TRAFFIC AND PLANT MEASUREMENTS
NO. 2/2B ELECTRONIC SWITCHING SYSTEM

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1. GENERAL

1.01 This section describes the methods used to schedule, collect, and print out traffic and plant measurement data. It describes the TTY messages related to the various printout schedules and the assignment of traffic and plant registers. It also covers traffic measurement recent changes used for the No. 2/3B Electronic Switching System (ESS).

1.02 This section is reissued to change 2B messages under Part 2, Assignment of FSH Groups, and to make miscellaneous minor changes. Since this is a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 The new (conventional) service order codes were adopted for use with the EF-2 generic programs. However, the translations can be configured with the old (No. 2 ESS unique) service order codes as an option. These old codes are common to all previous No. 2/2B ESS generic programs. The EF-2 and 2B-EF-2 generic programs can be arranged to recognize either option. In this section the term "conventional (new)" or "No. 2 ESS unique (old)" is used to identify the service order code for the keywords in each TTY input message given.

TRAFFIC COUNT FACILITIES

1.04 The memory and data processing features of the No. 2/2B ESS are utilized by the program to accumulate and to store individual items of traffic and plant count in areas of the call store memory called traffic registers. A separate traffic register, consisting of one or more counters, is required for each item measured. Certain registers can be read when a TTY printout is requested or when the traffic data is automatically printed out in accordance with assigned time schedules.

TYPES OF DATA RECORDED

1.05 The traffic data recorded include peg counts, overflows, and usage. These are described as follows:

- Peg count (PC) is a cumulative count of the number of times a given event occurs during a fixed time interval. See individual counter for details on whether successful attempts, all attempts, or just final attempts are pegged.

- Overflow (OVFL) is a cumulative count of the number of times an attempt to cause an event failed because of network blocking or lack of facilities. See individual counter for details on whether first try overflow, final try overflow, or each try overflow is pegged.

- Usage (U) is a cumulative count of the number of circuits or registers that are placed in a busy state during each periodic scan of a particular group of circuits or registers.

1.06 All traffic registers are scored or accumulated continuously except for weekly usage measurements. The registers for the weekly usage measurements are scored only when scheduled by the traffic work table (TWT).

1.07 A traffic register is recycled to zero when an output of that register is scheduled by the TWT. Traffic registers can also be recycled or set to zero because of register overflow or system initialization. If a register overflows at a count of 65,536, the overflow is lost and is irrecoverable. Measurements with a high probability of overflow from one register are provided with two traffic registers: an accumulating register, and an overflow register. To obtain the total value of the measurement, the contents of the overflow register must be multiplied by 65,536 and that result must be added to the contents of the accumulating register. Counts are not zeroed if the schedule is printed as a result of a TTY input request.

REGISTER ASSIGNMENT AND REASSIGNMENT

1.08 In No. 2/2B ESS offices most traffic registers are permantently assigned to the measured traffic items. The traffic registers are dedicated to measure specific groups of traffic items. A limited number of traffic registers can be reassigned to different items of the same group by recent change TTY input messages (see Part 2). The plant registers are assigned to the measured plant items and cannot be reassigned. Unless otherwise indicated, all references to EF-1 or EF-2 include their counterpart generics in 2B ESS (2B-EF-1 and 2B-EF-2).

TRAFFIC AND PLANT DATA RECORDING SCHEDULES

1.09 Traffic and plant measurements are recorded on seven schedules.

- Quarter-Hourly (Q)
- Load Service Measurements (LSM)
- Hourly Non-Busy Hours (C)
- Hourly-Busy Hours (H)
- Daily (D)
- Weekly (W)
- Plant (PLT).

1.10 All traffic and plant counts are permanently assigned to a specific schedule except for the counts assigned to the H or C schedule and the Working Member Record (WMR). The WMR section can appear on only one of the following schedules: H, C, D, W, or PLT. The counts of the H or C schedule are separated into seven sections in LO-1, eight sections in EF-1, and thirteen sections in EF-2. Two sections in LO-1 (TRK, MLH), four sections in EF-1 (TRK, MLH, SIM, CTX) and eight sections in EF-2 (SVC, TKO, TKI, TKT, MLH, FSH, SIM, CXA), can appear on either or both schedules. However, specific register counts in these sections can only be assigned to one schedule at a time. When certain items are required on two schedules (for example, both quarter-hour and busy-hour), two registers are provided for the item. Traffic and plant data is collected under one of seven schedules and the data is printed out in accordance with a timetable. A printout of each schedule can be manually requested at any time from any TTY. The printout contains the data collected since the last scheduled printout. Requested printouts do not cause the data contained in the traffic register to be zeroed. Scheduled printouts are program controlled and are printed out automatically on the traffic or maintenance TTYs in accordance with a timetable covered in paragraph 1.23. Scheduled printouts will zero the registers.

1.11 The attempted correlation between two or more traffic registers on one traffic schedule printout usually results in an error. The error, usually called skew, is caused by three basic reasons:

(1) Holding registers are not used for most of the traffic registers, thus when it is time to print a register, the value of that register at that instant must be printed. Therefore, the value of the traffic registers at the beginning of a schedule, and the values of different traffic registers at the end of a schedule, will differ by the amount of time taken to print the schedule. Also, if a traffic schedule is delayed for some reason, the schedule printed could contain more than an hour or day's worth of data.

(2) Quasi holding registers are provided for OFT01 through OFT10 and OFT51 through OFT54 which can provide another form of skew. These registers are incremented every 15 minutes by adding in the values of Q01 through Q10 and Q11 through Q14, respectively. This is done on the exact quarter-hour, even though the OFT section may not print for some time. Thus when OFT01 through OFT10 and OFT51 through OFT54 do print, they represent data only until the previous quarter-hour. Note that if a traffic schedule is delayed for some reason, one or more of the OFT01 through OFT10 and OFT51 through OFT54 registers should contain data for 5 quarter-hours. (OFT51 through OFT54 are not provided in LO-1).

(3) Traffic registers are scored by the call processing at the time the event occurs. (For example, LSM05 is pegged when a valid line off-hook is received; LSM06 is pegged only after the one digit

is dialed). If the LSM schedule is printed (or LSM05 and LSM06) between these events, the counter will not correlate on the schedule that was printed.

1.12 The error due to skew will become smaller if the value of the traffic registers are scanned over a long period of time. Correlation cannot be totally achieved, due to skew, in an office that is in service. An attempt to correlate could be done only if the end points of the correlation period occurred during a period of ***very*** light traffic.

A. Quarter-Hourly (Q)

1.13 This is a fixed collection of 15 load service measurements including dial tone speed test (DTST) results, line and trunk origination totals, incoming matching loss parameters, and system overload measurements. These measurements always contain data collected during the 15-minute period ending with the last clock quarter-hour. The counts collected on this schedule are moved to holding registers and are added to totaling registers on each clock quarter-hour. These totaling registers accumulate quarter-hour totals for the hourly or plant schedules. The accumulating registers, from which the counts are taken, are reset to zero when the data is collected. The Q schedule is listed in Table A.

TABLE A

LOAD SERVICE MEASUREMENTS (LSM) AND QUARTER HOURLY (Q) SCHEDULES (All Generics)

REGISTER	REGISTER	DESCRIPTION	COMMENT
LSM01	Q01	DP dial tone speed tests performed.	The register pegged is determined by the type of receiver required by the line translation for the last call traced by the dial tone speed test program, not the type of receiver actually used; ie, in an office with 100% TOUCH-TONE® receivers a DP line will peg a DP count, even though a TOUCH-TONE receiver was used (see Note 1).
LSM02	Q02	TT dial tone speed tests performed.	
LSM03	Q03	DP dial tone speed test failures.	A failure is a dial tone speed test that was greater than three seconds (see Note 1).
LSM04	Q04	TT dial tone speed test failures.	
LSM05	Q05	Total line originations.	Line* originations are valid line off-hooks, counted before a CDPR is connected — does not include dial tone speed tests, but does include originations due to flash (such as for special services).
LSM06	Q06	Total originating calls.	CDPR connections (to lines*) plus at least one digit is dialed. This counter does not include manual lines since no digits are received from them.
LSM07	Q07	Total trunk originations.	Incoming† trunk seizures (see Note 2).

Note 1: No hardware origination is involved in the DTST; therefore, the number of DTST does not have to be subtracted from the traffic or plant originating counters. The DTST is strictly a software test which runs continuously and cannot be stopped.

Note 2: Applicable to LO-1 and EF-1 only. A call to a 7-digit number, which must be translated in the No. 2/2B ESS 4-digit translator, is scored as either an intra or incoming attempt, as appropriate, before the translation is performed. After the translation is performed, the call can be routed one of three ways:

(1) The call can terminate locally, therefore, pegging the intra or incoming stable counters, as appropriate.

(2) The call can acquire an RI in 4-digit translation, which routes the call out of the office (as in a shared office code, or in intercept calls to 6A, AIS, or a 3CL operator, or in calls to a Centrex-CU, etc). In this case the appropriate outgoing or tandem attempt counts are scored, in addition to the intra or incoming attempt mentioned above. The outgoing or tandem stable counters are scored when the call completes.

(3) The call can be call forwarded to another line, either locally, or outside the office. This is then treated and pegged like a second call attempt (ie, the call attempt counters are pegged again). If forwarded to a local line, (1), (2) or (3) apply, and if forwarded to an outside line, the appropriate outgoing or tandem attempt and stable counters are scored.

* = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

† = "Incoming" includes call from bylink, 1-way and 2-way incoming, FX, CCSA and tie trunks.

TABLE A (Contd)

LOAD SERVICE MEASUREMENTS (LSM) AND QUARTER HOURLY (Q) SCHEDULES (All Generics)

REGISTER	REGISTER	DESCRIPTION	COMMENT
LSM08	Q08	Incoming call attempts.	An incoming call† is a call that originates from a trunk and is going to terminate locally a line.* The count is made after all expected digits have been received, (but [applies only to LO-1 and EF-1] before 4-digit translation is done. The call may not terminate locally if the call forwarding or the 4-digit translation directs it elsewhere [see Note 2]).
LSM09	Q09	Incoming path overflow.	Overflow is scored if the path hunt fails on the final try between incoming trunk† and terminating line.*
LSM10	Q10	Incoming calls made stable.	Incoming calls† placed into talking state by the system. (see Note 2.)‡
LSM11	Q11	Total number of base level scans.	A peg count of the number of base level scans.

Note 2: Applicable to LO-1 and EF-1 only. A call to a 7-digit number, which must be translated in the No. 2/2B ESS 4-digit translator, is scored as either an intra or incoming attempt, as appropriate, before the translation is performed. After the translation is performed, the call can be routed one of three ways:

(1) The call can terminate locally, therefore, pegging the intra or incoming stable counters, as appropriate.

(2) The call can acquire an RI in 4-digit translation, which routes the call out of the office (as in a shared office code, or in intercept calls to 6A, AIS, or a 3CL operator, or in calls to a Centrex-CU, etc). In this case the appropriate outgoing or tandem attempt counts are scored, in addition to the intra or incoming attempt mentioned above. The outgoing or tandem stable counters are scored when the call completes.

(3) The call can be call forwarded to another line, either locally, or outside the office. This is then treated and pegged like a second call attempt (ie, the call attempt counters are pegged again). If forwarded to a local line, (1), (2) or (3) apply, and if forwarded to an outside line, the appropriate outgoing or tandem attempt and stable counters are scored.

* = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

† = "Incoming " includes call from bylink, 1-way and 2-way incoming, FX, CCSA and tie trunks.

‡ = In LO-1 and EF-1, this count is pegged incorrectly in a 3-way conference call initiation because the calling party looks like a trunk when the third party answers.

TABLE A (Contd)

LOAD SERVICE MEASUREMENTS (LSM) AND QUARTER HOURLY (Q) SCHEDULES (All Generics)¶

REGISTER	REGISTER	DESCRIPTION	COMMENT
LSM12	Q12	Total length of the nondeferrable portion of all base level scans, measured in 25-ms counts.	The accumulative value of all base level scan lengths measured by 25-ms§ intervals during this quarter hour. Does not include deferrable routines (control unit detection, audits, or other deferrable routines).
LSM13	Q13	Maximum length of the nondeferrable portion of one base level scan, measured in 25-ms counts.	Measured by 25-ms§ intervals during the nondeferrable portion of the base level scans (see Q12).
LSM14	Q14	An indication of the amount of time spent in the deferrable portion of the base level scan.	Q14 represents the time spent in the deferrable portion of the base level scan, only if over the past 15 minutes: (1) The system remained in update for No. 2B ESS and sync for No. 2 ESS. (2) The audits did not have to run in a priority mode. If Q14 is greater than 9999, one or both of the above conditions could not be met. Consequently, Q14 does not represent the time in the deferrable portion and should be ignored. If Q14 is less than 9999 then Q14 divided by 100 represents the percent of the time the base level maintenance monitor (BLMMA) spent in the deferrable portion of the base level scan. Example: If Q14 = 6667, then 10 minutes out of the last 15 minutes were spent in the deferrable portion.
LSM15¶	Q15¶	An indication of the number of times routine IOWAIT was unable to find one of three 5-ms interrupts which consumed less than 1.224 ms (ie, three consecutive 5-ms interrupts consumed more than 1.224 ms).	Q15 provides an indication of the real-time capacity of the system. If Q15 is high or gradually increases, the office may be underengineered or a translation error may exist which causes the system to consume excessive amounts of real time at the 5-ms interrupt level (eg, digit receiving). The contents of Q15 for a particular day should be compared with the same quarter hour on subsequent days to determine if the

§ = 25.00 ms in No. 2B ESS, therefore, 9000 maximum counts per hour.
25.02 ms in No. 2 ESS, therefore, 8992.8 maximum counts per hour.

¶ = LSM15 and Q15 are used in 2B only.

TABLE A (Contd)

LOAD SERVICE MEASUREMENTS (LSM) AND QUARTER HOURLY (Q) SCHEDULES (All Generics)¶

REGISTER	REGISTER	DESCRIPTION	COMMENT
LSM15 (contd)			count is changing significantly. A change in Q15 of 100 percent or greater should be investigated to determine why it has increased. Any function that invokes the tape handler (CU diagnostics, overwrite procedures, tape audit, etc) will increase the time spent in the 5-ms interrupt. It is normal to experience high counts during quarter hours if the tape handler was active.

¶ = LSM15 and Q15 are used in 2B only.

1.14 The recorded information is printed out by both the traffic and maintenance TTYs on the quarter-hour for any of the following reasons.

- If scheduled by the traffic work table (TWT) (maintenance and traffic TTYs can be scheduled independently)
- If the number of dial tone speed tests performed during the last quarter-hour was not equal to 225
- If the number of dial tone speed test (DTST) failures was greater than or equal to four
- If the system was in dynamic service protection (DSP) at the clock quarter-hour
- If the system was in a system overload (SOL) condition at the clock quarter-hour.

B. Load Service Measurements (LSM)

1.15 The LSM schedule contains the same measurements as the Q schedule except that the measurements contain data collected from the last clock quarter-hour to the time of the printout. The LSM schedule is listed in Table A. This schedule is printed upon TTY request, or when a transient initialization takes place. The counts are actually accumulated in the LSM counters. Every quarter-hour, the LSM counters are copied into the Q counters, and then LSM(Q)01 through LSM(Q)10 and LSM(Q)11 through LSM(Q)14 are added to OFT01 through OFT10 and OFT51 through OFT54, respectively. (OFT51 through OFT54 are not provided in LO-1.) LSM15 is not carried to the OFT schedule.

