TELECOMMUNICATIONS ALARM SURVEILLANCE AND CONTROL SYSTEM

(TASC)

CENTRAL OPERATIONS—GENERIC 1

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1. GENERAL

1.01   This section contains general operating information for the Telecommunications Alarm Surveillance and Control (TASC) System Generic 1 (G1). Only Part 3 of this section is relevant to activities at TASC remote operating positions. Detailed information pertaining to the formation, generation, and entry of the data base for Generic 1 is given in Sections 190-210-301, 190-210-302, and 190-210-304. Maintenance procedures for Generic 1 are presented in Section 190-210-500.

1.02   This section is reissued to update existing Generic 1 information. Refer to Section 190-210-310 for Generic 2 information.

2. PERIPHERAL EQUIPMENT OPERATION

CABINET POWER

2.01   Figure 1 shows the data control cabinets and points out the cabinet power pushbuttons. Depressing these pushbuttons should cause an associated lamp to light. This indicates that power is applied to the cabinets.

2.02   The equipment housed in each of the cabinets is powered via a power bus inside the cabinets. To verify that the bus equipment is properly powered, open the cabinets at the back and check to see that the ac line cords are plugged into the bus.

HP CRT CONSOLE

2.03   Table A provides a functional description of the main controls and indicators associated with the CRT console. The owner's manual for this console should be consulted for a functional description of the remaining controls and indicators.

2.04   Perform the procedure in Chart 1 to turn on and ready this console for keyboard-to-computer entry.

Keyboard Entry Operations

2.05   Information to be transmitted to the central is entered via the CRT console keyboard (Fig. 2). Each line of information is terminated by momentarily depressing **RETURN**.

POWER
PUSHBUTTONS
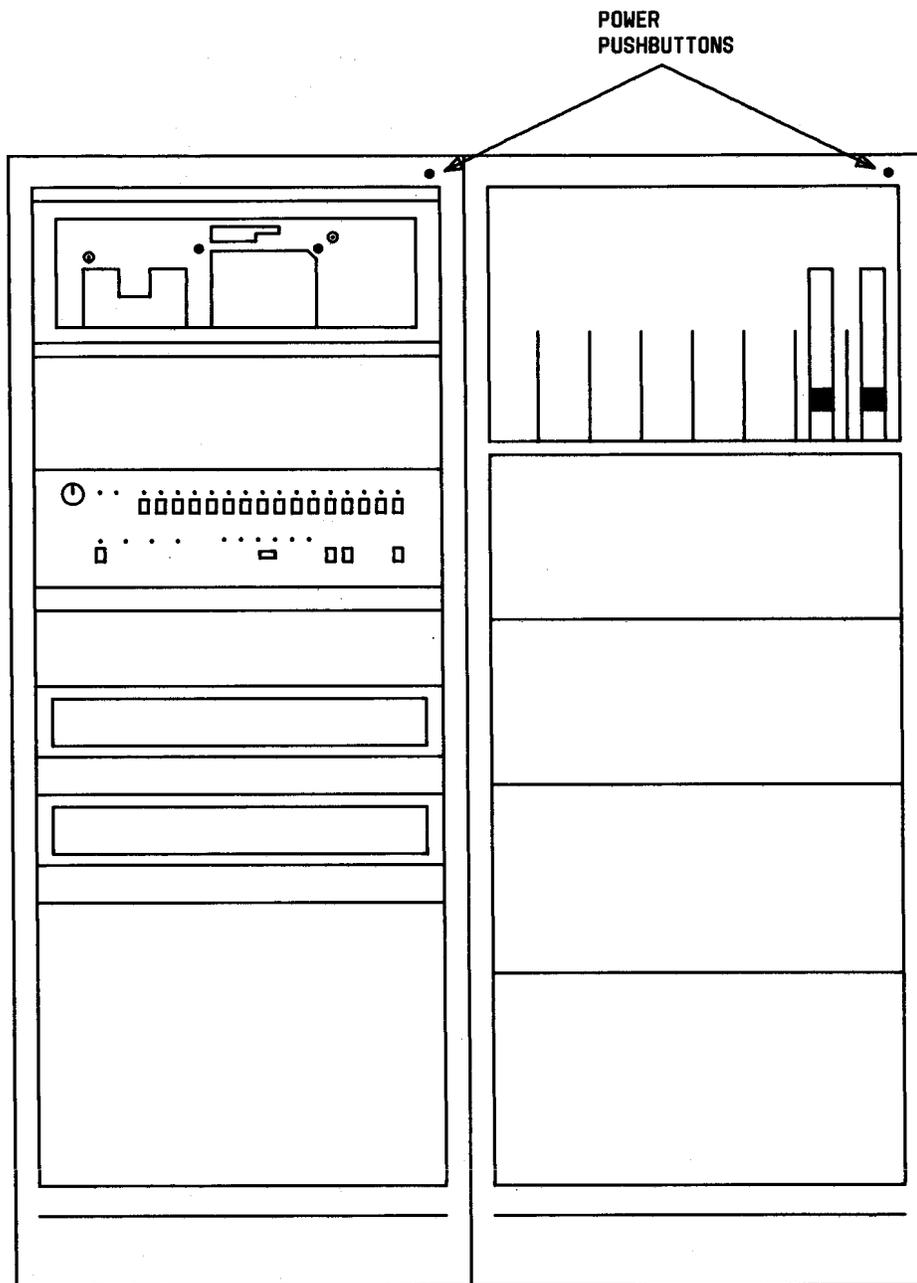
Fig. 1—Data Control Cabinets

TABLE A

CRT CONTROLS AND INDICATORS
(Refer to Fig. 2 for locations)

CONTROL OR INDICATOR	FUNCTION
	COMMUNICATIONS GROUP
DUPLEX Switch	In HALF position, typed characters are processed by terminal and then transmitted to computer. In FULL position, typed characters are transmitted to computer and not processed by terminal. This is also referred to as "echo" operation because when a character is typed, the computer returns (echoes) the character back to the terminal to be displayed on the screen
PARITY Switch	When set to EVEN/ODD/NONE, an even, odd, or no parity is transmitted. A ▤ is displayed if a parity error occurs
BAUD RATE Switch	Selects the data transmission rate (110, 150, 300, 1200, 2400 baud). If set in EXT position, any rate between 110 and 2400 may be selected from an external source
	CONTROL GROUP
RESET TERMINAL Pushbutton	Sets circuitry to initial power-on state. Screen display and memory clears, cursor homes to upper left-hand corner, and turns off all programmable functions
DISPLAY FUNCTIONS Pushbutton and Indicator	When latched (associated indicator lighted), all control characters are displayed along with those normally displayed such as letters and numerals
REMOTE Pushbutton	When latched, terminal is set for "on-line" communications with computer. When unlatched, terminal is disconnected from computer for "off-line" operations
CAPS LOCK Pushbutton	When latched, locks all alphabetic keys to upper case. When unlatched, both upper- and lower-case characters may be entered
AUTO LF Pushbutton	When latched, causes a line feed to be generated each time a carriage return is generated
TEST Pushbutton	When depressed, causes a diagnostic test of the terminal. If a failure is detected, an indication of the appropriate error is displayed. If no error is detected, a standard test pattern is displayed along with audible "beeps." (See Section 190-210-500.)

TABLE A (Contd)

CRT CONTROLS AND INDICATORS
(Refer to Fig. 2 for locations)

CONTROL OR INDICATOR	FUNCTION
	DISPLAY CONTROL GROUP
CLEAR DISPLAY Pushbutton	Clears terminal memory (and display) from the current cursor position to the end of memory, or to the end of current line if CNTL is simultaneously depressed
↑, ↓, →, ←, ↖ Pushbuttons	Moves the cursor up one line (↑), down one line (↓), right one column (→), left one column (←), or moves the cursor to upper left-hand corner (↖)
NEXT PAGE, PREV PAGE Pushbuttons	Displays the next 24 lines of terminal memory, or the previous 24 lines of memory
ROLL UP, ROLL DOWN Pushbuttons	Moves the entire display up one line or down one line
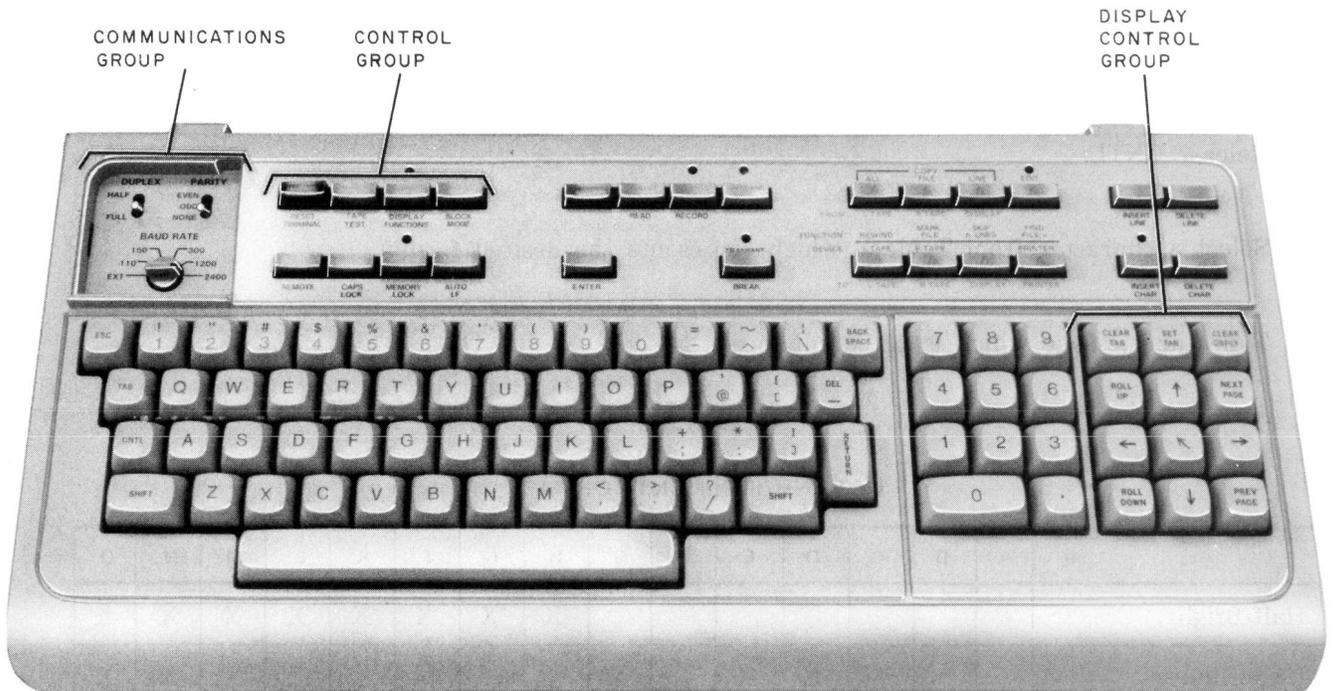
Fig. 2—HP CRT Console Keyboard

2.06 If an error was made in entering information, the following options are available:

```
        ACTION                          KEY(S) TO OPERATE
        ------                          -----------------

                                    HP                  DS4Ø
                                    ------              ------

DELETE THE LAST CHARACTER            BACKSPACE

ENTERED   (SEVERAL OPERATIONS           OR                  OR

WILL DELETE SEVERAL CHARACTERS).     CTL-A               CTL-A


DELETE THE CURRENT LINE.             SHIFT-DEL           CTL-DEL
                                     Then RETURN         Then RETURN

CANCEL THE REQUESTED OPERATION.          !                   !
                                     Then RETURN         Then RETURN
```

Enhancement Operations

2.07 The TASC central and, in some cases, remote operating positions are provided with HP CRT terminals. These terminals have the capability to display messages in half-bright, underline, inverse video, or blinking format. Also, combinations of these formats can be used to enhance a message.

2.08 To provide for enhancement, *each line* of the message should be preceded by the following operations on the CRT console keyboard:

(a) Depress and hold CNTL.

(b) Depress and release f1.

(c) Release CNTL.

(d) Select a character from Table B which represents the desired format.

(e) Type the message which is to be enhanced.

TABLE B

CRT ENHANCEMENT FORMATS

	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Half-Bright									X	X	X	X	X	X	X	X
Underline					X	X	X	X					X	X	X	X
Inverse Video		X	X				X	X			X	X			X	X
Blinking		X		X		X		X		X		X		X		X

Note: The @ character does not provide any enhancement. This is useful for deactivating the enhancement of a message

2.09 Enhancing a message on the CRT console is an excellent way to attract an operator's attention to important messages. However, there exists two minor disadvantages:

(1) Four extra characters must be stored for each line of message.

(2) If an enhanced message is outputted on a device other than the HP CRT console, the enhancement control characters will precede the message.

2.10 Certainly not all messages should be enhanced. It is believed that the main use of this feature will be with the program sequencer, certain comments associated with commands, and certain messages in the TASC data base.

DATASPEED 40 TERMINAL

2.11 Refer to the following sections for information pertaining to this terminal:

SECTION	DESCRIPTION
582-200-100	DATASPEED 40 Station—Description
582-210-100	DATASPEED 40 Printer—Description and Operation
582-211-100	DATASPEED 40 Operator Console—Description and Operation
582-213-100	DATASPEED 40 Display Monitor—Description and Operation

HP TAPE READER

2.12 Table C contains a functional description of the HP tape reader controls. Figure 3 is an example of the HP tape reader.

2.13 Chart 2 is a procedure for inserting a tape into the tape reader. Chart 3 is a procedure to follow for removing a tape from the tape reader.

TABLE C

HP TAPE READER CONTROLS AND INDICATORS

CALLOUT (FIG. 3)	DESIGNATION	FUNCTION
1	POWER switch	Push-on/push-off switch that applies power to unit
2	LOAD switch	Push-on switch that released reader pinch roller and stops reader capstan to allow tape threading
3	READ switch	Push-on switch that released LOAD switch, closes reader pinch roller, and advances tape through unit if read command is present
4	MANUAL ADVANCE switch	Momentary push switch that released READ switch and advances tape while switch is depressed
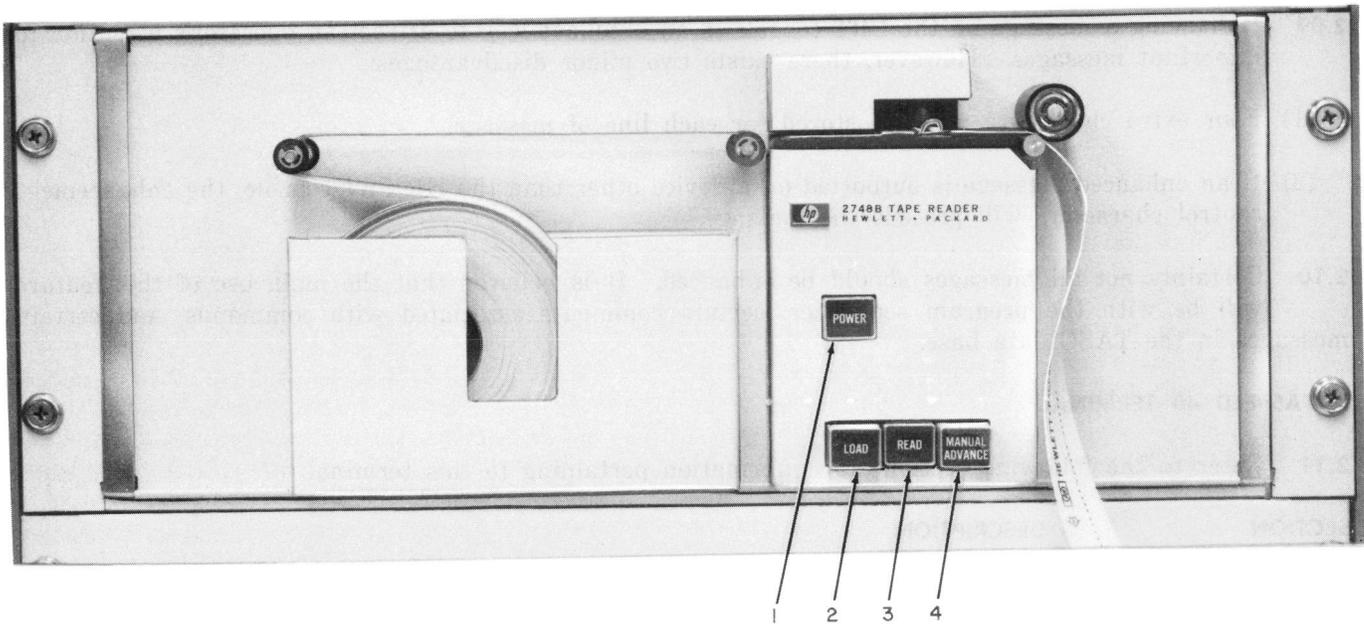
Fig. 3—HP Type Reader

HP MINICOMPUTER

2.14　Table D contains a functional description of the HP minicomputer controls and indicators. Note that there are two HP minicomputer models (HP 2112, HP 2113) which are being used in the TASC Systems. The difference in the controls and indicators is noted in Table D. Refer to Fig. 4 for an example of the HP minicomputer.

2.15　The primary interface between the computer and the attendant is the display register of the computer. When in the halt mode, the contents of any of the six registers (A, B, M, T, P, S) may be displayed via the display register. The choice of register to be displayed is basically determined by the operator. A register can be selected via the REGISTER SELECT pushbutton when the computer is in the halt state.

2.16　The display register consists of 16 rocker-type pushbuttons and 16 indicators located on the front panel of the minicomputer. A lighted indicator signifies a 1 bit in that position of the register while a nonlighted indicator signifies a 0 bit. There are, therefore, 16 bits in each register of the minicomputer used by TASC. When the top half of one of these pushbuttons is depressed, a 1 bit is transferred into the display register which lights its associated lamp. Conversely, if the bottom half of a pushbutton is depressed, a 0 bit is transferred and the lamp turns off. The entire display can be cleared by depressing pushbutton CLEAR DISPLAY.

2.17　A 16-bit representation of the contents of a register consisting of a string of ones and zeros is rather difficult to read or remember. Octal notation is a shorthand method of expressing binary strings and makes them much easier to manipulate.

2.18　To convert a string of ones and zeros to octal, start at the right of the string and divide the string into groups of threes. For example, consider the string 1000010000111111. Starting at the right and dividing into groups of threes, the string becomes:

1 000 010 000 111 111

TABLE D

MINICOMPUTER CONTROLS AND INDICATORS

CALLOUT (FIG. 4)	DESIGNATION	FUNCTION
1	KEY-OPERATED Switch	LOCK — Disables RUN/HALT switch; all other processor functions are enabled.
		OPERATE — Power applied to entire mainframe. All panel switches enabled.
		STANDBY — Memory contents are sustained, battery is charged, and CPU and I/O power is off.
		R — Reset
	KEY (2113 Model)	Allows or prevents access to the POWER OFF/ON and the LOCK/OPERATE switches located behind front panel. When unlocked, the front panel opens out.
2	OVERFLOW Indicator	Displays contents of overflow register when processor is in the run or halt mode. Lamp lighted equals a logic "1," off equals logic "0."
3	EXTEND Indicator	Displays the contents of the extend register. Lamp lighted equals a logic "1," off equals a logic "0."
4	DISPLAY REGISTER	Displays contents of the selected working register (A, B, M, T, P, and S) when processor is in the halt mode.
5	RUN/HALT	RUN — Starts processor programmed operation. Disables panel controls with exception of display register, CLEAR DISPLAY, and HALT switches.
		HALT — Stops processor and enables panel switches.
6	PRESET/IBL	PRESET — Disables the interrupt system, resets power-fail logic, clears parity and/or overflow bits.
		IBL — Loads contents of paper tape into memory.
	PRESET-IBL/TEST (2113 Model)	In addition to the PRESET function, this model uses the IBL/TEST function which loads the contents of the paper tape into memory and executes self-test firmware diagnostics.

TABLE D (Contd)

MINICOMPUTER CONTROLS AND INDICATORS

CALLOUT (FIG. 4)	DESIGNATION	FUNCTION
7	INTERRUPT SYSTEM	Indicates status of interrupt system; lighted equals system enabled, off equals system disabled.
8	PARITY	When lighted, indicates parity error occurred while reading from memory.
9	POWER/FAIL BATTERY	When lighted, indicates power (battery power) has been restored after a power failure has occurred.
	POWER FAIL (2113 Model)	
10	REGISTER SELECT	Selects any one of the six working registers for display and modification.
11	INSTR STEP/ CLEAR DISPLAY	INSTR STEP — While in the halt mode, when pressed and released, advances program to the next instruction.
		CLEAR DISPLAY — Clears display register contents to 000000_8
12	INC M/DEC M	INC M — In the halt mode, increments the M register contents.
		DEC M — In the halt mode, decrements the M register contents.
	INC M/m—DEC M/m (2113 Model)	Increments or decrements the M register contents during standard mode and the m register contents during the special display mode.
13	STORE/DISPLAY	STORE — In the halt mode, stores the contents of the display register into the selected working register.
		DISPLAY — Places the present contents of the selected register into the display register. Used to recall a register after the display.
	STORE/MODE (2113 Model)	MODE — Selectes either standard or special register display mode.

