CUSTOMER TROUBLE REPORT ANALYSIS PLAN
CATEGORIES OF TROUBLE REPORTS AND CLASSES OF SERVICE MEASURED

1. GENERAL

1.01 This section of the Customer Trouble Report Analysis Plan (CTRAP) describes trouble reports and from whom they are received. It discusses *where* trouble reports are counted and *how* they are classified for the Exchange Maintenance Service Results (EMSR) Plan for measurement and analysis. This section also defines the classes of service measured under the EMSR Plan.

1.02 This section has been reissued to include additions and changes. Since this is a general revision arrows normally used to indicate changes have been omitted.

2. TROUBLE REPORTS

2.01 A customer trouble report is any oral or written notice which, to the person making the report, indicates one or more of the following conditions:

(a) Difficulty or dissatisfaction with the performance of telephone plant or telephone employees.

(b) Improper functioning of telephone company equipment or associated customer-owned auxiliary equipment.

(c) Defect in or dissatisfaction with the physical condition, location, or appearance of a plant item.

> *Note:* Reports that are referred to Plant forces by the operator such as "Busy-No Talking", "Verify Out of Order", "Verify O.D.", and "Money Fails to Return" are classified as an Employee report (Code 4).

2.02 Each time a customer calls to report trouble, a trouble report is counted as follows:

1 — If on one call, a trouble is reported on more than one line, PBX position or extension, CENTREX station, wiring plan station, etc, and the trouble *is not due* to a common cause, count one trouble report for each such line, position, extension, station. etc. reported.

2 — When trouble reports *are due to a common cause,* regardless of the number of lines, stations, equipments, or customers involved, count one trouble report each time a customer calls to report trouble. Common causes are such things as failures of a cable, open wire lead, rural distribution wire, multiple drop wire, or a common circuit defect. For the purpose of this Plan, the term "cable failure" includes inside wiring cable. Common circuit defects may be caused by common wiring faults in battery, generator, or ground leads; or a PBX battery or generator feeder; or failure of a circuit to which lines or stations have access, such as a PBX attendant telephone circuit, etc.

3 — Each subsequent trouble report, inquiry, and call relating to a "no access" shall be considered as a trouble report.

4 — When trouble on a party line affects more than one party on that line, count one trouble report for each time a trouble is reported.

2.03 A Bell Telephone Company employee who encounters trouble with his business or residence telephone service, or while attempting to use a coin telephone is considered as a customer. Any trouble reports on these services given to a Plant Service Center (PSC) by an employee *must be classified as a customer trouble report.*

3. RECEIVING TROUBLE REPORTS

3.01 A trouble report is received at a PSC for handling in one of the following ways:

(1) From a customer or his representative calling a Plant Service Center about his personal, business, or coin telephone service.

(2) From telephone employees in Plant, Traffic, Commercial, Marketing, etc, who in the course of their duties, *received a trouble report from a customer or his representative.*

(3) From telephone employees in all departments who have encountered trouble when using their personal, business, or coin telephone service.

(4) From telephone employees who have observed a trouble condition *independent of any conversation with a customer* regarding the trouble.

4. SERVING PLANT SERVICE CENTER

4.01 The Serving Plant Service Center (SPSC) is the PSC delegated the responsibility for maintaining a customer's service. Also, it is the PSC where customer trouble reports will be counted for service measurement under the EMSR Plan. The criteria used to determine the SPSC for various classes of service are:

(1) For TWX, WATS, Toll Stations, Private Line Telegraph, Private Line Telephone, and VIDEO services, it is the PSC(s) serving the area(s) *in which the customer station equipment is located.* For those services without station equipment, it is the PSC(s) serving the area(s) in which the customer connects with the service. When a private line customer is instructed to report his trouble to a Toll Serving Test Center (STC), the trouble report is counted at that location and measured under the Private Services Results Measurement Plan. When a private line customer is instructed to report his trouble to a PSC which then relays the trouble to a STC, the PSC receiving the report is *not* designated as a SPSC. In these cases, the STC to which the trouble report was relayed, counts the trouble report under the Private Services Results Measurement Plan.

(2) For Mobile services, the mobile station or BELLBOY Personal Signaling Service user may call any PSC when they have trouble. However, those PSC's that do not have Mobile Repair Service Bureaus will relay the trouble report to the nearest PSC equipped to do mobile repair. The trouble report is then counted at the PSC doing the repair work.

