the first test run.

7.47 Character positions 65 through 68 and 69 through 72 (far-to-near and near-to-far test tone levels) are expressed in tenths of a dB. Thus, a properly lined-up trunk with an EML of 4.0 dB would have each level recorded as -040 on the printout of the audit tape.

7.48 Character positions 73 through 74 and 75 through 76 (near-end and far-end noise levels) are expressed in dBrnc.

7.49 Exceptions to the values referenced in paragraphs 7.47 and 7.48 are the following:

CONDITION	LEVEL	NOISE
No Measurement	−999	99
Out-of-Range High	+080	56
Out-of-Range Low	−160	14

When analyzing the test results, the date and time are those for the measurements recorded only when *one* of the dispositions is ANSWER. Also, those dispositions prior to the ANSWER disposition apply to the date recorded. If none of the dispositions is ANSWER, the date and time apply to the fourth disposition and the test results apply to a previous test run.

7.50 A listing of call disposition entries that may be encountered is as follows:

VALUE	MEANING
00	No attempt made
01	Far-end test line busy
02	Milliwatt received in error
03	Answer
04	Voice announcement
05	Audible ring
06	Parking circuit time-out
07	Dial tone or broadband signal
08	Reorder
09	Busy
10	Pretrip failure
11	High and dry
12	ROTL error
13	Operational test equipment busy
14	Priming data error
15	Near-end responder busy
16	No-answer supervision
17	Supervisory hit
18	Equipment failure or blockage
19	Test progress tone longer than expected (ROTL calls only)
20	Unassigned 1
21	Preference failure
22	No test connector number
23	Marker sleeve lead failure
24	Select magnet lead failure
25	OTTS bay failure
26	Channel overflow
27	Market trouble
28	Outsleeve failure
29	Sleeve failure following busy
30	Delay dial to short or missing
31	Early release failure
32	Hit during outpulsing
33	Reorder failure
34	Expect stop time-out
35	End test failure
36	Pad marker error
37	Loop open
38	Sender class failure
39	Unexpected change in supervision (during trunk seizure)
40	Delay dial failure long
41	Preliminary sleeve lead failure

42	Final sleeve lead failure
43	Receive continuity failure
44	Transmit continuity failure
45 +	Priming error
46	Connection time-out
47	RO from far end
48	Unexpected message from OTTS bay
49	No-answer supervision
50	Unassigned 6
51	Near-end failure
52	Unassigned 7

7.51 The magnetic tape produced by the ASIN program (using the option CAROT trunks) will contain records of all the trunk groups and trunks in the CAROT data base. The data is in the format of CAROT input records, just as in the case of an update tape for adding trunk groups and trunks to the data base. The record sequence is as follows:

/AD, /YG, /YB, /TG, /TF, /TH, /TT, /TT, ...,
/TT, /TF, /TT, ..., /TT, /YG, /YB, /TG, /TF,
/TH, /TT, /TT, ...

7.52 The trunk groups are arranged in alphanumeric order within control office. A new YG record is written each time a new trunk group is encountered, and a new TF record is written each time a new facility is encountered. Thus, all the TT records following a YG record and preceding the next YG record belong to the trunk group in the first YG record. The test parameters for a specific TT record (trunk number) are given in the preceding TH record, and the facility to which a TT record belongs is given in the preceding TF record.

7.53 It is important to understand that the trunks are not necessarily arranged in trunk number order within trunk group. Rather they are ordered by trunk number within test group. A test group is that set of trunks with the same facility and

test parameters. Normally, trunks are added to the data base in trunk number order within a trunk group and will appear in that order on the ASIN tape. However, this is not necessarily true.

8. TRUNK LOCATION ADDRESS INFORMATION— EXPANDED 5XB ROTL

A. General

8.01 This part supplements Part 7 and contains detailed trunk location address information for the expanded 5XB ROTL.

8.02 There are a maximum of 12 variables in a trunk location address for accessing a trunk by CAROT via an expanded 5XB ROTL. These 12 variables can be divided into two groups. One group, *trunk group location address,* is determined by the properties of the trunk group to which the trunk belongs. The other group, *particular trunk location address,* is determined by the properties of the particular trunk. When the trunk location addresses of a trunk group are compiled for the CAROT data base, only one trunk group address is required for each operational mode of the trunk group.

8.03 The service type of trunk group (TYP) entered in character position 17 (TT record of Trunk File Work Sheet) determines the information required for the trunk group location address and the particular trunk location address as shown in Fig. 75. Once the value of TYP is determined, the variables contained in character positions 18 through 28 can be determined as explained in B and C of this part.

8.04 There are seven service types relevant to the expanded 5XB ROTL. A trunk group may perform one, two, or three types of services, depending on the number of its operational modes. Thus, a trunk group or a particular trunk may require up to three trunk group or particular trunk location addresses, depending on the number of possible modes of operation. The trunk location address used in CAROT 2 should be based on the service type that reflects the primary and alternate modes of traffic use of the trunk group.

B. Trunk Group Location Address (Fig. 76)

8.05 As shown in Fig. 75, character positions 17 and 23 through 28 contain the trunk group

location address variables. The flow diagram shown in Fig. 76 can be used for determining the values of the trunk group variables.

8.06 The procedure in Chart 1 can be followed when initially using the flow diagram of Fig. 76 to code trunk group information in the TT record of the Trunk File Work Sheet.

C. Particular Trunk Location Address (Fig. 77)

8.07 As shown in Fig. 75, character positions 18 through 22 contain the particular trunk location address variables. The RA digit combines the number of route advances and allotted group information. While this is in many cases common to the entire trunk group, there are cases where individual trunks within a trunk group will be in different allotted groups and RA is therefore included here as a per-trunk variable.

8.08 The particular trunk information for trunks originating on the trunk link frame also consists of the trunk link frame number (FT, FU) and the busy test lead assignment on the TB relay (TT, TU). The busy test lead may be derived from the trunk link frame switch, appearance, and level for the early 160-point trunk link frames and Tables PP and QQ. In later 160-point link frames and 200-point frames the busy test is assignable and cross-connectable. The busy test lead should be given specifically on the traffic trunk orders along with allotted group, route advance, and trunk link frame number.

8.09 Usin the flow diagram shown in Fig. 77, the values of the particular trunk variables can be determined. The procedure in Chart 2 can be followed when initially using the flow diagram of Fig. 77 to code particular trunk information in the TT record of the Trunk File Work Sheet.

9. COMPLETION NOTICE FILE

9.01 The circuit order portion of the CAROT 2 data base contains uncompleted circuit orders for trunks within the designated CAROT 2 testing area. This data includes trunk identification; testing parameters; ROTL priming information; and control office, trunk group, and facility group identification. The circuit order data base, consisting of additions of new pending circuit orders and deletions of those circuit orders completed, will be supplied to the CAROT center via the telephone company circuit provision department (or equivalent organization).

9.02 Updates to the CAROT 2 controller data base may be made via direct peripheral inputs and/or the CMS 1A, B data link. Direct peripheral inputs include 9-track magnetic tape, paper tape, cards, and the command console. It is not mandatory that mechanized data base updating procedures be used for the CAROT 2 controller. The manual process used by the CAROT 1 controller, ie, filling out data record sheets and punching paper tape for input to the controller, may also be followed in the CAROT 2 controller environment.

9.03 When the CAROT 2 controller uses the initial issue of the software, circuit order completions will be reported by central office personnel in the normal manner to the circuit provision organization. This will not alter the present process used by the telephone companies for reporting circuit order completions.

9.04 Generic 2, CAROT 2 controller software provides an option employing the remote-user terminal to automatically update the data base when reporting circuit order completions. Upon completing the work on a circuit order, including any required testing, craft personnel will report the completion of the assigned circuit order and the corresponding CAROT 2 controller item number to the controller via the remote-user terminal. The CAROT 2 controller will then remove the item from its circuit order data base and insert it (or delete it if appropriate) in the routine testing data base.

9.05 When completion reports are made directly to the CAROT 2 controller via the remote-user terminal, a 9-track magnetic tape will be produced periodically listing all completed circuit orders. This tape will be identified as the completion notice file (CNF). This file will in turn be sent, via the mechanized records system, to the circuit provision organization for the purpose of updating records. See Fig. 71. Two mag tape formats are available. One is specifically designed for use by the Circuit Order Control System (COCS) module of TIRKS. This tape is written in EBCDIC. The other CNF tape is written in ASCII. Note that the results of the circuit order tests may, at operator request, be included in or excluded from the CNF records on the tape. Refer to Section 190-102-201 for more information on these two formats.

9.06 If the completion report is forwarded directly to the responsible telephone company organization, circuit order updates will be supplied to the CAROT 2 controller as part of the regular circuit order update procedure. See Fig. 73.

10. REFERENCES

10.01 The following is a list of Bell System Practices referenced in this section that relate to the preparation of information to be entered in the CAROT 2 data base. Also listed are practices related to the description, operation, and maintenance of the CAROT 2 controller and remote terminal.

SECTION	DESCRIPTION
190-102-010	*CAROT 2 Center—Duties and Responsibilities
190-102-015	CAROT 2 Center—Analysis of Test Results
190-102-100	CAROT 2 Controller and Remote Terminal Description
190-102-103	CAROT 2 Remote User—General Description
190-102-201	CAROT 2 Center—Duties and Responsibilities of Data Base Administrator
190-102-202	CAROT 2 Controller Administration
190-102-204	Circuit Order Activity—Implementation and Description
190-102-206	CAROT 2 Controller—Data Base—Edit and Select Programs
190-102-207	CAROT 2 Controller—Report Program Generator
190-102-301	CAROT 2 Controller TOP
190-102-305	CAROT 2 Remote User Manual TOP

*This practice has not been reissued (issue 2) for generic 2 information as of this date. Consult future issues of indexes to determine when this document becomes available.

190-102-308	CAROT 2 Controller—Optional Trunk-Testing Schedule
190-102-500	CAROT 2 System Trouble-Locating Procedures
218-220-301	Compiling Data for Control Tapes
218-220-302	Preparation of Control Tapes
218-220-303	Compiling Data for Control Tapes
660-402-300	Transmission Maintenance
660-403-011	Trunk Transmission Maintenance Index
660-403-500	Message Circuit Noise Measurements
660-450-300	Circuit Order or Trunk Order Tests—General
660-450-301	Circuit Order or Trunk Order Tests—Message Trunks
660-450-302	Circuit Order or Trunk Order Tests—Telegraph Layouts
660-450-501	Circuit Order or Trunk Order Tests—Message Trunks Testing Methods
660-450-502	Circuit Order or Trunk Order Tests—2-Wire Switching Offices
660-450-503	Circuit Order or Trunk Order Tests—4-Wire Switching Offices
660-450-504	Circuit Order or Trunk Order Tests—Intermediate Office
660-450-505	Circuit Order or Trunk Order Tests—Channel Net Gain and Frequency Response
660-450-506	Circuit Order or Trunk Order Tests for Overseas Operator Bridged Access Trunks
795-100-100	Common Language Location Identification—Description
795-400-100	Common Language Circuit Identification—Message Trunks

795-402-100	Common Language Circuit Identification—Special Service Circuits
795-450-100	Common Language Facility Identification—General
800-102-100	Cross Reference Lists—Administrative Information
865-203-100	CAROT 2—Equipment Consideration and References
865-203-101	CAROT2—Engineering Considerations

11. CAROT 2 GLOSSARY

AD—Action record code identifying data additions

AGRA—Allotted group and route advance digit

AOTT—Automatic outgoing trunk test frame

AP—Action record code identifying records that are pending additions to COTC data base

APTT—Automatic progression trunk test frame

ASH—APTT CAMA access switch hold magnetic number

ASIN—Program which will list portion of existing data base in update format

ASN—APTT CAMA access switch number

ATMS—Automatic Transmission Measuring System

CCIS—Common channel interoffice signaling

CCSA—Common control switching arrangement

CF—Identifies control office for facilities name and data

CG—Rate treatment tens/trunk class group

CH—Action record code indicating data changes

CKTO—Circuit order

CLCI—Common language circuit identification

CLFI—Common language facility identification

CLLI—Common language location identification

CLO#—Circuit layout order number

CNF—Completion notice file

COI—Circuit order item

COTC—Circuit order testing and completion

COTCU—Circuit order testing and completion update

CP—Identifies circuit order plant control office name and data

CRU—Rate treatment units digit

CT—Identifies control office for trunks name and data

CTA—Class-of-service tens/tandem screening

CU—Class-of-service units digit

DATA BLOCK—A group of records which is written on or read from magnetic tape as a single operation

DATA NETWORK—Same as program network structure

DE—Action record code indicating data deletions

DEFAULT—That value assigned by CAROT when a data item position is left blank

ED—Identifies test line equipment (responder) data

EMBEDDED FIELD—In a data record, a subfield of data appearing within a larger data field

END—End-of-file record

EOF—End-of-file mark

EOV1—First end-of-volume record on an IBM-labeled tape

FILE—A collection of data records

FT—Trunk link frame No. tens digit

FT/FTCD—Frame tens/frame tens called digits

FU—Trunk link frame No. units digit

GF—Record code identifying facility group and data to be processed (manipulated, processed, or transacted)

GN—Identifies new name and data for facility group

HDR1—First header record on an IBM-labeled tape

HRD2—Second header record on an IBM-labeled tape

HIERARCHICAL DEPENDENCIES—Interdependent features of some programs—with prescribed methods for inputting data in an ordered sequence

HOTL—Home office test line

ID—Identifies test line (number) name and data

IHT—CAMA intermarker group trunk number hundreds digit

ITEM—Circuit order item

ITH—CAMA intermarker group trunk number thousands digit

ITT—CAMA intermarker group trunk number tens digit

IUT—CAMA intermarker group trunk number units digit

L—Local

LM—Combined local and tandem

LT—Combined local and toll

M—Tandem

MG—Marker group

NON—Nonsynchronous operational test line

N5APTT—No. 5 crossbar APTT

OD—Identifies test line office name and data

OPBY—Operational test line busy

OT—Identifies test frame office name and data

OTTS—Outgoing Trunk Testing System for No. 4 crossbar

PAN—Panel

PC—Identifies whole circuit composed of many items as related to the responsible plant control office

POFU—Pending order file updates

PROGRAM NETWORK STRUCTURE—A group of data files related to one another in specified ways, via access paths, for the purpose of acquiring and transferring information from one file to another during program execution

PTF—Operational test line pretrip failure

PU—Identifies circuit order item to be canceled

PV—Identifies circuit order item related to previous set of actions

RA—Route address and group allotted

RC—Identifies ROTL control office entry

RDT—Routine and demand test

RDTU—Routine and demand test update

RE—Identifies ATMS responder name and data

RECORD—A collection of data items under a given name

RECORD IDENTIFIER—A name which can be used to locate and retrieve the record

RO—Identifies ROTL name and data

ROTL—Remote office test line

RSS—Remote Switching System

RTT—Small No. 5 crossbar ROTL route translation tens digit

RTU—Small No. 5 crossbar ROTL route translation units digit

SMAS—Switched Maintenance Access System

SSX—Small step-by-step ROTL

S5X—Small No. 5 crossbar ROTL

SXS—Step-by-step (ROTL)

SYN—Synchronous operational test line

T—Toll

TF—Identifies facility group

TFMS—Trunk and Facility Maintenance System

TFTP—Test frame tape preparation

TG—Identifies trunk group name as related to transaction on trunks

TH—Identifies trunk test parameters applying to principal mode

TI—Identifies trunk test parameters for alternate mode

TL—Identifies trunk data for secondary traffic use

TM—Toll tandem

TMF—Trunk maintenance file

TMFU—TMF update

TR—No. 5 crossbar ROTL translation digit

TRM—Terminating traffic data

TT—Trunk No. tens digit

TT—Identifies trunk data applying to the principal mode

TU—Trunk No. units digit

TU/SSN—Trunk units or CAMA access switch selecting magnet units digit

TYP—Type of call—local originating, toll originating, etc

VF—Voice frequency

VOL 1—First record (four characters) on IBM-labeled magnetic tape

XBT—Crossbar tandem (ROTL)

YB—Identifies control office and ROTL names for a trunk related to transactions on trunk groups

YG—Identifies a trunk group name and data as related to transactions on trunk groups

YK—Identifies test frame priming data for trunk group as related to transactions on trunk groups

1ES—No. 1 ESS (ROTL)

1XB—No. 1 crossbar (ROTL)

2ES—No. 2 ESS (ROTL)

3ES—No. 3 ESS (ROTL)

4ES—No. 4 ESS (ROTL)

4XAOTT—No. 4 crossbar AOTT

4XB—No. 4 crossbar (ROTL-OTTS)

5XB—No. 5 crossbar (ROTL)

51B—J94051B ATMS responder

52A—J90052A ATMS responder

100—Combined 100-type test line

102—102-type test line

103—Code 103 test line

105—105-type test line

/—Identifies beginning of line for action record

$—Character indicating no change to corresponding or successive characters in data base.

TABLE A

KEYS FOR DIRECT ACCESS TO DATA BASE FILES

FILE NAME	ACCESS KEY (NOTES 1–4)
Equipment Files:	
Responder	CLLI + Equipment Mounting
Test Line	CCLI + Type + Traffic Use*
ROTL	CCLI + ROTL Character
Administrative Files:	
Control Office for Trunks	CLLI
Control Office for Facilities	CLLI
ROTL Control Office for Trunks	CLLI
Plant Control Offices	CLLI
Test Frame Office	CLLI
Trunk and Facility Files:	
Trunk Group	Trunk Group Part of CLCI
Trunk	CLCI
Facility Group	Facility Group Part of CLFI
Test Frame Trunk Group	Trunk Group Part of CLCI
Circuit Order	CLO# Minus Item Number and Supplement
Circuit Order Item	CLO# Minus Supplement

Note 1: The CLLI is the common language location identification code. (See Section 795-100-100.)

Note 2: The CLCI is the common language circuit identification code. (See Section 795-400-100.)

Note 3: The CLFI is the common language facility identification code. (See Section 795-450-100.)

Note 4: The CLO# is the circuit layout order number.

* Not necessarily unique. May identify a subset of test lines that are identical for testing purposes

TABLE B

ACTION RECORD DEFINITIONS

CHAR POS	ACTION CODE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	AD	Following records cause additions to the RDT and TFTP or COTC data bases
	DE	Following records cause deletions from the RDT and TFTP or COTC data bases
	CH	Following records cause changes to the RDT and TFTP or COTC data bases
	AP	Following records are pending additions to be stored in the COTC data base
	DP	Following records are pending deletions to be stored in the COTC data base
	CP	Following records are pending changes to be stored in the COTC data base

TABLE C

RECORDS REQUIRED FOR ACTIONS ON RESPONDERS, ROTLS, AND TEST LINES

RECORD NAME	RECORD CODE	FUNCTION OR MEANING
Action	AD, DE, or CH	Adds, deletes, or changes a responder in the data base
ATMS Responder	RE	Name and data for the responder
Action	AD, DE, or CH	Adds, deletes, or changes a ROTL in the data base
ROTL	RO	Name and data for the ROTL
Action	AD, DE, or CH	Adds, deletes, or changes a test line office in the data base
Test Line Office	OD	Name and data for the test line office
Action	AD, DE, or CH	Adds, deletes, or changes a test line in an office
Test Line No.	ID	Name and data for the test line
Test Line Equipment	ED	Responder data for the test line

TABLE D

ATMS RESPONDER RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	RE	Identifies an ATMS responder record
4—14		Common language location identification code of the responder office
15—26		Mounting position of the responder within that location
27—29	51B	J94051B ATMS responder
	52A	J94052A ATMS responder
30—32		*For the J94051B:*
	000	No options or modifications (used only for terminating 150-type test lines)
	001	M option for use with small SXS and 5XB ROTLs and terminating test lines
	002	N option for use with expanded ROTLs and terminating test lines
		For the J94052A:
	000	Equipped with List 1 for use with terminating 105-type test lines only
	001	Equipped with Lists 1 and 2 for use with all ROTLs and terminating 105-type test lines
	002	Equipped with Lists 1 and 3 for use with terminating 105-type test lines (automatic self-checking feature for No. 4 ESS)
	003	Equipped with Lists 1, 2, and 3 for use with all ROTLs and 105-type test lines (automatic self-checking feature for No. 4 ESS)

TABLE E

ROTL RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	RO	Identifies a ROTL record
4—15		Common language location identification code and count character used to identify the ROTL*
16—18	S5X	Small No. 5 crossbar ROTL
	SSX	Small step-by-step ROTL
	1XB	No. 1 crossbar ROTL
	4XB	No. 4 crossbar ROTL-OTTS
	5XB	No. 5 crossbar ROTL
	SXS	Step-by-step ROTL
	XBT	Crossbar tandem ROTL
	1ES	No. 1 ESS ROTL
	2ES	No. 2 ESS ROTL
	3ES	No. 3 ESS ROTL
	4ES	No. 4 ESS ROTL
19	2	2-wire switching system
	4	4-wire switching system
		Blanks not acceptable
20	0̸	ROTL not equipped with make-busy feature
	1	ROTL equipped with make-busy feature
		Blanks not acceptable
21—32		ROTL telephone number, left-justified. Include the area code and toll access code (eg, 1) if necessary
33—36		Time of day to start routine testing, in 24-hour clock format
37		Number of ROTLs called by the same name and able to test the same set of trunks. When blank, defaults to a 1

* This entry is the CLLI of the traffic entity for which the ROTL tests outgoing trunks. If there is more than one ROTL testing outgoing trunks and if each ROTL does not have access to all outgoing trunks, the first is numbered 0̸, the second 1, and so forth. When left blank, this defaults to ROTL zero (0̸)

TABLE E (Contd)

ROTL RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
38		The number of "heads" on each ROTL which may be used simultaneously for testing by CAROT. When blank, defaults to a 1
39—50		Another name by which this ROTL is known. For example, a No. 5 crossbar ROTL may be used to test in three marker groups and hence be known by three names. When it is entered under the last two names, this item is used to relate it to the first name with which it was entered
51—73		Identity of the ATMS responder used by this ROTL. See RE record definition (Table D), character positions 4—26

TABLE F

TEST LINE OFFICE RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	OD	Identifies a test line office record
4—14		Common Language Location Identification code used to identify the test line office
15—17	SXS	Step-by-step
	PAN	Panel
	1XB	No. 1 crossbar
	4XB	No. 4 crossbar
	5XB	No. 5 crossbar
	1ES	No. 1 ESS
	2ES	No. 2 ESS
	3ES	No. 3 ESS
	4ES	No. 4 ESS
	XBT	Crossbar tandem
18—19	L	Local. Right-justified
	T	Toll. Right-justified
	M	Tandem. Right-justified
	LT	Local-toll
	LM	Local-tandem
	TM	Toll-tandem

TABLE G

TEST LINE NUMBER RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	ID	Identifies a test line number record
4—14		Common Language Location Identification code used to identify the test line office
15—17	100	Combined 100-type test line
	102	102-type test line
	103	103-type test line
	105	105-type test line
	SYN	Synchronous operational test line
	NON	Nonsynchronous operational test line
18—20		Numbering plan area code
21—23		Exchange NNX for 7-digit test line number or filler (000) for 10X code test lines or test line access by 3-, 2-, or 1-digit numbers
24—27		Remainder of test line directory number, left-justified
28		Blank
29—46		List of 2-character traffic use codes of trunks incoming to the office which may terminate on this test line. See Section 795-400-100
47—58		Test line location. Similar to RE record definition (Table D), character positions 15—26

TABLE H

TEST LINE EQUIPMENT RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	ED	Identifies a test line equipment record
4—26		Identifies the ATMS responder used by this test line. See RE record definition (Table D), character positions 4—26. If the test line has no responder associated with it (ie, 102-type), these character positions must be left blank
27		Number of test lines in the hunt group accessed by the same directory number. Blank defaults to 0
28	0	0-dB test pad loss, 900 ohms impedance
	1	0-dB test pad loss, 600 ohms
	2	2-dB test pad loss, 600 ohms
	3	3-dB test pad loss, 600 ohms
	4	2-dB test pad loss, 900 ohms
		When blank, defaults to 0
20—44		Home office test line priming. Leave blank until home office test line testing is implemented in CAROT 2 controller software