TABLE D (Contd)

MINICOMPUTER CONTROLS AND INDICATORS

CALLOUT (FIG. 4)	DESIGNATION	FUNCTION
Located behind front panel	POWER ON/OFF (2113 Model)	Controls ac line power to computer power supply and ventilating fans.
	LOCK/OPERATE	LOCK — Disables the RUN and HALT switches. All other functions are enabled.
		OPERATE — All switches are enabled.
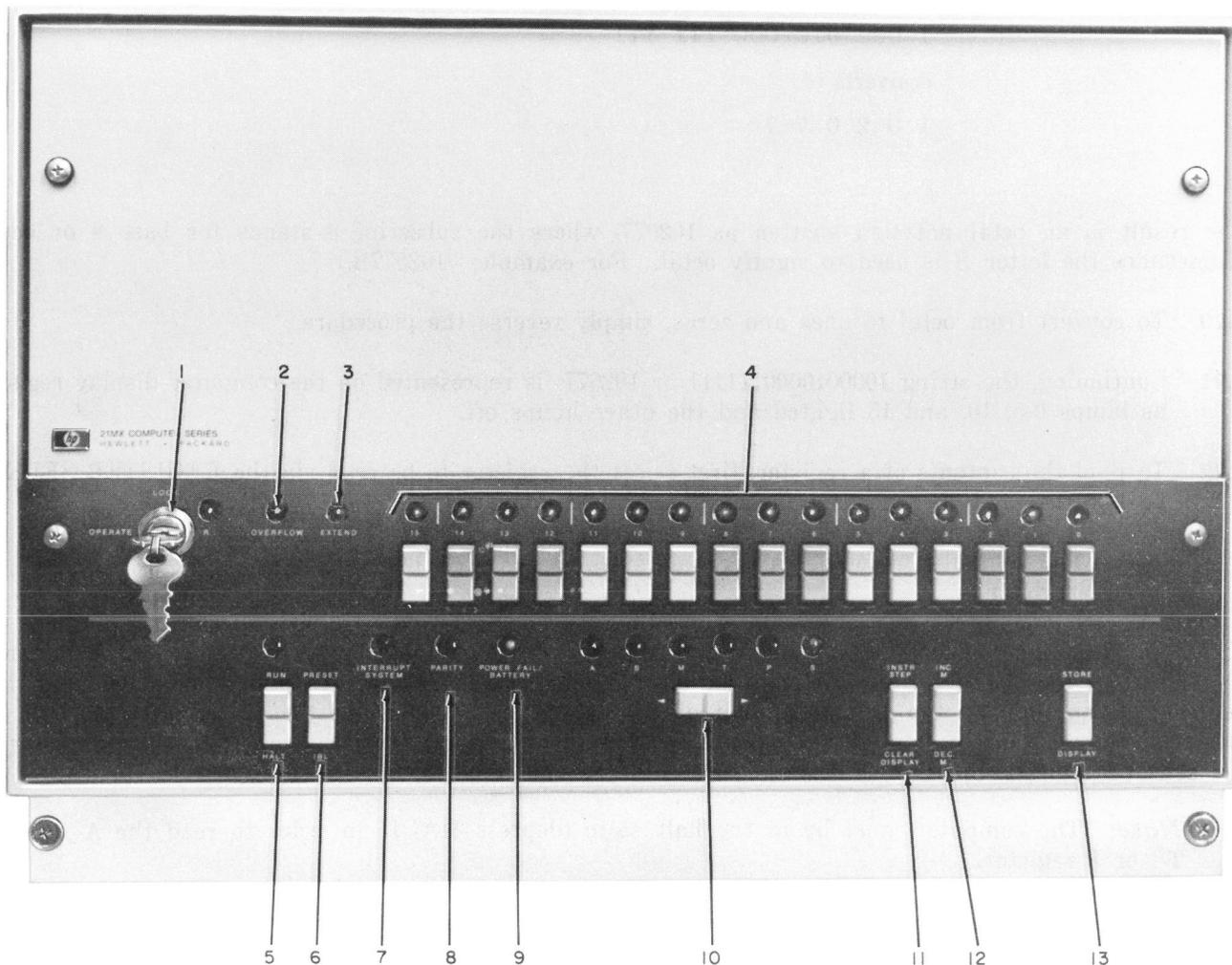
Fig. 4—HP Minicomputer

There will be a 1-digit group at the left side since a 16-bit string cannot be evenly divided by three.

2.19 Considering one group at a time, convert the three bits of each group (or the one bit in the case of the leftmost group) into their octal equivalent using the following conversions:

GROUP	OCTAL
000 or 0	0
001 or 1	1
010	2
011	3
100	4
101	5
110	6
111	7

Thus from the example:

1 000 010 000 111 111

converts to:

1 0 2 0 7 7

The result is an octal notation written as 102077_8 where the subscript 8 stands for base 8 or octal. (Sometimes the letter B is used to signify octal. For example: 102077B.)

2.20 To convert from octal to ones and zeros, simply reverse the procedure.

2.21 Continuing, the string 1000010000111111 or 102077_8 is represented on the computer display register as lamps 0-5, 10, and 15 lighted and the other lamps off.

2.22 To read the contents of a register, first select the register to be read via the REGISTER SELECT pushbutton, and then convert the ones and zeros displayed to octal.

Note: The computer must be in the halt state (depress HALT) in order to read the A-, B-, M-, T-, or P-register.

2.23 To alter the contents of a register, first convert the octal notation to be entered into ones and zeros. Next, select the register to be altered via the REGISTER SELECT pushbutton, and then depress the appropriate top or bottom half of the display register pushbuttons in accordance with the ones and zeros. Finally, depress pushbutton STORE to transfer the contents of the display register to the selected register.

Note: The computer must be in the halt state (depress HALT) in order to read the A-, B-, M-, T-, or P-register.

Caution: Randomly altering the contents of the minicomputer registers while the TASC System is operating may result in service interruption.

TCT/202T DATA SET PAIRS

2.24 Table E provides a functional description of the controls and indicators of the TCT/202T data set pairs.

TABLE E

TCT/202T DATA SET PAIRS—CONTROLS AND INDICATORS

CONTROL OR INDICATOR	FUNCTION
	TELEMETRY-TO-COMPUTER (TCT)
ACO Pushbutton and Indicator	When lighted, indicates an alarm condition. When depressed, associated lamp turns off and silences audible alarm
RESET Pushbutton	Clears the TCT circuitry to its initial power-on state
	202T DATA SET
ON Lamp	Indicates that power is applied to the data set
MR Lamp	(Modem Ready) Indicates the status of the data-set-ready signal. The lamp will be lighted when the data set is in the data mode (data-set-ready lead is true)
RS Lamp	(Request-to-Send) Indicates the status of the request-to-send lead from the customer interface. The lamp will light whenever the request-to-send lead is true or during local self-test and remote test
CS Lamp	(Clear-to-Send) Indicates the status of the clear-to-send lead from the data set. The lamp will light whenever the clear-to-send lead is true or during local self-test and remote test
CO Lamp	(Carrier On) Indicates the status of the received line-signal-detector lead from the data set. The lamp will light whenever the received line-signal-detector lead is in the true condition or during local self-test and remote test
TM Lamp	(Test Mode) Indicates that the data set is in the test mode. The lamp lights whenever one of the test pushbuttons (AL, LT, RT) is depressed. If an error is detected furing the local self-test, the TM lamp will go off
AL Pushbutton	(Analog Loopback) When latched, the TM lamp lights and the output of the data set transmitter is looped back to the receiver input for test purposes
LT Pushbutton	(Local Self-Test) When depressed, all status indicator lamps light to provide a lamp test. Also, the output of the transmitter is looped to the input of the receiver and a random 63-bit word is transmitted at 1547 bits-per-second. If an error is detected, the TM lamp will blink or go off
RT Pushbutton	(Remote Test) If the data set is operating 4-wire, a latched RT pushbutton connects the received data to send data, and carrier-on to request-to-send. This conditions the data set to operate as a repeater for remote testing purposes. If the data set is operating 2-wire, a latched RT switch conditions the data set to be remote tested from a test center

2.25 During normal operation, 202T data set pushbutton AL is unlatched. Normal polling operation can be verified by watching the 202T data set lamps. Lamps ON and MR should be lighted, and lamp RS should blink followed by CS and then CO. If CO is continuously on, then a remote is constantly transmitting a carrier on the network and the remote should be identified and referred out to be repaired. If RS and CS blink but CO does not blink, then a remote is not responding and that remote should be referred out for repair. If RS or CS does not blink and other data sets function okay, the problem is with the associated TCT or 202T data set. If more than one network is not functioning properly, the problem is likely to be with the computer or disc.

HP DISC DRIVE

2.26 Table F gives functional descriptions of the controls and indicators of the HP disc drive.

2.27 Chart 4 contains the procedure for turning on and reading the HP disc drive.

2.28 Chart 5 contains the procedure for removing and inserting a cartridge in the disc drive. Refer to Fig. 5 and 6 when using Charts 4 and 5.

HP LINE PRINTER

2.29 Table G provides a functional description of the controls and indicators of the HP line printer.

2.30 Chart 6 contains the procedure for turning on and readying the HP line printer.

2.31 Follow the procedure in Chart 7 to change the ribbon in the HP line printer. Refer to Fig. 7, 8, and 9 when using this chart.

2.32 Chart 8 contains the procedure for reloading paper in the HP line printer. Refer to Fig. 10 and 11 when using this chart.

AUTOMATIC TROUBLE ANALYSIS (ATA) LINKS

2.33 The TASC computer has the capability of operating computer/computer links to five Automatic Trouble Analysis (ATA) Systems. The links ultimately terminate in ATA terminals designated combined work stations. Each link is treated as a logical unit (LU) which will be discussed in greater detail in paragraph 3.21 and Table H.

3. SYSTEM OPERATING PROCEDURES

GENERAL

3.01 Part 3 of this section consists of central terminal operating procedures which normally occur in day-to-day activities. Data base procedures are not day-to-day activities and are contained in Sections 190-210-301, 190-210-302, 190-210-303, and 190-210-304. All sections are for Generic 1 operations. Sections 190-210-303 and 190-210-304 also include Generic 2 information.

3.02 The following paragraphs describe the operating features of the TASC System. References to the initiation of commands will be made, and details of command initiations will be given in paragraph 3.32.

LOGGING

3.03 Logging is a feature which provides a running diary of events which occur with the TASC System. This diary is actually English-text type messages which are stored in an area called the history

TABLE F

HP DISC DRIVE CONTROLS AND INDICATORS

CALLOUT (FIG. 5)	DESIGNATION	FUNCTION
1	DRIVE FAULT Indicator	Lights in the event a malfunction occurs during reading or writing from disc drive.
2	PROTECT LOWER DISC Indicator	Lights when LOWER DISC PROTECT switch is in protect position. When lighted, indicates that data on the lower (fixed) disc is protected from any write operations.
3	PROTECT UPPER DISC Indicator	Lights when UPPER DISC PROTECT switch is in protect position. When lighted, indicates that data on the upper (removable) disc is protected from any write operations.
4	DOOR UNLOCKED Indicator	Lights whenever the RUN/STOP switch is set to STOP, and drive motor has stopped spinning. This takes approximately 25 seconds after the switch is set to STOP. Conversely, it turns off immediately after the cartridge access door is closed and the RUN/STOP switch is set to RUN (the disc drive access door may be opened only when the DOOR UNLOCKED lamp is lighted).
5	DRIVE READY Indicator	Lights to indicate that the drive is ready for read/write operations.
6	DISC Unit Number Indicator	When lighted, indicates that power has been applied to disc drive. Also indicates the identity number of disc drive.
7	RUN/STOP Switch	When set to position RUN and after a wait of 4 minutes, the disc drive is ready for read/write operations if the DRIVE READY indicator is lighted. When set to position STOP and after a wait of 25 seconds, the disc drive access door can be opened if the DOOR UNLOCKED lamp is lighted.
8	UNIT SELECT Switch	Eight-position rotary switch which selects the identity number of the disc drive. The disc unit number indicator will correspond to switch setting.

log on the cartridge in the disc drive removable slot. This cartridge is referred to as the history cartridge. Messages are logged automatically as follows: When an event is outputted on the printer along with a unique identification number (IDNO). The message associated with this event is automatically filed by IDNO in the history log and, in general, all input requests and their resultant events are also automatically filed. On an active system, the history log will contain many entries.

TABLE F (Contd)

HP DISC DRIVE CONTROLS AND INDICATORS

CALLOUT (FIG. 5)	DESIGNATION	FUNCTION
9	POWER Switch	Toggle switch which applies power to disc drive when in the ON or UP position. When in the OFF or DOWN position, power is removed. The disc unit number indicator indicates that power is applied when lighted.
10	FORMAT Switch	Slide switch, when set to protect or leftmost position, prevents the software from altering the contents of the sector address field. When set to the unprotected or rightmost position, the software can change the contents of the sector address field. This position is used to initialize an unrecorded disc or to selectively set protected track or defective track status bits in the sector address field.
11	UPPER DISC PROTECT Switch	Slide switch, when set to protect or up position, prevents software from writing on upper (removable) disc. PROTECT UPPER DISC indicator will light in this position. When set to unprotected or down position, allows software to write on upper disc. When set in this position, PROTECT UPPER DISC indicator will not light.
12	LOWER DISC PROTECT Switch	Slide switch, when set to protect or up position, prevents software from writing on lower (fixed) disc. PROTECT LOWER DISC indicator will light in this position. When set to unprotected or down position, allows software to write on lower disc. When set in this position, PROTECT LOWER DISC indicator will not light.

3.04 Messages can also be logged by class number. Each input in each remote station being monitored by a TASC central can have a special class number attached during generation of the status display report (SDR) data base. Class numbers are also used in program sequences and in the HIST data base. The following is a list of the class numbers available for use. (See CLT command, paragraph 3.72.)

EXPLANATION   **CLASS NUMBER**

(a) SDR data base—1 to 255

(b) HIST data base—1 to 255

(c) Program Sequences—1 to 900

(d) Reserved—901 to 994

The following class numbers have been preassigned.
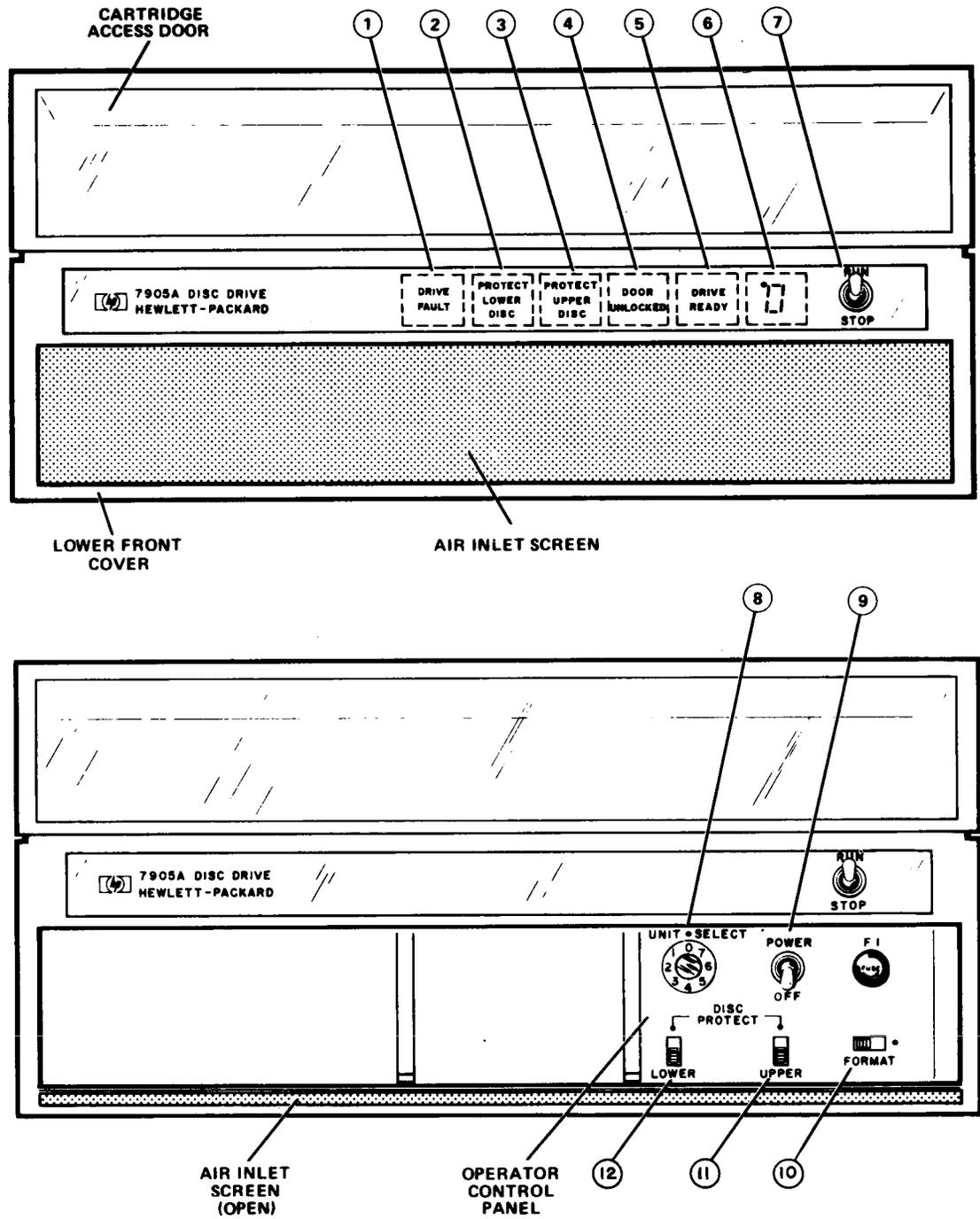
Fig. 5—HP Disc Drive

(a) BCO (set or clear)—995

(b) SCO (set or clear)—996

(c) Sequence Initiation—997

(d) Bootup—998

(e) Word Error Rate (WER)—999

Fig. 6—Illustration Showing How to Remove and Insert Cartridge in HP Disc Drive

3.05 Messages can be manually logged in the history log via the **LOG** command. The **LOG** command provides the operator with the ability to enter a comment of up to 250 characters and attach it to either an event using the identification number or to a station. This capability provides a simple

TABLE G

HP LINE PRINTER CONTROLS AND INDICATORS (NOTE)

DESIGNATION	FUNCTION
POWER Indicator	When lighted, indicates that power has been applied to unit
READY Indicator	Lights when motor comes up to proper speed
ON-LINE Indicator	Lights when line printer is in "on-line" mode with computer. Goes off when in "off-line" mode
ON-LINE/OFF-LINE Switch	Toggle switch, when toggled to ON-LINE, places the line printer in the "on-line" mode. When switch is toggled to OFF-LINE, it places line printer in the "off-line" mode
PAPER STEP Switch	Toggle switch, when the line printer is in "off-line" mode, advances the paper one step at a time
TOP OF FORM Switch	Toggle switch, when the line printer is in "off-line" mode, advances paper to the first line of next form
PRINT INHIBIT Switch and Indicator	When in on or up position, this toggle switch inhibits hammer drivers during maintenance. The indicator will light when the switch is in the on or up position
PAPER FAULT Indicator	Lights when paper is torn or missing
MASTER CLEAR Switch	Toggle switch, when toggled, initializes line printer circuitry to proper state
DRUM GATE Indicator	Lights when drum gate is unlatched
Circuit Breaker	Applies power when in the on or up position. Removes power when in the off or down position

Note: Switches/indicators 1 through 6 are located on the outside top panel of the line printer. Switches/indicators 7 through 12 are located inside the line printer cabinet just behind the front door

method for generating a running commentary to be permanently placed in the history log for later retrieval.

3.06 If a message is attached to station number 257, the comment will be logged to the TASC central. In this manner, one attendant can leave messages for another or log general system messages not pertinent to a particular station or event.

3.07 Using the **PRI** command, entries in the history log can be accessed and printed out in several ways. Two examples are: (1) all entries in the history log for a station during a specified day, or (2) all entries for a range of stations during a period of several days. In either case, the report could be

MOTOR HEAT SHIELD

DRUM GATE

CIRCUIT BREAKER

DRUM GATE LATCH
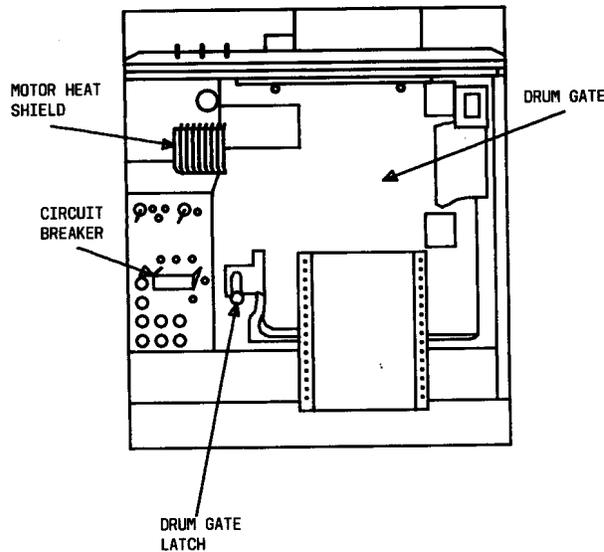
Fig. 7—Inside the HP Line Printer (For Changing Ribbon)

quite lengthy and contain numerous messages which are not desired. In order to shorten the output report, ask for class numbers for only those items pertaining to logging attendants in and out of stations, or just those items pertaining to a particular alarm type.

3.08 One of the accessing and printing options is to print only those items within a range of stations which are associated with a certain class number. For example, if all radio low microwave output (LOMO) alarms are designated class 52 in the data base, then a request on only class 52 for a range of stations events will produce a report consisting of only LOMO alarms for those stations.

3.09 The automatic logging of events by class number can be activated or deactivated to start or stop the logging by class process via the **CLA** command. This is done on an individual basis. One or more class numbers can be activated and the rest deactivated, and vice versa. A summary of all currently active class numbers can be outputted via the **CLT** command.

TROUBLE TICKETS

3.10 The trouble ticket capability provides the features necessary to track trouble conditions over a long period of time in a convenient and flexible manner. The attendant can create (or "open") a ticket at any time, but it is normally initiated in response to a trouble indication. A newly created trouble ticket is considered "open" until the operator "closes" the ticket. Closing a trouble ticket is a way for the attendant to inform the central that the trouble ticket is no longer necessary. Open trouble tickets are stored in an area on the history cartridge. A ticket is automatically purged from the disc three days after it is closed by the attendant.

