ALARM AND STATUS REPORTING
SOFTWARE SUBSYSTEM DESCRIPTION
NO. 3 ELECTRONIC SWITCHING SYSTEM

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1. GENERAL

1.01 The software supporting alarm and status reporting of the No. 3 Electronic Switching System (ESS) and the method of reporting an alarm or status change is described in this section. The alarm and status indicator conditions are functions of the reports received from the client programs.

1.02 This section is being reissued to provide information concerning the 3E3 generic.

NOTICE
Not for use or disclosure outside the
Bell System except under written agreement

Since this is a general revision, no change arrows have been used to denote changes.

1.03 Refer to Table A for a list of abbreviations and applicable terms used in this section.

TABLE A

LIST OF ABBREVIATIONS

ABBREVIATION	TERM
ESS	Electronic Switching System
I/O	Input/Output
LED	Light Emitting Diode
MRF	Maintenance Reset Function
SCC	Switching Control Center
SSP	System Status Panel
TTY	Teletypewriter

1.04 The following Bell System Practices may be helpful in understanding alarm and status reporting software:

SECTION	TITLE
254-340-100	Introduction to 3A Languages, 3A Processor Common Systems
254-340-102	Basic and Extended 3A Processor Instruction Set, 3A Processor Common Systems
254-340-104	Program Listing Organization and Usage, Common Systems Software Description, 3A Processor.

1.05 Information contained in this section will aid in accessing the software listings which contain detailed program functions and coded software instructions. Table B contains the acronyms, titles, and program listing numbers of each program referenced in this section as well as the major function performed by each.

1.06 The following Bell System Practices may be helpful in understanding alarm and status reporting associated hardware:

SECTION	TITLE
254-300-180	System Status Panel, System Status Panel Controller, and System Status Panel Relay Unit, Description and Theory of Operation, Common Systems 3A Processor
233-000-003	General Description, No. 3 Electronic Switching System
233-110-200	Control Complex, Interfaces and Theory of Operation, No. 3 Electronic Switching System
254-300-110	3A Central Control, Description, Common Systems.

2. ADMINISTRATION OF SYSTEM STATUS INDICATORS

2.01 The system status panel (SSP) provides visual status display and manual control for a No. 3 ESS office. It is an unduplicated unit and consists basically of a number of keys and lamps that display the general system condition and provide emergency manual control. Table C lists the keys, lamps, and light emitting diode (LED) indicators of the SYSTEM STATUS and CONTROL section of the SSP. Table D lists the keys and lamps of the System Emergency Manual Control section of the SSP. These tables indicate the conditions that control the operation of the indicators and lamps. Both tables also contain the location (word and bit) of the controlling software in the system status panel map (SSPMAP). Figure 1 shows the layout of the SSPMAP.

2.02 A No. 3 ESS office is monitored by a switching control center (SCC) at a panel that displays 20 critical indicators. Four of these critical indicators are generated at the SCC. The other 16 are sent to the SCC via telemetry from SSP key and status buffers. Eight of these indicators are driven by the same source as the SSP indicators. The other eight are controlled by program as a logical combination of certain SSP functions, as shown in Table E.

2.03 Remote control of a No. 3 ESS office from the SCC is possible by use of a telemetry

interface to control various key functions. This connection in conjunction with TTY message input/output (I/O) capability provides remote maintenance access for an unattended No. 3 ESS office.

3. SOFTWARE FUNCTIONAL DESCRIPTION

3.01 The software that controls the alarm and status reporting function is found in the common base level monitor program (CBLM), application portion of the base level monitor program (BLMMA), maintenance subroutines program (MCSUB), power and alarm scan program (PWSC), and maintenance nonresident miscellaneous subroutines program (MNRSUB). The block diagram of Fig. 2 indicates the relationship of these programs.

BASE LEVEL MONITORS (CBLM AND BLMMA)

3.02 The common base level monitor program (CBLM) contains both application and common system routines for alarm and status reporting. The focal point of the base level system lies in determining the sequencing of application programs. One of the tables (MONTBL) housed in the application portion of the base level monitor (BLMMA) is used in the administration of the sequencing function. The application task scheduled before execution of common system monitors is in the BLMMAST subroutine. The control point of the nondeferrable base level loop task, BLMMAST, gives control to the SSP status administration subroutine (MCSSPS) in MCSUB every odd-numbered base level loop.

3.03 Following execution of the application monitors as defined in MONTBL, common system monitors are called. The SSPC subroutine (located in CBLM) is the software that administers the common system portion of the system status control unit and updates the status portion from the SSPMAP.

MAINTENANCE SUBROUTINES (MCSUB)

3.04 The MCSSPS subroutine in MCSUB is called during every odd-numbered base level loop to administer various indicators on the SSP and to print messages associated with certain alarm functions. The following functions of SSP status are performed:

(a) The TDC lamp is lighted or extinguished.

(b) The NRP ACT lamp is lighted or extinguished.

(c) The FORCE lamp is lighted or extinguished.

(d) The local/remote alarm state is changed when the ALARM TRFR key is pressed.

(e) The building alarm state is changed when the INHIBIT BUILDING ALARM key is pressed.

(f) The minor audible alarm is released after time-out.

(g) All alarms are released after time-out if the ALARM TRFR key is pressed.

(h) All alarms are released when the ALARM RELEASE key is pressed.

(i) The state of the SSP is restored after completion of an SCC test.

(j) The display buffer indicators are updated with current data.

POWER AND ALARM SCAN (PWSC)

3.05 There are four basic parts or subroutines in the PWSC program. The report status subroutine (REPST) provides a client program with the main interface for changing audible alarms and associated indicators. The report system state subroutine (RPTSYS) is a special routine that services the peripheral controller fault recovery program (PURC). It unpacks data provided by PURC, tests the status condition, determines the state of the system, and causes the SSP map words to be changed. Another subroutine, MSCAN, handles changes that may occur in the miscellaneous scanner by providing indicator and alarm control, TTY messages, and/or information to other programs as appropriate. The fourth subroutine, RSCAN, is used when a client program needs state information of the miscellaneous scan points.