TABLE I

RECORDS REQUIRED FOR ACTIONS ON CONTROL AND TEST FRAME OFFICES

RECORD NAME	RECORD CODE	FUNCTION OR MEANING
Action	AD, DE, or CH	Adds, deletes, or changes a control office for trunks
Control Office for Trunks	CT	Name and data for the control office for trunks
Action	AD, DE, or CH	Adds, deletes, or changes a ROTL control office file entry
ROTL Control Office for Trunks	RC	Name and data for the ROTL control office entry
Action	AD, DE, or CH	Adds, deletes, or changes a control office for facilities
Control Office for Facilities	CF	Name and data for the control office for facilities
Action	AD, DE, or CH	Adds, deletes, or changes a circuit order plant control office
Circuit Order Plant Control Office	CP	Name and data for the circuit order plant control office
Action	AD, DE, or CH	Adds, deletes, or changes a test frame office
Test Frame Office	OT	Name and data for the test frame office

TABLE J

CONTROL OFFICE FOR TRUNKS RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	CT	Identifies a control office for trunks record
4—14		Common Language Location Identification code of the control office for trunks
15*	0	Results are automatically dispersed via CAROT 2 controller line printer
	1	Results are not automatically dispersed via line printer
		When blank, defaults to 0
16—26*		Telephone number of the control office remote-user terminal used for automatic results dispersal. Must be left-justified and includes toll access code (eg, 1), if used, and area code
		For character position 16:
		A 0 indicates that results are dispersed to CMS 1A, B. If character 16 equal 0, then character 17 is the slot number for the control office's data link to CMS 1B. See paragraph 4.22 for CMS slot number information
		A blank indicates that no results are dispersed to CMS 1A, B or to the control office remote-user terminal. (Character positions 17—26 are left blank.) See paragraph 4.22 for CMS slot number information
		An entry other than a 0 or a blank becomes the first digit of the remote-user terminal telephone number as entered in character positions 16 through 26. See paragraph 4.22 for CMS slot number information
27†	0	Full-duplex
	1	Half-duplex
28†	0	110 baud
	1	300 baud
	2	1200 baud

* Character positions 15—26 apply only to obtaining copies of routine test results when the controller dials up the remote terminal on an automatic basis. This automatic dialup feature is not available in the initial issue of the generic program

† If there is no remote terminal or if the control office is a CMS installation, leave character positions 27, 28, and 29 blank

TABLE J (Contd)

CONTROL OFFICE FOR TRUNKS RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
29†	0	Even parity
	1	Odd parity
	2	No parity
30—37		Date to start management summary
38—45		Date to start trunk Transmission Maintenance Index summary

† If there is no remote terminal or if the control office is a CMS installation, leave character positions 27, 28, and 29 blank

TABLE K

ROTL CONTROL OFFICE FOR TRUNKS RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	RC	Identifies a ROTL control office for trunks record
4—15		ROTL identification. See RO record definition (Table E), character positions 4—15
16—26		Common Language Location Identification code of the control office for trunks. Must be same as CLLI in CT record, character positions 4—14
27—29		Temporary upper boundary for loss maintenance limit. Deviation from EML in tenths of dB. The value specified will override the loss maintenance limit (obtained by adding 0.5 dB to the circuit order loss limit, character positions 17—18 of the TH or TI record). This should be left blank unless a specific Q1 override value is desired
30—37		Date to start testing trunks scheduled for daily tests
38—45		Date to start testing trunks scheduled for weekly tests
46—53		Date to start testing trunks scheduled for biweekly tests
54—61		Date to start testing trunks scheduled for monthly tests
62—69		Date to start testing trunks scheduled for quarterly tests

TABLE L

CONTROL OFFICE FOR FACILITIES RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	CF	Identifies a control office for facilities record
4—14		Common Language Location Identification code of the control office for facilities
15—26		Terminal's telephone number. Left-justified. See CT record definition (Table J), character positions 15—26
27—29		Terminal's equipment code. Left-justified. See CT record definition (Table J), character positions 27—29

TABLE M

PLANT CONTROL OFFICE RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	CP	Identifies a plant control office record
4—14		Common Language Location Identification code of the plant control office
15—29		Telephone number and equipment code of the terminal used to disperse test results. Left-justified. See CT record definition (Table J), character positions 15—29
30—44		Telephone number and equipment code of the terminal used to disperse management reports. Left-justified. See CT record definition (Table J), character positions 15—29
45—52		Date to begin accumulating management summary data on circuit order completion activity

TABLE N

TEST FRAME OFFICE RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	OT	Identifies a test frame office record
4—14		Common Language Location Identification code identifying the test frame
15—20	STAOTT	Step-by-step AOTT
	N5APTT	No. 5 crossbar APTT
	4XAOTT	No. 4 crossbar AOTT
21—23		Issue number of the test frame
24	1 or 0	1 to punch 5XB composite tape 1. See Section 218-220-302
25	1 or 0	1 to punch 5XB APTT composite tape 1 for reverse-polarity trunks. See Section 218-220-302
26	1 or 0	1 to punch composite tape 2
27	1 or 0	1 to punch composite tape 3
28	1 or 0	1 to punch composite tape 4
29	1 or 0	1 to punch composite tape 5
30	1 or 0	1 to punch tape of busy-line tests for SXS AOTT tape
31	1 or 0	1 to punch tape of daily tested indexable trunks which will score deviation registers
32	1 or 0	1 to punch tape of weekly tested indexable trunks
33	1 or 0	1 to punch tape of biweekly tested indexable trunks
34	1 or 0	1 to punch tape of monthly tested indexable trunks
35—38		Same as for character positions 31—34, only for tapes of trunks that will not be indexed and that will not score deviation registers

Note: For character positions 24 through 38, a 1 indicates a request to punch tape and a 0 indicates that no tape should be punched

TABLE O

RECORDS REQUIRED FOR ACTIONS ON TRUNK GROUPS AND/OR TEST FRAME PRIMINGS

RECORD NAME	RECORD CODE	FUNCTION OR MEANING
Action	AD, DE, or CH	Adds a trunk group to the data, deletes a trunk group from the data base, or changes data on a trunk group
Trunk Group	YG	Trunk group name and data
Control Office and ROTL Identification	YB	Control office and ROTL names for the trunk group. (Not optional; must be entered even if it contains only blanks.)
Test Frame Priming	YK	Contains test frame priming data for the trunk group. Record is optional and may be repeated to provide data for alternate directions and traffic uses

TABLE P

INITIAL TRUNK GROUP RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	YG	Record is part of a transaction affecting a trunk group
4—43		Trunk group identification consisting of the Common Language Circuit Identification code for message trunks without the trunk number. See Section 795-400-100
44		Trunk and Facility Maintenance System (TFMS) code identifying the Long Lines or Associated Company maintenance group responsible for the trunk group
45		CAROT testing code, left blank if CAROT does not test
	A	One-way trunk, routinely tested from office A
	Z	One-way trunk, routinely tested from office Z
46		Test frame testing code, left blank if not tested by test frame tapes prepared by CAROT
	A	Tested by test frame in office A
	Z	Tested by test frame in office Z

TABLE Q

CONTROL OFFICE AND ROTL IDENTIFICATION RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	YB	Identifies a control office and ROTL identification record
4—14		Control office identification: The Common Language Location Identification code of the plant administrative group responsible for the maintenance of the trunk group and for Trunk Transmission Maintenance Index results on it
15—25		The Common Language Location Identification code used to identify both ROTLs and far-end test lines in office A. If left blank, the office A traffic entity in the Common Language Circuit Identification code will be used
26		A number used to indicate which ROTL in office A is to be used to test the trunk group if there is more than one ROTL in office A and each ROTL cannot access all outgoing trunks. The first ROTL is numbered $\emptyset$, the second 1, and so forth. When left blank, this defaults to ROTL $\emptyset$
27—37		Same as character positions 15—25, only for office Z
38		Same as character position 26, only for office Z

TABLE R

NO. 4 CROSSBAR AOTT PRIMING RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	YK	Identifies a test frame priming record
4	Ø	Parameters apply to the routine test direction
	1	Parameters apply to the other direction
5—6		Traffic use of the trunk to which the parameters apply
7	Ø	Do not score deviation registers for Trunk Transmission Maintenance Index testing
	1	Score deviation registers for Trunk Transmission Maintenance Index testing
8	Ø	100-type transmission test line, combined milliwatt and balance termination
	2	102-type transmission test line, milliwatt
	4	104-type transmission test line, transmission and noise checking circuit
	5	105-type transmission test line, Automatic Transmission Measuring System

TABLE S

STEP-BY-STEP AOTT PRIMING RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	YK	Identifies a test frame priming record
4	0	Priming applies to the routine test direction
	1	Priming applies to the other direction
5—6		Traffic use of the trunk to which the priming applies
7	0	Do not score deviation registers for Trunk Transmission Maintenance Index testing
	1	Score deviation registers for Trunk Transmission Maintenance Index testing
8	0	Test performed by test frame
	1	Test performed by SXS ROTL
	2	Test performed by 5XB ROTL
9	0	ROTL test, "1" prefix not required
	1	ROTL test, "1" prefix required
10	0	Far-end office does not have common control equipment
	1	Far-end office has common control equipment
11	0	Trunks do not use MF pulsing
	1	Trunks use MF pulsing
12	0	Trunks do not use simplex supervision
	1	Trunks use simplex supervision
13	0	100-type test line, combined milliwatt and balance termination.
	2	102-type test line, milliwatt
	4	104-type test line, transmission and noise checking circuit
	5	105-type test line, Automatic Transmission Measuring System
14—20		1- to 7-digit terminating test line number or code or ROTL directory number. Left-justified

TABLE S **(Contd)**

STEP-BY-STEP AOTT PRIMING RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
21	1	Synchronous test line test
	2	Nonsynchronous test line test
	3	103-type test line test
22	0	No centrex-transfer test
	1	Centrex-transfer test
23—29		Like character positions 14—20
30—36		Like character positions 14—20

TABLE T

NO. 5 CROSSBAR APTT PRIMING RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	YK	Identifies a test frame priming record
4	Ø	Priming applies to the routine test direction
	1	Priming applies to the other direction
5—6		Traffic use of the trunk to which the priming applies
7	Ø	Do not score deviation registers for Trunk Transmission Maintenance Index testing
	1	Score deviation registers for Trunk Transmission Maintenance Index testing
8	Ø	100-type transmission test line, combined milliwatt and balance termination
	2	102-type transmission test line, milliwatt
	4	104-type transmission test line, transmission and noise checking circuit
	5	105-type transmission test line, Automatic Transmission Measuring System
9—16		See Section 218-220-301 for data items with names as shown on the Trunk Group and Test Frame Priming Work sheet
17	T	Priming for transmission test tape. See Section 218-220-303
	N	Priming for composite test tape 1, normal polarity. See Section 218-220-302
	R	Priming for composite test tape 1, reverse polarity
	2	Priming for composite test tape 2
	3	Priming for composite test tape 3
	4	Priming for composite test tapes 3 and 4
	5	Priming for composite test tapes 3 and 5
	9	Priming for composite test tapes 3, 4, and 5
18—31		See Sections 218-220-302 and 218-220-303
32		Same as for character position 17
33—46		See Sections 218-220-302 and 218-220-303
47		Same as for character position 17
48—61		See Sections 218-220-302 and 218-220-303

TABLE U

RECORDS REQUIRED FOR ACTIONS ON FACILITY GROUPS

RECORD NAME	RECORD CODE	FUNCTION OR MEANING
Action	AD, DE, or CH	Adds, deletes, or changes data for a facility group
Facility Group	GF	Identifies the facility group and data to be added, deleted, or changed. On deletions, the control office is not needed
Action	CH	Changes the name and/or data on a facility group
Facility Group	GF	The old name of the facility group
Facility Group	GN	The new name and data for the facility group

TABLE V

FACILITY GROUP RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	GF	Record is part of an action affecting a facility group
	GN	Record gives the new name and control office for the renamed facility group
4—41		Facility group identification derived from the Common Language Facility Identification code by leaving the channel or pair number blank and justifying the designation and type as indicated. See Section 795-450-100
42—52		Common Language Location Identification code of the plant administrative group responsible for maintenance of the facility

TABLE W

RECORDS REQUIRED FOR ACTIONS ON TRUNKS

RECORD NAME	RECORD CODE	DEFINED IN TABLE	FUNCTION OR MEANING
Action	AD or CH	B	Adds or changes a trunk in the data base
Trunk Group	TG	X	Identifies the trunk group
Facility Group	TF	Y	Identifies the facility group
Principal Mode:			
Test Parameters	TH	Z	Test parameters for direction and traffic use in which the trunk will be routinely tested
Trunk	TT	AA	Trunk data for direction and traffic use in which the trunk will be routinely tested
Alternate Mode, Same Facility Group:			
Test Parameters	TI	Z	This set of records, TI and TL furnishes data for a second traffic use in the same (principal) direction or for any traffic use in the other direction of 2-way trunks. It is optional and may be furnished or repeated as necessary
Trunk	TL	AA	
Alternate Mode, Different Facility Group:			
Facility Group	TF	Y	This set of records, TF, TI, and TL, furnishes data for any traffic use in the other direction of 2-way trunks when the facility group is not the same as in the principal direction, eg, if the transmit and receive pairs of a 4-wire metallic trunk are in different cables. It is optional and may be furnished or repeated without the facility group record, as necessary
Test Parameters	TI	Z	
Trunk	TL	AA	
Action	DE	B	Deletes a trunk from the data base
Trunk Group	TG	X	Identifies the trunk group
Trunk	TT	AA	Identifies the trunk to be deleted

TABLE X

TRUNK GROUP RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	TG	Record is part of an action affecting a trunk group
4—43		Trunk group identification consisting of the Common Language Circuit Identification code for message trunks without the trunk number. See Section 795-400-100
44		Trunk and Facility Maintenance System (TFMS) code identifying the Long Lines or Associated Company maintenance group responsible for the trunk group
45		CAROT testing code, left blank if CAROT does not test
	A	One-way trunk, routinely tested from office A
	Z	One-way trunk, routinely tested from office Z
46		Test frame testing code, left blank if not tested by test frame tapes prepared by CAROT
	A	Tested by test frame in office A
	Z	Tested by test frame in office Z

TABLE Y

FACILITY GROUP RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	TF	Record is part of an action affecting a trunk
4—41		Facility group identification derived from the Common Language Facility Identification code by leaving the channel or pair number blank and justifying designation and type as indicated. See Section 795-450-100

TABLE Z

TEST PARAMETERS RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	TH	Parameters apply to the direction and traffic use of the trunk for routine testing and Trunk Transmission Maintenance Index results
	TI	Parameters apply to some alternate direction and/or traffic use
4	∅	Parameters apply to the routine test direction
	1	Parameters apply to the other direction
		Blanks not acceptable
5—6		Traffic use of the trunk to which the parameters apply. It is also used in determining the far-end test line to be used. See Section 865-203-100
		Blanks not acceptable
7		Impedance of the trunk at the originating end:
	6	600 ohms
	9	900 ohms
		Blanks not acceptable
8		Test pad loss at the originating end:
	∅	0 dB
	2	2 dB
	3	3 dB
		Blanks not acceptable
9	∅	Trunk not equipped with rering feature
	1	Trunk equipped with rering feature
		Blanks not acceptable
10—11		Indicates the interval at which the trunk will be scheduled for transmission testing in this direction and traffic use:
	∅∅	Daily
	1∅	Weekly
	2∅	Biweekly
	3∅	Monthly
	99	Never
		Blanks not acceptable. See Section 660-402-300

TABLE Z (Contd)

TEST PARAMETERS RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
12—13		Indicates transmission makeup of the trunk for Trunk Transmission Maintenance Index testing and results reporting:
	01	E repeater without hybrid
	02	E repeater with hybrid
	03	Nongain without hybrid
	04	Nongain with hybrid
	08	Voice-frequency repeater other than E
	09	Carrier
	99	Do not index
		Blanks not acceptable. See Section 660-403-011
14—16		Contains the expected measured loss in tenths of dB. See Sections 660-450-300, -301, -302, and -501 through -505
17—18		Contains the maximum allowable difference between actual measured loss and the design EML at circuit order time in tenths of dB. The maintenance limit will be the circuit order limit plus 0.5 dB
19—20		Contains the maximum noise allowed at circuit order time in dBrnc. See Section 660-403-500. Same as noise maintenance limit
21—22		Contains the noise limit above which the trunk must be removed from service until repaired. See Section 660-403-500
23—24		A 2-digit code identifying a set of six numbers giving average, minimum, and turndown echo return loss and singing point return loss requirements
*25—26		Contains a 2-digit code identifying a set of four numbers giving maximum deviations for loss at 400 and 2800 Hz compared with 1000 Hz
27—28		The minimum signal-to-noise ratio allowed for the 1000-Hz—16 dBm0 holding tone compared with C-message weighted noise across the band
29—30		Objective for peak-to-average ratio measurement
31	0	Trunk not equipped with echo suppressor
	1	Trunk equipped with echo suppressor
		Blanks not acceptable. Set to 0 until feature is implemented
32		Normal test line number from test line directory. May be 3, 7, or 10 digits. (10-digit number used only if ROTL NPA not equal FETL NPA)

* Refer to Table LL for gainslope class information.

TABLE Z (Contd)

TEST PARAMETERS RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
	∅	All 10 FETL digits will be outpulsed when testing CCSA trunks (even if FETL NPA is the same as ROTL NPA)
	1 through 9	Number of far-end test line number digits to be passed from CAROT to the ROTL if different from 10, 7, or 3
33—35		Numbering plan area code to be used in the far-end test line number passed from CAROT to the ROTL, if it must be different from the NPA of the terminating office.
36—38		NNX to be used in the far-end test line number passed from CAROT to the ROTL, if needed to reflect code conversion in test connector-type ROTLs, or for routing when going to 10X test lines from No. 5 crossbar ROTLs
39—40		Operational test schedule codes. Same definitions as for character positions 10—11

TABLE AA

TRUNK RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	TT	Record applies to the direction and traffic use of the trunk for routine testing and Trunk Transmission Maintenance Index results
	TL	Record applies to some alternate direction and/or traffic use
4	0	Record applies to the routine test direction
	1	Record applies to the other direction
5—6		Traffic use of the trunk to which the record applies. See Section 795-400-100 and Table BB
7—10		Trunk number: the first four characters of the Common Language Circuit Identification code for message trunks. See Section 795-402-100
11		Blank
12—16		Channel or pair number part of the Common Language Facility Identification code. See Section 794-450-100
17—30		Trunk location address information used by the ROTL to seize the trunk for testing. It is defined differently for each type of ROTL. See Table CC
31	0	Enter data into data base without testing the trunk
	1	Test the trunk during the next routine test period before entering the data into the data base
32—50		Voice-frequency equipment location and SMAS number for offices equipped with the Trunk and Facilities Maintenance System (TFMS); or test frame trunk location address for offices equipped with test frames. It is defined differently for each type of office and test frame. See Table DD

TABLE BB

TYPES OF TRUNKS TESTABLE VIA CAROT/ROTL

TRAFFIC USAGE CODE	MEANING	TYPE OF TEST POSSIBLE	TYPE OF ROTLS USED*
CA	CAMA	Transmission except when ONI or CAMA Transfer	All
DD	Class 5-to-Class 4 DDD Access Trunk	Transmission and Operational	All
IA	Intraoffice	Transmission	5XB (Small and Expanded)
IE	Interexchange	Transmission and Operational	All
IM	Intermarker Group	Transmission	5XB (Small and Expanded)
IT	Intertoll	Transmission and Operational	All
MT	Intertandem	Transmission and Operational	All
SP	Traffic Service Position	Transmission	All
TC	Toll Completing	Transmission and Operational	All
TE	End-Office Toll	Transmission and Operational	All
TG	Tandem Completing	Transmission and Operational	All
TM	Toll Completing and Toll Switching Combined	Transmission and Operational	All
TO	Tandem Originating	Transmission and Operational	All
See Note.	Central Office-to-PBX Trunks Arranged for Direct Inward Dial except for those using Dial Tone as a Start Dial System	Transmission	Expanded 5XB and No. 1 ESS
CN	CCSA Network Trunks	Transmission and Operational	Expanded 5XB and No. 1 ESS
ON	CCSA Off-Network Access Lines	Transmission	Expanded 5XB and No. 1 ESS

Note: Common-language usage codes not assigned

* ESS ROTLs cannot perform operational tests

TABLE CC

TRUNK LOCATION ADDRESS DEFINITIONS

ROTL TYPE	CHARACTER POSITIONS													
	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Small 5XB ROTL-1	RTT	RTU	FT	FU	TT	TU								
Expanded 5XB ROTL-2	TYP (0, 1, 4, 5)	RA*	FT	FU	TT	TU	TR	MG	CTA	CU	CRU	CG		
Expanded 5XB ROTL-2 term to PBX	TYP (2, 3)			FU	TT	TU	TR	MG	CTA			CG		
Small SXS SXS ROTL-1				Test connector number		Pulsing								
SXS ROTL-3			Always 0	Test connector number		Pulsing								
Expanded SXS			Test connector number			Pulsing								
1XB or XBT	Switch		Select	Hold		Pulsing								
No. 1 ESS		Modifier	Trunk network number											
No. 1 ESS for RSS channels		Modifier	Channel line equipment number											
No. 2 ESS		Modifier	Trunk group number		Trunk member number									
No. 3 ESS		Modifier	Trunk group number		Trunk member number									
No. 4 ESS			Trunk appearance number											
4XB OTTS/ROTL		Category	Signaling class and modifiers		Pad mark	Train	Connector	Test connector number					Relay type	
4XB OTTS/ROTL for CCIS trunks		Category	Always 700		Pad mark	Train	Always 0	T register or TREG number					Relay type	

* For expanded 5XB offices with ETS fully flexible trunk assignments, the RA digit is the TB (trunk block) number, 0 through 9, assigned to the selector trunk

TABLE DD

VF APPEARANCE AND SMAS NUMBER OF TEST FRAME TRUNK LOCATION ADDRESS

TYPE OF OFFICE	TT OR TL RECORD CHARACTER POSITION																		
	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
4XB OTTS	Bay									Unit				SMAS Number					
4XB AOTT	Train	Test Connector																	
5XB APTT	AGRA		FT/ FTCD	FU	TT	TU/ SSN	ITH	IHT	ITT	IUT	ASN	ASH							
SXS AOTT		Test Connector																	

TABLE EE

NO. 1 ESS TRUNK NETWORK NUMBER INFORMATION
TT OR TL RECORD – TRUNK FILE WORK SHEET

CHAR POS	EXPLANATION
18–19	Trunk Link Network Number, 00, 01, 02, . . . 15
20	Trunk Switch Frame Number (0–7)
21	Grid Number (0–3)
22	Switch Number (0–7)
23	Output Switch Level (0–7)

TABLE FF

SXS EXPANDED ROTL AND SXS ROTL – 3 PULSING
INFORMATION TT OR TL RECORD–TRUNK FILE WORK SHEET

DATA ITEM ENTRY FOR CHARACTER POSITION 23	EXPLANATION
0	Dial Pulse, Loop; or Dial Pulse, Loop, HOTL on Connector
1	Dial Pulse, Loop, Delay Dial
2	Dial Pulse, Simplex; or Dial Pulse, Simplex, HOTL on Intertoll Selector
3	Dial Pulse, Simplex, Delay Dial
4	Multifrequency, Loop
5	Multifrequency, Simplex
6	HOTL on Tandem Selectors
7 or 8	Unassigned
9	Dial Pulse, Loop (Testing SAMA Trunks to a Tandem Office)