3.11 A trouble ticket can be created based on a specified identification number of an alarm event or simply written against a station. A ticket created either way can have comments added to it at

TOP FLOATING
RIBBON HOLDER

RIBBON
GUIDES

TOP FIXED
RIBBON HOLDER

PAPER
GUIDE

BOTTOM FLOATING
RIBBON HOLDER

BOTTOM FIXED
RIBBON HOLDER
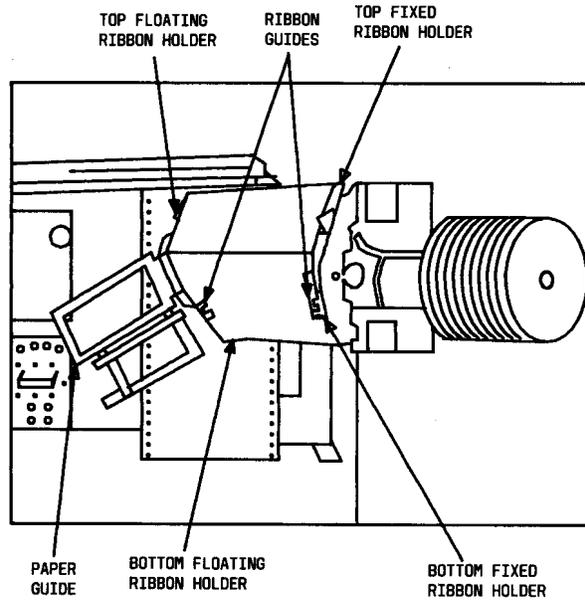
FIG. 10 - INSIDE THE HP-2767A LINE PRINTER

Fig. 8—Inside the HP Line Printer With Drum Gate Open

RIBBON CORE
(TYPICAL TWO PLACES)

FIXED RIBBON HOLDER
(TYPICAL TWO PLACES)

RIBBON

GUIDE PIN
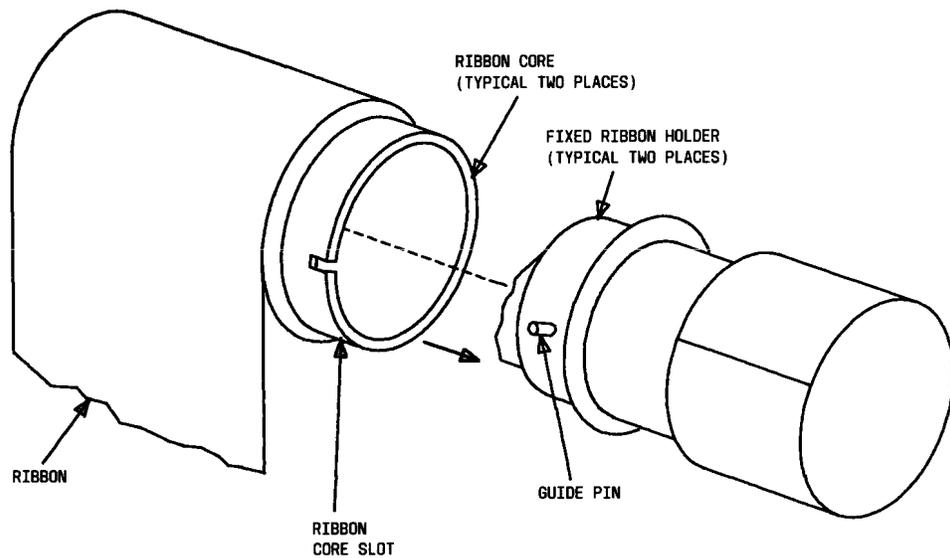
RIBBON
CORE SLOT

NOTE:
  TOP RIBBON CORE & FIXED HOLDER SHOWN

Fig. 9—Illustration Showing the Connection of the Ribbon Core to the Ribbon Holder
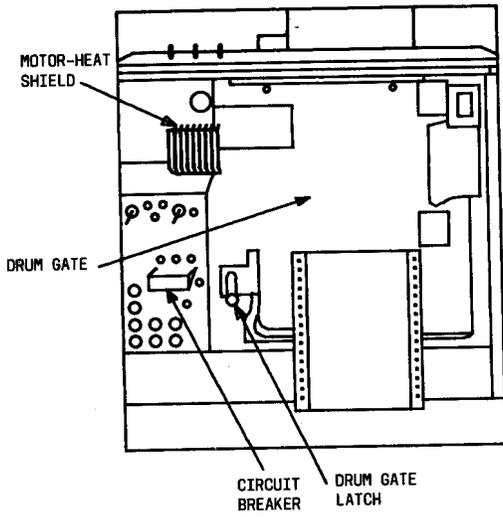
Fig. 10—Inside the HP Line Printer (For Reloading Paper)
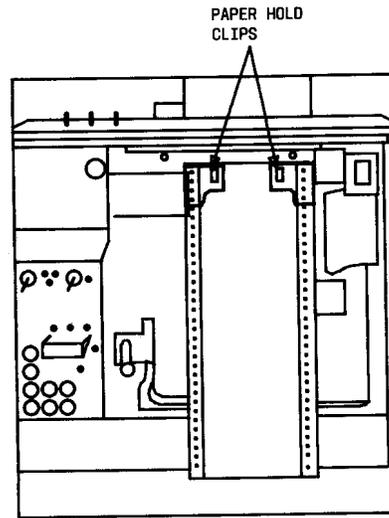
Fig. 11—HP Line Printer With Paper Properly Loaded

TABLE H

LOGICAL UNIT NUMBER (LU#) AND EQUIPMENT TABLE NUMBER (EQT#)
OF DEVICES CONNECTED TO THE TASC CENTRAL

	LU #	EQT #	MINICOMPUTER SLOT #	FIRST I/O EXTENDER SLOT #	SCOND I/O EXTENDER SLOT #
Central Terminal					
Disc Drive	2, 3, 42	1	14		
Line Printer	6	6	13		
Tape Reader	5	5	12		
CRT Console	1	2	11		
Time Base Generator			10		
Full-Feature Terminals*					
	23	23		7	
	24	24		10	
	29	29			6
Partial-Feature Terminals*					
	25	25		11	
	26	26		12	
	27	27		13	
	28	28		14	
	30	30			7
	31	31			10
	32	32			11
	33	33			12
Communication Links (ATA)					
#1	51	3	20		
#2	53	8	21		
#3	55	10	22		
#4	57	35	23		
#5	59	37		0	

*Space is provided to enter a name or location for each full-feature and partial-feature terminal.

any time in the future and essentially results in a running dialogue with the central. The resultant ticket can be printed or viewed at any time via the **TKT** command. The **TKT** commands provide the capabilities to open, close, add a comment, or print a summary of open tickets.

3.12 All tickets can be summarized in a table to provide a quick status review by use of the **TKT,90** command.

3.13 Whenever a ticket is created on a station, the status summary (one or more displays) which contain that station will indicate that open tickets exist for that station.

3.14 The comment section of a ticket is free format [except for the exclamation point (!)], and up to 250 characters can be entered by the attendant as a comment.

3.15 A ticket can also be created on station 257, which is used to denote the TASC central. This is useful when a general overall system problem is the motivation for the ticket.

3.16 Figure 12 is an example of a trouble ticket.

```
TKT:002
        13:58    07/27/76          OPEN
STA:004                            IDNO: NONE
REFERRED OUT TO:   SBM;            BY: CWM
CLEARED BY:      ;                 CLOSED BY:
13:58    07/27/76
INTERMITTENT DT MARKER ALARM
CRAFT NOTIFIED
```

Fig. 12—Printout of a Typical Trouble Ticket

LOGICAL UNIT NUMBERS (LU#s)

3.17 Each device connected to the TASC central has an equipment number (EQT#) permanently assigned to it by virtue of the equipment slot into which the device is plugged. However, the TASC central operator refers to all devices by a number called a logical unit number (LU#). The relationship between the LU# and the EQT# may be changed by the operator, but at bootup time the standard assignment is shown in Tables H and I.

3.18 There are several commands which utilize LU#s as a designation for the destination of information. For example, if a command outputted the message: **WHAT READOUT DEVICE (LXX)?**, the operator could have the information to be outputted sent to a line printer or to another terminal by merely specifying the LU#.

ATTENDANT TERMINAL CAPABILITIES

3.19 A TASC central always contains one main terminal system console which consists of the HP CRT console. This console is normally located on the desk at the TASC central location. The terminal is plugged into a minicomputer I/O port and is referenced as LU#1.

3.20 There can be up to 12 attendant terminals connected to a TASC central. These terminals can be located remotely from the TASC central as dictated by the local user. The first terminal (LU#1) is the system console and is plugged directly into a computer I/O slit. The next six terminals interconnect to the computer via the first Hewlett-Packard I/O extender either directly, if they are located at the TASC center, or through data sets, if they are remotely located. The last five terminals interconnect with the second I/O extender. Table H provides a cross-reference of I/O port number versus LU#.

3.21 There can be computer links to a maximum of 5 ATA Systems. Each of the ATA links may support several combined work stations that report into the corresponding ATA.

3.22 This alarm printout routing feature (ART Sections 190-210-301 and 190-210-302) provides a way of directing certain messages to an auxiliary CRT or TPTR terminal (ie, outputting to the terminal). The following paragraphs will be concerned with providing control to these terminals to perform certain keyboard operations for certain remote stations (eg, input from the terminal). For example, an auxiliary terminal can be provided control to initiate commands which affect only certain remote stations while commands could not be initiated on the remaining stations. This is accomplished via the command filtering table (CFT Sections 190-210-301 and 190-210-302). CFT is a software package which provides a cross-reference of the attendant terminal LU# versus the station numbers to which the terminal can initiate commands.

3.23 The terminals fall into two classes—full-feature and partial-feature. There can be up to four full-feature and eight partial-feature terminals connected to a TASC central. The main console, the first 2 terminals in the first I/O extender and the first terminal in the second I/O extender, are the full-feature terminals, whereas the rest are partial-feature.

3.24 All TASC functions can be performed from the four full-feature terminals, except that only the terminal designated LU#1 (usually the system console) will output maintenance messages and run system diagnostics. In addition, the INI and STO commands can only be initiated from LU#1.

3.25 The eight partial-feature terminals are limited and are **not** able to:

—halt the computer

—load a new TASC system disc

—perform data base or log changes

—run system maintenance diagnostics

—create program sequence files

—start or stop polling stations

—issue RTE commands (two-letter mnemonic command).

The following functions can be performed on a specified set of stations from the eight partial-feature terminals:

—issue switch commands

—set station occupancy or MCO flags

—perform log-in and logout functions

The eight partial-feature terminals have complete TASC capabilities for:

—alarm processing and analyzing

—station status reports and scans

—trouble ticket administration

—log retrieval and entry of comments into log

—can receive status summary displays

—initiation of the running of a program sequence job

—use of the training package (type **TRA** followed by a carriage return to gain access to the training software)

—data base listing operations

STATUS SUMMARY DISPLAYS

3.26 The display data base (DSPL) enables the user to create up to 64 status summary displays. Displays which are activated (via the DAS command) are automatically updated (on the terminal which the display is activated) with information as to the station's status summary.

3.27 Status summary displays have six slots available for active indicators (see Fig. 13); therefore, in the case where there are more indicators active than slots available, it will become necessary to bump one or more indicators from the screen. Table J is a list of priorities assigned to the display indicators; lowest priority indicators are bumped first. The definition of each priority is as follows:

1—reserved slot and cannot be bumped.

2—can "float" between indicated slots and cannot be bumped.

3—can "float" between indicated slots and can be bumped.

4—lowest priority, can "float" between indicated slots and is the first to be bumped.

3.28 Figure 14 is an example of a typical status summary display. Located at the top of each display is the display number, display name, time and date. To make a display more attractive and easier to read, it can be formatted with either one or two columns having single, double, or triple spacing between lines.

```
DISPLAY NO. 4        INNER CITY           15:59   09/22/78

1 IRVING

2 HUMBOLDT            L/A  NPL

3 AUSTIN             L/A  NPL

4 NEWCASTLE          L/A  NPL

5 ROGERS             L/A  NPL

6 OAKLAND         SFL L/A  MCO CTL OCC
                   1  2 3   4   5   6
                         SLOTS
```

Fig. 13—Example of a Status Summary Display Indicating Slot Location

TABLE I

LOGICAL UNIT NUMBERS (LU#) OF THE TELEMETRY-TO-COMPUTER TRANSLATORS (TCT)

TCT*	LU #	EQT #	MINICOMPUTER SLOT #	FIRST I/O EXTENDER SLOT #	SECOND I/O EXTENDER SLOT #
	11	11		1	
	12	12		2	
	13	13		3	
	14	14		4	
	15	15		5	
	16	16		6	
	17	17			0
	18	18			1
	19	19			2
	20	20			3
	21	21			4
	22	22			5

*Space is provided to enter a description of the physical location of each TCT in the cabinets.

3.29 When a display is activated it can be designated either nondedicated or dedicated. This designation determines how and when the display will be updated. A nondedicated display has the following characteristics:

—display scrolls on the screen*

—it will attempt to run every 2 minutes after it has been activated on a terminal. It will run only if something happens in the 2-minute interval and will wait for the next 2-minute time to lapse before updating the display

—there is a forced update of the display every 20 minutes starting at 5 minutes past the hour (5, 25, 45 etc), regardless of system activity

—if there is any activity, the display will update on the next 2-minute interval. If there is no activity, the display will be forced to update at the end of the next 20-minute interval.

* Display will not scroll on the screen when the device type specified is OT (other). The cursor will home when the screen is full.

A dedicated display has the following characteristics:

—display is always present on the screen and cursor will home to update*

—update header with new time every minute

—update complete display at the end of every 2-minute interval provided there is a change to be made in the display

—during periods of heavy system activity, the header will update every minute and the complete display will be updated every 2 minutes

—there is a forced update of the display every 20 minutes starting at 5 minutes after the hour (5, 25, 45 etc), regardless of system activity.

*The cursor will not home to update on a device specified as OT (other). The cursor will only home after it reaches the bottom of the screen.

```
DISPLAY NO 3        CHICAGO SCC        06:22  07/07/78
    1 IRVING        *
    2 HUMBOLDT      SFL L/A  SCO
    3 AUSTIN            L/B  MCO NPL OCC
    4 NEWCASTLE     ALM L/A  BCO
    5 ROGERS            L/M  NPL TKT
    6 OAKLAND           L/A  CTL NPL OCC
    @
```

* INDICATES STATION NOT FORMATTED

Fig. 14—Example of a Typical Status Summary Display

3.30 To create a new display, use the EDI command (the EDI command is explained in detail in Section 190-210-302).

ALARM MESSAGE FORMATS

The alarm message formats are defined in Fig. 15 through 18.

COMMANDS

3.31 The following paragraphs describe the commands associated with the TASC System. There are two ways to initiate a command: interactive, in which the computer outputs a self-explanatory message requesting certain data; and noninteractive, in which data is entered on one line without the computer requesting data via messages. The following paragraphs (with the exception of the **WER** command) describe only the noninteractive entry. *To initiate a command interactively, simply type the 2- or 3-letter mnemonic for the command followed by a carriage return.*

3.32 Some commands cannot be initiated from certain terminals. For example, the **INI** command can be initiated only from the terminal designated LU#1. This terminal usually is located at the TASC central location. Full-feature terminals can initiate any of the other TASC commands. Partial-feature terminals are limited in the types of commands that can be initiated and to the stations which they can control. (Refer to attendant terminal capabilities in paragraph 3.25.)

3.33 Some of the following commands allow the attendant to enter station names and switch names instead of numbers. These names can be up to 14 characters in length and must not consist of commas (,), percents (%), at sign (@), exclamation points (!), dashes (—), question marks (?), ampersands
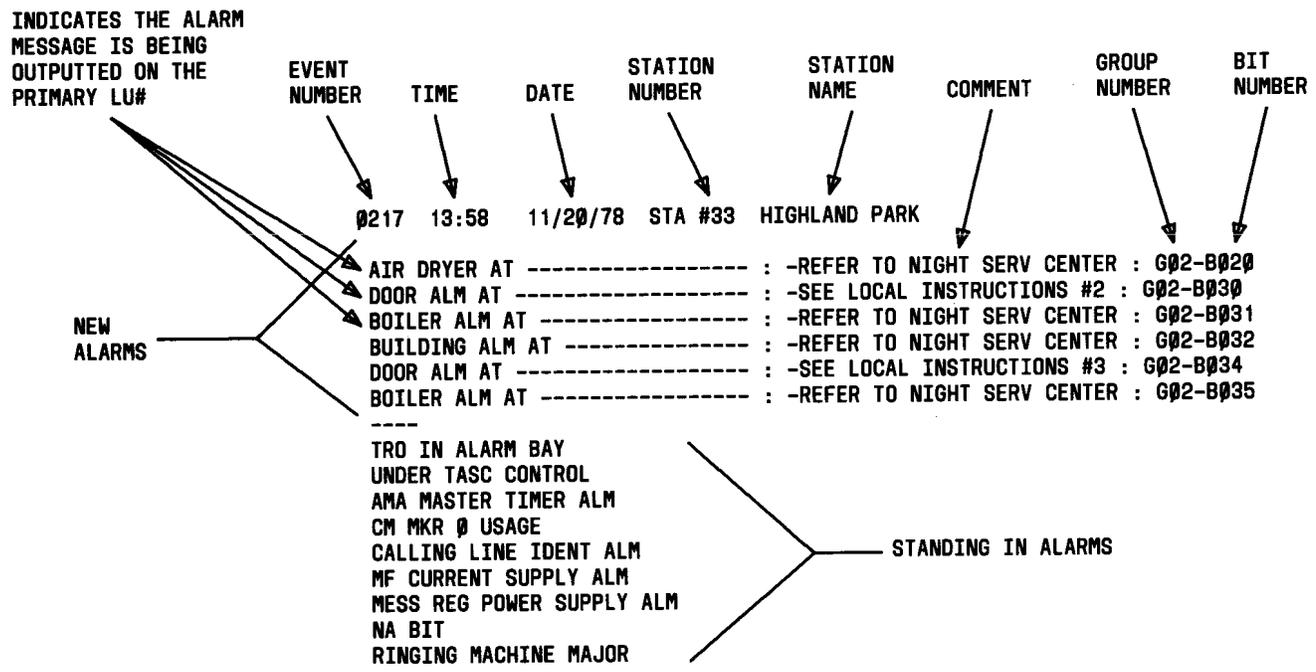
Fig. 15—Example of the Alarm Message Format for A, AC, B, C, C5, and S Processing Types

INDICATES THE ALARM
MESSAGE IS BEING
OUTPUTTED ON THE   EVENT   STATION   STATION   GROUP
PRIMARY LU#   NUMBER   TIME   DATE   NUMBER   NAME   COMMENT   NUMBER

BIT
NUMBER

Ø354 15:18   11/2Ø/78 STA# 33 HIGHLAND PARK

DT MKR 2ND TRL FAIL : -IF CONTINUES NOTIFY DUTY FMN : GØ1-BØ13
Ø3 OCCURRENCES IN   4Ø USAGES

NUMBER OF
FAILURES
(EVENTS)

PEG
COUNT
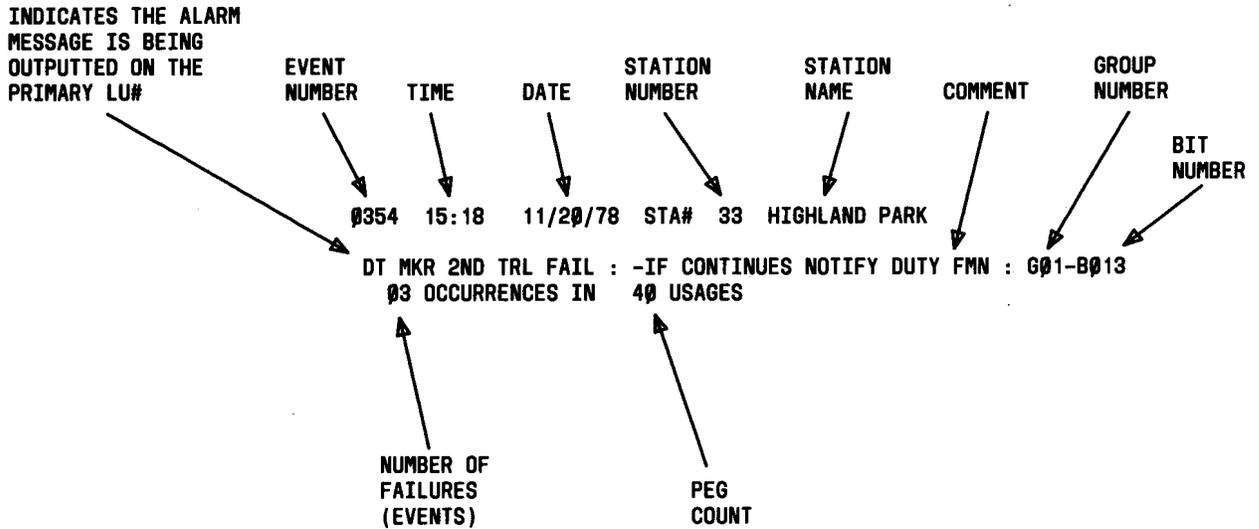
Fig. 16—Example of the Alarm Format for E-Type Processing

INDICATES THE ALARM
MESSAGE IS BEING
OUTPUTTED ON THE   EVENT   STATION   STATION   GROUP
PRIMARY LU#   NUMBER   TIME   DATE   NUMBER   NAME   COMMENT   NUMBER

BIT
NUMBER

Ø355 15:18   11/2Ø/78 STA# 33 HIGHLAND PARK

CM MKR 2ND TRL FAIL : -IF CONTINUES NOTIFY DUTY FMN : GØ1-BØ14
Ø8 OCCURRENCES IN ØØ:2Ø HRS:MIN
PREVIOUSLY EXCEEDED AT 14:23 11/2Ø/78

TIME AND DATE IN
WHICH THRESHOLD
WAS PREVIOUSLY
EXCEEDED

NUMBER OF FAILURES
AND THE ELAPSED TIME
(NUMBER OF FAILURES
MUST EXCEED THRESHOLD)

Fig. 17—Example of the Alarm Message Format When Using T-Type Processing

(&), dollar signs ($), or asterisks (*). Any other characters may be used, but the first character of a name must be alphabetic (A through Z). Also, a name cannot be any of the following: PR, CO, TA, DI, PU, or L followed by a 2-digit number.

3.34 The TASC Generic 1 data base commands are described in Section 190-210-302.

> *Note:* Some of the commands which follow have a field in their entry format for entering a readout device symbol. If this field is left blank, CO (console) is assumed.