C. Hourly-Busy Hours (H) and Hourly-Nonbusy Hours (C)

1.16 The basic difference between the H and C schedules is the scheduling time. The H schedule is normally used for collecting measurements during the office busy hours and the C schedule is used for collecting measurements during both busy and nonbusy hours of the day. The actual measurements contained on each schedule are controlled by the operating company by appropriate input messages, subject to the provision that a measurement can be assigned to only one schedule at a time.

1.17 Measurements for the H schedules are collected continuously. The registers are recycled to zero ***only*** when a printout is scheduled by the TWT. To obtain measurements for a given busy hour,

a print request must be scheduled in the TWT for the beginning and the end of the busy hour. A print request must be scheduled for the beginning of the busy hour in order to zero the registers before accumulating the busy hour measurements. This printout will contain all the data accumulated since the last printout, which may be several hours, and is usually discarded. The printout occurring at the end of the busy hour contains only the measurements accumulated during the busy hour.

1.18 Since the H schedule is normally the busy hour schedule, three entries (HA, HB, and HC) are provided in the traffic work table for scheduling the printing of the H schedule. Only one entry is provided for the C schedule.

1.19 The H or C schedule is listed in Table B (LO-1 and EF-1 generic programs) and Table C (EF-2 and later generic programs). The measurements on the H or C schedule are separated into six sections for LO-1, eight sections for EF-1, and thirteen sections for EF-2 and later generics, two, four, or six of which can appear on both schedules simultaneously. The sections are as follows:

(a) Trunk and Service Circuit Measurements (TRK) (LO-1 and EF-1 Only): Each outgoing trunk group, 2-way trunk group and service circuit group defined in the office has assigned to it a set of four traffic registers. These include peg count, usage, overflow, and maintenance busy counts. The counts are collected continuously for all groups in the office. Each trunk and service circuit group can be assigned to either the H or the C schedule but not both. The TRK section of the H and C schedules contains the measurements for only those groups that are assigned to the schedule which is being printed. Groups not assigned to H or C schedule are never printed. If no group is assigned to a schedule, the TRK section does not appear on the printout. For a further discussion of these counts, see Part 5.

(b) Service Circuit Measurements (SVC) (EF-2 and later generics only): Each service circuit group defined in the office is assigned a set of four traffic registers. These include peg count, usage, overflow, and maintenance busy counts. The counts are collected continuously for all service circuit groups in the office. Each service circuit group can be assigned to either the H or the C schedule but not both. The SVC section of the H and C schedule contains the measurements for only those groups assigned to the schedule which is being printed. Groups not assigned to the H or C schedule are never printed. If no group is assigned to a schedule, the SVC section does not appear on the printout.

(c) Outgoing Trunk (TKO) Group Measurements (EF-2 and later generics only): Each outgoing trunk group defined in the office has assigned to it a set of four traffic registers. These include peg count, usage, overflow, and maintenance busy counts. These counts are collected continuously for all groups in the office. Each trunk group can be assigned to either the H or the C schedule but not both. The TKO section of the H and C schedules contains the measurements of only those groups that are assigned to the schedule which is being printed. Groups not assigned to the H or C schedule are never printed. If no group is assigned to a schedule, the TKO section does not appear on the printout.

(d) Incoming Trunk (TKI) Group Measurements (EF-2 and later generics only): Each incoming trunk group defined in the office has assigned to it a set of two traffic registers. These include peg and usage counts. The counts are collected continuously for all groups in the office. Each TKI group can be assigned to the H or the C schedule but not both. The TKI section of the H and C schedules contains the measurements for only those groups that are assigned to the schedule which is being printed. Groups not assigned to the H or C schedule are never printed. If no group is assigned to a schedule, the TKI section does not appear on the printout.

(e) Two-way Trunk (TKT) Group Measurements (EF-2 and later generics only): Each 2-way trunk group defined in the office has assigned to it a set of five traffic registers. These registers include total peg, total usage, outgoing overflow, and maintenance busy counts. The counts are continuously for all groups in the office. Each TKT group can be assigned to either the H or the C schedule but

not both. The TKT section of the H and C schedules contains the measurements for only those groups assigned to the schedule which is being printed. Groups not assigned to the schedule are never printed. If no group is assigned to a schedule, the TKT section does not appear on the printout.

(f) Simulated (SIM) Trunk Group Measurements (EF-1 and later generics only): Each SIM trunk group defined in the office is assigned a set of three traffic registers in EF-1, and four traffic registers in EF-2 and later generics. The registers include simulated trunk group number peg count, usage, and overflow counts. EF-2 and later generics also include the number of members. The counts are collected continuously for all groups in the office. Each SIM trunk group can be assigned to either the H or C schedule but not both. The SIM section of the H and C schedules contains the measurements for only those groups that are assigned to the schedule which is being printed. Groups not assigned to the H and C schedule are never printed. If no group is assigned to a schedule, the SIM section does not appear on the printout.

(g) Multiline Hunt (MLH) Group Measurements: Three traffic registers are assigned to each MLH group in the office. These include peg, usage, and overflow counts. Each MLH group can be assigned to either the H or the C schedule but not both. The MLH section of the H or C schedule contains the measurements for only those groups that are assigned to the schedule which is being printed. Groups not assigned to the H or C schedule are never printed. If no group is assigned, the MLH section does not appear on the printout.

(h) Flexible Station Hunt (FSH) Group Measurements (EF-2 and later generics only): Three traffic registers are assigned to each FSH group in the office. These include peg, usage, and overflow counts. Each FSH group can be assigned to either the H or the C schedule but not both. The FSH section of the H or C schedule contains the measurements for only those groups that are assigned to the schedule which is being printed. Groups not assigned to the H or C schedule are never printed. If no group is assigned, the FSH section does not appear on the printout.

(i) Office Total Measurements (OFT): The OFT section of the H or C schedule consists of a group of 80 registers (70 registers in EF-1, 50 registers in LO-1) which provide measurements for each type of call that can occur in the office. Attempts, overflows, and stable calls are counted for each of the four types of calls (intraoffice, incoming, outgoing, and tandem). The OFT section also includes various types of failures, custom calling service measurements, and usage measurements on call processing registers. The OFT section can be assigned to either the H or C schedule but not both. OFT01 through OFT10 and OFT51 through OFT54, (OFT51 through OFT54 are not provided in LO-1) are updated only every 15 minutes from the Q schedule registers.

(j) Bylink Group Measurements (BYL): Sixteen registers are contained in the BYL section to provide incoming trunk group peg counts on all BYL trunk groups. Normally all BYL trunk groups that are not individually assigned to registers are counted in register 0, BYL counter 00. Fifteen individual BYL groups can be assigned to registers 1 through 15, BYL counters 01 through 15. The BYL section can be assigned to either the H or C schedule but not both.

(k) Preroute and Line Screening Class Measurements (PRC): The PRC section consists of 39 registers. PRC counters 00 through 31 are provided for preroute measurements. Any number of 3- or 6-digit codes can be assigned to any preroute traffic register. The last seven registers (PRC32 through PRC38) are provided for line screening class measurements. Any number of distinct line screening classes can be assigned to any of these seven registers. The PRC assignments can be changed by recent change input messages. The PRC section can be assigned to either the H or C schedule but not both.

(l) Junctor Group Measurements (JCT): Traffic registers are provided for 100-second usage measurements of each wire junctor group and each circuit junctor group in the office. The size of this section varies with the size of the office because measurements are printed for junctor groups defined in the office. The JCT section can be assigned to either the H or C schedule but not both.

(m) Centrex (CTX) Group Measurements (EF-1 generic only): The CTX section of the H or C schedule consists of 20 registers which provide measurements for each type of CTX call that can occur in the office. The measurements include peg counts and usage counts. Any CTX group may be assigned to either the H or C schedule or neither schedule. Each centrex group has its own set of 20 registers.

(n) Flexible Centrex (CXA, CXB, CXC, CXD) Group Measurements (EF-2 and later generics only): The CX_ section of the H or C schedule consists of a maximum of 40 registers which provide measurements of each type of centrex call that can occur in the office. The measurements include peg counts and usage counts. Any centrex group may be assigned to either the H or C schedule or neither schedule. Each centrex group has its own set of 0, 9, 19, 29 or 39 registers. If centrex counters are printed for a group, the CXA is required. The printing of CXB, CXC and CXD lines are individual options per centrex group.

(o) Working Member Record (WMR) (EF-2 and later generics only): The WMR verifies the number of assigned trunks and service circuits in each group. The number of trunks is the number of trunks that can receive calls (ie, the number of trunks in service) plus the number of trunks that are maintenance busy. The number of service circuits is equal to the number of circuits that can be accessed (ie, the number of service circuits in service) plus the number of service circuits that are maintenance busy. The WMR section can be assigned by the operating company to be printed on either the H or C schedule. (Refer to paragraph 2.37.)

TABLE B

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
TRUNK AND SERVICE CIRCUIT MEASUREMENTS		
TRK01	Trunk group number.	Only those trunk groups defined on the H and C schedules are printed.
TRK02	Group peg count.	Peg count is the total number of selection attempts (includes overflow). On 2-way trunk groups, the peg count contains outgoing calls only. (See paragraphs 5.01 through 5.04 and Figs. 7A, 8A, and 9A.)
TRK03	Group usage measurement.	A 10-second usage measurement is performed on all service circuit groups. A 100-second usage measurement is performed on all outgoing and 2-way trunk groups. Both incoming and outgoing usage measurements are included on 2-way trunk groups. Maintenance busy circuits are not included in service circuit usage, but are included in trunk usage. An unassigned member number in the range less than the "highest working member" (as defined on No. 2 ESS form 2201-R) will receive usage counts also if its status bit is set.* (See paragraphs 5.01 through 5.04.)
TRK04	Group overflow count.	An overflow count is scored if on the last attempt to select a circuit, all circuits are busy (maximum count of 8191). (See Fig. 7A, 8A, and 9A.)
TRK05	Maintenance busy count.	The number of circuits in this group that are maintenance busy at the time of the printout.
SIMULATED (SIM) TRUNK GROUP MEASUREMENTS (EF-1 AND LATER GENERIC)		
SIM01	Simulated trunk group number.	Simulated trunk groups are used for centrex outgoing WATS, central office access, and for incoming LDN traffic, and are applicable only to the EF-1 and later generic programs. Only these trunk groups defined on the H or C schedules are printed.
SIM02	Group peg count.	These registers provide a peg count of the total number of selection attempts including overflow. Only one attempt is made per call.
SIM03	Group usage measurement.	A 100-second usage measurement is made on all simulated trunk group members.

* The status bit will be set if any higher numbered circuit in the group has been previously selected. The bit is zeroed on initialization until the preceding occurs.

TABLE B (Contd)

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
SIM04	Group overflow count.	An overflow count is scored if all members are found busy when the last attempt to select a member number is made. Only one attempt is made per call.
SIM05	Not used.	Always zero.
MULTILINE HUNT (MLH) GROUP MEASUREMENTS		
MLH01	MLH group number.	Only those MLH groups assigned to the H or C schedules are printed.
MLH02	Group peg count.	Peg count includes originating and terminating traffic.
MLH03	Group usage measurement.	A 100-second usage measurement on members of the group. Includes originating and terminating usage. Unassigned members in the range less than the "highest working member" (as defined on No. 2 ESS form 2105-R) will receive usage counts also if its status bit is set.*
MLH04	Group overflow.	Overflow count is terminating overflow.
MLH05	Not used.	Always zero.
OFFICE TOTAL (OFT) MEASUREMENTS		OFT01 through OFT10 and OFT51 through OFT54 are updated every 15 minutes by the Q schedule registers. (See paragraph 1.15.)
OFT01	DP dial tone speed tests performed.	The register pegged is determined by the type of receiver required by the line translation for the last call traced by the dial tone speed test program, not the type of receiver actually used; ie, in an office with 100% TOUCH-TONE receivers, a DP line will peg a DP count even though a TOUCH-TONE receiver was used. (See Note 1.)
OFT02	TOUCH-TONE dial tone speed tests performed.	
OFT03	DP dial tone speed test failures.	A failure is a dial tone speed test that was greater than 3 seconds. (See Note 1.)
OFT04	TOUCH-TONE dial tone speed test failures.	

Note 1: No hardware origination is involved in the DTST; therefore, the number of DTST does not have to be subtracted from the traffic or plant originating counters. The DTST is strictly a software test which runs continuously and cannot be stopped.

* The status bit will be set if any higher numbered circuit in the group has been previously selected. The bit is zeroed on initialization until the preceding occurs.

TABLE B (Contd)

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
OFT05	Total line originations.	Line† originations are valid line off-hooks counted before a CDPR is connected—does not include dial tone speed tests, but does include originations due to flash (such as for special services).
OFT06	Total originating calls.	CDPR connections (to lines†) plus at least one digit is dialed. This counter does not include manual lines since no digits are received from them.
OFT07	Total trunk originations.	Incoming† trunk seizures (see Note 2).
OFT08	Incoming call attempts.	An incoming call‡ is a call that originates from a trunk‡ and is going to terminate locally to a line.‡ The count is made after all expected digits have been received, but before 4-digit translation is done. The call may not terminate locally if call forwarding or the 4-digit translator directs it elsewhere. (See Note 2.)
OFT09	Incoming path overflow.	Overflow is scored if the path hunt fails between incoming trunk‡ and terminating line† on the final (2nd) try.
OFT10	Incoming calls made stable.	Incoming calls† placed into talking state by the system. (See Note 2.)§

Note 2: A call to a 7-digit number, which must be translated in the No. 2/2B ESS 4-digit translator, is scored as either an intra or incoming attempt as appropriate, before the translation is performed. After the translation is performed, the call can be routed one of three ways:

(1) The call can terminate locally, therefore, pegging the intra or incoming stable counters, as appropriate.

(2) The call can acquire an RI in 4-digit translation, which routes the call out of the office (as in a shared office code, or in intercept calls to 6A, AIS, or a 3CL operator, or in calls to a Centrex-CU, etc). In this case, the appropriate outgoing or tandem attempt counters are scored, in addition to the intra or incoming attempt mentioned above. The outgoing or tandem stable counters are scored when the call completes.

(3) The call can be forwarded to another line, either locally, or outside the offices. This is then treated and pegged like a second call attempt (ie, the call attempt counters are pegged again). If forwarded to a local line, (1), (2) or (3) apply, and if forwarded to an outside line, the appropriate outgoing or tandem attempt and stable counters are scored.

† = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

‡ = "Incoming" includes call from bylink, 1-way and 2-way incoming, FX, CCSA and tie trunks.

§ = This count is pegged incorrectly in a 3-way conference call initiation because the calling party looks like a trunk when the third party answers.

TABLE B (Contd)

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
OFT11	Intraoffice call attempts.	An intraoffice call is a call which originates from a line† and is going to terminate locally to a line.† The count is made after all expected digits have been received, but before 4-digit translation is done. The call may not terminate locally if call forwarding or the 4-digit translator directs it elsewhere. (See Note 2.)
OFT12	Intraoffice path overflows.	An overflow is scored if the path hunt fails between the originating line† and the terminating line† on the final (2nd) try.
OFT13	Intraoffice calls made stable.	A stable call is a call that has been placed in a talking state and all transient memory for that call has been cleared. On attendant originated calls, the counter is pegged once each time an off-hook is received after the Signal Source key is depressed. (See Note 2.)
OFT14	Outgoing call attempts.	An outgoing call is a call that originates from a line† and is going to terminate to a trunk.¶ The count is made after 3- or 6-digit translations, if overlap outpulsing is to be done. If overlap outpulsing is ***not*** done, all expected digits must be received before the count is made. (See Note 2.)