TABLE GG

NO. 1XB AND XBT ROTL OUTPULSING
TT OR TL RECORD — TRUNK FILE WORK SHEET

DATA ITEM ENTRIES FOR CHARACTER POSITIONS 22 AND 23		INFORMATION PROVIDED BY DATA ITEM ENTRY		
22	23	TYPE OF PULSING AND SUPERVISION REQUIRED TO COMPLETE TO DISTANT OFFICE		
Ø	Ø	MF Pulsing		Wink Start Supervision
Ø	1	MF Pulsing		Stop-Go Supervision
Ø	2	MF Pulsing		Delay Dial Supervision
Ø	3	MF Pulsing		Delay Dial Supervision, 2-Way
1	Ø	DP Pulsing	Without Loop Compensation	Wink Start Supervision
1	1	DP Pulsing	Without Loop Compensation	Stop-Go Supervision
1	2	DP Pulsing	Without Loop Compensation	Delay Dial Supervision
1	3	DP Pulsing	With Loop Compensation	Wink Start Supervision
1	4	DP Pulsing	With Loop Compensation	Stop-Go Supervision
1	5	DP Pulsing	With Loop Compensation	Delay Dial Supervision
1	6	DP Battery and Ground Pulsing		Start Supervision
1	7	DP Battery and Ground Pulsing		Stop-Go Supervision
1	8	DP Battery and Ground Pulsing		Delay Dial Supervision
1	9	DP Pulsing	Without Loop Compensation	Delay Dial Supervision, 2-Way
2	Ø	RP Pulsing	0 Ohms Loop Compensation to Panel Offices Using 24-volt Supervision	
2	1	RP Pulsing	0 Ohms Loop Compensation to Panel and XBT Offices Using 48-volt Supervision	
2	2	RP Pulsing	300 Ohms Loop Compensation to Panel Offices Using 24-volt Supervision	
2	3	RP Pulsing	300 Ohms Loop Compensation to Panel and XBT Offices Using 48-volt Supervision	
2	4	RP Pulsing	600 Ohms Loop Compensation to Panel Offices Using 24-volt Supervision	
2	5	RP Pulsing	600 Ohms Loop Compensation to Panel and XBT Offices Using 48-volt Supervision	
2	6	RP Pulsing	900 Ohms Loop Compensation to Panel Offices Using 24-volt Supervision	
2	7	RP Pulsing	900 Ohms Loop Compensation to Panel and XBT Offices Using 48-volt Supervision	
3	Ø	PCI Pulsing	0 Ohms Loop Compensation	
3	1	PCI Pulsing	300 Ohms Loop Compensation	
3	2	PCI Pulsing	600 Ohms Loop Compensation	
3	3	PCI Pulsing	900 Ohms Loop Compensation	
4	Ø	RP Pulsing	0 Ohms Loop Compensation to Second (High Five) XBT Office Over Same Trunk Group	
4	1	RP Pulsing	300 Ohms Loop Compensation to Second (High Five) XBT Office Over Same Trunk Group	
4	2	RP Pulsing	600 Ohms Loop Compensation to Second (High Five) XBT Office Over Same Trunk Group	
4	3	RP Pulsing	900 Ohms Loop Compensation to Second (High Five) XBT Office Over Same Trunk Group	
5	Ø	DP Pulsing	Without Loop Compensation	Stop-Go Supervision, 2-Way
5	1	DP Pulsing	Without Loop Compensation	Wink Start Supervision, 2-Way

TABLE GG

4XB OTTS ROTL PRIMING INFORMATION
TT OR TL RECORD — TRUNK FILE WORK SHEET

CHAR POS	FUNCTION	DATA ITEM ENTRY	EXPLANATION
17	Category	0 1 2	Direct Distance Dialing Trunks Home Office Test Line (HOTL) Overseas Loop-Around
18	Signaling Class	0 1 2 3 4 5, 6, 8, 9 7	Manual, used for HOTL and Operator Trunks DC Pulsing Multifrequency Outpulsing Simplex Dial Loop Dial Unassigned Common Channel Interoffice Signaling (CCIS)
19	Signaling Class Modifier	0 1 2 3 4—9	No Modifier Expect Delay Dial (Dial Tone) Expect Stop-Go Both Delay-Dial and Stop-Go Unassigned
20	Signaling Class Modifier	0 1 2 3 4—9	No Modifier AC Ringing Simplex Ringing Automatic Call Distribution Unassigned
21	A-Pad Information	0 1 2 3 4—9	No A-Pad Control A-Pad Switched In A-Pad Switched Out A-Pad in for 0-TLP Toll Connecting Trunk Unassigned

TABLE II

RECORDS REQUIRED FOR ACTIONS ON CAROT CIRCUIT ORDER DATA BASE

RECORD NAME	RECORD CODE	FUNCTION OR MEANING
Action	AD, DE, or CH	Adds circuit orders to the circuit order data base, deletes orders from the circuit order data base, or changes orders in the circuit order data base
Circuit Order Plant Control Office	PC	Identifies the whole circuit order, which may be composed of many items, and the plant control office responsible for it
Action	AP, DP, or CP	Replaces AD, DE, or CH when the action is a pending addition, deletion, or change
Facility Group, Trunk Group, and/or Trunk Transaction	GF (or GN), TG, TF, TH (or TI), and/or TT (or TL)	Set of records comprising legitimate actions on one or more trunks, trunk groups, and/or facility groups as established in the PC record
Circuit Order Item	PU, DP	Identifies the circuit order item to be canceled by this order. Optional record
Circuit Order Item	PV	Identifies the circuit order item related to the previous set of transactions

Note: Repeat the above circuit order data base transactions as required for additional circuit order activities

TABLE JJ

CIRCUIT ORDER CONTROL RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	PC	Identifies a circuit order control record
4—21		The part of the circuit order layout number which is the same for all items, right-justified
22—32		Common Language Location Identification code of the plant control office

TABLE KK

CIRCUIT ORDER ITEM RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
1	/	Beginning of line
2—3	PV	Record concerns a circuit order which is to be added, deleted, or changed in the CAROT 2 circuit order testing data base
	PU	Record identifies a circuit order which is canceled upon the completion of the circuit order identified by the following PV record
4—24		The circuit layout order (CLO) number of the item concerning a specific circuit
25		Supplement character (see paragraph 4.83)
26*	A	The CLO item adds a circuit
	C	The CLO item rearranges a circuit
	D	The CLO item disconnects a circuit
	K	The CLO item cancels a previous circuit order item
27	C	The CLO item applies to a circuit (trunk)
	F	The CLO item applies to a facility
	O	The CLO item applies to neither a trunk nor a facility—No RDT action data is associated with it
28	$\emptyset$	Circuit cannot be circuit order demand-tested by CAROT 2
	1	Circuit can be circuit order demand-tested by CAROT 2
29	$\emptyset$	Circuit order completion cannot be done through CAROT 2
	1	Circuit order completion can be done through CAROT 2
30	$\emptyset$	Do not update CAROT 2 COTC data base automatically upon completion
	1	Update CAROT 2 COTC data base automatically upon completion
31	$\emptyset$	Do not update CAROT 2 RDT and/or TFTP data base automatically upon completion
	1	Update CAROT 2 RDT data base automatically upon completion

* If the type of item is O (other), no action data applies.
  Go to character position 27 for meaning of the O

TABLE KK (Contd)

CIRCUIT ORDER ITEM RECORD DEFINITION

CHAR POS	DATA ITEM VALUE	FUNCTION OR MEANING
32—39		Date when circuit order is due to be completed in 00/00/00 format
40—41		Leave blank—this position is not utilized at this time
42—63		The CLO number of the most recently issued previous order against this circuit

TABLE LL

GAINSLOPE CIRCUIT ORDER TEST REQUIREMENTS

FACILITY TYPE†	FACILITY CODE	LOWER 400-HZ LIMIT*	UPPER 400-HZ LIMIT*	LOWER 2800-HZ LIMIT*	UPPER 2800-HZ LIMIT*
Type a channel bank	1	2.5	1.0	2.0	1.0
N1 carrier	2	2.5	1.0	3.0	1.0
N2 carrier	3	2.0	1.0	2.5	1.0
N3 carrier	4	2.0	1.0	2.5	1.0
NR carrier	5	2.0	1.0	1.5	1.0
O carrier	6	3.0	1.0	3.0	1.5
ON carrier	7	2.5	1.0	3.0	1.0
D1, D2, D3, D4 channel bank (toll)	8	1.5	1.0	2.0	1.0
D1, D2, D3, D4 channel bank (nontoll)	9	2.5	1.0	2.5	1.0
Nonrepeatered cable	A	2.0	1.5	3.0	2.5
E-repeatered trunks or trunks covered under SD-31674-01 or SD-31734-01	B	4.0	1.5	4.5	1.0
Other repeatered cable	C	3.0	1.0	4.5	1.0

* All limits are expressed in dB

† For combination trunks (up to 2 facility types per circuit are allowed), the gainslope limits are the sum of the limits for the individual facility types.

TABLE MM

INPUT DATA RECORD TRANSACTIONS FOR ROUTINE AND DEMAND TEST OPERATIONS

FILE DESCRIPTION	RECORD CODE	RECORDS APPLICABLE WHEN MAKING DATA RECORD TRANSACTIONS			CAROT 2 WORK SHEET USED
		ADD TRANSACTIONS	DELETE TRANSACTIONS	CHANGE TRANSACTIONS	
Equipment:					
Responder Office	RE	AD, RE	DE, RE	CH, RE	Responder, ROTL, and Test Line
ROTL	RO	AD, RO	DE, RO	CH, RO	Responder, ROTL, and Test Line
Office Test Line Directory	OD	AD, OD	DE, OD	CH, OD	Responder, ROTL, and Test Line
Test Line	ID	AD, ID, ED		CH, ID, ED	Responder, ROTL, and Test Line
Test Line	ID		DE, ID		Responder, ROTL, and Test Line
Administrative:					
Control Office for Trunks	CT	AD, CT	DE, CT	CH, CT	Control Office for Trunks
ROTL Control Office	RC	AD, RC	DE, RC	CH, RC	Control Office for Trunks
Control Office for Facilities	CF	AD, CF	DE, CF	CH, CF	Control Office for Facilities
Trunk and Facility:					
Trunk Group	YB	AD, YG, YB	DE, YG, YB	CH, YG, YB	Trunk Group and Test Frame Priming
Facility Group	GF	AD, GF	DE, GF		Facility Group
Facility and/or Rename	GN			CH, GF, GN	Facility Group
Trunk (Principal Mode)	TT	AD, TG, TF, TH, TT	DE, TG, TT	CH, TG, TF, TH, TT	Trunk File

TABLE NN

INPUT DATA RECORD TRANSACTIONS FOR TEST FRAME TAPE PREPARATION

FILE DESCRIPTION	RECORD CODE	RECORDS APPLICABLE WHEN MAKING DATA RECORD TRANSACTIONS			CAROT 2 WORK SHEET USED
		ADD TRANSACTIONS	DELETE TRANSACTIONS	CHANGE TRANSACTIONS	
Equipment:		NO EQUIPMENT RECORDS REQUIRED			
Administrative:					
Control Office for Facilities	CF	AD, CF	DE, CF	CH, CF	Control Office for Facilities
Office—Test Frame	OT	AD, OT	DE, OT	CH, OT	Test Frame Office
Trunk and Facility:					
Trunk Group — Test Frame	YB	AD, YG, YB	DE, YG, YB		Trunk Group and Test Frame Priming
Facility Group	GF	AD, GF	DE, GF	CH, GF, GN	Facility Group
K Field	YK	AD, YG, YK	DE, YG, YK	CH, YG, YK	Trunk Group and Test Frame Priming
Trunk — Test Frame (Principal Mode)	TT	AD, TG, TF, TH, TT	DE, TG, TT	CH, TG, TF, TH, TT	Trunk File

TABLE OO

INPUT DATA RECORD TRANSACTIONS FOR CIRCUIT ORDER
TESTING AND CONPLETION OPERATIONS

FILE DESCRIPTION	RECORD CODE	RECORDS APPLICABLE WHEN MAKING DATA RECORD TRANSACTIONS			CAROT 2 WORK SHEET USED
		ADD TRANSACTIONS	DELETE TRANSACTIONS	CHANGE TRANSACTIONS	
Equipment: *					
Administrative: *					
Control Office for Trunks	CT	AD, CT	DE, CT	CH, CT	Control Office for Trunks
ROTL Control Office	RC	AD, RC	DE, RC	CH, RC	Control Office for Trunks
Control Office for Facilities	CF	AD, CF	DE, CF	CH, CF	Control Office for Facilities
Plant Control Office	CP	AD, CP	DE, CP	CH, CP	Circuit Order Plant Control Office
Trunk and Facility:					
Circuit Order	PC	AD, PC	DE, PC		Circuit Order
Circuit Order Item	PV	AD, PV	DE, PV	CH, PV	Circuit Order

*The equipment records are required only for the purpose of making precompletion tests on circuit order items involving trunks and for using the action data to update the RDT data base following a completion. Similarly, the administration records (except for the CP which is required) are needed only for updating the RDT data base with the action data after the completion.

TABLE PP

NO. 5XB – RELATIONSHIP BETWEEN TRUNK
MACHINE ASSIGNMENT AND TRUNK LOCATION ADDRESS

TRUNK EQUIPMENT ASSIGNMENT AS MADE BY TRAFFIC			
TRUNK LINK FRAME	APPEARANCE	SWITCH NO.	LEVEL
00 thru 29	A (Level 0) or B (Level 1)	0 thru 9	2 thru 9

Translates to:

TEST FRAME PRIMING – TRUNK LOCATION ADDRESS			
FT	FU	TT	TU
0 thru 2	0 thru 9	0 thru 1	0 thru 9
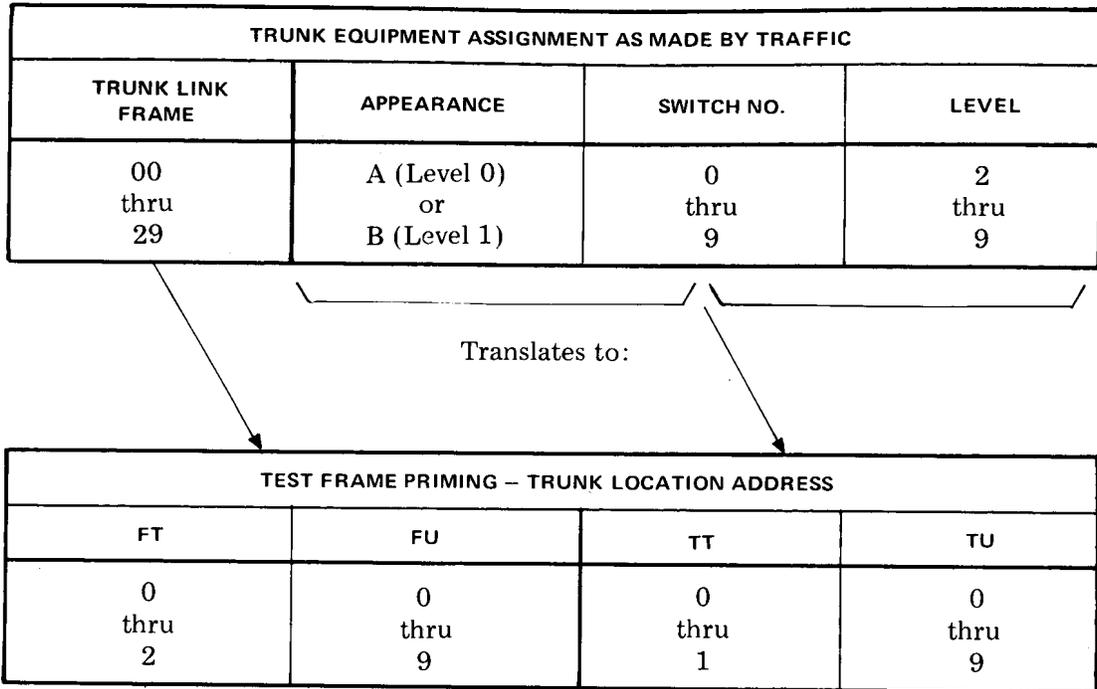
TABLE QQ

NO. 5XB TRUNK LINK FRAME TRUNK ASSIGNMENT TO TEST ACCESS TRANSLATION DATA
APPEARANCE, SWITCH, AND LEVEL TRANSLATION TO BUSY TEST LEAD (TT, TU)

TRUNK LINK FRAME	APPEARANCE	LEVEL	TT	TU
160-Point	A	2, 3, 4, 5, 6, or 8	0	Same as Switch No. (0—9)
		7 or 9	1	
	B	2, 3, 4, or 5	1	
200-Point*	A	2, 3, 4, 5, 6, or 8	0	
		7 or 9	1	
	B	2, 3, 4, 5, 7, or 9	1	
		6 or 8	0	

* This assignment is flexible in 200-point trunk link frames and may be locally administrated (see paragraph 7.23)

CAROT 2 RESPONDER, ROTL, AND TEST LINE WORK SHEET

Fig. 6—CAROT 2 Respondor, ROTL, and Test Line Work Sheet

CAROT 2 CONTROL OFFICE FOR TRUNKS WORK SHEET

ACTION					CONTROL OFFICE FOR TRUNKS	L P T R	TERMINAL TELEPHONE NUMBER	EQUIPMENT CODE	DATE TO START MANAGEMENT SUMMARY	DATE TO START INDEX SUMMARY
1	2	3								
/	C	T							/ /	/ /

ACTION				ROTL ID			LOSS Q1	OVERRIDE	START TESTING DAILIES	START TESTING WEEKLIES	START TESTING BIWEEKLIES	START TESTING MONTHLIES	START TESTING QUARTERLIES
				ROTL OFFICE	CONTROL OFFICE FOR TRUNKS								
1	2	3											
/	R	C							/ /	/ /	/ /	/ /	/ /
/	R	C							/ /	/ /	/ /	/ /	/ /
/	R	C							/ /	/ /	/ /	/ /	/ /
/	R	C							/ /	/ /	/ /	/ /	/ /
/	R	C							/ /	/ /	/ /	/ /	/ /
/	R	C							/ /	/ /	/ /	/ /	/ /
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/	R	C							/ /	/ /	/ /	/ /	/ /
/	R	C							/ /	/ /	/ /	/ /	/ /
/	R	C							/ /	/ /	/ /	/ /	/ /
/	R	C							/ /	/ /	/ /	/ /	/ /
/	R	C							/ /	/ /	/ /	/ /	/ /
/	R	C							/ /	/ /	/ /	/ /	/ /

Fig. 7—CAROT 2 Control Office for Trunks Work Sheet

CAROT 2 CONTROL OFFICE FOR FACILITIES WORK SHEET

ACTION				CONTROL OFFICE FOR FACILITIES													L P T R	TERMINAL TELEPHONE NUMBER												EQUIPMENT CODE		
1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
/			/	C	F																										
/			/	C	F																										
/			/	C	F																										
/			/	C	F																										
/			/	C	F																										
/			/	C	F																										
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/			/	C	F																										
/			/	C	F																										
/			/	C	F																										

Fig. 8—CAROT 2 Control Office for Facilities Work Sheet

CAROT 2 CIRCUIT ORDER PLANT CONTROL OFFICE WORK SHEET

ACTION						PLANT CONTROL OFFICE												TEST RESULTS														REPORTS														DATE TO BEGIN PCO MANAGEMENT SUMMARY							
																		TERMINAL TELEPHONE NUMBER												EQPT CODE			TERMINAL TELEPHONE NUMBER												EQPT CODE										
1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
/			/	C	P																																																	
/			/	C	P																																																		
/			/	C	P																																																		
/			/	C	P																																																		
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/			/	C	P																																																		
/			/	C	P																																																		

Fig. 9—CAROT 2 Circuit Order Plant Control Office Work Sheet

CAROT 2 TEST FRAME OFFICE WORK SHEET

1	ACTION 2	3		1	2	3	TEST FRAME OFFICE IDENTIFICATION 4	5	6	7	8	9	10	11	12	13	14	TEST FRAME TYPE 15	16	17	18	19	20	ISSUE NUMBER 21	22	23	TAPE TYPES OPERATIONAL 5XB NO. 1 CCT 24	5XB APTT NO. 1 CCT 25	NO. 2 CCT 26	NO. 3 CCT 27	NO. 4 CCT 28	NO. 5 CCT 29	BUSY LINE 30	TRANSMISSION INDEXED DAILY 31	WEEKLY 32	BIWEEKLY 33	MONTHLY 34	NOT INDEXED DAILY 35	WEEKLY 36	BIWEEKLY 37	MONTHLY 38
/				/	O	T																																				
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Fig. 10—CAROT 2 Test Frame Office Work Sheet

CAROT 2 TRUNK GROUP AND TEST FRAME PRIMING WORK SHEET

ACTION						TRUNK GROUP IDENTIFICATION																																							TFMS CODE	CAROT DIR	FRAME DIR
						TRUNK TYPE													OFFICE A											PULSING			OFFICE Z														
1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
/			/	Y	G																																											

					CONTROL OFFICE									ROTL IDENTIFICATION												ROTL IDENTIFICATION											
														FETL IDENTIFICATION												FETL IDENTIFICATION											
																	OFFICE A											OFFICE Z								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
/	Y	B																																			

4 X B AOTT

			DIRECTION	TRAFFIC USE	CONTROLLED	FE TYPE	
1	2	3	4	5	6	7	8
/	Y	K					
/	Y	K					
/	Y	K					

S X S AOTT

			DIRECTION	TRAFFIC USE	CONTROLLED	ROTL	PRE	COM	MF	SX	FE TYPE	TRANSMISSION FETL NUMBER								LINE	CTX	OPERATIONAL FETL NUMBER						BUSY LINE FETL NUMBER					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
/	Y	K																																	
/	Y	K																																	
/	Y	K																																	

5 X B APTT

			DIRECTION	TRAFFIC USE	CONTROLLED	COMMON FE TYPE	MKG/RET	X	CLT	CLU	CRG	CRU	CST	CSU	TAPE TYPE	PER TYPE TMT	TMU	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU	TAPE TYPE	PER TYPE TMT	TMU	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU	TAPE TYPE	PER TYPE TMT	TMU	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
/	Y	K																																																											
/	Y	K																																																												
/	Y	K																																																												

Fig. 11—CAROT 2 Trunk Group and Test Frame Priming Work Sheet

CAROT 2 FACILITY GROUP WORK SHEET

ACTION			F/N			DESIG					TYPE										TERMINAL A											TERMINAL Z											CONTROL OFFICE											
						FACILITY GROUP IDENTIFICATION																																														
1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
/			/	G																																																		
/			/	G																																																		
/			/	G																																																		
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Fig. 12—CAROT 2 Facility Group Work Sheet

CAROT 2 TRUNK FILE WORK SHEET

Fig. 13—CAROT 2 Trunk File Work Sheet

T/L			D I R E C T I O N	T R A F U F S I E C		TRUNK NUMBER					CHANNEL OR PAIR NUMBER →					TRUNK LOCATION ADDRESS														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
/	T																												
/	T																												
/	T																												
/	T																												
/	T																												
/	T																												
/	T																												
/	T																												

CHARACTER
POSITION   DATA ITEM

1	/ - BEGINNING OF LINE
2-3	TT OR TL RECORD IDENTITY
4	PRINCIPAL OR ALTERNATE DIRECTION OF TEST
	Ø FOR ROUTINE TEST DIRECTION
	1 FOR OTHER TEST DIRECTION
5-6	TRAFFIC USE OF TRUNK ON RECORD
7-10	TRUNK NUMBER - ALPHANUMERIC OR BLANK
11	BLANK
12-16	CHANNEL NUMBER OF FIRST FACILITY - NUMERIC OR BLANK
17-30	TRUNK LOCATION ADDRESS - ALPHANUMERIC OR BLANK
	SEE BELOW:

	NO. 5XB ROTL SMALL (J23263A)	SXS ROTL SMALL (J34305A)	SYS ROTL-3
17	ROUTE TRANSLATION TENS	BLANK	BLANK
18	ROUTE TRANSLATION UNITS	BLANK	BLANK
19	FRAME TENS (FT)	BLANK	ALWAS Ø
20	FRAME UNITS (FU)	TEST CONN HUNDREDS	TEST CONN HUNDREDS
21	BUSY TEST TENS (TT)	TEST CONN TENS	TEST CONN TENS
22	BUSY TEST UNITS (TU)	TEST CONN UNITS	TEST CONN UNITS
23		TYPE OF PULSING (1-MF; 2-DP)	TYPE OF PULSING (1-MF; 2-DP)

Fig. 14—TT or TL Record—Small SXS and Small 5XB ROTLs

T/L			DIRECTION	TRAFFIC USE		TRUNK NUMBER					CHANNEL OR PAIR NUMBER →					TRUNK LOCATION ADDRESS													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
/	T																												
/	T																												
/	T																												
/	T																												
/	T																												
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CHARACTER POSITION	DATA ITEM
1	/ - BEGINNING OF LINE
2-3	TT OR TL RECORD IDENTITY
4	PRINCIPAL OR ALTERNATE DIRECTION OF TEST
	Ø FOR ROUTINE TEST DIRECTION
	1 FOR OTHER TEST DIRECTION
5-6	TRAFFIC USE OF TRUNK ON RECORD
7-10	TRUNK NUMBER - ALPHANUMERIC OR BLANK
11	BLANK
12-16	CHANNEL NUMBER OF FIRST FACILITY - NUMERIC OR BLANK
17-30	TRUNK LOCATION ADDRESS - ALPHANUMERIC OR BLANK
	SEE BELOW:

	NO. 1 ESS ROTL	NO. 2 ESS ROTL OR NO. 3 ESS ROTL	NO. 1 ESS ROTL (RSS)
17	MODIFIER	MODIFIER	MODIFIER
18	TRUNK LINK NETWORK NUMBER	TRUNK GROUP NUMBER	LINE EQUIPMENT NUMBER
19	TRUNK LINK NETWORK NUMBER	TRUNK GROUP NUMBER	LINE EQUIPMENT NUMBER
20	TRUNK SWITCH FRAME	TRUNK GROUP NUMBER	LINE EQUIPMENT NUMBER
21	GRID NUMBER	MEMBER NUMBER	LINE EQUIPMENT NUMBER
22	SWITCH NUMBER	MEMBER NUMBER	LINE EQUIPMENT NUMBER
23	OUTPUT SWITCH LEVEL	MEMBER NUMBER	LINE EQUIPMENT NUMBER
24			LINE EQUIPMENT NUMBER
25			LINE EQUIPMENT NUMBER

Fig. 15—TT or TL Record—No. 1, No. 2, and No. 3 ESS ROTLs

T/L			DIRECTION	TRAFFIC USE		TRUNK NUMBER					CHANNEL OR PAIR NUMBER ⟶						TRUNK LOCATION ADDRESS														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
/	T																												
/	T																												
/	T																												
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/	T																												
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/	T																												

CHARACTER POSITION	DATA ITEM
1	/ - BEGINNING OF LINE
2-3	TT OR TL RECORD IDENTITY
4	PRINCIPAL OR ALTERNATE DIRECTION OF TEST
	Ø FOR ROUTINE TEST DIRECTION
	1 FOR OTHER TEST DIRECTION
5-6	TRAFFIC USE OF TRUNK ON RECORD
7-10	TRUNK NUMBER - ALPHANUMERIC OR BLANK
11	BLANK
12-16	CHANNEL NUMBER OF FIRST FACILITY - NUMERIC OR BLANK
17-18	BLANK
19-20	TEST CONNECTOR SWITCH NUMBER
21	TEST CONNECTOR SELECT MAGNET NUMBER
22	TEST CONNECTOR HOLD MAGNET NUMBER
23	PULSING (SEE TABLE EE)

Fig. 16—TT or TL Record—Expanded SXS ROTL and SXS ROTL-3

T/L			DIRECTION	TRAFFIC USE		TRUNK NUMBER					CHANNEL OR PAIR NUMBER →					TRUNK LOCATION ADDRESS													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
/	T																												
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/	T																												
/	T																												
/	T																												
/	T																												

CHARACTER POSITION	DATA ITEM
1	/ - BEGINNING OF LINE
2-3	TT OR TL RECORD IDENTITY
4	PRINCIPAL OR ALTERNATE DIRECTION OF TEST
	Ø FOR ROUTINE TEST DIRECTION
	1 FOR OTHER TEST DIRECTION
5-6	TRAFFIC USE OF TRUNK ON RECORD
7-10	TRUNK NUMBER - ALPHANUMERIC OR BLANK
11	BLANK
12-16	CHANNEL NUMBER OF FIRST FACILITY - NUMERIC OR BLANK
17-18	ITTC SWITCH NUMBER (ØØ-39)*
19	ITTC SELECT MAGNET NUMBER (Ø-9)
20-21	ITTC HOLD MAGNET NUMBER (ØØ-19)
22-23	PULSING (SEE TABLE FF)

*ITTC SWITCH NUMBER MAY INCLUDE A CONSTANT TO DISTINGUISH
BETWEEN ITTCS ASSOCIATED WITH DIFFERENT MARKER GROUPS

Fig. 17—TT or TL Record 1XB/XBT ROTL

T/L			D I R E C T I O N	T R A F U F S I E C		TRUNK NUMBER					CHANNEL OR PAIR NUMBER →					TRUNK LOCATION ADDRESS													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
/	T																												
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/	T																												
/	T																												
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/	T																												
/	T																												
/	T																												

CHARACTER POSITION	DATA ITEM
1	/ - BEGINNING OF LINE
2-3	TT OR TL RECORD IDENTITY
4	PRINCIPAL OR ALTERNATE DIRECTION OF TEST
	0 FOR ROUTINE TEST DIRECTION
	1 FOR OTHER TEST DIRECTION
5-6	TRAFFIC USE OF TRUNK ON RECORD
7-10	TRUNK NUMBER - ALPHANUMERIC OR BLANK
11	BLANK
12-16	CHANNEL NUMBER OF FIRST FACILITY - NUMERIC OR BLANK
17-30	TRUNK LOCATION ADDRESS - ALPHANUMERIC OR BLANK
	SEE BELOW:

	4XB OTTS ROTL	4XB OTTS ROTL FOR CCIS TRUNKS
17	CATEGORY*	CATEGORY*
18-20	SIGNALING CLASS AND MODIFIERS*	ALWAYS 700
21	PAD MARK*	PAD MARK*
22	TRAIN (0-TC; 1-IT)	TRAIN (0-TC; 1-IT)
23	TEST CONNECTOR (0-TC; 1-IT)	ALWAYS 0
24-28	TEST CONNECTOR NUMBER	T REGISTER OR TREG NUMBER
29	RELAY TYPE (0-TC; 1-IT)	RELAY TYPE (0-TC; 1-IT)

*SEE TABLE HH

Fig. 18—TT or TL Record—4XB OTTS ROTL

T/L			DIRECTION	TRAFFIC USE		TRUNK NUMBER					CHANNEL OR PAIR NUMBER					TRUNK LOCATION ADDRESS													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
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/	T																												
/	T																												

CHARACTER POSITION	DATA ITEM
1	/ - BEGINNING OF LINE
2-3	TT OR TL RECORD IDENTITY
4	PRINCIPAL OR ALTERNATE DIRECTION OF TEST 0 FOR ROUTINE TEST DIRECTION 1 FOR OTHER TEST DIRECTION
5-6	TRAFFIC USE OF TRUNK ON RECORD
7-10	TRUNK NUMBER - ALPHANUMERIC OR BLANK
11	BLANK
12-16	CHANNEL NUMBER OF FIRST FACILITY - NUMERIC OR BLANK
17	TYPE OF CALL (TYP)*
18	ROUTE ADVANCE AND GROUP ALLOTTER (RA)+
19	TRUNK LINK FRAME TENS (FT)+
20	TRUNK LINK FRAME UNITS (FU)+
21	BUSY TEST TENS (TT)+
22	BUSY TEST UNITS (TU)+
23	TYPE OF TRANSLATOR (TR)*
24	MARKER GROUP (MG)*
25	CLASS OF SERVICE TENS/TANDEM SCREENING (CTA)*
26	CLASS OF SERVICE UNITS (CU)*
27	RATE TREATMENT UNITS (CRU)*
28	RATE TREATMENT TENS/TRUNK CLASS GROUP (CG)

* SEE FIG. 76

₁ SEE FIG. 77

Fig. 19—TT or TL Record Expanded 5XB ROTL

Fig. 20—CAROT 2 Circuit Order Work Sheet

TASK	DATA INPUT
1. Add trunk to RDT	AP YG YB GF TG TF TH TT
2. Add trunk to TFTP	AP YG YB YK GF TG TF TH TT
3. Add trunk to both RDT and TFTP	AP YG YB YK GF TG TF TH TT
4. Delete trunk from *either* RDT or TFTP or both	DP TG TT
5. Change a trunk in RDT (includes a name change)	DP TG TT AP YG YB GF TG TF TH TT
6. Change a trunk in TFTP (includes a name change)	DP TG TT AP YG YB YK GF TG TF TH TT
7. Change a trunk in *both* RDT and TFTP (includes a name change)	DP TG TT AP YG YB YK GF TG TF TH TT DP TG TT AP YG YB YK GF TF
8. Change a trunk without requiring a name change (in *either* RDT or TFTP or both)	AP YG YB CP TG TF TH TT or, if new facility is involved, AP YG YB GF CP TG TF TH TT
9. Add facility	AP GF
10. Change facility	CP GF GN

Fig. 21—Action Data Record Sequences

TASK	DATA INPUT
1. Add several trunks to the same trunk group	AD PC AP YG YB GF TG TF TH TT PV TT PV TT PV ....
2. Delete several trunks from the same group	AD PC DP TG TT PV TT PV TT PV TT PV ....
3. Change several trunks on the same group	AD PC CP TG TF TH TT PV TT PV TT PV TT ....
4. Add trunks to the same group with different test parameters	AD PC AP YG YB TG TF TH TT PV TH TT PV TH TT PV ....
5. Add trunks to the same group but two different facilities	AD PC AP YG YB GF TG TF TH TT PV GF TG TF TH TT PV GF TG TF TH TT PV GF TG TF TH TT PV ....

Fig. 22—Examples of COTC Updates

CAROT 2 RESPONDER, ROTL, AND TEST LINE WORK SHEET

E6725, 10/78
SECTION 190-102-203

NOTES:
1. THE OFFICE TO WHICH THE TEST LINE IS ADDED IN THE ID RECORD AND THE RESPONDER GIVEN IN THE ED RECORD MUST HAVE BEEN PREVIOUSLY ENTERED IN THE RE RECORD
2. AN ED RECORD MUST BE INCLUDED FOR EACH TEST LINE ID RECORD EVEN THOUGH NO RESPONDER IS ASSOCIATED WITH IT

Fig. 23—Example 1 of Adding a Responder, a ROTL, a Test Line Office, and Two Test Lines—Initial Load

CAROT 2 RESPONDER, ROTL, AND TEST LINE WORK SHEET

RESPONDER IDENTIFICATION form (ACTION /RE):

ACTION	RESPONDER OFFICE	FLOOR	AISLE	BAY	UNIT	RESPONDER TYPE	RESPONDER OPTION
/RE	ATLNGATH63A	Ø1	26	·21		1	752AØØ2

ROTL IDENTIFICATION form (ACTION /RO): blank

TEST LINE OFFICE IDENTIFICATION form (ACTION /OD):

ACTION	TEST LINE OFFICE IDENTIFICATION	SWITCHING SYSTEM TYPE
/OD	ATLNGATH63A	SXS L

NOTES:
1. THE OFFICE TO WHICH THE TEST LINE IS ADDED IN THE ID RECORD AND THE RESPONDER GIVEN IN THE ED RECORD MUST HAVE BEEN PREVIOUSLY ENTERED IN THE RE RECORD
2. AN ED RECORD MUST BE INCLUDED FOR EACH TEST LINE ID RECORD EVEN THOUGH NO RESPONDER IS ASSOCIATED WITH IT

TEST LINE ID form:

ACTION	TEST LINE OFFICE IDENTIFICATION	TEST LINE TYPE	TEST LINE TELEPHONE NUMBER	TRAFFIC USE LIST	FLOOR	AISLE	BAY	UNIT
/ID	ATLNGATH63A	1Ø	54Ø46333199	IETGTC	1	8·126		Ø5
/ID	ATLNGATH63A	NON	4Ø46333ØØ9	IETGTC	1	6·111		Ø3
/ID						·		
/ID						·		
/ID						·		
/ID						·		
/ID						·		
/ID						·		
/ID						·		
/ID						·		

RESPONDER ED form:

ACTION	RESPONDER OFFICE	FLOOR	AISLE	BAY	UNIT	#IN HUNT	OPTIONS	HOME OFFICE TEST LINE TEST PRIMING
/ED	ATLNGATH63A	Ø1	26·21		171Ø			
/ED			·					
/ED			·					
/ED			·					
/ED			·					
/ED			·					
/ED			·					
/ED			·					
/ED			·					
/ED			·					

Fig. 24—Example of Adding a Responder, a Test Line Office, and Two Test Lines—Initial Load

CAROT 2 RESPONDER, ROTL, AND TEST LINE WORK SHEET

RESPONDER IDENTIFICATION record

ACTION		RESPONDER IDENTIFICATION					RESPONDER TYPE	RESPONDER OPTION
		RESPONDER OFFICE	FLOOR	AISLE	BAY	UNIT		
1 2 3		4 5 6 7 8 9 10 11 12 13 14	15 16	17 18	19 20 21 22	23 24 25 26	27 28	29 30 31 32
/ R E								

ROTL IDENTIFICATION record

ACTION	ROTL IDENTIFICATION	ROTL TYPE	24 WIRE	MAKE BUSY	ROTL TELEPHONE NUMBER	START-UP TIME	# OFF ROTLS	# OFF HCLADS	ALT ROTL IDENTIFICATION	RESPONDER IDENTIFICATION	FLOOR	AISLE	BAY	UNIT
/ R O	ROTL OFFICE								ROTL OFFICE	RESPONDER OFFICE				

TEST LINE OFFICE IDENTIFICATION record

ACTION	TEST LINE OFFICE IDENTIFICATION	SWITCHING SYSTEM TYPE
/ A D	/ O D A T L N G A E P 7 6 A	S Y S L

NOTES:
1. THE OFFICE TO WHICH THE TEST LINE IS ADDED MUST HAVE BEEN PREVIOUSLY ENTERED IN THE RE RECORD
2. AN ED RECORD MUST BE INCLUDED FOR EACH TEST LINE ID RECORD EVEN THOUGH NO RESPONDER IS ASSOCIATED WITH IT

Test Line (ID) records

ACTION	TEST LINE OFFICE IDENTIFICATION	TEST LINE TYPE	TEST LINE TELEPHONE NUMBER	TRAFFIC USE LIST	FLOOR	AISLE	BAY	UNIT
/	/ I D A T L N G A E P 7 6 A	1 0 2 4	0 4 7 6 6 3 1 8 8	I E T G T C	1 0 3	2 4		1 1
/	/ I D A T L N G A E P 7 6 A	N O N	0 4 7 6 6 3 0 0 9	I E T G T C	1 0 4	0 3		2 1
/	/ I D							
/	/ I D							
/	/ I D							
/	/ I D							
/	/ I D							
/	/ I D							
/	/ I D							
/	/ I D							

Responder (ED) records

ACTION	RESPONDER IDENTIFICATION	FLOOR	AISLE	BAY	UNIT	# IN HUNT	OPTIONS	HOME OFFICE TEST LINE TEST PRIMING
	RESPONDER OFFICE							
/ E D								
/ E D								
/ E D								
/ E D								
/ E D								
/ E D								
/ E D								
/ E D								
/ E D								
/ E D								

Fig. 25—Example of Adding a Test Line Office and Two Test Lines—Initial Load

RESPONDER IDENTIFICATION form (row):
/RE ATLNGASS25A 114·27 2452A003

ROTL / ALT ROTL / RESPONDER IDENTIFICATION form (row):
/RO ATLNGASS25A 5X820404255 2776 230011 ATLNGASS25A 114·27 24

TEST LINE OFFICE IDENTIFICATION form (row):
/OD ATLNGASS25A5X8 L

NOTES:

1. THE OFFICE TO WHICH THE TEST LINE IS ADDED IN THE ID RECORD AND THE RESPONDER GIVEN IN THE ED RECORD MUST HAVE BEEN PREVIOUSLY ENTERED IN THE RE RECORD

2. AN ED RECORD MUST BE INCLUDED FOR EACH TEST LINE ID RECORD EVEN THOUGH NO RESPONDER IS ASSOCIATED WITH IT

TEST LINE form (rows):
/ID ATLNGASS25A1054042553334 IAIETGTC 114·27 10
/ID ATLNGASS25ASYN4042553009 IETGTC 114·05 36
/ID
/ID
/ID
/ID
/ID
/ID
/ID
/ID

RESPONDER IDENTIFICATION / HOME OFFICE TEST LINE TEST PRIMING form (rows):
/ED ATLNGASS25A 114·27 2410
/ED
/ED
/ED
/ED
/ED
/ED
/ED
/ED
/ED

Fig. 26—Example 2 of Adding a Responder, a ROTL, a Test Line Office, and Two Test Lines—Initial Load

CAROT 2 CONTROL OFFICE FOR TRUNKS WORK SHEET

ACTION			CONTROL OFFICE FOR TRUNKS				L P T R	TERMINAL TELEPHONE NUMBER				EQUIPMENT	CODE	DATE TO START MANAGEMENT SUMMARY	DATE TO START INDEX SUMMARY
1 2 3		1 2 3	4 5 6 7	8 9 10 11 12 13 14	15	16 17 18 19 20 21 22 23 24 25 26	27 28 29	30	31 32 33 34 35 36 37	38 39 40 41 42 43 44 45
/ A D		/ C T	A T L N G A B U E Ø 3			4 Ø 4 2 3 1 Ø 5 6 6	1 Ø Ø	1 3 / Ø 3 / 7 5	Ø 3 / Ø 3 / 7 5

ACTION		ROTL ID			LOSS Q1	OVERRIDE	START TESTING DAILIES	START TESTING WEEKLIES	START TESTING BIWEEKLIES	START TESTING MONTHLIES	START TESTING QUARTERLIES
		ROTL OFFICE	CONTROL OFFICE FOR TRUNKS								
1 2 3	1 2 3	4 5 6 7 8 9 10 11 12 13 14 15	16 17 18 19 20 21 22 23 24 25 26	27 28 29	30 31 32 33 34 35 36 37	38 39 40 41 42 43 44 45	46 47 48 49 50 51 52 53	54 55 56 57 58 59 60 61	62 63 64 65 66 67 68 69
/	/ R C	A T L N G A B U 1 2 T Ø	A T L N G A B U E Ø 3		Ø 2 / 2 Ø / 7 5	Ø 2 / 2 Ø / 7 5	Ø 2 / 2 Ø / 7 5	Ø 2 / 2 Ø / 7 5	Ø 2 / 2 Ø / 7 5
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/
/	/ R C				/	/	/	/	/	/	/	/	/	/

Fig. 27—Example 1 of Adding a Control Office for Trunks and a ROTL Control Office—Initial Load

CAROT 2 CONTROL OFFICE FOR TRUNKS WORK SHEET

ACTION		CONTROL OFFICE FOR TRUNKS	L P T R	TERMINAL TELEPHONE NUMBER	EQUIPMENT	CODE	DATE TO START MANAGEMENT SUMMARY	DATE TO START INDEX SUMMARY
1 2 3	1 2 3	4 5 6 7 8 9 10 11 12 13 14	15	16 17 18 19 20 21 22 23 24 25 26	27 28 29	30 31	32 33 34 35 36 37	38 39 40 41 42 43 44 45
/ A D	/ C T	A T L N G A S S E Ø 1					Ø 3 / Ø 3 / 7 5	Ø 3 / Ø 3 / 7 5

ACTION		ROTL ID — ROTL OFFICE	CONTROL OFFICE FOR TRUNKS	LOSS	OVERRIDE	START TESTING DAILIES	START TESTING WEEKLIES	START TESTING BIWEEKLIES	START TESTING MONTHLIES	START TESTING QUARTERLIES
1 2 3	1 2 3	4 5 6 7 8 9 10 11 12 13 14 15	16 17 18 19 20 21 22 23 24 25 26	27 28 29	30	31 32 33 34 35 36 37	38 39 40 41 42 43 44 45	46 47 48 49 50 51 52 53	54 55 56 57 58 59 60 61	62 63 64 65 66 67 68 69
/	/ R C	A T L N G A S S 2 5 A	A T L N G A S S E Ø 1			Ø 2 / 2 Ø / 7 5	Ø 2 / 2 Ø / 7 5	Ø 2 / 2 Ø / 7 5	Ø 2 / 2 Ø / 7 5	Ø 2 / 2 Ø / 7 5
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /

Fig. 28—Example 2 of Adding a Control Office for Trunks and a ROTL Control Office—Initial Load

ACTION			TRUNK GROUP IDENTIFICATION								TFMS CODE	CAROT DIR	FRAME DIR
			TRUNK TYPE			OFFICE A		PULSING	OFFICE Z				

1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
/	A	D	/	Y	G	D	F	5	5	I	E									A	T	L	N	G	A	S	S	2	5	A	D	-		A	T	L	N	G	A	E	P	7	6	A		A	

		CONTROL OFFICE		ROTL IDENTIFICATION		ROTL IDENTIFICATION	
				FETL IDENTIFICATION		FETL IDENTIFICATION	
				OFFICE A		OFFICE Z	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
/	Y	B	A	T	L	N	G	A	S	S	E	Ø	1	A	T	L	N	G	A	S	S	2	5	A	Ø	A	T	L	N	Q	A	E	P	7	6	A	

4 X B AOTT

			DIRECTION	TRAFFIC USE	CONTROLLED	FE TYPE
1	2	3	4	5	6	7	8
/	Y	K					
/	Y	K					
/	Y	K					

NOTE:
YK RECORDS ARE USED ONLY WHEN
PREPARING TEST FRAME TAPES

S X S AOTT

			DIRECTION	TRAFFIC USE	CONTROLLED	ROTL	PRE	COM	MF	SX	FE TYPE	TRANSMISSION FETL NUMBER								LINE	CTX	OPERATIONAL FETL NUMBER							BUSY LINE FETL NUMBER					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
/	Y	K																																	
/	Y	K																																	
/	Y	K																																	

5 X B APTT

			DIRECTION	TRAFFIC USE	COMMON										TAPE TYPE	PER TYPE															TAPE TYPE	PER TYPE															TAPE TYPE	PER TYPE													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
/	Y	K																																																										
/	Y	K																																																										
/	Y	K																																																										

Fig. 29—Example 1 of Adding a Trunk Group and a Control Office—Initial Load

CAROT 2 TRUNK GROUP AND TEST FRAME PRIMING WORK SHEET

ACTION						TRUNK TYPE														TRUNK GROUP IDENTIFICATION																								
																				OFFICE A									PULSING			OFFICE Z										TFMS CODE	CAROT DIR	FRAME DIR

Row: / A D | / Y G D F Ø 5 T G | A T L N G A B U 1 Z T | D - | A T L N G A T H 6 3 A | A

		CONTROL OFFICE										ROTL IDENTIFICATION / FETL IDENTIFICATION OFFICE A													ROTL IDENTIFICATION / FETL IDENTIFICATION OFFICE Z												

Row: / Y B | A T L N G A B U E Ø 3 | A T L N G A B U 1 2 T Ø | A T L N G A T H 6 3 A

4 X B AOTT

			DIRECTION	TRAFFIC USE	CONTROLLED	FE TYPE
1	2	3	4	5	6 7	8
/	Y	K				
/	Y	K				
/	Y	K				

S X S AOTT

			DIRECTION	TRAFFIC USE	CONTROLLED	ROTL	PRE	COM	MF	SX	FE TYPE	TRANSMISSION FETL NUMBER							LINE	CTX	OPERATIONAL FETL NUMBER							BUSY LINE FETL NUMBER					
1	2	3	4	5	6	7	8	9	10	11	12	13	14 15 16 17 18 19 20						21	22	23 24 25 26 27 28 29						30 31 32 33 34 35 36					
/	Y	K																														
/	Y	K																														
/	Y	K																														

5 X B APTT

			DIRECTION	TRAFFIC USE	CONTROLLED	COMMON FE TYPE	MKG/RET	X	CLT	CLU	CRG	CRU	CST	CSU	TAPE TYPE	PER TYPE TMT	TMU	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU	TAPE TYPE	PER TYPE TMT	TMU	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU	TAPE TYPE	PER TYPE TMT	TMU	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
/	Y	K																																																											
/	Y	K																																																											
/	Y	K																																																											

Fig. 30—Example 2 of Adding a Trunk Group and a Control Office—Initial Load

CAROT 2 TRUNK GROUP AND TEST FRAME PRIMING WORK SHEET

ACTION							TRUNK GROUP IDENTIFICATION																																		TFMS CODE	CAROT DIR	FRAME DIR

Row labels: ACTION / TRUNK TYPE / OFFICE A / PULSING / OFFICE Z

1	2	3		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
/	A	D		/	Y	G	D	F	5	Ø	T	O									A	T	L	N	G	A	S	S	2	5	A		D	–		A	T	L	N	G	A	B	U	1	2	T		A	

	CONTROL OFFICE										ROTL IDENTIFICATION							ROTL IDENTIFICATION									

FETL IDENTIFICATION / OFFICE A ... FETL IDENTIFICATION / OFFICE Z

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
/	Y	B	A	T	L	N	G	A	S	S	E	Ø	1	A	T	L	N	G	A	S	S	2	5	A	Ø	A	T	L	N	G	A	B	U	1	2	T	