A. Report System Status Routine (REPST)

3.06 When a program condition exists that requires an alarm and/or status indication to be reported to the SSP, a REPORT macro is used to provide interface information to the REPST subroutine in PWSC. This information dictates the required action (to light or extinguish indicators)

and is an index to a linked list (LLT) that directs program operation.

3.07 The REPST subroutine uses the linked list to determine which SSP indicators/alarms and SCC indicators are to be changed (Fig. 3). This method is used since a change to one indicator may also cause a change to other indicators. For example, when any critical indicator to the SCC becomes active, the SYSTEM NORMAL indicator is extinguished. When an indicator is initially lit, an appropriate audible and visual alarm may be generated. Unless such alarm is manually acknowledged by depressing the ALARM RELEASE button, a request to extinguish the indicator and associated alarm is not honored; no update to the SSPMAP is performed. A check is made to determine that all applicable lamps have been updated. The link list is the controlling factor, and the program repeats until the last indicator is acted upon.

3.08 The subroutine REPST also determines when an ALARM indicator on the SSP is to be changed. The alarms are ranked (critical, major, minor) so that no action results from a request for an alarm with a priority rating equal to or below that of an existing alarm. For instance, a minor alarm will not affect an existing major alarm indication. A new alarm of a higher rank causes the old indication to be deleted from display and the new alarm indication to be added.

B. Report System State Routine (RPTSYS)

3.09 The PURC program packs data relevant to system control indicators, the FORCE indicator, and indicators associated with major equipment lamps. Periodically, PURC calls the RPTSYS subroutine in PWSC to configure the SSP map to the latest condition (Fig. 4). First, the FORCE lamp is lighted or extinguished, and the memory map that shows the location of alarm parameters is updated. A check is then made to determine the state of the SYC 0 or SYC 1 lamp. The SSP major equipment lamps are updated and a check is made to update the periphery B indication to the SCC. The last check determines and sets the state of MAJOR EQPT LOSS lamp. By use of the REPORT macro, RPTSYS causes a memory map status change in the same manner as client programs of REPST. Control is then returned to PURC.

C. Miscellaneous Scan Point Handler Routine (MSCAN)

3.10 The MSCAN subroutine in PWSC handles changes that occur at miscellaneous scan points that are not directly related to call processing (Fig. 5). Miscellaneous scan points are:

(a) ***Reportable:*** Some action (trigger an alarm and print a TTY message) is required when the state of the scan point changes.

(b) ***Nonreportable:*** The status of a group of scan points (as defined by a user identification number) is determined when requested by software.

3.11 Reportable active miscellaneous scan points are processed in the MSCAN subroutine of the PWSC program (Fig. 6). Control is passed to MSCAN by the trunk/junctor/service circuit input processing program (TKPROC) as a result of its determining a miscellaneous scan point change from the saturated to unsaturated state or from the unsaturated to saturated state. The MSCAN program determines the scan point state. Recent change messages and office data define the translation addresses identifying scan points by user group number. The reportable scan points are divided into the appropriate section of MSCAN as a function of its user group number. After taking appropriate action, as dictated by the combined set of circumstances, a TTY message is printed indicating miscellaneous scanner status. Table F is a listing of the user groups, indicating the format of TTY messages and briefly describing the function of each group.

D. Request Scan of Miscellaneous Scan Points (RSCAN)

3.12 When a program requires the state of a group of reportable or nonreportable miscellaneous scan points, the request scan of miscellaneous points subroutine (RSCAN) is used. A client program provides the input parameters and transfer instruction to RSCAN by use of the GET_SCAN macro. RSCAN determines the status of all the scan points with the provided user identification (USEID).

MAINTENANCE NONRESIDENT SUBROUTINES (MNRSUB)

3.13 There are certain TTY input messages that perform the software equivalents of depressing

or releasing a key on the SSP. When these messages are generated, subroutines in MNRSUB perform the appropriate response. Two SSP functions have equivalent TTY input messages.

(a) Depress and release of the ALARM TRFR key and

(b) Depress and release of INHIBIT BUILDING ALARM key.

Table G shows the TTY input messages and the resulting actions.

3.14 When an SCC test message (TST:SCC NNN) is input on the TTY, the TST SCC subroutine is called. The message TST SCC removes the SSP from service, starts a 5-second counter and, depending on NNNN, will determine whether to sequence through the indicators or blink an indicator on and off. After the 5-second interval, the SSP is restored to its original condition.

4. GLOSSARY

4.01 The following terms and definitions are used in this section to describe the alarm and status reporting software.

Base level loop—major software loop including all functions not done at interrupt level.

Macro—an abbreviated notation for a sequence of program instructions.

