T-CARRIER ADMINISTRATION SYSTEM (TCAS)
INPUT MESSAGES, DISPLAYS, AND REPORTS
OPERATIONS SUPPORT SYSTEMS

CONTENTS PAGE

1. GENERAL

1.01 This section provides a detailed description of the interactive language, displays, and reports used to effectively administer the metropolitan T-carrier network. Also, a brief description of the interactive devices used with the T-Carrier Administration System (TCAS) is given.

1.02 Whenever this section is reissued, the reason for reissue will be stated in this paragraph.

A. Interactive Devices

1.03 Extensive operator interaction is available with TCAS. This capability is provided by various TCAS central input/output devices, each serving a specific function. The following paragraphs briefly discuss the functions of the computer display terminal (CDT), the optional CDT printer (CP), the computer control console (CC), and the status and reports printers (SP and RP).

1.04 DATASPEED® 40/1 keyboard/display terminals, referred to as CDTs, are used at each maintenance control position. A maintenance controller (MC) at each position receives alarm information and interacts with the computer in resolving specific alarm situations. Interaction consists of requesting, via interactive language, real-time CDT displays which provide current status information, layout and summary information and entering administrative information, such as trouble location information. A typical screen display obtained from a CDT is shown in Fig. 1.

1.05 A TCAS installation may contain up to 12 CDTs used as MC terminals for coordination of T-carrier restoration and maintenance activities. A typical installation will have one terminal for about every 1500 systems monitored by the TCAS computer. The TCAS design is such that any one of these regular MC terminals (but only one at a time) may be converted to a data base controller (DBC) terminal for data base operations.

1.06 An optional DATASPEED 40/1 tractor-feed or friction-feed printer (CP) may be provided with each CDT. Nondynamic reports and lists may be outputted directly to the CP.

1.07 An HP 2645A keyboard/display terminal with an HP 9866A printer is used as the CC. This terminal serves as the operator interface to the manual functions of the telemetry tests and diagnostic modules. It is also used for initializing the system and changing system parameters.

1.08 Two DATASPEED 40/1 printers are used as the SP and RP. The primary function of the SP is to provide network status information necessary for the manual fallback operation of the TCAS-equipped T-carrier restoration control center (TRCC) in the event of a major TCAS failure. The RP produces various periodic reports and some demand reports and displays.

1.09 For a more detailed description of these devices, refer to Section 190-200-100.

2. INPUT MESSAGES

A. Introduction

2.01 All input messages use the same basic format. This consists of a verb and a key word, with a colon, semicolon, or comma separating them. One or more optional words may follow the key word to express more completely the intent of the message. A comma must ***precede*** each option. A sample message is **ACP:TC,TCN=100X025,CDT=2.** This means — **Accept trouble case number 100X025 if it belongs to CDT 2.** In the previous example, the verb is **ACP**, the keyword is **TC**, and the options are **TCN=100X025,CDT=2.**

2.02 The following paragraphs identify all input messages used with TCAS operations. The messages are grouped into three categories for easy reference. These categories are maintenance control, data base control, and computer control input messages. Also, each input message is cross-referenced to the appropriate paragraph number in Part 4, INDEX OF INPUT MESSAGES. The options associated with each input message are grouped into sets (refer to paragraph 2.09). For example, **OP:ATC** uses two option sets, where **P, TCN=***xxx* is one set; and **CP, RP, SP** is another set. Only one option from each set may be used with the basic input message at any one time. In addition, many basic input messages permit a ***default condition*** where a detailed complete meaning is implied when no options are used

with the basic message. For example, **OP:ATC** means output on the display screen all trouble cases associated with the current trouble case.

Note: The RETURN key on the CC or CDT keyboard must be depressed **before** and **after** each complete input message.

B. Maintenance Control Input Messages

2.03 The following messages are used by the MC and are entered from those CDTs designated as maintenance control positions. For more detailed information on the functions and procedures of the MC, refer to Section 190-200-030.

2.04 **SET:CONTR**—Set controller for a terminal.

Options available: The option **INTLS=** must always be used with this input message.

SET:CONTR,INTLS=*xxx* (default condition)—Sign on to a CDT, as a maintenance controller; where *xxx* signifies your initials.

,INTLS=*xxx***,DBC**—Sign on to a CDT as a data base controller; where *xxx* signifies your initials.

2.05 **CLR:CONTR**—Clear controller from a terminal.

Options available: None

2.06 **INIT**—Initialize an operator terminal.

Options available: None

2.07 **OP**—Output the next page of a multipage output on the CDT screen.

Options available: None

2.08 **STOP**—Stop the output of a multipage display if one is in progress.

Options available: None

2.09 **OP:ATC**—Output associated trouble case.

Options available:

OP:ATC (default condition)—Output, on the display screen, trouble cases (TC) associated with the current TC.

,P—Output, on the display screen, TCs associated with the highest priority TC.

,TCN=*xxx*—Output, on the display screen, TCs associated with a specific TC number; where xxx signifies the TC number.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:ATC** options. An example is **OP:ATC,TCN=100X027,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 2 for a sample output display.

Note: The following maintenance control input messages (paragraphs 2.10 through 2.26) can also be entered from the CC.

2.10 OP:EQPTINV—Output equipment inventory.

Options available: The **OFFID=** option must always be used, unless the **ALL** option is used.

OP:EQPTINV,OFFID=*xxx*—Output, on display screen, the inventory of T1 terminals in the specific office (office identification [ID] code); where *xxx* signifies the office ID.

OP:EQPTINV,ALL—Output, on display screen, the inventory of T1 terminals in all offices.

To specify a certain type of equipment, the following option can be used with **any** of the previous **OP:EQPTINV** options. An example is **OP:EQPTINV,OFFID=OKLDCA11,EQPTCL=T1OR.**

,EQPTCL=*xxx*—Equipment class, as in the previous example, T1OR means T1 office repeaters; where *xxx* signifies the equipment class code.

The following equipment class codes are used with the **,EQPTCL=** option:

T1TERM	T1 terminal
T1OR	T1 office repeater
T1PLR	T1 patch line repeater
T1RSHLF	T1 repeater shelf.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:EQPTINV** options. An example is **OP:EQPTINV,OFFID=OKLDCA11,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 3 for a sample output display.

2.11 OP:HS—Output history of an entity.

Options available:

OP:HS (default condition)—Output, on display screen, all available history on the entity in the current TC.

,P—Output, on display screen, all available history on the entity in the highest priority TC.

,TCN=*xxx*—Output, on display screen, all available history on the entity in the specified trouble case; where *xxx* signifies the TC number.

,PGN=*xxx*—Output, on display screen, all available history on the specified pattern group (PG); where *xxx* signifies the PG number.

,RK=*xxx*—Output, on display screen, all available history on the entity of specified rank (RK) in the current TC; where *xxx* signifies the rank.

,SRN=*xxx*—Output, on display screen, all available history on the system with the specified system reference number (SRN); where *xxx* signifies the SRN.

,SYSID=*xxx*—Output, on display screen, all available history on the system with the specified system ID code (SYSID); where *xxx* signifies the SYSID.

,CAID=*xxx*—Output, on display screen, all available history on pattern group containing the cable with the specified cable ID code (CAID); where *xxx* signifies the CAID.

,PLRN=*xxx*—Output, on display screen, all available history on the patch line with the specified patch line reference number (PLRN); where *xxx* signifies the PLRN.

,PLID=*xxx*—Output, on display screen, all available history on the patch line with the specified patch line ID code (PLID); where *xxx* signifies the PLID.

To select the history up to a certain date and time, the following option can be used with **any** of the previous **OP:HS** options. An example is **OP:HS,TCN=100X027,DT=10-07-77 080000.** If the **,DT=** option is not used, the current date and time is automatically assumed.

,DT=*xxx yyy*—Output all history from the oldest information available up to the specified date and time (DT); where *xxx* and *yyy* signify the date and time, respectively.

To examine the history of an entity during a specific interval, one of the following options can be used with **any** of the previous **OP:HS** options. An example is **OP:HS,TCN=100X027,DT=10-07-77 080000,HR=48.**

,MIN=*xxx*—Output all history for the previous number of minutes specified; where *xxx* signifies the minutes.

,HR=*xxx*—Output all history for the previous number of hours specified; where *xxx* signifies the hours.

,DY=*xxx*—Output all history for the previous number of days specified; where *xxx* signifies the days.

,TCO—Output all history on the entity in the current TC since that TC was opened.

To output comments associated with an entity, the following option can be used with **any** of the previous **OP:HS** options. An example is **OP:HS,TCN=100X027,CMTONLY.**

,CMTONLY—Output only the comments associated with the entity in the current TC.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the above **OP:HS** options. An example is **OP:HS,TCN=100X027,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 4 through 6 for sample output displays.

2.12 OP:LO—Output layout.

Options available:

OP:LO (default condition)—Output, on display screen, layout of terminal offices of system in the current TC.

,P—Output, on display screen, layout of terminal offices of system in the highest priority TC.

,TCN=*xxx*—Output, on display screen, layout of terminal offices of system with the specified trouble case number; where *xxx* signifies the trouble case number.

,SRN=*xxx*—Output, on display screen, layout of terminal offices of system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Output, on display screen, layout of terminal offices of system with the specified system ID code; where *xxx* signifies the system ID.

,PLRN=*xxx*—Output, on display screen, layout of terminal offices for the patch line with the specified patch line reference number; where *xxx* signifies the patch line reference number.

,PLID=*xxx*—Output, on display screen, layout of terminal offices for the patch line with the specified patch line ID code; where xxx signifies the patch line ID.

To specify any two offices on the system or patch line, the following option can be used with **any** of the previous **OP:LO** options. An example is **OP:LO,PLRN=233P624,OFFPR=OKLDCA11 LFYTCA11.**

,OFFPR=*xxx yyy*—Output layout for the specified office pair; where *xxx* and *yyy* signify the office pair.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:LO** options. An example is **OP:LO,TCN=100X027,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 7 and 8 for sample output displays.

2.13 OP:NPL—Output network portions list.

Options available:

OP:NPL (default condition)—Output, on display screen, the network portions list for this CDT.

,CDT=*xxx*—Output, on display screen, the network portions list for the specified CDT; where *xxx* signifies the CDT number.

,ALL—Output, on display screen, the network portions list for all CDTs.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:NPL** options. An example is **OP:NPL,CDT=4,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 9 for a sample output display.

2.14 OP:NTCL—Output notice list.

Options available:

OP:NTCL (default condition)—Output, on display screen, notices for the monitored or first-ranked entity in the current TC.

,P—Output, on display screen, notices for the monitored or first-ranked entity in the highest priority TC.

,TCN=*xxx*—Output, on display screen, notices for the monitored or first-ranked entity in the specified TC; where *xxx* signifies the TC number.

,PGN=*xxx*—Output, on display screen, notices for the monitored or first-ranked entity in the specified pattern group; where *xxx* signifies the pattern group number.

,RK=*xxx*—Output, on display screen, notices for the entity of specified rank in the current TC; where *xxx* signifies the rank.

,SRN=*xxx*—Output, on display screen, notices for the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Output, on display screen, notices for the specified system; where *xxx* signifies the system ID.

,CAID=*xxx*—Output, on display screen, notices for the specified cable; where *xxx* signifies the cable ID.

,PLRN=*xxx*—Output, on display screen, notices for the patch line with the specified patch line reference number; where *xxx* signifies the patch line reference number.

,PLID=*xxx*—Output, on display screen, notices for the specified patch line; where *xxx* signifies the patch line ID.

,ALL—Output, on display screen, a list of all notices.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:NTCL** options. An example is **OP:NTCL,ALL,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 10 and 11 for sample output displays.

2.15 OP:PATTL—Output pattern list.

Options available:

OP:PATTL (default condition)—Output, on display screen, a list of the cable patterns in the current TC.

,P—Output, on display screen, a list of cable patterns for the highest priority TC.

,TCN=*xxx*—Output, on display screen, a list of the cable patterns for the specified TC; where *xxx* signifies the TC number.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:PATTL** options. An example is **OP:PATTL,TCN=100X027,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 12 for a sample output display.

2.16 OP:PINFO—Output patch information.

Options available:

OP:PINFO (default condition)—Output, on display screen, two-way patch information on sectionalized portion of system in current TC and the most recently reserved patch line.

,P—Output, on display screen, two-way patch information on sectionalized portion of system in the highest priority TC and the most recently reserved patch line.

,TCN=*xxx*—Output, on display screen, two-way patch information on sectionalized portion of system with the specified trouble case number and the most recently reserved patch line; where *xxx* signifies the TC number.

,SRN=*xxx*—Output, on display screen, two-way patch information on the sectionalized portion of the specified system and the most recently reserved patch line; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Output, on display screen, two-way patch information on the sectionalized portion of the specified system, and the most recently reserved patch line; where *xxx* signifies the system ID.

To specify that the output be given for a certain direction of the system, the following options can be used with any of the previous **OP:PINFO** options. An example is **OP:PINFO,AZ.**

,AZ—Output patch information for direction A to Z.

,ZA—Output patch information for direction Z to A.

,BW—Output patch information both ways.

To specify a portion of the system between two offices, the following option can be used with **any** of the previous **OP:PINFO** options. An example is **OP:PINFO,AZ,OFFPR=OKLDCA11 LFYTCA11.**

,OFFPR=*xxx vvv*—Output patch information for the specified office pair; where *xxx* and *vvv* signify the office pair.

To specify that the output be given for a specific patch line, the following options can be used with **any** of the previous **OP:PINFO** options. An example is **OP:PINFO,SRN=100S526,PLRN=233P624.**

,PLRN=*xxx*—Output patch information for the patch line with the specified patch line reference number; where *xxx* signifies the patch line reference number.

,PLID=*xxx*—Output patch information for the patch line with the specified patch line identification code; where *xxx* signifies the patch line ID.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:PINFO** options. An example is **OP:PINFO,AZ,OFFPR=OKLDCA11 LFYTCA11,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 13 for a sample output display.

2.17 OP:PLSUM—Output patch line summary.

Options available: The option **OFFID=** must always be used with this input message.

OP:PLSUM,OFFID=*xxx* (default condition)—Output, on display screen, a summary of all patch lines terminating in the specified office; where *xxx* signifies the office ID.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:PLSUM** options. An example is **OP:PLSUM,OFFID=OKLDCA11,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 14 and 15 for sample output displays.

2.18 OP:RPT—Output a report.

Options available: The option **RPTNO=** must always be used with this input message.

OP:RPT,RPTNO=*xxx* (default condition)—Output, on display screen, the specified report (see the following report numbers); where *xxx* signifies the report number.

There are six reports that can be requested by the MC. The reports and their respective report numbers are as follows:

1—Daily Failure Statistics by Control Office

2—Weekly Failure Statistics by Control Office

3—Backup List of Currently Open Trouble Cases

4—Backbone Usage Report

5—Maintenance Line Usage Report

6—TCAS Trouble-Type Statistics by Office.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:RPT** options. An example is **OP:RPT,RPTNO=5,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

2.19 OP:RS—Output route status.

Options available:

OP:RS (default condition)—Output, on display screen, the route status for the monitored or first-ranked entity in the current TC.

,P—Output, on display screen, the route status for the monitored or first-ranked entity in the highest priority TC.

,TCN=*xxx*—Output, on display screen, the route status for the monitored or first-ranked entity in the specified TC; where *xxx* signifies the TC number.

,PGN=*xxx*—Output, on display screen, the route status for the monitored or first-ranked entity in the specified pattern group; where *xxx* signifies the pattern group number.

,RK=*xxx*—Output, on display screen, the route status for entity of specified rank in the current TC; where *xxx* signifies the rank.

,SRN=*xxx*—Output, on display screen, the route status for the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Output, on display screen, the route status for the system with the specified system identification code, where *xxx* signifies the system ID.

,CAID=*xxx*—Output, on display screen, the route status for the specified cable; where *xxx* signfies the cable ID.

,**PLRN**=*xxx*—Output, on display screen, the route status for the patch line with the specified patch line reference number; where *xxx* signifies the patch line reference number.

,**PLID**=*xxx*—Output, on display screen, the route status for the patch line with the specified patch line identification code; where *xxx* signifies the patch line ID.

,**OFFPR**=*xxx yyy*—Output, on display screen, the route status for the specified office pair; where *xxx* and *yyy* signify the office pair.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:RS** options. An example is **OP:RS,TCN=100X027,CP.**

,**CP**—Output on printer associated with this terminal.

,**RP**—Output on the reports printer.

,**SP**—Output on the status printer.

See Fig. 16 through 20 for sample output displays.

2.20 **OP:SL**—Output system list.

Options available:

OP:SL (default condition)—Output, on display screen, the systems currently failed for the monitored or first-ranked entity in the current TC.

,**P**—Output, on display screen, the systems currently failed for the monitored or first-ranked entity in the highest priority TC.

,**TCN**=*xxx*—Output, on display screen, the systems currently failed for the monitored or first-ranked entity in the specified TC; where *xxx* signifies the TC number.

,**PGN**=*xxx*—Output, on display screen, the systems currently failed for the monitored or first-ranked entity in the specified pattern group; where *xxx* signifies the pattern group number.

,**RK**=*xxx*—Output, on display screen, the systems currently failed for the entity of specified rank in the current TC; where *xxx* signifies the rank.

,**SYSID**=*xxx*—Output, on display screen, the systems currently failed for the specified system; where *xxx* signifies the system ID.

,**CAID**=*xxx*—Output, on display screen, the systems currently failed for the specified cable; where *xxx* signifies the office ID.

,**OFFID**=*xxx*—Output, on display screen, the systems currently failed for the specified office; where *xxx* signifies the office ID.

To specify the type of system, one of the following options can be used with **any** of the previous **OP:SL** options. An example is **OP:SL,P,ALL.**

,**FALDTDY**—Specifies systems failed today.

,**MOND**—Specifies monitored systems only.

,ALL—Specifies all systems.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:SL** options. An example is **OP:SL,TCN=100X027,MOND,CP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 21 through 25 for sample output displays.

2.21 OP:SS—Output side system.

Options available: The option **OFFPR=** must always be used with this input message.

OP:SS,OFFPR=*xxx yyy* (default condition)—Output, on display screen, the side systems for the system in the current trouble case between the specified office pair; where *xxx* and *yyy* signify the office pair.

To specify the system for which the side system is desired, one of the following options can be used with the basic **OP:SS** message. An example is **OP:SS,OFFPR=OKLDCA11 LFYTCA11, TCN=100X027.**

,P—Output, on display screen, side systems for the system in the highest priority TC.

TCN=*xxx*—Output, on display screen, side systems for the system in the specified TC; where *xxx* signifies the TC number.

,SRN =*xxx* —Output, on display screen, side systems for the system with the specified reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Output, on display screen, side systems for the system with the specified system identification code; where *xxx* signifies the system ID.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:SS** options. An example is **OP:SS,OFFPR=OKLDCA11 LFYTCA11,P,CP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 26 for a sample output display.

2.22 OP:ST—Output status of an entity.

Options available:

OP:ST (default condition)—Output, on display screen, the status of the monitored or first-ranked entity in the current TC.

,P—Output, on display screen, the status of the monitored or first-ranked entity in the highest priority TC.

,TCN=*xxx*—Output, on display screen, the status of the monitored or first-ranked entity in the specified TC; where *xxx* signifies the TC number.

,PGN=*xxx*—Output, on display screen, the status of the monitored or first-ranked entity in the specified pattern group; where *xxx* signifies the pattern group number.

,RK=*xxx*—Output, on display screen, the status of the entity of specified rank in the current TC; where *xxx* signifies the rank.

,SRN=*xxx*—Output, on display screen, the status of the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Output, on display screen, the status of the system with the specified system ID code; where *xxx* signifies the system ID.

,CAID=*xxx*—Output, on display screen, the status of the specified cable; where *xxx* signifies the cable ID.

,PLRN=*xxx*—Output, on display screen, the status of the patch line with the specified patch line reference number; where *xxx* signifies the patch line reference number.

,PLID=*xxx*—Output, on display screen, the status of the patch line with the specified patch line identification code; where *xxx* signifies the patch line ID.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:ST** options. An example is **OP:ST,SRN=100S526,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 27 through 33 for sample output displays.

2.23 **OP:TC**—Output a trouble case.

Options available:

OP:TC (default condition)—Output, on display screen, the TC for the monitored or first-ranked entity in the current TC.

,P—Output, on display screen, the TC for the monitored on first-ranked entity in the highest priority TC.

,TCN=*xxx*—Output, on display screen, the TC for the monitored or first-ranked entity in the specified TC; where *xxx* signifies the TC number.

,PGN=*xxx*—Output, on display screen, the TC for the monitored or first-ranked entity in specified pattern group; where *xxx* signifies the pattern group number.

,RK=*xxx*—Output, on display screen, the TC for the entity of specified rank in the current TC; where *xxx* signifies the rank.

,SRN=*xxx*—Output, on display screen, the TC for the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Output, on display screen, the TC for the system with the specified system identification code; where *xxx* signifies the system ID.

,CAID=*xxx*—Output, on display screen, the TC for the specified cable; where *xxx* signifies the cable ID.

,PLRN=*xxx*—Output, on display screen, the TC for the patch line with the specified patch line reference number; where *xxx* signifies the patch line reference number.

,PLID=*xxx*—Output, on display screen, the TC for the patch line with the specified patch line identification code; where *xxx* signifies the patch line ID.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:TC** options. An example is **OP:TC,P,CP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 34 through 41 for sample output displays.

2.24 OP:TCL—Output trouble case list.

Options available:

OP:TCL (default condition)—Output, on display screen, the active and deferred TCs for this CDT.

,CDT=*xxx*—Output, on display screen, the active and deferred TCs for the specified CDT; where *xxx* signifies the CDT number.

,ALL—Output, on display screen, the active and deferred TCs for all CDTs.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:TCL** options. An example is **OP:TCL,ALL,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 42 for a sample output display.

2.25 OP:TLMASGN—Output telemetry assignments.

Options available: The options **REMID**= or **DISPLID**= must always be used with this input message.

,REMID=*xxx*—Output, on display screen, the telemetry assignments for all displays given a remote ID code; where *xxx* signifies the remote ID.

,DISPLID=*xxx yy*—Output, on display screen, the telemetry assignments for a specified display and remote; where *xxx* signifies the remote ID and *yy* signifies the display number.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:TLMASGN** options. An example is **OP:TLMASGN,DISPLID=OKLDCA03E01 8,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 43 for a sample output display.

2.26 OP:UNMONEQPT—Output unmonitored equipment.

Options available: The **OFFID**= option must always be used, unless the **ALL** option is used.

,OFFID=*xxx*—Output, on display screen, the unmonitored T1 terminals in the specified office; where *xxx* signifies the office ID.

,ALL—Output, on display screen, the unmonitored T1 terminals in all offices.

To specify a certain type of equipment, the following option can be used with **any** of the previous **OP:UNMONEQPT** options. An example is **OP:UNMONEQPT,OFFID=OKLDCA11,EQPTCL=T1OR.**

,EQPTCL=*xxx*—Equipment class; as in the previous example, **T1OR** means T1 office repeaters.

The following equipment class codes are used with the **EQPTCL**= option:

T1TERM	T1 terminals
T1OR	T1 office repeaters
T1PLR	T1 patch line repeaters
T1RSHLF	T1 repeater shelf.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:UNMONEQPT** options. An example is **OP:UNMONEQPT,OFFID=OKLDCA11,EQPTCL=T1OR,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 44 for a sample output display.

2.27 OP:PLL—Output patch line list.

Options available:

OP:PLL (default condition)—Output, on display screen, patch lines available for patching the system in the current TC from end to end, both ways.

,AZ—Output, on display screen, patch lines available for patching the system in the current TC from end to end in direction A to Z.

,ZA—Output, on display screen, patch lines available for patching the system in the current TC from end to end in direction Z to A.

To specify a span by the end offices, the following option can be used with **any** of the previous **OP:PLL** options. An example is **OP:PLL,AZ,OFFPR=OKLDCA11 LFYTCA11.**

,OFFPR=*xxx yyy*—Output patch lines available for patching between the specified office pair; where *xxx* and *yyy* signify the office pair.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:PLL** options. An example is **OP:PLL,AZ,OFFPR=OKLDCA11 LFYTCA11,CP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 45 for a sample output display.

2.28 MON:ST—Monitor status of an entity.

Options available:

MON:ST (default condition)—Monitor the status of the monitored or first-ranked entity in the current TC.

,P—Monitor the status of the monitored or first-ranked entity in the highest priority TC.

,TCN=*xxx* Monitor the status of the monitored or first-ranked entity in the specified TC; where *xxx* signifies the TC number.

,PGN=*xxx*—Monitor the status of the monitored or first-ranked entity in the specified pattern group; where *xxx* signifies the pattern group number.

,RK=*xxx*—Monitor the status of the entity of specified rank in the current TC; where *xxx* signifies the rank.

,SRN=*xxx*—Monitor the status of the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Monitor the status of the system with the specified system ID code; where *xxx* signifies the system ID.

,CAID=*xxx*—Monitor the status of the specified cable; where *xxx* signifies the cable ID.

,PLRN=*xxx*—Monitor the status of the patch line with the specified patch line reference number; where *xxx* signifies the patch line reference number.

,PLID=*xxx*—Monitor the status of the patch line with the specified patch line ID code; where *xxx* signifies the patch line ID.

See Fig. 27 through 33 for sample output displays.

2.29 IN:NTC—Input a notice.

Note: The notice text is requested through a dialogue with the computer.

Options available:

IN:NTC (default condition)—Input a notice on the currently monitored entity.

,SRN=*xxx*—Input a notice on the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Input a notice on the system with the specified system ID code; where *xxx* signifies the system ID.

,CAID=*xxx*—Input a notice on the specified cable; where *xxx* signifies the cable ID.

,PLRN=*xxx*—Input a notice on the patch line with the specified patch line reference number; where *xxx* signifies the patch line reference number.

,PLID=*xxx*—Input a notice on the patch line with the specified patch line ID; where *xxx* signifies the patch line ID.

2.30 CLR:NTC—Clear a notice.

Options available: The option **NTN=** must always be used with this input message.

,NTN=*xxx*—Clear the notice with the specified notice number; where *xxx* signifies the notice number.

2.31 OPN:TC—Open a trouble case, monitor it and make it the current case.

Note: If a trouble case is already open on a system, patch line or cable, then this message causes the existing trouble case to be monitored and made the current case.

Options available:

OPN:TC (default condition)—Manually open a trouble case on the entity whose status is being monitored.

,SRN=*xxx*—Manually open a trouble case on the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Manually open a trouble case on the system with the specified system ID code; where *xxx* signifies the system ID.

,CAID=*xxx*—Manually open a trouble case on the specified cable; where *xxx* signifies the cable ID.

,**PLRN**=*xxx*—Manually open a trouble case on the patch line with the specified patch line reference number; where *xxx* signifies the patch line reference number.

,**PLID**=*xxx*—Manually open a trouble case on the patch line with the specified patch line ID code; where *xxx* signifies the patch line ID.

See Fig. 34 through 41 for sample output of displays.

2.32 CLS:TC—Close the current TC.

Options available: None

2.33 MON:TC—Monitor a TC and make it the current case.

Options available:

MON:TC (default condition)—Monitor the TC for the monitored or first-ranked entity in the current TC.

,**P**—Monitor the TC for the monitored or first-ranked entity in the highest priority TC.

,**TCN**=*xxx*—Monitor the TC for the monitored or first-ranked entity in the specified TC; where *xxx* signifies the TC number.

,**PGN**=*xxx*—Monitor the TC for monitored or first-ranked entity in the specified pattern group; where *xxx* signifies the pattern group number.

,**RK**=*xxx*—Monitor the entity of specified rank in the current TC; where *xxx* signifies the rank.

,**SRN**=*xxx*—Monitor the TC currently open on the system with the specified system reference number; where *xxx* signifies the system reference number.

,**SYSID**=*xxx*—Monitor the TC currently open on the system with the specified system ID code; where *xxx* signifies the system ID.

,**CAID**=*xxx*—Monitor the TC currently open on the specified cable; where *xxx* signifies the cable ID.

,**PLRN**=*xxx*—Monitor the TC currently open on the patch line with the specified patch line reference number; where *xxx* signifies the patch line reference number.

,**PLID**=*xxx*—Monitor the TC currently open on the patch line with the specified patch line ID code; where *xxx* signifies the patch line ID.

See Fig. 34 through 41 for sample output displays.

2.34 ACP:TC—Accept a trouble case.

Options available:

ACP:TC (default condition)—Accept the current TC on this CDT.

,**TCN**=*xxx*—Accept the specified TC on this CDT; where *xxx* signifies the TC number.

,PRMRY—Accept all trouble cases for which this CDT is primary.

,SCNDRY—Accept all trouble cases for which this CDT is secondary.

To specify a particular CDT as responsible for the trouble case, the following option can be used with **any** of the previous **ACP:TC** options. An example is **ACP:TC,TCN=100X027,CDT=4.**

,CDT=*xxx*—Specifies a specific CDT terminal as responsible for the trouble case. The *xxx* signifies the CDT number.

2.35 UPD:AC—Update the action code in a trouble case.

Action codes available: One of the following action codes must always be used with the basic **UPD:AC** input message. Also, up to three initials must be supplied (eg, JSL). In the following action codes, the initials are represented by *xxx*. An example is **UPD:AC=LMT JSL.**

=**LMT** *xxx*—Line maintenance tests in progress. Use while verifying a trouble in a line. Standard deferral—2 hours.

=**LSN** *xxx*—Line sectionalization in progress. Use while locating a bad span after a backbone line is used to restore service. Standard deferral—4 hours.

=**MSC** *xxx*—Miscellaneous deferral. Use to defer a TC without implying a reason. Standard deferral—2 hours.

=**NCC** *xxx*—Indicates that the network control center has been notified concerning a major outage. TC is not deferred.

=**OFR** *xxx*—Office repair in progress. Use while a central office trouble is being cleared. Standard deferral—2 hours.

=**OPD** *xxx*—Span maintenance dispatch notified. Indicates that the trouble case has been referred to the span maintenance dispatcher. Standard deferral—8 hours.

=**OPR** *xxx*—Span maintenance repair. Indicates that the TC is now referred to the span maintenance forces. Standard deferral—24 hours.

=**PDG** *xxx*—Defers this TC while a pending associated (higher level) TC is worked on. Standard deferral—2 hours.

=**REF** *yyy*—Refer to *yyy* (initials of the person the TC has been referred to for resolution). Usually used to escalate or expedite the trouble clearing activity. Standard deferral—4 hours.

=**REP** *yyy*—Repair complete. No deferral; action complete.

=**RSN** *xxx*—Restoration patching in progress. Use if a short delay is expected while a system is being patched. Standard deferral—15 minutes.

=**SFL** *xxx*—Span fault location in progress. Use while the span control office obtains the fault locate information. Standard deferral—4 hours.

=**SSN** *xxx*—System sectionalization in progress. Use if a short delay is expected while the failure is being isolated to a span or office. Standard deferral—15 minutes.

=STC *xxx*—Indicates that the responsible serving test center has been notified that a system carrying digital data service is in trouble. No deferral; action complete.

To specify a particular trouble case, one of the following options can be used with **any** of the previous **UPD:AC** options. An example is **UPD:AC=SSN JSL,TCN=100X027.** If one of the following options is **not** used, the current trouble case is automatically assumed.

,P—Specifies the highest priority TC.

,TCN=*xxx*—Specifies a particular TC by the TC number; where *xxx* signifies the TC number.

To specify a specific deferral time other than the standard deferral, one of the following options can be used with **any** of the previous **UPD:AC** options. An example is **UPD:AC=SFL JSL,MIN=30.0.**

MIN=*xxx*—Defer for specific number of minutes rather than standard deferral; where *xxx* signifies the minutes deferred.

HR=*xxx*—Defer for specific number of hours rather than standard deferral; where *xxx* signifies the hours deferred.

2.36 UPD:SCTN—Update sectionalization information in a TC.

Options available:

UPD:SCTN (default condition)—Indicates trouble both ways end to end in the line in the current TC.

,OFFPR=*xxx yyy*—Indicates trouble both ways between the specified office pair in the current TC; where *xxx* and *yyy* signify the office pair.

,OFFID=*xxx*—Indicates trouble both ways in the specified office in the current TC; where *xxx* signifies the office ID.

To specify a trouble case other than the current TC, one of the following options can be used with **any** of the previous **UPD:SCTN** options. An example is **UPD:SCTN,OFFID=OKLDCA11,TCN=100X027.**

,P—Specifies the highest priority TC.

,TCN=*xxx*—Specifies a particular TC; where *xxx* signifies the TC number.

To specify a certain direction other than both ways, one of the following options can be used with **any** of the previous **UPD:SCTN** options. An example is **UPD:SCTN,OFFPR=OKLDCA11 LFYTCA11,AZ.**

,AZ—Specifies direction A to Z.

,ZA—Specifies direction Z to A.

2.37 UPD:TI—Update trouble identification in a trouble case.

Options available:

UPD:TI (default condition)—Indicates that no trouble was found in first-ranked entity in the current TC.

,TT=*xxx*—Trouble type for the entity in the current TC (see following trouble type list); where *xxx* signifies the trouble type.

The following codes are used with the **TT=** option:

COTERM—Central office terminal (channel bank plug-in unit)

COPWRS—Central office terminal power supply/fuse

CORPTR—Central office repeater

COBAT—Central office battery

COWRG—Central office wiring/frame

COEQPT—Central office other equipment

COLNFS—Central office span powering/fuse

COCC—Central office, came clear

COERR—Central office, work error

COMISC—Central office, miscellaneous

COMTCE—Central office maintenance/rearrangements

COSPL—Central office, reserved

LNCA—Span line cable/splice

LNRPTR—Span line repeater

LNAC—Span line apparatus case

LNCC—Span line, came clear

LNERR—Span line work error

LNMISC—Span line, miscellaneous

LNMTCE—Span line maintenance/rearrangements

LNSPL—Span line, reserved

LINECC—Line, came clear

MISC—System, miscellaneous

SYSSPL—System, reserved

NTF—No trouble found

OTHER—Other than T1

TBL—Trouble found.

To specify the office with the trouble, the following option can be used with **any** of the previous **UPD:TI** options. An example is **UPD:TI,TT=COTERM,OFFID=OKLDCA11.**

OFFID=*xxx*—Office ID code; where *xxx* signifies the office ID.

To specify a particular trouble case, one of the following options can be used with **any** of the previous **UPD:TI** options. An example is **UPD:TI,TT=LNRPTR,TCN=100X027.** If one of the following options is **not** used, the current trouble case is automatically assumed.

,P—Specifies the highest priority TC.

,TCN=*xxx*—Specifies a particular TC by the TC number; where *xxx* specifies the TC number.

2.38 IN:CMT—Input a comment.

Note: The comment text is requested through a dialogue with the computer.

Options available:

IN:CMT (default condition)—Input a comment on the current TC.

,P—Input a comment on the highest priority TC.

,TCN=*xxx*—Input a comment on the specified TC; where *xxx* signifies the TC number.

,PGN=*xxx*—Input a comment on the TC for a specified pattern group; where *xxx* signifies the pattern group number.

,RK=*xxx*—Input a comment on entity of specified rank in the current TC; where *xxx* signifies the rank.

,SRN=*xxx*—Input a comment on TC for the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Input a comment on TC for system with the specified system ID code; where *xxx* signifies the system ID.

,CAID=*xxx*—Input a comment on TC for the specified cable; where *xxx* signifies the cable ID.

,PLRN=*xxx*—Input a comment on TC for the patch line with the specified patch line reference number; where *xxx* signifies the patch line reference number.

,PLID=*xxx*—Input a comment on TC for the patch line with the specified patch line ID code; where *xxx* signfies the patch line ID.

2.39 SET:PLRES—Set a patch line reservation.

Options available: The option **PLRN=** or **PLID=** must always be used with this input message.

,PLRN=*xxx*—Reserve the specified patch line for a restoration patch in both directions on sectionalized portion of the system in the current TC; where *xxx* signifies the patch line reference number of the reserved patch line.

,PLID=*xxx*—Reserve the specified patch line for a restoration patch in both directions on sectionalized portion of the system in the current TC; where *xxx* signifies the patch line ID of the reserved patch line.

To specify a particular trouble case or system, one of the following options can be used with **any** of the previous **SET:PLRES** options. An example is **SET:PLRES,PLRN=233P624,P.**

,P—Reserve a patch line for the system in the highest priority TC.

,TCN=*xxx*—Reserve a patch line for the system in the specified TC; where *xxx* signifies the TC number.

,SRN=*xxx*—Reserve a patch line for the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Reserve a patch line for the system with the specified system ID code; where *xxx* signifies the system ID.

To specify a patch type other than a restoration patch, the following option can be used with **any** of the previous **SET:PLRES** options. An example is **SET:PLRES,PLRN=233P624,TCN=100X027,MPTCH.**

,MPTCH—Specifies a maintenance patch.

To specify a certain direction other than both ways, one of the following options can be used with **any** of the previous **SET:PLRES** options. An example is **SET:PLRES,PLRN=233P624,P,MPTCH,AZ.**

,AZ—Specifies direction A to Z.

,ZA—Specifies direction Z to A.

To specify a patch line to be reserved between a pair of offices, the following option can be used with **any** of the previous **SET:PLRES** options. An example is **SET:PLRES,PLRN=233P624,AZ,OFFPR=OKLDCA11 LFYTCA11.**

,OFFPR=*xxx yyy*—Reserve the patch line for the specified office pair; where *xxx* and *yyy* signify the office pair.

To specify that the patch line is reserved regardless of the telemetry indications, the following option can be used with **any** of the previous **SET:PLRES** options. An example is **SET:PLRES,PLRN=233P624,P,UCL.**

,UCL—Unconditional; means to reserve a patch line or to update its status regardless of what the telemetry indications are.

2.40 UPD:PTCH—Update and verify patch status for a system trouble case.

Options available: The option **=UP** or **=DN** must always be used with this input message. Also, the three initials of the patcher must be supplied (eg, JSL). In the following options, the initials are represented by *xxx* . An example is **UPD:PTCH=UP JSL.**

=UP*xxx*—Indicates a restoration patch put up by *xxx* for current TC, if it verifies.

=DN*xxx*—Indicates a restoration patch taken down by *xxx* for current TC, if it verifies.

To specify a particular system, one of the following options can be used with **any** of the previous **UPD:PTCH** options. An example is **UPD:PTCH=UP JSL,TCN=100X027.**

,P—Indicates a patch for the system in the highest priority TC.

,TCN=*xxx*—Indicates a patch for the system in the specified TC; where *xxx* signifies the TC number.

,SRN=*xxx*—Indicates a patch for the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Indicates a patch for the system with the specified system ID code; where *xxx* signifies the system ID.