Note 2: A call to a 7-digit number, which must be translated in the No. 2/2B ESS 4-digit translator, is scored as either an intra or incoming attempt, as appropriate, before the translation is performed. After the translation is performed, the call can be routed one of three ways:

(1) The call can terminate locally, therefore, pegging the intra or incoming stable counters as appropriate.

(2) The call can acquire an RI in 4-digit translation, which routes the call out of the office (as in a shared office code, or in intercept calls to 6A, AIS, or a 3CL operator, or in calls to a Centrex-CU, etc). In this case the appropriate outgoing or tandem attempt counters are scored, in addition to the intra or incoming attempt mentioned above. The outgoing or tandem stable counters are scored when the call completes.

(3) The call can be forwarded to another line, either locally, or outside the offices. This is then treated and pegged like a second call attempt (ie, the call attempt counters are pegged again). If forwarded to a local line, (1), (2) or (3) apply, and if forwarded to an outside line, the appropriate outgoing or tandem attempt and stable counters are scored.

† = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

¶ = "Trunk" includes 1-way and 2-way outgoing, tie, FX, and CCSA trunks.

TABLE B (Contd)

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
OFT15	Outgoing path overflows.	An overflow is scored if the path hunt fails between the originating line† and terminating trunk¶ on the final (2nd) try of the last alternate group.
OFT16	Outgoing calls made stable.§	A stable call is a call on which answer has been received and the call placed in a talking state, or a call that the No. 2 ESS translations indicate to be local free call (charge index = 01), or a call to AIS. All transient memory for that call has been cleared. (See Notes 2 and 3.)
OFT17	Tandem call attempts.	A tandem call is a call that originates from a trunk and is going to terminate to a trunk.¶ The count may be made after 1-, 2-, 3-, 4-, or 6-digit translations. (See Note 2.)
OFT18	Tandem path overflows.	An overflow is scored if the path hunt fails between the originating trunk and the terminating trunk on the final (2nd) try of the last alternate group.

Note 2: A call to a 7-digit number, which must be translated in the No. 2/2B ESS 4-digit translator, is scored as either an intra or incoming attempt, as appropriate, before the translation is performed. After the translation is performed, the call can be routed one of three ways:

(1) The call can terminate locally, therefore, pegging the intra or incoming stable counters, as appropriate.

(2) The call can acquire an RI in 4-digit translation, which routes the call out of the office (as in a shared office code, or in intercept calls to 6A, AIS, or a 3CL operator, or in calls to a Centrex-CU, etc). In this case the appropriate outgoing or tandem attempt counters are scored, in addition to the intra or incoming attempt mentioned above. The outgoing or tandem stable counters are scored when the call completes.

(3) The call can be forwarded to another line, either locally, or outside the offices. This is then treated and pegged like a second call attempt (ie, the call attempt counters are pegged again). If forwarded to a local line, (1), (2) or (3) apply, and if forwarded to an outside line, the appropriate outgoing or tandem attempt and stable counters are scored.

Note 3: A call that completes satisfactorily but does not return answer, such as a free terminating call, will not go "stable" and will not peg, unless one of the conditions in Note 2 applies.

† = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

¶ = "Trunk" includes 1-way and 2-way outgoing, tie, FX, and CCSA trunks.

§ = This count is pegged incorrectly in a 3-way conference call initiation because the calling party looks like a trunk when the third party answers.

TABLE B (Contd)

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
OFT19	Tandem calls made stable.§	A stable call is a call on which answer has been received and the call placed in a talking state, or a call to AIS. All transient memory for that call has been cleared. (See Notes 2 and 3.)
OFT20	Reverting call attempts.	A reverting call is a call from one party of a multiparty line to another party on that line (POTS only).
OFT21	Partial dial abandons.	Originating line† disconnects with one or more digits dialed.
OFT22	Partial dial timeouts.	Customer digit receiving has timed out with one or more digits received from a line.†
OFT23	Permanent signals.	Customer digit receiving has timed out with no digits received from a line.†
OFT24	False starts.	Originating line† disconnects after connection to CDPR (before timeout) and no digits have been received.

Note 2: A call to a 7-digit number, which must be translated in the No. 2/2B ESS 4-digit translator, is scored as either an intra or incoming attempt, as appropriate, before the translation is performed. After the translation is performed, the call can be routed one of three ways:

(1) The call can terminate locally, therefore, pegging the intra or incoming stable counters, as appropriate.

(2) The call can acquire an RI in 4-digit translation, which routes the call out of the office (as in a shared office code, or in intercept calls to 6A, AIS, or a 3CL operator, or in calls to a Centrex-CU, etc). In this case the appropriate outgoing or tandem attempt counters are scored, in addition to the intra or incoming attempt mentioned above. The outgoing or tandem stable counters are scored when the call completes.

(3) The call can be forwarded to another line, either locally, or outside the offices. This is then treated and pegged like a second call attempt (ie, the call attempt counters are pegged again). If forwarded to a local line, (1), (2) or (3) apply, and if forwarded to an outside line, the appropriate outgoing or tandem attempt and stable counters are scored.

Note 3: A call that completes satisfactorily but does not return answer, such as a free terminating call, will not go "stable" and will not peg, unless one of the conditions in Note 2 applies.

† = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

§ = This count is pegged incorrectly in a 3-way conference call initiation because the calling party looks like a trunk when the third party answers.

TABLE B (Contd)

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
OFT25	Number intercepts.	Count of calls which end up being routed to an RI that has a call type = 16 machine intercept or call type = 17 (regular intercept) or = 29 (local announcement). See TG-2H, VOL I, DIV 4, SEC 3d, for further details.
OFT26	Trouble intercepts.	Count of calls which are routed to an RI that has a call type = 18 (trouble intercept). This also includes lines† on the plug-up list.
OFT27	Lines found busy — intraoffice.	The number of lines** found in busy condition on an intraoffice call attempt. The counter is pegged only if the last line in a noncentrex series completion, or Centrex Station Hunt string, is busy. For call waiting, the counter is pegged only if the called line is busy and has already been waited upon.
OFT28	Lines found busy — incoming.	The number of lines** found in busy condition on incoming call attempts. The counter is pegged only if the last line in a noncentrex series completion, or Centrex Station Hunt string, is busy. For call waiting, the counter is pegged only if the called line is busy and has already been waited upon.
OFT29	Short timeouts — DP transmitters.	Numbers of short timeouts on DP trunk transmitters — a short timeout occurs if all transmitters are busy and wink start or delay dial has not been received in eight seconds. Transmitters involved in timeouts are reported to maintenance if the trunk is off-hook, or to error analysis if trunk is on-hook.
OFT30	Short timeouts — MF transmitters.	Number of short timeouts on MF trunk transmitters. Transmitters involved in timeouts are reported to maintenance if the trunk is off-hook, or to error analysis if trunk is on-hook.
OFT31	TCR usage measurement.	A 100-second usage measurement on all transient call records in office.
OFT32	OR usage measurement.	A 100-second usage measurement on all originating registers in office.

† = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

** = The word "lines" means noncentrex line, centrex station, coin line, trunk test panel, and manual lines (both centrex and noncentrex). Centrex attendants are not included.

TABLE B (Contd)

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
OFT33	OR overflow count.	Not used at present.
OFT34	STE usage measurement.	A 100-second usage measurement on all stable timing entries in office.
OFT35	STE overflow count.	Stable timing entry selection failures.
OFT36	Coin trouble peg count.	Count of the number of times stuck coin trunks are seized for stuck coin or coin absent conditions.
OFT37	Customer line overflow register 0.	A busy peg count is made on four noncentrex customer lines. If a line is found busy on a call attempt, its appropriate register is scored. This count is allowable on all lines except those with the series completion feature.
OFT38	Customer line overflow register 1.	
OFT39	Customer line overflow register 2.	
OFT40	Customer line overflow register 3.	
OFT41	One-digit speed calls.	Number of times centrex station or noncentrex lines** use the 1-digit speed calling feature.
OFT42	Two-digit speed calls.	Number of times centrex station or noncentrex lines† use the 2-digit speed calling feature.
OFT43	Noncentrex 3-way call attempts.	Number of noncentrex attempts to add on a third party. Count is made after a flash and at least one digit has been received.
OFT44	Noncentrex call forwarding attempts.	Number of times noncentrex special service customers attempt to activate call forwarding.
OFT45	Noncentrex call forwarding overflow.	The number of noncentrex call forwarding attempts which fail because there was no room in call forwarding tables.
OFT46	Noncentrex lines in call forwarded state.	The number of noncentrex lines which are in the call forwarded state at the time of the printout.
OFT47	Noncentrex calls forwarded.	A count of the number of calls forwarded to another line from a noncentrex call forwarded line.
OFT48	Call waiting calls.	The number of calls which waited upon a customer with the call waiting feature.
OFT49	Customer line usage accumulating register.	A 100-second usage measurement on all busy lines** in the office, and on all lines** on the high and dry and plug-up list. This is a 2-register counter. To get total count take OFT50 times 65,536 and add OFT49.

† = The word "lines"means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

** = The word "lines" means noncentrex line, centrex station, coin line, trunk test panel, and manual lines (both centrex and noncentrex). Centrex attendants are not included.

TABLE B (Contd)

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
OFT50	Customer line usage overflow register.	See OFT49.
OFT51	Total number of base level scans.	A peg count of the number of base level scans (updated every 15 minutes by Q11). (EF-1 generic only.)
OFT52	Total length of the nondeferrable portion of all base level scans measured in 25-ms counts.	The accumulative value of all base level scan lengths measured by 25-ms†† intervals during this hour. Does not include deferrable routine (CU detection, audits or other deferrable routines) (updated every 15 minutes by Q12). (EF-1 generic only.)
OFT53	Sum of the maximum length in each quarter hour of the nondeferrable portion of one base level scan, measured in 25-ms counts.	Sum of all quarter-hour maximums since the last printout, measured by 25-ms†† intervals during the nondeferrable portion of the base level scans (see Q12) (updated every 15 minutes by Q13). (EF-1 generic only.)
OFT54	An indication of the amount of time spent in the deferrable portion of the base level scan.	OFT54 represents the time spent in the deferrable portion of the base level scan only if since the last printout. (EF-1 generic only.) (1) The system remained in sync. (2) The audits did not have to run in a priority mode. If any Q14 in this interval is greater than 9999, one or both of the above conditions could not be met. Consequently, OFT54 does not represent the time in the deferrable portion and should be ignored. If all Q14 are less than 9999, then OFT54 divided by 400 (in the case of four quarter-hours) represents the percent of the time the base level maintenance monitor (BLMMA) spent in the deferrable portion of the base level scan. Example: If OFT54 = 26,668, then 40 minutes out of the last 60 minutes were spent in the deferrable portion.
OFT55	Not assigned at this time.	EF-1 generic only.
OFT56	Not assigned at this time.	EF-1 generic only.

†† 25.00 ms in No. 2B ESS, therefore, 9000 maximum counts per hour.
25.02 ms in No. 2 ESS, therefore, 8992.8 maximum counts per hour.

TABLE B (Contd)

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
OFT57	Not assigned at this time.	EF-1 generic only.
OFT58	Not assigned at this time.	EF-1 generic only.
OFT59	Not assigned at this time.	EF-1 generic only.
OFT60	Not assigned at this time.	EF-1 generic only.
OFT61	Number of data blocks recorded on AMA tape.	Multiply by 504 to get average quantity of tape characters written (EF-1 generic only).
OFT62	AIOD receiver peg count.	Peg count of AIOD receiver connections to AIOD data link (EF-1 generic only).
OFT63	Not assigned at this time.	EF-1 generic only.
OFT64	Not assigned at this time.	EF-1 generic only.
OFT65	Not assigned at this time.	EF-1 generic only.
OFT66	Not assigned at this time.	EF-1 generic only.
OFT67	Not assigned at this time.	EF-1 generic only.
OFT68	Not assigned at this time.	EF-1 generic only.
OFT69	Not assigned at this time.	EF-1 generic only.
OFT70	Not assigned at this time.	EF-1 generic only.
BYLINK GROUP MEASUREMENTS		
BYL00	Bylink trunk group peg count register.	Total incoming bylink calls from all groups ***not*** assigned to individual group counters.
BYL01 to BYL15	Bylink trunk group peg counts. Registers 1-15.	Incoming bylink group peg count measurements on 15 individual bylink groups. One or more bylink trunk groups may be assigned to one counter.
PREROUTE AND CLASS OF SERVICE MEASUREMENTS		
PRC00 to PRC31	Preroute peg counts.	One or more 6- or 3-digit codes may be assigned to 1 of 32 preroute traffic registers.
PRC32 to PRC38	Class of service peg counts.	Peg count on up to seven classes of service or line screening classes after 3 digits have been dialed. One or more classes may be assigned to a traffic register. Centrex classes are pegged only if a central office access code (dial 9) or WATS or MER access code is dialed.

TABLE B (Contd)

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
JUNCTOR GROUP MEASUREMENTS		A 100-second usage measurement is provided for all wire and circuit junctor groups in the office. During periods of junctor reassignment, junctor usage measurements are not valid.
JCT—	Network 0 junctor usage.	Wire junctor usage for the group between network 0 and network 0 and circuit junctor usage for the group between network 0 and network 0. Includes maintenance busy junctors.
X, where X=A,B,C, D,E,F,G, H,I,J,K, L,M,N	Network aa junctor usage, where aa = 01 — 14, corresponding to X = A — N, respectively. Within each section the measurements are ordered as follows: Waabb Caabb Waabb Caabb. . . .	Waabb=wire junctor usage for the group between network aa and network bb. Caabb=circuit junctor usage for the group between network aa and network bb. aa varies from 01 (X=A) to 14 (X=N). bb varies from 00 to aa for each value of aa.
CENTREX GROUP MEASUREMENTS (EF-1 GENERIC ONLY)		
CTX01	Centrex customer group number.	The number identifies the centrex group to which counters CTX02 through CTX20 apply. The centrex group numbers will range from 001 through 127.
CTX02	Total originating calls.	This counter provides a peg count of the number of CDPR connections to attendants and centrex stations where at least one digit was dialed. This counter does not include manual lines since no digits are received from them.
CTX03	Centrex user‡‡ dialed centrex station.	This counter provides a peg count of the number of times that any centrex user‡‡ has dialed another centrex station in the same centrex customer group, or in the same centrex intergroup. This counter is also scored if the centrex user‡‡ uses a speed call code which translates to a station in the same centrex customer group, or in the same centrex intergroup.
CTX04	Centrex user‡‡ dialed attendant.	This counter provides a peg count of the number of times that any centrex user‡‡ dials the attendant access code (normally dial 0). This counter is pegged even if night service is in effect.

‡‡ = Centrex user = station, attendant incoming tie trunk, or CCSA trunk.