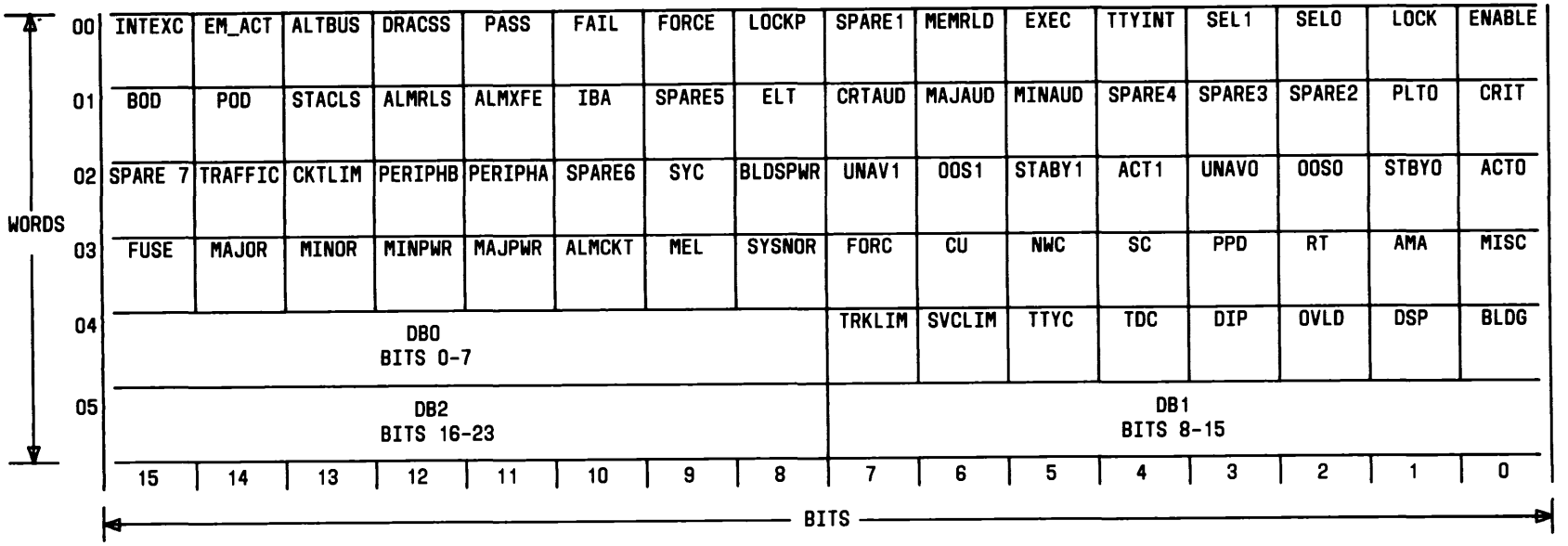

Fig. 1—System Status Panel Map (SSPMAP)