To specify a patch type other than a restoration patch, the following option can be used with **any** of the previous **UPD:PTCH** options. An example is **UPD:PTCH=DN JSL,TCN=100X027,MPTCH.**

,MPTCH—Specifies a maintenance patch.

To specify that the patch line is reserved regardless of the telemetry indications, the following option can be used with **any** of the previous **UPD:PTCH** options. An example is **UP:PTCH=UP JSL,MPTCH,UCL.**

,UCL—Unconditional; means to reserve a patch line or to update its status regardless of what the telemetry indications are.

2.41 CLR:PLRES—Clear a patch line reservation.

Options available:

CLR:PLRES (default condition)—Release all restoration patch lines reserved for the system in the current TC.

,MPTCH—Release all maintenance patch lines reserved for the system in the current TC.

,PLRN=*xxx*—Release the patch line, with the specified patch line reference number, for the system in the current TC; where *xxx* signifies the patch line reference number.

,PLID=*xxx*—Release the patch line, with the specified patch line ID code, for the system in the current TC; where *xxx* signifies the patch line ID.

To specify a particular trouble case or system, one of the following options can be used with **any** of the previous **CLR:PLRES** options. An example is **CLR:PLRES,PLRN=233P624,TCN=100X207.**

,P—Release the patch line for the system in the highest priority TC.

,TCN=*xxx*—Release the patch line for the system in the specified TC; where *xxx* signifies the TC number.

,SRN=*xxx*—Release the patch line for the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Release the patch line for the system with the specified ID code; where *xxx* signifies the system ID.

2.42 EXEC:PLTST—Execute a patch line test.

Options available:

EXEC:PLTST (default condition)—Execute a test on the patch line in the current TC in the AZ direction at Z.

,PLRN=*xxx*—Execute a test on the patch line, with the specified patch line reference number, in the current TC in the AZ direction at Z; where *xxx* signifies the patch line reference number.

,PLID=*xxx*—Execute a test on the patch line, with the specified patch line ID code, in the current TC in the AZ direction at Z; where *xxx* signifies the patch line ID.

To specify the ZA direction, the following option can be used with **any** of the previous **EXEC:PLTST** options. An example is **EXEC:PLTST,PLRN=233P624,ZA.**

,ZA—Specifies the ZA direction at A.

To execute a patch line test at a specified office, the following option can be used with **any** of the previous **EXEC:PLTST** options. An example is **EXEC:PLTST,PLRN=233P624,ZA,OFFID=OKLDCA11.**

,OFFID=*xxx*—Specifies the office ID code; where *xxx* signifies the office ID.

2.43 EXEC:LM—Execute line measurements.

Options available:

EXEC:LM (default condition)—Execute a 20-second line measurement at the sectionalization access points, both ways, in all offices with DLMs for the entity in the current TC.

,P—Execute a 20-second line measurement at the sectionalization access points, both ways, in all offices with DLMs for the entity in the highest priority TC.

,TCN=*xxx*—Execute a 20-second line measurement at the sectionalization access points, both ways, in all offices with DLMs for the entity in the specified TC; where *xxx* signifies the TC number.

,SRN=*xxx*—Execute a 20-second line measurement at the sectionalization access points, both ways, in all offices with DLMs for the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Execute a 20-second line measurement at the sectionalization access points, both ways, in all offices with DLMs for the system with the specified system ID code; where *xxx* signifies the system ID.

To execute line measurements in a specified office only, the following option can be used with ***any*** of the previous **EXEC:LM** options. An example is **EXEC:LM,OFFID=OKLDCA11.**

,OFFID=*xxx*—Execute line measurements in the specified office; where *xxx* signifies the office ID.

To specify a certain direction other than both ways, one of the following options can be used with **any** of the previous **EXEC:LM** options. An example is **EXEC:LM,OFFID=OKLDCA11,AZ.**

,AZ—Specifies direction A to Z.

,ZA—Specifies direction Z to A.

To execute line measurements from a given set of access points, one of the following options can be used with **any** of the previous **EXEC:LM** options. An example is **EXEC:LM,OFFID=OKLDCA11,XCON.**

,XIN—Specifies the access points XIN.

,XOUT—Specifies the access points XOUT.

,XCON—Specifies the access point XCON (both XIN and XOUT).

To specify a particular line measurement interval other than a 20-second measurement, one of the following options can be used with **any** of the previous **EXEC:LM** options. An example is **EXEC:LM,OFFID= OKLDCA11,ZA,MIN=3.0.**

,1SEC—Execute a 1-second line measurement.

,MIN=*xxx*—Execute line measurement for the specified number of minutes; where *xxx* signifies the number of minutes.

2.44 OP:LM—Output line measurements.

Options available:

OP:LM (default condition)—Output, on the display screen, the most recent line measurements on the entity in the current TC.

,P—Output, on the display screen, the most recent line measurements on the entity in the highest priority TC.

,TCN=*xxx*—Output, on the display screen, the most recent line measurements on the entity in the specified TC; where *xxx* signifies the TC number.

,SRN=*xxx*—Output, on the display screen, the most recent line measurements on the system with the specified system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Output, on the display screen, the most recent line measurements on the system with the specified system ID code; where *xxx* signifies the system ID.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:LM** options. An example is **OP:LM,TCN=100X027,CP.**

,CP—Output on the printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 46 for a sample output display.

2.45 OP:LINKHS—Output link history showing SCCS data port failures.

Options available: The option **DAPORTID=** must always be used with the basic input message.

,DAPORTID=*xxx*—Output, on the display screen, the history of SCCS data port failures; where *xxx* signifies the data port ID.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:LINKHS** options. An example is **OP:LINKHS,DAPORTID=2,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

See Fig. 47 for a sample output display.

2.46 UPD:MANOTG—Update the T1 System outage time for the preceding month for manual offices.

Options available: The options **OFFID=**, **TOTSYS=**, **OTG1HR=**, and **TOTOTG=** must always be used with this input message. An example is **UPD:MANOTG,OFFID=OKLDCA11,TOTSYS=46,OTG1HR=14, TOTOTG=112.6** The meaning of the options is as follows:

,OFFID=*xxx*—Signifies the office ID; where *xxx* is the office ID.

,TOTSYS=*yyy*—Signifies the total numbers of systems involved, where *yyy* is the actual number of systems.

,OTG1HR=*zzz*—Signifies the total number of systems with over 1 hour outage time; where *zzz* is the actual number of systems.

,TOTOTG=*aaa*—Signifies the total number of outage hours; where *aaa* is the actual number of outage hours.

2.47 UPD:MANREG—Update the CGA register readings for the preceding week for manual offices.

Options available: The options **OFFID=**, **REGS=**, **REGWCGA=**, and **TOTCGA=** must always be used with this input message. An example is **UPD:MANREG,OFFID=OKLDCA11,REGS=84,REGWCGA=14, TOTCGA=213.** The meaning of the options is as follows:

,OFFID=*xxx*—Signifies the office ID; where *xxx* is the actual office ID.

,REGS=*yyy*—Signifies the total number of registers read, where *yyy* is the actual number of registers read.

,REGWCGA=*zzz*—Signifies the total number of registers with CGA counts; where *zzz* is the actual number of registers with CGAs.

,TOTCGA=*aaa*—Signifies the total number of CGA counts for the registers that were read; where *aaa* is the actual number of CGAs.

2.48 UPD:SYSSTAT—Update the status of an unmonitored T1 System.

Options available: The option **ALM** or **CLR** must always be used with this input message.

,ALM—Update the status of the unmonitored system in the current TC to show alarmed, now.

,CLR—Update the status of the monitored system in the current TC to show cleared, now.

To specify a trouble case other than the current trouble case, one of the following options can be used with **any** of the previous **UPD:SYSSTAT** options. An example is **UPD:SYSSTAT,ALM,P.**

,P—Specifies the highest priority TC.

,TCN=*xxx*—Specifies a particular TC; where *xxx* signifies the TC number.

,SRN=*xxx*—Specifies a particular system by its system reference number; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Specifies a particular system by its ID code; where *xxx* signifies the system ID.

To select a certain date and time other than the current date and time, the following option can be used with **any** of the previous **UPD:SYSSTAT** options. An example is **UPD:SYSSTAT,ALM,P,DT=10-07-77 080000.**

,DT=*xxx yyy*—Specifies a particular date and time; where *xxx* and *yyy* signify the date and time, respectively.

2.49 UPD:TASCOTG—Update the T1 System outage time for the preceding week for the Telecommunications Alarm Surveillance and Control (TASC) System monitored offices.

Options available: The options **OFFID=**, **TOTSYS=**, **OTG1HR**, and **TOTOTG=** must always be used with this input message. An example is **UPD:TASCOTG,OFFID=OKLDCA11,TOTSYS=46,OTG1HR=14, TOTOTG=112.6.** The meaning of the options is as follows:

,OFFID=*xxx*—Signifies the office ID; where *xxx* is the office ID.

,TOTSYS=*yyy*—Signifies the total number of systems involved; where *yyy* is the actual number of systems.

,OTG1HR=*zzz*—Signifies the total number of systems with over 1 hour outage time; where *zzz* is the actual number of systems.

,TOTOTG=*aaa*—Signifies the total number of outage hours; where *aaa* is the actual number of outage hours

2.50 UPD:TASCREG—Update the CGA register readings for the preceding week for the TASC monitored offices.

Options available: The options **OFFID=**, **REGS=**, **REGWCGA=**, and **TOTCGA=** must always be used with this input message. An example is **UPD:TASCREG,OFFID=OKLDCA11,REGS=84,REGWCGA=14, TOTCGA=213.** The meaning of the options is as follows:

,OFFID=*xxx*—Signifies the office ID; where *xxx* is the actual office ID.

,REGS=*yyy*—Signifies the total number of registers read; where *yyy* is the actual number of registers read.

,REGWCGA=*zzz*—Signifies the total number of registers with CGA counts; where *zzz* is the actual number of registers with CGAs.

,TOTCGA=*aaa*—Signifies the total number of CGA counts for the registers that were read; where *aaa* is the actual number of CGAs.

C. Data Base Control Input Messages

2.51 The following messages are used by the data base controller (DBC) and are entered from that CDT designated as the data base controller position. For more detailed information on the functions and procedures of the DBC, refer to Section 190-200-310.

2.52 **SET:CONTR**—Set controller for a terminal.

Options available: The option **INTLS=** must always be used with the input message.

SET:CONTR,INTLS=*xxx* (default condition)—Sign on to a CDT, as a maintenance controller; where *xxx* signifies your initials.

,INTLS=*xxx***,DBC**—Sign on to a CDT as a data base controller; where *xxx* signifies your initials.

2.53 **CLR:CONTR**—Clear controller for a terminal.

Options available: None

2.54 **INIT**—Initialize an operator terminal.

Options available: None

2.55 **OP**—Output the next page of the multipage output on the CDT screen.

Options available: None

2.56 **OP:DF**—Output the next page of a system add mask with a derived facility span format.

Options available: None

2.57 **STOP**—Stop the output of a multipage display if one is in progress, or clear a data base mask on the CDT screen.

Options available: None

Note: The following data base control input messages (paragraphs 2.58 through 2.75) can also be entered from the CC.

2.58 **OP:SCCASGN**—Output SCCS scan point assignments.

Options available: The option **SWMACHID=** must always be used with this input message.

OP:SCCASGN,SWMACHID=*xxx* (default condition)—Output, on display screen, a list of the SCCS scan point assignments for the specified switching machine; where *xxx* signifies the switching machine ID.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:SCCASGN** options. An example is **OP:SCCASGN,SWMACHID=OKLDCA11 OKLDCA15,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

2.59 OP:CS—Output corporate structure.

Options available:

OP:CS (default condition)—Output, on display screen, the corporate structure.

,CP—Output, on printer associated with this terminal, the corporate structure.

,RP—Output, on reports printer, the corporate structure.

,SP—Output, on status printer, the corporate structure.

2.60 OP:DBL—Output data base list.

Options available: The option **CAID=**, **OFFID=**,**ALLCA**, or **ALLOFF** must always be used with this input message.

,CAID=*xxx*—Output, on display screen, a list of controlled systems for the specified cable; where *xxx* signifies the cable ID.

,ALLCA—Output, on display screen, a list of all cables in the TCAS data base.

,OFFID=*xxx*—Output, on display screen, a list of controlled systems for the specified office, where *xxx* signifies the office ID.

ALLOFF—Output, on display screen, a list of all offices in the TCAS data base.

To specify that cables or patch lines be listed rather than systems, one of the following options can be used with **any** of the previous **OP:DBL** options. An example is **OP:DBL,OFFID=OKLDCA11,CA.**

,CA—Specifies cables only.

,PL—Specifies patch lines only.

To specify that all or terminating entities be listed rather than those entities that are controlled, one of the following options can be used with **any** of the previous **OP:DBL** options. An example is **OP:DBL,OFFID=OKLDCA11,CA,TERMG.**

,TERMG—Specifies terminating entities only.

,ALL—Specifies all entities.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:DBL** options. An example is **OP:DBL,OFFID=OKLDCA11,CA,TERMG,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

2.61 **OP:EQPTINV**—Output equipment inventory.

Options available: The **OFFID=** option must always be used, unless the **ALL** option is used.

OP:EQPTINV,OFFID=*xxx*—Output, on display screen, the inventory of T1 terminals in the specified office, where *xxx* signifies the office ID.

OP:EQPTINV,ALL—Output, on display screen, the inventory of T1 terminals in all offices.

To specify a certain type of equipment, the following option can be used with **any** of the previous **OP:EQPTINV** options. An example is **OP:EQPTINV,OFFID=OKLDCA11,EQPTCL=T1OR.**

,EQPTCL=*xxx*—Specifies the equipment class (as in the example above), **T1OR** means T1 office repeaters; where *xxx* signifies the equipment class code (see following).

The following equipment class codes are used with the **,EQPTCL=** option:

T1TERM	T1 terminal
T1OR	T1 office repeaters
T1PLR	T1 patch line repeaters
T1RSHLF	T1 repeater shelf.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:EQPTINV** options. An example is **OP:EQPTINV,OFFID=OKLDCA11,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

2.62 **OP:NPL**—Output network portions list.

Options available:

OP:NPL (default condition)—Output, on display screen, the network portions list for this CDT.

,CDT=*xxx*—Output, on display screen, the network portions list for the specified CDT; where *xxx* signifies the CDT number.

,ALL—Output, on display screen, the network portions list for all CDTs.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:NPL** options. An example is **OP:NPL,CDT=4,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

2.63 OP:SWASGN—Output switch assignments.

Options available: The option **REMID=** must always be used with this input message.

OP:SWASGN,REMID=*xxx*—Output, on display screen, the switch assignments for the specified remote; where *xxx* signifies the remote ID.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:SWASGN** options. An example is **OP:SWASGN,REMID=OKLDCA03E01,CP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

2.64 OP:TLMASGN—Output telemetry assignments.

Options available: The option **REMID=** or **DISPLID=** must always be used with this input message.

OP:TLMASGN,REMID=*xxx*—Output, on display screen, the telemetry assignments for the specified remote, where *xxx* signifies the remote ID.

OP:TLMASGN,DISPLID=*xxx yy*—Output, on display screen, the telemetry assignments for a specified remote and display, where *xxx* signifies the remote ID and *yy* signifies the display number.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:TLMASGN** options. An example is **OP:TLMASGN,DISPLID=OKLDCA03E01 8,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

2.65 OP:UNMONEQPT—Output unmonitored equipment.

Options available: The option **OFFID=** must always be used, unless the **ALL** option is used.

OP:UNMONEQPT,OFFID=*xxx*—Output, on display screen, the unmonitored T1 terminals in the specified office; where *xxx* signifies the office ID.

OP:UNMONEQPT,ALL—Output, on display screen, the unmonitored T1 terminals in all offices.

To specify a certain type of equipment, the following option can be used with **any** of the previous **OP:UNMONEQPT** options. An example is **OP:UNMONEQPT,OFFID=OKLDCA11,EQPTCL=T1OR.**

,EQPTCL=*xxx*—Specifies the equipment class (as in the example above), **T1OR** means T1 office repeaters; where *xxx* signifies class code (see following).

The following equipment class codes are used with the **,EQPTCL=** option.

T1TERM	T1 terminals
T1OR	T1 office repeaters

T1PLR T1 patch line repeaters

T1RSHLF T1 repeater shelf.

To specify that the output be printed as hard copy, one of the following options can be used with **any** of the previous **OP:UNMONEQPT** options. An example is **OP:UNMONEQPT,OFFID=OKLDCA11,EQPTCL=T1OR,RP.**

,CP—Output on printer associated with this terminal.

,RP—Output on the reports printer.

,SP—Output on the status printer.

2.66 IN:DATA—Input data.

Note: This input message has two distinct meanings. The meaning is dependent upon the terminal position from where the message is entered. If the message is entered from the CC position, additional information is requested by dialogue with the computer. Refer to Section 190-200-300.

Options available (if entered from the CC position):

IN:DATA (default condition)—Input data from the beginning of the magnetic tape.

,RCDID=*xxx yyy*—Input data starting with the specified block and record; where *xxx* signifies the block and *yyy* signifies the record. For example below, input data from block 38, record 14.

Example—**IN:DATA,RCDID=38 14.**

Options available (if entered from the DBC position):

IN:DATA (default condition)—Input data in an add or change mask into the working files.

,ERROR—Input data in an add mask into the errors file.

,CHGBUF—Input data in a change mask into the change buffer.

2.67 OP:DATAERR—Output data errors.

Note: The basic input message has two distinct meanings. The meaning is dependent upon the terminal where the message is entered. The message will automatically deal with errors entered from magnetic tape input if the message is entered from the CC, and the message will automatically deal with errors entered via the data base terminal if the message is entered from the data base terminal.

If entered from the CC position, the meaning is as follows:

OP:DATAERR (default condition)—Output, on the reports printer, the magnetic tape data errors detected since the last **CLR:DATAERR** (paragraph 2.68) was entered.

If entered from the DBC position, the meaning is as follows:

OP:DATAERR (default condition)—Output, on the CDT printer, the most recent input data errors.

The following options are common to both terminals.

Options available:

,NR—Output all nonreported input data errors.

,ERN=*xxx*—Output input data errors with the specified error reference number; where *xxx* signifies the error reference number.

,DISPL—Output all telemetry display assignment input data errors.

,BIT—Output all telemetry bit assignment input data errors.

,SGRP—Output all directed line monitor (DLM) subgroup input data errors.

,PT—Output all DLM switch point input data errors.

,RAUSHLF—Output all DLM repeater access unit shelf input data errors.

,OFF—Output all office input data errors.

,CA—Output all cable input data errors.

,ALIAS—Output all alias input data errors.

,REM—Output all remote input data errors.

,NPOFF—Output all network portion office assignment input data errors.

,TELCO—Output all TELCO input data errors.

,CSDEPT—Output corporate structure department input data errors.

,CSART—Output all corporate structure area/region/territory input data errors.

,CSDIV—Output all corporate structure division input data errors.

,CSDIST—Output all corporate structure district input data errors.

,CSSUBD—Output all corporate structure subdistrict input data errors.

,CSOFF—Output all corporate structure office input data errors.

,DAPORT—Output all data port input data errors.

,CMSSYS—Output all CMS monitored system flag input data errors.

,E2APORT—Output all E2A telemetry port input data errors.

,SWMACH—Output all switching machine input data errors.

,SNPT—Output all scan point input data errors.

,SYS—Output all system input data errors.

,PL—Output all patch line input data errors.

,ALL—Output all input data errors.

,ALLDBC—Output all input data errors for DBCs.

To specify the terminal position where the input data errors were entered, one of the following can be used with **any** of the previous **OP:DATAERR** options. An example is **OP:DATAERR,NR,DBC.**

,DBC—Data base controller position.

,CC—Computer control position.

To specify that the hard copy output be routed to one of the line printers, one of the following options can be used with **any** of the previous **OP:DATAERR** options. An example is **OP:DATAERR,NR,DBC,RP.**

,RP—Output on the reports printer.

,SP—Output on the status printer.

2.68 **CLR:DATAERR**—Clear data errors.

Note: The basic input message has two distinct meanings. The meaning is dependent upon the terminal where the message is entered. The message will automatically deal with errors entered from magnetic tape input if the message is entered from the CC, and the message will automatically deal with errors entered via the data base terminal if the message is entered from the data base terminal.

Options available (if entered, from the CC position):

CLR:DATAERR (default condition)—Clear all magnetic tape input data errors.

Options available (if entered from the DBC position:

CLR:DATAERR (default condition)—Clear all reported DBC input data errors.

,ERN=*xxx*—Clear DBC input data errors with the specified error reference number; where *xxx* signifies the error reference number.

Note: If the following input messages (paragraphs 2.69 and 2.70) are entered from the CC, the resulting output is automatically routed to the reports printer, unless the operator specifies that the output be routed to the status printer. If the messages are entered from a CDT, the resulting output is routed to the printer associated with that CDT, unless the operator specifies that the output be routed to one of the line printers.

2.69 **OP:CHGLOG**—Output change log.

Options available:

OP:CHGLOG (default condition)—Output the nonreported entries in the change log.

,ALL—Output all entries in the change log.

To specify that the hard copy output be routed to one of the line printers, one of the following options can be used with **any** of the previous **OP:CHGLOG** options. An example is **OP:CHGLOG,ALL,SP.**

,RP—Output on the reports printer.

,SP—Output on the status printer.

2.70 OP:DLTLOG—Output delete log.

Options available:

OP:DLTLOG (default condition)—Output the nonreported entries in the delete log.

,ALL—Output all entries in the delete log.

To specify that the hard copy output be routed to one of the line printers, one of the following options can be used with **any** of the previous **OP:DLTLOG** options. An example is **OP:DLTLOG,ALL,SP.**

,RP—Output on the reports printer.

,SP—Output on the status printer.

2.71 OP:CHGBUF—Output contents of data base change buffer.

Options available:

OP:CHGBUF (default condition)—Output, on the printer associated with this terminal, the contents of data base change buffer.

,RP—Output, on reports printer, the contents of data base change buffer.

,SP—Output, on status printer, the contents of data base change buffer.

2.72 EXEC:CHGBUF—Execute data base changes in change buffer.

Options available:

EXEC:CHGBUF (default condition)—Execute immediately all data base changes in change buffer.

,CHGRCDS=*xxx yyy*—Execute immediately data base changes from the first change record specified to the last change record specified; where *xxx* signifies the first change record, and *yyy* signifies the last change record. For example following, execute data base changes from record 5 through record 10.

To specify that the execution of data base changes takes place at some time other than immediately, the following option can be used with **any** of the previous **EXEC:CHGBUF** options. An example is **EXEC:CHGBUF,CHGRCDS=5 10,SCHED.**

,SCHED—Execute data base changes at the preset task intervals.

2.73 CLR:CHGBUF—Clear data base change buffer.

Options available: None

2.74 **SET:DBQT**—Set data base quiet time.

Options available: None

Note: Confirmation is requested through a dialogue with the computer.

2.75 **CLR:DBQT**—Clear data base quiet time.

Options available: None

2.76 **OP:ADDMSK**—Output a data base add mask.

Options available:

OP:ADDMSK (default condition)—Output a data base add mask for adding a T1 System.

,ERN=*xxx*—Output a data base add mask for adding corrected information from the errors file; where *xxx* signifies the error reference number.

Note: For the options **,DISPL** and **,BIT**, supplemental dialogue responses are required following the basic mask request.

,DISPL—Output a data base add mask for adding a telemetry display.

,BIT—Output a data base add mask for adding a telemetry bit assignment.

,SGRP—Output a data base add mask for adding a DLM subgroup.

,PT—Output a data base add mask for adding a DLM switch point.

,RAUSHLF—Output a data base add mask for adding a DLM repeater access unit shelf.

,OFF—Output a data base add mask for adding an office.

,CA—Output a data base add mask for adding a cable.

,ALIAS—Output a data base add mask for adding an alias.

,REM—Output a data base add mask for adding a remote.

,NPOFF—Output a data base add mask for adding the network portion assignments for an office.

,TELCO—Output a data base add mask for adding a telephone company.

,CSDEPT—Output a data base add mask for adding the corporate structure assignment for a department.

,CSART—Output a data base add mask for adding the corporate structure assignment for an area, region, or territory.

,CSDIV—Output a data base add mask for adding the corporate structure assignment for a division.

,CSDIST—Output a data base add mask for adding the corporate structure assignment for a district.

,CSSUBD—Output a data base add mask for adding the corporate structure assignment for a subdistrict.

,CSOFF—Output a data base add mask for adding the corporate structure assignment for an office.

,DAPORT—Output a data base add mask for assigning a computer data port.

,CMSSYS—Output a data base add mask for flagging a system as CMS monitored.

,E2APORT—Output a data base add mask for assigning switching machines to E2A data ports.

,SWMACH—Output a data base add mask for assigning switching machines to TCAS terminal offices.

,SNPTID=*xxx*—Output a data base add mask for assigning switching machine scan points, beginning with a block of 16 which includes the scan point specified by *xxx*.

,PL—Output a data base add mask for adding a patch line.

2.77 **OP:CHGMSK**—Output a data base change mask.

Options available (one of the following options **must always** be used with the basic **OP:CHGMSK** input message):

,DISPLID=*xxx*—Output a data base change mask for changing the assignment of the specified telemetry display; where *xxx* signifies the telemetry display ID.

,BITID=*xxx*—Output a data base change mask for changing the assignment of the specified telemetry bit; where *xxx* signifies the telemetry bit ID.

,SGRPID=*xxx*—Output a data base change mask for changing the assignment of the specified DLM subgroup; where *xxx* signifies the subgroup ID.

,PTID=*xxx*—Output a data base change mask for changing the assignment of the specified DLM switch point; where *xxx* signifies the switch point ID.

,RAUSHLFID=*xxx*—Output a data base change mask for changing the assignment of the specified DLM repeater access unit shelf; where *xxx* signifies the repeater access unit shelf ID.

,OFFID=*xxx*—Output a data base change mask for changing the specified office; where *xxx* signifies the office ID.

,CAID=*xxx*—Output a data base change mask for changing the specified cable; where *xxx* signifies the cable ID.

,ALIASID=*xxx*—Output a data base change mask for changing the specified alias; where *xxx* signifies the alias ID.

,REMID=*xxx*—Output a data base change mask for changing the assignment of the specified remote; where *xxx* signifies the remote ID.

,NPOFFID=*xxx*—Output a data base change mask for changing the network portion assignments for the specified office; where *xxx* signifies the office ID.

TELCOID=*xxx*—Output a data base change mask for changing the specified telephone company; where *xxx* signifies the telephone company ID.

,**CSDEPTID**=*xxx*—Output a data base change mask for changing the corporate structure assignment of the specified department; where *xxx* signifies the department ID.

,**CSARTID**=*xxx*—Output a data base change mask for changing the corporate structure assignment of the specified area, region, or territory; where *xxx* signifies the area, region, or territory ID.

,**CSDIVID**=*xxx*—Output a data base change mask for changing the corporate structure assignment of the specified division; where *xxx* signifies the division ID.

,**CSDISTID**=*xxx*—Output a data base change mask for changing the corporate structure assignment of the specified district; where *xxx* signifies the district ID.

,**CSSUBDID**=*xxx*—Output a data base change mask for changing the corporate structure assignment of the specified subdistrict; where *xxx* signifies the subdistrict ID.

,**CSOFFID**=*xxx*—Output a data base change mask for changing the corporate structure assignment of the specified office; where *xxx* signifies the office ID.

,**DAPORTID**=*xxx*—Output a data base change mask for changing the specified computer data port assignment; where *xxx* signifies the computer data port number.

,**E2APORTID**=*xxx*—Output a data base change mask for changing the specified E2A data port assignment; where *xxx* signifies the E2A data port ID.

,**SWMACHID**=*xxx*—Output a data base change mask for changing the specified switching machine assignment; where *xxx* signifies the switching machine ID.

,**SNPTID**=*xxx*—Output a data base change mask for changing the specified ESS scan point assignment; where *xxx* signifies the ESS scan point ID.

,**SYSID**=*xxx*—Output a data base change mask for changing the specified system; where *xxx* signifies the system ID.

,**PLID**=*xxx*—Output a data base change mask for changing the specified patch line; where *xxx* signifies the patch line ID.

2.78 EXEC:DLT—Execute a delete.

Options available (one of the following options **must always** be used with the basic **EXEC:DLT** input message):

,**DISPLID**=*xxx*—Delete the assignment for the specified telemetry display; where *xxx* signifies the telemetry display ID.

,**BITID**=*xxx*—Delete the assignment for the specified telemetry bit; where *xxx* signifies the telemetry bit ID.

,**SGRPID**=*xxx*—Delete the assignment for the specified DLM subgroup; where *xxx* signifies the subgroup ID.

,**PTID**=*xxx*—Delete the assignment for the specified DLM switch point; where *xxx* signifies the switch point ID.

,**RAUSHLFID**=*xxx*—Delete the assignment for the specified DLM repeater access unit shelf; where *xxx* signifies the repeater access unit shelf ID.

,**OFFID**=*xxx*—Delete the specified office; where *xxx* signifies the office ID.

,**CAID**=*xxx*—Delete the specified cable; where *xxx* signifies the cable ID.

,**ALIASID**=*xxx*—Delete the specified alias; where *xxx* signifies the alias ID.

,**REMID**=*xxx*—Delete the assignment for the specified remote; where *xxx* signifies the remote ID.

,**NPOFFID**=*xxx*—Delete the network portion assignments for the specified office; where *xxx* signifies the office ID.

,**TELCOID**=*xxx*—Delete the specified telephone company; where *xxx* signifies the telephone company ID.

,**CSDEPTID**=*xxx*—Delete the corporate structure assignment for the specified department; where *xxx* signifies the department ID.

,**CSARTID**=*xxx*—Delete the corporate structure assignment for the specified area, region, or territory; where *xxx* signifies the area, region, or territory ID.

,**CSDIVID**=*xxx*—Delete the corporate structure assignment for the specified division; where *xxx* signifies the division ID.

,**CSDISTID**=*xxx*—Delete the corporate structure assignment for the specified district; where *xxx* signifies the district ID.

,**CSSUBDID**=*xxx*—Delete the corporate structure assignment for the specified subdistrict; where *xxx* signifies the subdistrict ID.

,**CSOFFID**=*xxx*—Delete the corporate structure assignment for the specified office; where *xxx* signifies the office ID.

,**DAPORTID**=*xxx*—Delete the specified computer data port assignment; where *xxx* signifies the computer data port number.

,**E2APORTID**=*xxx*—Delete the specified E2A data port assignment; where *xxx* signifies the E2A data port ID.

,**SWMACHID**=*xxx*—Delete the specified switching machine assignment; where *xxx* signifies the switching machine ID.

,**SNPTID**=*xxx*—Delete the specified ESS scan point assignment; where *xxx* signifies the ESS scan point ID.

,**SYSID**=*xxx*—Delete the specified system; where *xxx* signifies the system ID.

,**PLID**=*xxx*—Delete the specified patch line; where *xxx* signifies the patch line ID.

D. Computer Control Console Input Messages

2.79 The following messages are used by the computer control operator and are entered from the CC. For more detailed information on operations relating to the CC, refer to Section 190-200-300.

Note: Some of the MC and DBC input messages are common to the CC position and can be entered from the CC position. For maintenance control input messages that can be entered at the CC, refer to paragraphs 2.10 through 2.26. For data base control input messages that can also be entered at the CC, refer to paragraphs 2.58 through 2.75.

2.80 **CFR:DISCIM**—Configure magnetic tape for disc image dump.

Note: Additional information is requested through a dialogue with the computer.

Options available: None

2.81 **EXEC:DISCIM**—Execute dump of disc image to magnetic tape.

Option available:

EXEC:DISCIM (default condition)—Execute dump of disc image to magnetic tape.

,DISCPRTN=OPSYS—Execute dump of disc image, of operating system and programs only, to magnetic tape.

2.82 **STOP:DISCIM**—Stop dump of disc image to magnetic tape.

Options available: None

2.83 **OP:MTCON**—Output magnetic tape table of contents.

Options available: None

2.84 **STOP:MTCON**—Stop output of magnetic tape table of contents.

Options available: None

2.85 **EXEC:DLMTST**—Execute a DLM test.

Options available: The option **REMID=** must always be used with this input message.

EXEC:DLMTST,REMID=*xxx*—Execute a DLM test on the DLM for the remote with the specified remote ID code; where *xxx* signifies the remote ID.

2.86 **OP:TLMSTAT**—Output telemetry status.

Options available:

OP:TLMSTAT (default condition)—Output, on display screen, the status of all TCTs and remotes out of service.

,REMID=*xxx*—Output, on display screen, the status of the specified remote and its associated TCT; where *xxx* signifies the remote ID.

,TCT=*xxx*—Output, on display screen, the status of the specified TCT and its associated remotes; where *xxx* signifies the TCT number.

,ALL—Output, on display screen, the status of all TCTs and remotes.

2.87 OP:TLMERR—Output telemetry errors.

Options available: None

2.88 CFR:TCTTST—Configure TCT test.

Note: Additional information is requested through a dialogue with the computer.

Options available: None

2.89 EXEC:TCTTST—Execute a TCT test.

Options available: None

2.90 CFR:TLMTST—Configure a telemetry test.

Note: Additional information is requested through a dialogue with the computer.

Options available: None

2.91 EXEC:TLMTST—Execute a telemetry test.

Options available: None

2.92 RMV:UN—Remove a unit from service.

Options available (one of the following options **must always** be used with the basic **RMV:UN** input message):

,TCT=*xxx*—Remove the specified TCT from service; where *xxx* signifies the TCT number.

,REMID=*xxx*—Remove the specified remote from service; where *xxx* signifies the remote ID.

2.93 RST:UN—Restore a unit to service.

Options available (one of the following options **must always** be used with the basic **RST:UN** input message):

,TCT=*xxx*—Restore the specified TCT to service; where *xxx* signifies the TCT number.

,REMID=*xxx*—Restore the specified remote to service; where *xxx* signifies the remote ID.

2.94 SET:WKDIST—Set work distribution options.

Options available:

SET:WKDIST (default condition)—Set least load and network portions options for all CDTs.

,NOLL—Set network portions only, no least load, for all CDTs.

,NONP—Set least load only, no network portions, for all CDTs.

,NOLL,NONP—Set no network portions or least load for all CDTs; thus, all work is directed to CDT 1.

To specify a particular CDT, the following option can be used with **any** of the previous **SET:WKDIST** options. An example is **SET:WKDIST,NOLL,CDT=4.**

,CDT=*xxx*—Specifies a specific CDT terminal; where *xxx* signifies the CDT number.

2.95 UPD:PRMTR—Update parameters.

Note: Additional information is requested through a dialogue with the computer.

Options available: None

2.96 OP:PRMTR—Output parameters.

Options available: None

2.97 SET:AUTOACO—Set automatic alarm cutoff, for all offices where data base entries premit alarm cutoff.

Options available: None

2.98 CLR:AUTOACO—Clear automatic alarm cutoff.

Options available: None

2.99 DU:DBRCD—Dump data base records.

Note: Additional information is requested through a dialogue with the computer.

Options available:

DU:DBRCD (default condition)—Dump data base records in the office file by index range.

,FILE=*xxx*—Dump data base records in the specified file by index range; where *xxx* signifies the file name.

To specify a particular key type, one of the following options can be used with any of the previous **DU:DBRCD** options. An example is **DU:DBRCD,FILE=SYSTEM,AKEY.**

,ADDR=*xxx*—Dump data base records with the specified record address; where *xxx* signifies the record address.

,ALL—Dump all data base records in a particular file.

,OKEY—Dump data base records using an octal key.

,AKEY—Dump data base records using an ASCII key.

2.100 STOP:DBRCD—Stop dump of data base records.

Options available: None

2.101 **EXEC:CMSADT**—Execute data base audit on CMS office.

Options available: The option **OFFID=** must always be used with this input message.

EXEC:CMSADT,OFFID=*xxx* (default condition)—Execute a data base audit on CMS at the specific office; where *xxx* signifies the office ID.

2.102 **EXEC:CMSTST**—Execute test on CMS telemetry link.

Options available: The option **OFFID=** must always be used with this input message.

EXEC:CMSTST,OFFID=*xxx* (default condition)—Execute a test on the CMS telemetry link for the specified office; where *xxx* signifies the office ID.

2.103 **SW:LANG**—Switch CC language to RTE command language.

Note: This command is provided for debugging purposes only and will not be used during normal TCAS operations.

Options available: None

2.104 **CFR:LGTP**—Configure log tape to receive data.

Note: Additional information is requested through a dialogue with the computer.

Options available: None

2.105 **STOP:LGTP**—Stop output of data to log tape and terminate data base log tape operations.

Options available: None

2.106 **UPD:MONSYSTEM**—Update status of a monitored T1 System.

Options available: The options **ALM** or **CLR**, and **P**, or **TCN=**, **SRN=** or **SYSID=** must always be used with this input message. An example is **UPD:MONSYSTEM,CLR,TCN=100X027**. The meaning of the options is as follows:

,ALM—Update the status of the monitored system to show alarmed.

,CLR—Update the status of the monitored system to show clear.

,P—Update the status of the monitored system in the highest priority TC.

,TCN=*xxx*—Update the status of the monitored system in the specified TC; where *xxx* signifies the TC number.

,SRN=*xxx*—Update the status of the specified system; where *xxx* signifies the system reference number.

,SYSID=*xxx*—Update the status of the specified system; where *xxx* signifies the system ID.

2.107 **EXEC:TASK**—Execute a task from the list of schedulable tasks.

Options available: None, but this input message must always be inputted to the computer as follows:

EXEC:TASK=*xxx*—Execute the specified task; where *xxx* signifies the task number from the scheduled task list (refer to paragraph 3.40).

Note: Confirmation is requested through a dialogue with the computer.

2.108 STOP:DATA—Stop the execution of data base input from magnetic tape.

Options available: None

3. DISPLAYS AND REPORTS

A. Introduction

3.01 The CDT displays are the primary work aids for the MC. The CDT displays include the status of an entity, failure information, any recent activity, location of the trouble, patching information, equipment locations, plus other facts to aid in restoring failed systems or patch lines.

3.02 Also, a variety of reports can be generated with TCAS to provide a clear picture of the performance of the metropolitan digital network. These reports include the following information:

- Failure frequency and duration statistics by control office for various levels of the administrative hierarchy
- Failure statistics for each span
- Maintenance and backbone line utilization
- Breakdown of troubles isolated to a span line, terminal, work activity, etc.

3.03 One report that is generated every 2 hours on the status printer is the Backup List of Currently Open Trouble Cases. This report permits initiation of manual operations in the event of a TCAS central failure by always having reasonably current information available.

3.04 The reports printer produces the various periodic reports; also, some demand reports are automatically outputted from a predetermined schedule, but may also be requested at any time.