INDICATES THE ALARM
MESSAGE IS BEING
OUTPUTTED ON THE   EVENT   STATION   STATION   GROUP
PRIMARY LU#   NUMBER   TIME   DATE   NUMBER   NAME   COMMENT   NUMBER

                                                                                              BIT
                                                                                              NUMBER

              Ø355   15:18   11/2Ø/78 STA# 33 HIGHLAND PARK

              DT MKR 2ND TRL FAIL : -IF CONTINUES NOTIFY DUTY FMN : G1-BØ13
              ØØ4 OCCURRENCES IN LAST HOUR
              HISTORY THRESHOLD = ØØ3

                                          HISTORY
                                          EVENT
NUMBER OF FAILURES   THRESHOLD
IN THE LAST HOUR
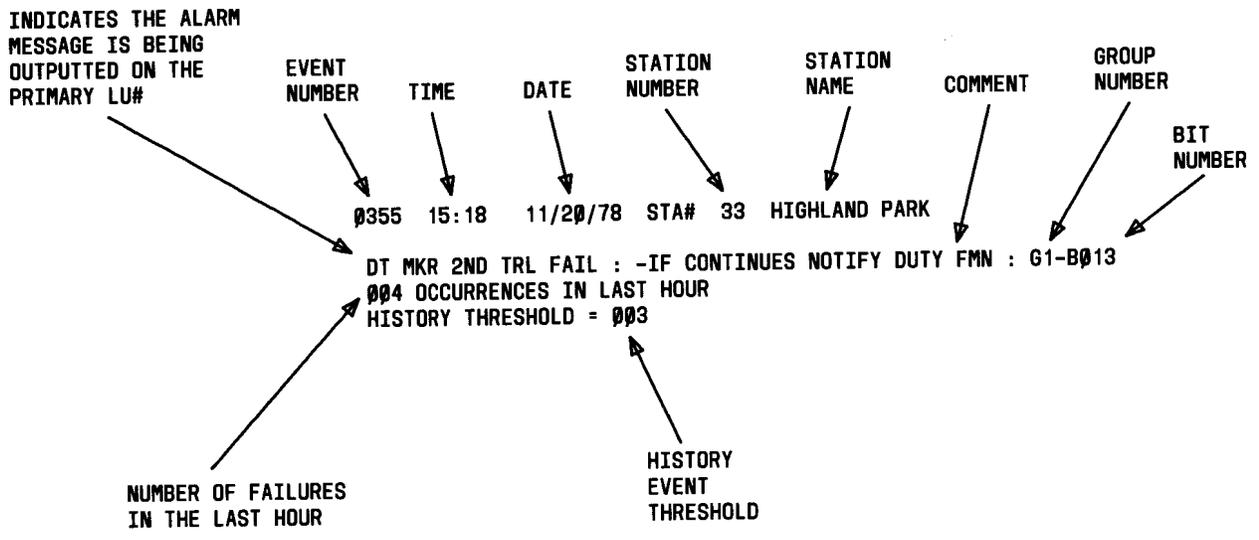
Fig. 18—Example of an Hourly History Report Message Format

A. Training Command

3.35 To assist operating personnel in the operation of the TASC System, training information has been included in the TASC System. This information is accessed using the **TRA** command. The resulting TASC output is an index of the TASC operations and directions to perform these functions. The following is an example of the **TRA** command usage:

TRA—Ouptut TASC Training Package

#TRA
@

                              INDEX PAGE

HI ! I'M YOUR COMPUTER. I CAN DO THE FOLLOWING:

1Ø   TELEMETRY COMMANDS ALA,SRE,RSW,CUR,AUT,SSR,C1T,RMV,OPR,RLS,RST

2Ø   ALARM PROCESSING COMMANDS CEA,BEG,STA,NET,ERA,MCO,FAD

3Ø   CENTRAL COMMANDS   ARL,LGI,LOM,LOS,WER,INT,ETR,OBL,PST

4Ø   LOGGING COMMANDS   LOG,PRI,IDN,DAT,CLA,CLT,TAB

5Ø   DATA BASE COMMANDS EDI,LIS,DBU,CLE,FIL,LCO,SYS

6Ø   TICKET COMMANDS   TKT

7Ø   SEQUENCE COMMANDS   TAS,SEQ

8Ø   ADMINISTRATIVE COMMANDS EOR,COP,HIS,WHO,MSG,CLK,TIM,LFD,WHA,STO

9Ø STATUS DISPLAY COMMANDS DSP,DAS,OCC,CTL,ALM,RET
TO FIND OUT MORE ABOUT AN ITEM-TYPE THE NUMBER IN FRONT OF THAT ITEM
TO EXECUTE A COMMAND-TYPE THE THREE LETTER COMMAND
TO RETURN TO THE INDEX PAGE—TYPE IN
TO END THIS PROGRAM—TYPE /E :#

B. Telemetry Commands

ALA—Alarm Poll a Station

3.36 Normally, the TASC central alarm polls each E1, E2, or E2A APR remote station on a continuous and automatic basis. The attendant may manually request an alarm poll of any of these remotes and have the response outputted via the following **ALA command.**

FORMAT: **ALA,** station number or name, readout device

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33), and the readout device is a logical unit number, CO for console, or PR for printer (see Table H).

OUTPUT:

0182—Identification number

STA. NO. 0123

THE DATA BITS ARE (B16-B1): 0000000000100000

AUT—Put a C1 Interface Into the Auto Mode

3.37 The **AUT** command provides the ability to place the C1 interface in the automatic mode. This allows the TASC central to automatically monitor the C1 remotes and central associated with the interface. By contrast, in the manual mode (performed via an operation of a switch), the TASC central does not monitor the remotes, and it is the responsibility of personnel at the associated C1 central to monitor the alarms.

FORMAT: **AUT,** station number or name

WHERE: Station number is a number from 1 to 256, and name consists of up to 14 characters (see paragraph 3.33).

EXAMPLE: **AUT,57**

OUTPUT: None

STATUS TEST COMPLETE.

COM—Communications Check Between SAT and HUB

3.38 Since a CDO satellite remote is silent whenever it has nothing new to report, it is necessary to periodically force the satellite to transmit in order to verify that it has not failed.

3.39 A station fail check of the CDO satellites is initiated every 30 minutes by a communication check program (COMCØ). This communications check can also be initiated by using the **COM** command (initiates COMCK which is identical to COMCØ). When requested either by time or manually, the communication check program will locate all HUBs in the STTB file and determine which of the satellites are active. It then performs a release test ones command which is sent to the HUB. This exercises all satellites assigned to that HUB. All satellite alarm bits (bit 16 of the satellite assigned subgroup) are checked to insure operation, and then are rechecked 11 seconds later to determine if they are clear. If any have not cleared, the respective satellites are retested. If a failure occurs again, the SF flag is set and the appropriate message is outputted via the ART (logged under station 257). The status summary display will be updated to include the SF indication for the failed satellite.

FORMAT: **COM**, station number or name

WHERE: Station number is from 1 to 256, and a station name consists of up to 14 characters (see paragraph 3.33).

EXAMPLE: **COM, 2**

OUTPUT:

THE COMMUNICATIONS CHECK IS COMPLETE. SATELLITE 2 ANSWERS PROPERLY.
@

C1T—Request Test Scans From C1 Central or Remote

3.40 The **C1T** command is used to analyze problems associated with the operation of C1 remotes connected to TASC via the C1 central and the SCOTS-C1 interface unit. It also provides the only practical means for executing a C1 test-indicate scan. Complete details are given in the SCOTS Remote Maintenance Section 190-205-502.

FORMAT: **C1T** (interactive format only)

CUR—Perform a Current Station Status Check

3.41 The **CUR** command provides an output which consists of a current look of a remote station.

FORMAT: CUR, station number or name, readout device

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33), and the readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: CUR, 11, L29

OUTPUT:

```
Ø474  14:Ø6  Ø3/19/79  STA Ø11  HARTFORD
----STATION STATUS AS OF LAST LOOK
MJ  PWR
MN  PWR
ALM  BAT
TBL RCDR MB
```

WHERE:

Ø474	equals the ID number
14:Ø6	equals the time
Ø3/19/79	equals the date
STA Ø11	equals the station number
HARTFORD	equals the station name
MJ PWR	
MN PWR	equals the alarms as of last look
ALM BAT	

TBL RCDR MB

> *Note 1:* CUR replies are logged. However, one can request that the reply not be logged by following the mnemonic with an asterisk (example CUR*,26). If there are new alarms in the reply, the event will always be logged.

> *Note 2:* For alarm polled and C1 remotes the CUR will result in a live scan of each scan listed in the station record table (SRT).

> *Note 3:* For status polled remotes the CUR will report the station "last look" as in the SRE command.

OPR—Operate: Operates a latched Switch in an E2A SAC Remote or CDO Satellite Unit

---

3.42 The **OPR** command is used to operate a latch switch at an E2A SAC remote station or CDO satellite unit. It is exactly equivalent to the **RMV** command.

FORMAT: **OPR,** station number or name, switch number or name, scan number, readout device

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33); relay switch number is from 1 to 4096, switch name consists of up to 14 characters (see paragraph 3.33); status group number is from 1 to 256, and readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: **OPR, 24, MKR1 MB, &, CO**

OUTPUT:

Ø534
STA.NO.   ØØ24   SW NO.   ØØØ7
MESSAGE REC'D FROM REMOTE

@

WHERE:

Ø534	equals the ID number
ØØ24	equals the station number
ØØØ7	equals the switch number
MESSAGE REC'D FROM REMOTE	the remote station received the command

Note 1: Type **&** in the command in place of the status group number if no scan operation is wanted.

Note 2: The output **MESSAGE RECEIVED FROM REMOTE** does not mean that the switch was made. To verify that the switch actually operated, one would need to examine the SGR associated with the switch.

RLS—Release: Releases a Latched Switch in an E2A SAC or CDO Satellite Unit

3.43 The **RLS** command is used to release a latched switch at an E2A remote station or CDO satellite unit. It is exactly equivalent to the **RST** (restore) command.

FORMAT: **RLS,** station number or name, switch number or name, status group number, readout device

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33); relay switch number is from 1 to 4096, switch name consists of up to 14 characters (see paragraph 3.33); and readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: **RLS, 24, 3, &, CO**

OUTPUT:

Ø535
STA. NO. ØØ24 SW NO. ØØ34
MESSAGE REC'D FROM REMOTE
@

WHERE:

Ø535	equals the ID number
ØØ24	equals the station number
ØØ34	equals the switch number
MESSAGE REC'D FROM REMOTE	equals the verification that the remote received the command

Note 1: Type **&** in the command in place of the status group number if NO SCAN is required.

Note 2: The output **MESSAGE RECEIVED FROM REMOTE** does not mean that the switch was made. To verify that the switch actually operated, one would need to examine the SGR associated with the switch.

RMV—Remove: Operates a Latched Switch in a Remote

3.44 The **RMV** command is used to operate a latch switch at an E2A SAC remote and CDO satellite unit. It is the exact equivalent to the **OPR** command.

FORMAT: **RMV**, station number or name, switch number or name, and readout device

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33); relay switch number is from 1 to 4096, switch name consists of up to 14 characters (see paragraph 3.33); status group number is from 1 to 256, and readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: **RMV, HARTFORD, MKR1 MB, &, CO**
OUTPUT:

Ø534
STA. NO. ØØ24 SW NO. ØØØ7
MESSAGE REC'D FROM REMOTE
@

WHERE:

Ø534	equals the ID number
ØØ24	equals the station number
ØØØ7	equals the switch number
MESSAGE REC'D FROM REMOTE	equals the verification that the remote station received the command

Note 1: Type **&** in the command in place of the status group number if NO SCAN is required.

Note 2: The output **MESSAGE RECEIVED FROM REMOTE** does not mean that the switch was made. To verify that the switch actually operated, one would need to examine the SGR associated with the switch.

RST—Restore: Releases a Latched Switch in an E2A SAC or CDO Satellite Unit

3.45 The **RST** command releases a latching switch in an E2A SAC remote station or CDO satellite unit. The **RST** command is identical to the **RLS** command.

FORMAT: **RST,** station number or name, switch number or name, status group number, readout device

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33); relay switch number is from 1 to 4096, switch name consists of up to 14 characters (see paragraph 3.33); and readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: **RST, 24, 34, & CO**

OUTPUT:

Ø535
STA. NO. ØØ24 SW NO. ØØ34
MESSAGE REC'D FROM REMOTE
@

WHERE:

Ø535	equals the ID number
ØØ24	equals the station number
ØØ34	equals the switch number
MESSAGE REC'D FROM REMOTE	equals the verification that the remote received the command.

Note 1: Type **&** in the command in place of the status group number if NO SCAN is required.

Note 2: The output **MESSAGE RECEIVED FROM REMOTE** does not mean that the switch was made. To verify that the switch actually operated, one would need to examine the SGR associated with the switch.

RSW—Operate a Momentary Remote Switch

3.46 A relay contact at a remote station can be momentarily operated, and a status report initiated after the contact closure by the **RSW** command as follows:

FORMAT: **RSW**, station number or name, switch number or name, status report number, readout device

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33); relay switch number is from 1 to 4096, switch name consists of up to 14 characters (see paragraph 3.33); status report number is the display (1-64) group number (1-16), and readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: **RSW, 11, 4, 1, CO**

OUTPUT:

Ø47Ø   13:39   Ø3/19/79   ST Ø11   HARTFORD

SGR Ø1
NO NEW ALARMS
DT MKR Ø 1TR
----OLD ALARMS
MJ   PWR
MN   PWR
ALM   BAT

WHERE:

Ø47Ø	equals the ID number
13:39	equals the time
Ø3/19/79	equals the date
ST Ø11	equals the station number
HARTFORD	equals the station name
SGR Ø1	equals status group number
MJ PWR	
MN PWR	equals the old alarms
ALM BAT	

Note 1: If an E2A SAC remote or CDO satellite unit is involved or if a status report is not desired, type **&** in the command for the status report number.

Note 2: The output **MESSAGE RECEIVED FROM REMOTE** does not mean that the switch was made. To verify that the switch actually operated, one would need to examine the SDR or SGR associated with the switch.

Note 3: C1 order codes may be used in place of switch numbers.

SRE—Perform a Status Report for a Station

3.47 The **SRE** command provides an output which consists of a current look of a specific remote in a specific group (256 points) or display (64 points).

FORMAT: SRE, station number or name, group or display number, readout device

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33), group number (1—16), display number (1—64), and readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: SRE,HARTFORD,1,CO

OUTPUT:

```
Ø472   13:39   Ø3/19/79   STA  Ø11   HARTFORD
----STATION STATUS AS OF LAST LOOK
MJ   PWR
MN   PWR
ALM  BAT
```

WHERE:

Ø472	equals the ID number
13:39	equals the time
Ø3/19/79	equals the date
STA Ø11	equals the station number
HARTFORD	equals the station name
MJ PWR	
MN PWR	
ALM BAT	equals the alarms as of last look
ALM BAT	

Note 1: SRE reply information is logged; however, one may request no-logging by following the mnemonic with an asterisk (example: SRE*,11,3). If there are new alarms in the reply, the event will always be logged.

Note 2: For alarm polled and C1 remotes, the SRE command results in a live scan (display report or group report) of the remote. For status polled remotes, the SRE responds with the "last look" as seen by the computer—no indications are printed for points that are "in", but that have not yet exceeded their individual alarm thresholds.

SSR—Special Status Report for Status Polled Stations

3.48 The **SSR** command is used to initiate a live scan of a single group or all groups of a station. The operation bypasses all alarm thresholds and therefore should only be used when testing a remote.

FORMAT: SSR, station number or name, group or display number, readout device

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33); group number (1-16) or A for all groups, and readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: SSR, HARTFORD,1,PR

OUTPUT:

Ø476 14:18 Ø3/19/79 ST Ø11 HARTFORD

SGR Ø1
DT MKR Ø 1TR
----OLD ALARMS
MJ PWR
MN PWR
ALM BAT
TBL RCDR REMOVED

WHERE:

Ø476	equals the ID number
14:18	equals the time
Ø3/19/79	equals the date
ST Ø11	equals the station number
HARTFORD	equals the station name
SGR Ø1	equals the status group number
DT MKR Ø1TR	equals the new alarms
MJ PWR	
MN PWR	equals the old alarms
ALM BAT	
TBL RCDR REMOVED	

Note 1: SSR results are logged unless the mnemonic is followed with an asterisk (*) (example—**SSR***, 2, 3, L6).

Note 2: A **SSR** cannot be performed on stations which are SATs. In this case, initiate the SSR on the HUB station for the satellite using the group number which contains the SAT subgroup.

Note 3: Since **SSR** bypasses all the processing specified in the SPI data base, it will frequently result in printing unwanted information. Particularly disturbing will be the points with AC and U processing, although points with AC, C, C5, CM, T, E, I, and U will all give misleading information. These results are not used for updating last-look history, although they will activate the alarm and will be routed via the alarm routing table.

TST—Performs All Ones and All Zeros Test on SAC, HUB, or SAT

3.49 The **TST** command will interrogate the attendant specified remote with first, an E2A status test ones command, then a status test zeroes command. After each command, the ensuing status update from the addressed remote is retrieved and inspected to determine if it matches the expected status pattern. If it does not match this, received status is printed for operator diagnosis. If the operator has specified a hub station, all satellite assigned subgroups will be deleted from the test results. For satellite remotes, only the subgroups are tested; however, the central will wait 11 seconds before retrieving this status information. This pause is required to allow the satellite time to update the memory circuits at the hub.

FORMAT: TST

Note: The TST command can only be initiated in the interactive mode. The central will then request a station number or name and an output device.

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33), and readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: #TST

@

    ENTER NO. OF STATION TO BE TESTED (1-256):24
    ENTER OUTPUT DEVICE (CO,PR,LXX):CO

OUTPUT: (For a properly responding remote)

ALL 1 TEST SENT TO STATION 24

----ALL POINTS RCVD IN PROPER STATE.
ALL Ø TEST SENT TO STATION 24
----ALL POINTS RCVD IN PROPER STATE.

C. Alarm Processing Commands

BCO—Bit Cutoff

3.50 The **BCO** command provides a bit cutoff capability for status polled remotes. Stations which have at least one SCO formatted may also have scan points BCO affected. Inputs associated with scan points which have been BCO affected are not processed by the central. Therefore, if a scan point is not processed by the central, the audible alarm will not sound. In addition, associated messages will not be outputted or logged for that scan point. This command (BCO) will also set or clear the BCO indicator in the status summary display.

FORMAT: (1) **BCO,** S or C, station number(s), group number, bit number

(2) **BCO,** L, station number(s), readout device.

WHERE: The letter S for set indicates that alarm processing is to be terminated for the scan point; the letter C for clear indicates that alarm processing is to be restored for the scan point, and L for list will give a listing of all the set BCOs for the station(s).

A station number is from 1 to 256; and if more than one number is to be entered, separate each number with a comma. A range of stations may also be entered. For example, if all stations numbered between 44 and 63 are to be entered, type **44-63**. If all stations are to be entered, type **A.**

Station name consists of up to 14 characters (see paragraph 3.33). More than one name may be entered; however, a range of names are not allowed.

Group number is the number of the formatted group in which the scan point to be BCO affected is located. This group number must have been entered in the SCO data base for that station as being a formatted group.

Bit number is the number of the scan point which is to be BCO affected.

Readout device is a logical unit number, CO for console, or PR for printer.

BEG—Begin Automatic Polling

3.51 The **BEG** command restarts polling of one or more remote stations. This command updates the status summary display which will no longer show not polled (NPL) for the remote station(s).

FORMAT: BEG, station number(s) or name(s)

WHERE: Station number is from 1 to 256; and if more than one number is to be entered, separate each with a comma. A range of stations may also be entered. For example, if all stations numbered between 51 and 57 are to be entered, type **51-57**. If all remote stations are to be entered, type **A.** Station name consists of up to 14 characters (see paragraph 3.33). More than one name may be entered, but a range of names is not allowed.

EXAMPLE: BEG, A

OUTPUT: The output consists of an updated status summary display.

CEA—Cease Automatic Polling

3.52 The **CEA** command is used to terminate polling of one or more remote stations. This command updates the status summary display which will show NPL for the remote station(s).

FORMAT: CEA, station number(s) or name(s)

WHERE: Station number is from 1 to 256; and if more than one number is to be entered, separate each with a comma. A range of stations may also be entered. For example, if all separate stations numbered between 10 and 20 are to be entered, type **10-20**. If all remote stations are to be entered, type **A**. Station name consists of up to 14 characters (see paragraph 3.33). More than one name may be entered, but a range of names is not allowed.

EXAMPLE: CEA,14,13,12

OUTPUT: There is no direct output, but appropriate displays will be updated.

ERA—Clear a TCT

3.53 The **ERA** causes a "clear" signal to be delivered to the named TCT. This command is to be used only in maintenance procedures.

FORMAT: ERA, TCT logical unit number

WHERE: Logical unit number is that number associated with the TCT to be cleared (see Table I).

EXAMPLE: ERA,11

OUTPUT: None

FAD—Temporary MCO of a Station

3.54 The **FAD** command is intended to be used with TD-2 radio low-microwave output alarms that occur as a result of abnormal atmospheric conditions. This command temporarily terminates for 1 to 30 minutes the polling of the remote station that monitors the alarm.

FORMAT: FAD, station number or name, number of minutes (1-30)

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33); and the number of minutes is a 1- or 2-digit number from 1 to 30.

EXAMPLE: FAD,PODUNK,13

OUTPUT:

Ø Ø33   13:45   Ø3/2Ø/79   STAØ24   PODUNK
FADE—STATION MCOED FOR 13 MINUTES

MCO—Master Alarm Cutoff

3.55 The **MCO** command is used to stop or restore alarm processing of inputs associated with one or more remote stations. Therefore, if a station's inputs are not processed by the central, the audible alarm will sound and associated messages will not be outputted or logged for that station. This command also adds or deletes the MCO indication from the status summary display for the remote station(s).

FORMAT: **MCO**, C or S, station number(s) or name(s)

WHERE: The letter **C** for clear implies that alarm processing is to be restored, and the letter **S** for set implies that alarm processing is to be terminated. A station number is from 1 to 256; and if more than one number is to be entered, separate each with a comma. A range of stations may also be entered. For example, if all stations numbered between 44 and 63 are to be entered, type **44—63**. If all remote stations are to be entered, type **A**. Station name consists of up to 14 characters (see paragraph 3.33). More than one name may be entered, but a range of names is not allowed.

EXAMPLE: **MCO,S,12,3-5**—stops alarm processing on stations 3, 4, 5, and 12

OUTPUT: The output consists of an updated status summary display.

Note: **MCO** requests are logged under station 257.

NET—Identify the Stations of a Network (TCT/Data Network)

3.56 The **NET** command provides a listing of each TCT and the remotes connected to each TCT. The listing also contains the TCT logical unit number, channel number and data rate, plus the binary address of each remote.

FORMAT: NET, readout device

WHERE: Readout device is a logical unit number, CO for console or PR for printer (see Table H).