4 X B AOTT

Columns: DIRECTION / TRAFFIC / USE / CONTROLLED / FE TYPE

1	2	3	4	5	6	7	8
/	Y	K					
/	Y	K					
/	Y	K					

S X S AOTT

Columns: DIRECTION / TRAFFIC / USE / CONTROLLED / ROTL / PRE / COM / MF / SX / FE TYPE / TRANSMISSION (FETL NUMBER) / OPERATIONAL (LINE / CTX / FETL NUMBER) / BUSY LINE (FETL NUMBER)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
/	Y	K																																	
/	Y	K																																	
/	Y	K																																	

5 X B APTT

Columns: DIRECTION / TRAFFIC / USE / COMMON (CONTROLLED / FE TYPE / MK#/RET / X / CLT / CLU / CRG / CRU / CST / CSU) / TAPE TYPE / PER TYPE (TMT / TMU / A / B / C / OA//DDA / OB//DDB / OC//DDC / NTH / NH / NT / NU / TIT / TIU) / TAPE TYPE / PER TYPE (repeat) / TAPE TYPE / PER TYPE (repeat)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
/	Y	K																																																										
/	Y	K																																																										
/	Y	K																																																										

Fig. 31—Example 3 of Adding a Trunk Group and a Control Office—Initial Load

CAROT 2 FACILITY GROUP WORK SHEET

ACTION			F/N			FACILITY GROUP IDENTIFICATION																																			CONTROL OFFICE											
						DESIG						TYPE									TERMINAL A											TERMINAL Z																					
1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
/	A	D	/	G	F		1	1	2	D	1	A										A	T	L	N	G	A	S	S	2	5	A	A	T	L	N	G	A	B	U	1	2	T											
/			/	G	F	T	K	2	1	8	2	2	H	8	8							A	T	L	N	G	A	T	H	E	∅	1	A	T	L	N	G	A	B	U	E	∅	3											
/			/	G	F	T	L	1	2	5	2	2	H	8	8							A	T	L	N	G	A	T	H	E	∅	1	A	T	L	N	G	A	B	U	E	∅	3											
/			/	G																																																		
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/			/	G																																																		

Fig. 32—Example of Adding Three Facility Groups—Initial Load

TRUNK GROUP IDENTIFICATION

	ACTION		TRUNK TYPE	OFFICE A	PULSING	OFFICE Z			
/AD		/TGDF∅5TG	ATLNGABUY2T	D-	ATLNGATH63A	A

FACILITY GROUP IDENTIFICATION

	DESIG	TYPE	TERMINAL A	TERMINAL Z
/TFTK21822H88			ATLNGATHE∅1	ATLNGABUE∅3

H/I	...	FETL			SCHEDULE CODE
/TA∅TG9∅43∅∅3 3∅ 52536				∅	99
/T					

T/L	TRUNK NUMBER	CHANNEL OR PAIR NUMBER	TRUNK LOCATION ADDRESS	PRETEST
/TT∅TG ∅∅∅		21∅52351		∅
/TT∅TG ∅25		22∅∅53341		∅

FACILITY GROUP IDENTIFICATION

	DESIG	TYPE	TERMINAL A	TERMINAL Z
/TFTK12522H88			ATLNGATHE∅1	ATLNGABUE∅3

H/I	...	FETL			SCHEDULE CODE
/TH∅TG9∅∅3∅∅3 3∅ 52536				∅	99
/T					

T/L	TRUNK NUMBER	CHANNEL OR PAIR NUMBER	TRUNK LOCATION ADDRESS	PRETEST
/TT∅TG ∅∅1		94∅∅∅21∅2		∅

NOTE:
SET ECHO SUPPRESSOR DATA ENTRY (CHARACTER POSITION 31)
IN TH OR TI RECORD TO ∅ UNTIL FEATURE IS IMPLEMENTED

Fig. 33—Example of Adding Trunks and Associated Test Parameters—Initial Load

TRUNK GROUP IDENTIFICATION

ACTION		TRUNK TYPE	OFFICE A	PUL-SING	OFFICE Z	FRAME CODE
1 2 3	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	32 33 34 35 36 37 38 39 40 41 42 43 44 45 46			
/A D	/T G D F 5 /T O	A T L N G A S S 2 5 A	D -	A T L N G A B U 1 Z T	A

FACILITY GROUP IDENTIFICATION

DESIG	TYPE	TERMINAL A	TERMINAL Z
1 2 3 4 5 6 7 8 9	10 11 12 13 14 15 16 17 18 19 20	21 22 23 24 25 26 27 28 29 30 31	32 33 34 35 36 37 38 39 40 41
/T F 1 1 2 D 1 A		A T L N G A S S 2 5 A	A T L N G A B U 1 Z T

First test parameters / trunk priming block

H/I	DIRECTION	TRAFFIC USE	IMPEDANCE	TEST PAD	SCHEDULE CODE	INDEX CODE	EXPECTED MEASURED LOSS	CO LOSS LIMIT	CO NOISE LIMIT	NOISE ACT LIMIT	RETURN LOSS CLASS	GAIN SLOPE CLASS	NOISE WITH TONE LIMIT	P/AR LIMIT	ECHO SUPPR	FT	NPA	NNX	SCHEDULE CODE
1 2 3	4	5	6	7	8	9 10 11	12 13	14 15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31	32 33 34 35 36	37 38	39 40
/T H	0	7	0	9	0 0	1 0	9	2 5	5 2 8	3 6					0			9 9
/T																		
/T																		
/T																		
/T																		
/T																		
/T																		

T/L	DIRECTION	TRAFFIC USE	TRUNK NUMBER	CHANNEL OR PAIR NUMBER	TRUNK LOCATION ADDRESS	PRETEST	VF APPEARANCE AND SMAS NUMBER OR TEST FRAME TRUNK LOCATION ADDRESS
1 2 3	4	5 6	7 8 9 10 11	12 13 14 15 16	17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	
/T T	0	T O	0 0 1	2 3 0 0 1 3 0 3 0 0 0 0 0 2	0	
/T						
/T						
/T						
/T						
/T						
/T						
/T						

NOTE:
SET ECHO SUPPRESSOR DATA ENTRY (CHARACTER POSITION 31)
IN TH OR TI RECORD TO 0 UNTIL FEATURE IS IMPLEMENTED

FACILITY GROUP IDENTIFICATION

DESIG	TYPE	TERMINAL A	TERMINAL Z
1 2 3 4 5 6 7 8 9	10 11 12 13 14 15 16 17 18 19 20	21 22 23 24 25 26 27 28 29 30 31	32 33 34 35 36 37 38 39 40 41
/T F			

Second test parameters / trunk priming block

H/I	DIRECTION	TRAFFIC USE	IMPEDANCE	TEST PAD	SCHEDULE CODE	INDEX CODE	EXPECTED MEASURED LOSS	CO LOSS LIMIT	CO NOISE LIMIT	NOISE ACT LIMIT	RETURN LOSS CLASS	GAIN SLOPE CLASS	NOISE WITH TONE LIMIT	P/AR LIMIT	ECHO SUPPR	FETL	NPA	NNX	SCHEDULE CODE
1 2 3	4	5	6	7	8	9 10 11	12 13	14 15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31	32 33 34 35 36	37 38	39 40
/T																		
/T																		
/T																		
/T																		
/T																		
/T																		
/T																		
/T																		

T/L	DIRECTION	TRAFFIC USE	TRUNK NUMBER	CHANNEL OR PAIR NUMBER	TRUNK LOCATION ADDRESS	PRETEST	VF APPEARANCE AND SMAS NUMBER OR TEST FRAME TRUNK LOCATION ADDRESS
1 2 3	4	5 6	7 8 9 10 11	12 13 14 15 16	17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	
/T						
/T						
/T						
/T						
/T						
/T						
/T						
/T						

Fig. 34—Example of Adding Trunk Group, Facility Group, Test Parameters, and Trunk Priming Data—Initial Load

RESPONDER IDENTIFICATION

ACTION	RESPONDER OFFICE	F L O O R	A I S L E	BAY	UNIT	RESPONDER TYPE	RESPONDER OPTION
/AD	/REATLNGAEP76A	274	·25Ø		245	18ØØ1	

ROTL IDENTIFICATION / **ALT ROTL IDENTIFICATION** / **RESPONDER IDENTIFICATION**

ACTION	ROTL OFFICE	ROTL TYPE	2/4 WIRE	MAKE BUSY	ROTL TELEPHONE NUMBER	START-UP TIME	# OFF ROTLS	# HEADS	ROTL OFFICE	RESPONDER OFFICE	FLOOR	AISLE	BAY	UNIT
/	/ROATLNGAEP76A	ØSSX	ZØØ	47618775	23ØØ11					ATLNGAEP76A	274	·25Ø	24	

TEST LINE

ACTION	TEST LINE OFFICE IDENTIFICATION	SWITCHING SYSTEM TYPE
/	/OD	

TEST LINE / TRAFFIC USE LIST / LOCATION

ACTION	TEST LINE OFFICE IDENTIFICATION	TEST LINE TYPE	TEST LINE TELEPHONE NUMBER	TRAFFIC USE LIST				FLOOR	AISLE	BAY	UNIT
/	/IDATLNGAEP76A	Ø65Ø	47615199	TE	TG	TC		23	·25Ø		1
/	/ID								·		
/	/ID								·		
/	/ID								·		
/	/ID								·		
/	/ID								·		
/	/ID								·		
/	/ID								·		
/	/ID								·		
/	/ID								·		

RESPONDER IDENTIFICATION

RESPONDER OFFICE	FLOOR	AISLE	BAY	UNIT	# IN HUNT	OPTIONS	HOME OFFICE TEST LINE TEST PRIMING
/EDATLNGAEP76A	274	·25Ø	241Ø				
/ED		·					
/ED		·					
/ED		·					
/ED		·					
/ED		·					
/ED		·					
/ED		·					
/ED		·					
/ED		·					

Fig. 35—Example of Adding a Responder, a ROTL, and a Test Line—Update 1

CAROT 2 RESPONDER, ROTL, AND TEST LINE WORK SHEET

Fig. 36—Example of Adding a Responder and a ROTL—Update 1

CAROT 2 CONTROL OFFICE FOR TRUNKS WORK SHEET

ACTION		CONTROL OFFICE FOR TRUNKS	L P T R	TERMINAL TELEPHONE NUMBER	EQUIPMENT	CODE	DATE TO START MANAGEMENT SUMMARY	DATE TO START INDEX SUMMARY
1 2 3	1 2 3	4 5 6 7 8 9 10 11 12 13 14	15	16 17 18 19 20 21 22 23 24 25 26	27 28	29	30 31 32 33 34 35 36 37	38 39 40 41 42 43 44 45
I A D	I C T	A T L N G A E P E Ø 1					Ø 3 / Ø 3 / 7 5	Ø 3 / Ø 3 / 7 5

ACTION			ROTL ID — ROTL OFFICE	CONTROL OFFICE FOR TRUNKS	LOSS Q1	OVERRIDE	START TESTING DAILIES	START TESTING WEEKLIES	START TESTING BIWEEKLIES	START TESTING MONTHLIES	START TESTING QUARTERLIES
1 2 3	1 2 3		4 5 6 7 8 9 10 11 12 13 14 15	16 17 18 19 20 21 22 23 24 25 26	27 28	29	30 31 32 33 34 35 36 37	38 39 40 41 42 43 44 45	46 47 48 49 50 51 52 53	54 55 56 57 58 59 60 61	62 63 64 65 66 67 68 69
/	/ R C		A T L N G A E P 7 6 A Ø	A T L N G A E P E Ø 1			Ø 3 / Ø 1 / 7 5	Ø 3 / Ø 1 / 7 5	Ø 3 / Ø 1 / 7 5	Ø 3 / Ø 1 / 7 5	Ø 3 / Ø 1 / 7 5
/	/ R C		A T L N G A E P 7 6 A 1	A T L N G A E P E Ø 1			Ø 3 / Ø 1 / 7 5	Ø 3 / Ø 1 / 7 5	Ø 3 / Ø 1 / 7 5	Ø 3 / Ø 1 / 7 5	Ø 3 / Ø 1 / 7 5
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /
/	/ R C						/ /	/ /	/ /	/ /	/ /

Fig. 37—Example of Adding a Control Office for Trunks and Two ROTL Control Offices—Update 1

CAROT 2 TRUNK FILE WORK SHEET

TRUNK GROUP IDENTIFICATION

ACTION		TRUNK TYPE	OFFICE A	PUL-SING	OFFICE Z	
/ A D	/ T G	D F 5 0 T O	A T L N G A S S 2 5 A	D -	A T L N G A B U 1 2 T	A

FACILITY GROUP IDENTIFICATION

DESIG	TYPE	TERMINAL A	TERMINAL Z
/ T F	1 1 2 D 1 A	A T L N G A S S 2 5 A	A T L N G A B U 1 2 T

H/I	DIRECTION	TRAFFIC USE	IMPEDANCE	TEST PAD	RETIRING	SCHEDULE CODE	INDEX CODE	EXPECTED MEASURED LOSS	CO LOSS LIMIT	CO NOISE LIMIT	NOISE ACT LIMIT	RETURN LOSS	GAIN SLOPE CLASS	NOISE WITH TONE LIMIT	P/AR LIMIT	ECHO SUPPR	FETL RTL#	FETL NPA	FETL NNX	SCHEDULE CODE
/ T H	0 T O	9	0	0	1	0 9		2 5		5 2 8 3 6					0					9 9
/ T																				
/ T																				
/ T																				
/ T																				
/ T																				
/ T																				
/ T																				

T/L	DIRECTION	TRAFFIC USE	TRUNK NUMBER	CHANNEL OR PAIR NUMBER	TRUNK LOCATION ADDRESS	PRETEST	VF APPEARANCE AND SMAS NUMBER OR TEST FRAME TRUNK LOCATION ADDRESS
/ T T	0 T O		0 0 2		2 4 0 0 0 6 0 0 0 0 0 0 2	0	
/ T T	0 T O		0 0 3		0 3 0 0 1 4 0 6 0 0 0 0 2	0	
/ T T	0 T O		0 0 4		0 4 0 0 0 1 8 0 0 0 0 0 2	0	
/ T							
/ T							
/ T							
/ T							
/ T							

FACILITY GROUP IDENTIFICATION

DESIG	TYPE	TERMINAL A	TERMINAL Z
/ T F			

H/I	DIRECTION	TRAFFIC USE	IMPEDANCE	TEST PAD	RETIRING	SCHEDULE CODE	INDEX CODE	EXPECTED MEASURED LOSS	CO LOSS LIMIT	CO NOISE LIMIT	NOISE ACT LIMIT	RETURN LOSS	GAIN SLOPE CLASS	NOISE WITH TONE LIMIT	P/AR LIMIT	ECHO SUPPR	FETL RTL#	FETL NPA	FETL NNX	SCHEDULE CODE
/ T																				
/ T																				
/ T																				
/ T																				
/ T																				
/ T																				
/ T																				
/ T																				

T/L	DIRECTION	TRAFFIC USE	TRUNK NUMBER	CHANNEL OR PAIR NUMBER	TRUNK LOCATION ADDRESS	PRETEST	VF APPEARANCE AND SMAS NUMBER OR TEST FRAME TRUNK LOCATION ADDRESS
/ T							
/ T							
/ T							
/ T							
/ T							
/ T							
/ T							
/ T							

Fig. 38—Example of Adding Three Trunks to an Existing Trunk Group—Update 1

Fig. 39—Example of Deleting a Trunk From an Existing Trunk Group—Update 1

CAROT 2 TRUNK GROUP AND TEST FRAME PRIMING WORK SHEET

ACTION				TRUNK GROUP IDENTIFICATION					TFMS CODE	CAROT DIR	FRAME DIR
				TRUNK TYPE	OFFICE A	PULSING	OFFICE Z				
1	2	3		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	18 19 20 21 22 23 24 25 26 27 28	29 30 31 32	33 34 35 36 37 38 39 40 41 42 43		44	45	46
/	A	D	/	Y G D F 5 5 I E	A T L N G A E P 7 6 A	D -	A T L N G A S S 2 5 A		A		

			CONTROL OFFICE	ROTL IDENTIFICATION		ROTL IDENTIFICATION	
				FETL IDENTIFICATION		FETL IDENTIFICATION	
				OFFICE A		OFFICE Z	
1	2	3	4 5 6 7 8 9 10 11 12 13 14	15 16 17 18 19 20 21 22 23 24 25	26 27 28 29 30 31 32 33 34 35 36 37	38	
/	Y	B	A T L N G A E P E Ø	1 A T L N G A E P 7 6 A	1 A T L N G A S S 2 5 A		

4 X B AOTT

			DIRECTION	TRAFFIC	CONTROLLED	FE TYPE
1	2	3	4	5	6 7	8
/	Y	K				
/	Y	K				
/	Y	K				

S X S AOTT

			DIRECTION	TRAFFIC	CONTROLLED	ROTL	PRE	COM	MF	SX	FE TYPE	TRANSMISSION FETL NUMBER	OPERATIONAL LINE	CTX	OPERATIONAL FETL NUMBER	BUSY LINE FETL NUMBER
1	2	3	4	5	6	7	8	9	10	11	12	13 14 15 16 17 18 19 20	21	22	23 24 25 26 27 28 29	30 31 32 33 34 35 36
/	Y	K														
/	Y	K														
/	Y	K														

5 X B APTT

			DIRECTION	TRAFFIC	COMMON									TAPE TYPE	PER TYPE												TAPE TYPE	PER TYPE												TAPE TYPE	PER TYPE										
					CONTROLLED	FE TYPE	MKG/RET	X	CLT	CLU	CRG	CRU	CST	CSU		TMT	TMU	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU		TMT	TMU	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU		TMT	TMU	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
/	Y	K																																																							
/	Y	K																																																							
/	Y	K																																																							

Fig. 40—Example of Adding a Trunk Group and a Control Office—Update 2

TRUNK GROUP IDENTIFICATION

ACTION		TRUNK TYPE	OFFICE A	PUL-SING	OFFICE Z	TEST CODE	SORT ORDER	FRAME ORDER
/CH	/T	GDF5∅TO	ATLNGASS25A	D-	ATLNGABU12T	A		

FACILITY GROUP IDENTIFICATION

	DESIG	TYPE	TERMINAL A	TERMINAL Z
/TF	112	D1A	ATLNGASS25A	ATLNGABU12T

H/I	DIRECTION	TRAFFIC USE	IMPEDANCE	TEST PAD	RERING	SCHEDULE CODE	INDEX CODE	EXPECTED MEASURED LOSS	CO LOSS LIMIT	CO NOISE LIMIT	NOISE ACT. LIMIT	RETURN LOSS CLASS	GAIN SLOPE CLASS	NOISE WITH TONE LIMIT	P/AR LIMIT	ECHO SUPR # TRTS	FETL NPA	FETL NNX	SCHEDULE CODE
/TH	∅	T	09	∅	∅	1	∅	9	25		52836					∅			99
/T																			
/T																			
/T																			
/T																			
/T																			
/T																			
/T																			

T/L	DIRECTION	TRAFFIC USE	TRUNK NUMBER	CHANNEL OR PAIR NUMBER	TRUNK LOCATION ADDRESS	PRETEST	VF APPEARANCE AND SMAS NUMBER OR TEST FRAME TRUNK LOCATION ADDRESS
/TT	∅	T0	∅∅1		∅3∅∅13∅3∅∅∅∅∅2	∅	
/T			∅∅2		∅4∅∅6∅∅∅∅∅∅2	∅	
/T			∅∅3		∅5∅∅14∅6∅∅∅∅∅2	∅	
/T			∅∅4		∅6∅∅∅∅18∅∅∅∅∅2	∅	
/T							
/T							
/T							
/T							

FACILITY GROUP IDENTIFICATION

	DESIG	TYPE	TERMINAL A	TERMINAL Z
/TF				

H/I	DIRECTION	TRAFFIC USE	IMPEDANCE	TEST PAD	RERING	SCHEDULE CODE	INDEX CODE	EXPECTED MEASURED LOSS	CO LOSS LIMIT	CO NOISE LIMIT	NOISE ACT. LIMIT	RETURN LOSS CLASS	GAIN SLOPE CLASS	NOISE WITH TONE LIMIT	P/AR LIMIT	ECHO SUPR # TRTS	FETL NPA	FETL NNX	SCHEDULE CODE
/T																			
/T																			
/T																			
/T																			
/T																			
/T																			
/T																			
/T																			

T/L	DIRECTION	TRAFFIC USE	TRUNK NUMBER	CHANNEL OR PAIR NUMBER	TRUNK LOCATION ADDRESS	PRETEST	VF APPEARANCE AND SMAS NUMBER OR TEST FRAME TRUNK LOCATION ADDRESS
/T							
/T							
/T							
/T							
/T							
/T							
/T							
/T							

Fig. 41—Example of Changing Trunk Priming Data—Update 2

CAROT 2 TRUNK GROUP AND TEST FRAME PRIMING WORK SHEET

A C T I O N			TRUNK GROUP IDENTIFICATION								
			TRUNK TYPE		OFFICE A		P U L S I N G	OFFICE Z		T F M S C O D E	C A R O T D I R	F R A M E D I R

1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
/	A	D	/	Y	G	D	F	5	5	I	E									A	T	L	N	G	A	S	S	2	5	A		D	D		A	T	L	N	G	A	E	P	7	6	A		B	

					ROTL IDENTIFICATION		ROTL IDENTIFICATION		
	CONTROL OFFICE				FETL IDENTIFICATION		FETL IDENTIFICATION		
					OFFICE A		OFFICE Z		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
/	Y	B	A	T	L	N	G	A	S	S	E	Ø	T	A	T	L	N	G	A	S	S	2	5	A		A	T	L	N	G	A	E	P	7	6	A	Ø

4 X B AOTT

	D I R E C T I O N	T R A F F I C	C O N T R O L L E D	F E T Y P E
1 2 3	4	5	6	7 8
/ Y K				
/ Y K				
/ Y K				

NOTE:
WHEN ROTL AND FETL DATA BLOCKS OF THE
YB RECORD ARE LEFT BLANK, DATA ENTRIES
FOR THESE UNFILLED BLOCKS DEFAULT TO
ENTRIES MADE IN THE OFFICE A AND OFFICE Z
BLOCKS OF THE YG RECORD

S X S AOTT

	D I R E C T I O N	T R A F F I C	C O N T R O L L E D	R O T L	P R E	C O M	M F	S X	F E T Y P E	TRANSMISSION FETL NUMBER		L I N E	C T X	OPERATIONAL FETL NUMBER	BUSY LINE FETL NUMBER
1 2 3	4	5	6	7	8	9	10	11	12	13 14 15 16 17 18 19 20		21	22	23 24 25 26 27 28 29	30 31 32 33 34 35 36
/ Y K															
/ Y K															
/ Y K															

5 X B APTT

	D I R E C T I O N	T R A F F I C U S E	C O N T R O L L E D	F E T Y P E	M K G / R E T	X	C L T	C L U	C R G	C R U	C S T	C S U	T A P E T Y P E	PER TYPE													T A P E T Y P E	PER TYPE													T A P E T Y P E	PER TYPE												
														T M T	T M U	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU		T M T	T M U	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU		T M T	T M U	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU
1 2 3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
/ Y K																																																								
/ Y K																																																								
/ Y K																																																								

Fig. 42—Example of Adding a 2-Way Trunk Group—Update 3

CAROT 2 FACILITY GROUP WORK SHEET

ACTION			F/N			DESIG					TYPE									TERMINAL A											TERMINAL Z											CONTROL OFFICE										
1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
/	A	D	/	G				1	Ø	2	D	1	A									A	T	L	N	G	A	S	S	2	5	A	A	T	L	N	G	A	E	P	7	6	A											
/			/	G																																																		

Fig. 43—Example of Adding a Facility Group for a 2-Way Trunk Group—Update 3

CAROT 2 TRUNK FILE WORK SHEET

E6731, 10/78
SECTION 190-102-203

TRUNK GROUP IDENTIFICATION

ACTION			TRUNK TYPE		OFFICE A	PULSING	OFFICE Z	
1 2 3	1 2 3	4 5 6 7 8 9 10 11 12 13 14 15 16 17	18 19 20 21 22 23 24 25 26 27 28 29	30 31 32	33 34 35 36 37 38 39 40 41 42 43	44 45 46		
/AD	/TG	DF55IE	ATLNGASS25A	DD	ATLNGAEP76A	B		