3.05 If a printer is *busy,* all other reports requests will be *stacked* until the printer is free.

B. Maintenance Controller Displays

3.06 The viewing screen of the CDT is divided into three areas: work, summary, and display. The work and summary areas are always displayed (Fig. 1). The work area, upper portion of the screen, is where the input messages are typed in and displayed. Immediately to the right of the input message, the status of the request is displayed. The status of the computer and the number of E-telemetry data facilities and remotes that are down are also shown. The summary area, bottom portion of the screen, consists of four lines of information. The first line lists the identification of the current trouble case. The second line lists the same information for the highest priority active trouble case for this CDT. The third line lists the number of active and deferred trouble cases assigned to this CDT. The fourth line lists the number of active and deferred trouble cases for all CDTs. The display area is located in the center portion of the screen (Fig. 2 through 47). For clarity, the work and summary areas have been omitted on these figures. The display area shows various information contained in the data

base and operating files of the computer. These displays, requested by input messages, contain status or layout information used by the MC to analyze troubles and coordinate restoration. In the upper right of each display, a page number is listed. For multipage displays, the next page is obtained by using the **OP** input message (paragraph 2.07).

3.07 The displays shown in Fig. 1 and Fig. 27 through 41 are dynamic and are updated as changes occur. The other displays are nondynamic and are not updated as changes occur. In Fig. 27 through 41 if the **OP:TC** or **OP:ST** input messages are used, the normally dynamic displays become nondynamic.

① Most recent input messages. Latest message on bottom line.

② Status of each input message: (SCHEDULED, IN PROGRESS, COMPLETE, PAGE COMPLETE, REJECTED, STOPPED). A message reference number may also appear here on errors and certain input functions. "PAGE COMPLETE" indicates a multipage report is being displayed. Input message **OP** will display the next page. "COMPLETE" appears when the final page is displayed.

③ Status of the computer: ACTIVE. Number of E telemetry data facilities and remote stations that are down. Appropriate status and identification messages appear here briefly when E facilities or remotes fail or restore.

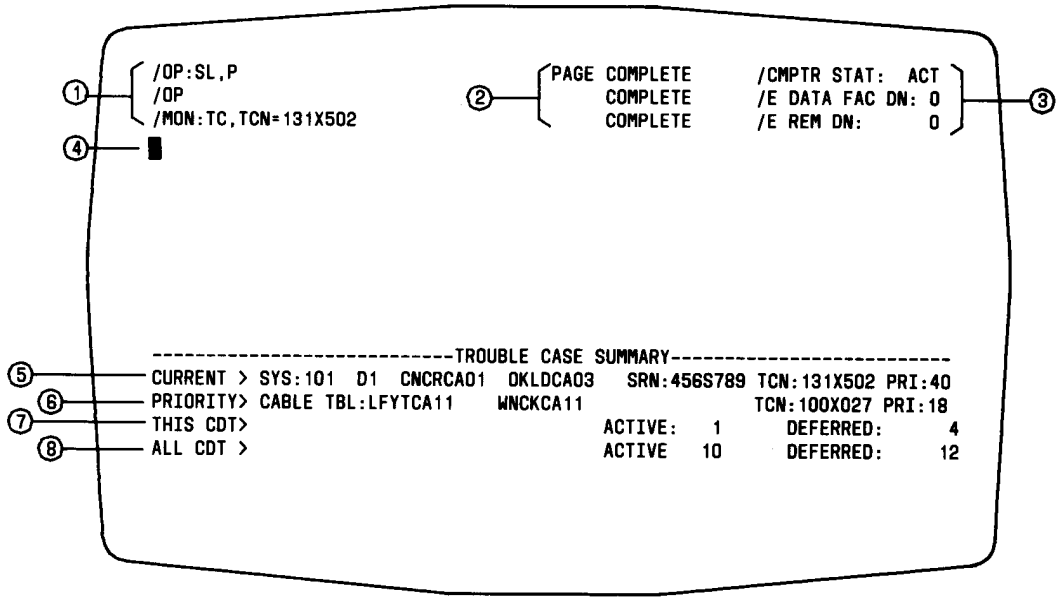
④ Start location for cursor. The cursor must be in this position for ALL input messages.

⑤ Current trouble case (CTC). In this example the CTC is a T1 system.
System ID
System reference number
Trouble case number
Priority.

⑥ Priority trouble case. If there is a higher level TC it appears here.
Span offices for cable
Trouble case number
Priority.

⑦ Summary of active and deferred trouble cases for this CDT.

⑧ Summary of active and deferred trouble cases for all CDT's.



These fields are always displayed

Fig. 1—Work and Summary Areas

NOTE: This sample display lists the cables in a selected T1 system route which are involved in cable pattern trouble cases.

① Typical input message for this sample display.

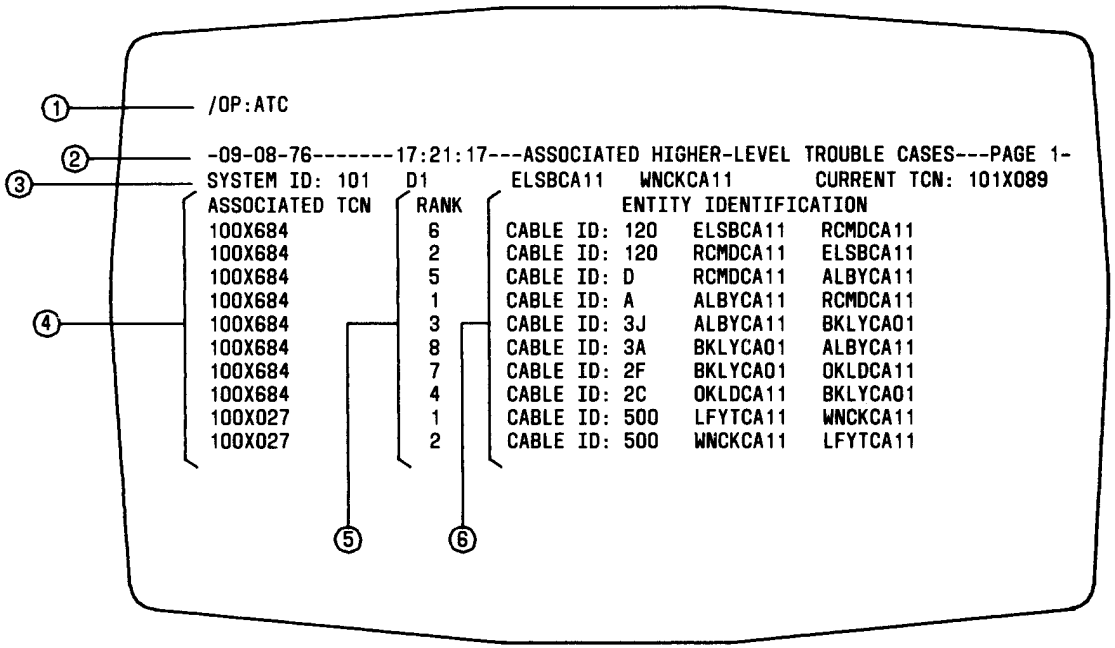
② Present date and time.

③ System ID or patten group number for the selected TC.

④ Associated trouble case numbers.

⑤ Rank of each cable in its trouble case (if the associated TC is a cable TC).

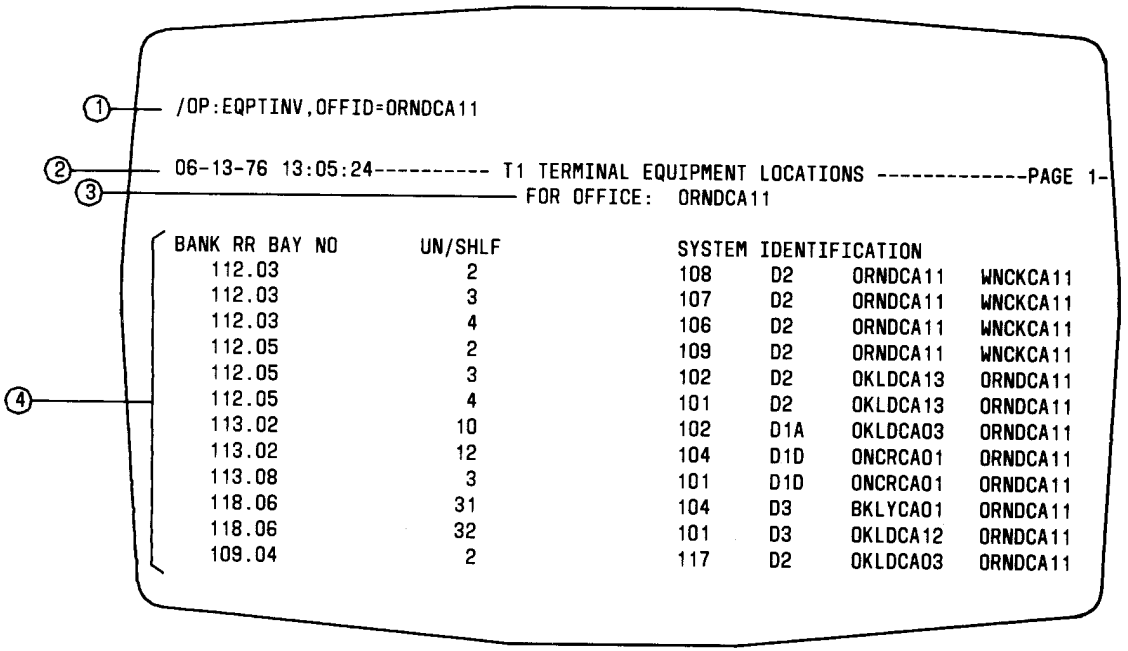
⑥ Entity, ID's. This sample follows the route of the selected system.



INPUT MESSAGES - OP:ATC
OP (for next page of multipage output)

Fig. 2—Associated Higher Level Trouble Cases

① Typical input message for this sample display.
② Present date and time.
③ Selected office.
④ Equipment locations and identifications.



INPUT MESSAGES – OP:EQPTINV
OP(for next page of multipage output)

Fig. 3—T1 Terminal Equipment Locations

① Typical input message for this sample display.

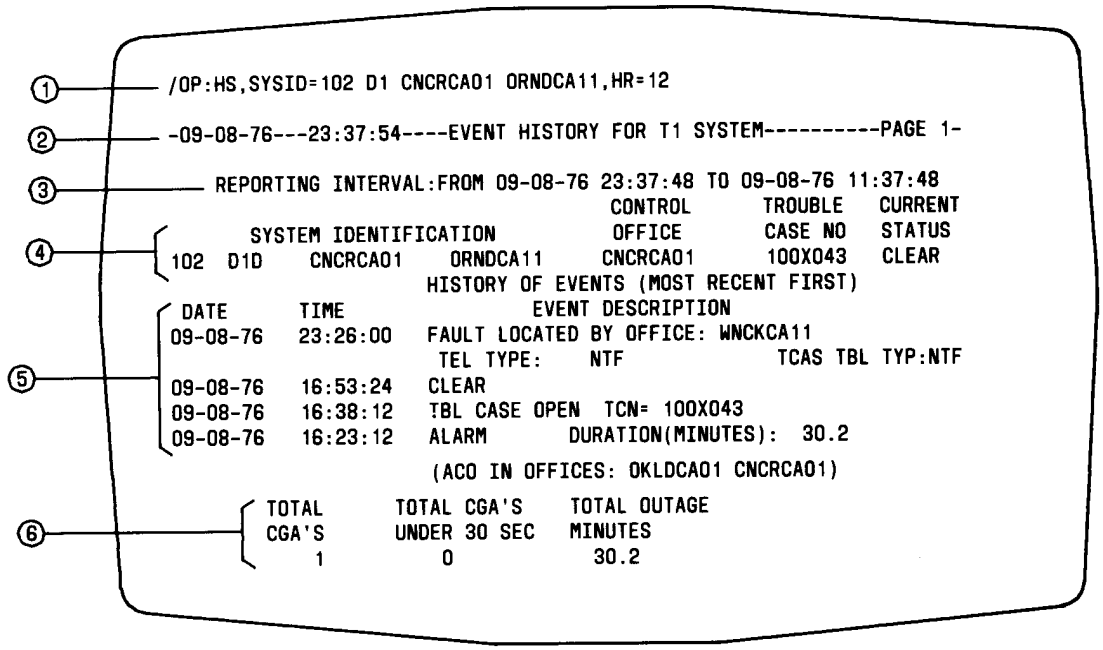
② Present date and time.

③ Reporting interval. In this example the input message specified the last 12 hours. If no interval is supplied with the input message, the event history for the last 14 days is displayed.

④ System ID, control office, TC number, current status.

⑤ History of events.
Date, time, and event description.

⑥ CGA and outage information
Total number of CGA'S
Total CGA'S under 30 seconds [HITS]
Total outage time.



INPUT MESSAGES - OP:HS
OP (for next page of multipage output)

Fig. 4—T1 System Event History

① Typical input message for this sample display.

② Present date and time.

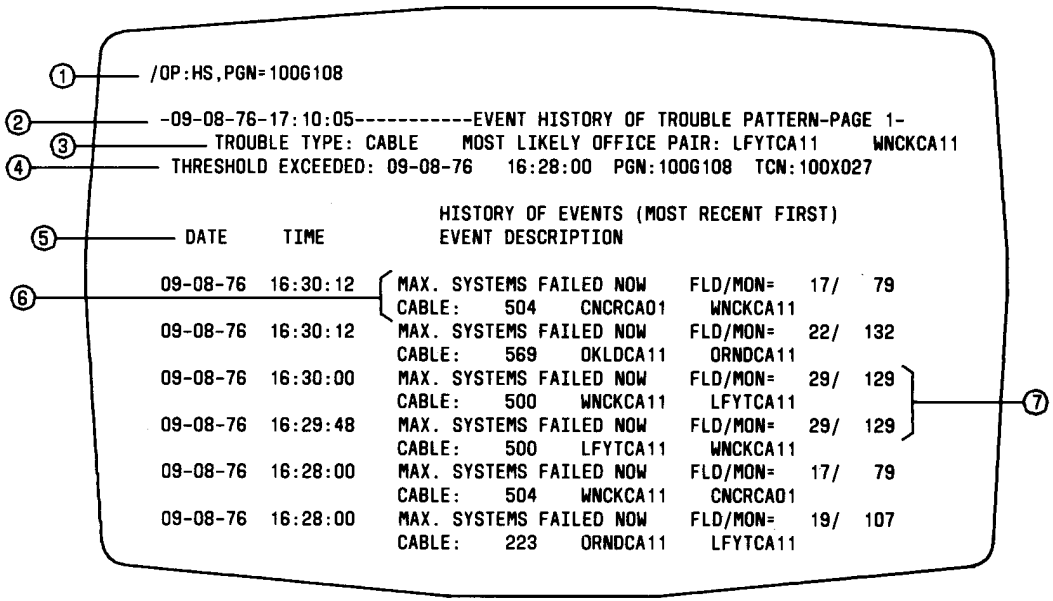
③ Trouble type and office pair for the most likely trouble span.

④ Date and time the first threshold was exceeded.
Pattern group number
Trouble case number.

⑤ Date and time each cable in pattern exceeded a threshold.

⑥ System information for each cable at the time a threshold was exceeded.
Cable, number failed. This number is not updated. It remains the number of systems failed at the time the threshold was exceeded.
Number monitored.

⑦ Because the systems in this span (LFYTCA11 WNCKCA11) had more failures, it was picked as the most likely trouble span. The cable (500 LFYTCA11 WNCKCA11) will appear as the first rank cable in the cable trouble case.



INPUT MESSAGES - OP:HS
OP (for next page of multipage output)

Fig. 5—Trouble Pattern Event History

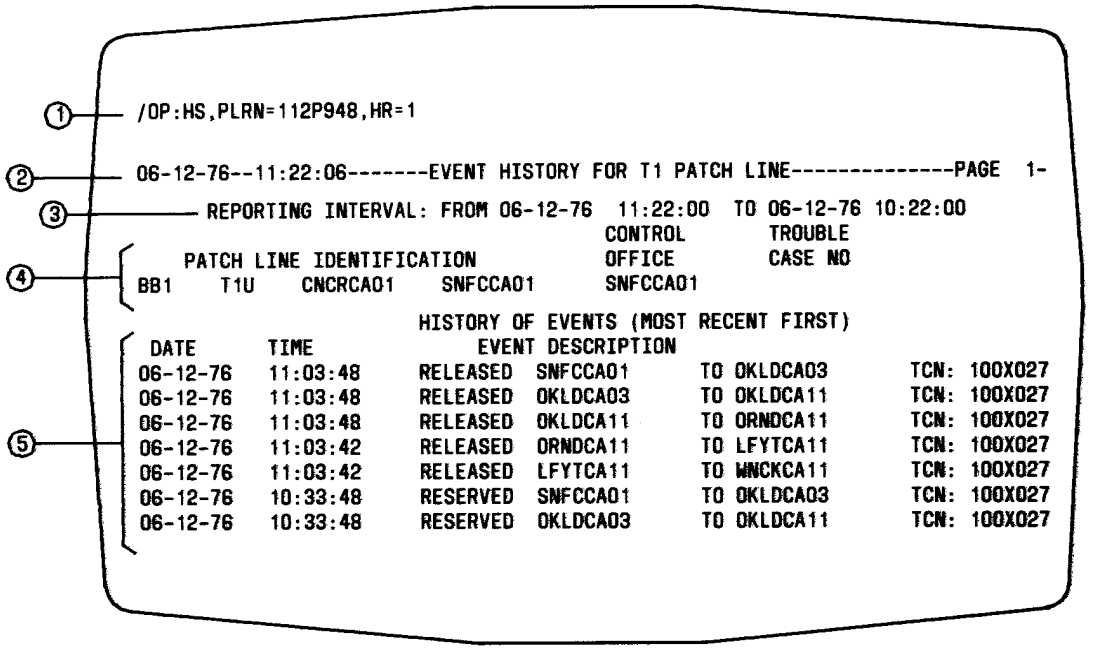
① Typical input message for this sample display.

② Present date and time.

③ Reporting interval. In this example the input message specified for the last hour. If no interval is supplied with the input message, the event history for the last 14 days is displayed.

④ Patch line ID, control office, and trouble case number.

⑤ History of events. Date, time, and event description.



INPUT MESSAGES - OP:HS

OP (for next page of multipage output)

Fig. 6—T1 Patch Line Event History

① Typical input message for this sample display. If the office pair option (OFFPR=) is not used, the layout of the terminal offices is displayed.

② Present date and time.

③ Selected system ID and control office.

④ Direction of transmission

⑤ Bank (terminal) relay rack bay number and unit/shelf.

⑥ Repeater relay rack bay number, unit/shelf, position, and side.

⑦ DSX-1 orBTA bay number, unit/shelf, and position, if so equipped.

⑧ Assigned cable information.

⑨ The above information is supplied for the other direction (ELSBCA11 CNCRCA01).

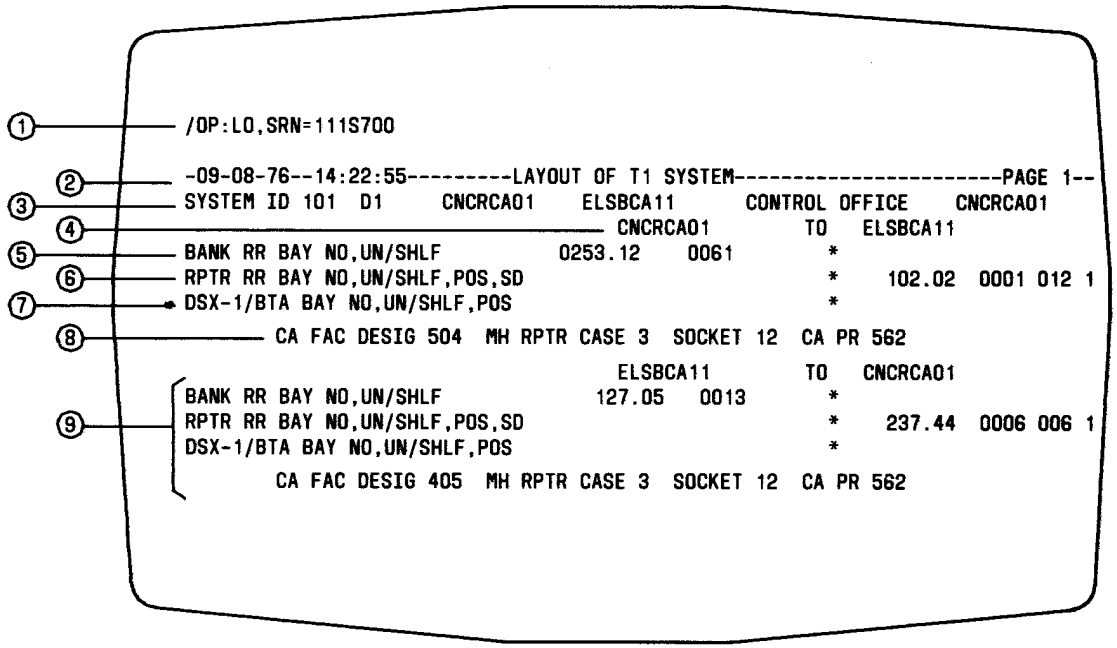


Fig. 7—Layout of a T1 System

① Typical input message for this sample display.
② Present date and time.
③ Selected patch line ID and control office.
④ Direction of transmission.
⑤ Repeater relay rack bay number, unit/shelf, position, and side.
⑥ DSX-1 or BTA bay number, unit/shelf, and position, if so equipped.
⑦ Assigned cable information.
⑧ The above information is supplied for the other direction (WNCKCA11 CNCRCA01).

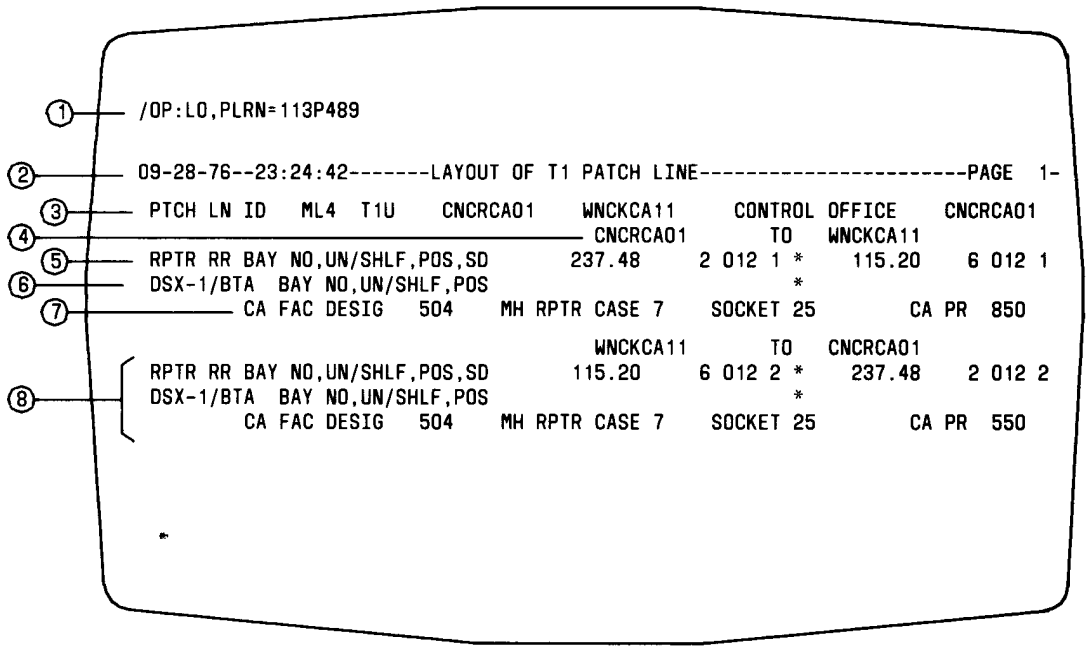


Fig. 8—Layout of a T1 Patch Line

① Typical input message for this sample display.

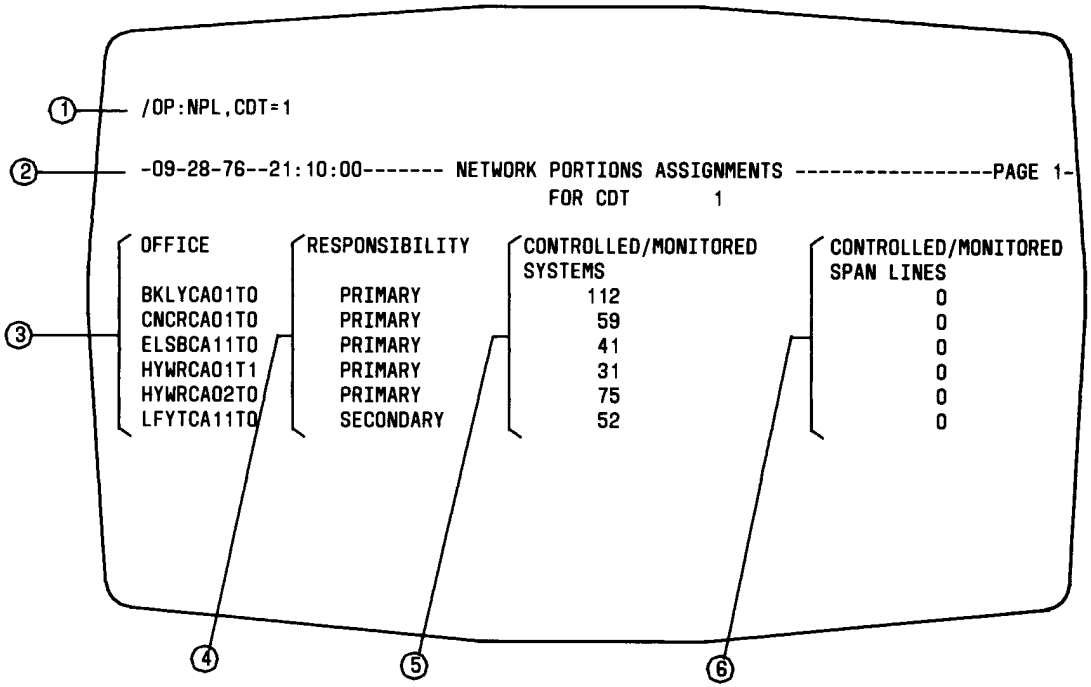
② Present date and time.

③ Offices that are assigned to the selected CDT.

④ Level of responsibility this CDT has for the listed offices - primary or secondary. The offices shown as secondary for this CDT will be treated as primary if their normally assigned CDT is out-of-service.

⑤ Number of TCAS monitored systems controlled by each office.

⑥ Number of span lines in this office that are assigned to TCAS monitored systems.



INPUT MESSAGES – OP:NPL
OP(for next page of multipage output)

Fig. 9—Network Portions Assignments

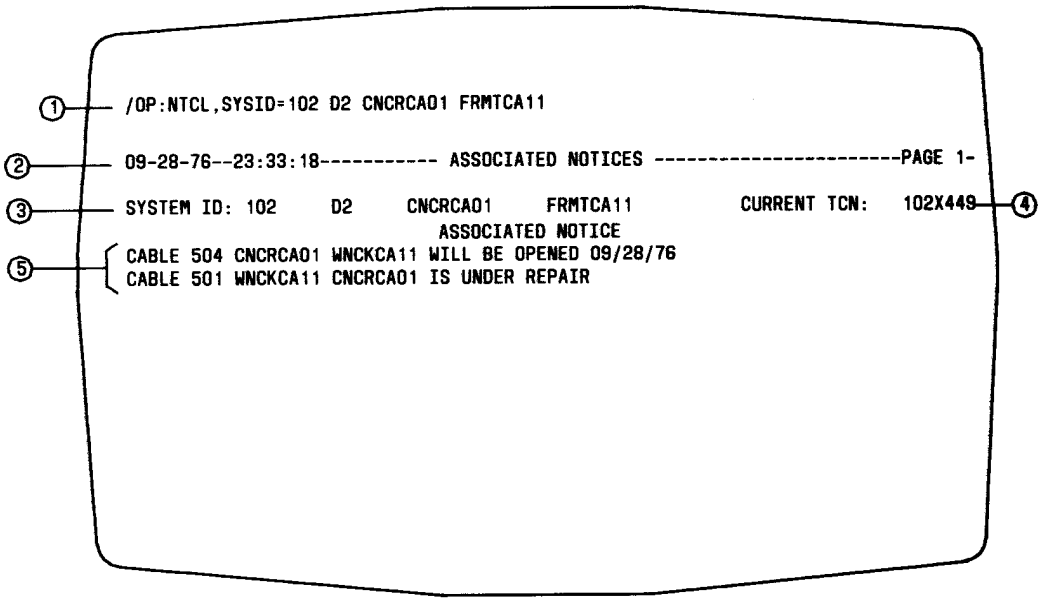
① Typical input message for this sample display.

② Present date and time.

③ Selected entity-cable, system or patch line.

④ Trouble case number of selected entity, if one is opened.

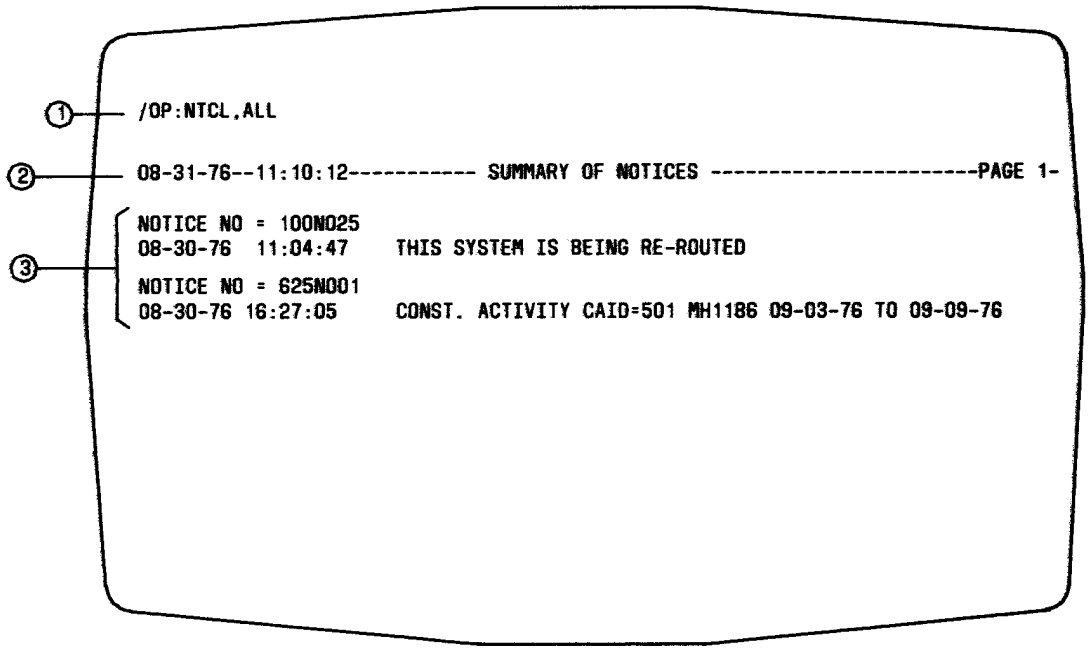
⑤ List of notices.



INPUT MESSAGES - OP:NTCL
OP(for next page of multipage output)

Fig. 10—Associated Notices

① Input message for this sample display.
② Present date and time.
③ List of all posted notices.



INPUT MESSAGES - OP:NTCL,ALL
OP(for next page of multipage output)

Fig. 11—Summary of Notices

① Typical input message for this sample display.

② Present date and time.

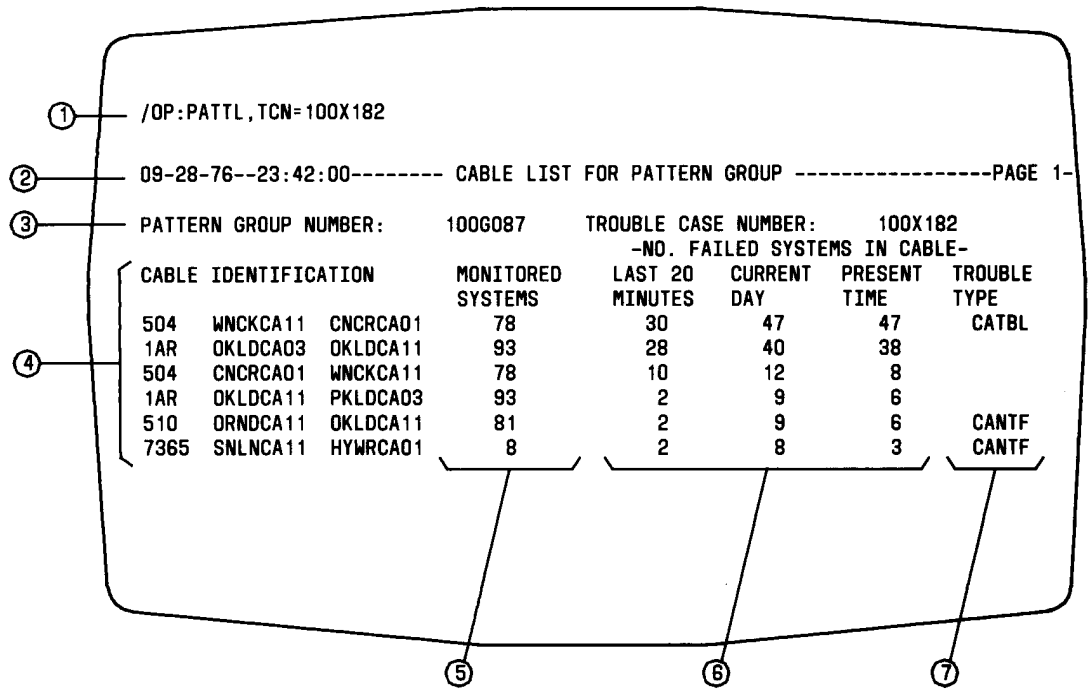
③ Selected pattern group number and trouble case number.

④ Cable IDs for the cables in the selected pattern group.

⑤ Number of systems monitored in each cable.

⑥ Number of monitored systems failed in each cable-
Last 20 minutes,
Current day,
Present time

⑦ Trouble type of each cable-trouble in this cable (CATBL) or trouble not in this cable (CANTF).

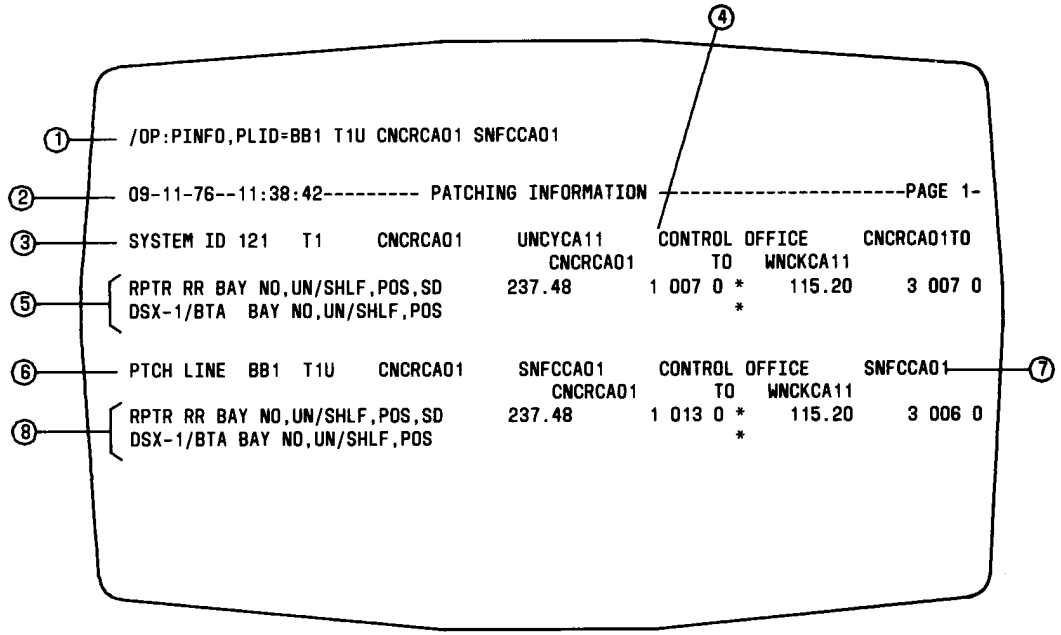


INPUT MESSAGES - OP:PATTL
OP(for next page of multipage output)

Fig. 12—Cable List for a Pattern Group

NOTE: This is a multipage report. The second page would show the patching information for the other direction. (In this example - WNCKCA11 to CNCRCA01)

① Typical input message for this sample display.
② Present date and time.
③ ID of system to be patched.
④ Control office of system.
⑤ System repeater and DSX-1 locations in given direction.
⑥ ID of selected patch line.
⑦ Patch line control office.
⑧ Patch line repeater and DSX-1 locations in given direction.

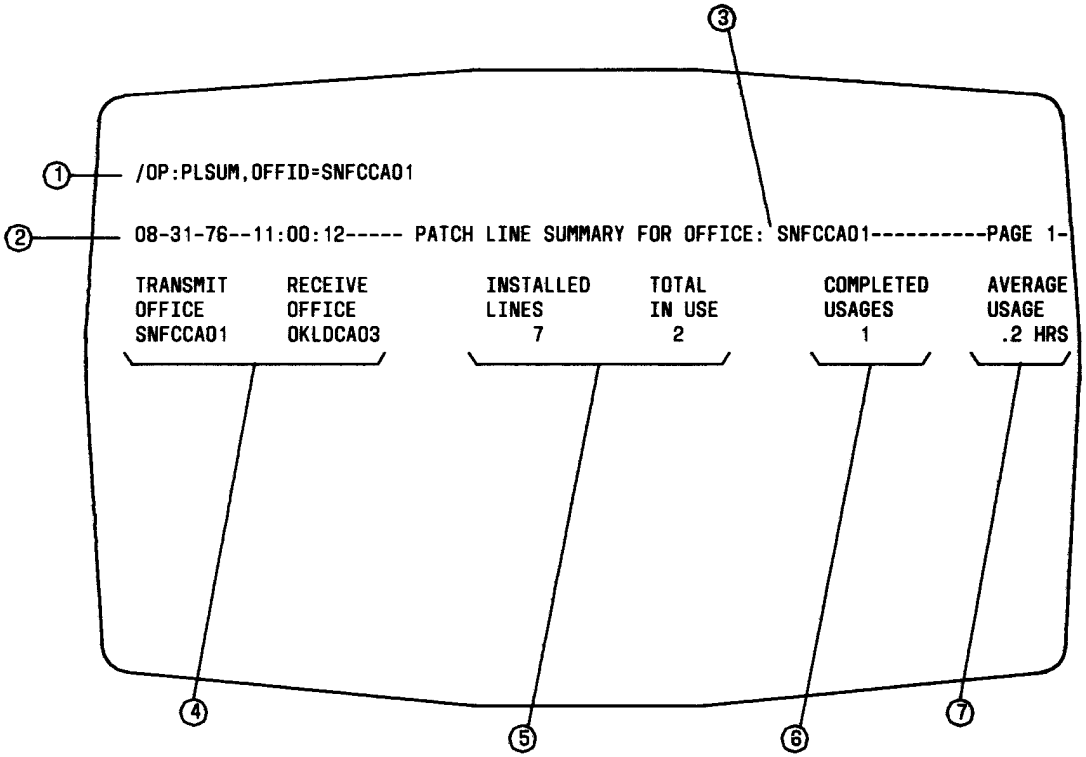


INPUT MESSAGE - OP:PINFO

Fig. 13—Patching Information

NOTE: This is a multipage display.
See Fig. 16 for the next page.