TABLE B (Contd)

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
CTX05	Centrex user‡‡ dialed CCSA (Common Control Switching Arrangement).	This counter provides a peg count of the number of times a centrex user‡‡ dialed the CCSA (Common Control Switching Arrangement) access code (normally dial 8).
CTX06	Centrex user‡‡ dialed central office access code.	This counter provides a peg count of the number of times a centrex user‡‡ dialed the central office access code (normally dial 9).
CTX07	Call forward — don't answer.	This counter provides a peg count of calls routed to another line or attendant because the originally called line did not answer.
CTX08	Call forward — busy line.	This counter provides a peg count of the calls routed to another line or attendant because the originally called line was busy.
CTX09	Call pickup.	This counter provides a peg count of the number of times that a pickup code is dialed and determined to be allowed. Dial pickup, directed pickup, code call pickup, and trunk answer pickup are all included.
CTX10	Call transfer — attendant attempt.	This counter provides a peg count of the number of call transfer attempts to an attendant by a station with call transfer—attendant service, or by a station with call transfer—individual, or call transfer—individual—all calls, who dials 0. The count is made after the flash or after the flash and dial 0.
CTX11	Call transfer — individual attempt.	This counter provides a peg count of the call transfer attempts by stations with the call transfer—individual or call transfer—individual—all calls service. The count is made when the transferring party completes the transfer by disconnecting, independently of whether ringing or answer has occurred, and independently of whether the consultation hold feature is still being used.
CTX12	Call hold.	This counter provides a peg count of the number of times a call was held using the call hold feature.
CTX13	Attendant positions occupied usage measurement.	This counter provides a 100-second usage count of attendants at their positions with their headsets plugged in.

‡‡ = Centrex user— station, attendant, incoming tie trunk, or CCSA trunk.

TABLE B (Contd)

H AND C SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
CTX14	Attendants busy usage measurement.	This counter provides a 100-second usage count of attendants busy handling calls or with their position busy key operated.
CTX15	Calls waiting queue.	This counter provides a peg count of the number of calls to an attendant attempting to be entered into the calls waiting queue when no attendants are idle.
CTX16	Calls waiting queue overflow.	This counter provides a peg count of the number of calls that could not be entered into the calls waiting queue because it was full.
CTX17	Calls waiting queue usage.	This counter provides a 100-second usage count of the number of calls in the calls waiting queue.
CTX18	Attendant camp-on.	This counter provides a peg count of the number of times an attendant camps on a busy extension. Multiple attempts on the same call result in multiple pegs.
CTX19	Incoming direct inward dial (DID) attempts to stations.	This counter provides a peg count of the number of direct inward dial or calls to station in this centrex group.
CTX20	Incoming attempts to the universal console listed directory numbers (LDN).	This counter provides a peg count of the number of calls to the universal console listed directory numbers. This counter is pegged even if night service is in effect.

TABLE C

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
SERVICE CIRCUIT GROUP MEASUREMENTS		(See Note 1.)
SVC1	Group number.	Only those service circuit groups defined on the H and C schedule are printed.
SVC2	Group peg count.	Peg count is the total number of selection attempts including overflow. (See paragraph 5.01 through 5.04 and Fig. 7B, 8B, and 9B.)
SVC3	Group usage measurements.	A 10-second usage measurement is performed on all service groups. Maintenance busy circuits are not included. (See paragraph 5.01 through 5.04.)
SVC4	Group overflow count.	An overflow count is scored if on the last attempt to select a circuit, all circuits are busy. (See Fig. 7B, 8B, and 9B.)
SVC5	Group maintenance busy count.	The number of circuits in this group that are maintenance busy at the time of the printout.
OUTGOING TRUNK GROUP MEASUREMENTS		(See Note 1.)
TKO1	Group number.	Only those outgoing trunk groups defined on the H and C schedule are printed.
TKO2	Group peg count.	Peg count is the total number of selection attempts including overflow. (See paragraphs 5.01 through 5.04 and Fig. 7B, 8B, and 9B.)
TKO3	Group usage measurement.	A 100-second usage measurement is performed on all outgoing trunk groups. Maintenance busy circuits are not included. (See parapraphs 5.01 through 5.04.)
TKO4	Group overflow count.	An overflow is scored if on the last attempt to select a circuit, all circuits are busy. (Maximum count of 8191). (See Fig. 7B, 8B, and 9B.)
TKO5	Group maintenance busy count.	The number of circuits in this group that are maintenance busy at the time of the printout.
INCOMING TRUNK GROUP MEASUREMENTS		(See Note 1.)
TKI1	Group number.	Only those incoming trunk groups defined on the H and C schedule are printed.
TKI2	Group peg count.	Peg count is the total number of selection attempts including overflow. (See paragraphs 5.01 through 5.04 and Fig. 7B, 8B, and 9B.)
TKI3	Group usage measurement.	A 100-second usage measurement is performed on all incoming trunks groups. (See paragraphs 5.01 through 5.04.)

Note 1: If the office is arranged to work with EADAS, the SVC, TKO, TKI, and TKT sections are replaced with a TRK section. This TRK section is defined in Table N.

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
TWO-WAY TRUNK GROUP MEASUREMENTS		(See Note 1.)
TKT1	Group number.	Only those 2-way trunk groups defined on the H and C schedules are printed.
TKT2	Total group peg count.	Peg count is the total number of selection attempts (incoming and outgoing). (See paragraphs 5.01 through 5.04 and Fig. 7B, 8B, and 9B.)
TKT3	Group usage measurement.	A 100-second usage measurement is performed on all 2-way trunk circuits. Both incoming and outgoing usage is included. Maintenance busy circuits are not included in trunk usage. (See paragraphs 5.01 through 5.04.)
TKT4	Group overflow count.	An overflow count is scored if on the last attempt to select a circuit, all circuits are busy (maximum count of 8191). (See Fig. 7B, 8B, and 9B.)
TKT5	Group maintenance busy count.	The number of circuits in this group that are maintenance busy at the time of the printout. (See Fig. 7B, 8B, and 9B.)
TKT6	Incoming group peg count.	Peg count of total number of incoming selection attempts only. (See paragraphs 5.01 through 5.04.)
SIMULATED (SIM) TRUNK GROUP MEASUREMENTS		
SIM01	Simulated trunk group number.	Simulated trunk groups are used for centrex outgoing WATS, central office access, and for incoming LDN, DID, 3-port, INTER, CFO, CFI, and INWATS traffic. Only those trunk groups defined on the H or C schedules are printed.
SIM02	Group peg count.	These registers provide a peg count of the total number of selection attempts including overflow. Only one attempt is made per call.
SIM03	Group usage measurement.	A 100-second usage measurement is made on all simulated trunk group members. Although 10-second usage is performed on some groups, 100-second usage is printed.
SIM04	Group overflow count.	An overflow count is scored if all members are found busy when the last attempt to select a member number is made. Only one attempt is made per call.

Note 1: If the office is arranged to work with EADAS, the SVC, TKO, TKI and TKT sections are replaced with a TRK section. This TRK section is defined in Table N.

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
SIM05	Number of members.	Number of members assigned in each group.
MULTILINE-HUNT (MLH) GROUP MEASUREMENTS		
MLH01	MLH group number.	Only those MLH groups assigned to the H or C schedules are printed.
MLH02	Group peg count.	Peg count includes originating and terminating traffic.
MLH03	Group usage measurement.	A 100-second usage measurement on members of the group. Includes originating and terminating usage.
MLH04	Group overflow.	Overflow count is terminating overflow.
MLH05	Not used.	Always zero.
FLEXIBLE STATION HUNT (FSH) GROUP MEASUREMENTS		
FSH01	FSH group number.	Only those FSH groups assigned to the H or C schedules are printed.
FSH02	Group peg count.	Peg count includes originating and terminating traffic and overflow.
FSH03	Group usage measurement.	A 100-second usage measurement on members of the group. Includes originating and terminating usage.
FSH04	Group overflow.	Overflow count is terminating overflow.
FSH05	Not used.	Always zero.
OFFICE TOTAL (OFT) MEASUREMENTS		OFT01 through OFT10 and OFT51 through OFT54 are updated every 15 minutes by the Q schedule registers. (See paragraph 1.15.)
OFT01	DP dial tone speed tests performed.	The register pegged is determined by the type of receiver required by the line translation for the last call traced by the dial tone speed test program, not the type of receiver actually used; ie, in an office with 100 percent TOUCH-TONE receivers, a DP line will peg a DP count even though a TOUCH-TONE receiver was used. (See Note 2.)
OFT02	TOUCH-TONE dial tone speed tests performed.	
OFT03	DP dial tone speed tests failures.	A failure is a dial tone speed test that was greater than 3 seconds. (See Note 2.)
OFT04	TOUCH-TONE dial tone speed test failures.	

Note 2: No hardware origination is involved in the DTST; therefore, the number of DTST does not have to be subtracted from the traffic or plant originating counters. The DTST is strictly a software test which runs continuously and cannot be stopped.

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
OFT05	Total line originations.	Line* originations are valid line off-hooks counted before a CDPR is connected—does not include dial tone speed tests, but does include originations due to flash (such as for special services).
OFT06	Total originating calls.	CDPR connections (to lines*) plus at least one digit is dialed. This counter does not include manual lines since no digits are received from them.
OFT07	Total trunk originations.	Incoming† trunk seizures.
OFT08	Incoming call attempts.	An incoming call† is a call that originates from a trunk† and is going to terminate locally to a line.* The count is made after all expected digits have been received.
OFT09	Incoming path overflow.	Overflow is scored if the path hunt fails between incoming trunk† and terminating line* on the final (2nd) try.
OFT10	Incoming calls made stable.	Incoming calls† placed into talking state by the system.
OFT11	Intraoffice call attempts.	An intraoffice is a call which originates from a line* and is going to terminate locally to a line.* The count is made after all expected digits have been received.
OFT12	Intraoffice path overflows.	An overflow is scored if the path hunt fails between the originating line* and the terminating line* on the final (2nd) try.
OFT13	Intraoffice calls made stable.	A stable call is a call that has been placed in a talking state and all transient memory for that call has been cleared. On attendant originated calls, the counter is pegged once each time an off-hook is received after the Signal Source key is depressed.
OFT14	Outgoing call attempts.	An outgoing call is a call that originates from a line* and is going to terminate to a trunk.‡ The count is made after 3- or 6- digit translations, if overlap outpulsing is to be done. If overlap outpulsing is ***not*** done, all expected digits must be received before the count is made.

* = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

† = "Incoming" includes calls from bylink, 1-way and 2-way incoming, FX, CCSA, and tie trunks.

‡ = "Trunk" includes 1-way and 2-way outgoing, tie, FX, and CCSA trunks.

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
OFT15	Outgoing path overflows.	An overflow is scored if the path hunt fails between the originating line* and terminating trunk on the final (2nd) try of the last alternate group.
OFT16	Outgoing calls made stable.	A stable call is a call on which answer has been received and the call placed in a talking state, or a call that the No. 2 ESS translations indicate to be a local free call (charge index = 01), or a call to AIS. All transient memory for that call has been cleared. (See Note 3.)
OFT17	Tandem call attempts.	A tandem call is a call that originates from a trunk and is going to terminate to a trunk.‡ The count may be made after 1-, 2-, 3-, 4-, or 6-digit translations.
OFT18	Tandem path overflows.	An overflow is scored if the path hunt fails between the originating trunk and the terminating trunk on the final (2nd) try of the last alternate group.
OFT19	Tandem calls made stable.	A stable call is a call on which answer has been received and the call placed in a talking state, or a call to AIS. All transient memory for that call has been cleared. (See Note 3.)
OFT20	Reverting call attempts.	A reverting call is a call from one party of a multiparty line to another party on that line. (POTS only.)
OFT21	Partial dial abandons.	Originating line* disconnects with one or more digits dialed.
OFT22	Partial dial timeouts.	Customer digit receiving has timed out with one or more digits received from a line.*
OFT23	Permanent signals.	Customer digit receiving has timed out with no digits received from a line.*
OFT24	False starts.	Originating line* disconnects after connection to CDPR (before timeout) and no digits have been received.

Note 3: A call that completes satisfactorily but does not return answer, such as a free terminating call, will not go "stable" and will not peg, unless one of the above conditions apply.

* = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

‡ = "Trunk" includes 1-way and 2-way outgoing, tie, FX, and CCSA trunks.

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
OFT25	Number intercepts.	Count of calls which end up being routed to an RI that has a call type = 16 (machine intercept) or call type = 17 (regular intercept) or = 29 (local announcement). See TG-2H, VOL I, DIV 4, SEC 3d, for further details.
OFT26	Trouble intercepts.	Count of calls which are routed to an RI that has a call type = 18 (trouble intercept). This also includes lines* on the plug-up list.
OFT27	Lines found busy — intraoffice.	The number of lines§ found in busy condition on an intraoffice call attempt. The counter is pegged only if the last line in a noncentrex series completion, or Centrex Station Hunt string, is busy. For call waiting, the counter is pegged only if the called line is busy and has already been waited upon.
OFT28	Lines found busy — incoming.	The number of lines§ found in busy condition on incoming call attempts. The counter is pegged only if the last line in a noncentrex series completion, or Centrex Station Hunt string, is busy. For call waiting, the counter is pegged only if the called line is busy and has already been waited upon.
OFT29	Short timeouts — DP transmitters.	Number of short timeouts on DP trunks transmitters — a short timeout occurs if all transmitters are busy and wink start or delay dial has not been received in eight seconds. Transmitters involved in timeouts are reported to maintenance if the trunk is off-hook, or to error analysis if the trunk is on-hook.
OFT30	Short timeouts — MF transmitters.	Number of short timeouts on MF trunk transmitters. Transmitters involved in timeouts are reported to maintenance if the trunk is off-hook, or to error analysis if the trunk is on-hook.
OFT31	TCR usage measurement.	A 100-second usage measurement on all transient call records in office.

* = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

§ = The word "lines" means noncentrex line, centrex station, coin line, trunk test panel, and manual lines (both centrex and noncentrex). Centrex attendants are not included.

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
OFT32	OR usage measurement.	A 100-second usage measurement on all originating registers in office.
OFT33	OR overflow count.	Peg on the final failure of a call to get an OR.
OFT34	STE usage measurement.	A 100-second usage measurement on all stable timing entries in office.
OFT35	STE overflow count.	Stable timing entry selection failures.
OFT36	Coin trouble peg count.	Count of the number of times stuck coin trunks are seized for stuck coin or coin absent conditions.
OFT37	Customer line overflow register 0.	A busy peg count is made on four noncentrex customer lines. If a line is found busy on a call attempt, its appropriate register is scored. This count is allowable on all lines except those with the series completion feature.
OFT38	Customer line overflow register 1.	
OFT39	Customer line overflow register 2.	
OFT40	Customer line overflow register 3.	
OFT41	One-digit speed calls.	Number of times centrex station or noncentrex lines§ use the 1-digit speed calling feature.
OFT42	Two-digit speed calls.	Number of times centrex station or noncentrex lines* use the 2-digit speed calling feature.
OFT43	Noncentrex 3-way call attempts.	Number of noncentrex attempts to add on a third party. Count is made after a flash and at least one digit has been received.
OFT44	Noncentrex call forwarding attempts.	Number of times noncentrex special service customers attempt to activate call forwarding.
OFT45	Noncentrex call forwarding overflow.	The number of noncentrex call forwarding attempts which fail because there was no room in call forwarding tables.
OFT46	Noncentrex lines in call forwarded state.	The number of noncentrex lines which are in the call forwarded state at the time of the printout.
OFT47	Noncentrex calls forwarded.	A count of the number of calls forwarded to another line from a noncentrex call forwarded line.

* = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

§ = The word "lines" means noncentrex line, centrex station, coin line, trunk test panel, and manual lines (both centrex and noncentrex). Centrex attendants are not included.