FACILITY GROUP IDENTIFICATION

	DESIG	TYPE	TERMINAL A	TERMINAL Z
1 2 3	4 5 6 7 8	9 10 11 12 13 14 15 16 17 18 19	20 21 22 23 24 25 26 27 28 29 30 31	32 33 34 35 36 37 38 39 40 41
/TF	1020 1A		ATLNGASS25A	ATLNGAEP76A

H/I	DIRECTION	TRAFFIC USE	IMPEDANCE	TEST PAD	RERING	SCHEDULE CODE	INDEX CODE	EXPECTED MEASURED LOSS	CO LOSS LIMIT	CO NOISE LIMIT	NOISE ACT. LIMIT	RETURN LOSS CLASS	GAIN SLOPE CLASS	NOISE WITH TONE LIMIT	P/AR LIMIT	ECHO SUPR	# HITS	FETL NPA	FETL NNX	SCHED OCE PODULE CODE
/TH	0	IE	9	0	0 1 0		9	25		52	8 36				0				99
/T																				
/T																				
/T																				
/T																				
/T																				
/T																				
/T																				

T/L	DIRECTION	TRAFFIC USE	TRUNK NUMBER	CHANNEL OR PAIR NUMBER	TRUNK LOCATION ADDRESS	PRETEST	VF APPEARANCE AND SMAS NUMBER OR TEST FRAME TRUNK LOCATION ADDRESS
/TT	0	IE	03		040015030000002	0	
/TT	0	IE	01		050006000000002	0	
/TT	0	IE	02		080010180000002	0	
/T							
/T							
/T							
/T							
/T							

FACILITY GROUP IDENTIFICATION

	DESIG	TYPE	TERMINAL A	TERMINAL Z
1 2 3	4 5 6 7 8	9 10 11 12 13 14 15 16 17 18 19	20 21 22 23 24 25 26 27 28 29 30 31	32 33 34 35 36 37 38 39 40 41
/TF				

H/I	DIRECTION	TRAFFIC USE	IMPEDANCE	TEST PAD	RERING	SCHEDULE CODE	INDEX CODE	EXPECTED MEASURED LOSS	CO LOSS LIMIT	CO NOISE LIMIT	NOISE ACT. LIMIT	RETURN LOSS CLASS	GAIN SLOPE CLASS	NOISE WITH TONE LIMIT	P/AR LIMIT	ECHO SUPR	# HITS	FETL NPA	FETL NNX	SCHED OCE PODULE CODE
/TI	1	IE	9	0	04 099		25		52	8 36					0				99
/T																				
/T																				
/T																				
/T																				
/T																				
/T																				
/T																				

T/L	DIRECTION	TRAFFIC USE	TRUNK NUMBER	CHANNEL OR PAIR NUMBER	TRUNK LOCATION ADDRESS	PRETEST	VF APPEARANCE AND SMAS NUMBER OR TEST FRAME TRUNK LOCATION ADDRESS
/TL	1	IE	03	04	1122	0	
/TL	1	IE	01	05	1312	0	
/TL	1	IE	02	08	1502	0	
/T							
/T							
/T							
/T							
/T							

Fig. 44—Example of Adding Three 2-Way Trunks to an Existing Trunk Group—Update 3

CAROT 2 TEST FRAME OFFICE WORK SHEET

ACTION						TEST FRAME OFFICE IDENTIFICATION											TEST FRAME TYPE						ISSUE NUMBER			TAPE TYPES														
																											5XB NO.1 CCT	5XB APTT NO.1 CCT	NO.2 CCT	NO.3 CCT	NO.4 CCT	NO.5 CCT	BUSY LINE	DAILY	WEEKLY	BIWEEKLY	MONTHLY	DAILY	WEEKLY	BIWEEKLY	MONTHLY
1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
/	A	D	/	O	T	A	T	L	N	G	A	B	U	2	6	A	N	5	A	P	T	T		3	1															
/			/	O	T																																			
/			/	O	T																																			

Fig. 45—Example of Adding a Test Frame Office—Update 3

CAROT 2 TRUNK GROUP AND TEST FRAME PRIMING WORK SHEET

ACTION						TRUNK GROUP IDENTIFICATION																																						TFMS CODE	CAROT DIR	FRAME DIR
						TRUNK TYPE												OFFICE A												PULSING		OFFICE Z														
1	2	3		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
/	A	D		1	Y	G	P	H	5	5	I	E	-	E	A	S					A	T	L	N	G	A	B	U	2	6	A		D	-		A	T	L	N	G	A	T	H	6	3	A			A

			CONTROL OFFICE									ROTL IDENTIFICATION											ROTL IDENTIFICATION										
												FETL IDENTIFICATION											FETL IDENTIFICATION										
												OFFICE A											OFFICE Z										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
/	Y	B												A	T	L	N	G	A	B	U	2	6	A													

4 X B AOTT

	DIRECTION	TRAFFIC USE	CONTROLLED	FE TYPE
1 2 3	4	5 6	7	8
/ Y K				
/ Y K				
/ Y K				

S X S AOTT

	DIRECTION	TRAFFIC USE	CONTROLLED	ROTL	PRE	COM	MF	SX	FE TYPE	TRANSMISSION FETL NUMBER							LINE	CTX	OPERATIONAL FETL NUMBER							BUSY LINE FETL NUMBER					
1 2 3	4	5 6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35 36
/ Y K																															
/ Y K																															
/ Y K																															

5 X B APTT

	DIRECTION	TRAFFIC USE	CONTROLLED	FE TYPE	MKG/RET	X	CLT	CLU	CRG	CRU	CST	CSU	TAPE TYPE	TMT	TMU	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU	TAPE TYPE	TMT	TMU	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU	TAPE TYPE	TMT	TMU	A	B	C	OA/DDA	OB/DDB	OC/DDC	NTH	NH	NT	NU	TIT	TIU
1 2 3	4	5 6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
/ Y K	0	I E	1	5	0	0	0	1				0	0	T	0	0	6	3	3	0	0	0	3	1	9	9	1	8	N	0	0	6	3	3	0	0	0	3	0	0	9	0	2															
/ Y K																																																											
/ Y K																																																											

Fig. 46—Example of Adding a Trunk Group and Test Frame Priming for an APTT Test Frame—Update 3

CAROT 2 FACILITY GROUP WORK SHEET

ACTION			F/N			FACILITY GROUP IDENTIFICATION							CONTROL OFFICE		
					DESIG	TYPE			TERMINAL A				TERMINAL Z		
1	2	3	1	2	3	4 5 6 7 8	9 10 11 12 13 14	15 16 17 18 19	20 21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40 41	42 43 44 45 46 47 48 49 50 51 52				
/	A	D	/	G	F	T K 1 1 8	2 2 H 8 8		A T L N G A B U 2 6 A	A T L N G A T H 6 3 A					
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											
/			/	G											

Fig. 47—Example of Adding a Facility Group for a Test Frame Trunk Group—Update 3

TRUNK GROUP IDENTIFICATION

	TRUNK TYPE	OFFICE A	PULSING	OFFICE Z	

Row: / A D / T G P H 3 5 I E - E A S ... A T L N G A B U 2 6 A | D - | A T L N G A T H 6 3 A | A

FACILITY GROUP IDENTIFICATION

DESIG	TYPE	TERMINAL A	TERMINAL Z

Row: / T F 7 K 1 8 2 2 H 8 8 ... A T L N G A B U 2 6 A A T L N G A T H 6 3 A

H/I	DIRECTION	TRAFFIC USE	IMPEDANCE	TEST PAD	RERING	SCHEDULE CODE	INDEX CODE	EXPECTED MEASURED LOSS	CO LOSS LIMIT	CO NOISE LIMIT	NOISE ACT LIMIT	RETURN LOSS CLASS	GAIN SLOPE CLASS	NOISE WITH TONE LIMIT	P/AR LIMIT	ECHO SUPR	FETL # DGTS	NPA	NNX	SCHEDULE CODE OF PDULE
/ T	H Ø P H 9 Ø Ø 3 Ø Ø 3	3 Ø	5 2 8 3 6																	9 9
/ T																				

T/L	DIRECTION	TRAFFIC USE	TRUNK NUMBER	CHANNEL OR PAIR NUMBER	TRUNK LOCATION ADDRESS	PRETEST	VF APPEARANCE AND SMAS NUMBER OR TEST FRAME TRUNK LOCATION ADDRESS
/ T	T Ø P H	1	6 3			4 1 8 1 8
/ T						

FACILITY GROUP IDENTIFICATION

DESIG	TYPE	TERMINAL A	TERMINAL Z

Row: / T F

H/I	DIRECTION	TRAFFIC USE	IMPEDANCE	TEST PAD	RERING	SCHEDULE CODE	INDEX CODE	EXPECTED MEASURED LOSS	CO LOSS LIMIT	CO NOISE LIMIT	NOISE ACT LIMIT	RETURN LOSS CLASS	GAIN SLOPE CLASS	NOISE WITH TONE LIMIT	P/AR LIMIT	ECHO SUPR	FETL # DGTS	NPA	NNX	SCHEDULE CODE OF PDULE
/ T																				

T/L	DIRECTION	TRAFFIC USE	TRUNK NUMBER	CHANNEL OR PAIR NUMBER	TRUNK LOCATION ADDRESS	PRETEST	VF APPEARANCE AND SMAS NUMBER OR TEST FRAME TRUNK LOCATION ADDRESS
/ T						

Fig. 48—Example of Adding a Trunk to a Test Frame Trunk Group—Update 3

CAROT 2 RESPONDER, ROTL, AND TEST LINE WORK SHEET

ACTION		RESPONDER IDENTIFICATION					RESPONDER TYPE	RESPONDER OPTION
		RESPONDER OFFICE	FLOOR	AISLE	BAY	UNIT		

/CH /REATLNGATH63A0126·21   175ZA001

ACTION		ROTL IDENTIFICATION		ROTL TYPE	2/4 WIRE	MAKE BUSY	ROTL TELEPHONE NUMBER	START-UP TIME	# OF ROTLS	# OF HEADS	ALT ROTL IDENTIFICATION	RESPONDER IDENTIFICATION					
		ROTL OFFICE									ROTL OFFICE	RESPONDER OFFICE	FLOOR	AISLE	BAY	UNIT	

/CH /ROATLNGASS25A$$$$ $$$$$$ $$$$$$$2100$

ACTION		TEST LINE OFFICE IDENTIFICATION	SWITCHING SYSTEM TYPE

/ /OD

NOTE:

$ REPRESENTS A NO-CHANGE CHARACTER. WHEN USED
FOR IMBEDDED FIELDS, ALL CHARACTER
POSITIONS MUST HAVE $ ENTERED

ACTION		TEST LINE OFFICE IDENTIFICATION	TEST LINE TYPE	TEST LINE TELEPHONE NUMBER	TRAFFIC USE LIST	LOCATION			
						FLOOR	AISLE	BAY	UNIT
/		/ID							
/		/ID							
/		/ID							
/		/ID							
/		/ID							
/		/ID							
/		/ID							
/		/ID							
/		/ID							
/		/ID							
/		/ID							
/		/ID							

ACTION		RESPONDER IDENTIFICATION					# IN HUNT	OPTIONS	HOME OFFICE TEST LINE TEST PRIMING
		RESPONDER OFFICE	FLOOR	AISLE	BAY	UNIT			
/ED									
/ED									
/ED									
/ED									
/ED									
/ED									
/ED									
/ED									
/ED									
/ED									

Fig. 49—Example of Changing Responder Option Code and ROTL Testing Startup Time—Update 3

CAROT 2 CONTROL OFFICE FOR TRUNKS WORK SHEET

ACTION		CONTROL OFFICE FOR TRUNKS	L P T R	TERMINAL TELEPHONE NUMBER	EQUIPMENT	CODE	DATE TO START MANAGEMENT SUMMARY	DATE TO START INDEX SUMMARY
1 2 3	1 2 3	4 5 6 7 8 9 10 11 12 13 14	15	16 17 18 19 20 21 22 23 24 25 26	27 28	29	30 31 32 33 34 35 36 37	38 39 40 41 42 43 44 45
/ C H	/ C T	A T L N G A B U 1 2 T	Ø	Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø	Ø Ø	Ø	Ø 5 / Ø 1 / 7 6	Ø 5 / Ø 1 / 7 6

ACTION		ROTL ID — ROTL OFFICE	CONTROL OFFICE FOR TRUNKS	LOSS Q1	OVERRIDE	START TESTING DAILIES	START TESTING WEEKLIES	START TESTING BIWEEKLIES	START TESTING MONTHLIES	START TESTING QUARTERLIES
/ C H	/ R C	A T L N G A E P 7 6 A	1 A T L N G A E P E Ø 1	Ø Ø Ø	Ø	Ø 5 / Ø 1 / 7 6	Ø 5 / Ø 1 / 7 6	Ø 5 / Ø 1 / 7 6	Ø 5 / Ø 1 / 7 6	Ø 5 / Ø 2 / 7 6
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /
/	/ R C					/ /	/ /	/ /	/ /	/ /

Fig. 50—Example of Changing Management and Index Summary Report Start Dates—Update 3

CAROT 2 RESPONDER, ROTL, AND TEST LINE WORK SHEET

First form — Responder Identification

ACTION	RESPONDER IDENTIFICATION					RESPONDER TYPE	RESPONDER	OPTION
	RESPONDER OFFICE	FLOOR	AISLE	BAY	UNIT			

/AD /REATLNGAEPT6A 274·252 1852A001

Second form — ROTL Identification

ROTL IDENTIFICATION | ROTL OFFICE | ROTL TYPE | 2/4 WIRE | MAKE BUSY | ROTL TELEPHONE NUMBER | START-UP TIME | # OF ROTLS | # OF HEADS | ALT ROTL IDENTIFICATION / ROTL OFFICE | RESPONDER IDENTIFICATION / RESPONDER OFFICE | FLOOR | AISLE | BAY | UNIT

/CH /ROATLNGAEP76A0SSX200 ⟶   ⟶ 0ATLNGAEP76A 274·252 18

Third form — Test Line Office Identification

ACTION	TEST LINE OFFICE IDENTIFICATION	SWITCHING SYSTEM TYPE

/ /OD

Fourth form — Test Line

ACTION | TEST LINE OFFICE IDENTIFICATION | TEST LINE TYPE | TEST LINE TELEPHONE NUMBER | TRAFFIC USE LIST | LOCATION (FLOOR AISLE BAY UNIT)

/CH /IDATLNGAEP76A105⟶   ⟶0IETGTC0 ⟶   ⟶0
/ /ID
/ /ID
/ /ID
/ /ID
/ /ID
/ /ID
/ /ID
/ /ID
/ /ID
/ /ID

Fifth form — Responder Identification

RESPONDER IDENTIFICATION | RESPONDER OFFICE | FLOOR | AISLE | BAY | UNIT | # IN HUNT | OPTIONS | HOME OFFICE TEST LINE TEST PRIMING

/ED ATLNGAEP76A 274·252 180
/ED
/ED
/ED
/ED
/ED
/ED
/ED
/ED
/ED
/ED

Fig. 51—Example of Adding a New Responder and Changing ROTLs and Test Lines Formerly Associated With Old Responder—Update 3

Fig. 52—Example of Deleting a Responder—Update 3

Fig. 53—CAROT 2 Data Base Load—System Configuration

```
/AD
/REATLNGABU12T 2Ø3   Ø1   2452AØØ2
/REATLNGATH63AØ126 21    1751AØØ2
/REATLNGASS25A 114 17    2452AØØ3
/ROATLNGABU12TØ1ES214Ø42316501  23ØØ          ATLNGABU12T 2Ø3 Ø1   24
/ROATLNGASS25AØ5XB2Ø4Ø42552776  23ØØ11        ALTNGASS25A 114 27   24
/ODATLNGABU12TLES M
/ODATLNGATH63ASXS L
/ODATLNGAEP76ASXS L
/ODATLNGASS25A5XB L
/IDATLNGABU12T1Ø54Ø47443334 MTTO
/EDATLNGABU12T 2Ø3 Ø1 241Ø
/IDATLNGABU12TSYN4Ø47443ØØ9 TO
/ED
/IDATLNGATH6341Ø54Ø46333199 IETGTC        1 8 126  Ø5
/EDATLNGATH63AØ126 21  171Ø
/IDATLNGATH63ANON4Ø46·33ØØ9 IETGRC         1 6 111  Ø3
/ED
/IDATLNGAEP76A1Ø24Ø47663188 IETGTC         1Ø3 24  11
/ED
/IDATLNGAEP764NON4Ø47663ØØ9 IETGTC         1Ø4 Ø3  21
/ED
/IDATLNGASS25A1Ø54Ø42553334 IAIEIGTC       114 27  1Ø
/EDATLNGASS25A 114 27  241Ø
/IDATLNGASS25ASYN4Ø42553ØØ9                114 Ø5  36
/ED
/CTATLNGABUEØ34Ø42310565  1ØØØ3/Ø3/75Ø3/Ø3/75
/CTATLNGASSEØ1               Ø3/Ø3/75Ø3/Ø3/75
/RCATLNGABU12TØATLNGABUEØ3   Ø2/2Ø/75Ø2/2Ø/75Ø2/2Ø/75Ø2/2Ø/75
/RCATLNGASS25A ATLNGASSEØ1   Ø2/2Ø/75Ø2/2Ø/75Ø2/2Ø/75Ø2/2Ø/75
/YGDF55IE        ATLNGASS25A D- ATLNGAEP76A A
/YBATLNGASSEØ1ATLNGASS25AØATLNGAEP76A
/YGDFØ5TG        ATLNGABU12T D- ATLNGATH63A A
/YBATLNGABUEØ3ATLNGABU12TØATLNGATH63A
/YGDF5ØTO        ATLNGASS25A D- ATLNGABU12T A
/YBATLNGASSEØ1ATLNGASS25AØATLNGABU12T
/GF 112D1A      ATLNGASS25AATLNGABU12T
/GFTK21822H88   ATLNGATHEØ1ATLNGABUEØ3
/GFTL12522H88   ATLNGATHEØ1ATLNGABUEØ3
/TGDFØ5TG      ATLNGABU12T D- ATLNGATH63A A
/TFTK21822H88   ATLNGATHEØ1ATLNGABUEØ3
/THØTG9Ø43ØØ3 3Ø 52536       Ø       99
/TTØTG ØØØ    21ØØ52351       Ø
/TTØTG Ø25    22ØØ53341       Ø
/TF1252288    ATLNGATHEØ1ATLNGABUEØ3
/THØTG9ØØ3ØØ3 3Ø 52536       Ø       99
/TTØTG ØØ1    94ØØØ21Ø2       Ø
/TGDF5ØTO        ATLNGASS25A D- ATLNGABU12T A
/TF 112D1A      ATLNGASS25AATLNGABU12T
/THØTO9ØØ31Ø 9 25 52836       Ø       99
/TTØTO ØØ1    23ØØ13Ø3ØØØØØ2  Ø
/END
```

A. PRINTOUT OF INITIAL LOAD DATA PER FIG. 21 THROUGH 32 (USING RECORD GROUPING SEQUENCE REFERENCED IN PARAGRAPH 5.16)

```
/AD
/REATLNGAEP76A 274 25Ø  2451BØØ1
/ROATLNGAEP76AØSSX2Ø4Ø47618775  23ØØ1         ATLNGAEP76A 274 25Ø 24
/IDATLNGAEP76A1Ø54Ø47615199 TETGTC            2 3 25Ø  1
/EDATLNGAEP76A 274 25Ø 241Ø
/REATLNGAEP76A 274 251 2451Ø9Ø1
/RCATLNGAEP76A1SSX2Ø4Ø47619692  23ØØ1         ATLNGAEP76A 274 251 24
/CTATLNGAEPEØ1            Ø3/Ø3/75Ø3/Ø3/75
/RCATLNGAEP76AØATLNGAEPEØ1   Ø3/Ø1/75Ø3/Ø1/75/Ø3/Ø1/75Ø3/Ø1/75
/RCATLNGAEP76A1ATLNGAEPEØ1   Ø3/Ø1/75Ø3/Ø1/75/Ø3/Ø1/75Ø3/Ø1/75
/TGDF5ØTO       ATLNGASS25A D- ATLNGABU12T A
/TF 112D1A      ATLNGASS25AATLNGABU12T
/THØTOXØØ1ØØ9 25 52836       Ø       99
/TTØTO ØØ2    24ØØØ6ØØØØØØØ2  Ø
/TTØTO ØØ3    Ø3ØØ14Ø6ØØØØØ2  Ø
/TTØTO ØØ4    Ø4ØØØØ18ØØØØØ2  Ø
/DE
/TGDFØ5TG       ATLNGABU12T D- ATLNGATH63A A
/TTØTG Ø25    22ØØ53341
/END
```

3. PRINTOUT OF UPDATE 1 DATA LOAD PER FIG. 33 THROUGH 37

```
/AD
/YGDF55IE        ATLNGAEP76A D- ATLNGASS25A A
/YBATLNGAEPŁO1ATLNGAEP76A1ATLNGASS25A
/CH
/TGDE5ØTO       ATLNGASS25A D- ATLNGABU12T A
/TF 112D1A      ATLNGASS25AATLNGABU12T
/THØTO9ØØ1Ø 9 25 5283G       Ø       99

/TTØTO ØØ1    Ø3ØØ13Ø3ØØØØØ2  Ø
     Ø2      Ø4ØØØ6ØØØØØØØ2  Ø
     ØØ3     Ø5ØØ14Ø6ØØØØØ2  Ø
     ØØ4     Ø6ØØØØ18ØØØØØ2  Ø
/END
```

C. PRINTOUT OF UPDATE 2 DATA LOAD PER FIG. 38 AND 39

```
/AD
/YGDF55IE      ATLNGASS25A DD ATLNGAEP76A A
/YBATLNGASSEØ1ATLNGASS25A ATLNGAEP76AØ
/GF 1Ø2D1A      ATLNGASS25AATLNGAEP76A
/TGDF55IE      ATLNGASS25A DD ATLNGAEP76A A
/TF 1Ø2D1A      ATLNGASS25AATLNGAEP76A
/THØIE9ØØ1Ø 9 25 52836       Ø       99
/THØIE Ø3     Ø4ØØ15Ø3ØØØØØ2  Ø
/THØIE Ø1     Ø5ØØØ6ØØØØØØØ2  Ø
/THØIE Ø2     Ø8ØØ1Ø18ØØØØØ2  Ø
/OTATLNGABU26AN5APTT 31
/YGPH55IE-EAS   ATLNGABU26A D- ATLNGATH63A A
/YB        ATLNGABU26A
/YKØIE15ØØ1   ØØTØØ633ØØØ319918NØØ633ØØØ3ØØ9Ø2
/GFTK11822H88   ATLNGABU26AATLNGATH63A
/TGPH55IE-EAS   ATLNGABU26A D- ATLNGATH63A A
/TFTK11822H88   ATLNGABU26AATLNGATH63A
/THØPH9ØØ3ØØ3 3Ø 52836              99
/TTØPH 1  63              4 1818
/CH
/REATLNGATH63AØ126 21   1752AØØ1
/ROATLNGASS25A$$$$$$$$$$$$$$$$$$$$21ØØ$
/CTATLNGABU12T$$$$$$$$$$$$$$$$$Ø5/Ø1/76Ø5/Ø1/76
/RCATLNCAEP76A1ATLNGAEPEØ1$$$Ø5/Ø1/76Ø5/Ø1/76Ø5/Ø1/76Ø5/Ø1/76
/AD
/REATLNGAEP76A 274 252 1852AØØ1
/CH
/ROATLNGAEP76AØ$$X2Ø$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$ATLNGAEP76A 274 252 18
/IDATLNGAEP76A1Ø5$$$$$$$$$$$$$IETGTC$$$$$$$$$$$$$$$$$$$$$$$$
/EDATLNGAEP76A 274 252 18$
/DE
/REATLNGAEP76A 274 25Ø 2451BØØ1
/END
```

D. PRINTOUT OF UPDATE 3 DATA LOAD PER FIG. 40 THROUGH 52

Fig. 54—Resultant Printouts of Work Sheet Examples for Initial Data Base Load and Updates 1, 2, and 3

Fig. 55—Information Flow

COMMON CONTROL
ASSIGNMENT
ORGANIZATION

TRUNK ASSIGNMENT ORGANIZATION

CAROT CENTER

OFFICE
DESCRIPTION
FORMS*

PREPARE
TRUNK GROUP
DESCRIPTION
(TGD) FORM

EXP SXS,
5XB, AND
1XB/XBT

COLLECT TRUNK
GROUP PRIMING
INFO AND ENTER
ON TGD FORM

EXP SXS,
5XB, AND
XB/XBT

PROVIDE
PER-TRUNK
PRIMING INFO

ESS AND SMALL ROTLS

TYPE
ROTL

IDENTIFY
TESTABLE
TRUNK GROUPS†

TGD
FORM

TGD FORM

ESS AND
SMALL ROTLS

COMBINE PER-TRUNK PRIMING INFO,
TRUNK GROUP INFO, FACILITY ID
INFO, AND TRANSMISSION
PARAMETER INFO BY MANUAL OR
MECHANIZED MEANS

USE INFO FROM
CIRCUIT PROVISION
ORGANIZATION TO
GENERATE MANUAL
DATA BASE UPDATE.