① Typical input message for this sample display.
② Present date and time.
③ Selected office.
④ Terminating offices.
⑤ Patch lines installed.
Total lines presently in use.
⑥ Completed usages for the month.
Completed usage means a line that has been reserved **SET:PLRES**, used **UPD:PTCH,UP**, released **UPD:PTCH,DN**, and cleared **CLR:PLRES**.
⑦ Average usage time of all completed-usage lines for the month.

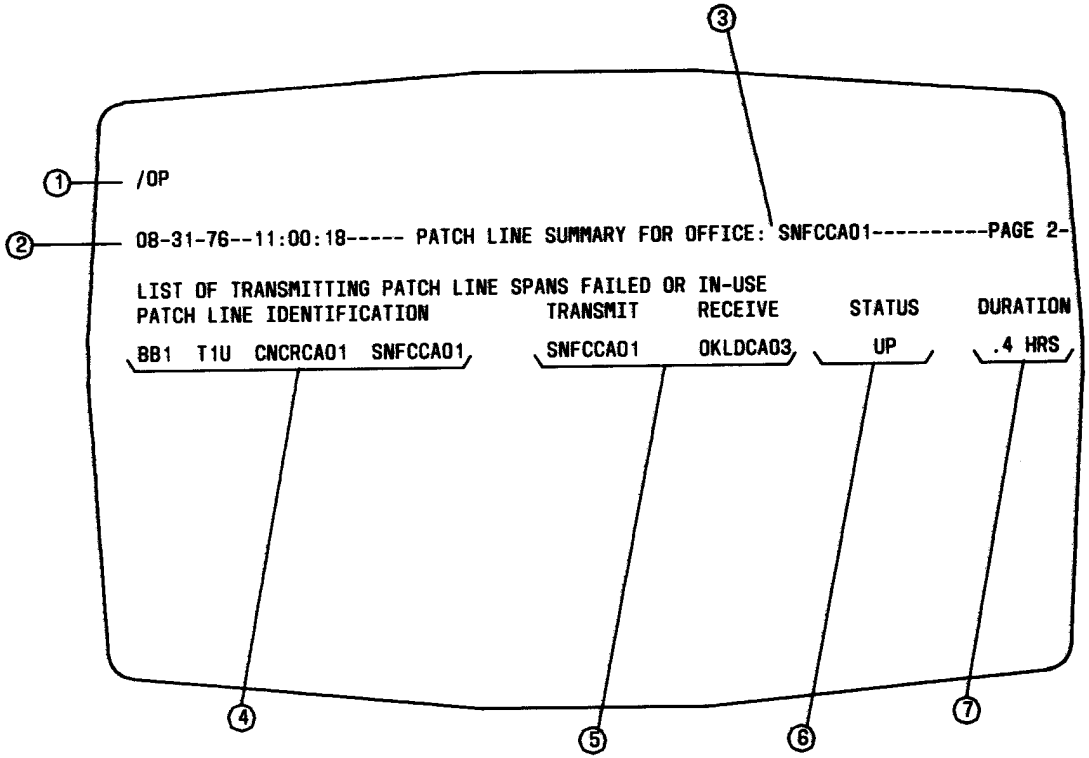


INPUT MESSAGES - OP:PLSUM (first page)
OP (second page)

Fig. 14—First Patch Line Summary Display

NOTE: This is the second page of a multipage display. See FIG. 15 for the first page.

① Typical input message for this sample display.
② Present date and time.
③ Selected office.
④ IDs of failed or in-use patch lines.
⑤ Office pair (span) of each line.
⑥ Status = INUSE **SET:PLRES**; UP **SET:PLRES** and **UPD:PTCH,UP**; DN **SET:PLRES** and **UPD:PTCH,UP** and **UPD:PTCH,DN**; FAILED
⑦ Length of time each line was reserved or failed.



INPUT MESSAGES - OP:PLSUM (first page)
OP (second page)

Fig. 15—Second Patch Line Summary Display

NOTE: This is a multipage display.
See Fig. 18 for the next page.

① Typical input message for this sample display.

② Present date and time.

③ System ID.

④ CGA and outage information for the current day.
Total CGA'S
Total CGA'S under 30 seconds [HITS]
Total outage time.

⑤ Trouble case number.

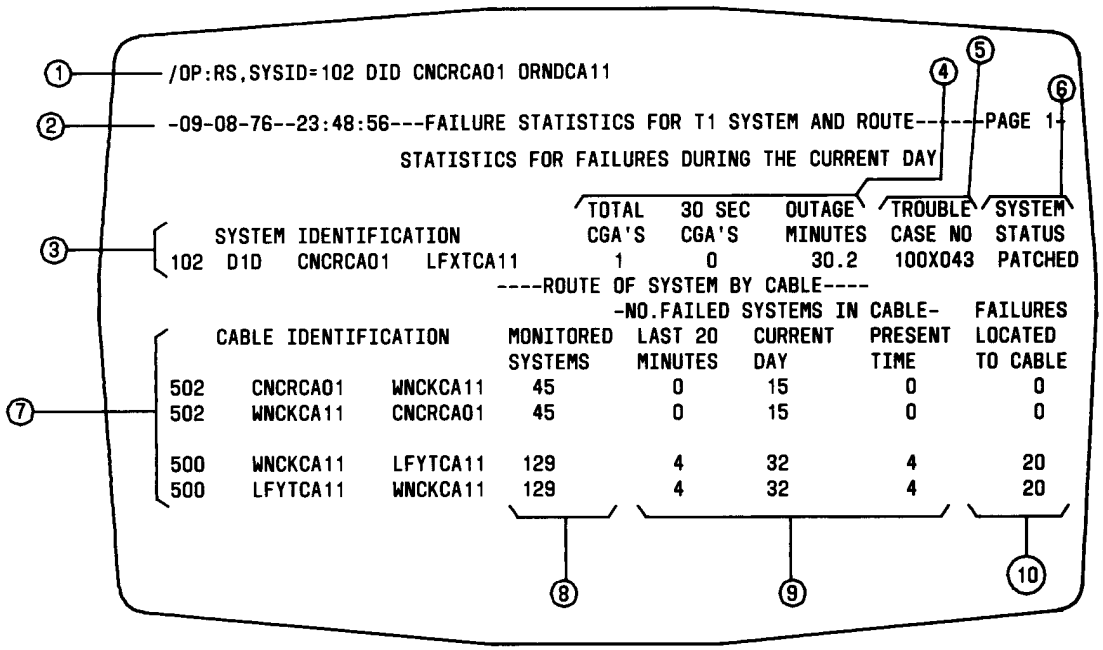
⑥ Sytem status.

⑦ Cable ID for the cables the selected system uses.

⑧ Number of system monitored in each cable.

⑨ Number of monitored systems failed in each cable.
Last 20 minutes,
current day,
present time.

⑩ Number of trouble cases located to each cable during the current day.



INPUT MESSAGES - OP:RS
OP (for next page of multipage output)

Fig. 16—First Display of Failure Statistics for a System and Route

NOTE: This is the second page of a multipage display. See FIG. 17 for the first page

① Input message for this sample display.

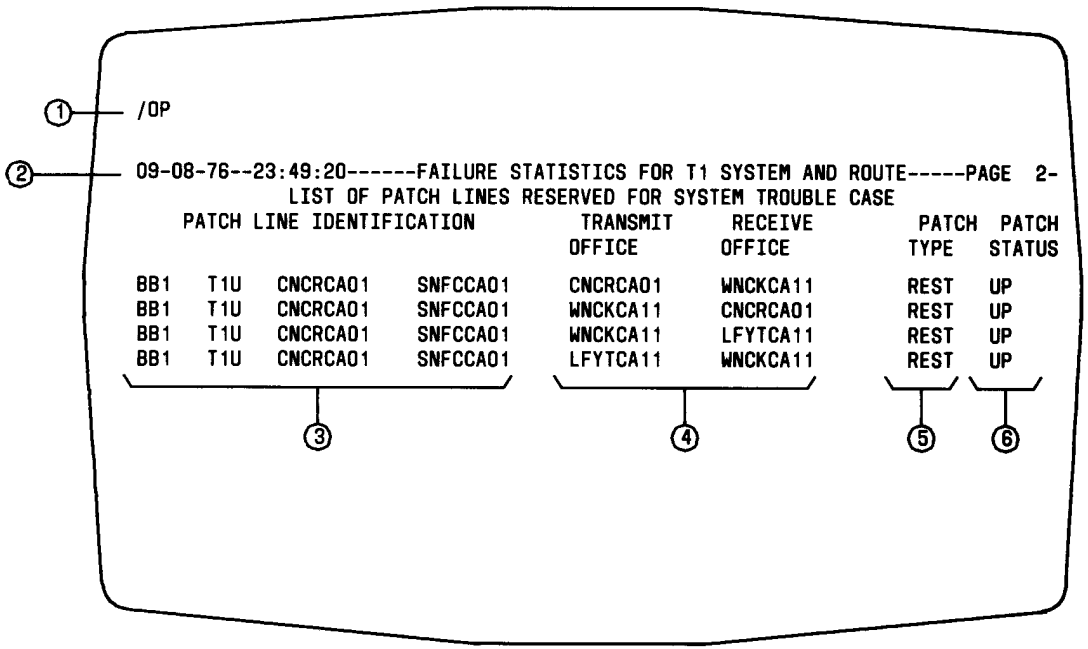
② Present date and time.

③ Patch lines which have been reserved for use with the selected system. In the case of a backbone, such as this example, each span of the backbone portion that was reserved is listed seperately.

④ Office pairs for each patch line or backbone segment.

⑤ Type of patch – Restoration or Maintenance.

⑥ Status of patch – In use, up, down, or failed.

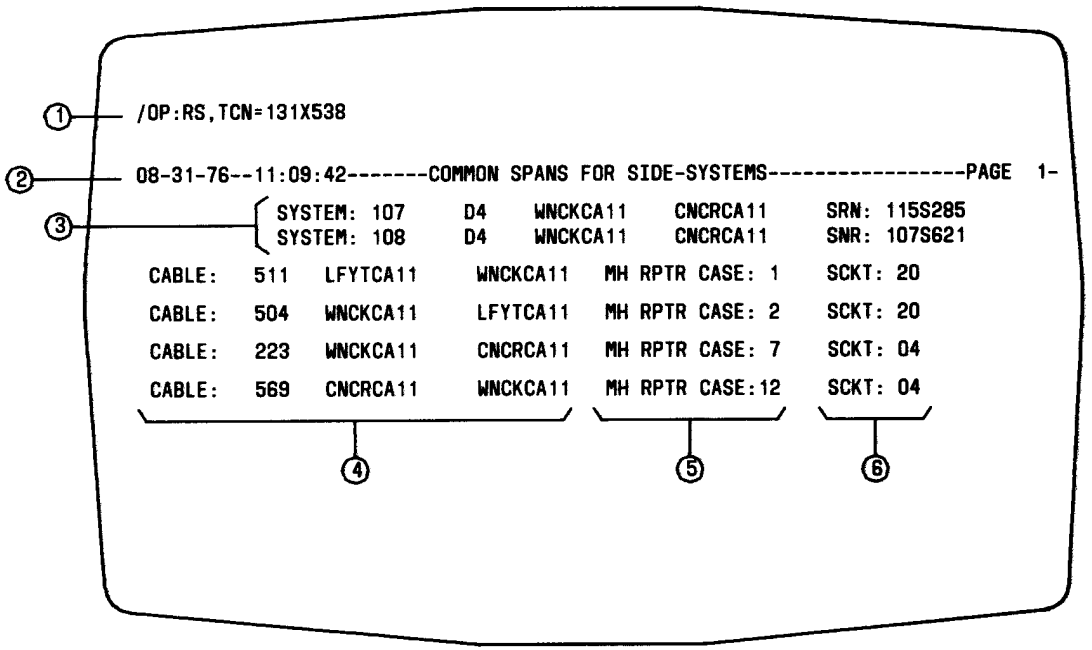


INPUT MESSAGES - OP:RS

OP (for next page of multipage output)

Fig. 17—Second Display of Failure Statistics for a System and Route

① Typical input message for this sample display.
② Present date and time.
③ Side-system IDs and system reference numbers.
④ Cable IDs for common spans along system route.
⑤ Assigned manhole repeater case.
⑥ Assigned socket (slot).



INPUT MESSAGES - OP:RS

OP (for next page of multipage output)

Fig. 18—Common Spans for Side Systems

① Typical input message for this sample display.

② Present date and time.

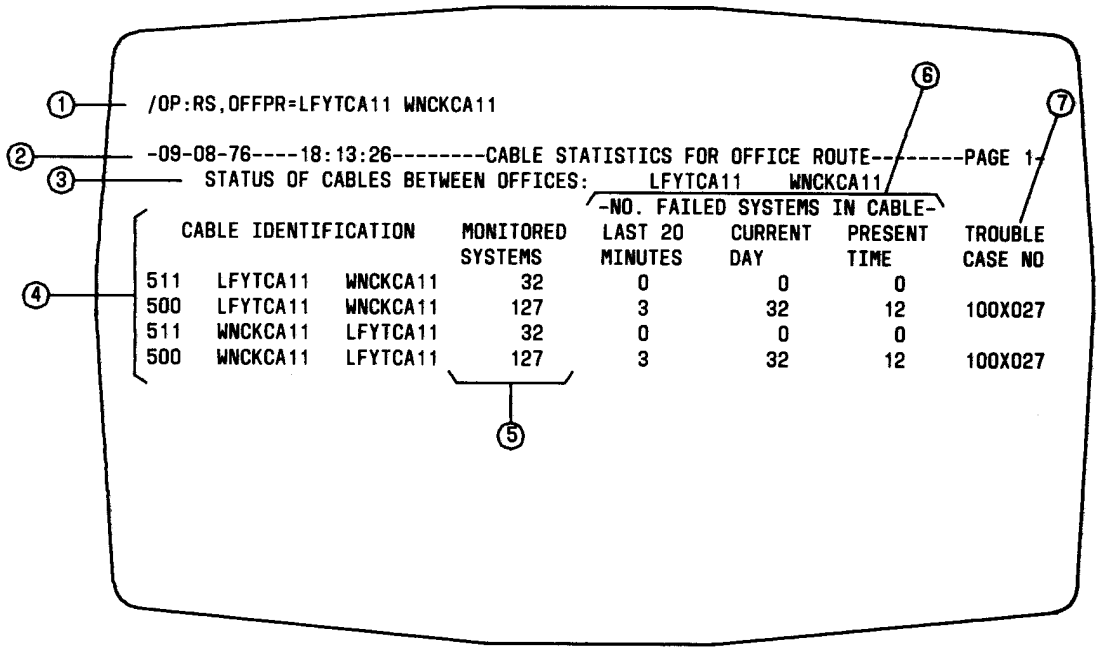
③ Status of all the T1 cables in the span route between two offices.

④ Identification of cables in span.

⑤ Number of systems monitored in each cable.

⑥ Number of monitored systems failed in each cable.
Last 20 minutes
Current day
At present time.

⑦ Trouble case numbers for cable pattern trouble cases. Individual system trouble cases are not listed here.



INPUT MESSAGES - OP:RS
OP (for next page of multipage output)

Fig. 19—Cable Statistics for Office Route

① Typical input message for this sample display.

② Present date and time.

③ Selected patch line.

④ Patch line trouble case number, if one is opened.

⑤ List of office pairs (spans) along the route of the patch line.

⑥ Maintenance line status indicator (MLSI) availability.

⑦ Usage status of each patch line segment - **AVAIL** (not in use), **INUSE** (reserved, but not yet in service), **PTCHUP** (currently in service on a system), **PTCHDN** (patch has been taken down but patch line has not been released).

⑧ Alarm status – **BLANK** (not monitored), **CLEAR** (monitored and clear), **ALARM** (monitored and either failed or on patch).

⑨ Current day failures and outage time.

⑩ Trouble case numbers of any system trouble cases for which the patch line segment was reserved.

```
① /OP:RS,PLID=BB3 T1U PSBGCA11 OKLDCA03                          ④
② 09-10-76--23:36:36-------PATCH LINE STATUS AND STATISTICS----------PAGE  1-
③ PATCH LINE ID:  BB3   T1U     PSBGCA11     OKLDCA03     TCN:

TRANSMIT  RECEIVE   MLSI     USAGE   ALARM   FAILURES OUTAGE    PATCHED
OFFICE    OFFICE             STATUS  STATUS           MINUTES   TBL CSE
PSBCCA11  CNCRCA01  NO       AVAIL                0        0
CNCRCA01  PSBGCA11  YES      AVAIL   CLEAR        0        0

CNCRCA01  WNCKCA11  YES      AVAIL   CLEAR        0        0
WNCKCA11  CNCRCA01  YES      AVAIL   CLEAR        0        0

WNCKCA11  LFYTCA11  YES      AVAIL   CLEAR        0        0
LFYTCA11  WNCKCA11  YES      AVAIL   CLEAR        0        0

LFYTCA11  OKLDCA03  YES      AVAIL   CLEAR        0        0
OKLDCA03  LFYTCA11  YES      AVAIL   CLEAR        0        0
          ⑤         ⑥        ⑦       ⑧          ⑨        ⑩
```

INPUT MESSAGES - OP:RS

OP (for next page of multipage output)

Fig. 20—Patch Line Status and Statistics

① Typical input message for this sample display.

② Present date and time.

③ Control office and number of monitored systems controlled by that office.

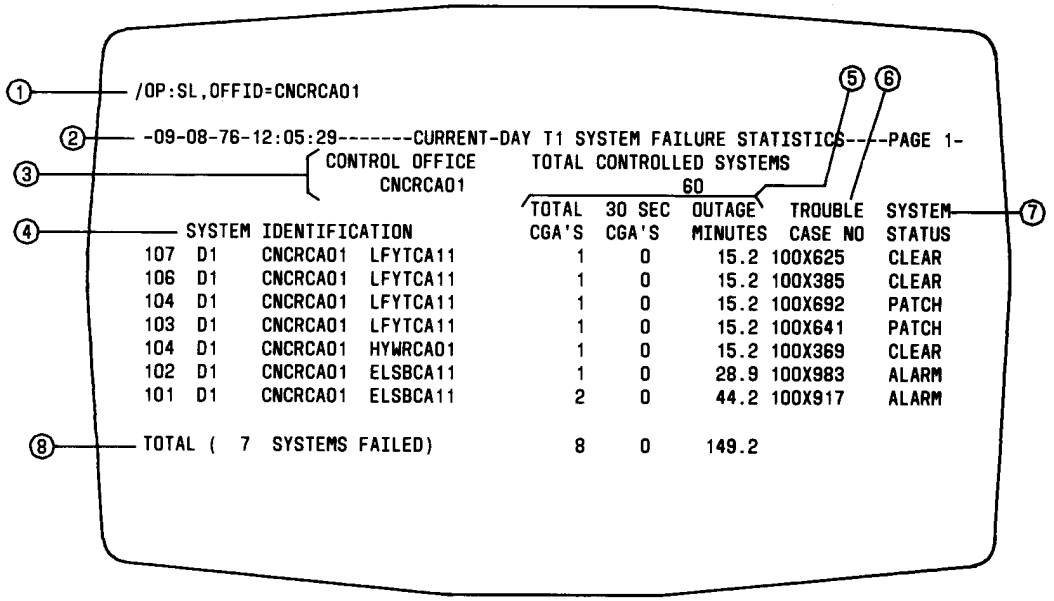
④ Individual system identification.

⑤ Total number of CGA'S for each system. Total CGA'S under 30 seconds [HITS] for each system.

⑥ Trouble case number for each system.

⑦ Current status of each system.

⑧ Totals for the office.



INPUT MESSAGES - OP:SL, OFFID=
OP (For next page of multipage output)

Fig. 21—Current Day Failure Statistics for a Control Office

NOTE 1: This is a multipage display.
See FIG. 24 for the next page.

① Typical input message for this sample display. (See NOTE 2)

② Present date and time.

③ Cable ID for the selected cable.

④ Number of systems monitored in this cable.

⑤ Number of monitored systems failed.
Last 20 minutes
Current day
At present time.

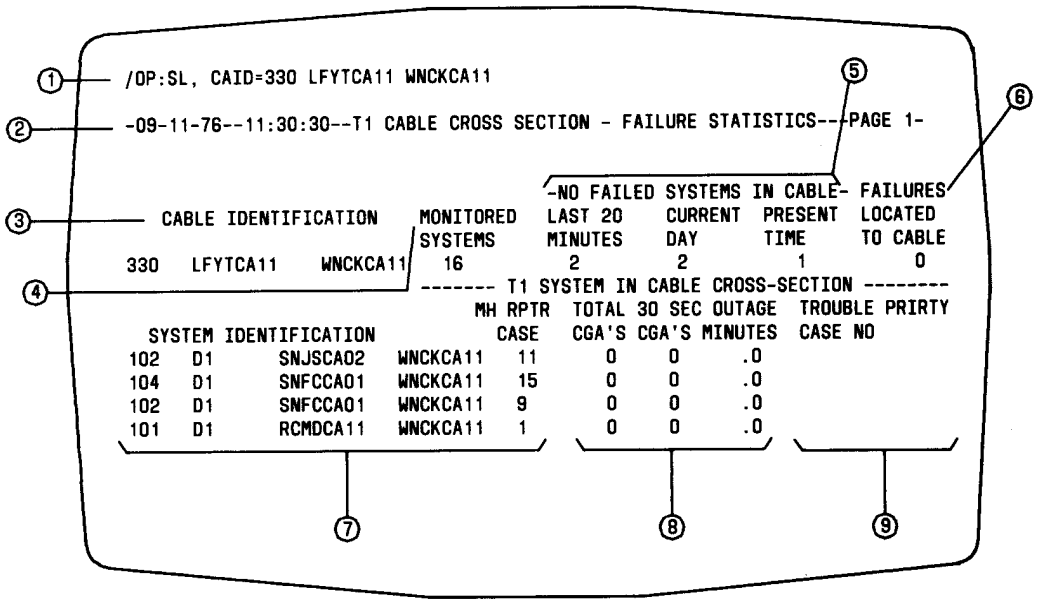
⑥ Number of trouble cases located to this cable.

⑦ Individual system identification and manhole repeater [Apparatus] case number.

⑧ Total number of CGA'S for each system
Total CGA'S under 30 seconds [HITS] for each system
Total outage time for each system.

⑨ Trouble case number, if applicable, and current priority of each system.

NOTE 2: This display shows failed systems only. To display the status of all monitored systems, input **OP:SL, MOND**.



INPUT MESSAGES - OP:SL,CAID=
OP (For next page of multipage output)

Fig. 22—First Display of Current Day Failure Statistics for a Cable

NOTE: This is the second page of a multipage display. See FIG. 23 for the first page.

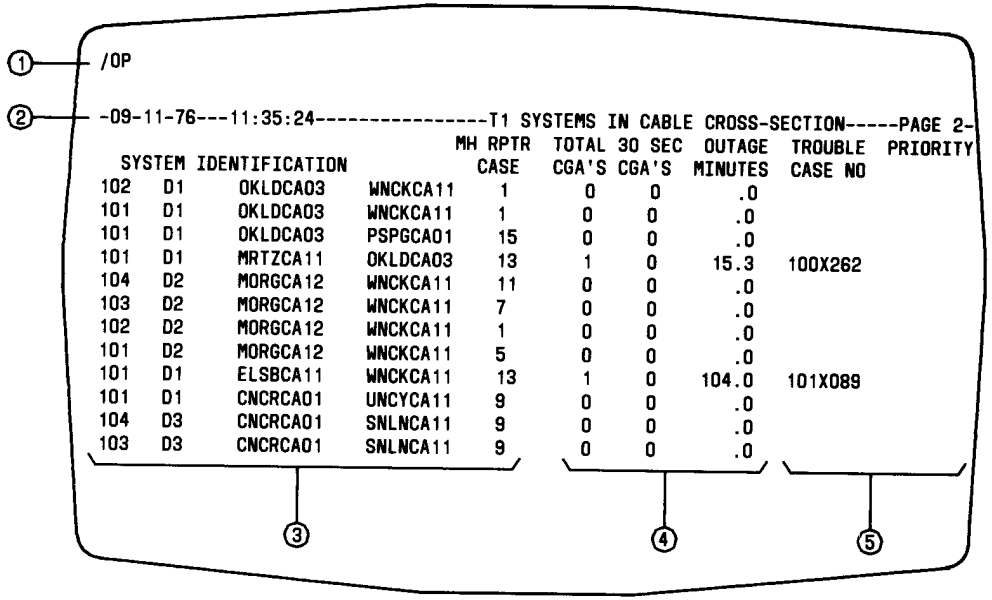
① Input message for this sample display.

② Present date and time.

③ Individual system ID and manhole repeater case numbers.

④ Total number of CGA'S for each system. Total CGA'S under 30 seconds [HITS] for each system. Total outage time for each system.

⑤ Trouble case number, if applicable, and priority of each system.



INPUT MESSAGES - OP:SL,CAID= (for first page)

OP (for next page of multipage output)

Fig. 23—Second Display of Current Day Failure Statistics for a Cable

① Typical input messge for this sample display.

② Present date and time.

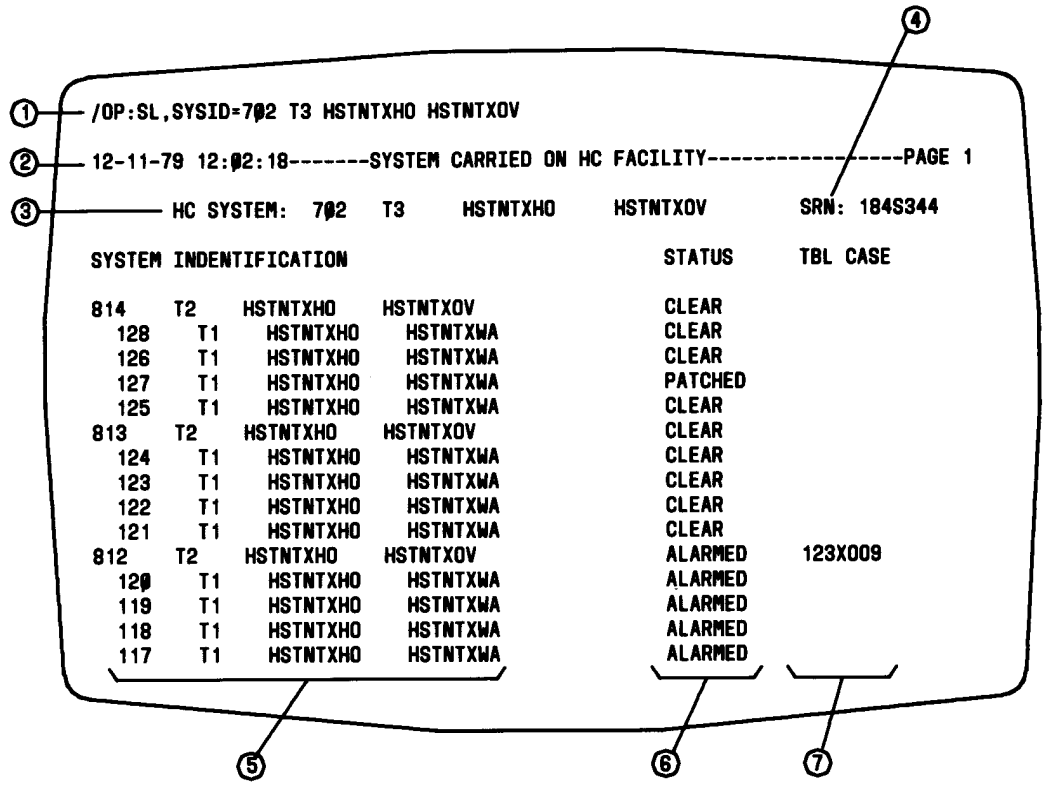
③ High-capacity facility system identification.

④ High-capacity facility system reference number.

⑤ Individual system IDs in the high-capacity facility.

⑥ Current status of each system.

⑦ Trouble case number for each system (if applicable).



INPUT MESSAGES: OP:SL,SYSID=
OP (for next page of a multipage output)

Fig. 24—High-Capacity Facility System List

① Typical input message for this sample display.

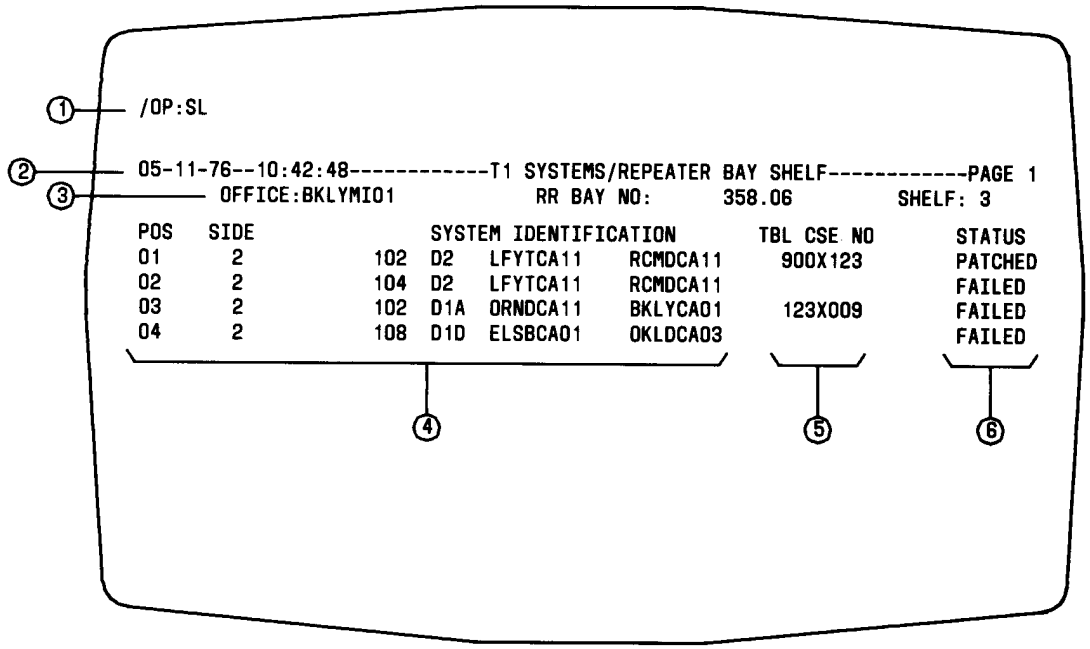
② Present date and time.

③ Office, relay rack bay number, and shelf in current repeater shelf trouble case.

④ Position (slot), side (if unidirectional repeater operation), and system IDs for suspect shelf.

⑤ Individual system trouble case numbers.

⑥ Status of each system



INPUT MESSAGES - OP:SL (when a repeater shelf TC is the current trouble case)

OP (for next page of multipage output)

Fig. 25—T1 Systems Per Repeater Bays Shelf

① Typical input message for this sample display.

② Present date and time.

③ Selected system and selected span.

④ Office side-system information.
Office:
Relay rack bay number
Unit/shelf
Position and side.
Side-system:
System reference number
The above information is also supplied for the other span office (WNCKCA11).

⑤ Span line side-system information.
Cable:
Direction
Manhole repeater case
Socket and side.
Side-system:
System reference number
The above information is also supplied for the other direction of transmission (WNCKCA11 CNCRCA01)

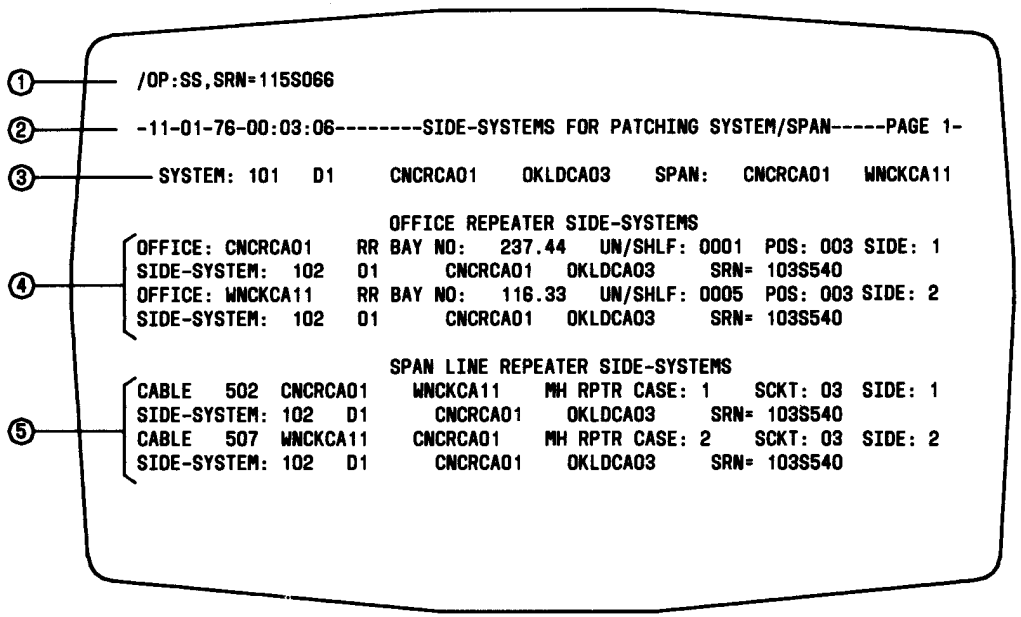


Fig. 26—Paired Systems for System/Span

① Typical input message for this sample display.

② Present status of system.

③ TCAS monitored.

④ The date and time the trouble case was opened.

⑤ If the TC has been previously deferred, the date and time that the deferral will elapse is shown here.

⑥ Outage time.
Current outage.
Total outage today.
"*" indicates this field was over threshold and caused a TC to be opened.

⑦ CGA information.
Average CGA count per hour.
Total CGA count for today.
Total time, in minutes, caused by CGA hits today.
Total CGA count for the week.

⑧ The number of possibly related pattern TCs.

⑨ Number of DLMs on system route, and whether a measurement is in progress or not.

⑩ System control office.

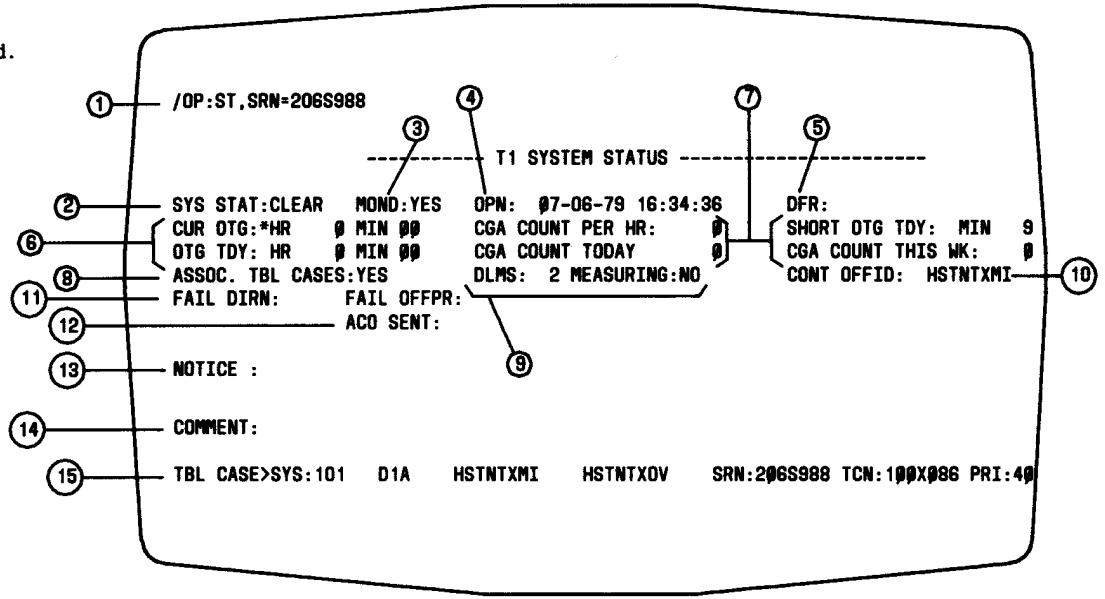
⑪ TCAS deduced fail direction and the office pair related to that direction.

⑫ Office(s) where alarm cutoff was sent.

⑬ Notice: Information that is manually posted against a cable, system or patch line by the **IN:NTC** input message. It remains posted until cleared by the **CLR:NTC** message.

⑭ Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the system history.

⑮ ID of this system.



INPUT MESSAGES: **MON:ST**
OP:ST (non-dynamic)

This display is similar to Fig. 38 except that inputting either of the above messages will not cause the requested entity to become the current trouble case (CTC).

Fig. 27—T1 System Status

① Typical input message for this sample display.

② Higher level pattern group number. If the systems in this TC also appears on a repeater shelf or cable pattern trouble case; that trouble pattern group number will appear here.

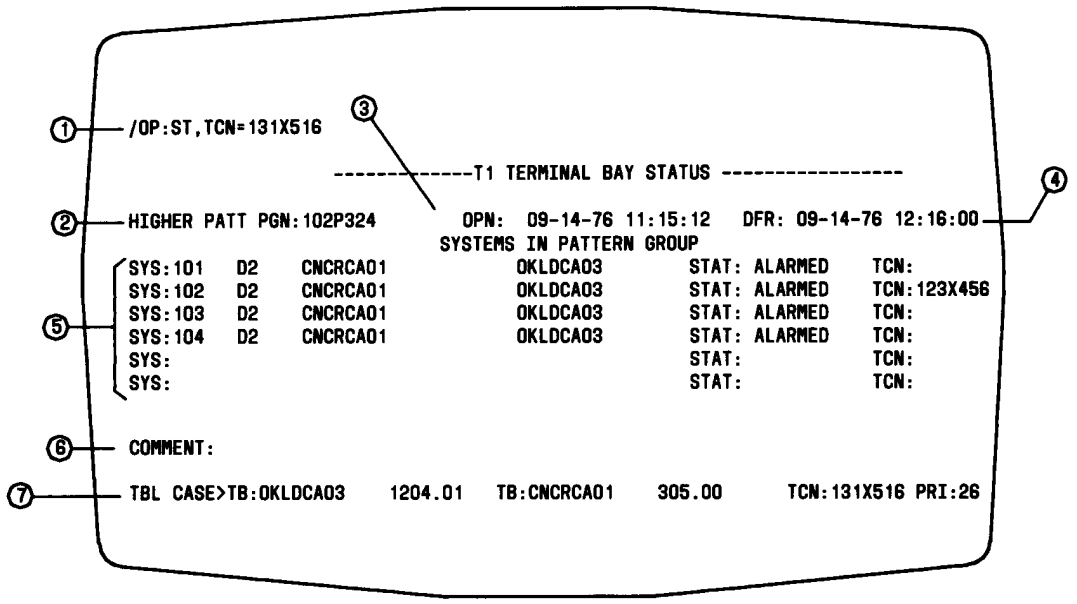
③ Date and time this TC was opened.