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
OFT48	Call Waiting calls.	The number of calls which waited upon a customer with the call waiting feature.
OFT49	Customer line usage accumulating register.	A 100-second usage measurement on all busy lines§ in the office, and on all lines§ on the high and dry and plug-up list. This is a 2-register counter. To get total count take OFT50 times 65,536 and add OFT49.
OFT50	Customer line usage overflow register.	See OFT49.
OFT51	Total number of base level scans.	A peg count of the number of base level scans (updated every 15 minutes by Q11).
OFT52	Total length of the nondeferrable portion of all base level scans measured in 25-ms counts.	The accumulative value of all base level scan lengths measured by 25-ms¶ intervals during this hour. Does not include deferrable routine (CU detection, audits or other deferrable routines) (updated every 15 minutes by Q12).
OFT53	Sum of the maximum length in each quarter hour of the nondeferrable portion of one base level scan, measured in 25-ms counts.	Sum of all quarter-hour maximums since the last printout, measured by 25-ms¶ intervals during the nondeferrable portion of the base level scans (see Q12) (updated every 15 minutes by Q13).
OFT54	An indication of the amount of time spent in the deferrable portion of the base level scan.	OFT54 represents the time spend in the deferrable portion of the base level scan only if since the last printout: (1) The system remained in sync. (2) The audits did not have to run in a priority mode. If any Q14 in this interval is greater than 9999, one or both of the above conditions could not be met. Consequently, OFT54 does not represent the time in the deferrable portion and should be ignored. If all Q14 are less than 9999, then OFT54 divided by 400 (in the case of four quarter-hours) represents the percent of the time the base level maintenance monitor (BLMMA) spent in the deferrable protion of the base level scan.

§ = The word "lines" means noncentrex line, centrex station, coin line, trunk test panel, and manual lines (both centrex and noncentrex). Centrex attendants are not included.

¶ = 25.00 ms in No. 2B ESS, therefore, 9000 maximum counts per hour.
25.02 ms in No. 2 ESS, therefore, 8992.8 maximum counts per hour.

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
OFT54 (Contd)		Example: If OFT54 = 26,668, then 40 minutes out of the last 60 minutes were spent in the deferrable portion.
OFT55	Incoming first failure to match.	Peg count of the first failures to reserve a talking path between the incoming trunk and the called line.
OFT56	Tandem first failure to match.	Peg count of the first failures to reserve a talking path between the incoming tandem trunk and the initially selected outgoing trunk.
OFT57	Customer line overflow register 0 (Centrex).	A busy peg count is made on four centrex customer lines. If a line is found to be in a busy or talking condition by a second call attempt, its appropriate register is scored. This count is allowable on all lines except those with the series completion feature.
OFT58	Customer line overflow register 1 (Centrex).	
OFT59	Customer line overflow register 2 (Centrex).	
OFT60	Customer line overflow register 3 (Centrex).	
OFT61	Number of data blocks recorded on AMA tape.	Multiply by 504 to get average quantity of tape characters written.
OFT62	AIOD receiver peg count.	Peg count of AIOD receiver connections to AIOD data link.
OFT63	Stable information entry (SIE) peg count.	Count of the number of attempts to get an SIE. Will only be pegged when an SIE is selected or an overflow occurs.
OFT64	SIE usage.	A 100-second usage on the SIE entries.
OFT65	SIE overflow.	SIE selection failures.
OFT66	Total coin call originations.	Number of coin lines which originate and dial one digit. The counter is updated every 15 minutes from an intermediate counter.
OFT67	Required circuit junctor usage accumulating register.	A 100-second usage measurement on circuit junctors which were required to be circuit junctors and are busy. These counters give usage on both sides of a junctor, so actual count should be divided by 2 to obtain circuit junctor usage. Total count = overflow register times 65,536 plus the accumulating register.
OFT68	Required circuit junctor usage overflow register.	
OFT69	Stable timing entry (STE) peg count.	Count of the number of STE selected plus the number of last attempts to get an STE.
OFT70	Not assigned at this time.	

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
OFT71	Call identity index (CII) table peg.	Count of the number of attempts made to select a CII. Both first and second tries are counted.
OFT72	CII table usage.	A 100-second usage measurement on CII entries.
OFT73	CII table overflow.	Count of the number of attempts to select a CII when no CIIs** are available.
OFT74	CII extension peg.	Count of the number of attempts made to select a CII from the CII Extension Table. Both first and second tries are counted.
OFT75	CII extension usage.	A 100-second usage measurement on the CII extension entries.
OFT76	CII extension overflow.	Count of number of attempts to select a CII from the Extension Table when no CIIs in the Extension Table are available.
OFT77	Not assigned at this time.	
OFT78	Not assigned at this time.	
OFT79	Not assigned at this time.	
OFT80	Not assigned at this time.	
BYLINK GROUP MEASUREMENTS		
BYL00	Bylink trunk group peg count register.	Total incoming bylink calls from all groups ***not*** assigned to individual group counters.
BYL01 to BYL15	Bylink trunk goup peg counts. Register 1-15.	Incoming bylink group peg count measurements on 15 individual bylink groups. One or more bylink trunk groups may be assigned to one counter.
PREROUTE AND CLASS OF SERVICE MEASUREMENTS		
PRC00 to PRC31	Preroute peg counts.	One or more 6- or 3-digit codes may be assigned to 1 of 32 preroute traffic registers.
PRC32 to PRC38	Class of service peg counts.	Peg count on up to seven classes of service or line screening classes after 3 digits have been dialed. One or more classes may be assigned to a traffic register. Centrex classes are pegged only if a central office access code (dial 9) or WATS or MER access code is dialed.

** When no CII is available in the CII Table, an attempt will be made in the CII Extension Table. As such, OFT73 means failure to get a half-word CII but not necessarily a CII.

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
JUNCTOR GROUP MEASUREMENTS		A 100-second usage measurement is provided for all wire and circuit junctor groups in the office. During period of junctor reassignment, junctor usage measurements are not valid.
JCT—	Network 0 junctor usage.	Wire junctor usage for the group between network 0 and network 0 and circuit junctor usage for the group between network 0 and network 0. Includes maintenance busy junctors.
X, where X=A,B,C, D,E,F,G, H,I,J,K, L,M,N	Network as junctor usage, where aa = 01 — 14, corresponding to X = A — N, respectively. Within each section the measurements are ordered as follows: Waabb Caabb Waabb Caabb. . . .	Waabb=wire junctor usage for the group between network aa and network bb. Caabb=circuit junctor usage for the group between network aa and network bb. aa varies from 01 (X=A) to 14 (X=N). bb varies from 00 to aa for each value of aa.
CENTREX GROUP MEASUREMENTS		CXA — always prints if counts are made on centrex group. CXB, CXC, and CXD are optional per centrex.
CXA1	Centrex customer group number.	This number identifies the centrex group to which the group of registers apply. The centrex group number will range from 001 through 127.
CXA2	Total originating calls.	This counter provides a peg count of the number of CDPR connections to centrex attendants and stations where at least one digit was dialed. This counter does not include manual lines since no digits are received from them.
CXA3	Centrex user†† dialed centrex station.	This counter provides a peg count of the number of times that any centrex user†† has dialed another centrex station in the same centrex customer group, or in the same centrex intergroup. This counter is also scored if the centrex user†† uses a speed call code which translates to a station in the same centrex customer group or in the same centrex intergroup.
CXA4	Centrex user†† dialed central office access code.	This counter provides a peg count of the number of times a centrex user†† dialed the central office access code (normally dial 9).

†† = Centrex user = station, attendant, incoming tie trunk, or CCSA trunk.

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
CXA5	Incoming direct inward dial (DID) and CCSA attempts to stations.	This counter provides a peg count of the number of direct inward dial or CCSA calls to stations in this centrex group.
CXA6	Incoming DID and CCSA attempts to listed directory numbers (LDN).	This counter provides a peg count of the number of DID and CCSA call to the listed directory numbers. This counter is pegged even if night service is in effect.
CXA7	Centrex user†† dialed attendant.	This counter provides a peg count of the number of times that any centrex user†† dialed the attendant access code (normally dial 0). This counter is pegged even if night service is in effect.
CXA8	Special service register 1.	These are a peg count of the number of times a specified terminal entry is reached. These counts are assignable to any terminal entries.
CXA9	Special service register 2.	
CXA10	Special register 3.	
CXB1	Attendant camp-on.	This counter provides a peg count of the number of times an attendant camps on a busy extension. Multiple attempts on the same call result in multiple pegs.
CXB2	Attendant positions occupied usage measurement.	This counter provides a 100-second usage count of attendants at their positions with their head-sets plugged in.
CXB3	Attendant busy usage measurement.	This counter provides a 100-second usage count of attendants busy handling calls or with their position busy key operated.
CXB4	Calls waiting queue.	This counter provides a peg count of the number of calls to an attendant attempting to be entered into the calls waiting queue when no attendants are idle.
CXB5	Calls waiting queue overflow.	This counter provides a peg count of the number of calls that could not be entered into the calls waiting queue list because it was full.
CXB6	Calls waiting queue usage.	This counter provides a 100-second usage count of the number of calls waiting queue.
CXB7	Call transfer — attendant attempts.	This counter provides a peg count of the number of call transfer attempts to an attendant by a station with call transfer — attendant service, or by a station with call transfer — individual or call transfer — individual — all calls, who dial 0. The count is made after the flash or after the flash and dial 0.

†† = Centrex user = station, attendant, incoming tie trunk, or CCSA trunk.

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
CXB8	Attendant call originations.	This counter provides a peg count of the number of attendant call originations.
CXB9	Attendant to extension calls.	This counter provides a peg count of the number of attendant to station calls.
CXB10	Not assigned at this time.	
CXC1	Call pick-up.	This counter provides a peg count of the number of times that a pickup code is dialed and determined to be allowed. Dial pickup and trunk answer pickup are all included.
CXC2	Call hold.	This counter provides a peg count of the number of times a call was held using the call hold feature.
CXC3	Call forwarding variable activate.	This counter provides a peg count of the number of times that the feature call forwarding variable is activated.
CXC4	Call forwarding variable intragroup.	This counter provides a peg count of the number of times that the feature call forwarding variable was used within the group.
CXC5	Call forward variable outside the group.	This counter provides a peg count of the number of times that a call was forwarded outside of a centrex customer group, or a centrex intergroup.
CXC6	Call forward overflows.	This counter provides a peg count of the number of phones which tried to forward their phones but could not.
CXC7	Call forward — don't answer.	This counter provides a peg count of the number of calls routed to another line or attendant because the originally called line did not answer.
CXC8	Call forward — busy line.	This counter provides a peg count of the number of calls routed to another line or attendant because the originally called line was busy.
CXC9	Call transfer — individual attempts.	This counter provides a peg count of the call transfer — individual or call transfer — individual — all calls service. The count is made when the transferring party completes the transfer by disconnecting independently of whether ringing or answer has occurred and independently of whether the consultation hold feature is still being used.
CXC10	Not assigned at this time.	

TABLE C (Contd)

H AND C SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
CXD1	Centrex user†† dialed CCSA (normally dial 8).	This counter provides a peg count of the number of times that a centrex user†† dialed the CCSA access code.
CXD2	Centrex customer used 6-code speed calling.	This counter provides a peg count of the number of times that a centrex customer used the 1-digit speed calling feature.
CXD3	Centrex customer used 30-code speed calling.	This counter provides a peg count of the number of times that a centrex customer used the 2-digit speed calling feature.
CXD4	Calling waiting — originating.	This counter provides a peg count of the number of times that call waiting originating is used.
CXD5	Call waiting — terminating.	This counter provides a peg count of the number of times that call waiting terminating is used.
CXD6	Centrex user dialed CDAR access code.	This counter provides a peg count of the number of times that a user dialed the CDAR access code.
CXD7	Centrex group total overflow.	Peg count on any unavailable circuit in this centrex group, 3-ports, FX, CCSA trunks, DID, LDN, etc. Updated every 15 minutes from an intermediate counter.
CXD8	Not assigned at this time.	
CXD9	Not assigned at this time.	
CXD10	Not assigned at this time.	
WORKING MEMBER RECORD		The WMR section can be assigned to either the C, H, W, D or PLT schedules.
WMR1	Trunk group number.	
WMR2	Number of defined members.	The number of assigned trunks or service circuits in each group. The number of trunks or service circuits is equal to the number in service plus the number that are maintenance busy.

†† = Centrex user = station, attendant, incoming tie trunk, or CCSA trunk.

D. Daily (D)

1.20 The traffic D schedule is a daily or 24-hour schedule of several divisions of revenue measurements. The measurements are collected continuously and the registers are recycled to zero only when an output of the registers is scheduled by the TWT. The traffic registers of the schedule are listed in Table D (LO-1 and EF-1 generic programs) and Table E (EF-2 and later generic programs). The WMR also may be assigned by the operating company to be printed on the D schedule. (Refer to paragraph 2.37.)

TABLE D

DAILY (D) SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
D01	Toll calls.	Total number of toll call attempts, including centrex dial 9, WATS calls, and registers D02 through D05. (See Note.)
D02	Outgoing toll register 0.	Number of toll call attempts made over specified trunk groups. One or more trunk groups may be assigned to each of four traffic registers. Included in the number are centrex dial 9 and WATS calls. (See Note.)
D03	Outgoing toll register 1.	
D04	Outgoing toll register 2.	
D05	Outgoing toll register 3.	

Note: Toll calls are defined to be those calls where the charge index indicates that the call is to be detail billed on the local AMA. The register is pegged after the sender, trunk and path are selected, but before the outpulsing is done.

TABLE E

DAILY (D) SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
D01	Toll calls. *	Total number of toll call attempts, including centrex dial 9, WATS call and register D02 through D05. (See Note.)
D02	Outgoing toll register 0.	Number of toll call attempts made over specified trunk groups. One or more trunk groups may be assigned to each of four traffic registers. Included in the number are centrex dial 9 and WATS calls. (See Note.)
D03	Outgoing toll register 1.	
D04	Outgoing toll register 2.	
D05	Outgoing toll register 3.	
D06	Total originating calls — accumulating.	These counters provide a count of the total originating calls (CDPR connections to lines plus at least one digit is dialed). The counters do not include manual lines since no digits are received from them. Updated every 15 minutes from an intermediate counter. Total count = overflow register times 65,536 plus the accumulating register.
D07	Total originating calls — overflow.	
D08	Total originating coin calls.	Total originating coin calls (CDPR connected to a coin line plus at least one digit is dialed). Updated every 15 minutes from an intermediate counter.
D09	Not assigned at this time.	
D10	Not assigned at this time.	
WORKING MEMBER RECORD		The WMR section can be assigned to either the C, H, W, D or PLT schedules.
WMR1	Trunk group number.	
WMR2	Number of defined members.	The number of assigned trunks or service circuits in each group. The number of trunks or service circuits is equal to the number in service plus the number that are maintenance busy.

Note: Toll calls are defined to be those calls where the charge index indicates that the call is to be detail billed on the local AMA. The register is pegged after the sender, trunk and path are selected, but before the outpulsing is done.

E. Weekly (W)

1.21 The weekly schedule (W) provides 100-second usage measurements on all B-link groups for each network in the office and provides usage measurements on either 64 preselected customer lines, or a preselected concentrator and its mate in the office. The usage measurements are collected for any number of quarter-hours per day for any number of days per week. This measuring period, which must begin and end on a clock quarter-hour, is the same for each day, and the only limit to the number and length of measurement periods per week is counter capacity. The WKS entry in the TWT starts the usage measurement period and the WKE entry ends the usage measurement period. The measurements are totaled for the week and printed when scheduled by the W entry in the TWT. The traffic registers of the W schedule are listed in Table F (LO-1 and EF-1 generic programs) and Table G (EF-2 and later generic programs). The customer lines, or concentrator, to be measured are specified by the T CC input message (refer to paragraph 2.06) and can be verified by printing the Weekly Usage List (WUL) schedule (T PR:WUL!). The WMR may be assigned by the operating company to be printed on the W schedule. (Refer to paragraph 2.37.)