EXAMPLE: NET,L25

OUTPUT:

TCT UNIT13	CH27 1200BPS
STA023	E-A023
STA024	E-A024
STA025	E-A025
STA026	E-A026
STA027	E-A027
STA028	E-A028
STA029	E-A029
STA030	E-A030
STA031	E-A031

TCT UNIT14	CH30 9600BPPS
STA081	E-A001
STA082	E-A002
STA083	E-A003
STA084	E-A004
STA085	E-A005
STA086	E-A006
STA087	E-A007

WHERE:

TCT UNIT13	equals the TCT number
CH27	equals the channel number
12ØØBPS	equals the data rate (bits/seconds)
STAØ23	equals the station number
E-AØ23	equals the E-address

SCO—Selective Bit Cutoff

3.57 The **SCO** command for status polled remotes is used to set, clear, or list SCOs which have been formatted (via the EDI command) for a station or a range of stations. Inputs associated with scan points which have been SCO affected are not processed by the central. Therefore, if a scan point is not processed by the central, the audible alarm will not sound. Associated messages will not be outputted or logged for that scan point. This command will also set or clear the SCO indicator in the status summary display. For information concerning SCO data base, refer to Section 190-210-301 and 190-210-302.

FORMAT: (1) **SCO,** C or S, station number(s), SCO number or name.

   (2) **SCO, L,** station number(s) or name(s), readout device.

WHERE: The letter C for clear indicates that the SCO is to be cleared, the letter S for set indicates that the SCO is to be set, and the letter L indicates that all the SCOs for the station(s) specified are to be listed.

A station number is from 1 to 256. If more than one number is to be entered, separate each with a comma. A range of stations may also be entered. For example, if all stations numbered between 44 and 63 are to be entered, type **44-63**. If all stations are to be entered, type **A**.

Station name consists of up to 14 characters (see paagraph 3.33). More than one name may be entered; however, a range of names are not allowed.

EXAMPLES: (1) SCO,S,2,1—sets SCO number 1 on station 2.

   (2) SCO,L,2—lists all formatted SCOs for station 2 and indicates if they are set or clear. The listing will also contain the location of the transfer bit if any.

OUTPUTS: (1) The following message is transmitted to all terminals associated with station number 2.

ØØØ8 Ø7:13 1Ø/Ø7/78 STA# Ø2 HUMBOLDT SCO#Ø1 OM-Ø
SET KEYBOARD-LU#Ø1
CUTOFF IF WON'T RELEASE

WHERE:

0008	equals event number
07:13	equals time
10/07/78	equals date
02	equals station number
HUMBOLDT	equals station name
SCO#01 OM-0	equals SCO number and name
SET	equals state (set or clear)
KEYBOARD-LU#01	equals terminal which initiated the command
CUTOFF IF WON'T RELEASE	equals SCO definition (entered at time of creation)

(2) **STA# STA NAME SCO# SCO NAME CONTROL STATE**
   02 HUMBOLT 01 OM-0 G02-B008 SET **

WHERE:

STA#	equals station number
STA NAME	equals station name
SCO#	equals SCO number
SCO NAME	equals SCO name
CONTROL	equals location of transfer bit if any (group#-bit#)
SET	equals state (set or clear)
****	equals highlights set SCO

STA—Obtain a List of Remote Station Equipment

3.58 The **STA** command provides a listing of remote stations connected to the TASC central and a description of each remote's telemetry equipment.

FORMAT: **STA,** readout device

WHERE: Readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: **STA,CO**

					Equipment Capabilities *SDR — Status Display Report* *SGR — Status Group Report* *RSW — Remote Switch* *ALR — Alarm Report* *RCU — Remote Callup*

Station *Number*	*Station Name*	*Binary Address* *of Remote*	*TCT Logical* *Unit Number*	*Data Rate* *(Bits per Second)*	*Type Remote* *(E1, E2, E2A,* *or C1)*	*Equipment Capabilities*
STA#	NAME	E-ADDR	TCT	SPEED	TYPE	EQUIPMENT
0001	PAYNVL, KY	0004	11	0600	E2	SDR, SGR, RSW, ALR, RCU
0002	GAME, KY	0005	11	0600	E1	SGR, RSW, ALR, RCU
0018	ORME, TN	0016	12	1200	E2A	SGR, RSW

D. Central Commands

ARL—Release Office Alarm Bell

3.59 The **ARL** command is used to turn off the office telemetry-to-computer translator (TCT) alarm light at all TCTs associated with the TASC System. A switch on the front panel of the TCT performs the same function.

FORMAT: **ARL**

WHERE: No other entries

OUTPUT: None

ETR—Estimated Time of Repair

3.60 Part of the TASC log-in/log out feature is a command which gives the attendant the option of estimating the time to repair a remote station. (If the **ETR** command is not initiated, the TASC software will default to 12 hours.) If the station is not logged out via the **LOS** command within the estimated time or default time, an alarm will sound and a message will be outputted. If the station is logged out within the time period, no alarm or message will occur.

FORMAT: **ETR**, station number or name, time in hours

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33), and time in hours from 1 to 12.

EXAMPLE: **ETR,84,3**

OUTPUT: None

INT—Intervene—Allow or Disallow Logout in Presence of Alarms

3.61 The **INT** command is part of the TASC log-in/logout feature which allows the attendant to log out a station with any of the following conditions present:

- Standing in alarms or statuses

- MCO set

- SCO set

- BCO set

- NPL status

Note: The attendant may also elect not to log out the station.

This command can also be used to clear the open door record. Once the open door record has been cleared, the station is considered to be unoccupied.

FORMAT: **INT**, station number or name, Yes, No, or Clear

WHERE: Station number is 1 to 256, station name consists of up to 14 characters (see paragraph 3.33), and the letters **Y** or **N** represent whether the station is to be logged out or not. The letter **C** indicates that the open door record is to be cleared.

EXAMPLE: 1: INT,24,Y   2: INT,24,C

OUTPUT:
Ø319 15:55 Ø3/2Ø/79 STA Ø24 REDBANK

OPEN DOOR RECORD HAS BEEN CLEARED, STATION IS CONSIDERED TO BE UNOCCUPIED, REQUEST COMPLETE.

LGI—Log In Man at Remote Station

3.62 The **LGI** command is part of the TASC log-in/logout feature which is used to log a operating person into a remote station. The attendant is given the option to MCO the station. Setting the MCO will activate the MCO indicator on the status summary display.

FORMAT: **LGI**, station number or name, ID number, set MCO (Y or N)

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33), an ID number is a number preassigned to each person authorized to enter the station. The letter Y for yes will set the MCO or the station. The letter N for no will not set the MCO on the station.

EXAMPLE: **LGI,24,1,Y**

OUTPUT:

Ø172 Ø9:4Ø Ø3/2Ø/79 STA Ø24 REDBANK

PERSON LOGGING IN: D.J. BOCK

WHERE:

Ø172	equals ID number
Ø9:4Ø	equals time
Ø3/2Ø/79	equals date
Ø24	equals station number
REDBANK	equals station name
D.J. BOCK	equals person logging into station

LOM—Log Man Out of Remote Station

3.63   The **LOM** command is part of the TASC log-in/logout feature which is used to log an attendant out of a remote station.

FORMAT: **LOM,** station number or name, ID number

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33), ID number is a number preassigned to each visitor.

EXAMPLE: **LOM,24,77**

OUTPUT:

Ø174 1Ø:32 Ø3/2Ø/79 STA Ø24 REDBANK
PERSON LOGGING OUT: HARRY MEYER

WHERE:

Ø174	equals ID number
1Ø:32	equals time
Ø3/2Ø/79	equals date
STA Ø24	equals station number
REDBANK	equals station name
HARRY MEYER	equals person logging out of station

LOS—Log Out the Remote Station

3.64 The **LOS** command is used to log out the last person at the remote station and the station itself. When a station is logged out, the TASC software will scan the station for alarms and statuses and output these for examination by the operator. If an alarm or status point is set, it should be examined by the operator and then the **INT** command should be initiated.

FORMAT: LOS, station number or name, ID number, C or A

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33). The ID number is a number preassigned to each person authorized to enter the station. The **C** or **A** stands for COMPLETE or ALARMS ONLY and must be used when logging out a C1 remote or any alarm polled E1, E2, or E2A APR. These remotes transmit a single bit that shows whether any of the monitored points that are wired as alarms (as opposed to status) are active.

Note: The alarm/status determination for status polled remotes is defined in TASC SPI data base.

EXAMPLE: LOS, REDBANK, 7236

OUTPUT 1: This output would appear if all alarms and statuses are clear:

Ø183 1Ø:47 Ø3/2Ø/79 STA Ø24 REDBANK
----STATION STATUS AS OF LAST LOOK *NO ALARMS*

Ø184 1Ø:47 Ø3/2Ø/79 STA Ø24 REDBANK
PERSON LOGGING OUT: STAFF ENGINEER

INFORM PERSON AT STATION ØØ24 "OK TO LEAVE".

WHERE:

Ø183	equals ID number
1Ø:47	equals time
Ø3/2Ø/79	equals date
STA Ø24	equals station number
REDBANK	equals station name
NO ALARMS	equals station status
STAFF ENGINEER	equals person logging out of station
"OK TO LEAVE"	equals at this point, attendant should inform individual that he may leave.

OUTPUT 2: This output would appear if one or more alarms or statuses are set:

Ø191 1Ø:51 Ø3/2Ø/79 STA Ø24 REDBANK
----STATION STATUS AS OF LAST LOOK
DOC MAJOR

Ø192 1Ø:51 Ø3/2Ø/79 STA Ø24 REDBANK
STANDING IN ALARMS
INTERVENE (#INT) AS REQUIRED.

WHERE:

Ø191	equals ID number
1Ø:51	equals time
Ø3/2Ø/79	equals date
STA Ø24	equals station number
REDBANK	equals station name
DOC MJ	equals station status
INTERVENE (#INT) AS REQUIRED	requires attendant to initiate the **INT** command

OUTPUT 3: This output will appear whenever the station alarms are not being processed for any of the following reasons:

(1) MCO set

(2) SCO set

(3) BCO set

(4) NPL status

Ø177 1Ø:43 Ø3/2Ø/79 STA Ø24 REDBANK
----STATION STATUS AS OF LAST LOOK
NO ALARMS

Ø178 10:43 Ø3/2Ø/79 STA Ø24 REDBANK
DUE TO CUTOFFS (MCO,SCO,BCO) AND/OR POLLING STATUS (NPL) PRESENT IN STATION, THE HISTORY CUR DONE MAY BE OBSOLETE. INTERVENE (#INT) AS REQUIRED.

WHERE:

Ø177	equals ID number
1Ø:43	equals time
Ø3/2Ø/79	equals date
STA Ø24	equals station number
REDBANK	equals station name
NO ALARMS	equals station status
INTERVENE (#INT) AS REQUIRED	requires attendant to initiate the INT command

OBL—Obstruction Lighting Estimated Time of Repair

3.65 Contained within the TASC program library is a program (OBLB) which monitors obstruction lighting alarms. If a continuous obstruction lighting alarm occurs, OBLB will log and print the message **OBSTRUCTION LIGHTING B (MJR), NOTIFY THE MAINTENANCE CENTER AND THE FAA.** In addition, it will ring the office audible alarm and instruct the attendant to enter an estimated time of repair (in hours). Momentary obstruction lighting alarms are logged, but the alarm bell is not rung and a message is not printed.

3.66 The **OBL** command is associated with the OBLB program. This command allows the operator to enter an estimated time of repair (ETR) for the obstruction lighting alarm. If an ETR is not entered within 30 minutes after the obstruction lighting alarm message is printed, that same message is printed again. This continues until an ETR is entered. When an ETR is entered, the OBLB program waits until the ETR time has passed and then prints and logs an **ALARM CLEAR** message if the alarm cleared, or an **ETR PASSED—NOT CLEAR** message if the alarm has not cleared. OBLB will then terminate, and no further messages or logging for the alarm will occur.

FORMAT: OBL, station number or name, time in hours (1-12)

WHERE: Station number is from 1 to 256, station name consists of up to 14 characters (see paragraph 3.33); time in hours is 1 to 12.

EXAMPLE: OBL,17,12

OUTPUT:

0099 14:37 Ø7/Ø4/76 STA #17 PODUNK

12 HOURS ETR HAS BEEN ENTERED FOR OBSTRUCTION LIGHTING PROGRAM (OBLB)

OCC—Change Station Occupied Indicator

3.67 The **OCC** command can be manually initiated when a station has become occupied. The command will update the status summary display with the OCC indicator. The OCC is automatically set if the application program LILO is used.

Add or delete stations from the system status summaries occupied (OCC) list.

FORMAT: **OCC,** clear or set, station number(s) or name(s)

WHERE: The letter **C** for clear implies that the station number(s) is to be removed from the OCC list, and the letter **S** for set implies that they are to be added to the OCC list. A station number is from 1 to 256; and if more than one number is to be entered, separate each with a comma. A range of stations may also be entered. For example, if all stations numbered between 83 and 104 are to be entered, type 83—104. Station name consists of up to 14 characters (see paragraph 3.33). More than one name may be entered, but a range of names is not allowed.

EXAMPLE: **OCC,C,44,56-71**—clears occupied status of stations 44 and 56 through 71

OUTPUT: The output consists of an updated status summary display.

PST—Program Status

3.68 The **PST** command is used to list the various TASC programs. At the discretion of the operator, all programs will be listed, or just those programs that are scheduled will be listed.

FORMAT: **PST** or **PST, A**

WHERE: **PST** will list scheduled programs, and **PST, A** will list all programs.

EXAMPLE: (1) **PST,A** (2) **PST**

OUTPUT:

```
PST,A
ALPOL  P=Ø2  FC  T=Ø1,ØØ2Ø,16:32T
QUPSR  P=Ø2  FC
PRMPT  P=Ø1  FC
DISTR  P=Ø1  FC
PS     P=Ø1  BD
ASSTR  P=Ø3  BD

FMGR6  P=    BS
FMGR7  P=    BS
FMGR8  P=    BS
23 SPARE ID SEGMENTS
```

For **PST,A** the output appears in the following format: **Program name, P = Priority , Type T = R, MBI, HRI MIN, T** such that:

PROGRAM NAME is the symbolic name of the program.

PRIORITY is a number from 1 to 99 (assigned to each program) such that the lower the number, the higher the priority.

TYPE indicates whether the program is background (seldom used in normal operation) or foreground (often used in normal operation), and whether it is stored in core (minicomputer memory) or in fixed disc as follows:

    FC—foreground core resident
    FD—foreground disc resident
    BC—background core resident
    BD—background disc resident
    BS—background segment

R is the resolution code of the multiple (MPT) as follows:

    1—tens-of-milliseconds
    2—seconds
    3—minutes
    4—hours

MPT is the multiple code used with R which together establishes how often the program is to be run. For example: If R = 3 and MPT = 2, then the program is to run every 2 minutes.

HR: MIN represents the hour and minute that the program is scheduled to be run. This time is based on the 24-hour clock.

T is the letter present if the program is currently on the time list.

OUTPUT 2:

```
#PST
DISTR  P=Ø1  L=Ø3
PS     P=Ø1  L=Ø1
ATA    P=Ø3  L=Ø3
SPI    P=1Ø  L=ØØ  T=3ØØØØ,16:56T
SPX    P=2Ø  L=Ø3
```

For **PST** the output appears in the following format: Program name, **P** = Priority, **L** = List, **U** = LU#

PROGRAM NAME is the symbolic name of the program.

PRIORITY is a number from 1 to 99 (assigned to each program) such that the lower the number, the higher the priority.

LIST is a number from 0 to 6 which represents the current list in which the program is located as follows:

0—dormant
1—scheduled
2—I/O suspend (one per I/O device)
3—general unit
4—unavailable memory suspend
5—disc allocation suspend
6—operator or programmed suspend

LU# occurs only if the program is on the I/O suspend list (L = 2), and represents the logical unit number of the I/O device which resulted in the suspension.

R is the resolution code of the multiple (MPT), as follows:

1—tens-of-milliseconds
2—seconds
3—minutes
4--hours

MPT is the multiple code used with R which together establishes how often the program is to be run. For example: If R = 3 and MPT = 2, then the program is to run every 2 minutes.

HR: MIN represents the hour and minute that the program is scheduled to be run. This time is based on the 24-hour clock.

WER—Word-Error-Rate (Data Transmission Errors)

3.69 Contained within the TASC program library is a program (ERCAL) which keeps track of the number of data transmission errors occurring on networks between the central and remotes. This program performs a calculation for each remote station to determine if that network (or leg) is acceptable, marginal, or unacceptable. If ERCAL determines that the network is marginal or unacceptable, the alarm bell will ring and a message will be printed informing the operator of the condition. No message is printed if the network is acceptable. Word-error-rate messages are logged under class number 999.

3.70 The **WER** command is associated with the ERCAL program. The **WER** command is used to instruct the ERCAL program to print out the number of errors received, or suppress or restore the automatic printing of word-error-rate messages (plus the message logging and ringing of the office alarm bell). When using the **WER** command, printing of word-error-rates is on a station-number basis, while suppressing or restoring is on a station-number or TCT logical-unit-number basis. The **WER** command can only be initiated interactively.

FORMAT: WER

> *Note:* The **WER** command can only be initiated in the interactive mode. Various messages will be outputted depending on the type of operation.

E. Logging Commands

CLA—Activate or Deactivate Class Numbers

3.71 The **CLA** command activates or deactivates the logging process for a specified class number. Alarms that are tagged with active class numbers, as opposed to those whose class numbers are deactivated, are automatically written into the history log by that number. Class numbers are described and defined in detail in paragraphs 3.03 through 3.09.

FORMAT: **CLA**, activate or deactivate, class number

WHERE: The letter **A** for activate implies that the logging of events associated with the specified class number is to commence. Conversely, the letter **D** for deactivate implies that the logging will continue, but not under the specified class number. Class number is from 1 to 900.

EXAMPLE: **CLA,A,43**—status logging under class 43

OUTPUT: None

CLT—Print Current Active Class Numbers

3.72 The **CLT** command provides a listing of all currently active class numbers. Alarms that are tagged with active class numbers, as opposed to those whose class numbers are deactivated, are automatically written into the history log by that number.

FORMAT: **CLT**, readout device

WHERE: Readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: **CLT,CO**

OUTPUT:

CURRENT CLASS NUMBERS 13:37 11/05/80—Time and date

```
C001 ⎫
C002 ⎪  currently active class numbers
C004 ⎪
C999 ⎭
```

Note the following class numbers and their representation:

C995—reserved for automatic logging of BCOs. The message consists of the ID number, time, date, station number and name, bit number and name, group number, and whether the BCO was set or cleared.

C996—reserved for automatic logging of SCOs. The message consists of the ID number, time, date, station number and name, SCO number and name, place of origin (example—keyboard-LU3Ø), SCO definition, and whether the SCO was set or cleared.

C997—reserved for the automatic logging of a message when a program sequence job runs. The message consists of an ID number, name of the job, and the time and date it ran.

C998—reserved for automatic logging of a message whenever the TASC central is booted up. The message consists of an ID number and the time and date of the boot-up.

C999—reserved for the automatic logging of a message whenever an unacceptable data error rate occurs.

DAT—Print the First Date on Current Log Platter

3.73 The **DAT** command is used to output the first date in the history log. This is useful when the attendant wishes to output certain entries in the history log. The attendant can determine by the first date if the existing cartridge contains the data he wants or if he must mount another history cartridge.

FORMAT: DAT, readout device

WHERE: Readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: DAT,CO

OUTPUT: First date in log disc is 11/04/80.

IDN—Update the IDNO (Event Number)

3.74 An identification (ID) number is a tag to each event. This event can be an alarm, remote switch, etc. ID numbers are useful in outputting data from the history log. The **IDN** command changes the ID number sequence so that the next ID number tagged to an event is equal to the number specified in the command. Each succeeding event is assigned an ID number, one greater than the number which preceded it.

FORMAT: IDN, next ID number

WHERE: The next ID number is a number from 1 to 9999.

EXAMPLE: IDN,100

OUTPUT: None

> *Note:* If the ID number is set backward, duplicate ID numbers will result.

3.75 The **LOG** command is used to enter a command into the history log. This comment can be stored in the log by station number or identification number.

FORMAT: LOG, 1 identification number. Enter comment on succeeding lines, or **LOG, S,** station number. Enter comment on succeeding lines.

WHERE: 1 or **S** is a letter which designates that the comment is to be logged by identification or station number, respectively. Identification number is from 1 to 9999, and station number is from 1 to 257. A comment is entered on the second line of the command. The comment section is free format [except for the exclamation point (!)], and up to 250 characters may be entered by the operator. Depress and release return at the end of each line of comment text. Type /E as the first two characters of a new line to terminate the comment field.

EXAMPLE:

LOG,I,47

THIS ALARM CAN BE HANDLED BY NIGHT FORCE
/E

OUTPUT: None

> *Note:* In the previous example, the message is attached to event 47 in the history log for that day and will be printed whenever entries in the log are outputted.

3.76 Entries in the history log can be outputted via the **PRI** commands. These commands can be used to output entries by date; by identification numbers and date; by station numbers (or names) and date; by time and date; by time, date, and station numbers (or names); and by class numbers, station numbers (or names), and date.

PRI,1

Output entries in history log by date.

FORMAT: PRI,1, readout device, date(s)

WHERE: Readout device is a logical unit number, CO for console, or PR for printer (see Table H). Date(s) can be one or several entries. If more than one entry is to be entered, separate each by a comma. A range of dates may also be entered. An example of a range entry is 03/05/80—03/13/80.

EXAMPLES: PRI,1,CO,03/01/80,03/05/80—03/13/80
PRI,1

OUTPUT: The output consists of the requested history log entries.

> *Note 1:* The history log cartridge in the system may not contain the requested entries. If this is the case, mount the appropriate cartridge per Chart 5.

> *Note 2:* This command will output all events on all stations for the date(s) specified and may result in an extremely lengthy output.

PRI, 2

Output entries in history log by identification number(s) and date(s).

FORMAT: **PRI, 2,** identification number(s), readout device, date(s)

WHERE: Identification number(s) can be one or more entries. If more than one entry is to be entered, separate each by a comma. A range of numbers may also be entered. For example: If numbers 12, 13, and 14 are to be entered, type **12—14.** Readout device is a logical unit number, CO for console or PR for printer (see Table H). Date(s) can be one or more entries. If more than one entry is to be entered, separate each by a comma. A range of dates may also be entered. For example: If dates 11/05/80, 11/06/80, and 11/07/80 are to be entered, type **11/05/80—11/07/80.**

EXAMPLE: **PRI,2,44,101,16,CO,12/05/80—12/07/80, 01/29/81**
                    PRI,2,35-40

OUTPUT: The output consists of the requested history log entries.