④ If this TC has been previously deferred, the date and time that the deferral will elapse is shown here.

⑤ Systems in this TC, system IDs, present status, and individual system TC numbers.

⑥ Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the pattern group history.

⑦ ID of this terminal bay trouble



INPUT MESSAGES - MON:ST
OP:ST (non-dynamic)

This display is similar to Fig. 40 except that inputting either of the above messages will not cause the requested entity to become the current trouble case (CTC).

Note: The display is only available if a terminal bay trouble case is open.

Fig. 28—T1 Terminal Bay Status

① Typical input message for this sample display.

② Higher level pattern group number. If the systems in this TC also appears on a terminal bay, repeater shelf, or cable pattern trouble case; that trouble pattern group number will appear here.

③ Date and time this TC was opened

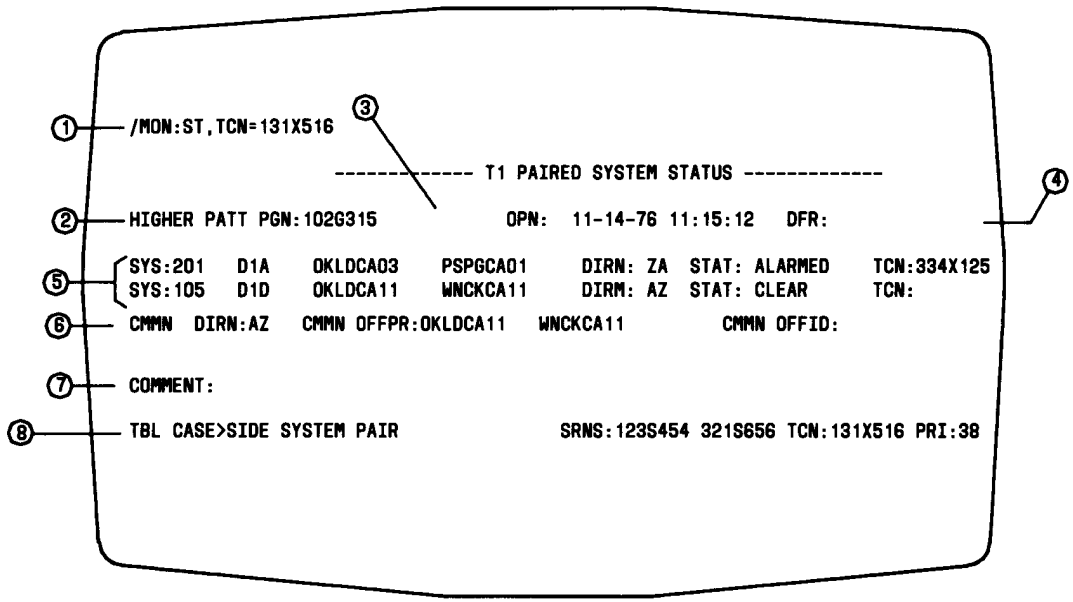
④ If this TC has been previously deferred, the date and time that the deferral will elapse is shown here.

⑤ Systems being monitored. System IDs direction of trouble, present status, and individual system TC numbers.

⑥ Common direction of both systems, common office pair (this could be end to end), and common office ID.

⑦ Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the pattern group history.

⑧ ID of this side system pair.



INPUT MESSAGES - MON:ST
OP:ST (non - dynamic)

This display is similar to Fig. 34 except that inputting either of the above messages will not cause the requested entity to become the current trouble case (CTC).

Note: This display is only available if a paired system trouble case is open.

Fig. 29—T1 Paired System Status

(1) Typical input message for this sample display.

(2) Number of suspect shelves in this TC.

(3) The date and time the trouble case was opened.

(4) If the TC has been previously deferred. The date and time that the deferral will elapse is shown here.

(5) Office, bay, and shelf ID for one of the suspect shelves in this TC.

(6) Indicates if fuse has failed in bay listed in (5).

(7) Rank of this shelf in this TC. To display a different suspect shelf, use the input message **MON:TC,RK=** (desired rank).

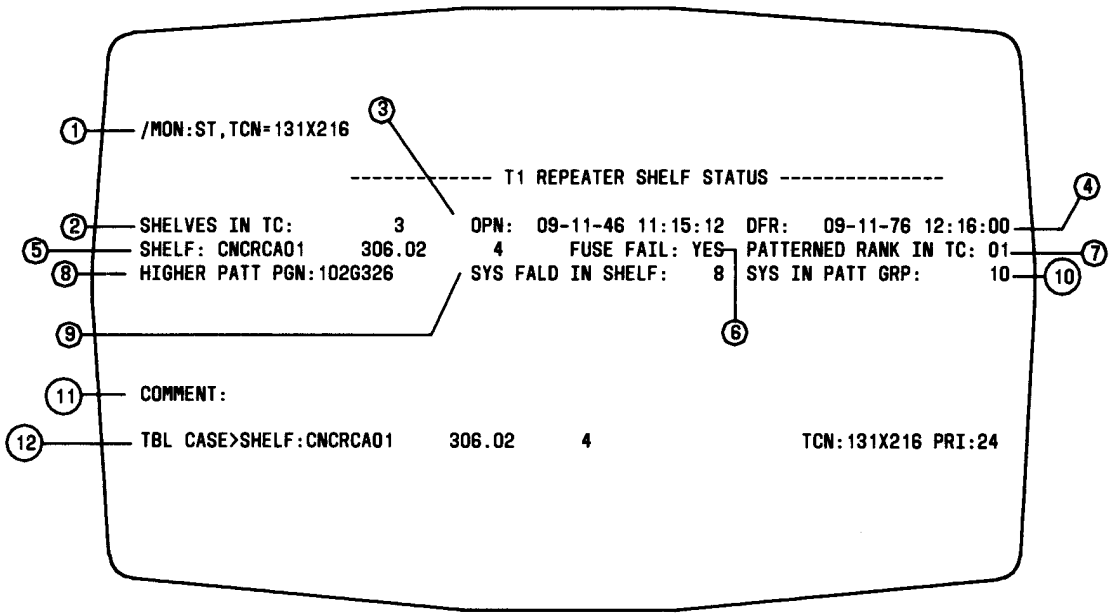
(8) Higher level pattern group number. If the systems in this TC also appear on a cable pattern trouble case, that trouble pattern group number will appear here.

(9) Number of systems failed in the shelf listed in (5).

(10) Total number of systems failures patterned to this trouble

(11) Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the pattern group history.

(12) ID of this repeater shelf trouble.



INPUT MESSAGES - MON:ST
OP:ST (non-dynamic)

This display is similar to Fig. 41 except that inputting either of the above messages will not cause the requested entity to become the current trouble case (CTC).

Note: This display is only available if a repeater shelf trouble case is opened.

Fig. 30—T1 Repeater Shelf Status

① Typical input message for this sample display.

② Number of suspect high-capacity systems and/or cables in this TC.

③ The date and time the trouble case was opened.

④ If the TC has been previously deferred. The date and time that the deferral will elapse is shown here.

⑤ Cable and span identification.

⑥ The rank this cable has in this TC. The most suspect cable is rank 1.

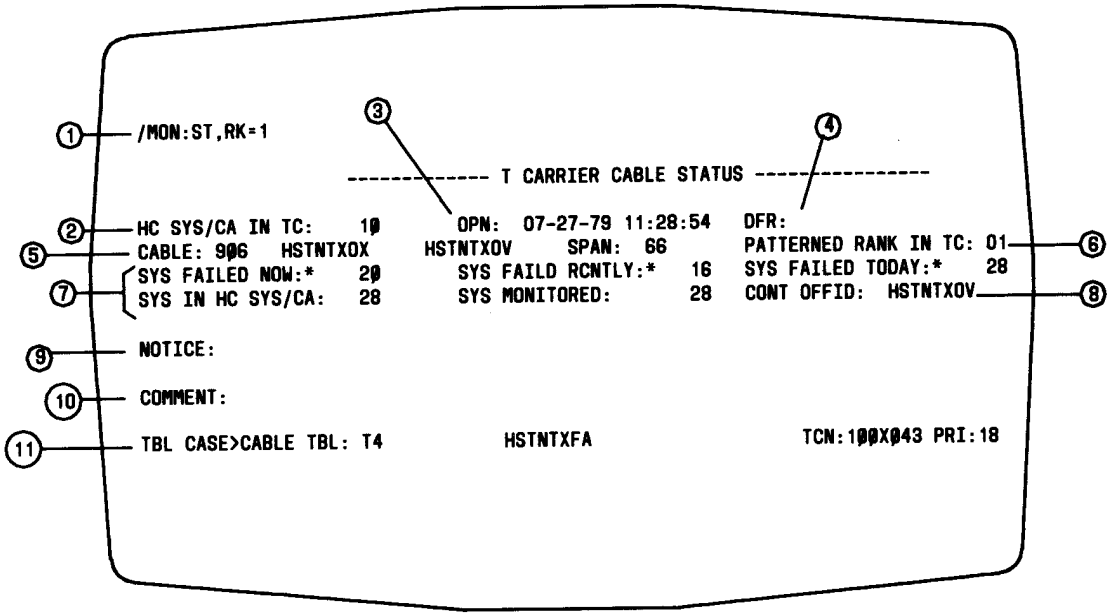
⑦ Information on the systems in the high-capacity system and/or cable.
Number failed now.
Number failed recently (last 20 minutes).
Number failed today.
Total number in high-capacity system and/or cable.
Total number monitored by TCAS.
"*" indicates this field was over threshold and caused a TC to be opened.

⑧ Span control office.

⑨ Notice: Information that is manually posted against a cable, system, or patch line by the **IN:NTC** input message. It remains posted until cleared by the **CLR:NTC** message.

⑩ Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the pattern group history.

⑪ ID of this cable trouble.



INPUT MESSAGES: **MON:ST**
OP:ST (non-dynamic)

This display is similar to Fig. 35 except that inputting either of the above messages will not cause the requested entity to become the current trouble case (CTC).

Fig. 31—T1 Cable Status

(1) Typical input message for this sample display.

(2) Patch line class. Either backbone (B) or maintenance line (M).

(3) The date and time the trouble case was opened.

(4) If the TC has been previously deferred. The date and time that the deferral will elapse is shown here.

(5) Total outage time today in each direction.

(6) Total failures today in each direction.

(7) Status of patch line in each direction.

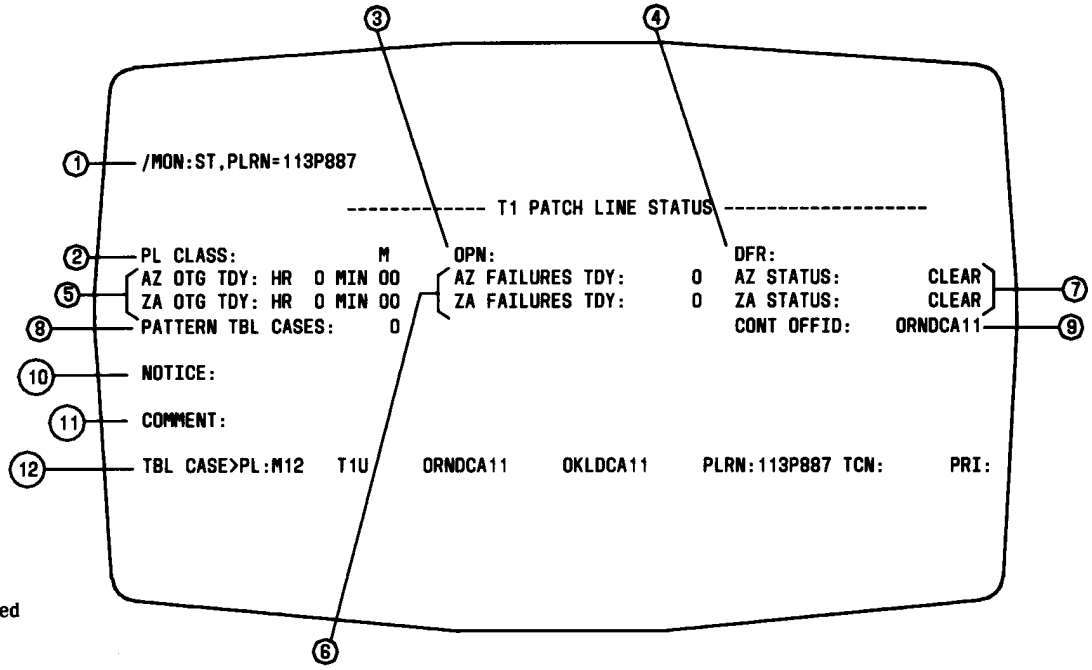
(8) Number of possibly related pattern TCs.

(9) Patch line control office.

(10) Notice: Information that is posted against a cable, system, or patch line by the **IN:NTC** input message. It remains posted until cleared by the **CLR:NTC** message.

(11) Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the patch line history.

(12) ID of this patch line trouble.



INPUT MESSAGES - MON:ST
OP:ST (non - dynamic)

This display is similar to Fig. 37 except that inputting either of the above messages will not cause the requested entity to become the current trouble case (CTC).

Fig. 32—T1 Patch Line Status

① Typical input message for this sample display.

② Present status of system

③ The date and time the trouble case was opened.

④ If the TC has been previously deferred, the date and time that the deferral will elaspe is shown here.

⑤ Digital signal level.

⑥ Pattern group number.

⑦ Outage information.
Number of system currently failed.
Current outage time.
Total outage today.

⑧ Number of high-capacity systems and/or cables in this trouble case.

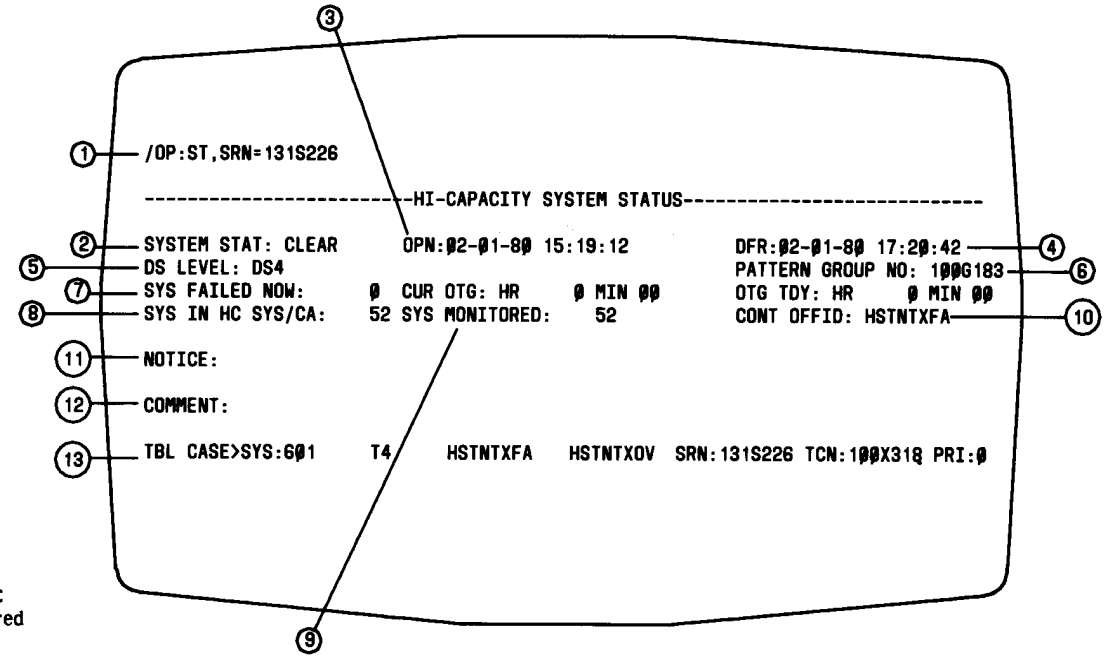
⑨ Number of systems monitored by TCAS.

⑩ System control office.

⑪ Notice: Information that is posted against a cable, system, or patch line by the **IN:NTC** input message. It remains posted until cleared by the **CLR:NTC** message.

⑫ Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the system history.

⑬ ID of this system.



INPUT MESSAGES: **MON:ST**
OP:ST (non-dynamic)

This display is similar to Fig. 39 except that inputting either of the above messages will not cause the requested entity to become the current trouble case (CTC).

Fig. 33—High-Capacity System Status

① Typical input message for this sample display.

② Higher level pattern group number. If the systems in this TC also appear on a terminal bay, repeater shelf, or cable pattern trouble case; that trouble pattern group number will appear here.

③ Date and time this TC was opened.

④ If this TC was previously deferred, the date and time that the deferral will elapse is shown here.

⑤ Systems in this TC. System IDs, direction of trouble, present status, and individual system TC numbers.

⑥ Common direction of both systems, common office pair (this could be end to end) and common office ID.

⑦ Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the paired system history.

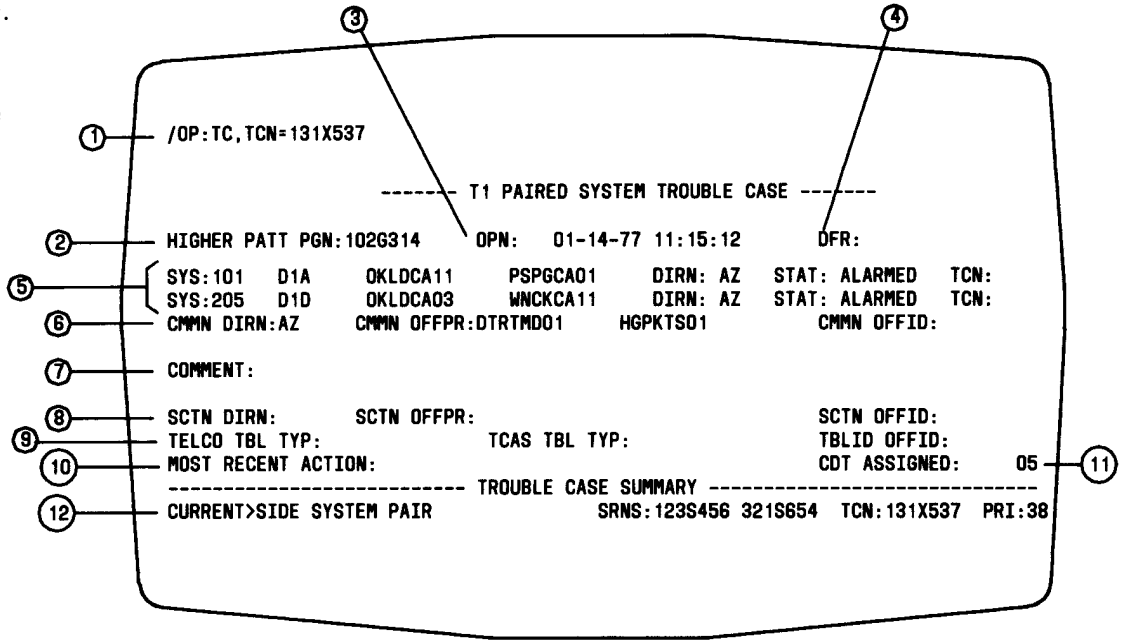
⑧ Sectionalization information manually posted by the **UPD:SCTN**, input message.

⑨ Trouble type information manually posted by the **UPD:TI,TT=** input message.

⑩ Most recent action that was manually posted by the **UPD:AC** input message.

⑪ Computer display terminal to which this TC is assigned.

⑫ ID of this trouble case.



INPUT MESSAGES - MON:TC
OPN:TC
OP:TC (Non-Dynamic)

Inputting any of the above mesages will cause the requested entity to become the current trouble case (CTC).

Fig. 34—T1 Paired System Trouble Case

① Typical input message for this sample display.

② Number of suspect high-capacity systems and/or cables in this TC.

③ The date and time the trouble case was opened.

④ If the TC has been previously deferred, the date and time that the deferral will elaspe is shown here.

⑤ System ID.

⑥ Digital signal level.

⑦ Information on systems in the high-capacity system.
Number failed now.
Total number in high-capacity system and/or cable.
Total number monitored by TCAS.
"*" Indicates this field was over threshold and caused a TC to be opened.

⑧ The rank this high-capacity system has in the TC. The most suspect high-capacity system is rank 1.

⑨ Span control office.

⑩ Notice: Information that is posted against a cable, system, or patch line by the **IN:NTC** input message. It remains posted until cleared by the **CLR:NTC** message.

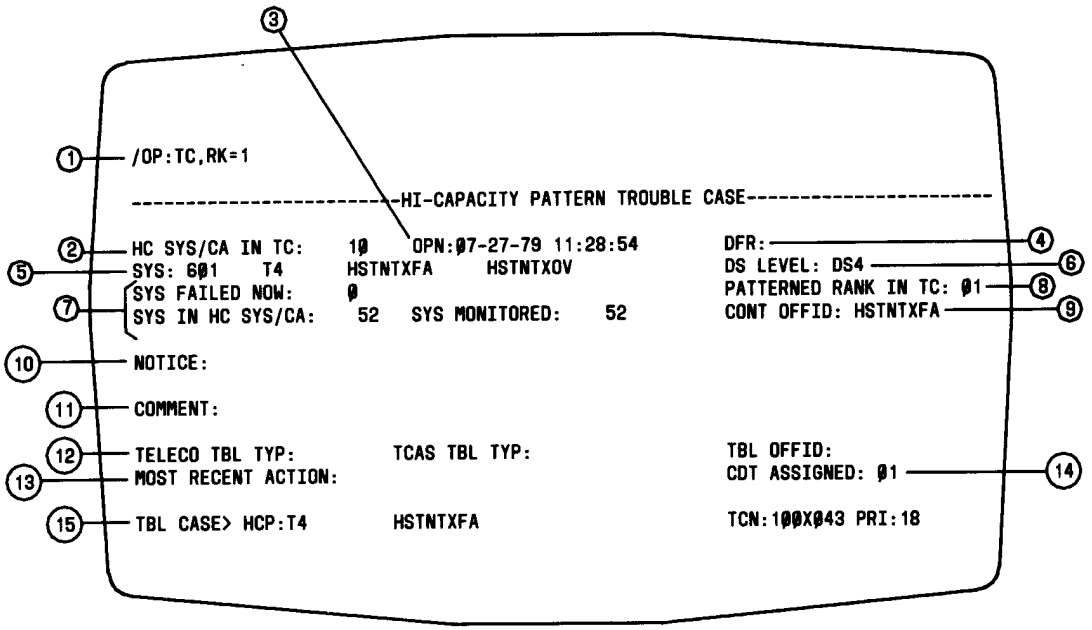
⑪ Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the pattern group history.

⑫ Trouble type information manually posted by the **UPD:TI,TT=** input message.

⑬ Most recent action that was manually posted by the **UPD:AC** input message.

⑭ Computer display terminal to which this TC is assigned

⑮ ID of this patch line trouble.



INPUT MESSAGES - **MON:TC**
OPN:TC
OP:TC (non-dynamic)

Inputting any of the above message will cause the requested entity to become the current trouble case (CTC).

Fig. 36—High-Capacity Pattern Trouble Case (Systems)

① Typical input message for this sample display.

② Number of suspect high-capacity systems and/or cables in this TC.

③ The date and time the trouble case was opened.

④ If the TC has been previously deferred, the date and time that the deferral will elaspe is shown here.

⑤ Cable and span identification.

⑥ The rank this cable has in this TC. The most suspect cable is rank 1.

⑦ Information on systems in cable.
Number failed now.
Number failed recently (last 20 minutes).
Number failed today.
Total number in high-capacity system and/or cable.
Total number monitored by TCAS.
"*" Indicates this field was over threshold and casued a TC to be opened.

⑧ Span control office.

⑨ Notice: Information that is posted against a cable, system, or patch line by the **IN:NTC** input message. It remains posted until cleared by the **CLR:NTC** message.

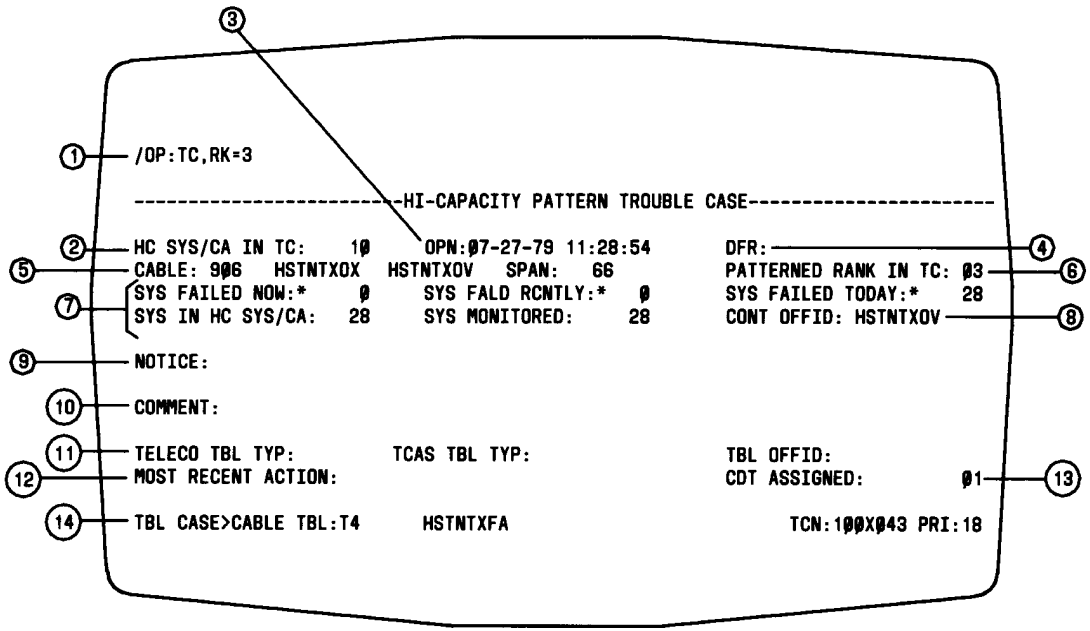
⑩ Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the pattern group history.

⑪ Trouble type information manually posted by the **UPD:TI,TT=** input message.

⑫ Most recent action that was manually posted by the **UPD:AC** input message.

⑬ Computer display terminal to which this TC is assigned

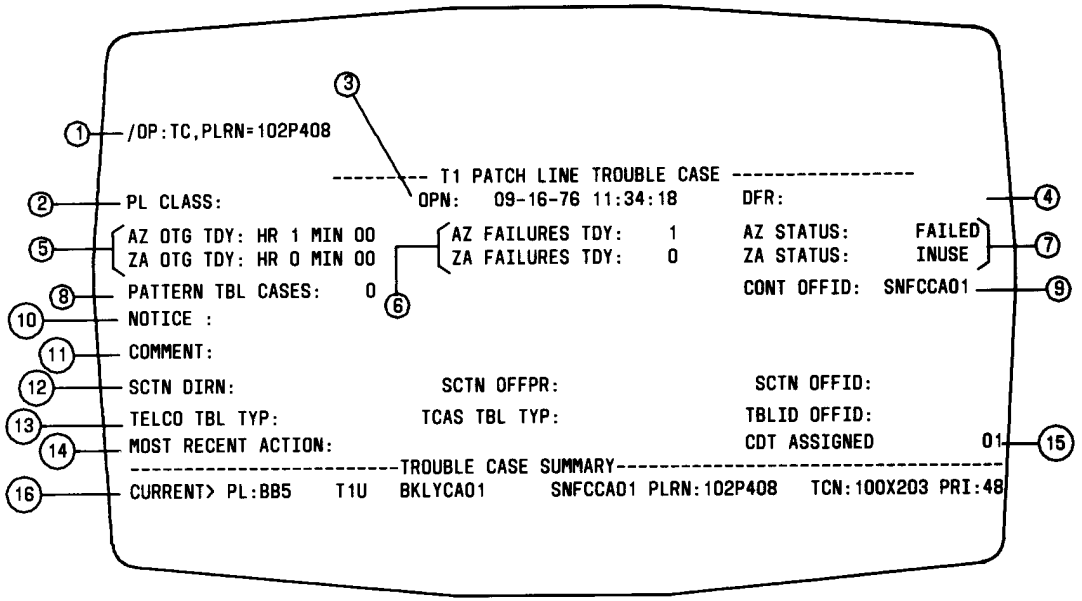
⑭ ID of this trouble case.



INPUT MESSAGES - **MON:TC**
OPN:TC
OP:TC (non-dynamic)

Inputting any of the above message will cause the requested entity to become the current trouble case (CTC).

Fig. 35—High-Capacity Pattern Trouble Case (Cables)



① Typical input message for this sample display.

② Patch line class. Either backbone (B) or maintenance line (M).

③ The date and time the trouble case was opened.

④ If the TC has been previously deferred, the date and time that the deferral will elapse is shown here.

⑤ Total outage time today in each direction.

⑥ Total failures today in each dirction.

⑦ Status of patch line in each direction.

⑧ Number of possibly related pattern TC's.

⑨ Patch line control office.

⑩ Notice: Information that is manually posted against a cable, system, or patch line by the **IN:NTC** input message. It remains posted until cleared by the **CLR:NTC** message.

⑪ Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the pattern group history.

⑫ Sectionalize information manually posted by the **UPD:SCTN** input message

⑬ Trouble type information manually posted by the **UPD:TI,TT=** input message.

⑭ Most recent action that was manually posted by the **UPD:AC** input message.

⑮ Computer display terminal to which this TC is assigned.

⑯ ID of this trouble case.

INPUT MESSAGES - MON:TC
OPN:TC
OP:TC (non-dynamic)

Inputting any of the above messages will cause the requested entity to become the current trouble case (CTC)

Fig. 37—T1 Patch Line Trouble Case

① Typical input message for this sample display.

② Present status of system and if monitored by TCAS.

③ The date and time the trouble case was opened.

④ If the TC has been previously deferred, the date and time that the deferral will elapse is shown here.

⑤ Current outage and total outage today. An "*" indicates that parameter was over threshold and caused a TC to be opened.

⑥ CGA information - average CGA count per hour, total CGA count for today, total time in minutes caused by short outages today, and total CGA count for the week.

⑦ The number of possibly related pattern TCs..

⑧ Number of DLMs on system route, and whether a measurement is in progress or not.

⑨ System control office.

⑩ TCAS deduced fail direction and the office pair related to that direction.

⑪ Office(s) where alarm cut off was sent.

⑫ Notice: Information that is manually posted against a cable, system,or patch line by the **IN:NTC** input message. It remains posted until cleared by the **CLR:NTC** message.

⑬ Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the system history.

⑭ Restoration and span patch line information. Shows lines verified UP and DOWN by the computer after the **UPD:PTCH** input message is used.

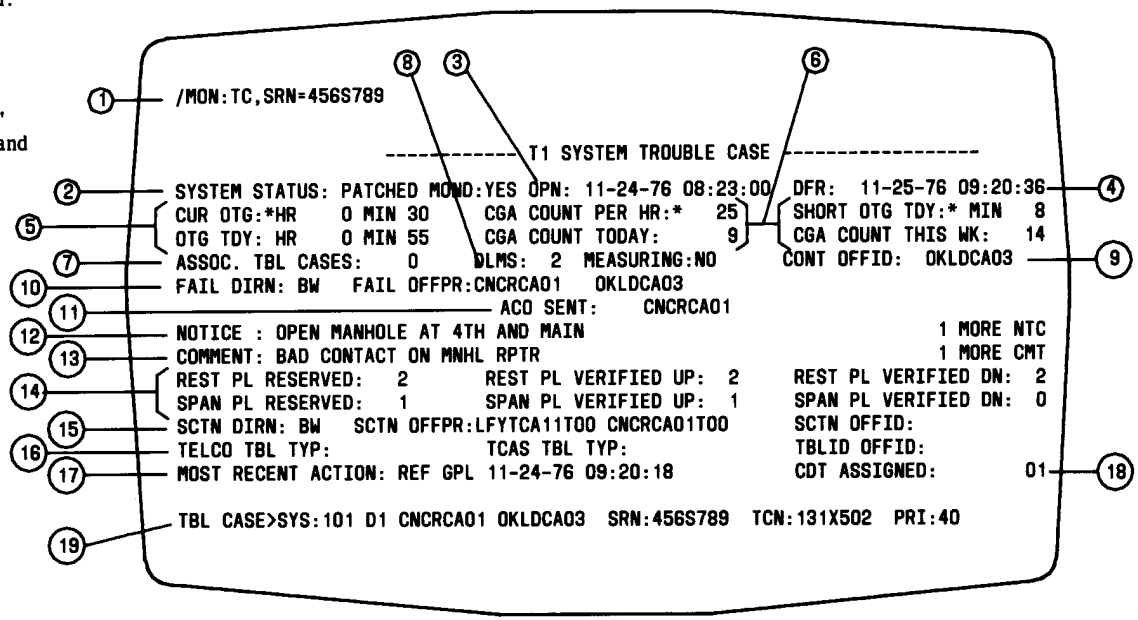
⑮ Sectionalization information manually posted by the **UPD:SCTN** input message.

⑯ Trouble type information manually posted by the **UPD:TI,TT=** input message.

⑰ Most recent action that was manually posted by the **UPD:AC** input message.

⑱ Computer display terminal to which this TC is assigned

⑲ ID of this trouble case.



INPUT MESSAGES - MON:TC
OPN:TC
OP:TC(Non-Dynamic)

Inputting any of the above messages will cause the requested entity to become the current trouble case (CTC)

Fig. 38—T1 or T1C System Trouble Case

(1) Typical input message for this sample display.

(2) Present status of system.

(3) The date and time the trouble case was opened.

(4) If the TC has been previously deferred, the date and time that the deferral will elapse is shown here.

(5) Digital signal level.

(6) Pattern group number.

(7) Outage information.
Systems failed now.
Current outage.
Outage today.

(8) Total number of systems in high-capacity system TC and the number of systems monitored by TCAS.

(9) System control office.

(10) Notice: Information that is posted against a cable, system, or patch line by the **IN:NTC** input message. It remains posted until cleared by the **CLR:NTC** message.

(11) Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the system history.

(12) Restoration and Span patch line information. Shows lines verified UP and DOWN by the computer after the **UPD:PTCH** input message is used.

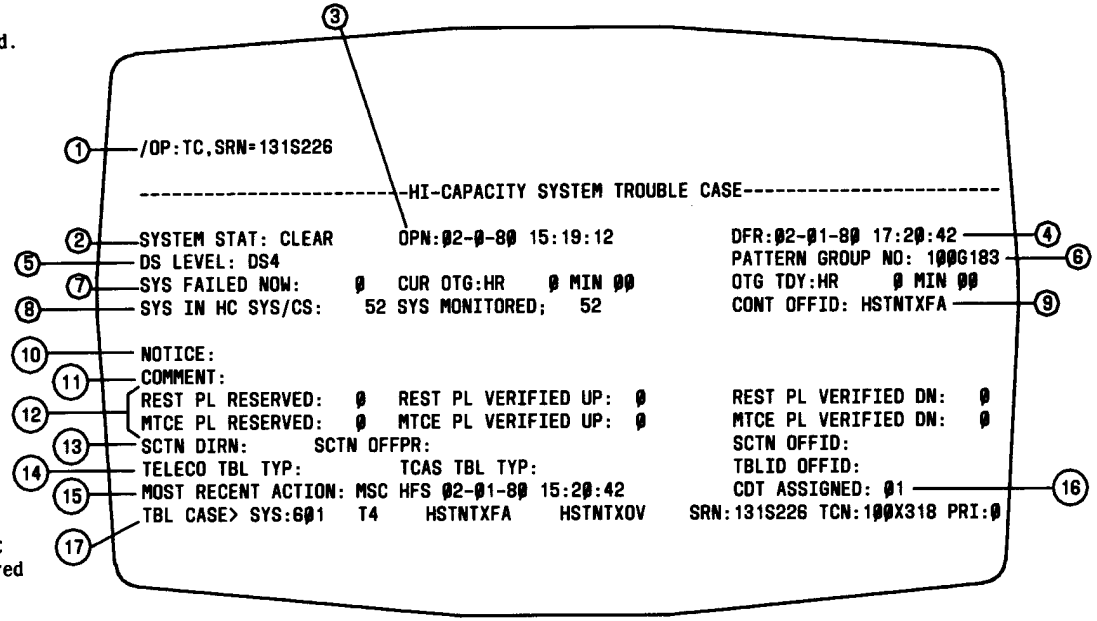
(13) Sectionalization information manually posted by the **UPD:SCTN** input message.

(14) Trouble type information manually posted by the **UPD:TI,TT=** input message.

(15) Most recent action that was manually posted by the **UPD:AC** input message.

(16) Computer display terminal to which this TC is assigned

(17) ID of this trouble case.



INPUT MESSAGES - **MON:TC**
OPN:TC
OP:TC (non-dynamic)

Inputting any of the above message will cause the requested entity to become the current trouble case (CTC).

Fig. 39—High-Capacity System Trouble Case

① Typical input message for this sample display.

② Higher level pattern group number. If the systems in this TC also appear on a repeater shelf or cable pattern trouble case, that trouble pattern group number will appear here.

③ Date and time this TC was opened.

④ If this TC was previously deferred, the date and time that the deferral will elapse is shown here.

⑤ Systems in this TC. System IDs, present status, and individual system TC numbers.