CIRCUIT PROVISION ORGANIZATION

* USE OFFICE DESCRIPTION FORMS AS REQUIRED.
† CHECK GROUPS AND NUMBER OF TRUNKS PER GROUP IN OFFICE, AND CHECK CIRCUIT
ENGINEERING AND TRUNK ADMINISTRATION RECORDS.

Fig. 56—CAROT 2 Trunk File Initial Load Process

COMMON CONTROL
ASSIGNMENT
ORGANIZATION

TRUNK ASSIGNMENT ORGANIZATION

CAROT
CENTER

PREPARE
TRUNK GROUP
DESCRIPTION
(TGD) FORM

YES

DOES TRAFFIC
ORDER AFFECT
TRUNK GROUP

NO

OFFICE
DESCRIPTION
FORMS*

COLLECT TRUNK
GROUP PRIMING
INFO AND ENTER
ON TGD FORM

TGD FORM

PROVIDE
PER-TRUNK
PRIMING INFO

ESS AND SMALL ROTLS

EXP SXS,
5XB, AND
XB/XBT

TYPE
ROTL

TGD
FORM

NO TGD
FORM REQD

ORIGINATE
TRAFFIC
ORDER

COMBINE PER-TRUNK PRIMING INFO,
TRUNK GROUP INFO, FACILITY ID
INFO, AND TRANSMISSION
PARAMETER INFO BY MANUAL
OR MECHANIZED MEANS

CIRCUIT PROVISION ORGANIZATION

USE INFO FROM
CIRCUIT PROVISION
ORGANIZATION TO
UPDATE TRUNK
FILE DATA BASE

* USE OFFICE DESCRIPTION FROMS AS REQUIRED

Fig. 57—CAROT 2 Trunk File Data Base

ODF-D
CAROT

OFFICE DESCRIPTION FORM
TRUNK MAINTENANCE FILE DATA
SXS ROTL OFFICE

DATE: _____

ROTL OFFICE |_____|__|__|__|__|

ROTL DIRECTORY NUMBER _____

CONTROL OFFICE |_____|__|__|__|___|

TEST CONNECTOR ASSIGNMENT		
TRUNK EQUIPMENT LOCATION	TEST CONNECTOR	
	TRUNK CONNECTOR	CONTROL CONNECTOR *

PREPARED BY_____

TELEPHONE NUMBER _____

* FOR USE WHEN ROTL EQUIPPED WITH MAKE-BUSY OPTION.
NOT USED IN CAROT I DATA BASE

Fig. 58—Form ODF-D

ODF-C
CAROT

OFFICE DESCRIPTION FORM
TRUNK MAINTENANCE FILE DATA
NO. 5XB ROTL OFFICE

DATE: _____

ROTL OFFICE ⌊⌊⌊⌊⌊⌊⌊⌋

ROTL DIRECTORY NUMBER ──────────────────

CONTROL OFFICE ⌊⌊⌊⌊⌊⌊⌊⌋

ROUTE TRANSLATION ASSIGNMENT	
ROUTE TRANSLATION NUMBER	TRUNK GROUP
00	
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	

PREPARED BY ──────────────────────

TELEPHONE NUMBER_____

Fig. 59—Form ODF-C

ODF-E
CAROT

OFFICE DESCRIPTION FORM
TRUNK MAINTENANCE FILE DATA

EXPANDED STEP-BY-STEP ROTL OFFICE
AND SXS ROTL-3 OFFICE

OFFICE _____

EQUIPMENT OR SWITCH ASSIGN.	TEST CONNECTOR			EQUIPMENT OR SWITCH ASSIGN.	TEST CONNECTOR		
	SWITCH	SEL	HOLD		SWITCH	SEL	HOLD

PREPARED BY _____ DATE _____ TELEPHONE _____

Fig. 60—Form ODF-E

ODF-F
CAROT

OFFICE DESCRIPTION FORM
TRUNK MAINTENANCE FILE DATA

EXPANDED STEP—BY—STEP ROTL OFFICE
AND SXS ROTL-3 OFFICE

OFFICE _____

TRUNK NUMBER	TRUNK GROUP IDENTIFICATION	TEST CONNECTOR		
		SWITCH	SEL	HOLD
				0
				1
				2
				3
				4
				5
				6
				7
				8
				9
				0
				1
				2
				3
				4
				5
				6
				7
				8
				9
				0
				1
				2
				3
				4
				5
				6
				7
				8
				9

PREPARED BY _____ DATE _____ TELEPHONE _____

Fig. 61—Form ODF-F

ODF-G
CAROT

OFFICE DESCRIPTION FORM
TRUNK MAINTENANCE FILE DATA
IXB/XBT ROTL OFFICE

OFFICE _____   OFFICE LINK FRAME PAIR _____
                                                           LEVELS _____

OLF TERM	ITT CONNECTOR			OLF TERM	ITT CONNECTOR		
	SWITCH	SELECT	HOLD		SWITCH	SELECT	HOLD
00				25			
01				26			
02				27			
03				28			
04				29			
05				30			
06				31			
07				32			
08				33			
09				34			
10				35			
11				36			
12				37			
13				38			
14				39			
15				40			
16				41			
17				42			
18				43			
19				44			
20				45			
21				46			
22				47			
23				48			
24				49			

PREPARED BY _____   DATE _____   TELEPHONE _____

Fig. 62—Form ODF-G

EXPANDED STEP–BY–STEP ROTL AND SXS ROTL–3
TRUNK GROUP DESCRIPTION FORM

TRUNK GROUP IDENTIFICATION					LOOP SUPERVISION	SIMPLEX SUPERVISION	DELAY DIAL	# OF DIGITS OUTPULSED	REPLACEMENT NNX IF NEEDED FOR CODE CONVERSION	LINE NUMBER
TRUNK TYPE		OFFICE A	PULSING	OFFICE Z						
										01
										02
										03
										04
										05
										06
										07
										08
										09
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20

Fig. 63—Expanded SXS ROTL and SXS ROTL-3 TGD Form

EXPANDED STEP-BY-STEP ROTL AND SXS ROTL-3
TRUNK GROUP DESCRIPTION FORM

TRUNK GROUP IDENTIFICATION				LOOP SUPERVISION*	SIMPLEX SUPERVISION*	DELAY DIAL*	# OF DIGITS OUTPULSED	REPLACEMENT NNX IF NEEDED FOR CODE CONVERSION	LINE NUMBER
TRUNK TYPE	OFFICE A	PULSING	OFFICE Z						
									01
		⎰		1	0	0			02
DP PULSING-OUTGOING		⎱		1	0	1			03
				0	1	0			04
				0	1	1			05
									06
MF PULSING-OUTGOING		⎰		1	0	X			07
		⎱		0	1	X			08
									09
									10
									11
									12
									13
									14
									15
									16
									17
									18
									19
									20

0
1
2
3

4
5

TT or TL RECORD
CHARACTER
POSITION
23

* LEGEND:
I – APPLICABLE
O – NOT APPLICABLE
X – DON'T CARE

Fig. 64—Example of Using Expanded SXS ROTL TGD Form to Determine Character Position 23 (TT or TL Record, Trunk File Work Sheet)

CROSSBAR TANDEM AND NO.I CROSSBAR ROTL
TRUNK GROUP DESCRIPTION FORM

TRUNK GROUP IDENTIFICATION				SUPERVISION															LINE NUMBER
TRUNK TYPE	OFFICE A	PULSING	OFFICE Z	LOOP	BATT. AND GRD	0 Ω COMP.	300 Ω	600 Ω	900 Ω	TO 24V PANEL	TO 48V XBT OR BAY	WINK START	STOP-GO	DELAY DIAL	TO 1ST XBT OVER GROUP	TO 2ND XBT OVER GROUP	# OF DIGITS OUTPULSED	REPLACEMENT NNX IF CODE CONVERSION USED	
																			01
																			02
																			03
																			04
																			05
																			06
																			07
																			08
																			09
																			10
																			11
																			12
																			13
																			14
																			15
																			16
																			17
																			18

Fig. 65—1XB/XBT TGD Form

CROSSBAR TANDEM AND NO.1 CROSSBAR ROTL
TRUNK GROUP DESCRIPTION FORM

TRUNK GROUP IDENTIFICATION				SUPERVISION *															LINE NUMBER		
TRUNK TYPE	OFFICE A	PULSING	OFFICE Z	LOOP	BATT. AND GRD	0Ω COMP.	300Ω	600Ω	900Ω	TO 24V PANEL	TO 48V XBT OR BAY	WINK START	STOP-GO	DELAY DIAL	TO 1ST XBT OVER GROUP *	TO 2ND XBT OVER GROUP *	# OF DIGITS OUTPULSED	REPLACEMENT NNX IF CODE CONVERSION USED				
	ONE WAY			X	X	X	X	X	X	X	X	1	0	0	X	X			01	0	0
MF PULSING, OUTGOING	ONE WAY			X	X	X	X	X	X	X	X	0	1	0	X	X			02	0	1
	ONE WAY			X	X	X	X	X	X	X	X	0	0	1	X	X			03	0	2
	TWO WAY			X	X	X	X	X	X	X	X	X	X	X	X	X			04	0	3
																			05		
	ONE WAY			1	0	1	X	X	X	X	X	1	0	0	X	X			06	1	0
	ONE WAY			1	0	1	X	X	X	X	X	0	1	0	X	X			07	1	1
	ONE WAY			1	0	1	X	X	X	X	X	0	0	1	X	X			08	1	2
	ONE WAY			1	0	0	X	X	X	X	X	1	0	0	X	X			09	1	3
DP PULSING, OUTGOING	ONE WAY			1	0	0	X	X	X	X	X	0	1	0	X	X			10	1	4
	ONE WAY			1	0	0	X	X	X	X	X	0	0	1	X	X			11	1	5
	ONE WAY			0	1	X	X	X	X	X	X	1	0	0	X	X			12	1	6
	ONE WAY			0	1	X	X	X	X	X	X	0	1	0	X	X			13	1	7
	ONE WAY			0	1	X	X	X	X	X	X	0	0	1	X	X			14	1	8
	TWO WAY			X	X	X	X	X	X	X	X	X	X	X	X	X			15	1	9
																			16	TT or TL
																			17	RECORD CHARACTER
																			18	POSITIONS 22-23

* LEGEND:
1 - APPLICABLE
0 - NOT APPLICABLE
X - DON'T CARE

Fig. 66—Example of Using 1XB/XBT ROTL TGD Form to Determine Character Positions 22 and 23 (TT or TL Record, Trunk File Work Sheet)—MF and DP Pulsing

CROSSBAR TANDEM AND NO. 1 CROSSBAR ROTL
TRUNK GROUP DESCRIPTION FORM

TRUNK TYPE	OFFICE A	PULSING	OFFICE Z	LOOP	BATT. AND GRD	0Ω COMP.	300Ω	600Ω	900Ω	TO 24V PANEL	TO 48V XBT OR BAY	WINK START	STOP-GO	DELAY DIAL	TO 1ST XBT OVER GROUP	TO 2ND XBT OVER GROUP	# OF DIGITS OUTPULSED	REPLACEMENT NNX IF CODE CONVERSION USED	LINE NUMBER		
				X	X	/	o	o	o	/	o	X	X	X	/	o			01	2	0
				X	X	/	o	o	o	o	/	X	X	X	/	o			02	2	1
				X	X	o	/	o	o	/	o	X	X	X	/	o			03	2	2
				X	X	o	/	o	o	o	/	X	X	X	/	o			04	2	3
				X	X	o	o	/	o	/	o	X	X	X	/	o			05	2	4
RP PULSING, OUTGOING				X	X	o	o	/	o	o	/	X	X	X	/	o			06	2	5
				X	X	o	o	o	/	/	o	X	X	X	/	o			07	2	6
				X	X	o	o	o	/	o	/	X	X	X	/	o			08	2	7
				X	X	/	o	o	o	X	X	X	X	X	o	/			09	4	0
				X	X	o	/	o	o	X	X	X	X	X	o	/			10	4	1
				X	X	o	o	/	o	X	X	X	X	X	o	/			11	4	2
				X	X	o	o	o	/	X	X	X	X	X	o	/			12	4	3
																			13		
				X	X	/	o	o	o	X	X	X	X	X	X	X			14	3	0
PCI PULSING, OUTGOING				X	X	o	/	o	o	X	X	X	X	X	X	X			15	3	1
				X	X	o	o	/	o	X	X	X	X	X	X	X			16	3	2
				X	X	o	o	o	/	X	X	X	X	X	X	X			17	3	3
																			18	22	23

TT or TL record character positions

LEGEND:
I – APPLICABLE
O – NOT APPLICABLE
X – DON'T CARE

Fig. 67—Example of Using 1XB/XBT ROTL TGD Form to Determine Character Positions 22 and 23 (TT or TL Record, Trunk File Work Sheet)—RP and PCI Pulsing

EXPANDED NO. 5 CROSSBAR ROTL
TRUNK GROUP DESCRIPTION FORM

TRUNK GROUP IDENTIFICATION					GROUP LOCATION ADDRESS							# OF FETL DIGITS	REPLACEMENT NPA IF NEEDED FOR ROUTING PURPOSES	REPLACEMENT NNX IF NEEDED FOR ROUTING PURPOSES	LINE NUMBER
TRUNK TYPE	OFFICE A	PULSING		OFFICE Z	TYP	TR	MG	CTA	CU	CRU	CG				
															01
															02
															03
															04
															05
															06
															07
															08
															09
															10
															11
															12
															13
															14
															15
															16
															17
															18

Fig. 68—Expanded 5XB ROTL TGD Form
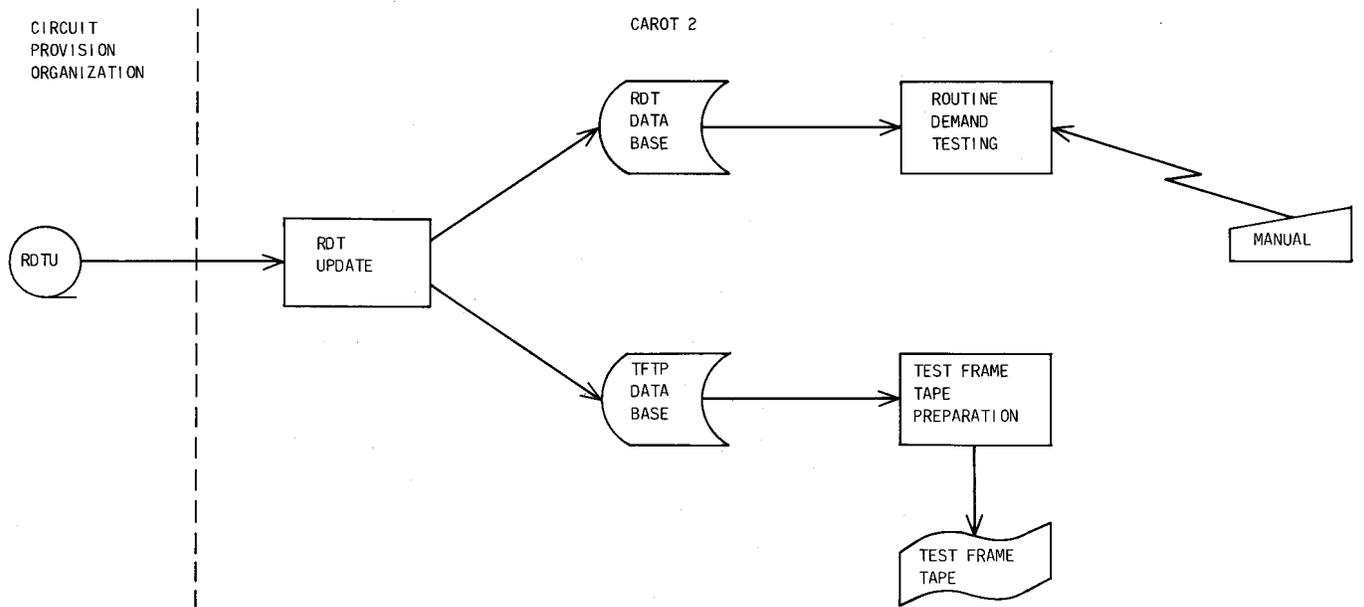
Fig. 69—CAROT 2 Mechanized Inputs—Routine and Demand Testing Implemented

CIRCUIT
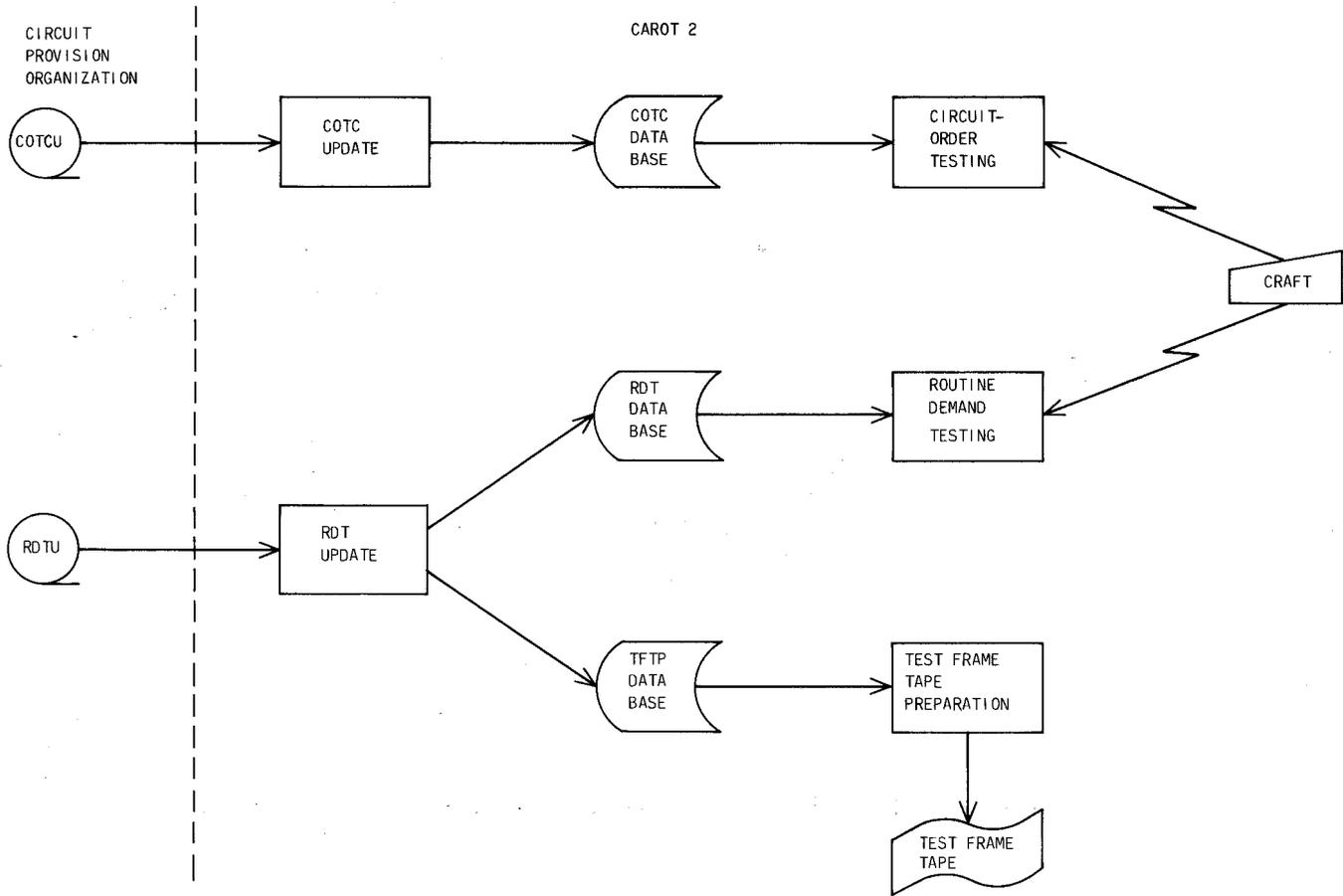PROVISION
ORGANIZATION

CAROT 2

Fig. 70—CAROT 2 Mechanized Inputs—Routine, Demand, and Circuit Order Testing Implemented