TABLE F

WEEKLY SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
NETWORK B-LINK MEASUREMENTS		
NWx 00 through NWx 31	Network B-link usage measurements for each network defined in the office. The 32 usage measurements correspond to B-link groups 0 through 31. Variable x corresponds to network number N.	A 100-second usage measurement (including maintenance busy links) is made as specified by the traffic work table for weekly usage measurements.
CUSTOMER LINE MEASUREMENTS		
CLU00 through CLU63	Usage measurements on either of following items as specified by operating company. (1) Each line* terminal on a pair of concentrators (64 terminals). (2) Each of 64 selected lines*† in the office.	The count includes lines that are busy for any reason, such as high and dry, plug up, etc. (1) Operating company specifies network number and concentrator number. The concentrator number is limited to 00 through 31. The usage measurement is made on that concentrator and its mate; ie, CON and CON+32. (2) Operating company specifies 64 or less directory numbers† on which usage measurements are desired.
CLU64	Number of usage counts made on the weekly schedule.	

x = "Blank"	A	B	C	D	E	F	G	H	I	J	K	L	M	N
N = 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

* = The word "lines" means noncentrex line, centrex station, coin line, trunk test panel, and manual lines (both centrex and noncentrex). Centrex attendants are not included.

† = MLH group lines are not allowed. In EF-1, lines with pseudo-NOCs are not allowed.

TABLE G

WEEKLY SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
NETWORK B-LINK MEASUREMENTS		
NWx 00 through NWx 31	Network B-link usage measurements for each network defined in the office. The 32 usage measurements correspond to B-link groups 0 through 31. Variable x corresponds to network number N.	A 100-second usage measurement (including maintenance busy links) is made as specified by the traffic work table for weekly usage measurements.
CUSTOMER LINE MEASUREMENTS		
CLU00 through CLU63	Usage measurements on either of following items as specified by operating company. (1) Each network terminal on a pair of concentrators (64 terminals). (2) Each of 64 selected lines* in the office.	The count includes lines that are busy for any reason, such as high and dry, plug up, etc. (1) Operating company specifies network number and concentrator number. The concentrator number is limited to 00 through 31. The usage measurement is made on that concentrator and its mate; ie, CON and CON+32. (2) Operating company specifies 64 or less directory numbers* on which usage measurements are desired.
CLU64	Number of usage counts made on the weekly schedule.	
WORKING MEMBER RECORD		The WMR section can be assigned to either the C, H, W, D, or PLT schedules.
WMR1	Trunk group number.	
WMR2	Number of defined members.	The number of assigned trunks or service circuits in each group. The number of trunks or service circuits is equal to the number in service plus the number that are maintenance busy.

x = "Blank"	A	B	C	D	E	F	G	H	I	J	K	L	M	N
N = 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

* = All lines with directory numbers, except listed directory numbers for centrex groups, may be assigned.

F. Plant (PLT)

1.22 The plant (PLT) measurement schedule is a daily or 24-hour collection of registers providing information relative to the performance of and the service offered by the switching system. The PLT schedule will be printed by the maintenance TTYs when it is scheduled by the TWT.

1.23 The plant registers of the PLT schedules are listed in Table H (LO-1 and EF-1 generic programs) Table I (EF-2 and later generic programs). The PLT schedule is divided into the following six sections which contain measurements related to a specific maintenance area:

- CUA—Control unit and audit measurements
- PUM—Peripheral unit maintenance measurements
- TDR—Trunk diagnostic measurements
- BSM—Base and service measurements
- RCA—Recent change area measurements.
- AD—Automatic Identified Outward Dialing (AIOD) data link error counters, for EF-1 and later generics. (If an office does not have AIOD, this section will not print).
- WMR—Working Member Record for EF-2 and later generics.

TABLE H

PLANT (PLT) SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
CONTROL UNIT AND AUDIT MEASUREMENTS		
CUA01	Diagnostic ATPs CU 0.	An ATP is an all tests pass condition from a diagnostic program (excludes TTY requested diagnostics).
CUA02	Diagnostic faults CU 0.	
CUA03	Diagnostic ATPs CU 1.	
CUA04	Diagnostic faults CU 1.	
CUA05	Maintenance initiated switches.	Excludes TTY requested noninitializing switches.
CUA06	Initialization sequence count cleared.	The initialization sequence count is cleared approximately 102 seconds (128 seconds in No. 2 ESS if equipped with the semiconductor call store) after an initialization sequence is initiated.
CUA07	Low level initialization.	Count of number of level count 1, 2, and 3 initializations. Some of these initializations may be executed (and counted) in the process of performing higher level initializations.
CUA08	Emergency audit initializations.	Count of number of emergency audit initializations (level count 4, 5). Some of these initializations may be executed (and counted) in the process of performing higher level initializations.
CUA09	Transient initializations.	Count of number of transient initializations. All transient call store records are cleared at this level (level count 6).
CUA10	Recent change initializations.	Count of number of manually requested recent change initializations.
CUA11	Out-of-service usage measurement CU 0.	A 100-second usage measurement of the service state of each control unit. Includes time out of service while performing RC updates or generic program patches.
CUA12	Out-of-service usage measurement CU 1.	
CUA13	TCR audit errors.	All audit measurements are from periodic and manual audits only. These do not include emergency audit results.
CUA14	TMR audit errors.	
CUA15	POB audit errors.	
CUA16	OR and sender list (SL) audit errors.	
CUA17	Line status bit (LSB) audit errors.	
CUA18	Network (NET) audit errors, and network link out-of-service list (OSL) audit error.	

TABLE H (Contd)

PLANT (PLT) SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
CUA19	Other audit errors.	See COMMENT on CUA13. Includes tone status bit (TSB), stable timing entry (STE), call forward (FWD), range extender amplifier status bit (RE), MLH status bit, and AIOD (AD) data link status bit audits.
CUA20	Scatter (SCAT) table entry audit (EF-1 and later generics).	See COMMENT on CUA13. This counter is scored when the scatter table audit finds an error.
CUA21	Simulated trunk group (STG) audit (EF-1 and later generics).	See COMMENT on CUA13. This counter is scored if an error is found when awaiting the group call forwarding bit, or if more group members are in use than are allowed.
CUA22	Attendant call store audits (EF-1 and later generics).	See COMMENT on CUA13. This counter is scored when an error is found in the attendant idle list (AIL), the calls waiting queue audit (AIL), or the attendant call record audit (ACR).
CUA23	Call identity index (CII) audit error.	See COMMENT on CUA13. This counter is scored when the CII audit finds an error.
PERIPHERAL UNIT MAINTENANCE MEASUREMENTS		Peripheral unit measurements do not include results of manually requested tests or periodic exercise tests.
PUM01	Transient errors and bad address errors on SCPDs, local CPD, AMA and AIOD.	A transient error occurs when an external order fails the first time but succeeds on a retry. A bad address occurs when an external order fails the first time ***and*** on all subsequent retries.
PUM02	Transient errors and bad address errors on network controllers (except FCG and power cross).	
PUM03	Transient errors and bad address errors on line scanners.	
PUM04	Transient errors and bad address errors on universal scanners.	
PUM05	Not used.	
PUM06	Diagnostic faults on SCPDs, local CPD, AMA, AIOD, RA, and R&T.	A fault is a true failure found by a diagnostic program as a result of a call processing request (working mode).
PUM07	Diagnostic fault on network controllers.	
PUM08	Diagnostic faults on line scanners.	
PUM09	Diagnostic faults on universal scanners.	

TABLE H (Contd)

PLANT (PLT) SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
PUM10	Not used.	
PUM11	Diagnostic ATPs on SCPDs, local CPD, AMA, AIOD, RA and R&T.	An ATP is an all-tests-pass condition from a diagnostic program as a result of a call processing request (working mode).
PUM12	Diagnostic ATPs on network controllers.	
PUM13	Diagnostic ATPs on line scanners.	
PUM14	Diagnostic ATPs on universal scanners.	
PUM15	Not used.	
PUM16	Continuity test failures.	Total system continuity test failures on all types of calls.
PUM17	FCG failures.	Total false cross and ground failures.
PUM18	Power cross failures.	Total power cross failures.
PUM19	Links removed from service.	Total number of network links (A, B, and C) removed from service for maintenance purposes by error analysis since the last printout.
PUM20	Not assigned at this time.	
TRUNK DIAGNOSTIC MEASUREMENTS		
TDR01	CDPR faults.	Trunk diagnostic results are from call processing requests for maintenance. They do not include periodic maintenance results or manual requests for tests.
TDR02	CDPR ATPs.	
TDR03	CDPR-TT faults.	
TDR04	CDPR-TT ATPs.	
TDR05	Trunk DP reciever faults.	
TDR06	Trunk DP receiver ATPs.	
TDR07	Trunk MF receiver faults.	
TDR08	Trunk MF receiver ATPs.	
TDR09	Trunk DP transmitter faults.*	
TDR10	Trunk DP transmitter ATPs.*	
TDR11	Trunk MF transmitter faults.*	
TDR12	Trunk MF transmitter ATPs.*	
TDR13	3- and 6-port conference circuit faults.	

* Transmitters involved in timeouts are reported to maintenance if the trunk is off-hook, or to error analysis if the trunk is on-hook.

TABLE H (Contd)

PLANT (PLT) SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
TDR14	3- and 6-port conference circuit ATPs.	Trunk diagnostic results are from call processing requests for maintenance. They do not include periodic maintenance results or manual requests for tests.
TDR15	Coin control circuit faults.	
TDR16	Coin control circuit ATPs.	
TDR17	Regular and special ringer circuit faults.	
TDR18	Regular and special ringer circuits ATPs.	
TDR19	All other service circuit faults.	
TDR20	All other service circuit ATPs.	
TDR21	All outgoing and 2-way trunk faults.	
TDR22	All outgoing and 2-way trunk ATPs.	
TDR23	Circuit junctor faults.	
TDR24	Circuit junctor ATPs.	
TDR25	Service circuit periodic test faults.	Periodic tests are normally performed once every 24 hours, as scheduled by the Traffic Work Table. (See TWT input message.)
TDR26	Service circuit periodic test ATPs.	
TDR27	Outgoing trunk periodic test faults (including 2-way trunks).	
TDR28	Outgoing trunk periodic test ATPs.	
TDR29	Circuit junctor periodic test faults.	
TDR30	Circuit junctor periodic test ATPs.	
TDR31	Range extender (RE) amplifier periodic test faults.	
TDR32	RE amplifier periodic test ATPs.	
TDR33	RE amplifier faults.	RE diagnostic results are from call processing requests for maintenance. They do not include periodic maintenance results or manual requests for tests.
TDR34	RE amplifier ATPs.	
TDR35	LIT periodic faults.	Periodic tests are normally performed once every 24 hours, as scheduled by the Traffic Work Table. (See TWT input message.)
TDR36	Line ferrod restore verify periodic faults.	

TABLE H (Contd)

PLANT (PLT) SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
BASE AND SERVICE MEASUREMENTS		
BSM01	Total dial tone speed tests (DTST).	See COMMENT on Q01 and Q02 in Table A.
BSM02	Total DTST failures.	A failure is a dial tone speed test that was greater than three seconds. (See Q03 and Q04.)
BSM03	Total originating calls — accumulating register.	Total originating calls = BSM04 times 65,536 plus BSM03 (CDPR connections to lines† plus at least one digit is dialed). (See Q06.)
BSM04	Originating calls — overflow register.	
BSM05	Total incoming trunk originations — accumulating register.	Total trunk originations = BSM06 times 65,536 plus BSM05 (incoming‡ seizures). (See Q07.)
BSM06	Incoming trunk originations — overflow register.	
BSM07	Total coin line originations.	Coin line originations are line off-hooks, counted before a CDPR is connected — does not include DTST.
BSM08	Total AMA recorded calls.	Completed calls which have received an answer.
BSM09	AMA records lost (per call).	Records lost due to AMA system trouble. (AMA buffer closed for maintenance). Count of the number of AMA calls that become nonbillable. All calls continue to be made without AMA billing.
BSM10	Permanent signals lost by system.	When the PS is completely filled, new PS lines† leave the line status bit marked busy, the line ferrod disconnected and causes the line status bit audit to be temporarily turned off. As the PS list becomes idle the line status bit audit is automatically turned back on. This action allows the new PS lines† to be placed in PS list if still required.
BSM11	Total CDPR-DP seizures.	A seizure is defined as the selection of the circuit and a path to the circuit for use by a call in the system. (See Figures 7A, 8A, and 9A.)
BSM12	Total CDPR-TT seizures.	
BSM13	Total trunk DP and TT receiver seizures.	
BSM14	Total trunk MF receiver seizures.	
BSM15	Total trunk DP transmitter seizures.	

† = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex.)

‡ = "Incoming" includes calls from bylink, 1-way and 2-way incoming, FX, CCSA, and tie trunks.

TABLE H (Contd)

PLANT (PLT) SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
BSM16	Total trunk MF transmitter seizures.	A seizure is defined as the selection of the circuit and a path to the circuit for use by a call in the system. (See Figures 7A, 8A, and 9A.)
BSM17	Total outgoing trunk seizures including 2-way trunks.	
BSM18	Total reorder seizures.	
BSM19	Total regular and special ringing circuit seizures.	
BSM20	Total 3-port conference circuit seizures.	
BSM21	Total coin overtime trunk seizures.	
BSM22	Total circuit junctor seizures.	
BSM23	CDPR (DP+TT) maintenance busy overlfow (MBO). Not used at present.	A maintenance busy overflow count is made when on the last attempt to provide service to a customer, the selection of the specified circuit failed because all circuits in the group were busy, and one or more of the circuits were maintenance busy. (See Fig. 8A and 9A.) If alternate outgoing trunk groups are tried via alternate route indexes, the MBO determination is based on the final trunk group only.
BSM24	Trunk receiver (DP+MF+TT) MBO.	
BSM25	Outgoing trunk MBO.	
BSM26	Transmitter (DP+MF) MBO.	
BSM27	Ringing circuit MBO.	
BMS28	Coin control circuit MBO.	
BMS29	Reorder MBO.	
BSM30	AMA buffer overflow.	Scored each time an entry (of any kind) cannot be put on the tape, due to the AMA buffer being full. Single unit and bulk billed message rate calls are allowed to complete. All other AMA billed calls are turned back.
RECENT CHANGE AREA MEASUREMENTS		
RCA01 through RCAX	The number of entries in the recent change area for the first translation module (16K). RCA2 is the next translation module, etc, until all translation modules are printed.	These values are determined at the time of the printout. Some modules may share a common recent change data area therefore indicating the same number of entries. RCA01 and RCA02 are not used in the EF-1 generic.
AUTOMATIC IDENTIFIED OUTWARD DIALING (AIOD) DATA LINK ERROR COUNTERS (EF-1 Generic Only)		
AD01	AIOD data link number.	Identifies AIOD data link to which counters AD02 through AD07 apply. These error counters are used to keep track of errors that occur on each of

TABLE H (Contd)

PLANT (PLT) SCHEDULE (LO-1 and EF-1)

REGISTER	DESCRIPTION	COMMENT
AD01 (Contd)		the AIODs data links. The maximum value for any counter (AD01 through AD07) is 255. The range of AD01 is 03-62.
AD02	Data link associated error.	The number of errors that can be caused by the data link. For example: the data link can be open or shorted.
AD03	Calls billed to LDN.	Quality of calls billed to the Listed Directory Number for this data link. The error occurs if an AMA billed call is made from a Centrex-CU and no station identification digits are present.
AD04	Shift register error.	The quantity of shift register errors occurring as a result of the ANI sending the AIOD a message that fails the 2-out-of-5 check.
AD05	ANI parity errors.	The quantity of ANI parity errors occurring as a result of the ANI being unable to properly identify the station making the call (that is, the low 4 bits of the station field are ones).
AD06	ANI timeouts.	The quantity of ANI timeouts occurring as a result of the ANI circuit not receiving or responding to a transmit signal from the AIOD in a specified amount of time.
AD07	AIOD translation errors.	The quantity of translation errors that have occurred. These could be a result of an error in No. 2 ESS translations, or could be caused by incorrect messages being received on the data link.
AD08	Number of storing but not idling errors.	This error occurs when the data received from the ANI is stored over data that has not been erased from the AIOD buffer table.