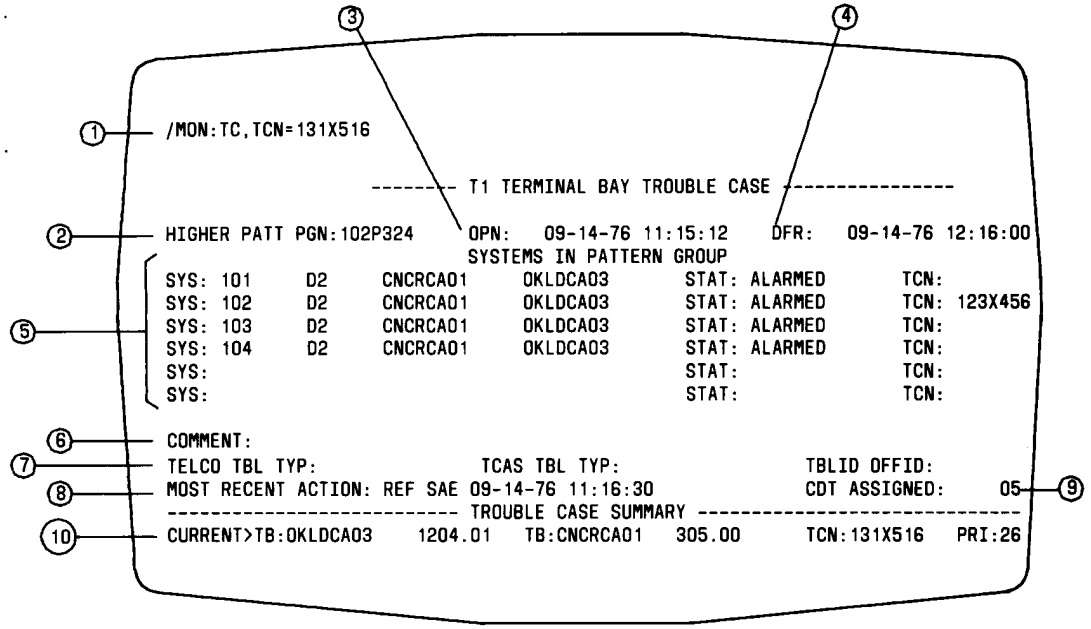
⑥ Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the pattern group history.

⑦ Trouble type information manually posted by the **UPD:TI,TT=** input message.

⑧ Most recent action that was manually posted by the **UPD:AC** input message.

⑨ Computer display terminal to which this TC is assigned.

⑩ ID of this trouble case.



INPUT MESSAGES - MON:TC
OPN:TC
OP:TC (non-dynamic)

Inputting any of the above mesages will cause the requested entity to become the current trouble case (CTC).

Fig. 40—Terminal Bay Trouble Case

① Typical input message for this sample display.

② Number of suspect cables in this TC

③ Data and time this TC was opened.

④ If the TC has been previously deferred, the date and time that the deferral will elapse is shown here.

⑤ Office, bay, and shelf ID for one of the suspect shelves in this TC.

⑥ Indicates if fuse has failed in bay listed in ⑤.

⑦ Rank of this shelf in this TC. To display a different suspect shelf, use the input message **MON:TC, RK** = (desired rank).

⑧ Higher level pattern group number. If the systems in this TC also appear on a cable pattern trouble case, that trouble pattern group number will appear here.

⑨ Number of systems failed in the shelf listed in ⑤

⑩ Total number of system failures patterned to this trouble.

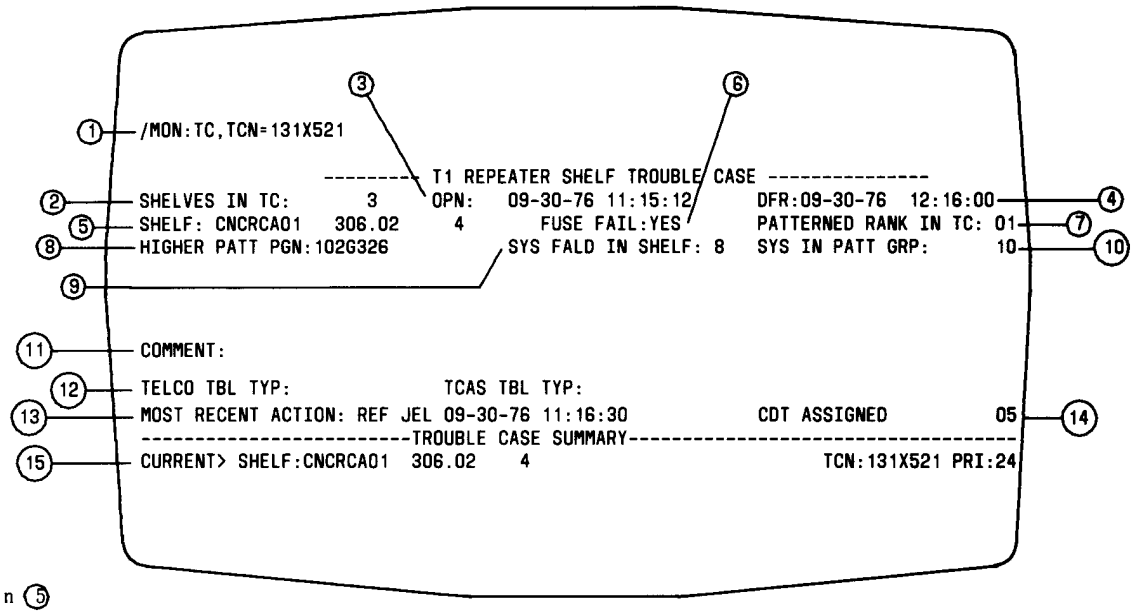
⑪ Comment: Information that is manually posted against this TC by the **IN:CMT** input message. This comment remains in the pattern group history.

⑫ Trouble type information manually posted by the **UPD:TI, TT** = input message.

⑬ Most recent action that was manually posted by the **UPD:AC** input message.

⑭ Computer display terminal to which this TC is assigned.

⑮ ID of this trouble case.



INPUT MESSAGES - MON:TC
OPN:TC
OP:TC (non-dynamic)

Inputting any of the above messages will cause the requested entity to become the current trouble case (CTC)

Fig. 41—T1 Repeater Shelf Trouble Case

(1) Typical input message for this sample display.

(2) Present date and time.

(3) TCN-trouble case number of each entity.

(4) Priority of trouble case.

(5) First ranked entity ID.

(6) Date and time that the TC was opened.

(7) "*" indicates the current trouble case (CTC) for this CDT.

(8) The deferred trouble case list will be outputted on a separate page. For the sake of simplicity, it is shown here on the same page. To obtain the second page, it is necessary to use the **OP** input message.

(9) Date and time the deferral of the TC elapses.

```
(1)  /OP:TCL
(2)  -09-08-76---16:36:12---ACTIVE TROUBLE CASE LIST FOR CDT   1   ---------PAGE 1-
                                                                   TIME OPENED
(3)  TCN      PRIORITY              ENTITY IDENTIFICATION          DATE      TIME
     100X203    40        102 D2       OKLDCA22 WNCKCA57           09-08-76  16:31:24
     100X182    40        103 D1A      SNJSCA02 WNCKCA01           09-08-76  16:31:18
     100X166    40        104 D1A      LFYTCA01 SNFCCA11           09-08-76  16:31:12
     100X158    40        101 D3       CNCRCA01 WNCRCA11           09-08-76  16:31:12
     100X123    40        110 D3       CNCRCA01 CNRCCL02           09-08-76  16:31:06
     100X107    40        131 D1D      ABCDEF00 FEDCBA01           09-08-76  16:31:00
     100X086    48        ML3 T1U      CNCRLA01 WNCRCA11           09-08-76  16:30:54
     100X078    24        SHELF        CNCRCA01 306.02 4           09-08-76  16:30:54
     100X043    26        TB           OKLDCA03 1204.01            09-08-76  16:30:42
(7) *100X027    18        CABLE ROUTE LFYTCA11 WNCKCA11            09-08-76  16:28:06
                              *********************

          ----------DEFERRED TROUBLE CASE LIST FOR CDT     1   -----------
                                                               DEFERRED UNTIL (9)
(8)  TCN      PRIORITY              ENTITY IDENTIFICATION      DATE      TIME
     101X118    40        109 D3       HXWRCA01 OKLDCA03       09-09-76  09:37:06
     101X089    40        128 D4       SMFCCA01 MFSDCI12       09-09-76  09:37:00
```

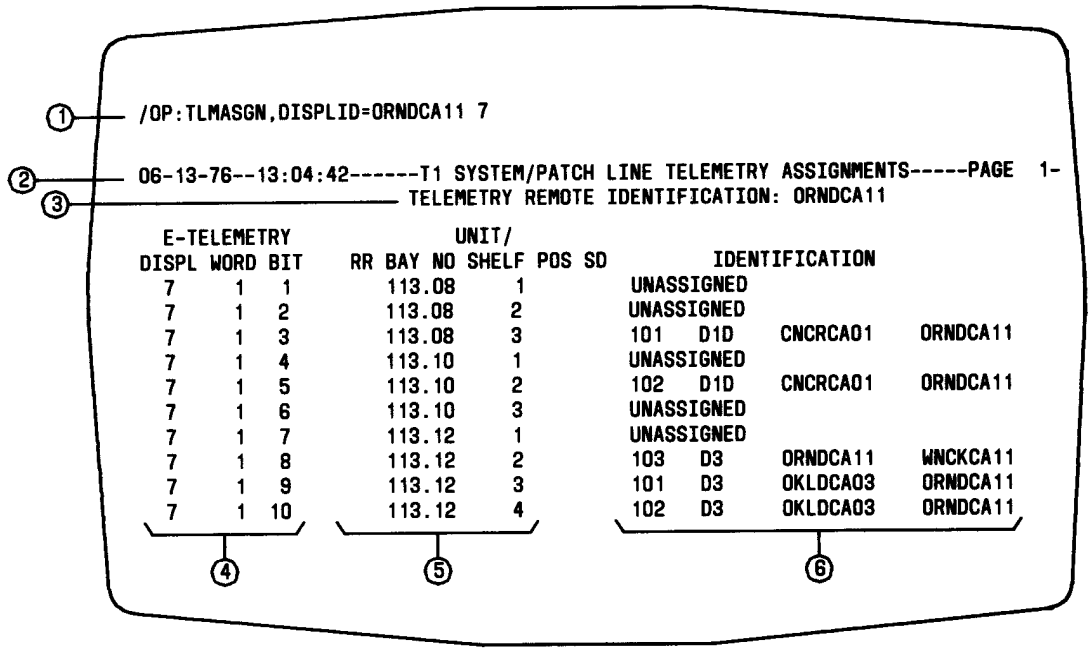
INPUT MESSAGES - OP:TCL
OP (For next page of multipage output)

Fig. 42—Trouble Case List for a Selected CDT

① Typical input message for this sample display.
② Present date and time.
③ Selected remote.
④ Telemetry assignments for the selected display.
⑤ For systems – the bay and unit number of the D-bank.

For patch lines – the bay, shelf, position, and side of the repeater.

⑥ ID of each system or patch line.

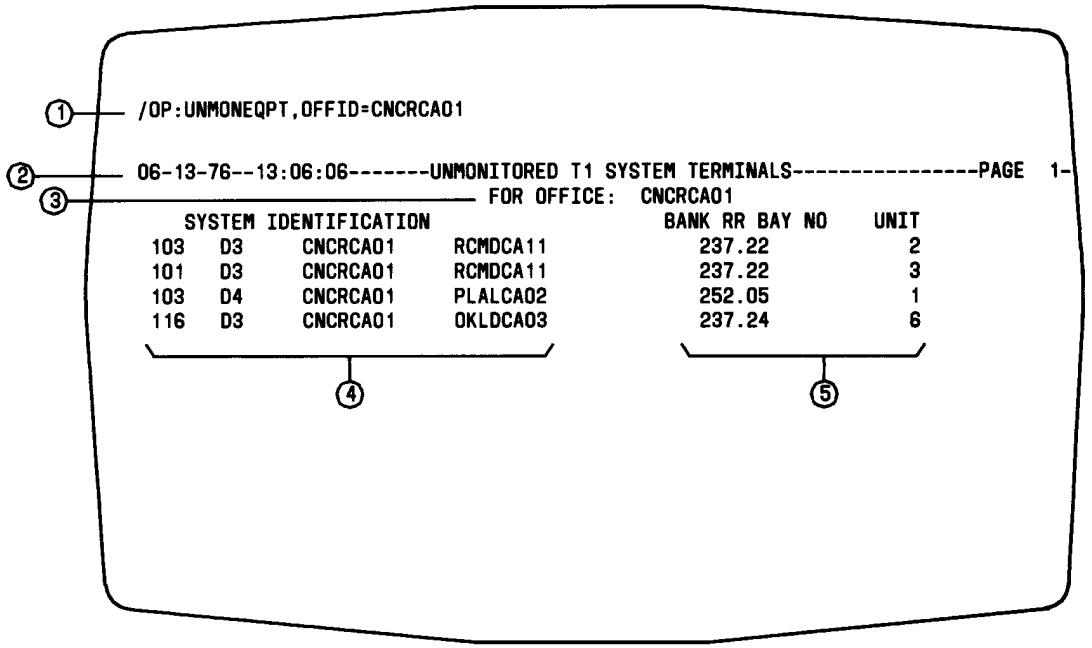


INPUT MESSAGES - OP:TLMASGN

OP (for next page of multipage output)

Fig. 43—T1 System and Patch Line Telemetry Assignments

① Typical input message for this sample display.
② Present date and time.
③ Selected office.
④ Unmonitored system IDs.
⑤ Location of each system in the selected office.



INPUT MESSAGES - OP:UNMONEQPT

OP (for next page of multipage output)

Fig. 44—Unmonitored T1 System Terminals

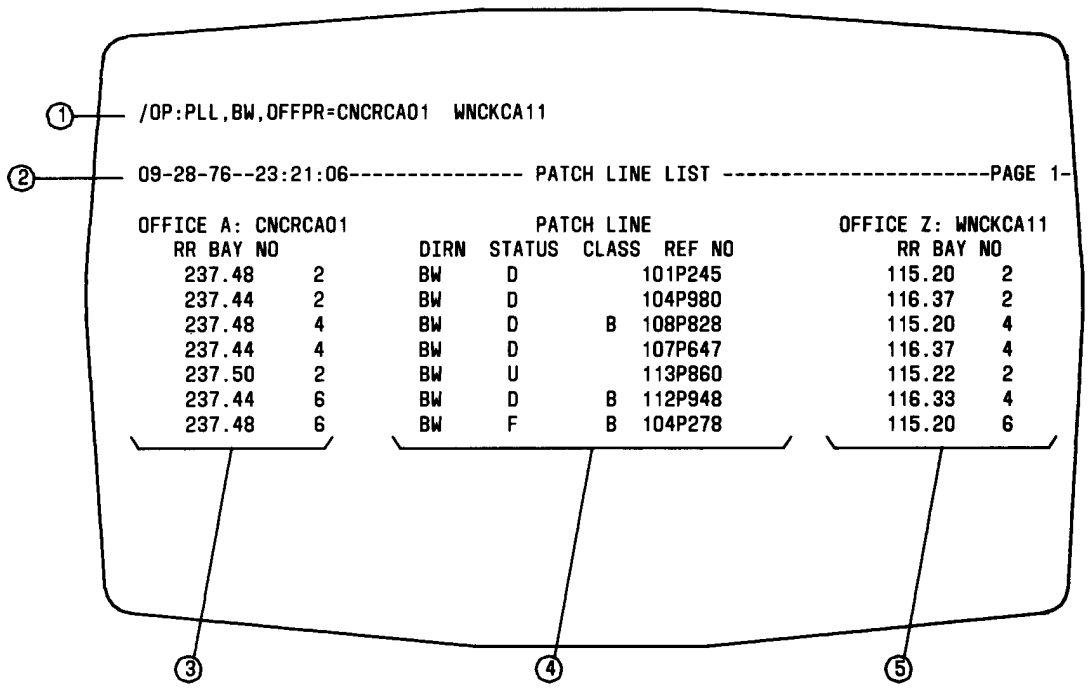
① Typical input message for this sample display.

② Present date and time.

③ Office A patch line office repeater locations.

④ Directions available for use (AZ, ZA, BW);
Status of line (Reserved, Failed, Up or Down)
Class (Backbone, Maintenance).
Patch line reference number.

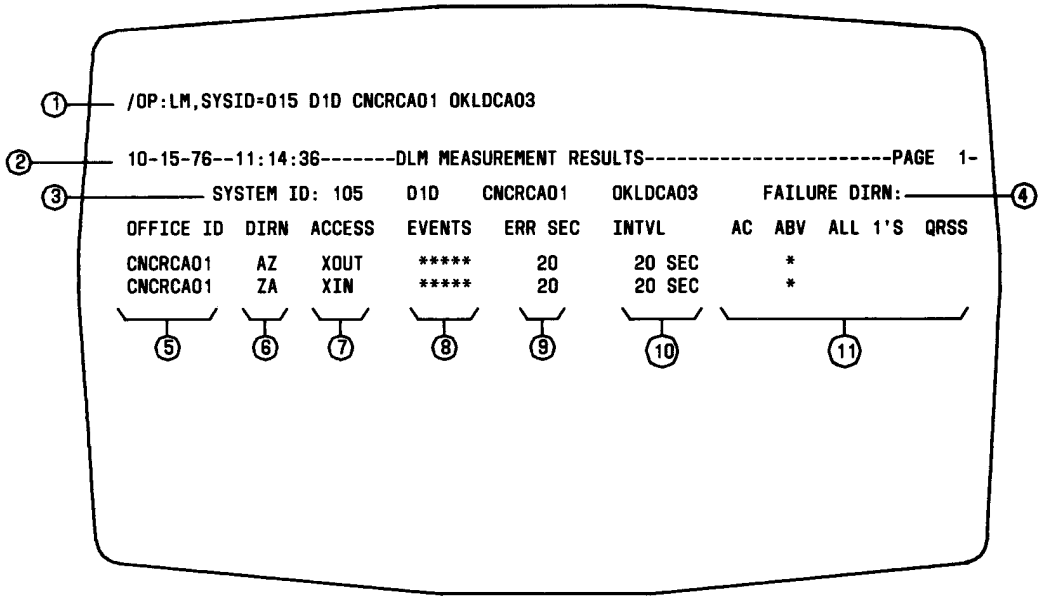
⑤ Office Z patch line office repeater locations.



INPUT MESSAGES - OP:PLL
OP(for next page of multipage output)

Fig. 45—Patch Line List

① Typical input message for this sample display.
② Present date and time.
③ ID of system under test.
④ Deduced failure direction.
⑤ Offices where the system was accessed for test.
⑥ Direction of test.
⑦ Access point of test, (XIN, XOUT, or XCON).
⑧ Number of bipolar violations or absence violations (Events).
⑨ Number of error seconds.
⑩ Interval of test.
⑪ Signal disposition – Abnormal Condition, Absence Violations, All ones, or Quasi-Random Signal Source



INPUT MESSAGE - OP:LM

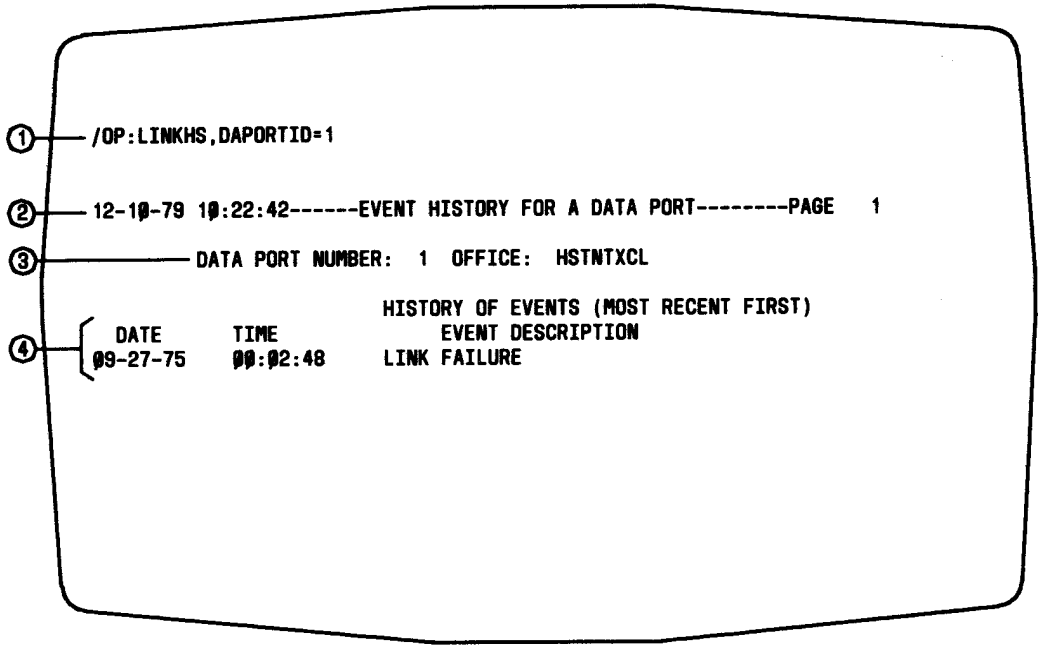
Fig. 46—DLM Measurement Results

① Typical input message for this sample display.

② Present date and time.

③ Data port number and office ID.

④ History of events.
Date, time, and event description.



INPUT MESSAGES: OP:LINKHS,DAPORTID=
OP (for next page of multipage output)

Fig. 47—SCCS Data Port Failures

C. Data Base Reports

3.08 The data base reports are intended to aid the TCAS-equipped TRCC (hereon referred to as just TRCC) in examining the T-carrier network information stored in the TCAS data base. These reports serve two purposes. First, they enable the operating company to verify the information stored in the data base. Second, they enable the operating company to automatically summarize information on the layout of the T-carrier network.

3.09 ***Corporate Structure:*** Basic input message—**OP:CS.** This report displays the entire administrative corporate structure as defined by the TRCC. This structure is used to organize the TCAS administrative reports which summarize network failures and craft activity. The heading on each page is entitled DEPARTMENT, AREA/REGION/TERRITORY, and DIVISION. The subheadings are listed as DISTRICT, SUBDISTRICT, and OFFICE, each of which is in the DIVISION. The position of this information on the page indicates the location of each organization in the administrative hierarchy.

9-30-77 11:02:24

CORPORATE STRUCTURE FOR TCAS NETWORK
DEPT: PLT AREA: HO DIVISION: SW

DISTRICT	SUB-DISTRICT	OFFICE
EAST		
	EAST-05	
		HSTNTXOR
		HSTNTXRE
		HSTNTXBW
	EAST-02	
		HSTNTXDP
	EAST-03	
		HSTNTXPE
		HSTNTXSE
		HSTNTXID
		HSTNTXPR
	EAST-04	
		HSTNTXGR
	EAST-01	
		HSTNTXWA
		HSTNTXMI
WEST		
	WEST-01	
		HSTNTXMO
		HSTNTXPR
	WEST-02	
		HSTNTXHO
		HSTNTXFA
		HSTNTXWR
	WEST-03	
		HSTNTXNA
	WEST-04	
		HSTNTXOV
CENTRAL		
	CENTRAL-02	
		HSTNTXCL
	CENTRAL-01	
	HSTNTXCA	

3.10 ***Office List:*** Basic input messages—**OP:DBL,ALLOFF.** This report lists each office in the TCAS data base alphabetically and designates the parameters which have been applied to the office by the TRCC. The parameters specified are as follows:

- FOREIGN OFFICE FLAG
- REPORT—DAILY FLAG
- REPORT—WEEKLY FLAG

- REPORT—MONTHLY FLAG
- REPORT—QUARTERLY FLAG
- ACO—PERMITTED FLAG.

9-30-77 11:05:12

OFFICE IDENTIFICATION REPORT

OFFICE IDENTIFICATION	FOREIGN OFFICE FLAG	REPORT INTERVAL FLAGS DAILY	WKLY	MOHLY	QTRLY	ACO PMT'D FLAG
HSTNTXMI	N	Y	Y	Y	Y	Y
HSTNTXMO	N	Y	Y	Y	Y	N
HSTNTXNA	N	Y	Y	Y	Y	N
HSTNTXNE	N	Y	Y	Y	Y	N
HSTNTXOR	Y	Y	Y	Y	Y	N
HSTNTXOV	N	Y	Y	Y	Y	N

END OF REPORT

3.11 ***Cable List:*** Basic input message—**OP:DBL,ALLCA.** This report lists each cable in the TCAS data base alphabetically (by transmit office and receive office). The report specifies the control office and span designation for each cable.

9-30-77 11:08:00

CABLE IDENTIFICATION REPORT

TRMT OFF ID	RCVG OFF ID	CA DESIG	CONT OFF ID	SPN DESIG
HSTNTXJA	HSTNTXMC	322	HSTNTXJA	5048
HSTNTXJA	HSTNTXMO	112	HSTNTXJA	5054
HSTNTXJA	HSTNTXMO	17	HSTNTXJA	5054
HSTNTXJA	HSTNTXMO	89	HSTNTXJA	5054
HSTNTXJA	HSTNTXMO	298	HSTNTXJA	5054
HSTNTXJA	HSTNTXNA	273	HSTNTXJA	5056

3.12 ***Controlled Systems List:*** Basic input message—**OP:DBL,OFFID=***xxx* (*xxx* signifies the office ID). This report lists each T1 System controlled by the specified office. The office is identified in the heading on each page. Also specified for each system is the number of monitored terminal banks (0, 1, or 2).

9-30-77 11:15:54

CONTROLLED SYSTEMS LIST
FOR OFFICE: HSTNTXCA

SYSTEM IDENTIFICATION				MONITORED TERMINALS
117	D3	HSTNTXCA	HSTNTXRE	2
116	D3	HSTNTXCA	HSTNTXRE	2
115	D3	HSTNTXCA	HSTNTXRE	2
114	D3	HSTNTXCA	HSTNTXRE	2
113	D3	HSTNTXCA	HSTNTXRE	2
111	D3	HSTNTXCA	HSTNTXRE	2

3.13 ***Terminating Systems List:*** Basic input message—**OP:DBL,OFFID=***xxx***,TERMG** (*xxx* signifies the office ID). This report lists each T1 System which terminates in the specified office. The office is identified in the heading on each page. For each system, the type of monitoring is also given and will be one of the following:

- NONE for no monitor
- E2 for E-telemetry monitoring
- CMS for CMS monitoring via No. 4 ESS.
- SCCS for SCCS monitoring via No. 2 SCCS.

9-30-77 11:19:42

TERMINATING SYSTEMS LIST
FOR OFFICE: HSTNTXCA

SYSTEM IDENTIFICATION				MONITOR TYPE
103	D3	HSTNTXBW	HSTNTXCA	CMS
102	D3	HSTNTXBW	HSTNTXCA	CMS
101	D3	HSTNTXBW	HSTNTXCA	CMS
108	D1A	HSTNTXBU	HSTNTXCA	CMS
107	D1A	HSTNTXBU	HSTNTXCA	CMS
106	D1A	HSTNTXBU	HSTNTXCA	CMS

3.14 ***Controlled Patch Line List:*** Basic input message—**OP:DBL,OFFID=***xxx***,PL** (*xxx* signifies the office ID). This report lists each T1 patch line controlled by the specified office. The office is identified in the heading.

9-30-77 11:01:48

CONTROLLED PATCH LINES LIST
FOR OFFICE: HSTNTXCA

PATCH LINE IDENTIFICATION

307M	MSPAREHSTNTXCA	HSTNTXWA
305M	MSPAREHSTNTXCA	HSTNTXWA
304M	MSPAREHSTNTXCA	HSTNTXWA
303M	MSPAREHSTNTXCA	HSTNTXWA
302M	MSPAREHSTNTXCA	HSTNTXWA
301M	MSPAREHSTNTXCA	HSTNTXWA

END OF REPORT

3.15 ***Controlled Cables List:*** Basic input message—**OP:DBL,OFFID=***xxx*,**CA** (*xxx* signifies the office ID). This report lists each T1 cable controlled by the specified office. The office is identified in the heading.

9-30-77 11:00:54

CONTROLLED CABLES LIST
FOR OFFICE: HSTNTXCA

CABLE IDENTIFICATION

TT1	HSTNTXCA	HSTNTX01
TT27	HSTNTXCA	HSTNTX01
TT23	HSTNTXCA	HSTNTX01
TT20	HSTNTXCA	HSTNTX01
TT15	HSTNTXCA	HSTNTX01
26	HSTNTXCA	HSTNTXWA
22	HSTNTXCA	HSTNTXWA

END OF REPORT

3.16 ***Terminating Cables List:*** Basic input message—**OP:DBL,OFFID=***xxx*,**CA,TERMG** (*xxx* signifies the office ID). This report lists each cable terminating in the specified office. The office is identified in the heading.

9-30-77 11:01:18

TERMINATING CABLES LIST
FOR OFFICE: HSTNTXCA

CABLE IDENTIFICATION

TT1	HSTNTXCA	HSTNTX01
TT27	HSTNTXCA	HSTNTX01
TT23	HSTNTXCA	HSTNTX01
TT20	HSTNTXCA	HSTNTX01
TT15	HSTNTXCA	HSTNTX01
26	HSTNTXCA	HSTNTXWA

END OF REPORT

3.17 ***Cable Cross Section*** (systems): Basic input message—**OP:DBL,CAID=***xxx* (*xxx* signifies the cable ID). This report lists each T1 System which is in the specified cable. The cable is identified in the heading.

9-30-77 11:03:18

T1 CABLE CROSS SECTION — T1 SYSTEMS
FOR CABLE: 84 HSTNTXUN HSTNTXCA

SYSTEM IDENTIFICATION

101	D1B	HSTNTXUN	KEMHTXXA
108	D1A	HSTNTXSA	HSTNTX01
102	D1A	HSTNTXPE	HSTNTXUN
118	D1A	HSTNTXOV	HSTNTX01
117	D3D1D	HSTNTXOV	HSTNTX01
116	D3D1D	HSTNTXOV	HSTNTX01

3.18 ***Cable Cross Section*** (patch lines): Basic input message—**OP:DBL,CAID=***xxx*,**PL** (*xxx* signifies the cable ID). This report lists each T1 patch line which is in the specified cable. The cable is identified in the heading.

Note: For multisegment patch lines, such as backbones, the terminal offices of the patch line need not be the same as the terminal offices of the cable.

9-30-77 11:06:18

T1 CABLE CROSS SECTION — T1 PATCH LINES
FOR CABLE: 84 HSTNTXUN HSTNTXCA

PATCH LINE IDENTIFICATION

802B	BSPAREHSTNTXMI	HSTNTXUN
801B	BSPAREHSTNTXMI	HSTNTXUN
301M	MSPAREHSTNTXOA	HSTNTXUN

END OF REPORT

3.19 ***Equipment Inventory*** (by office): Basic input message—**OP:EQPTINV,OFFID=***xxx* (*xxx* signifies the office ID). This equipment inventory lists all the T1 System terminals in a specified office (or in all offices; refer to paragraph 2.61). The terminal bay number and unit/shelf are identified. The T1 System which uses the terminal is also identified.

T1 TERMINAL EQUIPMENT LOCATIONS

FOR OFFICE: OKLDCA03

BANK RR BAY NO	UN/SHLF		SYSTEM IDENTIFICATION		
1400.11	205	105	T1	ELSBCA11	OKLDCA03
1400.11	207	101	T1	BRLNCA01	OKLDCA03
1400.11	0206	101	T1	OKLDCA03	SNVACA01
1400.12	210	106	T1	ELSBCA11	OKLDCA03
1400.12	0208	101	T1	MTVWCA11	OKLDCA03
1400.12	0209	109	T1	OKLDCA03	SNFCCA05
1400.13	212	102	T1	BRLNCA01	OKLDCA03
1400.13	0211	137	T1	OKLDCA03	SNLNCA11
1400.13	0213	113	T1	OKLDCA03	WNCKCA11
1400.19	227	107	T1	ELSBCA11	OKLDCA03

3.20 ***Equipment Inventory*** (by equipment class): Basic input message—**OP:EQPTINV,OFFID=***xxx* **,EQPTCL=T1OR** (*xxx* signifies the office ID). This equipment inventory lists all the T1 office repeaters. The repeater bay, shelf, position, and side, as well as the destination office are identified. The T1 System which uses the repeater is also identified.

02-22-77 04:07:18 PAGE 1

T1 REPEATER EQUIPMENT LOCATIONS

FOR OFFICE: HSTNTXAI

RR BAY NO	SHELF	POS	SIDE	TO OFFICE		SYSTEM IDENTIFICATION		
TR1	3	002	2	HSTNTXBA	102	D1A	HSTNTXBA	HSTNTXUN
TR1	3	002	1	HSTNTXOX	102	D1A	HSTNTXBA	HSTNTXUN
TR1	3	003	2	HSTNTXBA	101	D1A	HSTNTXBA	HSTNTXWA
TR1	3	003	1	HSTNTXOX	101	D1A	HSTNTXBA	HSTNTXWA
TR1	3	005	2	HSTNTXBA	101	D1A	HSTNTXBA	HSTNTXCA
TR1	3	005	1	HSTNTXOX	101	D1A	HSTNTXBA	HSTNTXCA
TR1	3	006	2	HSTNTXBA	102	D1A	HSTNTXBA	HSTNTXCA
TR1	3	006	1	HSTNTXOX	102	D1A	HSTNTXBA	HSTNTXCA
TR10	01	001	0	HSTNTXBA	101	D3	HSTNTXBA	HSTNTXRI

3.21 These equipment inventory reports can be used to verify the TCAS data base for an office. The reports can also be used to obtain a list of T1 Systems, by terminal or repeater, for each office in the network.

3.22 ***Network Portions Assignments:*** Basic input message—**OP:NPL,CDT=***xxx* (*xxx* signifies the CDT number). This lists all control offices for which a specified CDT (or all CDTs; refer to paragraph 2.62) has responsibility. The CDT is identified in the heading.

11-15-76 01:21:06 NETWORK PORTIONS ASSIGNMENTS FOR CDT 1 PAGE 1

OFFICE	RESPONSIBILITY	CONTROLLED/MONITORED SYSTEMS	CONTROLLED/MONITORED SPAN LINES
BKLYCA01T0	PRIMARY (ACO)	2	0
CNCRCA01T0	PRIMARY	59	0
ELSBCA11T0	PRIMARY (ACO)	1	0
HYWRCA01T1	PRIMARY (ACO)	1	0
HYWRCA02T0	PRIMARY (ACO)	5	0
LFYTCA11T0	PRIMARY	2	0

3.23 ***Switch Point Assignments:*** Basic input message—**OP:SWASGN,REMID**=*xxx* (*xxx* signifies the remote ID). This report lists the directed line monitor (DLM) and alarm cutoff (ACO) switch point assignments for a specified telemetry remote. The heading of the report specifies the office where the remote is installed, the RR bay number where the remote is mounted, and the TCAS identification of the remote.

3.24 The format for the ACO switch point assignments differs from the format for DLM switch assignments. For the ACO section of the report, the switch point (SW PT) is described as switch group (SW GR), switch subgroup (SW SGR), and SW PT. The column to the right of the SW PT column identifies the terminal bay that is controlled by the SW PT.

9-30-77 14:39:36

DIRECTED LINE MONITOR/ACO SWITCH ASSIGNMENTS

OFFICE: HSTNTXJA E2 RR BAY NO: RR250.1 REMOTE ID: HSTNTXJA

SW GR	SW SGR	SW PT	RR BAY NO (ACO)
1	9	1	TD121
1	9	2	TD122
1	9	3	TD123
1	9	4	TD124
1	9	5	TD125
1	9	6	TD126

3.25 For the DLM section of the report, the repeater access unit (RAU) is identified in terms of its RAU bay number, its unit designation within the bay, the shelf designation which represents a TCAS address within the RAU, and the switch point address (GR,SGR,PT) which selects that shelf address. To the right of the switch point address is the RR bay number and shelf, which is the identification of the monitored repeater bay shelf in the office. If the shelf is monitored for fuse failures, the telemetry assignments for repeater bay fuse monitoring follow. The format of the telemetry assignments is display (DISPL), word (WORD), and bit (BIT).

9-30-77 14:41:42

DIRECTED LINE MONITOR/ACO SWITCH ASSIGNMENTS

OFFICE: HSTNTXJA E2 RR BAY NO: RR250.1 REMOTE ID: HSTNTXJA

RAU BAY	UNIT	SHELF	RAU SWITCH GR	SGR	PT	RR BAY NO	SHELF	FUSE TELEMETRY DISPL	WORD	BIT
TR332.1	11	1	01	03	12	TR11	01	33	1	12
TR332.1	11	2	01	03	12	TR11	02	33	1	12
TR332.1	11	3	01	03	12	TR11	3	33	1	12
TR332.1	11	4	01	03	12	TR11	04	33	1	12
TR332.1	11	5	01	03	12	TR11	05	33	1	12
TR332.1	11	6	01	03	12	TR11	06	33	1	12

3.26 ***Telemetry Assignments:*** Basic input message—**OP:TLMASGN.** This report is used to verify the telemetry monitoring points for T1 Systems and patch lines and to verify the data base telemetry assignments. The telemetry remote is identified in the heading on each page. The format consists of an E2 display number, an E2 word number, an E2 bit number, and identification of the monitored entity. If the entity is a system, then the RR bay number and unit or the T1 terminal is identified. If the entity is a patch line, then the RR bay number, shelf, position, and side are identified.

02-22-77 04:16:42 PAGE 1

T1 SYSTEM/PATCH LINE TELEMETRY ASSIGNMENTS

OFFICE: HSTNTXAI E2 RR BAY NO: RR170.1 REMOTE ID: HSTNTXAI

E-TELEMETRY DISPL	WORD	BIT	RR BAY NO	UNIT SHELF	POS	SD	IDENTIFICATION			
5	1	1	TR1	01	004	1	301M	MSPARE	HSTNTXAI	HSTNTXOX
5	1	2	TR1	01	006	2	301M	MSPARE	HSTNTXAI	HSTNTXBA
5	1	3	TR2	3	001	1	301M	MSPARE	HSTNTXAI	HSTNTXUN
5	1	4	TR2	3	001	2	302M	MSPARE	HSTNTXAI	HSTNTXBA
5	1	5	TR2	3	002	1	302M	MSPARE	HSTNTXAI	HSTNTXOX
5	1	6	TR2	3	003	1	301M	MSPARE	HSTNTXAI	HSTNTXCC
5	1	7	TR2	3	003	2	303M	MSPARE	HSTNTXAI	HSTNTXOX
5	1	8					UNASSIGNED			
5	1	9					UNASSIGNED			

02-22-77 04:17:06 PAGE 3

T1 SYSTEM/PATCH LINE TELEMETRY ASSIGNMENTS

OFFICE: HSTNTXAI E2 RR BAY NO: RR170.1 REMOTE ID: HSTNTXAI

E-TELEMETRY DISPL	WORD	BIT	RR BAY NO	UNIT SHELF	POS	SD	IDENTIFICATION	
7	1	1	TD1	01	101	D1A	HSTNTXAI	HSTNTXJA
7	1	2	TD1	02	102	D1A	HSTNTXAI	HSTNTXWA
7	1	3	TD1	3	101	D1A	HSTNTXAI	HSTNTXMI
7	1	4	TD2	01	101	D1A	HSTNTXAI	HSTNTXOR
7	1	5	TD2	02	101	D1A	HSTNTXAI	HSTNTXWA
7	1	6	TD2	3	102	D1A	HSTNTXAI	HSTNTXJA
7	1	7	TD3	01	102	D1A	HSTNTXAI	HSTNTXCA
7	1	8	TD3	02	101	D1A	HSTNTXAI	HSTNTXWE
7	1	9	TD3	3	102	D1A	HSTNTXAI	HSTNTX01
7	1	10	TD4	01	101	D1A	HSTNTXAI	HSTNTX01

3.27 ***Scan Point Assignments:*** Basic input message—**OP:SCCASGN,SWMACHID=***xxx* (*xxx* signifies the switching machine ID). This report identifies the SCCS scan points that are assigned to the terminal bays for those T1 Systems monitored via ESS. The switching machine is identified in the heading of the report. The format consists of the scan point number, office ID, RR bay number, unit, and the facility identification.