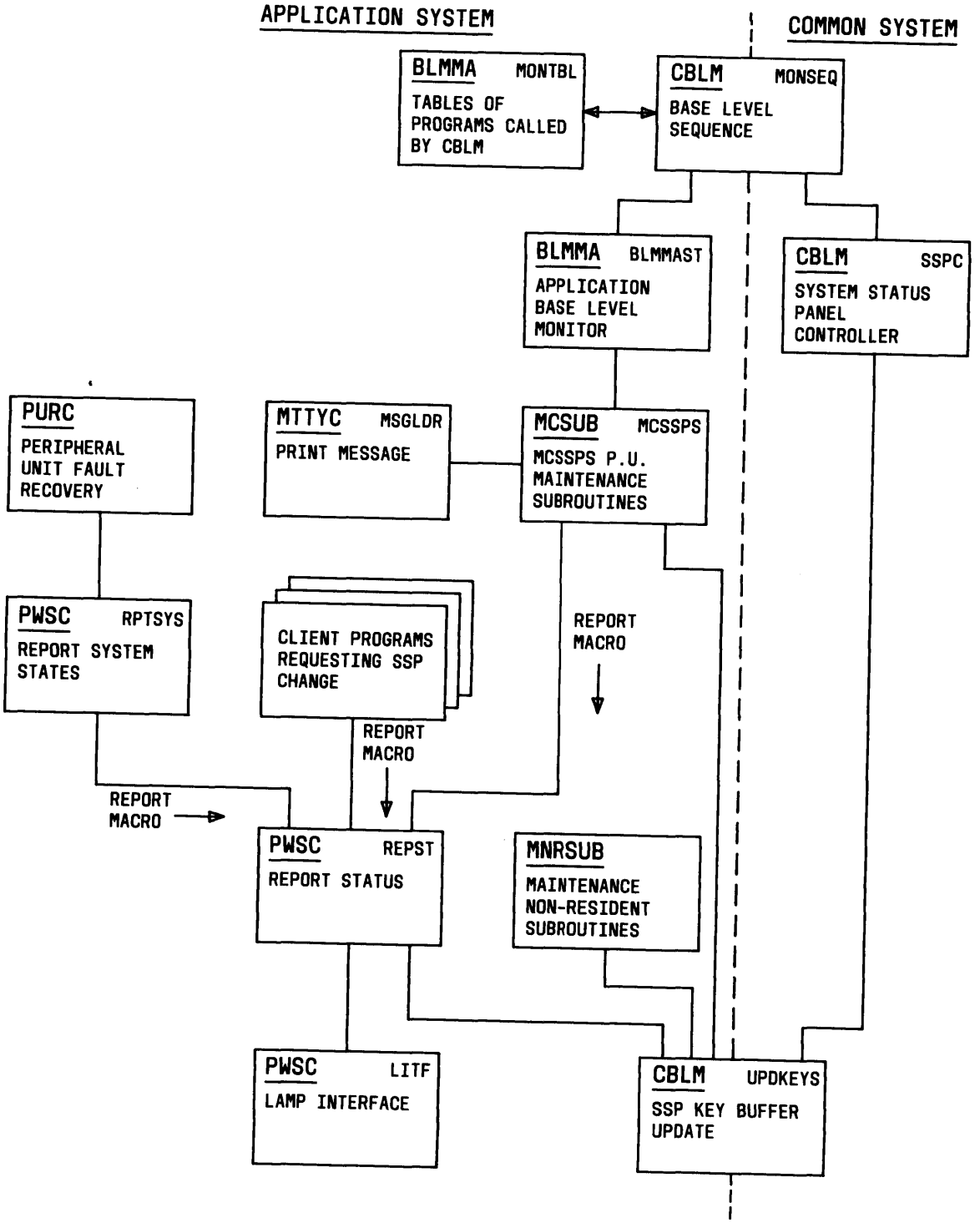

Fig. 2—Alarm and Status Reporting Program Interfaces

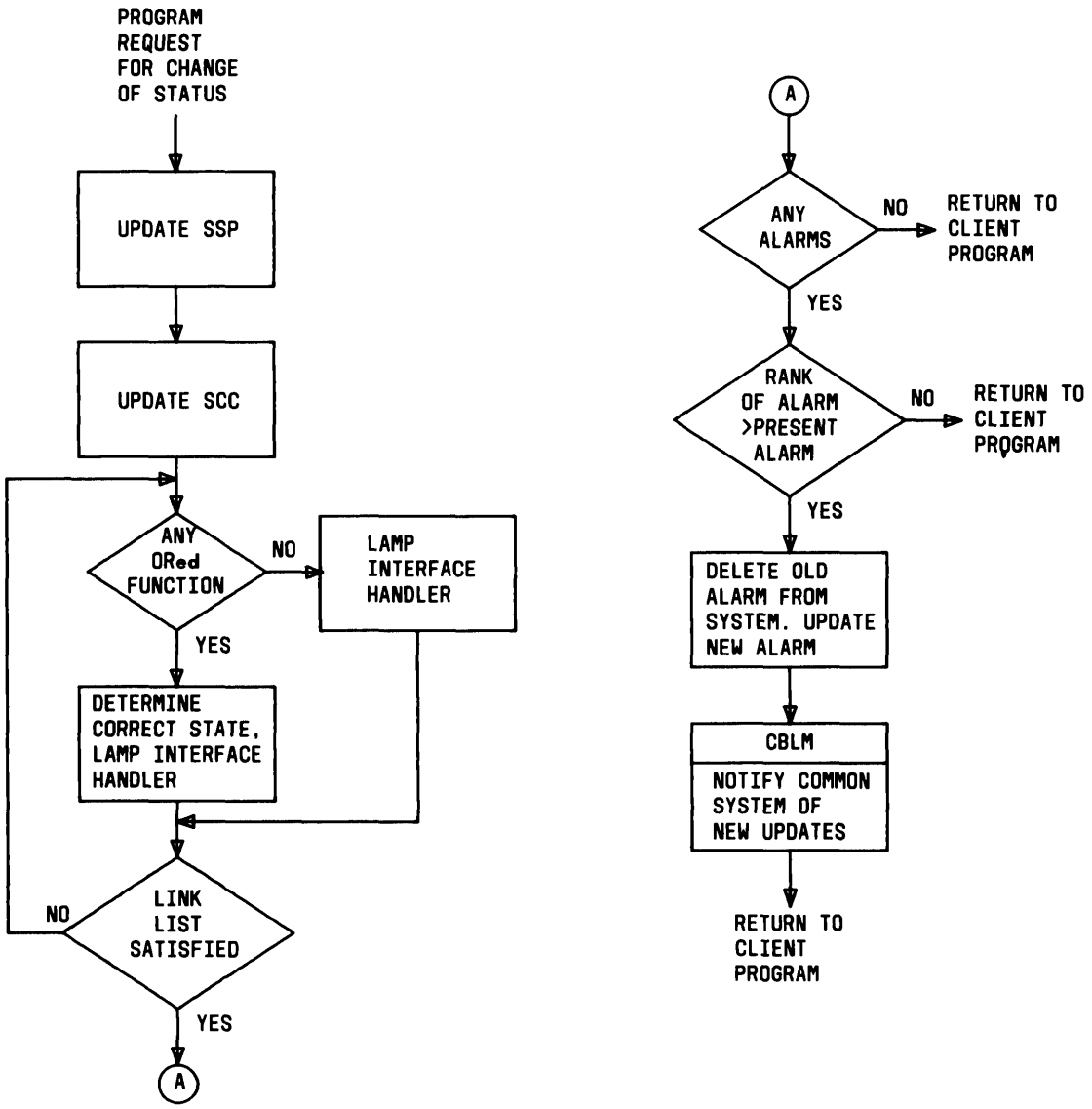

Fig. 3—System Indicator Updating (PWSC)

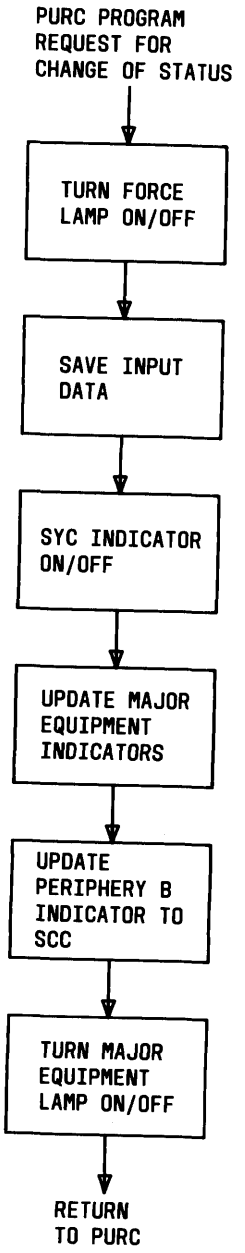

Fig. 4—PURC Program Input for System Indicator Updating (PWSC)