(3) For foreign exchange services, off-premise extensions, and PBX tie lines there may be two SPSCs. The PSC serving the area in which the originating central office equipment is located and the PSC serving the area in which the foreign exchange service, off-premise extension, or PBX tie line is terminated, is each designated as a SPSC. A trouble report is counted in the SPSC that receives the trouble report from the customer. When a customer is instructed to report his trouble to a Toll Serving Test Center (STC), it is counted at that location and measured under the Private Services Results Measurement Plan.

5. CATEGORIES OF TROUBLE REPORTS — ANALYSIS AND MEASUREMENT

5.01 Six categories of trouble reports have been established in this Plan to:

(1) Provide a count of trouble reports for one component of the EMSR Plan for each measured PSC; and

(2) Provide data for analyzing the volume of trouble reports handled by a PSC, the sources from which these reports originate, and the pertinent data associated with these trouble reports.

The six categories of trouble reports are:

Code 1 — Customer-Direct (Cust-Dir)

Code 2 — Customer-Relayed (Cust-Rel)

Code 3 — Customer-Received for Another Center (Cust-RAC)

Code 4 — Employee (Emp)

Code 5 — Referred In (Ref In)

Code 6 — Customer-Excluded (Cust-Excl)

The first two categories, Customer-Direct and Customer-Relayed, when totaled, represent the number of customer trouble reports for a SPSC and provide the basic data for computing one component of the EMSR Plan.

The last four categories are not counted for the EMSR Plan, but they are counted and summarized for analysis purposes.

Each of the six categories is explained in the following paragraphs.

5.02 *A Customer-Direct* report is any trouble report received in a Serving Plant Service Center (SPSC) *directly from the customer or his representative.* The trouble report may be received in written form or received orally over any telephone or trunk facility terminating in the SPSC.

5.03 *A Customer-Relayed* report is any trouble report received in a Serving Plant Service Center (SPSC) from another PSC, a Service Control Center, or from a Plant, Traffic, Commercial, Marketing or any other employee who has received a trouble report *directly from a customer or his representative.* When relayed to the SPSC, the report is classified *at the SPSC* as Customer-Relayed.

Typical situations in which trouble reports would be classified as Customer-Relayed *at the Serving Plant Service Center are:*

(1) A PSC which received a trouble report directly from a customer served by another PSC. When relayed to the SPSC, it is classified as a Customer-Relayed report *at the SPSC.*

(2) Any repair service answering force, such as a Service Control Center or traffic operator, who received a trouble report directly from a customer while the SPSC was not in operation. When relayed to the SPSC, it is classified as a Customer-Relayed report *at the SPSC.*

(3) An operator who has reported to a PSC that she could not complete a call, provided that she attemped the call at the request of a customer who could not complete the call. When relayed to the SPSC it is classified as a Customer-Relayed report *at the SPSC.*

(4) An operator who has been told by a customer using a coin station, that he encountered difficulty or expressed dissatisfaction with the station or our apparatus. Each such situation must be relayed to a SPSC, where it is classified as a Customer Relayed report.

(5) A PBX repairman who received trouble reports directly from a PBX operator or a PBX station user, and relayed the reports to the SPSC where they are classified as Customer-Relayed reports. These reports may be

orally, or called to the repairman's attention by the customer in some other manner.

(6) A business office representative who received a trouble report from a customer and relayed it to a SPSC where it is classified as a Customer-Relayed report.

(7) A Toll Test Room which received a report from a customer on his TWX or other exchange service and relayed it to the SPSC where it is classified as a Customer-Relayed report.

5.04 *A Customer-Received for Another Center* report is any trouble report received by:

(1) A PSC which received a trouble report directly from a customer and relayed it to a SPSC or Serving Test Center (STC).

(2) A PSC which received trouble reports directly from customers when the SPSC was closed.

(3) A centralized repair answering service location, such as a Service Control Center, which received trouble reports from customers when the SPSC was closed, or from customers instructed to report trouble to the service location.

(4) A PSC which received a trouble report from a customer on a service for which a PSC is not responsible, such as network calls on Switched Services Networks (SSN) and Common Control Switching Arrangements (CCSA), and Toll Private Services.