> *Note:* The history log cartridge in the system may not contain the requested entries. If this is the case, mount the appropriate cartridge per Chart 5.

PRI, 3

Output entries in history log by station number(s) and date(s).

FORMAT: **PRI, 3,** station number(s), readout device, date(s)

WHERE: Station number(s) can be one or more entries. If more than one entry is to be entered, separate each by a comma. A range of numbers may also be entered. For example: If numbers 12, 13, and 14 are to be entered, type **12—14.** Readout device is a logical unit number, CO for console, or PR for printer (see Table H). Date(s) can be one or more entries. If more than one entry is to be entered, separate each by a comma. A range of dates may also be entered. For example: If dates 01/30/80, 01/31/80, and 02/01/80 are to be entered, type **01/30/80—02/01/80.**

EXAMPLE: **PRI,3,75**
                    PRI,3,101,104—109,L26,01/30/80—02/01/80,02/04/80
                    PRI,3,88,PR

OUTPUT: The output consists of the requested history log entries.

> *Note:* The history log cartridge in the system may not contain the requested entries. If this is the case, mount the appropriate cartridge per Chart 5.

PRI, 4

Output entries in history log by time(s) and date(s).

FORMAT: **PRI, 4,** time period, readout device, date(s)

WHERE: Time period is based on the 24-hour clock. Readout device is a logical unit number, CO for console, or PR for printer (see Table H). Date(s) can be one or more entries. If more than one entry is to be entered, separate each by a comma. A range of dates may also be entered. For example: If dates 02/29/80, 03/01/80, and 03/02/80 are to be entered, type **02/29/80—03/02/80.**

EXAMPLES: **PRI,4,10:00—13:50,L26,02/29/80—03/02/80,04/01/80**
 PRI,4,3:40—4:05

OUTPUT: The output consists of the requested history log entries.

> *Note:* The history log in the system may not contain the requested entries. If this is the case, mount the appropriate cartridge per Chart 5.

PRI, 5

Output entries in history log by time(s), date(s), and station number(s).

FORMAT: **PRI, 5,** time period, station number(s), readout device, date(s).

WHERE: Time period is based on the 24-hour clock. Station number(s) can be one or more entries. If more than one entry is to be entered, separate each with a comma. A range of numbers may also be entered. For example: If numbers 12, 13, and 14 are to be entered, type **12—14.** Readout device is a logical unit number, CO for console, or PR for printer (see Table H). Date(s) can be one or more entries. If more than one entry is to be entered, separate each with a comma. A range of dates may also be entered. For example: If dates 02/29/80, 03/01/80, and 03/02/80 are to be entered, type **02/29/80—03/02/80.**

EXAMPLES: **PRI,5,11:40—16:30,14,18—22,L25,02/29/80—03/02/80**
 PRI,5,2:15—2:45,25,PR

OUTPUT: The output consists of the requested history log entries.

> *Note:* The history log in the system may not contain the requested entries. If this is the case, mount the appropriate cartridge per Chart 5.

PRI, 6

Output entries in history log by class number(s), station number(s), and date(s).

FORMAT: **PRI, 6,** class number(s), station number(s), readout device, date(s).

WHERE: Each class number is prefixed with the letter "C" and is a number from 1 to 999. If more than one number is to be entered, separate each with a comma. A range of numbers may also be entered. For example, if class numbers 5, 6, 7, and 8 are to be entered, type **C5-C8.** Station number(s) can be one or more entries. If more than one entry is to be entered, separate each by a comma. A range of numbers may also be entered. For example, if numbers 15, 16, and 17 are to be entered, type **15—17.** Readout device is a logical unit number, CO for console, or PR for printer (see Table H). Date(s) can be one or more entries. If more than one entry is to be entered, separate each with a comma. A range of dates may also be entered. For example, if dates 03/15/80, 03/16/80, and 03/17/80 are to be entered, type **03/15/80—03/17/80.**

EXAMPLES: PRI,6,C1,C21—C25,14,18—27,CO,1/4/80—1/8/80,2/1/80
PRI,6,C999,257,PR

OUTPUT: The output consists of the requested history log entries.

> *Note:* The history log in the system may not contain the requested entries. If this is the case, mount the appropriate cartridge per Chart 5.

TAB—Obtain Log Platter Storage Status

3.77 The **TAB** command provides a listing for determining the number of available tracks in the history log.

FORMAT: TAB, readout device

WHERE: Readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: TAB,L22

OUTPUT: Indicates the track number or fixed disc where the class numbers are located

TB	START SCT-TRK	END SCT-TRK
DIOG	00 — 0002	20 — 0012
TSA	94 — 0749	88 — 0748
INDEX	08 — 0000	08 — 0000
CLTB	00 — 0041	00 — 0041

This number will increment by 2 (up to 94) for every 126 class numbers entered.

This number will increment by 2 approximately every 10 days. When this number reches 94, the day disc will not be able to log past midnight of that day and is considered full. This sets the upper limit to the number of days a log disc may be used at approximately 470 (see note).

> *Note:* In an average TASC System, the logging of events will cause the log disc to become full, long before this upper limit is reached. On the average, the TASC central uses approximately 175 tracks per week (this number is based on a central logging approximately 3000 events a day and will vary with system activity).

To estimate the number of available tracks in the history log, subtract the DLOG end track (TRK) from the TSA end track. For example:

$$
\begin{array}{ll}
0748 & \text{(DLOG end track)} \\
-\,\underline{0012} & \text{(TSA end track)} \\
0736 &
\end{array}
$$

From the data of the previous output example, there are 736 available tracks. This means that on the average, the history log will not fill up until after about 4 weeks (ie, 736 ÷ 175 = 4).

F. Data Base Commands

CLE—Clear Selected Data Base Entries

3.78 Use the **CLE** command to clear selected data base entries. Refer to Section 190-210-302 for detailed information of the use of this command for Generic 1. An example of its usage follows.

#CLE

TYPE OF DATA? STAB
@
STATION NAME (MAX 14 CHAR'S OR /E TO END)? CHARLOTTE
REQUEST COMPLETE

DBU—Inventory SDR Data Base

3.79 Use the **DBU** command to inventory the SDR data base. Refer to Section 190-210-302 for detailed information of the use of this command for Generic 1. An example of its usage follows.

FORMAT: DBU (Interactive mode only)

#DBU
AVAILABLE QUERIES:
  ST—UNDEFINED STATIONS WITH FORMATTED SDRs
  LA—DATA BASE LABEL
  OX—OVERLAY X SEARCH
  OY—OVERLAY Y SEARCH
  CA—CATALOG BLOCK SEARCH

ENTER CHOICE: ST
@

READOUT DEVICE (CO, PR, OR LXX)? CO
THE FOLLOWING UNDEFINED STATIONS HAVE AT LEAST ONE FORMATTED SDR:

123 255 256
REQUEST COMPLETE

EDI—Enter or Change Data Base Information

3.80 Use the **EDI** command to enter or change data base information. Refer to Section 190-210-302 (TASC Data Base Operations for Generic 1) for detailed information of the use of this command. An example of its usage follows:

FORMAT: **EDI** (Interactive mode only)

#EDI
INPUT DEVICE? **CO**
TYPE OF DATA? **STAB**
@
STATION NAME (MAX 14 CHAR'S OR /E TO END)? **CHARLOTTE**
STATION NUMBER (1-256)? **11**
STATION NAME (MAX 14 CHAR'S OR /E TO END)? **ATLANTA**
STATION NUMBER (1-256)? **12**
STATION NAME (MAX 14 CHAR'S OR /E TO END)? **/E**
REQUEST COMPLETE

FIL—Fill Unassigned Status Names in OX Data File

3.81 Use the **FIL** command to fill unassigned bit numbers in the OX (ie, bit name) data file. The following is an example of the use of the **FIL** command.

 # FIL

DO ALL BLOCKS (Y OR N)? **Y**
@
REQUEST COMPLETE

INI—Initialize a Data File

3.82 Use the **INI** command to initialize a TASC file.

   Caution: Extreme care should be exercised in the use of this command since it erases the contents of the selected data file. Refer to Section 190-210-302 for details of the use of this command for Generic 1.

The following is an example of the use of the **INI** command.

INI

TYPE OF DATA? **TCT**
PURGE PREFORMATTED ENTRIES? **Y**
@
REQUEST COMPLETE

LCO—List SCO Affected and/or BCO Affected Bits

3.83   The **LCO** command (list cutoff) provides the attendant information on the bits that are currently affected by the **SCO** or **BCO** in a particular station or range of stations (status polled stations only).

FORMAT: **LCO,** station number(s) or name(s), readout device

WHERE: Station number is from 1 to 256; and if more than one number is to be entered, separate each with a comma. A range of stations may also be éntered. For example, if all stations numbered between 51 and 57 are to be entered, type **51—57**. If all remote stations are to be entered, type **A.** Station name consists of up to 14 characters (see paragraph 3.34). More than one name may be entered, but a range of names is not allowed. Readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: **LCO,3,4,CO**

OUTPUT:

STA#   03   GARY WEST

LIST GRP#	CUTOFF BIT#	(LCO) BIT NAME	HOW
Ø1	Ø2	MN OPC	SCO#Ø1
Ø1	Ø6	PERM SIG	SCO#Ø1
Ø1	14	CLI ALM	BCO
Ø1	18	TBL RCDR MN	SCO#Ø1
Ø1	53	MP SUP MJ	SCO#Ø1
Ø1	56	TUR MN	SCO#Ø1
Ø1	65	LIT MN	BCO
Ø1	67	SSH CN	SCO#Ø1
Ø1	72	MF SDR GP BUSY OR STK SDRS	SCO#Ø1
Ø1	73	DP SDR GP BUSY OR STK SDRS	SCO#Ø1
Ø1	76	AUTO MON	SCO#Ø1

STA#   Ø4   HAMND   EAST   MGØ

LIST GRP#	CUTOFF BIT#	(LCO) BIT NAME	HOW
Ø1	Ø2	MN OFC	BCO

REQUEST COMPLETE

LIS—Print Contents of Data Base

3.84 Use the **LIS** command to print the contents of the data base. Refer to Section 190-210-302 for detailed information of the use of this command for Generic 1. An example of its usage follows.

FORMAT: **LIS** (Interactive mode only)

```
#LIS
READOUT DEVICE?  CO
TYPE OF DATA?  STAB
@
STATION ABBREVIATION FILE
****** *********** ****

STATION NO.  STATION NAME
   0005  WINSTON-SALEM
   0012  ATLANTA
   0016  ADVANCE
   0099  CLEMMONS
```

SYS—System Status

3.85 The **SYS** command is used to switch A/B routing, list A/B alarm routing, switch HI/LO thresholding, and list HI/LO thresholding.

SYS, 10 Command

Switch A and B alarm routing plans.

FORMAT: SYS, 10, plan to be activated, station names or numbers.

WHERE: Plans to be activated are A for plan A or B for plan B.

A station number is from 1 to 256; and if more than one number is to be entered, separate each with a comma. A range of stations may also be entered. For example, if all stations numbered between 44 and 63 are to be entered, type **44-63**. If all remote stations are to be entered, type **A**.

EXAMPLE: **SYS,10,B,2-20**

OUTPUT:

Time	Date

ALARM THRESHOLD STATUS

02:08	08/11/80	
PLAN "A"	21, 22, 23, 24, 25, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 70, 71, 72, 73, 75, 80, 81, 90, 91, 100, 109, 116, 150, 190, 195, 200, 201, 220, 240, 241	Formatted stations under plan "A"
PLAN "B"	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 18, 19, 20, 65, 66, 87, 231	Formatted stations under plan "B"

REQUEST COMPLETE

SYS, 20 Command

List A and B alarm routing.

FORMAT: **SYS,20,** readout device

WHERE: Readout device is a logical unit number, CO for console, or PR for printer.

EXAMPLE: **SYS,20,CO**

OUTPUT:

Time   Date

ALARM THRESHOLD STATUS

15:36   08/11/80

PLAN "A"   21, 22, 23, 24, 25, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45,   Formatted stations
              46, 47, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 64, 70, 71,   under plan "A"
              72, 73, 75, 80, 81, 90, 91, 100, 109, 116, 150, 190, 195, 200, 201, 220,
              240, 241

PLAN "B"   2, 3, 4, 5, 6, 9, 12, 13, 18, 19, 20   Formatted stations
                                                            under plan "B"

REQUEST COMPLETE

SYS,30 Command

Switch high and low thresholding.

FORMAT: **SYS,30,** thresholding to be activated, station names or numbers

WHERE: Thresholding to be activated is H for high and L for low.

A station number is from 1 to 256; and if more than one number is to be entered, separate each with a comma. A range of stations may also be entered. For example, if all stations numbered between 44 and 63 are to be entered, type **44-63**. If all remote stations are to be entered, type **A**.

Station name consists of up to 14 characters. More than one name may be entered, but a range of names is not allowed.

EXAMPLE: **SYS,30,H,1-40**

OUTPUT:

Time   Date

ALARM THRESHOLD STATUS

02:12   10/11/80

"HIGH":   2, 3, 4, 5, 6, 13, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40   Formatted stations
                                                                                  using "HIGH" thresh-
                                                                                  olding

"LOW"   41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60   Formatted station
              61, 62, 63, 64, 75, 80, 100, 109, 116, 150, 200, 220   using "LOW" thresh-
                                                                                  olding

REQUEST COMPLETE

SYS,40 Command

List high and low thresholding.

FORMAT: **SYS,40,** readout device

WHERE: Readout device is a logical unit number, CO for console, and PR for printer.

EXAMPLE: **SYS,40,CO**

OUTPUT:

Time   Date

ALARM THRESHOLD STATUS

02:12   10/11/80

"HIGH":   2, 3, 4, 5, 6, 13, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40   Formatted stations
                                                                                  using "HIGH" thresh-
                                                                                  olding

"LOW"   41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60   Formatted station
              61, 62, 63, 64, 75, 80, 100, 109, 116, 150, 200, 220   using "LOW" thresh-
                                                                                  olding

REQUEST COMPLETE

G. Trouble Ticket Administration Commands

TKT—Trouble Ticket Administration

3.86 The **TKT** commands are used to open or close a trouble ticket, add a comment to one, or print existing trouble tickets. One can open a trouble ticket by station number or identification number, print trouble tickets by ticket numbers or station numbers, print all tickets, or print a ticket summary table which lists all open trouble tickets.

TKT, 10—Open a Trouble Ticket by Identification Number(s)

FORMAT: **TKT, 10, ID** numbers (3 max.), your initials, referred-to initials. Enter comment on second line.

WHERE: Up to three identification (ID) numbers can be entered, each separated by commas. Your initials are the initials of the attendant initiating the command; referred-to initials are the initials of the person to whom the ticket was referred. A comment can be entered on the second line of the command. The comment section is free format [except for the exclamation point (!)], and up to 250 characters may be entered by the attendant. Depress and release return at the end of each line of comment text. Type **/E** at the beginning of a new line to terminate the comment field.

EXAMPLE:
TKT,10,96,3,10,CWM,SBM
PODUNK STATION FAILED
SUSPECT TELEMETRY EQUIPMENT
/E

OUTPUT: **TICKET NO.:** 326 **ASSIGNED**

Note: If an attempt is made to open a ticket on nonexistent identification number(s), the message NO ENTRIES FOUND will be outputted.

TKT,20—Open a Trouble Ticket by Station Number or Name

FORMAT: **TKT, 20,** station numbers or names (3 max.), your initials, referred-to initials. Enter comment on second line.

WHERE: Up to three station numbers or names can be entered, each separated by a comma. Your initials are the initials of the attendant initiating the command; referred-to initials are those of the person to whom the ticket was referred. A comment can be entered on the second line of the command. The comment section is free format [except for the exclamation point (!)], and up to 250 characters may be entered by the attendant. Depress and release return at the end of each line of comment text. Type **/E** at the beginning of a new line to terminate the comment field.

EXAMPLE:

TKT,20,44,12,97,RMN,GRF
/E
ROUTINE MAINTENANCE FOR TD-3 EQUIPMENT

OUTPUT: TICKET NO.: 421 ASSIGNED

Note: If an attempt is made to open a ticket on one or more nonexistent station numbers, the message **NO ENTRIES FOUND** will be outputted.

TKT, 30—Add a Comment to an Existing Trouble Ticket

FORMAT: **TKT, 30,** ticket number. Enter comment on second line.

WHERE: Ticket number (1 to 574) is associated with the ticket to which a comment is to be added. A comment is entered on the second line of the command. The comment section is free format [except for the exclamation point (!)], and up to 250 characters may be entered by the attendant. Depress and release return at the end of each line of comment text. Type **/E** at the beginning of a new line to terminate the comment field.

EXAMPLE:

TKT,30,4
/E
MAINTENANCE PERSONNEL AT STATION

OUTPUT: None

TKT,40—Close a Trouble Ticket

FORMAT: **TKT, 40,** ticket number, your initials, cleared-by initials. Enter comment on second line.

WHERE: Ticket number (1 to 574) is the number of the ticket to be closed. Your initials are the initials of the attendant initiating the command; cleared-by initials are the initials of the attendant who corrected the trouble. A comment may be entered on the second line of the command. The comment section is free format [except for the exclamation point (!)], and up to 250 characters may be entered by the attendant. Depress and release return at the end of each line of comment text. Type **/E** at the beginning of a new line to terminate the comment field.

EXAMPLE:

TKT,40,37,CWM,VLS
/E

OUTPUT: None

Note: In the previous example, no comment was to be entered and /E was typed on the second line of the command.

TKT, 60—Output Trouble Ticket(s) by Ticket Number(s)

FORMAT: **TKT, 60,** ticket number(s), readout device

WHERE: Ticket number (1 to 574) is the number(s) of one or more trouble tickets. If more than one number is to be entered, separate each with a comma. A range of numbers may also be entered. For example, if numbers 5, 6, 7, 8, and 9 are to be entered, type **5—9.** Readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: **TKT,60,44,5,—7,18**

OUTPUT: Output will consist of the specified trouble tickets printed on the requesting console.

TKT, 70—Output all Trouble Tickets

FORMAT: **TKT, 70,** readout device

WHERE: Readout device is a logical unit number, CO for console, or PR for printer. (See Table H).

EXAMPLE: **TKT,70,L25**

OUTPUT: Output will consist of all existing trouble tickets printed on LU 25.

Note: This command will output all open trouble tickets and all existing closed tickets. Recall that a closed trouble ticket is stored by the TASC central for three days, and then it is automatically deleted from memory.

TKT, 80—Output Trouble Tickets by Station Number(s)

FORMAT: **TKT, 80,** station number(s) or name(s), readout device.

WHERE: Station number is from 1 to 256; and if more than one number is entered, separate each with a comma. A range of stations may also be entered. For example, if all stations between 10 and 20 are to be entered, type **10-20.** If all stations are to be entered, type **A.** Station name consists of up to 14 characters (see paragraph 3.33). More than one name may be entered; however, a range of names is not allowed. Readout device is a logical unit number, CO for console, or PR for printer.

EXAMPLE: **TKT,80,41—43,PR**

OUTPUT: Output will consist of all trouble tickets assigned to the specified stations.

TKT, 90—Output a Summary of all Open Trouble Tickets

FORMAT: **TKT,90,** readout device.

WHERE: Readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: **TKT,90,L27**

OUTPUT:

```
                                                    TIME          DATE
              SUMMARY OF OPEN TICKETS            10:19        02/29/76

            *              *            *              *    REF'D  *  YOUR*
      TKT   *    STN NOS   *    TIME    *    DATE      *    TO     *  INIT *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
      002   *   017,021    *    0952    *    0226      *    BOS    *  SWM*
      003   *   041        *    1059    *    0228      *    BOS    *  AWC*
      005   *   101,102    *    1856    *    0229      *    SAM*   *  MCS *

     TICKET      STATION       TIME AND DATE              INITIALS
     NUMBERS     NUMBERS       THE TICKET WAS
                               OPENED
```

H. Program Sequence Commands

SEQ—Execute Program Sequencer Job

3.87 A number of program sequencer jobs can be locally created by TELCO and stored by the TASC computer (see Section 190-210-303). These jobs can be executed manually via the **SEQ** command.

FORMAT: **SEQ**, parameter PF file name, readout device (optional)

WHERE: File name is the parameter file name of the program sequencer job that is to be executed. Readout device is optional, in that it only needs to be specified if the output of that sequence is to be outputted on some terminal other than that specified in the parameter file. If no output device is specified, the output will go to the output device specified in the PSEQ job (refer to Section 190-210-303). Readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: **SEQ,RSP101,CO**

OUTPUT: The output consists of messages pertinent to the job execution.

> *Caution: Extreme care should be exercised to insure that the correct program sequencer job is executed. These jobs could remove monitored equipment from service via their remote switch steps.*

TAS—Obtain Log Platter Storage Status

3.88 The **TAS** command is used to:

(1) Create a PS or PF file

(2) Edit a PS or PF file

(3) Purge a PS or PF file

(4) Create or edit a program sequence data base file

(5) Purge a program sequence data base entry or file

(6) List a PS or PF file

(7) List a program sequence data base file

(8) List the file directory

(9) Pack the program sequencer disc.

This command can be used in the interactive or noninteractive modes. For further details on how to use the **TAS** command, refer to Section 190-210-303 (TASC Program Sequencer for Generic 1 and Generic 2).

I. Administrative Commands

CLK—Update Clock (Set Time)

3.89 The **CLK** command is used to enter or change the time.

FORMAT: **CLK,YR,MO,DAY,HR,MIN** (noninteractive format only)

WHERE: YR is the year, MO the month, DAY the day, HR the hour, and MIN the minute.

> *Note 1:* If the clock is being set during the process of bootup and the TASC central was down just before 12 midnight the previous day, use the following format: **CLK,YR,MO,DAY,23,58** (where YR, MO and DAY are the previous day's year, month and day respectively). After bootup is complete, set (change) the clock to the correct time and date.

> *Note 2:* Setting the clock back could result in inaccurate history counts for 24 hours.