TABLE I

PLANT (PLT) SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
CONTROL UNIT AND AUDIT MEASUREMENTS		
CUA01	Diagnostic ATPs CU 0.	An ATP is an all-tests-pass condition from a diagnostic program (excludes TTY requested diagnostics).
CUA02	Diagnostic faults CU 0.	
CUA03	Diagnostic ATPs CU 1.	
CUA04	Diagnostic faults CU 1.	
CUA05	Maintenance initiated switches.	Excludes TTY requested noninitializing switches.
CUA06	Initialization sequence count cleared.	The initialization sequence count is cleared approximately 102 seconds (128 seconds in No. 2 ESS equipped with semiconductor call store) after an initialization sequence is initiated.
CUA07	Low level intialization.	Count of number of level count 1, 2, and 3 initializations. Some of these initializations may be executed (and counted) in the process of performing higher level initializations.
CUA08	Emergency audit initializations.	Count of number of emergency audit initializations (level count 4, 5). Some of these initializations may be executed (and counted) in the process of performing higher level initializations.
CUA09	Transient initializations.	Count of number of transient initializations. All transient call store records are cleared at this level (level count 6).
CUA10	Recent change initializations.	Count of number of manually requested recent change initializations.
CUA11	Out-of-service usage measurement CU 0.	A 100-second usage measurement of the service state of each control unit. Includes time out of service while performing RC updates or generic program patches.
CUA12	Out-of-service usage measurement CU 1.	
CUA13	TCR audit errors.	All audit measurements are from periodic and manual audits only. These do not include emergency audit results.
CUA14	TMR audit errors.	
CUA15	POB audit errors.	
CUA16	OR and sender list (SL) audit errors.	
CUA17	Line status bit (LSB) audit errors.	

TABLE I (Contd)

PLANT (PLT) SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
CUA18	Network (NET) audit errors, and network link out-of service list (OSL) audit error.	All audit measurements are from periodic and manual audits only. These do not include emergency audit results.
CUA19	All other audit errors.	See COMMENT on CUA13. Includes tone status bit (TSB), stable timing entry (STE), call forward (FWD), range extender amplifier status bit (RE), MLH status bit and AIOD (AD) data link status bit audits.
CUA20	Stable information entry (SIE) audit.	See COMMENT on CUA13. This counter is scored when the SIE audit finds an error.
CUA21	Simulated trunk group (STG) audit.	See COMMENT on CUA13. This counter is scored if an error is found when auditing the group call forwarding bit, or if more group members are in use than are allowed.
CUA22	Attendant call store audits.	See COMMENT on CUA13. This counter is scored when an error is found in the attendant idle list (AIL), the calls waiting queue audit (AIL), or the attendant call record audit (ACR).
CUA23	Call identity index (CII) audit error.	See COMMENT on CUA13. This counter is scored when the CII audit finds an error.
CUA24	Not assigned at this time.	
CUA25	Not assigned at this time.	
CUA26	Not assigned at this time.	
CUA27	Not assigned at this time.	
CUA28	Not assigned at this time.	
CUA29	Not assigned at this time.	
CUA30	Not assigned at this time.	
CUA31	CU automatic removals.	This counter is incremented whenever a CU is marked out of service. Manual removals are not recorded. (No. 2B ESS only.)
CUA32	Main store audit failures.	This counter is incremented each time the main store audit control performs a corrective action. (No. 2B ESS only.)

TABLE I (Contd)

PLANT (PLT) SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
CUA33	Not assigned at this time.	(No. 2B ESS only.)
CUA34	Not assigned at this time.	
CUA35	Not assigned at this time.	
CUA36	Not assigned at this time.	
CUA37	Not assigned at this time.	
CUA38	Not assigned at this time.	
CUA39	Not assigned at this time.	
CUA40	Not assigned at this time.	
PERIPHERIAL UNIT MAINTENANCE MEASUREMENTS		Peripheral unit measurements do not include results of manually requested tests or periodic exercise tests.
PUM01	Transient errors and bad address errors on SCPDs, local CPD, AMA and AIOD.	A transient error occurs when an external order fails the first time but succeeds on a retry. A bad address occurs when an external order fails the first time ***and*** on all subsequent retries.
PUM02	Transient errors and bad address errors on network controllers (except FCG and power cross).	
PUM03	Transient errors and bad address errors on line scanners.	
PUM04	Transient errors and bad address errors on universal scanners.	
PUM05	Not used.	
PUM06	Diagnostic faults on SCPDs, local CPD, AMA, AIOD, RA, and R&T.	A fault is a true failure found by a diagnostic program as a result of a call processing request (working mode).

TABLE I (Contd)

PLANT (PLT) SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
PUM07	Diagnostic fault on network controllers.	A fault is a true failure found by a diagnostic program as a result of a call processing request (working mode).
PUM08	Diagnostic faults on line scanners.	
PUM09	Diagnostic faults on universal scanners.	
PUM10	Not used.	
PUM11	Diagnostic ATPs on SCPDs, local CPD, AMA, AIOD, RA and R&T.	An ATP is an all-tests-pass condition from a diagnostic program as a result of a call processing request (working mode).
PUM12	Diagnostic ATPs on network controllers.	
PUM13	Diagnostic ATPs on line scanners.	
PUM14	Diagnostic ATPs on universal scanners.	
PUM15	Not used.	
PUM16	Continuity test failures.	Total system continuity test failures on all types of calls.
PUM17	FCG failures.	Total false cross and ground failures.
PUM18	Power cross failures.	Total power cross failures.
PUM19	Links removed from service.	Total number of network links (A, B, and C) removed from service for maintenance purposes by error analysis, since the last printout.
PUM20	Not assigned at this time.	
PUM21	TDC automatic removals.	This counter is incremented whenever a TDC is removed from service. Manual removals are not recorded. (No. 2B ESS only.)
PUM22	Tape 0 files opened.	These counters are incremented each time a tape file is opened. (No. 2B ESS only.)
PUM23	Tape 1 files opened.	

TABLE I (Contd)

PLANT (PLT) SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
PUM24	Tape 0 transient errors.	These counters are incremented whenever a tape read or write fails and a retry of the read or write passes. (No. 2B ESS only.)
PUM25	Tape 1 transient errors.	
PUM26	Tape 0 fatal reads.	These counters are incremented whenever a tape cannot be read. A tape is considered unreadable whenever three retries to read a block fail. (No. 2B ESS only.)
PUM27	Tape 1 fatal reads.	
PUM 28	Tape 0 fatal writes.	These counters are incremented whenever a block cannot be written. A tape is considered unwritable whenever a fatal read error occurs, the block is rewritten, and a fatal error recurs. (No. 2B ESS only.)
PUM29	Tape 1 fatal writes.	
PUM30	Not assigned at this time.	(No. 2B ESS only.)
TRUNK DIAGNOSTIC MEASUREMENTS		
TDR01	CPDR faults.	Trunk diagnostic results are from call processing requests for maintenance. They do not include periodic maintenance results or manual requests for tests.
TDR02	CPDR ATPs.	
TDR03	CDPR-TT faults.	
TDR04	CDPR-TT ATPs.	
TDR05	Trunk DP receiver faults.	
TDR06	Trunk DP reciever ATPs.	
TDR07	Trunk MF receiver faults.	
TDR08	Trunk MF receiver ATPs.	
TDR09	Trunk DP transmitter faults.*	
TDR10	Trunk DP transmitter ATPs.*	
TDR11	Trunk MF transmitter faults.*	
TDR12	Trunk MF transmitter ATPs.*	
TDR13	3- and 6-port conference circuit faults.	
TDR14	3-and 6-port conference circuit ATPs.	

* = Transmitters involved in timeouts are reported to maintenance if the trunk is off-hook, or to error analysis if the trunk is on-hook.

TABLE I (Contd)

PLANT (PLT) SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
TDR15	Coin control circuit faults.	Trunk diagnostic results are from call processing requests for maintenance. They do not include periodic maintenance results or manual requests for tests.
TDR16	Coin control circuit ATPs.	
TDR17	Regular and special ringer circuit faults.	
TDR18	Regular and special ringer circuits ATPs.	
TDR19	All other service circuit faults.	
TDR20	All other service circuit ATPs.	
TDR21	All outgoing and 2-way trunk faults.	
TDR22	All outgoing and 2-way trunk ATPs.	
TDR23	Circuit junctor faults.	
TDR24	Circuit junctor ATPs.	
TDR25	Service circuit periodic test faults.	Periodic tests are normally performed once every 24 hours, as scheduled by the Traffic Work Table. (See TWT input message.)
TDR26	Service circuit periodic test ATPs.	
TDR27	Outgoing trunk periodic test faults (including 2-way trunks).	
TDR28	Outgoing trunk periodic test ATPs.	
TDR29	Circuit junctor periodic test faults.	
TDR30	Circuit junctor periodic test ATPs.	
TDR31	Range extender (RE) amplifier periodic test faults.	
TDR32	RE amplifier periodic test ATPs.	

TABLE I (Contd)

PLANT (PLT) SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
TDR33	RE amplifier faults.	RE diagnostic results are from call processing requests for maintenance. They do not include periodic maintenance results or manual requests for tests.
TDR34	RE amplifier ATPs.	
TDR35	LIT periodic faults.	Periodic tests are normally performed once every 24 hours, as scheduled by Traffic Work Table. (See TWT input message.)
TDR36	Line ferrod restore verify periodic faults.	
BASE AND SERVICE MEASUREMENTS		
BSM01	Total dial tone speed tests (DTST).	See COMMENT on Q01 and Q02 in Table A.
BSM02	Total DTST failures.	A failure is a dial tone speed test that was greater than three seconds. (See Q03 and Q04.)
BSM03	Total originating calls — accumulating register.	Total originating calls = BSM04 times 65,536 plus BSM03 (CDPR connections to lines† plus at least one digit is dialed. (See Q06.)
BSM04	Originating calls — overflow register.	
BSM05	Total incoming trunk originations — accumulating register.	Total trunk originations = BSM06 times 65,536 plus BSM05 (incoming‡ seizures). (See Q07.)
BSM06	Incoming trunk originations — overflow register.	
BSM07	Total coin line originations.	Coin line originations are line off-hooks, counted before a CDPR is connected — does not include DTST.
BSM08	Coin overtime trunk seizures.	A seizure is defined as the selection of the circuit and a path to the circuit for use by a call in the system. (See Fig. 7B, 8B, and 9B.)
BSM09	Total AMA recorded calls — accumulating register.	Completed calls which have received an answer. Updated every 15 minutes from an intermediate counter. Total count = overflow register times 65,536 plus the accumulating register. (See Fig. 7B, 8B, and 9B.)
BSM10	Total AMA recorded calls — overflow register.	

† = The word "lines"means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

‡ = Incoming" includes call from bylink, 1-way and 2-way incoming, FX, CCSA, and tie trunks.

TABLE I (Contd)

PLANT (PLT) SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
BSM11	CDPR-DP seizures — accumulating register.	See BSM08. Updated every 15 minutes from an intermediate counter. Total count = overflow register times 65,536 plus the accumulating register. (See Fig. 7B, 8B, and 9B.)
BSM12	CDPR-DP seizures — overflow register.	
BSM13	CDPR-TT seizures — accumulating register.	
BSM14	CDPR-TT seizures — overflow register.	
BSM15	Trunk TT and DP receiver seizures — accumulating register.	
BSM16	Trunk TT and DP receiver seizures — overflow register.	
BSM17	Trunk MF receiver seizures — accumulating register.	
BSM18	Trunk MF receiver seizures — overflow register.	
BSM19	Trunk DP transmitter seizures — accumulating register.	
BSM20	Trunk DP transmitter seizures — overflow register.	
BSM21	Trunk MF transmitter seizures — accumulating register.	
BSM22	Trunk MF transmitter seizures — overflow register.	
BSM23	Outgoing trunk seizures in outgoing or 2-way trunk groups — accumulating register.	
BSM24	Outgoing trunk seizures in outgoing or 2-way trunk groups — overflow register.	

TABLE I (Contd)

PLANT (PLT) SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
BSM25	Ringing circuit seizures (regular and special) — accumulating register.	See BSM08. Updated every 15 minutes from an intermediate counter. Total count = overflow register times 65,536 plus the accumulating register. (See Fig. 7B, 8B, and 9B.)
BSM26	Ringing circuit seizures (regular and special)—overflow register.	
BSM27	Circuit junctor seizures — accumulating register.	
BSM28	Circuit junctor seizures — overflow register.	
BSM29	Permanent signals lost by system.	When the PS list is completely filled, new PS lines† leave the line status bit marked busy, the line ferrod disconnected and causes the line status bit audit to be temporarily turned off. As the PS list becomes idle the line status bit audit is automatically turned back on. This action allows the new PS lines† to be placed in PS list if still required.
BSM30	Reorder seizures.	See BSM08.
BSM31	3-port conference circuit seizures.	
BSM32	CDPR (DP and TT) maintenance busy overflow (MBO).	A maintenance busy overflow count is made when, on the last attempt to provide service to a customer, the selection of the specified circuit failed because all circuits in the group were busy, and one or more of the circuits were maintenance busy. (See Fig. 8B and 9B.) If alternate outgoing trunk groups are tried via alternate route indexes, the MBO determination is based on the final trunk group only.
BSM33	Trunk receiver (DP and MF) MBO.	
BSM34	Outgoing trunk MBO.	
BSM35	Transmitter (DP and MF) MBO.	
BSM36	Ringing circuit MBO.	
BSM37	Coin control circuit MBO.	
BSM38	Reorder circuit MBO.	

† = The word "lines" means noncentrex line, centrex station, centrex attendant, coin line, trunk test panel and manual lines (both centrex and noncentrex).