12-10-79 10:13:48 PAGE 1

SCAN POINT ASSIGNMENT LIST

FOR SCCS/ESS: HSTNTXAP HSTNSW

SCAN PT	OFFICE	RR BAY NO	UNIT	FACILITY IDENTIFICATION
0	HSTNTXFR	701.01	01	UNASSIGNED
1	HSTNTXFR	701.01	2	UNASSIGNED
2	HSTNTXFR	701.01	3	UNASSIGNED

3.28 ***Unmonitored Equipment:*** Basic input message—**OP:UNMONEQPT,OFFID=***xxx* (*xxx* signifies the office ID). This report lists all unmonitored T1 Sytems or T1 patch lines in a specified office (or all offices; refer to paragraph 2.65). The office is identified in the heading on each page. The format for unmonitored T1 Systems consists of identification of each T1 System which terminates in the office but does not have its terminal in the office monitored. The bank RR bay number and unit of the terminal are also identified.

05-28-76 23:43:48 PAGE 1

UNMONITORED T1 SYSTEM TERMINALS

FOR OFFICE: OKLDCA03

SYSTEM IDENTIFICATION				BANK RR BAY NO	UNIT
127	T2	OKLDCA03	WNCKCA11	1413.10	4
126	T2	OKLDCA03	WNCKCA11	1413.13	1
125	T2	OKLDCA03	WNCKCA11	1413.12	2
124	T2	OKLDCA03	WNCKCA11	1413.11	2
123	T2	OKLDCA03	WNCKCA11	1413.10	3
121	T2	OKLDCA03	WNCKCA11	1414.00	1
120	T2	OKLDCA03	WNCKCA11	1422.17	2
119	T2	OKLDCA03	WNCKCA11	1422.16	2
116	T2	OKLDCA03	WNCKCA11	1420.17	4

3.29 The format for unmonitored T1 patch lines consists of identification of each incoming T1 patch line that is not monitored by a maintenance line status indicator (MLSI). Also identified are the RR bay number, shelf, position, and side.

05-28-76 23:44:12 PAGE 1

UNMONITORED T1 PATCH LINE SPANS

FOR OFFICE: OKLDCA03

RR BAY NO	SHELF	POS	SIDE	PATCH LINE IDENTIFICATION			
1423.01	3	013	0	ML5	T1U	OKLDCA03	SNFCCA01
1423.02	5	013	0	ML3	T1U	OKLDCA03	SNFCCA01
1423.02	3	013	0	ML2	T1U	OKLDCA03	SNFCCA01
1404.07	1	013	0	ML4	T1U	OKLDCA03	SNFCCA01
1404.09	1	013	0	ML1	T1U	OKLDCA03	SNFCCA01
1404.09	5	012	0	BB5	T1U	BKLYCA01	SNFCCA01
1404.08	3	013	0	BB1	T1U	CNCRCA01	SNFCCA01
1423.09	5	013	0	ML4	T1U	OKLDCA03	OKLDCA04

3.30 For detailed information on the data base masks involved in adding, deleting, and changing data in a TCAS data base, refer to Section 190-200-310.

D. Reports From the Computer Control Console

3.31 The reports available from the CC are related to the operating parameters and telemetry operations associated with TCAS. The following paragraphs give examples of reports available from the CC.

3.32 ***Directed Line Monitor (DLM) Test:*** Basic input message—**EXEC:DLMTST,REMID=***xxx (xxx* signifies the remote ID). The execution of a DLM test is used to verify the operation of the DLMs located at the remote offices. When a DLM test is requested, a set of three tests is actually executed. These three tests are as follows:

- Low error test

- No errors test
- No pulse test (high errors).

The results of each test are compared to the required values of each test. If a disagreement exists, the results and required values of each test are outputted. If the message **TEST OK** is outputted for each test, then no disagreement exists between the test results and the required values.

```
EXEC:DLMTST,REMID = HSTNTXOX
15:58:30 EXEC:DLMTST,REMID = HSTNTXOX                          IN PROGRESS
15:58:30 EXEC:DLMTST,REMID = HSTNTXOX                            STARTED
12-11-76 16:00:12 DLMTST,REMID = HSTNTXOX

LOW ERROR TEST:  EVENTS   ERR SEC   INTVL   AC  ABV  ALL 1'S  QRSS  T1  MFIN
     REQUIRED  :    63        1     1 SEC                 *                *
     RESULTS   :   OVFL       1     1 SEC                 *                *

NO ERROR TEST  : EVENTS   ERR SEC   INTVL   AC  ABV  ALL 1'S  QRSS  T1  MFIN
     REQUIRED  :     0         0    20 SEC                       *   *    *
     RESULTS   : 20000        20    20 SEC   *

NO PULSE TEST  : EVENTS   ERR SEC   INTVL   AC  ABV  ALL 1'S  QRSS  T1  MFIN
     REQUIRED  : 51000         1     1 SEC       *                      *
     RESULTS   : 99000        19    20 SEC       *                      *

                                    DLMTST COMPLETE
```

```
EXEC:DLMTST,REMID = HSTNTXOX
15:58:30 EXEC:DLMTST,REMID = HSTNTXOX                          IN PROGRESS
15:58:30 EXEC:DLMTST,REMID = HSTNTXOX                            STARTED
12-11-76 16:00:12 DLMTST,REMID = HSTNTXOX

TEST OK
                                    DLMTST COMPLETE
```

3.33 ***Telemetry Status:*** Basic input message—**OP:TLMSTAT.** This report indicates the operational status of the data facilities and E remotes comprising the TCAS Telemetry System. The following report is a summary of all remotes and/or TCTs which have been placed out of service (OOS) and the time the action took place. Those remotes or TCTs listed as active (ACT) will not appear on subsequent outputs unless they are returned to the OOS state. To obtain the output, it is necessary to input at the CC—**OP:TLMSTAT.**

E-TELEMETRY STATUS
11-12-76 14:21:00

TCT NO	STATUS	TIME	DATE
01	OOS	14:03:06	11-12-76
	ACT	14:20:00	11-12-76
02	OOS	14:03:48	11-12-76
03	OOS	14:04:12	11-12-76

E-REMOTE	STATUS	TIME	DATE
HSTNTXJA	OOS	14:19:30	11-12-76
HSTNTXPR	OOS	14:09:06	11-12-76
HSTNTXFA	OOS	14:05:48	11-12-76
	ACT	14:20:36	11-12-76

14:21:00 OP:TLMSTAT COMPLETE

3.34 The following report is a **snapshot** of the status of all remotes assigned to the TRCC at the time the request was initiated. To obtain the output, it is necessary to input at the CC—**OP:TLMSTAT,ALL.**

E-TELEMETRY STATUS
11-12-76 14:30:12

REMOTE NAME	TCT NO	TCT STATUS	REMOTE ADDR	REMOTE STATUS	FAIL	ALARM NEW	ALARM ANY
HSTNTXJA	04	ACT	123	OOS	YES	NO	NO
HSTNTXOX	05	ACT	132	ACT	NO	NO	NO
HSTNTXUN	01	ACT	138	ACT	NO	NO	NO
HSTNTXMI	06	ACT	126	ACT	NO	NO	NO
HSTNTXSU	03	OOS	137	ACT	NO	NO	NO
HSTNTXBA	05	ACT	115	ACT	NO	YES	NO
SPRNTXSO	05	ACT	147	ACT	NO	NO	NO
HSTNTXAD	05	ACT	145	ACT	NO	YES	NO
HSTNTXID	04	ACT	113	ACT	YES	NO	NO
HSTNTXWE	05	ACT	114	ACT	NO	NO	NO
HSTNTXGL	02	OOS	146	ACT	NO	NO	NO
HSTNTXGR	02	OOS	118	ACT	NO	NO	NO
HSTNTXMO	04	ACT	127	ACT	YES	NO	NO
HSTNTXAL	03	OOS	144	ACT	YES	NO	NO
HSTNTXPA	04	ACT	133	ACT	YES	NO	NO

14:30:24 OP:TLMSTAT COMPLETE

3.35 The following report gives the status of a specified remote only. To obtain the output, it is necessary to input at the CC—**OP:TLMSTAT,REMID**=*xxx* (*xxx* signifies the remote ID).

E-TELEMETRY STATUS
11-12-76 14:34:18

REMOTE NAME	TCT NO	TCT STATUS	REMOTE ADDR	REMOTE STATUS	FAIL	ALARM NEW	ALARM ANY
HSTNTXWA	02	OOS	141	ACT	NO	NO	NO

14:34:18 OP:TLMSTAT COMPLETE

3.36 The following report gives the status of all remotes assigned to a specified TCT. To obtain the output, it is necessary to input at the CC—**OP:TLMSTAT,TCT**=*xxx* (*xxx* signifies the TCT number).

E-TELEMETRY STATUS
11-12-76 14:31:54

REMOTE NAME	TCT NO	TCT STATUS	REMOTE ADDR	REMOTE STATUS	FAIL	ALARM NEW	ALARM ANY
HSTNTXUN	01	ACT	138	ACT	NO	NO	NO
HSTNTXOV	01	ACT	131	ACT	NO	YES	NO
HSTNTXHO	01	ACT	143	ACT	NO	NO	NO
HSTNTXFA	01	ACT	117	ACT	NO	NO	NO

14:31:54 OP:TLMSTAT COMPLETE

3.37 ***Telemetry Errors:*** Basic input message—**OP:TLMERR.** This report contains the invalid reply rate (IRR) history of the TCAS data facilities and a listing of the outstanding errors for each E remote. The invalid reply rate history consists of the latest six values which exceed 1 per 1000 words. If no E remotes indicate an unreported error, the word **none** will be printed under the heading ERROR.

/OP:TLMERR

M 36:48 OP:TLMERR IN PROGRESS
E-TELEMETRY ERRORS
04-20-77 13:36:48

TCT NO	IRR	TIME
01		
	51	13:20:30
	42	12:12:48
02		
	7	13:20:12
	7	12:12:36
03		
	2	13:21:12
	2	12:13:12
04		
	17	13:21:48
	16	12:13:18
05		
	2	13:21:06
	2	12:12:30
06		
	2	13:22:54
	2	12:14:00

E-REMOTE	TCT NO	ERROR	TIME
HSTNTXJA	04	NR	13:35:54
HSTNTXSU	03	NR	13:34:00
HSTNTXAD	05	NR	13:35:48
HSTNTXID	04	NR	13:33:42
HSTNTXAP	06	NR	13:36:12

M 37:06 OP:TLMERR COMPLETE

3.38 ***Removing a Unit From Service:*** Basic input message—**RMV:UN.** If it is necessary to perform maintenance on a TCT or E remote, it is desirable to inhibit polling to that TCT or E remote. When a TCT or E remote is placed out of service, the status report for that TCT or E remote is automatically outputted to confirm the action taken.

/RMV:UN,TCT = 1

* 47:18 RMV:UN,TCT = 1 IN PROGRESS
E-TELEMETRY STATUS
11-12-76 14:47:18

REMOTE NAME	TCT NO	TCT STATUS	REMOTE ADDR	REMOTE STATUS	FAIL	ALARM NEW	ALARM ANY
HSTNTXUN	01	OOS	138	ACT	NO	NO	NO
HSTNTXOV	01	OOS	131	ACT	NO	NO	NO
HSTNTXHO	01	OOS	143	ACT	NO	NO	NO
HSTNTXFA	01	OOS	117	ACT	NO	NO	NO

M 47:18 RMV:UN,TCT = 1 COMPLETE

/RMV:UN,REMID = HSTNTXHO

M 50:00 RMV:UN,REMID = HSTNTXHO IN PROGRESS
E-TELEMETRY STATUS
11-12-76 14:50:06

REMOTE NAME	TCT NO	TCT STATUS	REMOTE ADDR	REMOTE STATUS	FAIL	ALARM NEW	ALARM ANY
HSTNTXHO	01	ACT	143	OOS	NO	NO	NO

M 50:06 RMV:UN,REMID = HSTNTXHO COMPLETE

3.39 ***Restoring a Unit to Service:*** Basic input message—**RST:UN.** When a TCT or E remote is restored to service, the status report for the TCT or E remote is automatically outputted.

RST:UN,TCT = 1

M 49:12 RST:UN,TCT = 1 IN PROGRESS
E-TELEMETRY STATUS
11-12-76 14:49:12

REMOTE NAME	TCT NO	TCT STATUS	REMOTE ADDR	REMOTE STATUS	FAIL	ALARM NEW	ALARM ANY
HSTNTXUN	01	ACT	138	ACT	NO	NO	NO
HSTNTXOV	01	ACT	131	ACT	NO	YES	NO
HSTNTXHO	01	ACT	143	ACT	NO	NO	NO
HSTNTXFA	01	ACT	117	ACT	NO	NO	NO

M 49:12 RST:UN,TCT = 1 COMPLETE

/RST:UN,REMID = HSTNTXHO

M 50:42 RST:UN,REMID = HSTNTXHO IN PROGRESS
E-TELEMETRY STATUS
11-12-76 14:50:54

REMOTE NAME	TCT NO	TCT STATUS	REMOTE ADDR	REMOTE STATUS	FAIL	ALARM NEW	ALARM ANY
HSTNTXHO	01	ACT	143	ACT	NO	NO	NO

M 50:54 RST:UN,REMID = HSTNTXHO COMPLETE

3.40 ***Scheduled Task List:*** Basic input message—**OP:PRMTR.** This report is a list of all scheduled tasks available with TCAS. Examples of scheduled tasks are the periodically scheduled reports and the daily scheduled disc image dump. The scheduled tasks are divided into two types. The first type is a *required* or *key* task and depends on no other prerequisite task fulfillment before it may be carried out. The second is a *dependent* task, which may not be carried out until some time after the execution of a *key* task. *Required* tasks are defined in terms of a beginning date and time, an interval between automatic executions, and a status (eg, scheduled or inhibited). *Dependent* tasks are defined in terms of status and *offset* time only. The *offset* time is a scheduled period following the execution of a required task before a ***dependent*** task can be executed. Asterisks in a date or time field indicate that the TELCOs cannot change their values. For example, in the following task list, task 17 must follow task 2 and is offset from task 2 by 600 minutes. Dependent tasks may be inhibited or allowed at any time; but if allowed, they will not be executed until the required tasks are carried out. There are 98 tasks included in the scheduled task list for TCAS.

```
TASK LIST (PRMTRS MARKED * AREN'T CHANGEABLE.)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

TASK: 001 STATUS: SCHED
  DESCR: BI-HOURLY REPORT KEY
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: (DAYS, MINS):  0,  120.0 *********
  BEGINNING DATE & TIME: 12-21-79, 12:00:00

TASK: 002 STATUS: SCHED
  DESCR: DIALY REPORT KEY
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: (DAYS, MINS):  1,    .0 *********
  BEGINNING DATE & TIME: 12-22-79, 00:00:00

TASK: 003 STATUS: SCHED
  DESCR: WEEKLY REPORT KEY
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: WEEKLY ***************************
  BEGINNING DATE & TIME: 12-24-79, 00:00:00

TASK: 004 STATUS: SCHED
  DESCR: MONTHLY REPORT KEY
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: MONTHLY ***************************
  BEGINNING DATE & TIME: 01-01-80, 00:00:00

TASK: 005 STATUS: SCHED
  DESCR: QUARTERLY REPORT KEY
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: QUARTERLY ***************************
  BEGINNING DATE & TIME: 01-01-80, 00:00:00

TASK: 006 STATUS: SCHED
  DESCR: INDEX MONTH REPORT KEY
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: MONTHLY ***************************
  BEGINNING DATE & TIME: 12-24-79, 00:00:00

TASK: 007 STATUS: SCHED **********************
  DESCR: R117: ACCUMULATE STATISTICS FOR TRCC REPORT
  REQD TASK:   REQD TAST STATUS: NONE
  INTERVAL: (DAYS, MINS):  1,    .0 *********
  BEGINNING DATE & TIME: 12-20-79, 00:00:06 ***

TASK: 008 STATUS: SCHED **********************
  DESCR: R116: ACCUMULATE MANUAL WORK ACTIVITY STATISTICS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: (DAYS, MINS):  1,    .0 *********
  BEGINNING DATE & TIME: 12-20-79, 00:00:06 ***
```

```
TASK: 009 STATUS: SCHED **********************
  DESCR: R111: ACCUMULATE T1 CGA STATISTICS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: (DAYS, MINS):  1,     .0 *********
  BEGINNING DATE & TIME: 12-20-79, 00:00:06 ***

TASK: 010 STATUS: SCHED **********************
  DESCR: R193: ACCUMULATE PATCHING STATISTICS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: (DAYS, MINS):  1,     .0 *********
  BEGINNING DATE & TIME: 12-20-79, 00:00:06 ***

TASK: 011 STATUS: SCHED **********************
  DESCR: R175: ACCUMULATE WEEKLY INDEX STATISTICS (CGA READINGS)
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: WEEKLY ***************************
  BEGINNING DATE & TIME: 12-24-79, 00:00:06 ***

TASK: 012 STATUS: SCHED **********************
  DESCR: R176: ACCUMULATE MONITORED STATISTICS FOR INDEX MONTH
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: MONTHLY **************************
  BEGINNING DATE & TIME: 12-23-79, 00:00:06 ***

TASK: 013 STATUS: SCHED
  DESCR: R103: BACK-UP LIST OF TROUBLE CASES
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: (DAYS, MINS):  0,     120.0
  BEGINNING DATE & TIME: 12-20-79, 16:00:00

TASK: 014 STATUS: SCHED
  DESCR: R106: SUMMARIZE OPEN T1 SYSTEM TROUBLE CASES
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL (DAYS, MINS):  0,     120.0
  BEGINNING DATE & TIME: 12-20-79, 16:00:00

TASK: 015 STATUS: SCHED
  DESCR: R109: TCAS CENTER SUMMARY REPORT – I
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: (DAYS, MINS):  0,     600.0
  BEGINNING DATE & TIME: 12-20-79, 16:00:00

TASK: 016 STATUS: SCHED
  DESCR: R109: TCAS CENTER SUMMARY REPORT – II
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: (DAYS, MINS):  0,     600.0
  BEGINNING DATE & TIME: 12-20-79, 16:00:00
```

TASK: 017 STATUS: SCHED
DESCR: R101: DAILY OFFICE LIST OF FAILED SYSTEMS
REQD TASK: 002 REQD TASK STATUS: SCHED
OFFSET FR TASK 002 (DAYS, MINS): 0, 600.0

TASK: 018 STATUS: SCHED
DESCR: R102: WEEKLY OFFICE LIST OF FAILED SYSTEMS
REQD TASK: 003 REQD TASK STATUS: SCHED
OFFSET FR TASK 003 (DAYS, MINS): 0, 605.0

TASK: 019 STATUS: SCHED
DESCR: R190: WEEKLY CGA INDEX REGISTER READINGS – CURRENT MO
REQD TASK: 003 REQD TASK STATUS: SCHED
OFFSET FR TASK 003 (DAYS, MINS): 0, 605.0

TASK: 020 STATUS: SCHED
DESCR: R189: T1 SYSTEMS OVER 1 HOUR IN INDEX MONTH
REQD TASK: REQD TASK STATUS: NONE
INTERVAL: MONTHLY
BEGINNING DATE & TIME: 12-23-79, 10:30:00

TASK: 021 STATUS: SCHED
DESCR: R177: ACCUMULATE MANUAL STATISTICS FOR INDEX
REQD TASK: 006 REQD TASK STATUS: SCHED
OFFSET FR TASK 006 (DAYS, MINS): 0, 600.0

TASK: 022 STATUS: SCHED
DESCR: R178: TABULATE INDEX RESULTS
REQD TASK: 006 REQD TASK STATUS: SCHED
OFFSET FR TASK 006 (DAYS, MINS): 0, 600.0

TASK: 023 STATUS: SCHED
DESCR: R185: TCAS INDEX TABLES
REQD TASK: 006 REQD TASK STATUS: SCHED
OFFSET FR TASK 006 (DAYS, MINS): 0, 600.0

TASK: 024 STATUS: SCHED
DESCR: R186: WEEKLY CGA READINGS FOR PREVIOUS INDEX MONTH
REQD TASK: 006 REQD TASK STATUS: SCHED
OFFSET FR TASK 006 (DAYS, MINS): 0, 600.0

TASK: 025 STATUS: SCHED
DESCR: R188: STATISTICS USED IN INDEX REPORTS
REQD TASK: 006 REQD TASK STATUS: SCHED
OFFSET FR TASK 006 (DAYS, MINS): 0, 600.0

TASK: 026 STATUS: SCHED
DESCR: R187: SUMMARY OF OFFICE INDICES
REQD TASK: 006 REQD TASK STATUS: SCHED
OFFSET FR TASK 006 (DAYS, MINS): 0, 600.0

TASK: 027 STATUS: SCHED
DESCR: R179: MONTHLY CONTROL OFFICE INDEX RESULTS
REQD TASK: 006 REQD TASK STATUS: SCHED
OFFSET FR TASK 006 (DAYS, MINS): 0, 600.0

TASK: 028 STATUS: SCHED
DESCR: R181: SUB-DISTRICT LEVEL INDEX SUMMARY
REQD TASK: 006 REQD TASK STATUS: SCHED
OFFSET FR TASK 006 (DAYS, MINS): 0, 600.0

TASK: 029 STATUS: SCHED
DESCR: R180: DISTRICT LEVEL INDEX SUMMARY
REQD TASK: 006 REQD TASK STATUS: SCHED
OFFSET FR TASK 006 (DAYS, MINS): 0, 600.0

TASK: 030 STATUS: SCHED
DESCR: R182: DIVISION LEVEL INDEX SUMMARY
REQD TASK: 006 REQD TASK STATUS: SCHED
OFFSET FR TASK 006 (DAYS, MINS): 0, 600.0

TASK: 031 STATUS: SCHED
DESCR: R183: AREA LEVEL INDEX SUMMARY
REQD TASK: 006 REQD TASK STATUS: SCHED
OFFSET FR TASK 006 (DAYS, MINS): 0, 600.0

TASK: 032 STATUS: SCHED
DESCR: R184: TOTAL NETWORK INDEX SUMMARY
REQD TASK: 006 REQD TASK STATUS: SCHED
OFFSET FR TASK 006 (DAYS, MINS): 0, 600.0

TASK: 033 STATUS: SCHED
DESCR: R121: WEEKLY SUB-DISTRICT STATISTICS SUMMARY
REQD TASK: 003 REQD TASK STATUS: SCHED
OFFSET FR TASK 003 (DAYS, MINS): 0, 605.0

TASK: 034 STATUS: SCHED
DESCR: R122: MONTHLY SUB-DISTRICT STATISTICS SUMMARY
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 035 STATUS: SCHED
DESCR: R123: QUARTERLY SUB-DISTRICT STATISTICS SUMMARY
REQD TASK: 005 REQD TASK STATUS: SCHED
OFFSET FR TASK 005 (DAYS, MINS): 0, 605.0

TASK: 036 STATUS: SCHED
DESCR: R124: WEEKLY DISTRICT STATISTICS SUMMARY
REQD TASK: 003 REQD TASK STATUS: SCHED
OFFSET FR TASK 003 (DAYS, MINS): 0, 605.0

TASK: 037 STATUS: SCHED
DESCR: R125: MONTHLY DISTRICT STATISTICS SUMMARY
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 038 STATUS: SCHED
DESCR: R126: QUARTERLY DISTRICT STATISTICS SUMMARY
REQD TASK: 005 REQD TASK STATUS: SCHED
OFFSET FR TASK 005 (DAYS, MINS): 0, 605.0

TASK: 039 STATUS: SCHED
DESCR: R127: WEEKLY DIVISION STATISTICS SUMMARY
REQD TASK: 003 REQD TASK STATUS: SCHED
OFFSET FR TASK 003 (DAYS, MINS): 0, 605.0

TASK: 040 STATUS: SCHED
DESCR: R128: MONTHLY DIVISION STATISTICS SUMMARY
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 041 STATUS: SCHED
DESCR: R129: QUARTERLY DIVISION STATISTICS SUMMARY
REQD TASK: 005 REQD TASK STATUS: SCHED
OFFSET FR TASK 005 (DAYS, MINS): 0, 605.0

TASK: 042 STATUS: SCHED
DESCR: R130: WEEKLY AREA STATISTICS SUMMARY
REQD TASK: 003 REQD TASK STATUS: SCHED
OFFSET FR TASK 003 (DAYS, MINS): 0, 605.0

TASK: 043 STATUS: SCHED
DESCR: R131: MONTHLY AREA STATISTICS SUMMARY
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 044 STATUS: SCHED
DESCR: R132: QUARTERLY AREA STATISTICS SUMMARY
REQD TASK: 005 REQD TASK STATUS: SCHED
OFFSET FR TASK 005 (DAYS, MINS): 0, 605.0

TASK: 045 STATUS: SCHED
DESCR: R133: WEEKLY OFFICE STATISTICS/NETWORK
REQD TAST: 003 REQD TASK STATUS: SCHED
OFFSET FR TASK 003 (DAYS, MINS): 0, 605.0

TASK: 046 STATUS: SCHED
DESCR: R134: MONTHLY OFFICE STATISTICS/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 047 STATUS: SCHED
DESCR: R135: QUARTERLY OFFICE STATISTICS/NETWORK
REQD TASK: 005 REQD TASK STATUS: SCHED
OFFSET FR TASK 005 (DAYS, MINS): 0, 605.0

TASK: 048 STATUS: SCHED
DESCR: R136: WEEKLY SUB-DISTRICT STATISTICS/NETWORK
REQD TASK: 003 REQD TASK STATUS: SCHED
OFFSET FR TASK 003 (DAYS, MINS): 0, 605.0

TASK: 049 STATUS: SCHED
DESCR: R137: MONTHLY SUB-DISTRICT STATISTICS/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 050 STATUS: SCHED
DESCR: R138: QUARTERLY SUB-DISTRICT STATISTICS/NETWORK
REQD TASK: 005 REQD TASK STATUS: SCHED
OFFSET FR TASK 005 (DAYS, MINS): 0, 605.0

TASK: 051 STATUS: SCHED
DESCR: R139: WEEKLY DISTRICT STATISTICS/NETWORK
REQD TASK: 003 REQD TASK STATUS: SCHED
OFFSET FR TASK 005 (DAYS, MINS): 0, 605.0

TASK: 052 STATUS: SCHED
DESCR: R140: MONTHLY DISTRICT STATISTICS/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 053 STATUS: SCHED
DESCR: R141: QUARTERLY DISTRICT STATISTICS/NETWORK
REQD TASK: 005 REQD TASK STATUS: SCHED
OFFSET FR TASK 005 (DAYS, MINS): 0, 605.0

TASK: 054 STATUS: SCHED
DESCR: R142: WEEKLY DIVISION STATISTICS/NETWORK
REQD TASK: 003 REQD TASK STATUS: SCHED
OFFSET FR TASK 003 (DAYS, MINS): 0, 605.0

TASK: 055 STATUS: SCHED
DESCR: R143: MONTHLY DIVISION STATISTICS/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 056 STATUS: SCHED
DESCR: R144: QUARTERLY DIVISION STATISTICS/NETWORK
REQD TASK: 005 REQD TASK STATUS: SCHED
OFFSET FR TASK 005 (DAYS, MINS): 0, 605.0

TASK: 057 STATUS: SCHED
DESCR: R145: WEEKLY AREA STATISTICS/NETWORK
REQD TASK: 003 REQD TASK STATUS: SCHED
OFFSET FR TASK 003 (DAYS, MINS): 0, 605.0

TASK: 058 STATUS: SCHED
DESCR: R146: MONTHLY AREA STATISTICS/NETWORK
REQD TASK: 004 READ TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 059 STATUS: SCHED
DESCR: R147: QUARTERLY AREA STATISTICS/NETWORK
REQD TASK: 005 REQD TASK STATUS: SCHED
OFFSET FR TASK 005 (DAYS, MINS): 0, 605.0

TASK: 060 STATUS: SCHED
DESCR: R151: CO TBL ISOLATION FOR DISTRICTS
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 061 STATUS: SCHED
DESCR: R152: CO TBL ISOLATION FOR SUB-DISTRICTS
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 062 STATUS: SCHED
DESCR: R153: CO TBL ISOLATION FOR DIVISIONS
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 063 STATUS: SCHED
DESCR: R154: CO TBL ISOLATION FOR AREAS
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 064 STATUS: SCHED
DESCR: R156: CO TBL ISOLATION FOR OFFICES/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 065 STATUS: SCHED
DESCR: R157: CO TBL ISOLATION BY SUB-DISTRICT/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 066 STATUS: SCHED
DESCR: R158: CO TBL ISOLATION BY DISTRICTS/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 067 STATUS: SCHED
DESCR: R159: CO TBL ISOLATION BY DIVISIONS/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 068 STATUS: SCHED
DESCR: R155: CO TBL ISOLATION FOR AREAS/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 069 STATUS: SCHED
DESCR: R162: CONSTRUCTION ACTIVITY FOR SUB-DISTRICTS
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 070 STATUS: SCHED
DESCR: R161: CONSTRUCTION ACTIVITY FOR DISTRICTS
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 071 STATUS: SCHED
DESCR: R163: CONSTRUCTION ACTIVITY FOR DIVISIONS
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 072 STATUS: SCHED
DESCR: R164: CONSTRUCTION ACTIVITY FOR AREAS
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 073 STATUS: SCHED
DESCR: R166: CONSTRUCTION ACTIVITY BY OFFICES/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 074 STATUS: SCHED
DESCR: R167: CONSTRUCTION ACTIVITY BY SUB-DISTRICTS/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 075 STATUS: SCHED
DESCR: R168: CONSTRUCTION ACTIVITY BY DISTRICT/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

TASK: 076 STATUS: SCHED
DESCR: R169: CONSTRUCTION ACTIVITY BY DIVISIONS/NETWORK
REQD TASK: 004 REQD TASK STATUS: SCHED
OFFSET FR TASK 004 (DAYS, MINS): 0, 605.0

```
TASK: 077 STATUS: SCHED
  DESCR: R165: CONSTRUCTION ACTIVITY BY AREAS/NETWORK
  REQD TASK: 004 REQD TASK STATUS: SCHED
  OFFSET FR TASK 004 (DAYS, MINS):  0,    605.0

TASK: 078 STATUS: SCHED
  DESCR: R104: BACKBONE USAGE
  REQD TASK: 004 REQD TASK STATUS: SCHED
  OFFSET FR TASK 004 (DAYS, MINS):  0,    605.0

TASK: 079 STATUS: SCHED
  DESCR: R105: MAINTENANCE LINE USAGE
  REQD TASK: 004 REQD TASK STATUS: SCHED
  OFFSET FR TASK 004 (DAYS, MINS):  0,    605.0

TASK: 080 STATUS: SCHED
  DESCR: R107: TROUBLE-TYPE STATISTICS BY OFFICE
  REQD TASK: 004 REQD TASK STATUS: SCHED
  OFFSET FR TASK 004 (DAYS, MINS):  0,    605.0

TASK: 081 STATUS: SCHED
  DESCR: R108: TROUBLE-TYPE STATISTICS BY NETWORK
  REQD TASK: 004 REQD TASK STATUS: SCHED
  OFFSET FR TASK 004 (DAYS, MINS):  0,    605.0


TASK: 082 STATUS: SCHED
  DESCR: R172: MONTHLY TRCC REPORT
  REQD TASK: 004 REQD TASK STATUS: SCHED
  OFFSET FR TASK 004 (DAYS, MINS):  0,    605.0


TASK: 083 STATUS: SCHED
  DESCR: R171: QUARTERLY PERFORMANCE ASSESSMENT RESULTS
  REQD TASK: 005 REQD TASK STATUS: SCHED
  OFFSET FR TASK 005 (DAYS, MINS):  0,    605.0

TASK: 084 STATUS: SCHED
  DESCR: R171: PARTIAL PERFORMANCE ASSESSMENT RESULTS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL (DAYS, MINS):  7,    .0
  BEGINNING DATE & TIME: 12-26-79, 00:00:00

TASK: 085 STATUS: SCHED **********************
  DESCR: R112: CLEAR DAILY STATISTICS BANKS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: (DAYS, MINS):  1,     .0 *********
  BEGINNING DATE & TIME: 12-20-79, 20:00:00 ***

TASK: 086 STATUS: SCHED **********************
  DESCR: R112: CLEAR WEEKLY STATISTICAL DATA
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: WEEKLY ***************************
  BEGINNING DATE & TIME: 12-24-79, 20:00:00 ***
```

```
TASK: 087 STATUS: SCHED **********************
  DESCR: R112: CLEAR MONTHLY STATISTICS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: MONTHLY ***************************
  BEGINNING DATE & TIME: 01-01-80, 20:00:00 ***

TASK: 088 STATUS: SCHED **********************
  DESCR: R191: CLEAR INDEX MONTH AUTOMATED STATISTICS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: MONTHLY ***************************
  BEGINNING DATE & TIME: 12-23-79, 20:00:00 ***

TASK: 089 STATUS: SCHED **********************
  DESCR: R112: CLEAR QUARTERLY STATISTICS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: QUARTERLY *************************
  BEGINNING DATE & TIME: 01-01-80, 20:00:00 ***

TASK: 090 STATUS: SCHED **********************
  DESCR: R113: CLEAR CURRENT-DAY STATISTICS
  REQD TASK: 140 REQD TASK STATUS: NONE
  OFFSET FR TASK 140 (DAYS, MINS):   0,    .0 **

TASK: 091 STATUS: SCHED
  DESCR: DELETE EVENT RECORDS AND PG RECORDS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL (DAYS, MINS):   1,    .0
  BEGINNING DATE & TIME: 12-21-79, 20:00:00

TASK: 092 STATUS: SCHED
  DESCR: R114: CLEAR TROUBLE-TYPE BANKS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: MONTHLY ***************************
  BEGINNING DATE & TIME: 01-01-80, 20:00:00

TASK: 093 STATUS: SCHED
  DESCR: R115: CLEAR OFFICE-PAIR PATCH STATISTICS BANKS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL: MONTHLY ***************************
  BEGINNING DATE & TIME: 01-01-80, 20:00:00

TASK: 094 STATUS: SCHED
  DESCR: REQUEST CONFIG:DISCIM
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL (DAYS, MINS):   1,    .0
  BEGINNING DATE & TIME: 12-21-79, 16:00:00
```

```
TASK: 095 STATUS: SCHED
  DESCR: REQUEST EXEC:DISCIM
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL (DAYS, MINS):  1,    .0
  BEGINNING DATE & TIME: 12-22-79, 01:00:00

TASK: 096 STATUS: SCHED
  DESCR: EXECUTE DATA BASE CHANGE BUFFER
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL (DAYS, MINS):  1,    .0
  BEGINNING DATE & TIME: 12-22-79, 01:00:00

TASK: 097 STATUS: SCHED
  DESCR: R173: UNRECOGNIZED CMS FACILITY IDENTIFICATIONS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL (DAYS, MINS):  7,    .0
  BEGINNING DATE & TIME: 12-26-79, 20:00:00

TASK: 098 STATUS: SCHED
  DESCR: R192: UNRECOGNIZED SCCS SCAN POINTS
  REQD TASK:   REQD TASK STATUS: NONE
  INTERVAL (DAYS, MINS):  7,    .0
  BEGINNING DATE & TIME: 12-26-79, 02:00:00

END OF LIST

M 24:00 OP:PRMTR                                        COMPLETE
```

3.41 ***Common Block Constants List:*** Basic input message—**OP:PRMTR.** This report provides a list of the threshold parameters used to control TCAS operations. These parameters specify threshold levels which when exceeded cause a trouble case to be opened by the computer. These parameters can be altered by the TELCO to meet special needs of a particular T-Carrier network.

COMMON BLOCK CONSTANTS

NO.	DESCRIPTION	UNITS	VALUE
002	LW SENS TI SYS TH-OUTAGE MINS	MINUTES	10.0
003	LW SENS TI SYS TH-CMLTV MINS	MINUTES	30.0
004	LW SENS TI SYS TH-CGAS (SEE #5)	CGAS	2
005	LW SENS TI SYS TH-TIME INT (SEE #4)	MINUTES	20.0
007	HI SENS TI SYS TH-OUTAGE MINS	MINUTES	5.0
008	HI SENS TI SYS TH-CMLTV MINS	MINUTES	20.0
009	HI SENS TI SYS TH-CGAS (SEE #10)	CGAS	2
010	HI SENS TI SYS TH-TIME INT (SEE #9)	MINUTES	20.0
016	SYS DISPLAY UPDATE INT	MINUTES	1.0
017	PATTERN DISPLAY UPDATE INT	MINUTES	1.0
031	INVD RPLY RATE ALM TH	PER 1000 WORDS	10
032	INVD RPLY RATE RESET TH	MINUTES	35.0
033	NET AVG CGA RATE	CGAS/SYS/YEAR	0
034	AVG FRACTION OF SYSTEMS WITH CGAS/24 HRS	NONE	0.0000
035	AVG FRACTION OF SYSTEMS CURRENTLY DOWN	NONE	0.0000
040	PTCHLN TH-ERRORS/DAY	ERRORS/DAY	10
041	PTCHLN TH-OUTAGE DAYS	DAYS	0
042	PTCHLN TH-OUTAGE MINS	MINUTES	120.0
043	CPI MLSI POLLING CYCLE TIME	MINUTES	5.0

E. Periodic Reports

3.42 The periodic reports summarize system failure and patching statistics for the T-carrier network. These reports include the following:

- Daily trouble summaries to aid the central office in recognizing chronic problems
- A bihourly backup report to support manual operation of the TRCC following a failure of the TCAS central
- Long-range periodic reports which summarize failure and patching statistics on a network basis. These reports are produced weekly, monthly, and quarterly. The heading of each report contains a report number which is also shown in the scheduled task list (paragraph 3.40). This permits correlation of a scheduled task with the appropriate resulting report.

The Statistical Data Banks

3.43 The information presented in the periodic reports is based upon the accumulated statistics from *preceding* days. The statistics which provide this information are stored in daily, weekly, monthly,

and quarterly statistical data banks. There are data banks associated with each system, patch line, and control office in the TCAS data base.

3.44 Statistics are processed each night at midnight and for a short period thereafter. During this time, outage and usage statistics from the previous day are collected from each monitored system and patch line. They are accumulated in data banks associated with the control office having responsibility for that system or patch line. Periodic reports should **not** be run during this accumulating process.