EXAMPLE: **CLK,79,3,26,10,23,**

OUTPUT: This output would appear if the **CLK** command was being used to change the time:

```
CLK,79,3,26,10,23,
THIS CLOCK REQUEST WILL CHANGE PROGRAM SCHEDULE TIMES.
DO YOU WANT TO PROCEED?   (Y OR N)
Y

0006   10:23   03/26/79   STA 257

CLOCK UPDATED FROM 10:  2:  38TO   10:  23:  0
```

> *Note 1:* If old time was before midnight and new time is after midnight, set the clock to 23:59 of the previous day so that the ILOG program may run at midnight and put away the events logged for that day. After the clock passes midnight (or after bootup is completed), reset the clock to the correct time.

> *Note 2:* Setting the clock back may result in losing history counts for one or more hours.

> *Note 3:* A clock set message will be logged and broadcasted to all terminals.

COP—Copy From Disc to Disc

3.90 The **COP** command is used to transfer data from one disc to a second. The transfer can be made from a fixed disc to a removable disc or vice versa.

FORMAT: COP

WHERE: The COP command can only be initiated in the interactive format.

EXAMPLE: COP

OUTPUT:

```
INPUT TYPE OF INFORMATION TO BE COPIED
SYSTEM, DATA BASE, FILE MANGR OR PLATTER (SY, DB, FM, PL)?: PL
@
                    NORMAL TASC DISC ASSIGNMENT
                        REMOVABLE PLATTER
        ******************************************************
        *                                                    *
        *                 LU#42    LOG PLATTER               *
        ******************************************************

                            FIXED PLATTER
        ******************************************************
        *                       *                            *
        *       LU#2            *         LU#3               *
        *       SYSTEM          *         DATA BASE+         *
        *                       *           FMGR            *
        *                       *                            *
        ******************************************************
ALLOWABLE TRANSFERS- -
        8A      DATA BASE- -   LU#3 TO LU#42 OR LU#42 TO LU#3
        8B      SYSTEM- - - -  LU#2 TO LU#42 OR LU#42 TO LU#2
        8C      FMGR- - - - -  LU#3 TO LU#42 OR LU#42 TO LU#3
        8D      PLATTER- - - - LU#2 + LU#3 TO LU#42 OR
                               LU#42 TO LU#2 + LU#3
        ADDITIONAL INFORMATION CAN BE FOUND IN THE "TRA" COMMAND
ENTER LU# OF PRESENT LOCATION OF THE INFORMATION
FOR PLATTER TRANSFER ENTER LU#2 OR 42
ENTER (2 OR 42) :2
ENTER LU# FOR DESTINATION PLATTER
ENTER (2 OR 3 OR 42): 42

SOURCE DISC CONTAINS A TASC  SYSTEM
SOURCE DISC CONTAINS A TASC  DATA BASE
SOURCE DISC CONTAINS FILE MANAGER INFORMATION

DESTINATION DISC CONTAINS A TASC  SYSTEM
DESTINATION DISC CONTAINS A TASC  DATA BASE
DESTINATION DISC CONTAINS FILE MANAGER INFORMATION

DO YOU WISH TO PROCEED      (Y OR N)?: Y

INFORMATION TRANSFER IN PROGRESS


REQUEST COMPLETE.
```

EOR—End of Request on DDD Terminal

3.91   The **EOR** command is used to signal the TASC computer that a dialup device is about to disconnect.

FORMAT: EOR

OUTPUT: None

HIS—Hourly Event History Request

3.92   The **HIS** command is used to obtain a history (HIS) report of the number of occurrences of a scan point for each of the previous 23 hours and the current hour.   For some processing types, this is not an actual count of alarm messages, but a count of the number of scan points seen at the remote. This feature is used only on status polled remotes.   Refer to Table K for additional information.

FORMAT: HIS (Interactive mode only).

WHERE: Readout device is a logical unit number, CO for console, or PR for printer.   Station number is from 1 to 256; and if more than one number is to be entered, separate each with a comma.   A range of stations may also be entered.   For example, if all stations numbered between 51 and 57 are to be entered, type **51-57**.   If all remote stations are to be entered, type **A**.

Station name consists of up to 14 characters.   More than one name may be entered, but a range of names is not allowed.

Group numbers are from 1 to 16 (a range of numbers may also be entered), bit numbers are from 1 to 256 (a range of bit numbers may also be entered), and a class number is from 1 to 255.

TABLE J

LIST OF PRIORITIES ASSIGNED TO DISPLAY INDICATORS

PRIORITY	SLOTS ASSIGNED	INDICATOR	DESCRIPTION
1	1	SFL ALM	Station fail; overrides the ALM indicator. Blinking for new alarm, solid for at least one standing in alarm.
	2	A B	Alarm routing plan A. Alarm routing plan B.
	3	H L	High thresholding target. Low thresholding target.
2	4-6	NPL	Station not polled.
		*MCO SCO BCO	Station master cutoff. Overrides SCO and BCO. One or more SCO(s) active. Overrides BCO. One or more BCO(s) active.
		CTL	One or more latched control(s).
3	4-6	OCC	Station occupied.
4	4-6	TKT	One or more active ticket(s).

*Only one (MCO, SCO or BCO) can appear in a display at one time.

EXAMPLE: HIS

OUTPUT:

		DESCRIPTION
READOUT DEVICE? CO		
ENTER STATIONS: 75		
ENTER GROUP MOS.: 1		
ENTER BIT MOS.: 20		
PRINT BY CLASS NO. (Y OR N)? N		

```
                                                        Time, date, station
09:57    10/27/78    STA  075    TRUMBOL  ---------------------------------- number and name

)MJ OFC :   CK OTHR ENT OR SEE CMT 0016 :G1-B0001 ------------------------ Bit name, comment
                                                        (max. 30 characters),
HOUR            COUNT                                    group number, and
 10              10                                     bit number
 11              13
 12              11
 13              14
 14              12
 15              15
 15              17
 17              10
 18              BOOT                                    Indicates a slow
 19              BOOT ------------------------------------------------------ boot-up was performed
 20              11                                      during that hour
 21              10
 22              08
 22              08
 23              07        .
 00              08                                      Hour and history
 01              06 ------------------------------------------------------- count for that hour
 02              05
 03              04
 04              00
 05              06
 06              05
 07              08
 08              12
 09              15                                      Total history count
              TOTAL = 213 ------------------------------------------------- for the previous 23
                                                        hours and the current
                                                        hour

    REQUEST COMPLETE
```

Note: The BOOT message will appear in the hour it was performed and in the previous hour.

LFD—Output Line Feeds to High-Speed Printer

3.93 The **LFD** command is used to output 42 line feeds to the high speed printer to reposition the paper.

FORMAT: LFD

MSG—Send Message to Other Terminal(s)

3.94 The message **(MSG)** command allows a message of 500 characters or less to be sent from any terminal to another terminal, to a set of terminals, or to all terminals.

FORMAT: **MSG** (interactive format only)

WHERE: Readout device(s) is a logical unit number(s) (8 max) or **A** for all terminals. The message is 500 characters or less.

EXAMPLE:

```
MSG
READOUT DEVICES (8 MAX)?  A
ENTER COMMENT
*********************************************************************
SYSTEM WILL BE DOWN FOR NEXT 20 MINUTES DUE TO BOOT-UP
*********************************************************************
/E
```

OUTPUT: The following message will be outputted on all terminals:

```
*********************************************************************
SYSTEM WILL BE DOWN FOR THE NEXT 20 MINUTES DUE TO BOOT-UP
*********************************************************************

REQUEST COMPLETE
@
```

Note: Only the issuing terminal will receive the request complete.

STO—Halt the Computer (Stop)

3.95 The **STO** (STOP) command should always be used before bootup. Using the **STO** command results in the following:

(1) All alarm messages which have been queued up in memory (LOG QUEUE) are entered onto the log platter.

(2) The computer halts with 102077 octal in the T-register.

FORMAT: STO or **STOP** (interactive format only).

EXAMPLE: **STO**

OUTPUT: **THIS WILL HALT THE SYSTEM.**
DO YOU WISH TO PROCEED (Y OR N)? Y

TIM—Print Time and Date

3.96 The **TIM** command initiates the printout of the time and date at any terminal where requested.

FORMAT: TIM

WHERE: No other entries

EXAMPLE: TIM

OUTPUT: 1978 87 14 21 30

Indicating the year—1978, the 87th day of that year (March 28), and the time—14 hours, 21 minutes, 30 seconds—(2:21:30 PM)

WHA—What Software (Generic, Issue, and Date)

3.97 Initiating the **WHA** command will result in the TASC generic, issue, and date being printed on the requesting terminal.

EXAMPLE: WHA

OUTPUT: G1 I5 12/15/79

@

WHERE: G1 = Generic 1

I5 = Issue 5

WHO—Who Am I (What LU Number)

3.98 Initiating the **WHO** command will cause that terminal to output its LU number.

EXAMPLE: WHO (initiated from LU#23)

OUTPUT: YOUR LU NO. = 23

J. Status Display Commands

ALM—Change Flashing ALM Indicator to Steady ALM

3.99 The **ALM** command will change the flashing ALM indicator to a steady ALM indicator in the status summary display. For status polled remotes, the steady ALM indicator on the display will remain solid while one or more scan points with A, AC, B, C, or C5 alarm processing remains active in that station. When the last standing in condition retires, the ALM indicator will automatically be cleared from the status summary display for that station if it is an alarm polled station, but for a status polled station, the ALM indicator must be cleared with the **RET** (Retire) command.

FORMAT: ALM, D (display) or **S** (station), station number or display number

WHERE: Station number is from 1 to 256 and the display number is from 1 to 64

EXAMPLE: **ALM,S,200**

OUTPUT: The output consists of an updated status summary display.

Note 1: A short form of the **ALM** command may be executed which will make the indicator change, on a station and display basis respectively, in all displays currently activated on the issuing terminal. The command should be executed as **ALM,D.**

Note 2: If a display number is entered which is not formatted in the DSPL file, the message **REQUEST COMPLETE** will appear and the command will be ignored.

Note 3: On a partial-feature terminal, if a request is made to change the indicator of a station not formatted in the **CFT** (command filtering table), the message **ILLEGAL OPERATION FOR STATION** will appear and the command will be aborted.

CTL—Administer the Control Status of a Station

3.100 The **CTL** command is used to indicate, on the status summary display, that there is a control active at a station. It is initiated manually from the terminal and may be set or cleared.

FORMAT: CTL, station number or name, **C** (clear) or **S** (set)

WHERE: Station number is from 1 to 256 and a station name consists of up to 14 characters (see paragraph 3.33).

EXAMPLE: **CTL,256,S**

OUTPUT: The output consists of an updated status summary display.

Note: For a partial-feature terminal, if a request is made to set or clear a station not formatted in the command filtering table (CFT), the message **ILLEGAL OPERATION FOR STATION** will appear and the command will be aborted.

DAS—Activate, Deactivate, or List the Status of Displays

3.101 The **DAS** command is used to activate, deactivate, or list a system status summary display.

FORMAT: **DAS** (interactive mode only)

WHERE: Device types are Hewlett Packard (HP), DATASPEED 40 (DS), Tektronix (TX), and other (OT). A display number is from 1 to 64.

EXAMPLE: **DAS**

OUTPUT:

ACTIVATE, DEACTIVATE, OR LIST (A, D OR L)?   A
I/O DEVICE?   LU 25
DEVICE TYPE (HP,DS,TX,OT)?   DS
DISPLAY NO. (1-64)?   6
I/O DEVICE DEDICATED FOR DISPLAY ONLY (Y OR N)?   N
DISPLAY NO. 6 ACTIVATED ON LU 25

DSP—Request Status Display Printout

3.102 The **DSP** command provides the ability to output 1 of 64 possible displays which indicate the present status of the stations formatted in that display.

FORMAT: **DSP,** display number, readout device

WHERE: Display is a numeral from 1 to 64 representing the locally formatted displays. The readout device is a logical unit number, CO for console, or PR for printer (see Table H).

EXAMPLE: **DSP,3,CO**

OUTPUT: In this case, locally formatted display number 3 will be outputted on the console.

OCC—Station Occupied Indication

3.103 The **OCC** command sets or clears a station occupied flag and provides an update of the system status summary. The OCC indicator is automatically administered if the applications program LILO is used on a particular station.

FORMAT: OCC, clear or set, station numbers

WHERE: The letter **C** for clear implies that the station number(s) are to be removed from the OCC list, and the letter **S** for set implies that they are to be added to the OCC list.

WHERE: A station number is from 1 to 256; and if more than one number is to be entered, separate each with a comma. A range of stations may also be entered. For example, if all stations numbered between 83 and 104 are to be entered, type **83-104**. If all remote stations are to be entered, type **A**.

WHERE: Station name consists of up to 14 characters. More than one name may be entered, but range of names is not allowed.

EXAMPLE: OCC, C, 44, 56-71—clears occupied status of stations 44 and 56 through 71.

OUTPUT: The output consists of an updated system status summary.

RET—Retire Alarm Indication

3.104 The **RET** command completely clears the ALM indicator from a display.

FORMAT: **RET,D** (display) or **S** (station), station number or display number

WHERE: Station number is from 1 to 256 and the display number is from 1 to 64.

EXAMPLE: **RET,D,8**

OUTPUT: The output consists of an updated status summary display.

> *Note 1:* A short form of the **RET** command may be executed which will make the indicator change, on a station and display basis respectively, in all displays currently activated on the issuing terminal. The command should be executed as **RET, D**.

> *Note 2:* If a display number is entered which is not formatted in the DSPL file, the message **REQUEST COMPLETE** will appear and the command will be ignored.

> *Note 3:* On a partial-feature terminal, if a request is made to change the indicator of a station not formatted in the CFT (command filtering table), the message **ILLEGAL OPERATION FOR STATION** will appear and the command will be aborted.

K. Miscellaneous Commands

DN—Turn Down a Device

3.105 When an LU device is removed from service (such as turning off a terminal or line printer), it should be declared "Down". This is accomplished by using the **DN** command. Note that failure to down a device can result in the loss of alarm messages.

FORMAT: **DN,** EQT number

WHERE: An EQT number is the number associated with the LU number of the device to be downed (see Table H).

EXAMPLE: **DN,6** (down the high speed printer)

OUTPUT: None

LU—Read or Change LU/EQT Assignments

3.106 Each device connected to the TASC computer has associated with it a logical unit number (LU#) which is used by the computer for identification purposes. Also associated with each device is an equipment table (EQT) number. When the computer outputs data, this data is tagged with an LU#. Stored internally within the computer is a cross-reference table of LU# versus EQT numbers. The EQT number is associated with an equipment table which specifies on which device the data is to be outputted. The LU command can perform two functions:

1—Output a device's LU# and associated EQT number

2—Change the EQT number associated with an LU# which in effect switches the input/output operation of a peripheral device to another.

FORMAT: LU, logical unit number

EXAMPLE: LU,6

OUTPUT:

$$LU\ \#06\ =\ \#06, U04$$

| Logical Unit | EQT | Subchannel |
| Number | Number | Number |

Note: Table H lists the LU number and EQT table number for each peripheral device connected to the TASC computer. The logical unit assignment is verified by comparing the EQT number from the output listing with that in the table.

Switch the input/output operation of a peripheral device to another.

FORMAT: LU,LU#,EQT#

WHERE: LU# is the number associated with the device which I/O operation is to be suspended, and EQT# is associated with the device that is to be assigned the suspended device's I/O operation.

EXAMPLE: LU,6,2

OUTPUT: None

> *Note:* Table H lists the LU# and EQT table numbers for each peripheral device connected to the TASC computer. In the above example (LU,6,2), the command would direct messages normally to be outputted on the line printer (LU #6) to the CRT console (EQT #2).
>
> *Caution: Care should be exercised in changing LU assignment as this could make the system inoperative. If the system does become inoperative, reboot the system per Chart 11.*

UP—Turn Up a Device

3.107 The **UP** command is used when a device has been down and it is desired to bring it back into service.

FORMAT: UP,EQT number

WHERE: An EQT number is the number associated with the LU number of the device to be upped (see Table H).

EXAMPLE: **UP,6** (restore service to high speed printer)

OUTPUT: None

3.108 When the TASC System is in the RTE mode (* Prompt), it can be returned to the TASC mode (# Prompt) by typing the following: **RU, ENABL.**

4. TASC CENTRAL TURNUP PROCEDURES

4.01 To turn up the TASC central, two procedures must be performed. The first is to power up and ready the peripheral equipment (refer to Chart 9). The second procedure is to load and ready the TASC software (refer to Chart 10). In some cases a malfunction or attendant error could cause the system to appear **dead.** Often the system can be revived by simply booting up the software (refer to Chart 11).

5. CONDITION A NEW DISC CARTRIDGE

5.01 When a new disc cartridge is received and is intended to be used as a history cartridge, it must be conditioned via the procedure in Chart 12. This procedure tests the disc for defective tracks and reassigns good tracks for defective tracks. If the number of defective tracks is greater than five, the disc cartridge cannot be used.

5.02 Whenever any disc cartridge track malfunctions while operating in the system, it also must be conditioned if it is to be used again. If an operating history cartridge track becomes defective, the data on the cartridge can be retained. The disc can be conditioned when the data is no longer needed and the cartridge is to be reused. A means of identifying cartridges which require conditioning should be established.

Note: When a disc cartridge is conditioned, all data on that cartridge is destroyed.

6. CHANGE HISTORY CARTRIDGE

6.01 The history cartridge is the removable-type cartridge in the disc drive. This cartridge contains the history log which periodically becomes full. The TASC central always outputs a message when the log becomes full. To change the history cartridge, perform the steps described in Chart 13.

Note: If a message is outputted requesting the attendant to initialize the history cartridge, type:

RU,ILOG,1.

6.02 One can determine the number of available tracks on the history cartridge and replace the cartridge before it fills up. This is done via the TAB command. If the history cartridge is almost full, one can simulate to the computer that the cartridge is full. This is done by typing **RU,ILOG,3**. The TASC computer will then output a message stating that the history cartridge is full and the cartridge can be changed per Chart 13.

6.03 If a defective track develops in the history cartridge, the computer will output an appropriate message. Chart 13 provides a way to handle this problem. Existing data on a history cartridge with a defective track can be preserved and that cartridge can later be reused as a history cartridge or backup cartridge. If it is intended to be reused later, it will have to be conditioned as described in Part 5.

Note: When a cartridge is conditioned, all data on the cartridge is destroyed.

7. COPY SOFTWARE

7.01 It is recommended that at least 2 backup disc cartridges be kept of the TASC software currently in use. The procedure for making a backup disc cartridge when the source information is in the fixed disc is described in Chart 14. Figure 19 is an example of the printout which occurs for Steps 7, 8, and 9 in Chart 14.

8. MAINTENANCE CONSIDERATIONS

8.01 Maintenance procedures for the TASC System are given in Section 190-210-500.

```
INPUT TYPE OF INFORMATION TO BE COPIED
SYSTEM,DATA BASE,FILE MANGR OR PLATTER (SY,DB,FM,PL)?:PL
@
                    NORMAL TASC DISC ASSIGNMENT
                         REMOVABLE PLATTER
        ****************************************************
        *                                                  *
        *           LU#42    LOG PLATTER                    *
        *                                                  *
        ****************************************************
                           FIXED PLATTER
        ****************************************************
        *          LU#2         *        LU#3              *
        *          SYSTEM       *      DATA BASE+          *
        *                       *        FMGR              *
        ****************************************************
     ALLOWABLE TRANSFERS--
         8A    DATA BASE-- LU#3 TO LU#42 OR LU#42 TO LU#3
         8B    SYSTEM----- LU#2 TO LU#42 OR LU#42 TO LU#2
         8C    FMGR------- LU#3 TO LU#42 OR LU#42 TO LU#3
         8D    PLATTER---- LU#2 + LU#3 TO LU#42 OR
                           LU#42 TO LU#2 + LU#3
        ADDITIONAL INFORMATION CAN BE FOUND IN THE "TRA" COMMAND
ENTER LU# OF PRESENT LOCATION OF THE INFORMATION
FOR PLATTER TRANSFER ENTER LU#2 OR 42
ENTER (2 OR 42) : 2
ENTER LU# FOR DESTINATION PLATTER
ENTER (2 OR 3 OR 42) :42

SOURCE DISC CONTAINS A TASC  SYSTEM.
SOURCE DISC CONTAINS A TASC  DATA BASE
SOURCE DISC CONTAINS FILE MANAGER INFORMATION.

DESTINATION DISC CONTAINS A TASC  SYSTEM
DESTINATION DISC CONTAINS A TASC  DATA BASE.
DESTINATION DISC CONTAINS FILE MANAGER INFORMATION

DO YOU WISH TO PROCEED   (Y OR N)?:Y

INFORMATION TRANSFER IN PROGRESS.


REQUEST COMPLETE
```

Fig. 19—Example of the Printout Which Occurs When Copying the Entire Contents of the Fixed Disc Onto the Removable Disc

8.02 Before consulting the maintenance section, and if there is no obvious malfunction such as grinding noise from the disc drive, smoke, etc, the attendant can try to revive the system by rebooting the software. Chart 11 provides the steps to do this.

9. REFERENCES

190-210-101	Telecommunications Alarm Surveillance and Control (TASC) System Description
190-210-102	Telecommunications Alarm Surveillance and Control System (TASC) Central Terminal Description for Generic 1
190-210-103	Telecommunications Alarm Surveillance and Control System (TASC) Remote Equipment Description for Generic 1 and Generic 2
190-210-301	Telecommunications Alarm Surveillance and Control System (TASC) Data Base Planning (Applications Using E1A SAC Remotes and CDO Satellite Units) for Generic 1
190-210-302	Telecommunications Alarm Surveillance and Control System (TASC) Data Base Operations for Generic 1
190-210-303	Telecommunications Alarm Surveillance and Control System (TASC) Program Sequencer for Generic 1 and Generic 2
190-210-304	Telecommunications Alarm Surveillance and Control System (TASC) Data Base Planning (Application Using C1, E1, E2, and E2A APR Remotes) for Generic 1 and Generic 2
190-210-500	Telecommunications Alarm Surveillance and Control System (TASC) System Maintenance for Generic 1 and Generic 2
865-200-120	Engineering and Implementation Methods System (EIMS) for Generic 1 and Generic 2

CHART 1

PROCEDURE TO
TURN ON AND READY THE HP CRT CONSOLE

APPARATUS:

None

STEP	PROCEDURE
1	Verify that the CRT line cord is plugged into a 110 VAC receptacle.
2	Verify that the CRT data cable is appropriately connected to a data set. (Appropriately connected to the HS TERMINAL interface card in slot 11 of computer if the CRT console is logical unit number 1.)
3	On the back panel of the CRT, set the AC POWER switch to ON.
	On the CRT keyboard:
4	Unlatch all pushbuttons.
5	Set the DUPLEX switch to FULL.
6	Set the PARITY switch to NONE.
7	Set the BAUD RATE switch to appropriate setting.
8	Depress and latch the following pushbuttons: REMOTE and CAPS LOCK.
9	Reset terminal (see terminal user's manual).