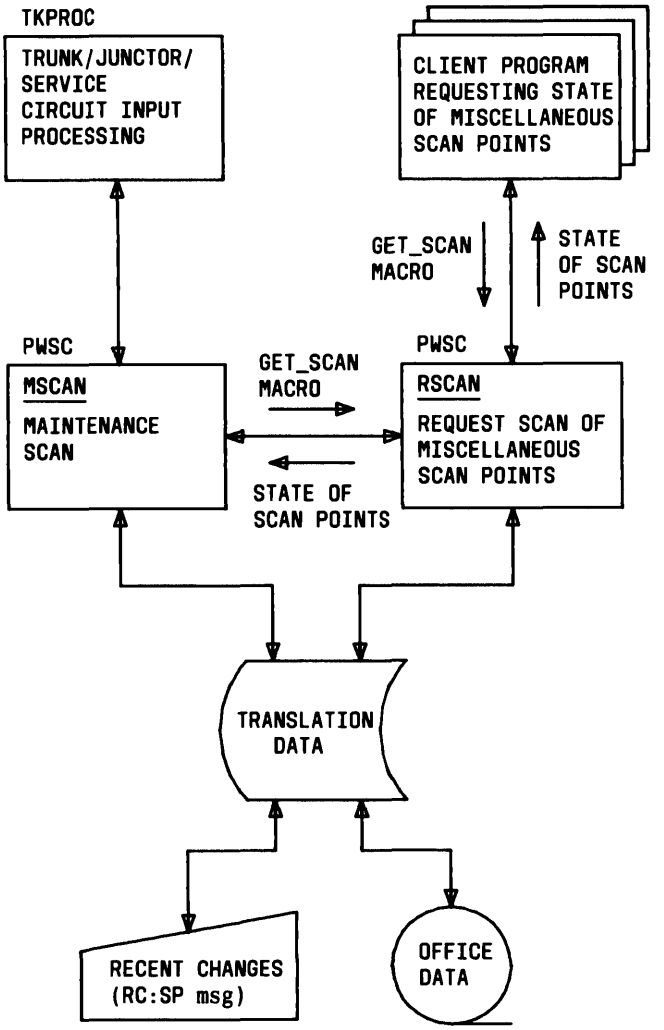

Fig. 5—MSCAN and RSCAN Program Interfaces

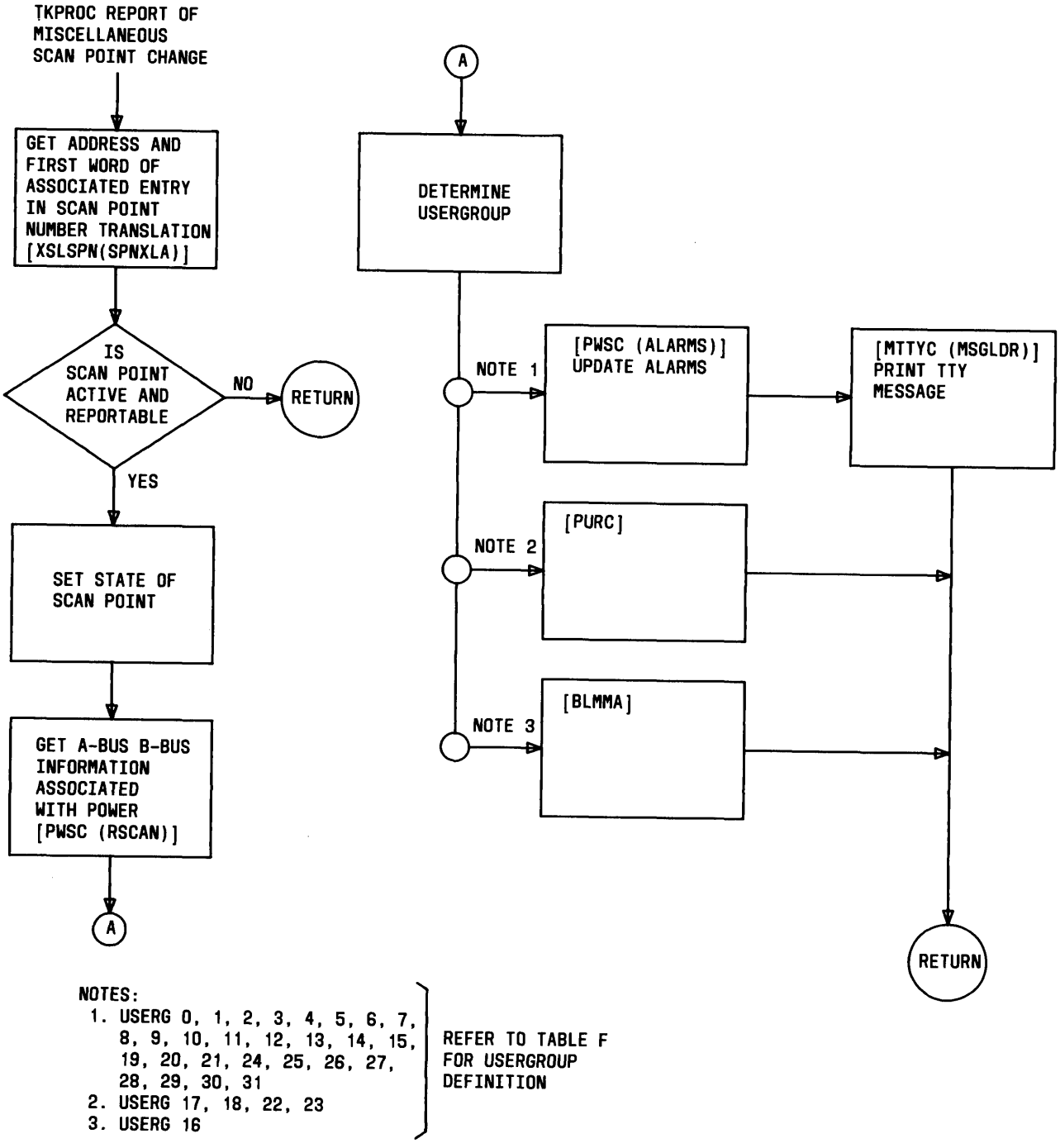

Fig. 6—TKPROC Program Input for Reporting Miscellaneous Scan Point Changes (PWSC)

TABLE B

PROGRAM IDENTIFICATION TABLE

PIDENT	PIDENT TITLES	PROGRAM NUMBERS	PIDENT MAJOR FUNCTIONS
CBLM	Common Base Level Monitor	PR-1C950	CBLM is the focal point of the base level system since it determines the sequencing of all programs. It contains four of the major monitors (including the system status panel controller) and calls the remaining monitors as independent common system programs. It is resident and is executed at base level.
BLMMA	Application Portion of the Base Level Monitor	PR-3H004	BLMMA provides tables that are used by the common systems base level monitor and invokes routines which are executed in the base level loop.
MCSUB	Maintenance Subroutines	PR-3H251	MCSUB contains a collection of subroutines, one of which administers the various indicators on the system status panel.
MNRSUB	Maintenance Non-Resident Miscellaneous Subroutines	PR-3H312	MNRSUB is a collection of subroutines, one of which controls the system status panel as a result of TTY input messages and as a function of switching control center tests.
PWSC	Power and Alarm Scan	PR-3H255	PWSC is the program that controls the system status panel indicators and alarms. It also reports active scan point states, either reportable or nonreportable.