5.05 An *Employee report* is any trouble report received in a PSC from an employee who detected a trouble-causing condition while performing his duties and *independent of any conversation with a customer regarding the trouble.* Some examples of Employee reports are:

(1) Trouble reports received during conversations with customers such as:

(a) While conducting *formal surveys or written questionnaires.*

(b) While performing *follow-up test calls.*

(c) While providing operator assistance for coin telephone customers, if the trouble report received is a failure to refund all or part of the customer's money.

(d) While providing operator assistance for customers, if the trouble report was "Busy-No Talking," "Verify Out of Order," or "Verify O.D." etc.

(e) Requests from Commercial to investigate a billing complaint from a customer.

Note: The above examples are the only exceptions to the rule of "independent of any conversation with a customer."

(2) When Traffic forces assist the Plant forces by forwarding trouble report information for analysis purposes. Dial Service Assistance (DSA) tickets are trouble reports received by the operator from a customer that could not complete a call to another customer. If the operator is able to complete the call for the customer, the trouble report is classified as an Employee report (Code 4).

(3) Permanent signals reported by Traffic or Plant.

(4) Defective lines found because of an alarm.

(5) Faults noted by employees and not called to their attention by customers, such as:

(a) Defective lines found by Plant employees investigating calling party hold conditions.

(b) Conditions noticed by a service observing operator.

(c) Faults reported by Commercial or other employees when collecting from or making routine tests of coin telephones.

(d) Faults noted by Traffic instructors visiting stations or PBX's.

(e) Faults found while carrying out preventive maintenance work.

(f) Coin control signals, coin security alarms, or operators reporting difficulties with *coin collection.*

(g) Work or nonworking plant, such as poles or wires down, wires too low, and wires loose or broken, *reported without customer prompting.*

5.06 *A Referred In* report is a trouble report received in a PSC from a SPSC, a Data Test Center or a Toll Serving Test Center (STC) that has referred the trouble to the PSC for clearance.

Some examples of Referred In reports are:

(1) PSC "B" receives a report from PSC "A" that a customer served by "A" could not complete a call to a customer served by "B," and after testing, the trouble appears to be in "B's" station or facilities.

(2) PSC "B" receives a report from SPSC "A," that trouble on a foreign exchange line locates in the area served by "B."

(3) A Plant Service Center "A" customer reports he is unable to transmit data to a customer served by PSC "B." The Data Test Center determines that the trouble is in equipment of the customer served by PSC "B." PSC "B" accepts the report as a Referred In.

(4) A Toll Serving Test Center (STC) determines that trouble on a private line service locates in equipment of a customer served by PSC "A." PSC "A" accepts the report as a Referred In.

5.07 *A Customer-Excluded* report is one of a specific type of call to repair service which can be excluded from the count of customer reports for measurement purposes. *The reports listed below are the only ones that can be excluded:*

(1) Request for directories, directory covers, and replacements.

(2) Requests for teletypewriter paper or ribbon.

(3) Requests for information on revertive dialing codes on multiparty lines.

(4) Requests from customers to change appointments to a *later time,* if the requests are received prior to the latest appointment time.

(5) Calls made to cancel previous reports of trouble. (Previous reports must be counted.)

(6) Calls made by PBX attendants to report alarm conditions.

(7) Requests for changes on PBX and key equipment designation strips.

(8) Calls on which the customer is referred to Information Operator, Long Distance Operator, Assistance Operator, Commercial Business Office, Marketing Business Office, or an Engineering representive.

(9) Calls concerning a feature (cutoff key, light, ringer, etc) which upon investigation show that the customer is not paying for the feature.

(10) Reports on lines that are vacant, denied, suspended, *properly intercepted,* or disconnected as the result of a *service order or other Bell Telephone Company procedure* such as left in stations, lines disconnected on an out order, number changes, etc. *Do not* exclude trouble reports that are received where the work (all or any part) is not complete.

(11) Reports from a customer requesting that a PBX or existing wiring plan extension be restricted or unrestricted.

(12) Requests from customers to verify a busy, *providing that* the customer agrees to call the operator for such verification. If the customer does not agree to call the operator, and subsequent investigation determines that the called line was legitimately busy, the report shall be excluded.

(13) Requests from contractors, utilities, or other agencies for locations of Bell Telephone Company plant. Includes requests from other workmen to lower or disconnect drops for tree removal.