CHART 2

**PROCEDURE FOR
INSERTING TAPE INTO THE HP TAPE READER**

APPARATUS:

None

STEP	PROCEDURE
	On HP Tape Reader:
1	Depress and release pushbutton POWER.
2	Observe that light at read head is on. If not, repeat Step 1.
3	Depress and latch pushbutton LOAD. Observe that pinch roller disengages from capstan.
4	Put tape bin so that sprocket holes are away from attendant and printed side of tape is up.
6	Depress and latch pushbutton READ. Pushbutton LOAD unlatches.

CHART 3

PROCEDURE TO
REMOVE TAPE FROM THE HP TAPE READER

APPARATUS:

None

STEP	PROCEDURE
1	Verify power is applied to tape reader and that the **POWER** pushbutton is latched.
	On HP Tape Reader:
2	Grasp leader end of tape and depress the MANUAL ADVANCE pushbutton until tape is fully unloaded.
3	Depress and release the **POWER** pushbutton.
4	Verify the light at the **read head** is off. If not, repeat Step 3.
5	Neatly rewind tape with tape winder.

CHART 4

PROCEDURE FOR
TURNING ON AND READYING THE HP DISC DRIVE

APPARATUS:

    None

STEP	PROCEDURE

On the disc drive (Fig. 5):

1   Set the RUN/STOP switch to STOP.

2   Push in on the bottom edge of the air inlet screen and remove screen.

3   Set the FORMAT switch to right-most position. (This is the protect position.)

4   Rotate the UNIT SELECT switch to position 0. Disc unit number indicator indicates 0.

5   Set both DISC PROTECT switches to bottom position. (This is the unprotect position.)

6   Verify that the disc drive AC line cord is plugged into an appropriate receptacle.

7   Set the POWER switch to on position.

8   Replace air inlet screen.

9   Remove the insert cartridge per Chart 5.

CHART 5

PROCEDURE FOR
REMOVING AND INSERTING CARTRIDGE
IN THE HP DISC DRIVE

APPARATUS:

None

STEP	PROCEDURE
1	Verify disc drive power supply is powered and turned on.
	On the HP Disc Drive (Fig. 6):
2	Set the RUN/STOP switch to STOP. DOOR UNLOCKED lamp will light in approximately 25 seconds.
	Warning: Wait until this lamp lights before proceeding to next step.
3	Open the disc drive door by pulling out and down from upper edge of door.
4	Insert the new cartridge into the slot vacated by the removed cartridge.
	Warning: Do not force the cartridge into the disc drive. When inserted properly, the cartridge will be held by mechanical action.
5	Close the disc drive door.
6	Set the RUN/STOP switch to RUN. Wait approximately 4 minutes for the DRIVE READY lamp to light.

CHART 6

PROCEDURE FOR
TURNING ON AND READING THE HP LINE PRINTER

APPARATUS:

None

STEP	PROCEDURE
	On HP Line Printer:
1	Verify that the printer's line cord is plugged into a 110 Vac receptacle.
2	Verify that the printer's data cable is properly connected.
3	Open front door of the printer by depressing the door latch button.
4	Set the circuit breaker to on or up position.
5	Set the PRINT INHIBIT switch to off or down position.
6	Wait until the READY lamp lights and then momentarily toggle the MASTER CLEAR switch.
7	Close and latch the front door of the printer.
8	Toggle the ON-LINE/OFF-LINE switch to ON-LINE.
9	Verify that ON-LINE lamp is lighted.

CHART 7

PROCEDURE FOR
CHANGING RIBBON IN THE HP LINE PRINTER

APPARATUS:

New ribbon

Gloves (supplied with new ribbon)

C12 solvent or equivalent

A soft cloth

STEP	PROCEDURE
1	Via CRT keyboard, declare the line printer down by typing **DN, 6** followed by a return.
	On the line printer:
2	Open the front door of the line printer by depressing and releasing the door latch button. *Danger: The motor heat shield (Fig. 7) may be hot. A serious burn may result if this shield is touched.*
3	Set the line printer circuit breaker to the off or down position.
4	Move the drum gate latch to the left and up (Fig. 7).
6	Grasp corner of paper guide and swing open (Fig. 8).
7	Using gloves supplied with the new ribbon, remove top core of the old ribbon by grasping the ribbon core and pushing from left to right. Remove the bottom core in same manner. Dispose of both cores and ribbons.
8	Using C12 solvent, or equivalent, and a soft cloth, clean the ribbon ink from drum gate, character drum, and area around the drum.
9	Place one core of the new ribbon over the top floating ribbon holder.
10	Push against floating holder spring, and place opposite core end over top fixed ribbon holder (Fig. 8). Insure that holder pin slips into slot on core end (Fig. 9).
11	Unwind about one foot of ribbon from the second core and bring ribbon down and over character drum (Fig. 8). Insure that ribbon is under ribbon guides and that ribbon tracks properly.

CHART 7 (Contd)

STEP	PROCEDURE
12	Place second core on bottom ribbon holders as was done for the first core.
13	Close paper guide.
14	Recheck installation of ribbon.
15	Close drum gate and move drum gate down and to the right.
16	Turn on and ready the line printer (Chart 6).
17	Declare the line printer up by typing **UP, 6** followed by a return.

CHART 8

PROCEDURE FOR
RELOADING PAPER IN THE HP LINE PRINTER

APPARATUS:

New box of line printer paper

STEP	PROCEDURE
1	Via CRT keyboard, declare the line printer down by typing **DN, 6** followed by a return.
	On the Line Printer:
2	Momentarily toggle ON-LINE/OFF-LINE switch to OFF-LINE.
3	Momentarily toggle TOP OF FORM switch.
4	Open the front door of the line printer by depressing the door latch button.
	Danger: The motor heat shield (Fig. 10) may be hot. A serious burn may result if this shield is touched.
5	Set the line printer circuit breaker to off or down position.
6	Move drum gate latch to the left and up (Fig. 10).
7	Swing drum gate fully open.
8	Flip left and right paper hold clips out and away from paper (Fig. 11).
9	Remove any existing paper and discard.
10	Open a new box of paper and set under line printer pedestal.
11	Feed paper from box through pedestal slot up past spikes and through slot at top of line printer (Fig. 11).
12	Carefully line up paper with spikes and close both left and right paper hold clips. Recheck that just six holes on paper are exposed at top of line printer.
13	Close drum gate and lock by moving the drum gate latch down and to the right.
14	Turn on and ready the line printer (Chart 6).
15	Declare the line printer up by typing **UP, 6** followed by a return.

CHART 9

TASC SYSTEM POWER-UP
PROCEDURE

APPARATUS:

    None

STEP	PROCEDURE
1	Insure that the AC line cords for the TASC central peripheral equipment have been plugged into appropriate receptacles.
2	On the minicomputer, insure that the **BATTERY** switch (on rear panel) is in the **ON** position.
3	On the minicomputer, rotate the key operated switch (located on front panel) to the **R** position and then to the **OPERATE** position.
4	Turn on and ready HP CRT console (refer to Chart 1).
5	Insure that the disc drive power supply **POWER** switch is in the **ON** position.
6	Turn on and ready the HP line printer (refer to Chart 6).
7	Turn on and ready the HP disc drive (refer to Chart 4).

CHART 10

RELOAD AND READY TASC SOFTWARE

APPARATUS:

None

STEP	PROCEDURE
1	Verify appropriate power is applied to the HP minicomputer, HP disc drive, HP tape reader, and HP CRT console.
2	Depress and release minicomputer pushbutton HALT.
3	Insert TASC System software disc cartridge into disc drive (Chart 5).
4	Insert fast copy tape (ED-1P412-30-G1) into tape reader (Chart 2).
5	Set both UPPER and LOWER DISC PROTECT switches to protect or **up** positions.

On the minicomputer:

STEP	PROCEDURE
6	Store 001200_8 in the S-register.
7	Depress and release, in order, the following pushbuttons: IBL, PRESET, and RUN.
8	Verify that the minicomputer halts with 102077_8 in the T-register (see note).

Note: If an error occurred, consult Table L for a description of the condition.

STEP	PROCEDURE
9	Store 002000_8 in the P-register.
10	Store 000000_8 in the S-register. (000000_8 designates the fixed disc which, in this case, is the disc being copied **TO**).
11	Depress and release pushbuttons PRESET, then RUN.
12	Verify, after one minute, that the minicomputer halts with 102001_8 in T-register (see note).
13	Store 000001_8 in the S-register.
14	Depress and release pushbutton RUN.
15	Verify that minicomputer halts with 102044_8 in T-register (see note).
16	On the disc drive, set the lower (fixed disc) DATA PROTECT switch to unprotect or **down** position.

CHART 10 (Contd)

STEP	PROCEDURE
17	On the minicomputer, depress and release pushbutton RUN.
18	On the minicomputer, verify that minicomputer halts with 102077_8 in T-register (see note).
19	On the disc drive, set the upper and lower DATA PROTECT switches to unprotect or down position.
20	Remove the TASC System software cartridge and insert an appropriate history cartridge (Chart 5).
21	Boot up the TASC system software per Chart 11.

Note: If an error occurred in Steps 12, 15, or 18 consult Table L for a description of the condition.

TABLE K

PROCESSING TYPES

PROCESSING TYPE	MAXIMUM HISTORY COUNT	HISTORY COUNTER
AC	256	incremented on every 1 to 0 transition of the bit.
A B C C5 I S X	256	incremented on every 0 to 1 transition of the bit.
U	511	incremented on every scan that the bit is in the logical 1 state.
E T	256	

CHART 11

BOOT UP THE TASC SOFTWARE

APPARATUS:

    None

STEP	PROCEDURE

1   Verify power is applied to the following units:

        HP minicomputer
        HP CRT console
        HP disc drive
        HP I/O extender

2   Verify the fixed disc contains TASC System software and the removable disc a history cartridge.

3   Verify the DRIVE READY lamp is lighted on the front panel of the disc drive.

4   For a "dead" system, depress and release the HALT pushbutton on the minicomputer. For a "live" system, use the STO (STOP) command (see paragraph 3.96).

On disc drive:

5   Set the UPPER DISC PROTECT to unprotect or down position.

6   Set the LOWER DISC PROTECT to unprotect or down position.

7   Set the FORMAT switch to protect or software position (nondot position).

On the minicomputer:

8   Select the S-register on the minicomputer.

9   Depress and release CLEAR DISPLAY pushbutton on minicomputer.

10   Set the S-register to one of the following addresses:

ADDRESS	COMPUTER MODEL
41402 or 51402	2112A & Some 2112B
51402 octal	Some 2112B
111402 octal	Some 2112B
111402 octal	All 2113B

CHART 11 (Contd)

STEP	PROCEDURE

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11   Depress and release, in order, the following pushbuttons:

STORE
PRESET
IBL
RUN

12   Verify the minicomputer halts with 102077$_8$ in the T-register.

13   Depress and release the RUN pushbutton on the minicomputer.

14   Verify the CRT console displays **SET TIME, SYSTEM BOOTUP** along with a list of disabled I/O devices. For example:

SYSTEM BOOT-UP		SET TIME
I/O ERR TO EQT #24		LOG DISK UNINITIALIZED
I/O ERR TO EQT #25	OR	LOG DISK UNINITIALIZED
I/O ERR TO EQT #26		SYSTEM BOOT-UP
		I/O ERR TO EQT #24
		I/O ERR TO EQT #25
		I/O ERR TO EQT #26

15   If the TASC central was down just before 12 midnight the previous day, set the clock using the following format:

CLK,YR,MO,DAY,23,58

(Where YR, MO and DAY are the previous day's year, month, and day respectively, then go to Step 17.)

Note: If the TASC central was not down just before 12 midnight the previous day, then skip this step and go to Step 16.

CHART 11 (Contd)

STEP	PROCEDURE

16 Set the system clock, via the console keyboard, with the present date and time (based on a 24-hour clock) using the following format:

CLK,YEAR,MONTH,DAY,HOUR,MIN

(example: **CLK,79,3,26,15,55**)

Note: If Step 15 was used, skip this step and go to Step 17.

17 Verify a message similar to the following is displayed on the CRT.

SPI DATA BASE LOADER
PASS #1 COMPLETED
PASS #2 COMPLETED
PASS #3 COMPLETED
PASS #4 COMPLETED

SPI DATA BASE LOAD COMPLETED

0002 15:46 03/26/79 STA 257

CLOCK UPDATED FROM 6: 0: 37TO 15: 40: 0

0003 15:46 03/26/79 STA 257

* * * * * * * * * *

Warning: Do not boot-up at this time. The file manager area is being packed or you may lose all your file manager files.

* * * * * * * * * *

Note 1: Step 17 will take from 5 to 25 minutes to complete. This is dependent on the amount of data base which is to be entered into the system at the time of reboot.

Note: Note 2: Diagnostic messages could be outputted during this time. See Table M for an explanation of these messages.

18 After a short period, the following message will be outputted on the console:

RESTORE SYSTEM PARAMETERS (Y OR N)

If answered YES (Y), all A/B routing, L/H thresholding, and all SCO-BCO will be restored to the state prior to reboot. If answered NO (N), the system will default to all A type

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CHART 11 (Contd)

STEP

PROCEDURE

---

routing, L-type thresholding, and all SCOs-BCOs will be cleared. In addition, a message will be outputted for each SCO and BCO which is being cleared.

Example:

0005   16:00   03/26/79   STA   01   DESM WTACD 515   SCO#01   REDBANK-1   CLEAR SYSTEM BOOT-UP TRANSFER ALARMS TO CENTRAL

19   After a short period, the following message will be outputted on the console:

BEGIN POLLING ALL STATIONS (Y OR N)

If answered YES (Y), all stations formatted in the STTB file will be polled.

If answered NO (N), all stations will not be polled.

20   Verify the following messages are displayed on the console:

DATA BASE TASC—(DATE BASE LABEL) DATE READY

DATA BASE TASC, DES MOINES, ISSUE#4, DB-11/29/78-LH,FM-11/29/78-LH READY

21   Verify the system clock indicates the correct time and date. If not, set the system clock with the present date and time (based on a 24-hour clock) using the following format:

CLK,YEAR,MONTH,DAY,HOUR,MINUTES

Example: **CLK,79,3,26,15,55**

Note: This step is only necessary if the system clock was set using the format in Step 15.

22   Using the MCO, OCC, and BEG commands, assign/delete appropriate indicators to or from the system status summary displays.

TABLE L

HALT ERROR CODES

The following *HALT CONDITION* can occur with the following meaning.

HALT 01B — Enter the octal representation of the "FROM" disc and press RUN.

HALT 22B — Indicates there has been a disc error. Press RUN for ten more tries.

HALT 32B — Format switch is not in the PROTECT or left-most position (non-slot position). Fix and press RUN.

HALT 33B — Disc drive not ready (DRIVE READY lamp out). Fix and press RUN.

HALT 34B — Disc protect switch in protect or up position on the "TO" disc. Restart the procedure from the beginning.

HALT 40B — No more spare tracks available on "TO" disc. Disc is defective.

HALT 41B — Program error, report program bug.

HALT 42B — Hardware error.

HALT 44B — Clear the disc protect switch on the "TO" disc and press RUN.

HALT 55B — Incorrect address in P-register. Input correct address and try again.

HALT 66B — Set the disc protect switch on the "TO" disc and press RUN.

HALT 70B — Set the disc protect switch on the "FROM" disc and press RUN.

       Note: When conditioning a disc, HALT 70B indicates that the procedure is complete.

HALT 73B — Incorrect S address or the S address for the "TO" and "FROM" discs are the same. (Does not apply to conditioning a disc.)

HALT 77B — Copy complete.

Note: HALT 01B appears as 102001_8 on the minicomputer display register. Likewise, all the HALT codes in this table are prefixed by 1020.

CHART 12

PROCEDURE TO
CONDITION A DISC CARTRIDGE

WHEN:

A. A new disc cartridge

B. Reusing a cartridge that has defective tracks

APPARATUS:

Fast copy tape—ED-1P412-30-G1

STEP	PROCEDURE
1	Depress and release minicomputer pushbutton HALT.
2	Insert disc to be conditioned into the disc drive (Chart 5).
3	Insert fast copy tape [ED-1P412-30-G1] into tape reader (Chart 2).
4	**On the disc drive:**

(a) Set the UPPER DISC PROTECT switch to protect or up position (dot position).

(b) Set the LOWER DISC PROTECT switch to protect or up position (dot position).

(c) Set the FORMAT switch to unprotect or rightmost position (dot position).

On the minicomputer:

5	Store 001200_8 in the S-register.
6	Depress and release, in order, the following pushbuttons: IBL, PRESET, and RUN.
7	Verify that the computer halts with 102077_8 in the T-register. Verify that 000000_8 is in the S-register.
8	Store 002000_8 in the P-register.
9	Store 100001_8 in S-register. This designates the removable disc and is considered the "TO" disc.
10	Depress and release pushbutton PRESET and then RUN.

CHART 12 (Contd)

STEP	PROCEDURE
11	Verify the computer halts with 102001_8 in the T-register.
12	Store 100001_8 in the S-register (100001_8 designates the removable disc and is considered the "from" disc).
	Note: The "TO" and "FROM" disc in this procedure are the same.
13	Depress and release pushbutton RUN.
14	Verify that the computer halts with 102044_8 in the T-register.
15	Set the UPPER DISC PROTECT switch to unprotect or down position (nondot position).
16	Depress and release pushbutton RUN.
17	Verify after approximately 40 seconds that the computer halts with 102070_8 in the T-register (conditioning procedure is finished).
18	If another disc is to be conditioned, insert disc and got to Step 9.
	Note: If an error occurred in Steps 8, 12, 15, and 18, consult Table M for a description of the condition.

TABLE M

DIAGNOSTIC MESSAGES ASSOCIATED WITH BOOTUP

1. *Station Not Formatted* — SDRs for this station have been formatted, but no SPI data base exist. All formatted SDRs without SPI data base will be defaulted to all "A" type processing.

2. *Group Not Formatted* — No SPI data base exists for the outputted group number. All SDRs assigned to that group will be defaulted to "A" type processing.

3. *Group Formatted Not Polled* — Outputted group number has SPI data base formatted, but group does not exist in the ALM file.

4. *Station Formatted Not Polled* — Outputted station is not in the STTB file, or not a status polled station, or there are no groups formated in the ALM file.

5. *SDR Not Formatted* — A high order SDR was not formatted, eg, SDRs 1, 2, 4 are formatted or 1, 4 are formatted.

6. *Corrupt File Load Aborted* — Data base corrupted, back-up to known good data base, then reboot.

7. *Recipe/Recipe Conflict* — Satellite assigned to a HUB, but SPI does not show SAT processing.

8. *STTB/Recipe Conflict* — Satellite formatted in SPI, but STTB does not indicate that it is an SAT station.

9. *SPE/DIR Overflow, Load Aborted* — SPI exceeded capacity. Back-up to known good data base.

10. *SDR Other than #1 Formatted for a Satellite* — SDR #1 and only #1 can be formatted for satellite stations.

11. *More than One SDR Formatted for Satellite* — Only one SDR can be formatted per satellite.

12. *SDR Not Formatted to SAT* — No HUB SPI file formatted but SAT processing is linked to the SDR. Check the STTB file.

Note: These messages normally are outputted on LU 1, but if a hard copy is required it may be obtained by setting the clock from any full feature terminal, which is equipped with a printer after the message system boot-up appears on that terminal.

CHART 13

PROCEDURE FOR
CHANGING HISTORY CARTRIDGE

APPARATUS:

A conditioned spare disc cartridge

STEP	PROCEDURE
1	Locate a spare disc cartridge which has been conditioned and can be used as a history cartridge.
2	Write HISTORY CARTRIDGE, the date, and time on the label of the spare cartridge.
3	Use the **DSP** command to output the necessary system status summary displays on the line printer. Save these for later use.
4	Use the **CEA** command to cease polling all remote stations.
5	If the history cartridge is not completely full, simulate that it is by typing **RU,ILOG,3.**
6	Remove the existing history cartridge from the disc drive and replace it with the new history cartridge (Chart 5).
7	Write the time and date on the label of the history cartridge that was removed and secure this cartridge.
8	Verify the disc DRIVE READY lamp is lighted.
9	Using the CRT keyboard, enter the following: **GO,ILOG**—used when the previous history cartridge was filled up or when the procedure in Step 5 is properly followed.
10	Using the system status summary displays saved in Step 3, begin polling (via the BEG command) the necessary station.

CHART 14

PROCEDURE FOR MAKING A
BACKUP DISC CARTRIDGE

APPARATUS:

A conditioned spare disc cartridge

STEP	PROCEDURE

1   Locate a spare disc cartridge which has been conditioned and can be used as a backup cartridge.

2   Write TASC, the site name, the generic and issue number, the date, the time, and SY,DB,FM (where SY stands for system, DB for data base, and FM for file manager information) on the cartridge label.

3   Use the DSP command to output the necessary system status summary displays on the line printer. Save these for later use.

4   Use the CEA command to cease polling all remote stations.

5   Remove the existing history cartridge from the disc drive and insert the new backup cartridge in its place (refer to Chart 5 for this procedure).

6   Verify the disc DRIVE READY lamp is lighted.

7   Type COP, followed by a carriage return.

8   Verify that a message requesting the type of information to be copied is displayed, and then type **PL**.

9   Verify messages are displayed describing the copy operation and then enter logical Unit 2 for the present location of the information and logical Unit 42 for the destination location.

10   After completion of the copy operation, remove the cartridge and insert the history log cartridge.

11   Verify the disc DRIVE READY lamp is lighted.

12   Use the STO command to halt the system.

13   Boot-up the system as described in Chart 11.

14   Using the system status summary displays saved in Step 3, begin polling (via the BEG command) the necessary stations.