TABLE C

SYSTEM STATUS AND CONTROL

INDICATOR	CONDITIONS	NOTES	LOCATION ON SSPMAP*
PANEL POWER			
ALT BUS	Power is supplied via an alternate bus.	Occurs when the momentary contact switch is held depressed or when the SSP detects a power failure and automatically switches to the alternate bus.	Word 0 Bit 13
SYC 0			
LOCK	Program control of system controller and force functions is enabled.	When LOCK key is depressed, the program sets the SYC associated with the on-line unit and then prevents switching to the off-line side.	Word 0 Bit 1
ACTIVE	On-line system controller (SYC 0 or SYC 1)		Word 2 Bit 0
STAND-BY	Off-line SYC is available	SYC is capable of being switched on-line.	Word 2 Bit 1
OUT OF SERVICE	Off-line SYC is not immediately available	SYC has an uncorrected failure, memory is being updated, the SYC is having an off-line unit diagnosed, or a unit is manually removed.	Word 2 Bit 2
UNAVAIL-ABLE	Off-line CU is unavailable because FORCE or LOCK key is depressed or power has been removed.		Word 2 Bit 3
SYC 1			
LOCK	Program control of system controller and force functions is enabled.	When LOCK key is depressed, the program sets the SYC associated with the on-line unit and then prevents switching to the off-line side.	Word 0 Bit 1
ACTIVE	On-line system controller (SYC 0 or SYC 1)		Word 2 Bit 4
STAND-BY	Off-line SYC is available.	SYC is capable of being switched on-line.	Word 2 Bit 5
OUT OF SERVICE	Off-line SYC is not immediately available.	SYC has an uncorrected failure, memory is being updated, the SYC is having an off-line unit diagnosed, or a unit is manually removed.	Word 2 Bit 6

* See Fig. 1 for SSPMAP

TABLE C (Contd)

SYSTEM STATUS AND CONTROL

INDICATOR	CONDITIONS	NOTES	LOCATION ON SSPMAP*
		SYC 1 (Contd)	
UNAVAIL-ABLE	Off-line CU is unavailable because FORCE or LOCK key is depressed or power has been removed.		Word 2 Bit 7
		ALARMS	
CRITICAL	PANEL TIME OUT lamp is lighted. Software recognition of a critical alarm condition.	Extinguished when ALARM RELEASE key is depressed. Audible alarm sounds twice, 1/2 second apart. There is a 1-1/2 second interval before the pattern is repeated. A critical alarm is reported by maintenance software when it detects an equipment outage of crucial importance to overall system operation such as loss of a controller in both the on-line and off-line systems controls.	Word 1 Bit 0
MAJOR	Software recognition of a major alarm condition.	Extinguished when ALARM RELEASE key is depressed. Audible alarm sounds at 1-1/2 second intervals. Reports partial loss of system capability.	Word 3 Bit 14
MINOR	Software recognition of a minor alarm condition.	Extinguished when ALARM RELEASE key is depressed. Audible alarm is a continuous tone.	Word 3 Bit 13
MAJOR POWER	Scan point indicates a major power failure.	Extinguished when scan points return to normal state. A major audible alarm sounds.	Word 3 Bit 11
MINOR POWER	Scan point indicates a minor power failure.	Extinguished when scan points return to normal state. A minor audible alarm sounds.	Word 3 Bit 12

* See Fig. 1 for SSPMAP

TABLE C (Contd)

SYSTEM STATUS AND CONTROL

INDICATOR	CONDITIONS	NOTES	LOCATION ON SSPMAP*
ALARMS (Contd)			
FUSE	Scan point indicates a blown fuse.	Extinguished when scan points return to normal state. Applicable MAJOR or MINOR lamp is lighted, and a major or minor audible alarm is sounded.	Word 3 Bit 15
ALARM CIRCUIT	Scan point indicates a power failure in the alarm circuit.	Extinguished when scan points return to normal state.	Word 3 Bit 10
SERVICE LOSS	System initialization (generated manually or by program control).	Extinguished about three minutes later provided no futher system initializations occur during that time.	Word 0 Bit 14
ALARM CONTROL			
INHIBIT BUILDING ALARM	Audible building alarms are not sounded. TTY messages are not printed (except for the fire building alarm).	TTY message indicates whether building alarms are inhibited or allowed.	Word 1 Bit 10
ALARM RELEASE	Restoration of critical, major, and minor alarms requested.	Extinguished when alarms are retired.	Word 1 Bit 12
ALARM TRFR	Alarms and TTY messages are transferred to and displayed at the SCC.	Critical, major, and minor alarms are retired after five seconds. Controlled by the panel key or by TTY input message.	Word 1 Bit 11
TEST CONTROL			
EXECUTE	Diagnostic test being performed.		Word 0 Bit 5
PASS	Successful completion of diagnostic test sequence.		Word 0 Bit 11
FAIL	Unsuccessful diagnostic test sequence.		Word 0 Bit 10

* See Fig. 1 for SSPMAP

TABLE C (Contd)

SYSTEM STATUS AND CONTROL

INDICATOR	CONDITIONS	NOTES	LOCATION ON SSPMAP*
		MISCELLANEOUS	
SYSTEM NORMAL	Extinguished when a PANEL TIME OUT occurs, an SCC critical indicator becomes active (except for FORCED and BLDG INH), or certain SSP indicators are enabled.	Normal condition is illuminated.	Word 3 Bit 8
PANEL TIME OUT	Controlled by output of independent timer located on SSP	The SSP timer must be reset every 2 seconds by program to prevent time-out from occurring. When lighted, the system is not functioning correctly and is incapable of resetting the SSP timer.	Word 1 Bit 1
MAJOR EQPT LOSS	CU, NWC, SC, PPD, RT, AMA or MISC lamps are lighted		Word 3 Bit 9
MISC	Suspected problem is a miscellaneous group of equipment (including the recorded announcement equipment).		Word 3 Bit 0
AMA	One side of the duplicated automatic message accounting equipment (AMA) is out of service or unavailable.	Extinguished when one side of the duplicated AMA is active and the other side is in the standby state.	Word 3 Bit 1
RT	One side of the duplicated ringing and tone plant (RT) is out of service or unavailable.	Extinguished when one side of the duplicated RT is active and the other side is in the standby state.	Word 3 Bit 2
PPD	Off-line peripheral pulse distributor (PPD) is out of service or unavailable.	Extinguished when off-line PPD is in the standby state.	Word 3 Bit 3
SC	Off-line scanner controller (SC) is out of service or unavailable.	Extinguished when the off-line scanner controller is in the standby state.	Word 3 Bit 4
NWC	Off-line network controller (NWC) is out of service or unavailable.	Extinguished when the off-line NWC is in the standby state	Word 3 Bit 5
CU	Off-line control unit (CU) is out of service or unavailable.	Extinguished when off-line CU is in the standby state.	Word 3 Bit 6
FORCED	Key operations that place the CU in the manual or test mode state, key operations that remove power from major units, and TTY input messages that inhibit normal periodic tests or TTY output messages.		Word 3 Bit 7