Fig. 71—CAROT 2 Mechanized Inputs—Routine and Demand Testing and Circuit Order Testing Completion Reporting Implemented
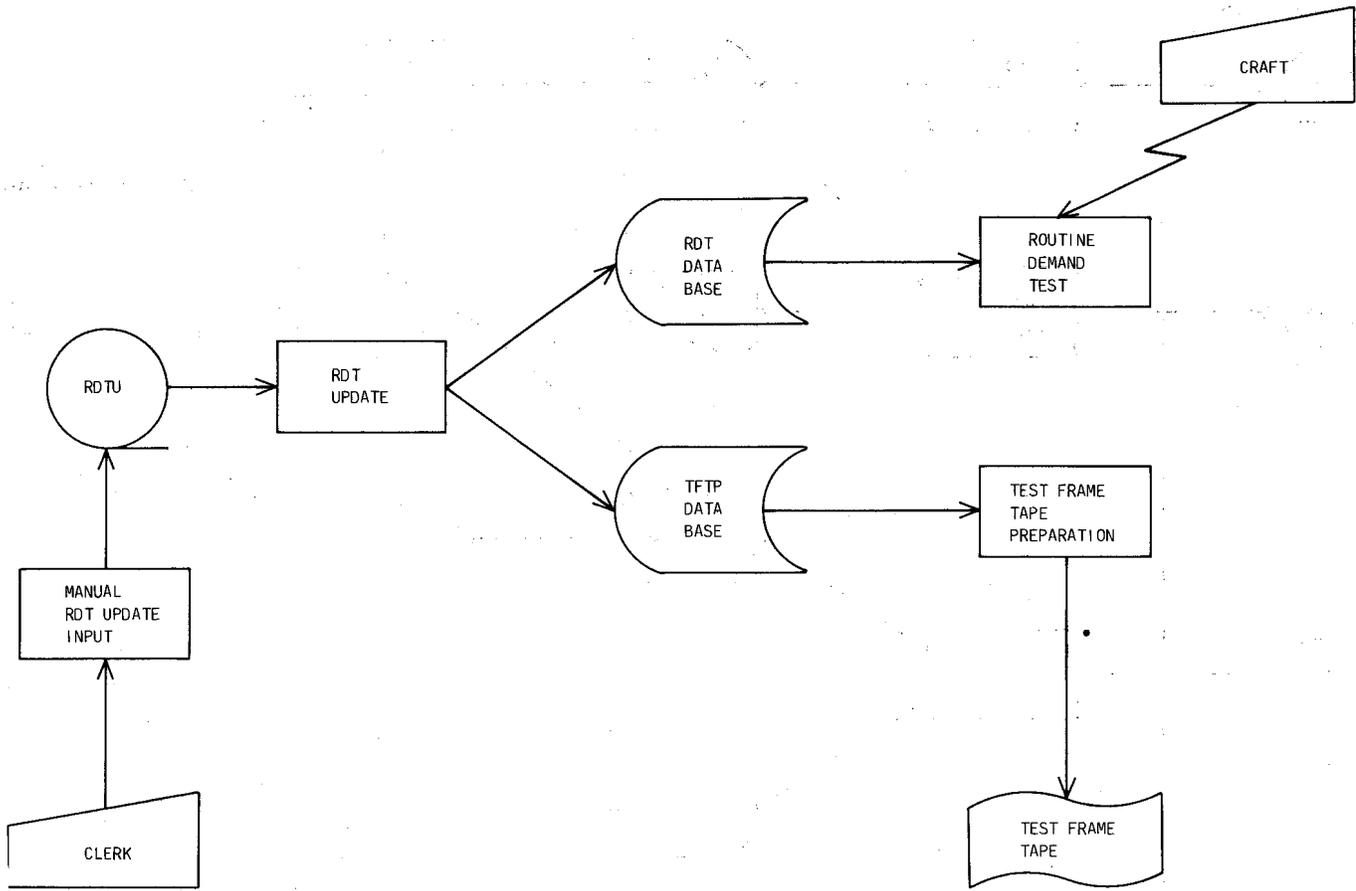
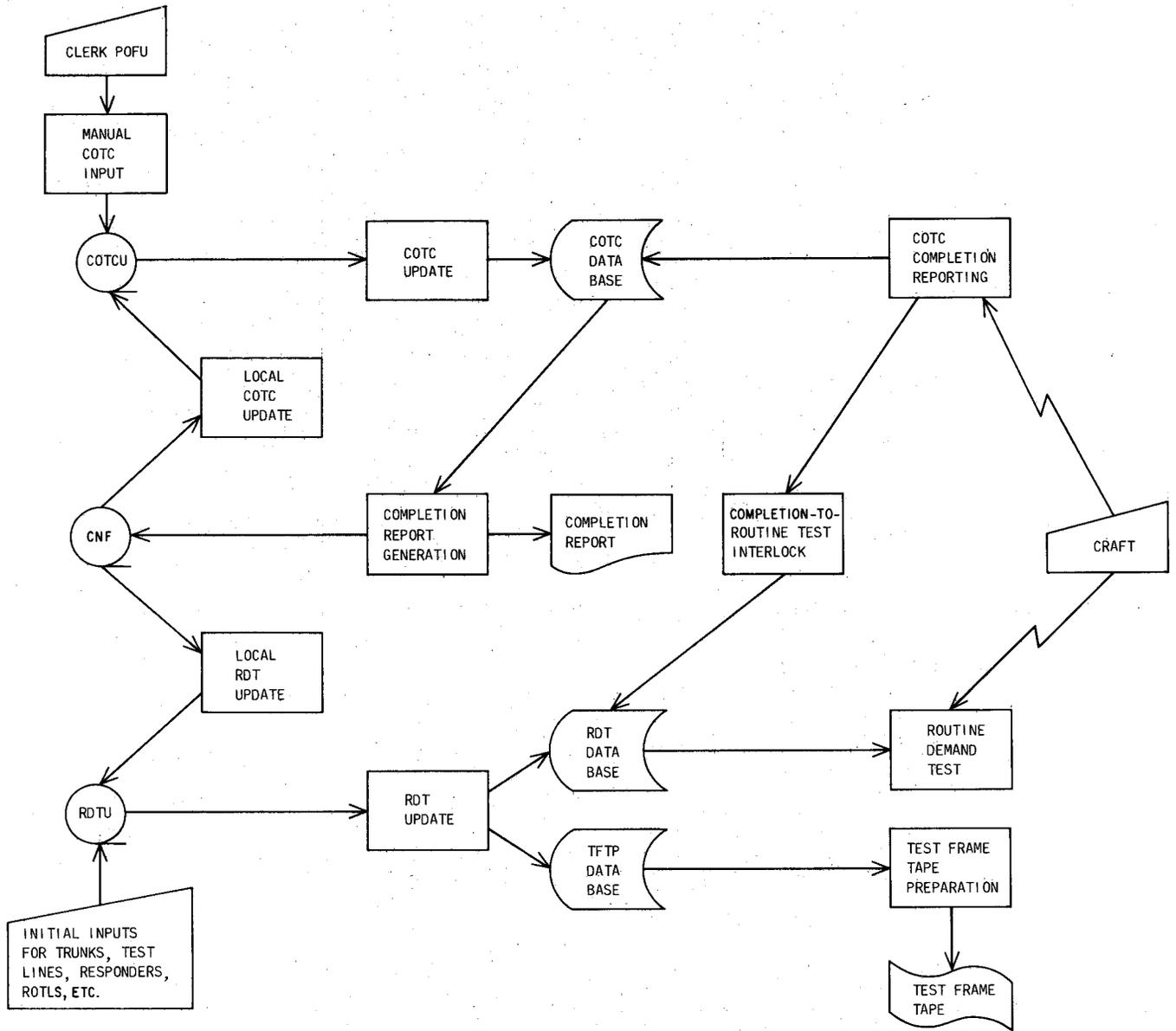**Fig. 72—CAROT 2 Manual Inputs—Routine and Demand Testing Implemented**

Fig. 73—CAROT 2 Manual Inputs—Routine and Demand Testing and Circuit Order Testing Completion Reporting Implemented
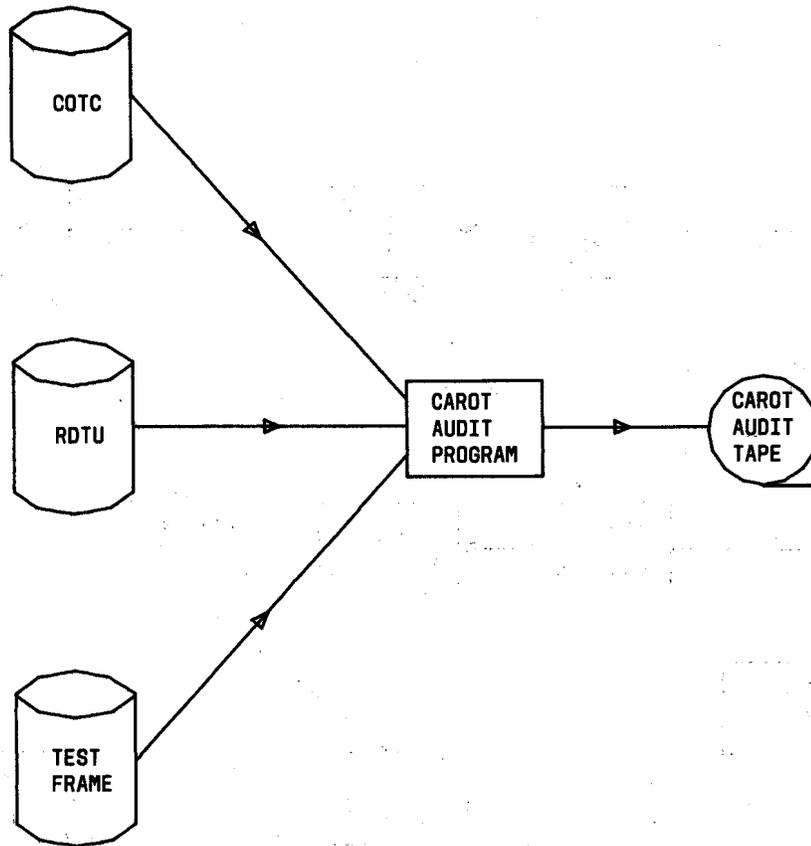
Fig. 74—CAROT 2 Data Base Files Forming Audit Tape

A MESSAGE TRUNK GROUP ACCESSIBLE BY A LOCAL CUSTOMER (TYP=0) OR
A CCSA TRUNK GROUP ACCESSIBLE BY A LOCAL CUSTOMER (TYP=9).

CHARACTER POSITION	17	18	19	20	21	22	23	24	25	26	27	28
TRUNK GROUP	TYP						TR	MG	CTA	CU	CRU	CG
PARTICULAR TRUNK		RA	FT	FU	TT	TU						

A MESSAGE TRUNK GROUP ACCESSIBLE BY AN INCOMING TANDEM TRUNK (TYP=8) OR
A CCSA TRUNK GROUP ACCESSIBLE BY AN INCOMING TANDEM TRUNK (TYP=7) OR
A MESSAGE TRUNK GROUP ACCESSIBLE BY AN INCOMING INTERTOLL TRUNK (TYP=1).

CHARACTER POSITION	17	18	19	20	21	22	23	24	25	26	27	28
TRUNK GROUP	TYP						TR	MG	CTA	X	X	CG
PARTICULAR TRUNK		RA	FT	FU	TT	TU						

A PBX TRUNK GROUP WITH LLP, ACCESSIBLE BY A TERMINATING CALL (TYP=2).

CHARACTER POSITION	17	18	19	20	21	22	23	24	25	26	27	28
TRUNK GROUP	TYP						TR	MG	CTA	X	X	CG
PARTICULAR TRUNK		X	X	FU	TT	TU						

A HOTL ACCESSIBLE BY A TERMINATING CALL (TYP=4).

CHARACTER POSITION	17	18	19	20	21	22	23	24	25	26	27	28
TRUNK GROUP	TYP						TR	MG	CTA	X	X	CG
PARTICULAR TRUNK		X	X	X	X	X						

LEGEND:
X = BLANK

Fig. 75—Trunk Location Address Information (TT Record, Trunk File Work Sheet)—Expanded 5XB ROTL

Ⓒ PHYSICAL LOCATION

CLASS-OF-SERVICE MARKER LEADS

TENS		UNITS	
CTA 4, 7	(CTA=0)	CU 4, 7	(CU=0)
CTA 0, 1	(CTA=1)	CU 0, 1	(CU=1)
CTA 0, 2	(CTA=2)	CU 0, 2	(CU=2)
CTA 1, 2	(CTA=3)	CU 1, 2	(CU=3)
CTA 0, 4	(CTA=4)	CU 0, 4	(CU=4)
CTA 1, 4	(CTA=5)	CU 1, 4	(CU=5)
CTA 2, 4	(CTA=6)	CU 2, 4	(CU=6)
CTA 0, 7	(CTA=7)	CU 0, 7	(CU=7)
CTA 1, 7	(CTA=8)	CU 1, 7	(CU=8)
CTA 2, 7	(CTA=9)	CU 2, 7	(CU=9)

RATE TREATMENT CLASS MARKER LEADS

GROUP		UNITS	
CGA	(CGR=0)	CRU 4, 7	(CRU=0)
CGB	(CGR=1)	CRU 0, 1	(CRU=1)
NOT USED	(CGR=0)	CRU 0, 2	(CRU=2)
		CRU 1, 2	(CRU=3)
		CRU 0, 4	(CRU=4)
		CRU 1, 4	(CRU=5)
		CRU 2, 4	(CRU=6)
		CRU 0, 7	(CRU=7)
		CRU 1, 7	(CRU=8)
		CRU 2, 7	(CRU=9)
		NOT USED	(CRU=0)

TRUNK CLASS MARKER LEADS *

GROUP		CLASS	
TGA	(CG=0)	TAN	(CTA=0)
TCB	(CG=1)	TAN 1	(CTA=1)
		TAN 2	(CTA=2)
		TAN 3	(CTA=3)
		TAN 4	(CTA=4)
		TOL	(CTA=5)
		INC	(CTA=6)
		PCR	(CTA=7)
		PCD	(CTA=8)
		PCD 1	(CTA=9)

*THE SET OF INCOMING TRUNK CLASS LEADS (TAN, TAN 1, TAN 2, TAN 3, TAN 4, TOL, INC, PCR, PCD, AND PCD 1) APPLIES TO BOTH TRUNK CLASS GROUPS TCA AND TCB. THEY SHOULD NOT BE CONFUSED WITH THE SET OF RELAYS UNDER THE TCA GROUP WHICH BEAR ALMOST THE SAME DESIGNATIONS

Ⓑ MARKER GROUP, ETC

MARKER GROUP 00; 2-WIRE; NONCOIN	(MG=0)
MARKER GROUP 100; 2-WIRE; NONCOIN	(MG=1)
MARKER GROUP 200; 2-WIRE; NONCOIN	(MG=2)
MARKER GROUP 00; 2-WIRE; COIN	(MG=4)
MARKER GROUP 100; 2-WIRE; COIN	(MG=5)
MARKER GROUP 200; 2-WIRE; COIN	(MG=6)

MARKER GROUP 00; 2-WIRE; NONCOIN	(MG=0)
MARKER GROUP 100; 2-WIRE; NONCOIN	(MG=1)
MARKER GROUP 200; 2-WIRE; NONCOIN	(MG=2)
MARKER GROUP 00; 4-WIRE; NONCOIN	(MG=7)
MARKER GROUP 100; 4-WIRE; NONCOIN	(MG=8)
MARKER GROUP 200; 4-WIRE; NONCOIN	(MG=9)

TYP=0
TYP=8
TYP=1
TYP=9
TYP=7
TYP=2
TYP=4

Ⓓ TEST LINE DIALING NUMBER

FAR-END TEST LINE DIALING NUMBER

FOREIGN AREA CODE NOT USED; CGR=0	(CG=2)
FOREIGN AREA CODE NOT USED; CGR=1	(CG=3)
FOREIGN AREA CODE USED; CGR=0	(CG=4)
FOREIGN AREA CODE USED; CGR=1	(CG=5)

→ FAR-END TEST LINE DIALING NUMBER

→ HOME OFFICE TEST LINE DIALING NUMBER

Ⓐ SERVICE TYPE

MESSAGE, LOCAL ACCESSIBLE	(TYP=0)
MESSAGE, TANDEM ACCESSIBLE	(TYP=8)
MESSAGE, TOLL ACCESSIBLE	(TYP=1)
CCSA, LOCAL ACCESSIBLE	(TYP=9)
CCSA, TANDEM ACCESSIBLE	(TYP=7)
PBX, WITH LLP	(TYP=2)
HOME OFFICE TEST LINE	(TYP=4)
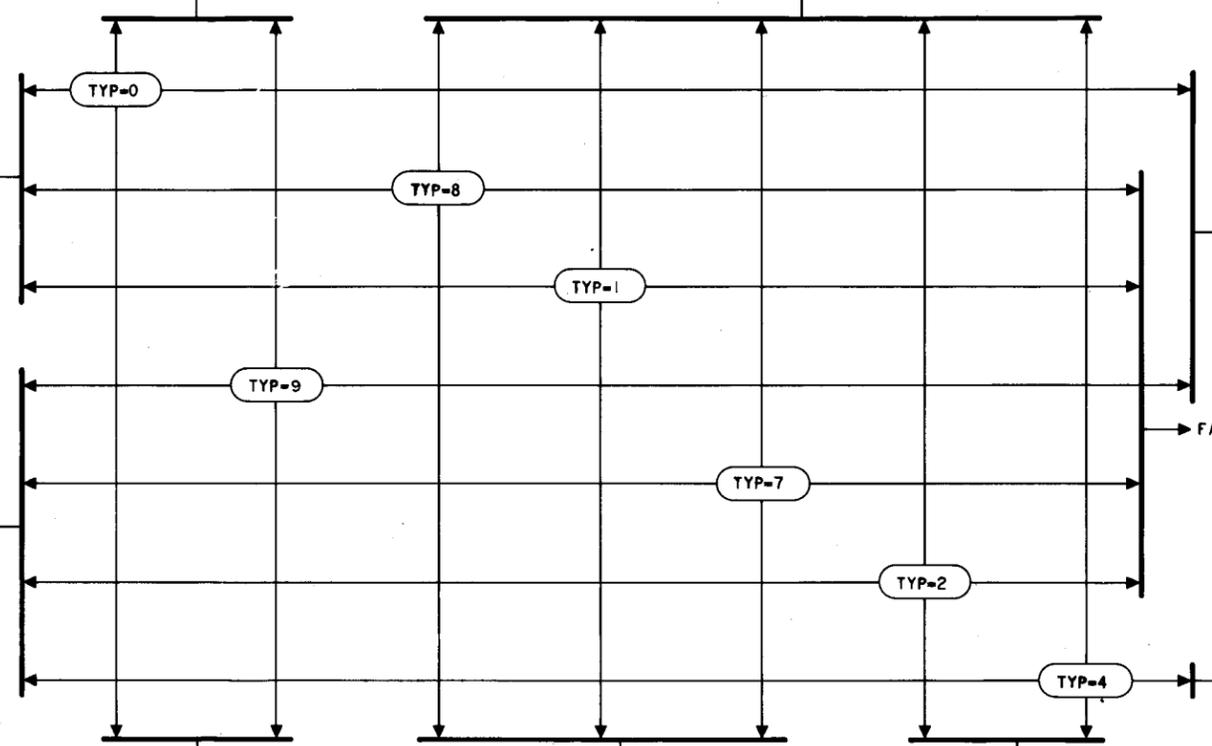
LOCAL TRANSLATOR, NO PREFIX	(TR=0)
LOCAL TRANSLATOR, PREFIX 1	(TR=1)
LOCAL TRANSLATOR, PREFIX 0	(TR=2)
LOCAL TRANSLATOR, PREFIX 8	(TR=3)
2-DIGIT TRANSLATOR	(TR=4)
XII TRANSLATOR	(TR=5)
5-DIGIT TRANSLATOR	(TR=9)

LOCAL TRANSLATOR, NO PREFIX	(TR=0)
TOLL TRANSLATOR	(TR=8)
5-DIGIT TRANSLATOR	(TR=9)

OFFICE A	(TR=6)
OFFICE B	(TR=7)
5-DIGIT TRANSLATOR	(TR=9)
LOCAL TRANSLATOR, NO PREFIX	(TR=0)

Ⓔ MARKER TRANSLATION

Fig. 76—Flow Diagram for Use in Determining Trunk Group Variables—Expanded 5XB ROTL

© **PHYSICAL LOCATION**

TRUNK LINK FRAME		BUSY TEST LEAD		LINE LINE	NUMBER GROUP FRAME	
TENS	UNITS	TENS	UNITS	HOLD MAGNET	HUNDREDS BLK	TENS BLK
0 (FT = 0)	0 (FU = 0)	0 (TT = 0)	0 (TU = 0)	0 (FU = 0)	0 (TT = 0)	0 (TU = 0)
1 (FT = 1)	1 (FU = 1)	1 (TT = 1)	1 (TU = 1)	1 (FU = 1)	1 (TT = 1)	1 (TU = 1)
2 (FT = 2)	2 (FU = 2)		2 (TU = 2)	2 (FU = 2)	2 (TT = 2)	2 (TU = 2)
	3 (FU = 3)		3 (TU = 3)	3 (FU = 3)	3 (TT = 3)	3 (TU = 3)
	4 (FU = 4)		4 (TU = 4)	4 (FU = 4)	4 (TT = 4)	4 (TU = 4)
	5 (FU = 5)		5 (TU = 5)	5 (FU = 5)	5 (TT = 5)	5 (TU = 5)
	6 (FU = 6)		6 (TU = 6)	6 (FU = 6)	6 (TT = 6)	6 (TU = 6)
	7 (FU = 7)		7 (TU = 7)	7 (FU = 7)	7 (TT = 7)	7 (TU = 7)
	8 (FU = 8)		8 (TU = 8)	8 (FU = 8)	8 (TT = 8)	8 (TU = 8)
	9 (FU = 9)		9 (TU = 9)	9 (FU = 9)	9 (TT = 9)	9 (TU = 9)

INFORMATION ON PHYSICAL LOCATION IS NOT REQUIRED

TYP=0

Ⓑ **ROUTE ADVANCE ; ALLOTTED GROUP**

0 ROUTE ADVANCE; ALLOTTED GROUP A✶	(RA=0)
1 ROUTE ADVANCE; ALLOTTED GROUP A✶	(RA=1)
2 ROUTE ADVANCES; ALLOTTED GROUP A✶	(RA=2)
3 ROUTE ADVANCES; ALLOTTED GROUP A✶	(RA=3)
0 ROUTE ADVANCE; ALLOTTED GROUP B	(RA=5)
1 ROUTE ADVANCE; ALLOTTED GROUP B	(RA=6)
2 ROUTE ADVANCES; ALLOTTED GROUP B	(RA=7)
3 ROUTE ADVANCES; ALLOTTED GROUP B	(RA=8)

✶ - OR ALLOTTED GROUP NOT USED

TYP=8

TYP=1

TYP=9

TYP=7

TYP=2

NO INFORMATION ABOUT RA IS REQUIRED

TYP=4

Ⓐ **SERVICE TYPE**

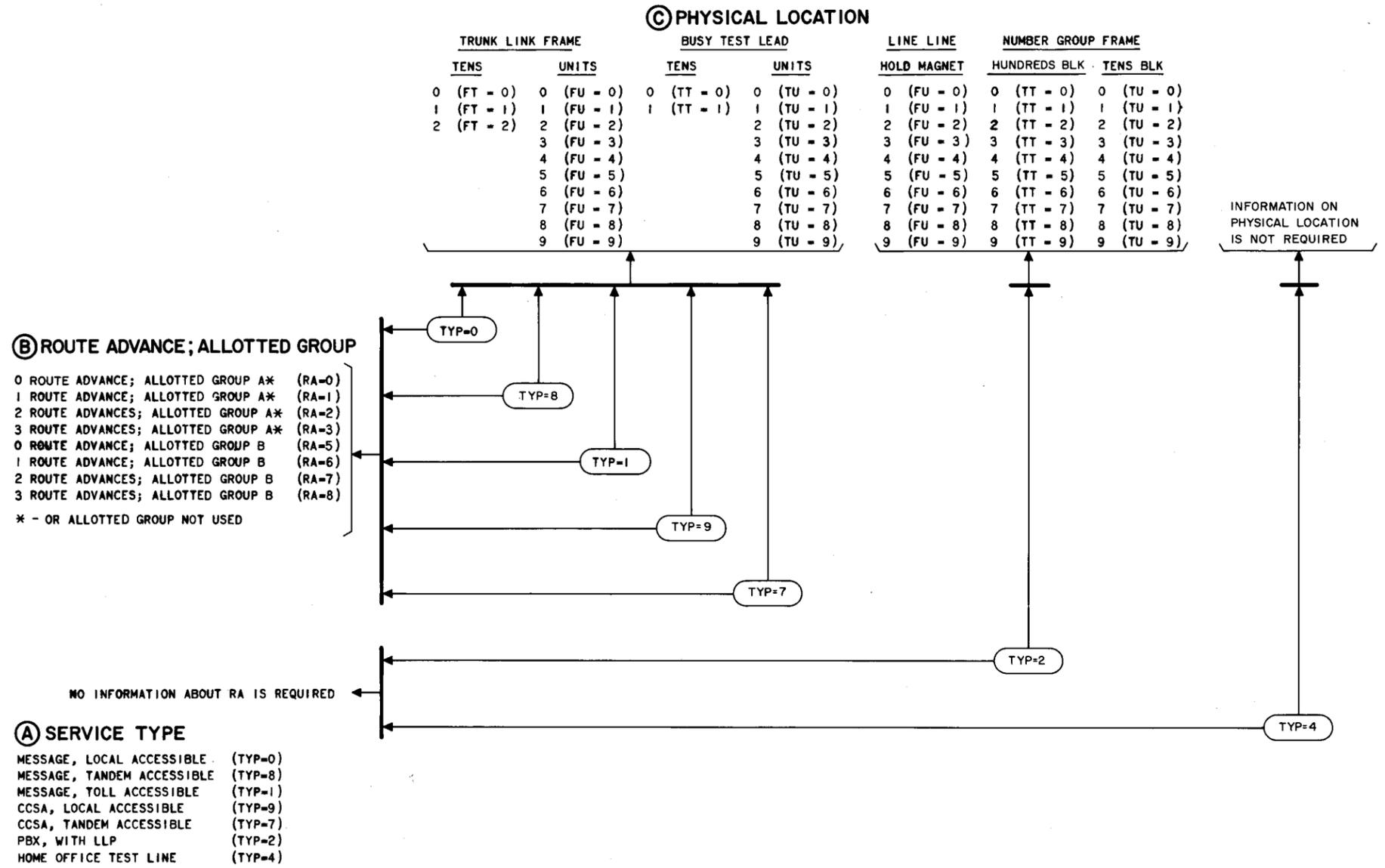| MESSAGE, LOCAL ACCESSIBLE	(TYP=0)
MESSAGE, TANDEM ACCESSIBLE	(TYP=8)
MESSAGE, TOLL ACCESSIBLE	(TYP=1)
CCSA, LOCAL ACCESSIBLE	(TYP=9)
CCSA, TANDEM ACCESSIBLE	(TYP=7)
PBX, WITH LLP	(TYP=2)
HOME OFFICE TEST LINE	(TYP=4)

Fig. 77—Flow Diagram for Use in Determining Particular Trunk Variables—Expanded 5XB ROTL