3.45 When the accumulating process is complete, the date and time associated with the current reporting intervals (daily, weekly, monthly, and quarterly) will be changed to include the previous day.

3.46 When the accumulation process has been completed, a short report (see following) will appear on the reports printer to indicate that periodic reports may now be run.

05-29-76 01:03:00 PAGE 1

ACCUMULATE OFFICE STATISTICS
FOR PERIOD BEGINNING 04-01-76 20:00:00 ENDING 04-02-76
END OF REPORT

3.47 All monitored T1 System and patch line outage and usage statistic banks are automatically cleared by a family of reports. These reports are run at 8:00 p.m. on the day *following* the end of the period (daily, weekly, monthly, and quarterly) whose statistics they clear. The format of the reports is as follows:

05-29-76 10:27:00 PAGE 1

CLEAR STATISTICS DATA BANKS
FOR PREVIOUS WEEK
END OF REPORT

3.48 These reports will run at the first opportunity after 8:00 p.m., when the reports printer is free. However, if they are not run before midnight, an additional report will be run to clear the *current-day* outage and usage statistics. The format for this special report is as follows:

05-29-76 10:27:50 PAGE 1

CLEAR CURRENT-DAY STATISTICS
END OF REPORT

3.49 The statistic banks for the system and patch line outage and usage reports are automatically cleared at 8:00 p.m. However, only one set of statistic banks is used for the data. Therefore, the statistics which are accumulated after producing the reports and before clearing the data banks will be omitted from the next report. The *bank-clearing* reports should be scheduled to run as soon as a good copy of the *summary-type* reports is obtained. The format for these bank-clearing reports is as follows:

CLEAR TROUBLE-TYPE STATISTICS
CLEAR OFFICE-PAIR PATCHING STATISTICS

Scheduling Periodic Reports

3.50 The periodic reports are automatically scheduled according to one of the following intervals:

- An interval specified in hours, minutes, and seconds.
- Daily—The hour during the day at which the report occurs may be arbitrarily selected.
- Weekly—The week is assumed to end on Sunday. Reports that are scheduled weekly will be run on Monday (in order to have one full week's statistics available).
- Semimonthly—These reports are scheduled on the first and 16th of each month. (No reports have currently been scheduled at this interval.)
- Monthly—These reports are scheduled on the first of each month and reflect the statistics of the previous month. Leap year, etc, is taken into account.
- Quarterly—These reports are scheduled on the first day of each quarter (3 months) reflecting statistics of the previous quarters. Leap year, etc, is taken into account.
- Index Month—This interval runs from the 23rd of one month to the 22nd of the following month.

3.51 During the interval between accumulation of statistics (midnight) and clearing statistics (8:00 p.m. the next day), it is appropriate to run any statistical summary-type reports.

Note: If a statistical report is begun at the same time the banks are being accumulated or cleared, the reporting interval specified in the heading will be blank.

Reports

3.52 The TCAS periodic reports summarize statistical data which has been collected in the TCAS statistical data banks. Each report normally represents data for a specific reporting interval (previous day, week, month, or quarter). The following paragraphs describe typical periodic reports available with TCAS.

3.53 ***Backup Report:*** The purpose of this report is to provide information to support manual operation of the TRCC in the event of a TCAS central failure. This report also provides a status summary of open trouble cases, and is produced automatically on the reports printer every 2 hours, on the hour. The information contained in the report is organized, per trouble case, as follows:

- Trouble case number (TCN)
- Priority assigned to the trouble case
- CDT which is responsible for the trouble case
- Date and time the trouble case was opened

- Type of trouble, which will be one of the following:

  —System (SYSTEM)

  —Cable (CABLE)

  —Patch line (PTCH LN)

  —Office repeater bay shelf (RPTR SHELF)

  —Office terminal bay (TERM BAY)

  —Side system (SIDE SYS)

- The ***last action*** entered by the operator (indicates an action that was performed to locate the failure or to restore service)

- Trouble-type code to identify the cause of failure

- Identification of the failed entity

- Location of the problem, if determined

- Primary office route for cable patterns.

X12-21-79 15:24:42 PAGE 1

BACK-UP LIST OF CURRENTLY-OPEN TROUBLE CASES

TC TYPE	TIME OPENED	TCN	CDT STATUS	SECT'L OFFICE PAIR	LAST ACT

**** DATE: 07-06-79 ****
TERM BAY 07-06-79 16:27:36 100X027 01
TERM BAY: HSTNTXAL TD21
SIDE SYS 07-06-79 16:34:06 100X078 01
SYSTEM 07-06-79 16:34:36 100X086 01 CLEAR
101 D1A HSTNTXMI HSTNTXOV
SHELF 07-06-79 16:40:00 100X107 01
SHELF: HSTNTXAL TR2 04
SIDE SYS 07-06-79 16:51:42 100X123 01
SYSTEM 07-06-79 17:03:12 100X158 01 CLEAR
901 T1C HSTNTXJA HSTNTXWA
CABLE/HC 07-06-79 17:08:18 100X166 01
CABLE: 316 HSTNTXJA HSTNTXCL
CABLE/HC 07-06-79 17:10:18 100X182 01
CABLE: 991 HSTNTXHU HSTNTXGR
TERM BAY 07-06-79 17:30:12 100X203 01
TERM BAY: HSTNTXNA TD34
PTCH LN 07-06-79 19:30:36 100X238 01
802B BSPARE HSTNTXJA HSTNTXMI

**** DATE: 07-27-79 ****
CABLE/HC 07-27-79 11:28:54 100X043 01
601 T4 HSTNTXFA HSTNTXOV
CABLE/HC 07-27-79 11:30:36 100X246 01
892 T2 HSTNTXCA HSTNTXOX
CABLE/HC 07-27-79 11:30:48 100X262 01
713 T3 HSTNTXCA HSTNTXOX

END OF REPORT

3.54 ***Failure Statistics by Control Office:*** This report provides a list, by control office, of each T1 System which was failed during the reporting interval. This report aids the office personnel in locating bad-actor systems. It also enables them to assess their own performance in terms of their T1 System outages. The TRCC must specify in the data base those offices which should be included in this report. Those offices which are selected should be flagged as **REPORT-YES**; refer to Section 865-201-102. The report contains the following information:

- Identification of the reporting interval.
- Identification of the control office.
- The number of controlled, monitored systems for the control office.
- A list of systems that sustained outage time during the specified reporting interval. The following information is given for each system:

  —Identification of the system.

—Number of CGA alarms which *began* during the reporting interval. If the system was already failed at the beginning of the reported interval, no CGA would be logged (unless the system cleared and failed again). Thus, a CGA count of zero is valid even if the system shows outage time.

—30-second CGAS; all CGAs with a duration of 30 seconds or less. This helps to identify systems that are suffering repeated *hits.*

—The outage minutes accumulated for the system during the reported interval.

—The trouble case number of a trouble case which is currently open on the system at the time the report is produced. It is not necessarily the same trouble case number which existed at the time the system accumulated CGAs and outage time. The trouble case number is provided for reference between the TRCC and the control office concerning a system which is still in trouble.

—A summary (total) of the statistics for the control office.

This report is available in two versions—a daily summary and a weekly summary. An example of the daily version is as follows:

12-05-76 23:31:00 PAGE 1

DAILY T1 FAILURE STATISTICS BY CONTROL OFFICE

CONTROL OFFICE HSTNTX01

REPORTING INTERVAL 12-03-76 00:00:00 TO 12-04-76 00:00:00

T1 SYSTEM FAILURE STATISTICS FOR 497 CONTROLLED SYSTEMS

SYSTEM IDENTIFICATION				TOTAL CGA'S	30 SEC CGA'S	OUTAGE MINUTES	TROUBLE CASE NO
152	D3	HSTNTXOV	HSTNTX01	0	0	1440.0	100X705
151	D3	HSTNTXOV	HSTNTX01	0	0	1440.0	100X721
144	D3	HSTNTXOV	HSTNTX01	0	0	1440.0	100X465
143	D3	HSTNTXOV	HSTNTX01	0	0	1440.0	100X449
142	D3	HSTNTXOV	HSTNTX01	0	0	1440.0	100X422
141	D3	HSTNTXOV	HSTNTX01	0	0	1440.0	100X406
139	D3	HSTNTXOV	HSTNTX01	0	0	1440.0	100X385
138	D3	HSTNTXOV	HSTNTX01	0	0	1440.0	100X369
137	D3	HSTNTXOV	HSTNTX01	0	0	1440.0	100X326
136	D3	HSTNTXOV	HSTNTX01	0	0	1440.0	100X342
TOTAL (10 SYSTEMS FAILED)				0	0	1440.00	

END OF REPORT

3.55 ***Control Offices by Subdistrict:*** This report provides a summary of control offices by subdistrict. Each subdistrict is reported on a new page so that the report can be distributed to the appropriate subdistrict management. The report contains the following information:

- Identification of the reporting interval.

- Number of controlled, monitored systems (for the control offices responsible to the administrative group being reported).

- Average number of CGAs per controlled, monitored system per week. This statistic depends upon the number of controlled systems and the duration of the reporting interval.
- Average outage duration obtained from total outage time divided by the number of CGAs.
- The number of controlled span lines. This number corresponds to span lines for *monitored* systems only.
- The number of controlled span lines that are currently patched.
- The average patch duration. This helps to assess the ability of the office personnel to repair failed systems and restore them to service. Note that some companies recommend leaving systems on patch for long periods. Thus, this statistic is meaningless under these circumstances.
- A summary (totals) of the statistics.

This report is available in three versions—weekly, monthly, and quarterly. An example of the weekly version is as follows:

05-29-79 11:15:42 PAGE 1

WEEKLY T1 FAILURE STATISTICS BY SUB-DISTRICT

REPORTING INTERVAL 05-23-79 00:00:00 TO 05-28-79 00:00:00

SUB-DISTRICT OPTNRBYSFSN

	STATISTICS FOR CONTROLLED T1 SYSTEMS						CONTROLLED SPAN LINES		
OFFICE NAME	MONIT SYS	CGA/ SYS/WK	MONIT CGAS	OTG HRS	NO-OF-SYSTEMS >0 CGA	>4 CGA	SPAN LINES	PTCHD LINES	AVG PTCH HOURS
SNFCCA21T0	184	0.0	0	0	0	0	652	0	0.0
SNFCCA21	11	0.0	0	0	0	0	48	0	0.0
SNFCCA17	61	0.0	0	0	0	0	248	0	0.0
SNFCCA01T3	51	0.0	0	0	0	0	111	0	0.0
SNFCCA01T1	255	0.0	0	0	0	0	656	0	0.0
SNFCCA01	160	0.0	0	0	0	0	1051	0	0.0
SNFCCA06T0	10	0.0	0	0	0	0	166	0	0.0
SNFCCA06	0	0.0	0	0	0	0	93	0	0.0
SNFCCA05T1	0	0.0	0	0	0	0	33	0	0.0
SNFCCA05	8	0.0	0	0	0	0	250	0	0.0
SNFCCA04T1	3	0.0	0	0	0	0	100	0	0.0
SNFCCA04	44	0.0	0	0	0	0	450	0	0.0
SNFCCA11	2	0.0	0	0	0	0	241	0	0.0
SNFCCA13	0	0.0	0	0	0	0	41	0	0.0
SNFCCA12T0	6	0.0	0	0	0	0	226	0	0.0
SNFCCA12	28	0.0	0	0	0	0	375	0	0.0
SNFCCA13T1	5	0.0	0	0	0	0	40	0	0.0
SNFCCA13	0	0.0	0	0	0	0	127	0	0.0
TOTAL	828	0.0	0	0	0	0	4908	0	0.0

3.56 ***Control Offices by District:*** This report provides a summary of control offices by district. Each district is reported on a new page, so that report can be distributed to the appropriate district management. The information contained in the body of the report is the same as that shown in paragraph 3.55, ***Control Offices by Subdistrict.*** This report is available in three versions—weekly, monthly, and quarterly. An example of the weekly version is as follows:

05-29-79 11:15:42 PAGE 1

WEEKLY T1 FAILURE STATISTICS BY DISTRICT

REPORTING INTERVAL 05-23-79 00:00:00 TO 05-28-79 00:00:00

DISTRICT OPTNRCESB DEPARTMENT PLT

	STATISTICS FOR CONTROLLED T1 SYSTEMS						CONTROLLED SPAN LINES		
OFFICE NAME	MONIT SYS	CGA/ SYS/WK	MONIT CGAS	OTG HRS	NO-OF-SYSTEMS >0 CGA	>4 CGA	SPAN LINES	PTCHD LINES	AVG PTCH HOURS
MLPSCA11	184	0.0	0	0	0	0	652	0	0.0
FRMTCA12	11	0.0	0	0	0	0	48	0	0.0
FRMTCA11	61	0.0	0	0	0	0	248	0	0.0
HYWRCA11	51	0.0	0	0	0	0	111	0	0.0
HYWRCA02T0	255	0.0	0	0	0	0	656	0	0.0
HYWRCA02	160	0.0	0	0	0	0	1051	0	0.0
HYWRCA01T1	10	0.0	0	0	0	0	166	0	0.0
HYWRCA01	0	0.0	0	0	0	0	93	0	0.0
UNCYCA11	0	0.0	0	0	0	0	33	0	0.0
SNJSCA12	8	0.0	0	0	0	0	250	0	0.0
SNJSCA14	3	0.0	0	0	0	0	100	0	0.0
SNTCCA11	44	0.0	0	0	0	0	450	0	0.0
SNJSCA02T2	2	0.0	0	0	0	0	241	0	0.0
SNJSCA02	0	0.0	0	0	0	0	41	0	0.0
SNLNCA11T0	6	0.0	0	0	0	0	226	0	0.0
SNLNCA51	28	0.0	0	0	0	0	375	0	0.0
SNLNCA11T1	5	0.0	0	0	0	0	40	0	0.0
SNLNCA11	0	0.0	0	0	0	0	127	0	0.0
TOTAL	828	0.0	0	0	0	0	4908	0	0.0

3.57 ***Control Offices for Network:*** This report summarizes the statistics for each control office in the network. The names of the district are interspersed between groups of offices to designate the district which those offices occupy. Totals are provided and are based upon an average of all offices in the list. The information contained in the body of this report is the same as that shown in paragraph 3.55, ***Control Offices by Subdistrict.*** This report is available in three versions—weekly, monthly, and quarterly. An example of the weekly version is as follows:

05-29-79 11:15:42 PAGE 1

WEEKLY T1 FAILURE STATISTICS FOR NETWORK
BY CONTROL OFFICE
REPORTING INTERVAL 05-23-79 00:00:00 TO 05-28-79 00:00:00

DEPARTMENT PTL

OFFICE NAME	STATISTICS FOR CONTROLLED T1 SYSTEMS						CONTROLLED SPAN LINES		
	MONIT SYS	CGA/ SYS/WK	MONIT CGAS	OTG HRS	NO-OF-SYSTEMS >0 CGA	>4 CGA	SPAN LINES	PTCHD LINES	AVG PTCH HOURS
DISTRICT SPLSERV									
DCSNTX01	51	0.0	0	0	0	0	111	0	0.0
DISTRICT TOLL									
HNTBSXMI	0	0.0	0	0	0	0	33	0	0.0
HNTBSXAP	8	0.0	0	0	0	0	250	0	0.0
HNTBSXFR	3	0.0	0	0	0	0	100	0	0.0
DISTRICT WEST									
HSTNTX06	0	0.0	0	0	0	0	41	0	0.0
HSTNTX04	6	0.0	0	0	0	0	226	0	0.0
HSTNTX03	28	0.0	0	0	0	0	375	0	0.0
HSTNTX08	5	0.0	0	0	0	0	40	0	0.0
HSTNTX01	0	0.0	0	0	0	0	127	0	0.0
TOTAL	828	0.0	0	0	0	0	4908	0	0.0

3.58 ***Districts by Division:*** The statistics obtained from each control office in a district are combined and presented as that district's statistics in this report. The statistics given for each district will be the same as the totals obtained in the ***Control Offices by District*** report for that district. Each division is reported on a new page, with the name of the division identified in the heading. The information contained in the body of this report is the same as that shown in paragraph 3.55, ***Control Offices by Subdistrict.*** This report is available in three versions—weekly, monthly, and quarterly. An example of the weekly version is as follows:

05-29-79 11:15:42 PAGE 1

WEEKLY T1 FAILURE STATISTICS BY DIVISION

REPORTING INTERVAL 05-23-79 00:00:00 TO 05-28-79 00:00:00

DIVISION OPTNRBY

	STATISTICS FOR CONTROLLED T1 SYSTEMS						CONTROLLED SPAN LINES		
DISTRICT NAME	MONIT SYS	CGA/ SYS/WK	MONIT CGAS	OTG HRS	NO-OF-SYSTEMS >0 CGA	>4 CGA	SPAN LINES	PTCHD LINES	AVG PTCH HOURS
OPTNRBYWA	184	0.0	0	0	0	0	652	0	0.0
OPTNRBYWY	11	0.0	0	0	0	0	48	0	0.0
OPTNRBYRI	61	0.0	0	0	0	0	248	0	0.0
OPTNRBYRE	51	0.0	0	0	0	0	111	0	0.0
OPTNRBYOR	255	0.0	0	0	0	0	656	0	0.0
OPTNRBYMI	160	0.0	0	0	0	0	1051	0	0.0
	10	0.0	0	0	0	0	166	0	0.0
TOTAL	679	0.0	0	0	0	0	3167	0	0.0

3.59 ***Districts by Network:*** This report lists each district in the network and the statistics. The information contained in the body of this report is the same as that shown in paragraph 3.55, ***Control Offices by Subdistrict.*** This report is available in three versions—weekly, monthly, and quarterly. An example of the weekly version is as follows:

05-29-79 11:15:42 PAGE 1

WEEKLY T1 FAILURE STATISTICS FOR NETWORK
BY DISTRICT

REPORTING INTERVAL 05-23-79 00:00:00 TO 05-28-79 00:00:00

	STATISTICS FOR CONTROLLED T1 SYSTEMS						CONTROLLED SPAN LINES		
DISTRICT NAME	MONIT SYS	CGA/ SYS/WK	MONIT CGAS	OTG HRS	NO-OF-SYSTEMS >0 CGA	NO-OF-SYSTEMS >4 CGA	SPAN LINES	PTCHD LINES	AVG PTCH HOURS
OPTNRCESB	15	0.0	0	0	0	0	48	0	0.0
OPTNRBYSF	61	0.0	0	0	0	0	248	0	0.0
TOTAL	76	0.0	0	0	0	0	356	0	0.0

3.60 ***Divisions by Area:*** This report lists the statistics for each division of the area. The statistics for each division will be the same as the totals obtained in the ***Districts by Division*** report for that division. The information contained in the body of this report is the same as that shown in paragraph 3.55, ***Control Offices by Subdistrict.*** This report is available in three versions—weekly, monthly, and quarterly. An example of the weekly version is as follows:

05-29-79 11:15:42 PAGE 1

WEEKLY T1 FAILURE STATISTICS BY AREA

REPORTING INTERVAL 05-23-79 00:00:00 TO 05-28-79 00:00:00

AREA OPTNR

	STATISTICS FOR CONTROLLED T1 SYSTEMS						CONTROLLED SPAN LINES		
DIVISION NAME	MONIT SYS	CGA/ SYS/WK	MONIT CGAS	OTG HRS	NO-OF-SYSTEMS >0 CGA	NO-OF-SYSTEMS >4 CGA	SPAN LINES	PTCHD LINES	AVG PTCH HOURS
OPTNRCE	11	0.0	0	0	0	0	48	0	0.0
OPTNRBY	51	0.0	0	0	0	0	111	0	0.0
TOTAL	62	0.0	0	0	0	0	159	0	0.0

3.61 ***Divisions by Network:*** This report lists the statistics for each division in the network. The information contained in the body of this report is the same as that shown in paragraph 3.55, ***Control Offices by Subdistrict.*** This report is available in three versions—weekly, monthly, and quarterly. The characteristics of this report are the same as ***Division by Area;*** thus, no example is given. Refer to paragraph 3.60.

3.62 ***Network by Area:*** This report lists the statistics for each area in the network. The information contained in the body of this report is the same as that shown in paragraph 3.55, ***Control Offices by Subdistrict.*** This report is available in three versions—weekly, monthly, and quarterly. An example of the weekly version is as follows:

05-29-79 11:15:42 PAGE 1

WEEKLY T1 FAILURE STATISTICS FOR NETWORK BY AREA
REPORTING INTERVAL 05-23-79 00:00:00 TO 05-28-79 00:00:00

AREA NAME	STATISTICS FOR CONTROLLED T1 SYSTEMS						CONTROLLED SPAN LINES		
	MONIT SYS	CGA/ SYS/WK	MONIT CGAS	OTG HRS	NO-OF-SYSTEMS >0 CGA	>4 CGA	SPAN LINES	PTCHD LINES	AVG PTCH HOURS
OPTNR	61	0.0	0	0	0	0	248	0	0.0
TOTAL	61	0.0	0	0	0	0	248	0	0.0

3.63 ***Central Office Trouble Isolation and Repair:*** This report lists, for each control office, the average sectionalization time, fault location time, repair time, and trouble location on trouble cases associated with systems or spans controlled by that office. The report contains the following information:

- Identification of the reporting interval
- Identification of the control office
- Number of controlled systems
- Average sectionalization time
- The type of trouble which will be one of the following:
  - —Terminal (TRM)
  - —Central Office (CO)
  - —Line (LNE)
  - —No trouble found (NTF)

- Average repair time
- Number of controlled span lines
- Average fault location time
- The trouble location which will be one of the following:
  - —Span line (SPN)
  - —Central office (CO)
  - —No trouble found (NTF)
  - —Came clear (CC).

The report is available for districts, subdistricts, divisions, and areas. An example of the report for districts is as follows:

01-04-77 10:30:18 PAGE 1

CENTRAL OFFICE TROUBLE ISOLATION AND REPAIR BY DISTRICT
REPORTING INTERVAL 12-31-75 00:00:00 TO 12-31-75 00:00:00
DISTRICT EAST DEPARTMENT PIT

OFFICE NAME	CRLD SYS	AVG SCTN HRS	TROUBLE TYPE TRM	CO	LNE	NTF	AVG REP HRS	CRLD SPANS	AVG F/L HRS	TROUBLE LOCATION SPN	CO	NTF	CC
HSTNTXWA	199	*****	0	0	0	0	*****	705	*****	0	0	0	0
HSTNTXWY	11	*****	0	0	0	0	*****	50	*****	0	0	0	0
HSTNTXRI	67	*****	0	0	0	0	*****	263	*****	0	0	0	0
HSTNTXRE	55	*****	0	0	0	0	*****	115	*****	0	0	0	0
HSTNTXOB	268	.5	1	2	0	1	*****	726	*****	0	0	0	0
HSTNTXMI	176	.6	0	0	4	0	*****	1145	.6	4	0	0	0
TOTAL	879	.5	1	2	4	1	*****	5325	.6	4	0	0	0

3.64 ***Construction Activity:*** This report provides information on the span maintenance repair activities. The information in this report is given per office and includes the following:

- Identification of the reporting interval
- Identification of the control office
- Number of controlled span lines
- Number of trouble cases pending at the start and end of the reporting interval
- Number of cases handled during the reporting interval
- Average repair time
- The final trouble location, which will be one of the following:
  - —Span line (SPAN)
  - —Central office (CO)
  - —No trouble found (NTF)
  - —Came clear (CC).

This report is available for districts, subdistricts, divisions, and areas. An example of the report for districts is as follows:

01-04-77 10:33:48 PAGE 1

CONSTRUCTION ACTIVITY BY DISTRICT
REPORTING INTERVAL 12-31-75 00:00:00 TO 12-31-75 00:00:00
DISTRICT CENTRAL DEPARTMENT PLT

OFFICE NAME	CRLD SPANS	TROUBLES HANDLED START	END	COMPLD	AVG REPAIR IN DAYS	TROUBLE LOCATION SPAN	CO	NTF	CC
HSTNTXCL	182	0	0	0	*****	0	0	0	0
HSTNTXJA	2395	0	0	0	*****	0	0	0	0
HSTNTXMC	202	0	0	0	*****	0	0	0	0
HSTNTXCA	2789	0	0	3	.3	3	0	0	0
TOTAL	6068	0	0	3	.3	3	0	0	0

END OF REPORT

3.65 ***Summary of Open Trouble Cases:*** This report provides a snapshot of the current status of each open trouble case and should normally be scheduled at the beginning of each TRCC shift. The report contains the following information:

- Identification of the system
- The current status of the system
- Identification of any patch line used
- Last action taken on the trouble case.

11-19-76 17:12:18 PAGE 1

SUMMARY OF OPEN TROUBLE CASES

SYSTEM ID			STATUS	BB OR ML USED				LAST ACTION
107 D1A	HSTNTXMI	HSTNTXSU	CLEAR					REF
101 D1B	BYTWTXXC	HSTNTXUN	ALARM					REF
102 D1A	HSTNTXFA	HSTNTXOV	CLEAR					SFL
142 D1A	HSTNTXHO	HSTNTXUN	CLEAR					REF
101 D1A	HSTNTXHU	HSTNTXMO	ALARM					
110 D1A	HSTNTXAP	HSTNTXMI	CLEAR					REF
101 D1A	HSTNTXMO	HSTNTXSE	CLEAR					REF
108 D3	HSTNTXOV	HSTNTXSU	CLEAR					REF
101 D1DD3	HSTNTXPE	HSTNTXSU	PATCH	801B	BSPARE	HSTNTXFB	HSTNTXMI	REF
				301M	MSPARE	HSTNTXMI	HSTNTXPE	

END OF REPORT

3.66 ***TCAS Summary Report:*** This report provides the TRCC manager with a picture of the trouble cases handled during the reporting interval and the status of currently open trouble cases.

01-04-77 10:37:06 PAGE 1

TCAS SUMMARY REPORT

REPORTING INTERVAL 12-31-75 00:00:00 TO 01-03-76 00:00:00

INITAL OPEN TROUBLE CASES	0	
TOTAL TROUBLE CASES CLOSED	20	
LINE	16	
TERMINAL	2	
NO TROUBLE FOUND	2	
FINAL OPEN TROUBLE CASES	0	
PATCHED-NOT REF TO OP	0	
PATCHED-REF TO OP	0	
OTHER	0	
TOTAL SERVICE OUTAGE-LINE	712	MIN
AVERAGE SERVICE OUTAGE-LINE	45	MIN
TOTAL SERVICE OUTAGE-TERMINAL	92	MIN
AVERAGE SERVICE OUTAGE-TERMINAL	46	MIN

END OF REPORT

3.67 ***Backbone Usage:*** This report is used to evaluate the effectiveness of the backbone network. It identifies backbones which are not frequently being used for restoration patches. It also shows which *segments* of each backbone are most frequently used. This may indicate the need for additional backbones along certain routes or fewer backbones along other routes. The report also summarizes requested patching routes for which no patch lines were available. The report contains the following information:

- Identification of each backbone line.
- Number of times the entire backbone was used (end-to-end).
- Number of times that more than one span of the backbone was used (multisegment).
- A list of each span in the backbone, showing the transmitting and receiving office. The following statistics are provided for each span:

  —Number of usages

  —Average usage time.

- A list, by office pair, of patch lines requested but unavailable. The following statistics are provided for each patch line request:

  —Transmit and receive directions

  —Number of patch line requests

  —Number of requests for which a patch line was unavailable.

The following is a sample backbone usage report. Excluded from this sample is the summary of patch line requests for which a patch line was unavailable.

BACKBONE USAGE REPORT
REPORTING INTERVAL 10-31-76 00:00:00 TO 11-18-76 00:00:00

BACKBONE IDENTIFICATION	CONTROL OFFICE	NO. USAGES ENTIRE BKBN	NO. USAGES MULTI-SEGMENT
801B BSPARE ALVNTXAL HSTNTXMI	HSTNTXMI	0	0

TRANSMIT OFFICE	RECEIVE OFFICE	TOTAL USAGES	AVERAGE USAGE
ALVNTXAL	HSTNTXFR	0	0 MIN
HSTNTXFR	ALVNTXAL	0	0 MIN
HSTNTXFR	HSTNTXPE	0	0 MIN
HSTNTXPE	HSTNTXFR	0	0 MIN
HSTNTXPE	HSTNTXMI	0	0 MIN
HSTNTXMI	HSTNTXPE	0	0 MIN

BACKBONE IDENTIFICATION	CONTROL OFFICE	NO. USAGES ENTIRE BKBN	NO. USAGES MULTI-SEGMENT
801B BSPARE ARCLTXXA HSTNTX01	HSTNTX01	0	0

TRANSMIT OFFICE	RECEIVE OFFICE	TOTAL USAGES	AVERAGE USAGE
ARCLTXXA	HSTNTXID	0	0 MIN
HSTNTXID	ARCLTXXA	0	0 MIN
HSTNTXID	HSTNTXJA	0	0 MIN
HSTNTXJA	HSTNTXID	0	0 MIN
HSTNTXJA	HSTNTX01	0	0 MIN
HSTNTX01	HSTNTXJA	0	0 MIN

3.68 ***Maintenance Line Usage:*** This report helps the TRCC to assess the availability of patch lines, to determine which spans are heavily used for patching, and to recognize patch lines which are no longer needed. It also helps the center to locate spans where patch lines are being left in use too long. The report contains the following information:

- Identification of the reporting interval.
- Identification of the transmitting and receiving offices. Thus, each *pair* of offices will appear twice, once for each direction of transmission.
- The total number of patch lines installed between the offices (in the specified direction).
- The maximum number of patch lines in use between the offices.
- The number of patch lines requested between the office pair, but were unavailable.

- The total number of patch lines used during the reporting interval.
- Average duration of the patches. This indicates whether patches have been allowed to remain in place too long.

04-03-77 11:11:00 PAGE 1

MAINTENANCE LINE USAGE
REPORTING INTERVAL 03-31-77 00:00:00 TO CURRENT TIME

TRANSMIT OFFICE	RECEIVE OFFICE	INSTALLED LINES	MAXIMUM IN-USE	REQUESTED/ NOT AVAILABLE	TOTAL PATCHED	AVERAGE PATCH HRS
HSTNTX01	HSTNTXCA	35	3	0	6	1.75
HSTNTX01	HSTNTXHO	0	0	3	0	.00
HSTNTX01	HSTNTXJA	33	1	0	1	.42
HSTNTX01	HSTNTXMI	23	2	0	5	1.21
HSTNTX01	HSTNTXOV	0	0	7	0	.00
HSTNTXCA	HSTNTX01	35	3	0	6	1.76

END OF REPORT

3.69 ***Trouble-Type Statistics by Office:*** This report allows the TRCC to evaluate the causes of T-carrier failures. The report lists the number of system failures which were attributed to each one of the TCAS trouble types. It is provided on a per-office basis to assist the office in recognizing faulty maintenance procedures. The report contains the following information:

- Identification of the reporting interval.
- Identification of the office being reported.
- Number of monitored, *terminating* systems for the office.
- Number of *terminating* span lines (monitored systems only) for the office.
- Number of monitored, controlled systems for the office.
- Number of controlled span lines (monitored systems only) for the office.
- A listing of each TCAS trouble type and the number of troubles of that type which were charged against the office. These statistics are obtained from *trouble-type identifications* entered through the CDTs by the maintenance controllers. Each *count* corresponds to the failure of one T1 System or patch line.

05-29-76 10:22:00 PAGE 1

TCAS TROUBLE-TYPE STATISTICS BY OFFICE
REPORTING INTERVAL 04-01-76 20:00:00 TO CURRENT TIME

OFFICE IDENTITY	TERMINATING T1 SYSTEMS	TERMINATING SPAN LINES	CONTROLLED T1 SYSTEMS	CONTROLLED SPAN LINES
SNJSCA14	2	4	0	2

TERMINAL (CHANNEL BANK)	0
TERMINAL POWER SUPPLY/FUSE	0
OFFICE REPEATER/FUSE	0
OFFICE BATTERY	0
OFFICE WIRING/FRAME	0
OFFICE, OTHER EQUIPMENT	0
OFFICE, SPAN POWERING/FUSE	0
OFFICE, CAME CLEAR	0
OFFICE, WORK ERROR	0
OFFICE, MISCELLANEOUS	0
OFFICE, MTCE/REARRANGEMENTS	0
SPAN LINE CABLE/SPLICE	0
SPAN LINE REPEATER	0
SPAN LINE APPARATUS CASE (NON REPEATER)	0
SPAN LINE, CAME CLEAR	0
SPAN LINE, WORK ERROR	0
SPAN LINE, MISCELLANEOUS	0
SPAN LINE, MTCE/REARRANGEMENTS	0
LINE, CAME CLEAR	0
SYSTEM, MISCELLANEOUS	0
NO TROUBLE FOUND	0
OTHER THAN T1 SYSTEM	0

3.70 ***TRCC Report:*** This report provides the information required monthly by AT&T from all TRCCs, and is a ***snapshot*** of the status of the T-carrier network. The reporting interval is identified in the heading of the report.

01-04-77 10:38:42 PAGE 1

T-CARRIER RESTORATION CONTROL CENTER REPORT
REPORTING INTERVAL 12-31-75 00:00:00 TO 12-31-75 00:00:00

NUMBER OF MONITORED T1 SYSTEMS	3649
NUMBER OF BACKBONE LINES WORKING	41
NUMBER OF TCXR LINE OUTAGES REPORTED	18
NUMBER OF LINE OUTAGES PATCHED/BACKBONE	0
TOTAL LINE OUTAGE (MINUTES)/BACKBONE	0
AVERAGE LINE OUTAGE (MINUTES)/BACKBONE	*****
NUMBER OF LINE OUTAGES NOT ON BACKBONE	18
MAINTENANCE PATCH USED	5
RESTORED OR OTHER	13
TOTAL LINE OUTAGE (MINUTES)/NO BACKBONE	804
AVERAGE LINE OUTAGE (MINUTES)/NO BACKBONE	45
NUMBER OF TCXR BANK FAILURES	2
AVERAGE BANK OUTAGE (MINUTES)	46
NUMBER POWER UNIT DEFECTIVE	1
OTHER	1

END OF REPORT

3.71 ***Performance Assessment Report:*** This report begins on the first day of each quarter and runs for 13 consecutive weeks. The report is a picture of the overall T-carrier network and the dependability factor of the network. It should be noted, that 20,000 system weeks of data are required before satisfactory level of confidence is reached (eg; for 5000 monitored systems, four weeks of data are required). A summary (totals of the statistics) is provided at the end of the report.

01-04-77 10:38:48 PAGE 1

QUARTERLY T1 CARRIER PERFORMANCE REPORT
REPORTING INTERVAL 12-31-75 00:00:00 TO 12-31-75 00:00:00

WEEK	TOTAL SYS. MONITORED	TOTAL ALARMS RECORDED	NUMBER OF SYSTEMS WITH ALARMS	DEPEND. FACTOR
1	3649	80	20	99
2	0	0	0	100
3	0	0	0	100
4	0	0	0	100
5	0	0	0	100
6	0	0	0	100
TOTALS	3649	80	20	99

END OF REPORT

4. INDEX OF INPUT MESSAGES

A. Introduction

4.01 This part provides a reference index of all input messages identified in this document. To permit ease in locating the input messages, all messages are listed in alphabetical order and are referenced to the appropriate paragraph number. This part is intended to be used as an easy access to each input message in this practice. Thus, no detailed meanings of the messages are included here.

4.02 The messages are grouped into three categories according to the job function the message addresses. This grouping will maintain consistency and facilitate referencing of the input messages. The three categories are maintenance control, data base control, and computer control input messages. All input messages are listed in alphabetical order per each category.

B. Input Message Index

4.03 The following paragraphs index all input messages identified in this practice. Messages are cross-referenced to the appropriate paragraphs where detailed meanings and options available are specified.

4.04 ***Maintenance Control Input Message Index***

MESSAGE	PARAGRAPH NUMBER	MESSAGE	PARAGRAPH NUMBER	MESSAGE	PARAGRAPH NUMBER
ACP:TC	2.34	OP:LINKHS	2.45	OP:TLMASGN	2.25
CLR:CONTR	2.05	OP:LM	2.44	OP:UNMONEQPT	2.26
CLR:NTC	2.30	OP:LO	2.12	OPN:TC	2.31
CLR:PLRES	2.41	OP:NPL	2.13	SET:CONTR	2.04
CLS:TC	2.32	OP:NTCL	2.14	SET:PLRES	2.39
EXEC:LM	2.43	OP:PATTL	2.15	STOP	2.08
EXEC:PLTST	2.42	OP:PINFO	2.16	UPD:AC	2.35
IN:CMT	2.38	OP:PLL	2.27	UPD:MANOTG	2.46
INIT	2.06	OP:PLSUM	2.17	UPD:MANREG	2.47
IN:NTC	2.29	OP:RPT	2.18	UPD:PTCH	2.40
MON:ST	2.28	OP:RS	2.19	UPD:SCTN	2.36
MON:TC	2.33	OP:SL	2.20	UPD:SYSSTAT	2.48
OP	2.07	OP:SS	2.21	UPD:TASCOTG	2.49
OP:ATC	2.09	OP:ST	2.22	UPD:TASCREG	2.50
OP:EQPTINV	2.10	OP:TC	2.23	UPD:TI	2.37
OP:HS	2.11	OP:TCL	2.24		

4.05 *Data Base Control Input Message Index*

4.06 *Computer Control Console Input Message Index*

MESSAGE	PARAGRAPH NUMBER
OP:ATC	2.09
OP:CHGBUF	2.71
OP:CHGLOG	2.69
OP:CS	2.59
OP:DATAERR	2.67
OP:DBL	2.60
OP:DLTLOG	2.70
OP:EQPTINV	2.10, 2.61
OP:HS	2.11
OP:LO	2.12
OP:MTCON	2.83
OP:NPL	2.13, 2.62
OP:NTCL	2.14
OP:PATTL	2.15
OP:PINFO	2.16
OP:PLSUM	2.17
OP:PRMTR	2.96
OP:RPT	2.18
OP:RS	2.19
OP:SCCASGN	2.58
OP:SL	2.20
OP:SS	2.21
OP:ST	2.22
OP:SWASGN	2.63
OP:TC	2.23
OP:TCL	2.24
OP:TLMASGN	2.25, 2.64
OP:TLMERR	2.87
OP:TLMSTAT	2.86
OP:UNMONEQPT	2.26, 2.65
RMV:UN	2.92
RST:UN	2.93
SET:AUTOACO	2.97
SET:DBQT	2.74
SET:WDKIST	2.94
STOP:DATA	2.108
STOP:DBRCD	2.100
STOP:DISCIM	2.82
STOP:LGTP	2.105
STOP:MTCON	2.84
SW:LANG	2.103
UPD:MONSYSTEM	2.106
UPD:PRMTR	2.95