* See Fig. 1 for SSPMAP

TABLE C (Contd)

SYSTEM STATUS AND CONTROL

INDICATOR	CONDITIONS	NOTES	LOCATION ON SSPMAP*
MISCELLANEOUS (Contd)			
BLDG	Building alarm scan point indicates a building alarm		Word 4 Bit 0
DSP	Line origination hopper overflow counter exceeds a dynamic service protection (DSP) threshold.	Extinguished when the counter falls below the threshold. The line scanning program increments the counter for each base level scan in which it cannot find an empty entry in the line origination hopper. The input monitor program decrements this counter for each base level scan in which it finds the line origination hopper empty.	Word 4 Bit 1
OVLD ANN	TTY input message requests the system to change reorder tone to an overload announcement.	Extinguished when a TTY input message requests system to return to the normal state of supplying reorder tone.	Word 4 Bit 2
SPARE	Diagnostic in Progress (DIP)		Word 4 Bit 3
TDC	Either tape data controller (TDC) is in the out-of-service mode		Word 4 Bit 4
TTYC	Any TTY controller is in the out-of-service state.		Word 4 Bit 5
SVC LIM	Number of service circuits removed from service reaches or surpasses the number of service circuits which may be removed automatically from that service circuit group.		Word 4 Bit 6
TRK LIM	Number of trunks removed from service in any trunk group reaches or surpasses the number which may be removed automatically from that trunk group.		Word 4 Bit 7

* See Fig. 1 for SSPMAP

TABLE C (Contd)

SYSTEM STATUS AND CONTROL

INDICATOR	CONDITIONS	NOTES	LOCATION ON SSPMAP*
MISCELLANEOUS (Contd)			
0 through 23 (DISPLAY BUFFER)	Indicates information provided to three of the status buffers.	Background display is provided in the absence of any other scheduled or requested information. This background display shows seconds past the minute (lamps 23 through 16) and the number of originations (lamps 15 through 0). Other displays available are: scanner row information, crosspoint test information during a fabric exercise, and phase and test number during peripheral diagnostics.	Word 4 Bits 8-15 Word 5 Bits 0-15

* See Fig. 1 for SSPMAP

TABLE D

SYSTEM EMERGENCY MANUAL CONTROL

INDICATOR	CONDITIONS	NOTES	LOCATION SSPMAP*
ENABLE	Permits manual control of system initialization.	Extinguished when the INIT EXECUTE key is depressed.	Word 0 Bit 0
STABLE CALLS	Selection of an initialization which clears all stable and transient calls.	Extinguished by program control when initialization action is complete.	Word 1 Bit 13
MEMORY RELOAD	Selection of an initialization which loads from tape into main memory a copy of the generic program and the first copy of office data.	All stable and transient calls are cleared. The first copy of office data is updated from memory after each sequence of recent changes. It will normally agree with the memory. Extinguished by program control when initialization action is complete.	Word 0 Bit 6
PAST OFFICE DATA	Selection of an initialization which loads from the memory backup tape into memory the more recent of the two backup files of office data.	Lamp remains lighted after initialization to provide a visual reminder that information in memory may be out-of-date (recent changes made after the last tape update will not be included). Program informs any future "bootstrap" initialization to use the most recent file of office data instead of the normally used first copy. When MEMORY RELOAD and PAST OFFICE DATA keys are both depressed, initialization loads the generic program as well as the most recent file of office data. All stable and transient calls are cleared. Extinguished by program control when the memory backup tape is updated.	Word 1 Bit 14
BACKDT OFFICE DATA	Selection of an initialization which loads from the memory backup tape into memory the older of the two backup files of office data.	Lamp remains lighted after initialization to provide a visual reminder that information in memory is out-of-date. Program informs any future "bootstrap" initialization to use the older backup file of office data instead of the normally used most recent file.	Word 1 Bit 15

* See Fig. 1 for SSPMAP

TABLE D (Contd)

SYSTEM EMERGENCY MANUAL CONTROL

INDICATOR	CONDITIONS	NOTES	LOCATION SSPMAP*
BACKDT OFFICE DATA (Contd)		When both the MEMORY RELOAD and BACKDT OFFICE DATA keys are depressed, initialization loads the generic program as well as the oldest backup file of office data.	Word 1 Bit 15
		All stable and transient calls are cleared. Extinguished by program control when the memory backup tape is updated. When both the PAST OFFICE DATA and BACKDT OFFICE DATA keys are depressed, they are released by program control.	Word 1 Bit 15
INIT EXECUTE	System initialization is in progress	ENABLE lamp is extinguished. A single initialization signal (MRF pulse) is sent to both control units. Program interrogates the state of the other SSP system initialization switches to determine initialization level.	Word 0 Bit 15
TTY INIT	Initialization is in progress.	Depression of the key enables a program to initialize all TTY controllers and to clear all TTY message memory buffers. Program extinguishes the lamp upon completion of its function	Word 0 Bit 4
EMER LINE TRFR	Operates a relay that provides contact closure to appropriate central office equipment	This relay allows the manual transfer of important lines to an emergency switchboard upon failure of the No. 3 ESS.	Word 1 Bit 8
DISABLE REMOTE ACCESS	SCC remote control of the SSP is disabled.	This does not affect the SCC monitoring of the SSP.	Word 0 Bit 12
SELECT 0	System controller 0 is to be forced on-line when FORCE key is depressed.		Word 0 Bit 2

* See Fig. 1 for SSPMAP

TABLE D (Contd)