(14) Reports of wires down, poles broken, etc, which upon investigation, are found to be other than Bell Telephone Company plant or equipment.

6. CLASSES OF SERVICE — CODES AND DEFINITIONS

6.01 This Plan provides for the measurement and analysis of trouble reports for all classes of service. These classes of service are specifically identified by numerical codes for transmission of data to the Data Processing Center and defined as follows:

Code 01 — *TWX-3 Row:* Teletypewriter Exchange Service (3 Row).

Code 02 — *TWX-4 Row:* Teletypewriter Exchange Service (4 Row).

Code 03 — *WATS:* Wide Area Telephone Service.

Code 04 — *Residence:* Flat rate and measured individual, two, and multiparty services.

Code 05 — *Business:* Flat rate and measured individual, two, and multiparty services.

Code 06 — *Private Branch Exchange:* All types of PBX systems, including the station equipment, mileage terminals, and auxiliary equipment connected to these systems.

Code 07 — *CENTREX:* ALL CENTREX systems located in the central office or on the customer's premises, including the station equipment, mileage terminals, and auxiliary equipment connected to these systems.

Code 08 — *Coin — Public:* All public coin telephone services and related equipment, such as booths, lights, switches, fans, glass, doors, signs, directory fixtures, etc.

Code 09 — *Coin — Semi-Public:* All semi-public coin telephone services and related equipment, such as booths, lights, switches, fans, glass, doors, signs, directory fixtures, etc.

Code 10 — *Rural:* A class of multiparty service furnished outside the exchange base rate area.

Code 11 — *Joint Service:* All exchange lines, stations, or types of service where part, but not all of the circuit is maintained by a Bell Telephone Company (excluding Private Line Telegraph and Telephone Services).

Code 12 — *Mobile:* All mobile telephone service furnished to the general public, including systems dedicated for

Telephone Company use. These services are Urban, Highway, Maritime, Private, Maintenance, BELLBOY Personal Signaling Service, and *customer-owned mobile units* working with Telephone Company base stations and land line facilities.

Code 13 — *Unclassified:* Trouble reports involving any class of service defined in this section that cannot be associated with a specific line or station.

Code 14 — *Private Line Telegraph:*

(1) All services which terminate in Bell Telephone Company maintained teletypewriter apparatus regardless of the type of facilities to which the services are assigned.

(2) All services with and without Bell Telephone Company maintained teletypewriter apparatus which uses facilities equipped with a telegraph repeater (or telegraph regenerative repeater); or assigned to a telegraph carrier channel.

Typical services are:

Manual and Automatic Morse Telegraph

Teletypewriter

Pilot Wires

Telemetering

Alarm

Control

Remote Switching

Code 15 — *Private Line Telephone:*

(1) All services which are equipped with an amplifier (all types); or assigned to a voice or broad band carrier channel.

(2) All other services equipped with wire facilities only, which do not terminate in Bell Telephone Company maintained teletypewriter apparatus.

Typical services are:

Private Line Telephone

Data (Data Systems, including DATA-SPEED Service)

Private Services terminating in a radio transmitter or receiver

Channels provided for data transmission, telautograph, customer-owned carrier systems (such as Western Union Voice-Frequency Carrier System), etc.

Music Distribution (Wired Music) Services

Leased Lines for connection to other than Bell Telephone Company equipment. Examples of such lines include Bell and Lights (Civil Air Defense Warning), Siren Control (Civil Air Defense Warning), American District Telegraph, Holmes Electric, Point-to-Point and Multipoint Alarms, Remote Metering, Control Channels, etc.

Tie Lines (Placed and billed under existing Private Line Telephone tariffs)

Code 16 — *Video:* Channels furnished for wideband video transmission. Typical services are Community Antenna Television (CATV), Educational Television (ETV), Studio Transmitter Links, Studio Network Links, etc.

Note: Codes for Classes of Service where manual reporting is used will be 1 thru 16 instead of 01 thru 16 shown above.

6.02 For analysis purposes, certain subgroups of the classes of service have been provided. Their codes and descriptions are as follows:

1 — *Party Line:* All two and multiparty lines.

2 — *DATA-PHONE:* All DATA-PHONE data sets connected with the service as a piece of auxiliary station equipment.

3 — *Foreign Exchange:* Any service which receives dial tone from a central office outside of the PSC in which the customer is located.