SYSTEM EMERGENCY MANUAL CONTROL

INDICATOR	CONDITIONS	NOTES	LOCATION SSPMAP*
SELECT 1	System controller 1 is to be forced on-line when FORCE key is depressed.		Word 0 Bit 3
FORCE	Forces the selected control unit (and consequently the entire SYC) to the active state and the other control unit to the unavailable state.	When the on-line SYC is selected, the system is prevented from switching. When the off-line SYC is selected, a switch is forced and the level of initialization occurs depending upon the SYSTEM INITIALIZATION keys depressed on the SSP. When released, system is restored to normal software control.	Word 0 Bit 9

* See Fig. 1 for SSPMAP

TABLE E

PROGRAM-CONTROLLED SCC INDICATORS

SCC INDICATOR	CONDITIONS
BLDG/PWR	BLDG status lamp or the MAJOR POWER alarm lamp is lighted at the SSP.
	Any of the following SYSTEM STATUS AND CONTROL lamps are lighted at the SSP. • OUT OF SERVICE (SYC 0) • UNAVAILABLE (SYC 0) • OUT OF SERVICE (SYC 1) • UNAVAILABLE (SYC 1)
SPARE	Always off
PERIPH A	TTYC or TDC status lamp at the SSP is lighted.
PERIPH B	AMA status lamp at the SSP is lighted.
CKT LIM	TRK LIM or SVC LIM status lamp at the SSP is lighted.
TRAFFIC	DSP status lamp at the SSP is lighted.
Nondesignated	Always off

TABLE F

MISCELLANEOUS SCAN POINT USER GROUPS

USER GROUP	TITLE	TTY PRINTOUT	COMMENTS
0 through 13	Miscellaneous Assignable Groups	x tt REPT MISCT row pt XXXX [OFN / NORM]	Prints a message and activates the specified alarm when an active, reportable scan point in the group changes state.
14	Carrier Group Alarms	x tt REPT CGA row pt XXXX [OFN / NORM]	Prints a message and activates the specified alarm when an active, reportable scan point in the group changes state. Scan points are assignable by the operating company.
15	Toll Alarms	x tt REPT TOLL row pt XXXX [OFN / NORM]	Prints a message and activates the specified alarm when an active, reportable scan point in the group changes state. Scan points are assignable by the operating company.
16	Trunk and Line Test Panel	None	Activate the trunk and line test panel. Uses the multiscan function (MSF) to determine state.
17, 18	Ringing and Tone Plant Alarms	None	PURC is called to handle these groups when a scan point changes state.
19	Miscellaneous Ringing and Tone Plant Alarms	x tt REPT RT row pt XXXX [OFN / NORM]	Prints a message and activates the specified alarm when an active, reportable scan point in the group changes state.

TABLE F (Cont)

MISCELLANEOUS SCAN POINT USER GROUPS

USER GROUP	TITLE	TTY PRINTOUT	COMMENTS
20	+24V Power Alarms	x tt REPT PWR A XXXX {NORM / OOL / M – OFF / FAIL}	Interprets the scan point change, prints a message, and activates the specified alarm when a scan point in the group changes state.
21	151 Power Plant Alarms	x tt REPT PWR B row pt XXXX {OFN / NORM}	Prints a message and activates the specified alarm when an active, reportable scan point in the group changes state. Scan points are assignable by the operating company.
22, 23	Power Control for SYC 0 and SYC 1	None	A call is made to PURC to handle the peripheral control frame power control scan point changes.
24	130V Power Alarms	x tt REPT PWR C row pt XXXX {OFN / NORM}	Prints a message and activates the specified alarm when an active, reportable scan point in the group changes state.
25	+48V Power Alarms	x tt REPT PWR D row pt XXXX {OFN / NORM}	When an active, reportable scan point in the group changes state: • A call is made to PURC so that ringing and tone plant will be checked (superimposed ringing is lost on the RT that looses +48V). • A message is printed and the specified alarm is activated.
26	Miscellaneous Fixed Alarms	x tt REPT MISCA row pt XXXX {OFN / NORM}	Prints a message and activates the specified alarm when an active, reportable scan point in the group changes state.

TABLE F (Cont)

MISCELLANEOUS SCAN POINT USER GROUPS

USER GROUP	TITLE	TTY PRINTOUT	COMMENTS
27	Building Alarms	x tt REPT BLDG row pt XXXX { OFN / NORM }	Prints a message and activates the specified alarm when an active, reportable scan point in the group changes state. Capable of reporting 16 alarms, 15 of which are assignable (via recent changes) alarms. Fire alarm is not assignable; its assignment is from Office Data. A check is made on the INHIBIT BUILDING ALARM key state. When selected, no TTY message or alarms are given; however, the BLDG alarm lamp will be turned on.
28	4A Timer	x tt REPT 4A TIMER row pt XXXX { OFN / NORM }	Prints a message and activates the specified alarm when an active, reportable scan point in the group changes state. Scan points are assignable by the operating company.
29	Alarm Battery Alarm	x tt REPT ALMBATA row pt XXXX { OFN / NORM }	Prints a message and activates the MAJOR alarm when the scan point goes off normal. Prints a message and turns off the alarms when the scan point is normal.

TABLE F (Contd)

MISCELLANEOUS SCAN POINT USER GROUPS

USER GROUP	TITLE	TTY PRINTOUT	COMMENTS
30	CU 0 Power Alarms	x tt REPT CU0PWR row pt XXXX [OFN / NORM]	Prints a message and activates the specified alarm when an active, reportable scan point in the group changes state.
31	CU 1 Power Alarms	x tt REPT CU1PWR row pt XXXX [OFN / NORM]	Prints a message and activates the specified alarm when an active, reportable scan point in the group changes state.

TABLE G

TTY INPUT MESSAGES THAT CONTROL SSP FUNCTIONS

TTY INPUT MESSAGE	RESULTING ACTION
RTE:ALM	Software equivalent of depressing the "ALARM TRFR" key on SSP
ACP:ALM	Software equivalent of releasing the "ALARM TRFR" key on SSP
INH:BLDG	Software equivalent of depressing the "INHIBIT BUILDING ALARM" key on SSP
ALW:BLDG	Software equivalent of releasing the "INHIBIT BUILDING ALARM" key on SSP