TABLE I (Contd)

PLANT (PLT) SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
BSM39	AMA buffer overflows.	Scored each time an entry (of any kind) cannot be put on the tape due to the AMA buffer being full. "Directory assistance," single unit and bulk billed message rate calls are allowed to complete. All other AMA billed calls are turned back.
BSM40	AMA records lost due to buffer closed for maintenance.	Records lost due to AMA system trouble. (AMA buffer closed for maintenance.) All calls continue to be made without AMA billing.
RECENT CHANGE AREA MEASUREMENTS		
RCA01 through RCAX	The number of entries in the recent change area for the first translation module (16K). RCA2 is the next translation module, etc, until all translation modules are printed.	These values are determined at the time of the printout. Some modules may share a common recent change data area, therefore, indicating the same number of entries.
AUTOMATIC IDENTIFIED OUTWARD DIALING (AIOD) DATA LINK ERROR COUNTERS		
AD01	AIOD data link number.	Identifies AIOD data link to which counters AD02 through AD07 apply. These error counters are used to keep track of errors that occur on each of the AIODs data links. The maximum value for any counter (AD01 through AD07) is 255. The range of AD01 is 03 through 62.
AD02	Data link associated error.	The number of errors that can be caused by the data link. For example: The data link can be open or shorted.
AD03	Calls billed to LDN.	Quality of calls billed to the Listed Directory Number for this data link. The error occurs if an AMA billed call is from a Centrex-CU and no station identification digits are present.
AD04	Shift register error.	The quantity of shift register errors occurring as a result of the ANI sending the AIOD a message that fails the 2-out-of-5 check.
AD05	ANI parity errors.	The quantity of ANI parity errors occurring as a result of the ANI being unable to properly identify the station making the call (that is, the low 4 bits of the station field are ones).
AD06	ANI timeouts.	The quantity of ANI timeouts occurring as a result of the ANI circuit not receiving or responding to a transmit signal from the AIOD in a specified amount of time.

TABLE I (Contd)

PLANT (PLT) SCHEDULE (EF-2 and Later Generics)

REGISTER	DESCRIPTION	COMMENT
AD07	AIOD translation errors.	The quantity of translation errors that have occurred. These could be a result of an error in No. 2 ESS translations, or could be caused by incorrect messages being received on the data link.
AD08	Number of storing but not idling errors.	This error occurs when the data received from the ANI is stored over data that has not been erased from the AIOD buffer table.
WORKING MEMBER RECORD		The WMR section can be assigned to either the C, H, W, D, or PLT schedules.
WMR1	Trunk group number.	
WMR2	Number of defined members.	The number of assigned trunks or service circuits in each group. The number of trunks or service circuits is equal to the number in service plus the number that is maintenance busy.

TRAFFIC WORK TABLE (TWT)

1.24 The traffic work table is a 36-word block of call store which schedules the printing of traffic and plant measurements and the starting of certain periodic maintenance routines. The TWT contains entries for the seven days of the week, 24 hours of the day and the 4-quarters of the hour. A typical schedule of the TWT is shown in Fig. 1. Each of the 16 rows of the TWT corresponds to a specific function to be performed by the system. The 16 functions are as follows:

(1) TQ—Print traffic Q schedule on traffic TTY

(2) HA—Print traffic H schedule on traffic TTY

(3) HB—Print traffic H schedule on traffic TTY

(4) HC—Print traffic H schedule on traffic TTY

(5) C—Print C schedule on traffic TTY

(6) MQ—Print traffic Q schedule on maintenance TTY

(7) D—Print traffic D schedule on traffic TTY

(8) W—Print traffic W schedule on traffic TTY

(9) PLT—Print plant measurements on maintenance TTY

(10) ATT—Start automatic trunk tests

(11) AST—Start automatic service circuit tests

(12) AJT—Start automatic circuit junctor and range extender tests

(13) AML—Place end-of-day label on AMA recorders

(14) LIT—Start automatic line insulation tests

(15) WKE—End weekly usage measurements

(16) WKS—Start weekly usage measurements.

1.25 By proper entry into the TWT, every schedule, except for the Q schedule, can be controlled to contain data collected over 15 minutes, 1/2 hour, any number of hours, any number of days, or for a full week. The Q schedule will always contain data collected during the 15-minute period ending with the last clock quarter-hour.

1.26 If more than one printout is scheduled to occur at the same clock time, they are performed in the sequence shown in paragraph 1.24 or Fig. 1. Only one printout (Items 1 through 9) can occur at a time, so the other printouts are delayed. Nonprintout items (Items 10 through 16) occur when scheduled.

1.27 Since a given printout can be delayed at the beginning or end hour due to the above, it could contain more or less than an hours' worth of data. For this reason, it is recommended that no two printouts be scheduled on the same clock quarter-hour (except for TQ and MQ).

1.28 There are two copies of the TWT in the system, one in call store and one in program store. The TRAFIC program uses the call store copy for all analyses, changes, and printouts. The call store copy of the TWT is cleared on a TRANSIENT initialization and is automatically restored by the program store copy which is kept for this purpose.

1.29 The call store copy of the TWT can be changed or modified without affecting the program store copy (see Fig. 2 and paragraph 2.03). This flexibility is provided so that the schedules can be changed for a short period of time. For example: It might be desirable to change the printout time of the schedules due to a holiday and then restore the call store copy to its original state by the program store copy. The call store copy can be restored by the following input message.

T WT:RST!

1.30 The program store copy can be updated from the call store copy by TTY input request T WT:UPD!. Any changes to the program store copy are entered into the recent change area but since the TWT program store copy is not recent change hunted, the changes to the program store copy do not become effective until the program store has been updated (Fig. 2).

1.31 An explanation of the scheduling of a typical function in the TWT follows. Using Fig. 1 as an example the printouts scheduled by the C schedule will contain measurements collected over periods of three different lengths. The first printout on Monday at 8:45 a.m. contains the measurements collected since the last printout on Friday at 2:45 p.m. This is the longest collection period. The printouts which occur at 2:45 p.m. Monday through Friday will contain the measurements collected since 8:45 a.m. each day. The printouts which occur at 8:45 a.m. Tuesday through Friday contain the measurements collected since 2:45 p.m. the previous day.

SYSTEM INITIALIZATION

1.32 Three different types of system initialization will affect the traffic and/or the plant measurements.

(a) Manually requested STABLE initialization: Most traffic and plant registers are declared STABLE in call store memory. (Refer to Table J.) This means that these registers can only be cleared by a manually requested STABLE initialization. Refer to Section 232-313-301 for No. 2B ESS or Section 232-113-301 for No. 2 ESS. Whenever a STABLE initialization occurs and clears all traffic and plant registers, a clear (CLR) message is printed on the traffic and maintenance TTYs to indicate that the action has taken place. The output message format follows.

tt TI PR CLR aaa bbb ccc day (time of day)

END PR TRF day (time of day)

Refer to the output message in Part 4 for an explanation of the variable fields.

(b) Automatically or manually induced TRANSIENT initialization: Some traffic counters are transient in call store memory. (Refer to Table J). Whenever this initialization occurs, the load service measurements (LSM) schedule is printed on the traffic and maintenance TTYs. The LSM schedule contains the same measurements as the Q schedule except that the measurements contain data collected from the last clock quarter-hour to the time of the printout. At the time of the LSM schedule printout the call store copy of the TWT is being restored by using the program store copy.

TRAFFIC WORK TABLE
NO. 2 ESS

ESS UNIT _____ DATE _____

BINARY TO OCTAL WORK SHEET

SCHEDULE			DAYS							A M HOURS												P M HOURS												QTR HOURS			
OCTAL DATA WORD			d	a			y			a			m			h			r			p			m			h			r			q	h		
DAY/HOURS			SAT	FRI	THU	WED	TUES	MON	SUN	11:00	10:00	9:00	8:00	7:00	6:00	5:00	4:00	3:00	2:00	1:00	MID-NIGHT	11:00	10:00	9:00	8:00	7:00	6:00	5:00	4:00	3:00	2:00	1:00	NOON	45	30	15	0
POSITION WEIGHT			1	4	2	1	4	2	1	4	2	1	4	2	1	4	2	1	4	2	1	4	2	1	4	2	1	4	2	1	4	2	1	1	4	2	1
ROUTINE	PRINT	TQ		/	/	/	/	/		/	/	/																			/	/	/	/	/	/	/	/
			0	7			6			7			0			0			0			0			0			0			7			1	7		
		HA		/	/	/	/	/		/	/																										/
			0	7			6			3			0			0			0			0			0			0			0			0	1		
		HB		/	/	/	/	/		/																							/			/		
			0	7			6			4			0			0			0			0			0			0			1			0	2		
		HC		1	/	/	/	/																								/	/			/		
			0	7			6			0			0			0			0			0			0			0			6			0	4		
		C		/	/	/	/	/					/																		/				1		
			0	7			6			0			4			0			0			0			0			0			4			1	0		
		MQ		/	/	/	/	/		/	/	/																			/	/	/	/	1	/	/	/
			0	7			6			7			0			0			0			0			0			0			7			1	7		
		D		1	/	/	/	/	1												1															/		
			0	7			7			0			0			0			1			0			0			0			0			0	2		
		W		1																																	1
			0	4			0			0			0			0			0			0			0			2			0			0	1		
		PLT	1	1	/	/	/	/	1												1															1		
			1	7			7			0			0			0			1			0			0			0			0			0	4		
	START	ATT	1	1	/	/	/	/	1										1																		1
			1	7			7			0			0			0			2			0			0			0			0			0	1		
		AST	1	1	/	/	/	/	1										1																		1
			1	7			7			0			0			0			4			0			0			0			0			0	1		
		AJT	1	1	/	/	/	/	1									1																			1
			1	7			7			0			0			1			0			0			0			0			0			0	1		
		AML	1	1	/	/	/	/	1									1																			1
			1	7			7			0			0			1			0			0			0			0			0			0	1		
		LIT	1	1	/	/	/	/	1										1																		1
			1	7			7			0			0			0			2			0			0			0			0			0	1		
		WKE		1	/	/	/	/			1																						/					1
			0	7			6			2			0			0			0			0			0			0			5			0	1		
		WKS		1	/	/	/	/		1		1																				/					1
			0	7			6			5			0			0			0			0			0			0			2			0	1		

INPUT: T WT:cod:day amhr pmhr qh!
TO VERIFY: T PR:TWT!

Fig. 1—Typical Traffic Work Table

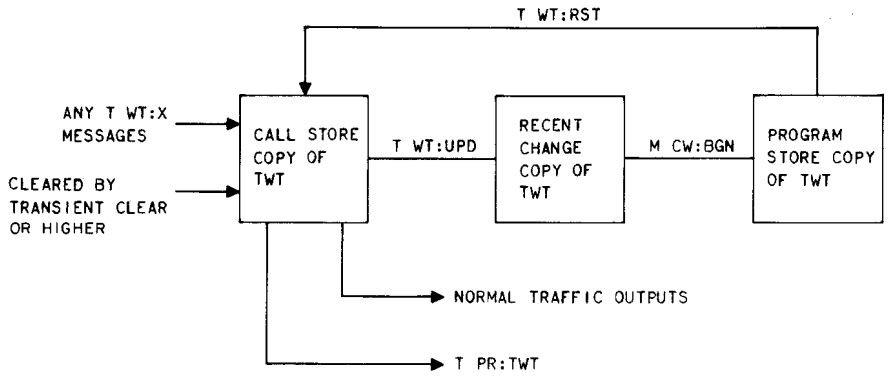

Fig. 2—Traffic Work Table (TWT) Information Flowchart

(c) RECENT change initialization: The recent change area (RCA) measurements of the plant (PLT) schedule and the WUL can only be cleared by a manually requested RECENT change initialization. (Refer to Table J.) Whenever a RECENT change initialization is requested, a TRANSIENT initialization is also performed.

TABLE J

STATUS OF TRAFFIC CALL STORE AREAS AFTER INITIALIZATION

Traffic counters are cleared on initializations as indicated below:

SCHEDULE	SECTIONS	LEVEL
H, C	TRK, MLH, CTX, SIM, JCT	Transient and Higher
H, C	OFT, BYL, PRC	Stable
Q, LSM	All	Stable
D, W	All	Stable
PLT	All except RCA	Stable
PLT	RCA	Recent Change

Traffic program control blocks are cleared as follows:

Call Store Copy of Traffic Work Table (TWT)	Transient and Higher
Printout Control	Transient and Higher
Time and Date	Stable
Weekly Usage List (WUL)	Recent Change — until updated.

2. SCHEDULING OF MEASUREMENTS, PRINTOUTS, AND REGISTER ASSIGNMENT

2.01 Recent change TTY input messages are used to change the scheduling of measurements and printouts and to change the assignment of a limited number of traffic registers. These changes can be made via the maintenance or traffic TTYs. This part specifies the formats of the input messages and the steps required to enter recent changes (see IM-2H200 and OM-2H200 for more detail).

2.02 The system will respond to the TTY input messages with one of the following output messages.

- OK—The message was OK and has been accepted by the system.
- NG—The message was not accepted (No Good). Example—may not be a proper TWT function.
- RL—The message should be repeated later.

TRAFFIC WORK TABLE CHANGES

2.03 The changes made to the call store copy of the TWT become effective immediately. Changes are made to the TWT by the following message:

T WT:cod:day amhr pmhr qh!

cod = One of the 16 TWT function codes which follow.

cod = TQ—Print traffic Q schedule on the traffic TTY

cod = HA—Print traffic H schedule on the traffic TTY

= HB—Print traffic H schedule on the traffic TTY

= HC—Print traffic H schedule on the traffic TTY

= C—Print traffic C schedule on the traffic TTY

= MQ—Print traffic Q schedule on the maintenance TTY

= D—Print traffic D schedule on the traffic TTY

= W—Print traffic W schedule on the traffic TTY

= PLT—Print plant measurements on the maintenance TTY

= ATT—Start automatic trunk tests

= AST—Start automatic service circuit tests

= AJT—Start automatic circuit junctor and range extender tests

= AML—Place end-of-day label on AMA recorders

= LIT—Start automatic line insulation tests

= WKE—End Weekly usage measurements

= WKS—Start weekly usage measurements.

day = Octal data word specifying the days of the week. Bit numbers are set = 1 for the day or days of the week when the function is performed or set = 0 when they are not performed. (Convert binary bit numbers to octal data word.)

Example = Monday through Friday—Scheduled— Set = 1

= Saturday through Sunday—Not Scheduled—Set = 0

amhr = Octal data word specifying the a.m. hours midnight through 11. Bit numbers are set = 1 for the a.m. hour or hours of the day when the function is performed. (Convert binary bit numbers to octal data word.)

Example = 9:00—10:00 a.m.—Set = 1 for each hour.
Printout at 9:00 will contain data accumulated since the last print request and will zero registers.
Printout at 10:00 a.m. will be collected from 9:00 to 10:00 a.m. (1 hour of data.)
(Refer to Fig. 4.)

pmhr = Octal data word specifying the p.m. hours noon through 11. Bit numbers are set = 1 for p.m. hour or hours of the day when the function is performed. (Convert binary bit numbers to octal data word.)

Example = 3:00—4:00 p.m.—Set = 1 for each hour.

Printout at 3:00 p.m. will contain data accumulated since the last print request and will zero registers.
Printout at 4:00 p.m. will be data collected from 3:00 to 4:00 p.m. (1 hour of data).
(Refer to Fig. 5.)

gh = Octal word specifying the clock quarter-hour the function is performed. Bit numbers are set = 1 for each quarter-hour when the function is performed. (Convert binary bit numbers to octal data word.)

Example = 30 minutes—Set = 1.

Printout for specified schedule will occur at 30 minutes after each hour the study is scheduled. (Refer to Fig. 6.)

2.04 Example TWT change: To schedule the printout of the H schedule to occur Monday through Friday per the above example, the variables must be:

day = 076

amhr = 3000

pmhr = 0030

qh = 04

and the type in would be:

T WT:H:076 3000 0030 04!

2.05 The program store copy of the TWT may be updated from the call store copy by the following procedure.

Type in:

T WT:UPD!

This message will place all changes to the program store copy into the recent change area. The changes to the program store do not become effective until the program store has been updated (refer to Section 232-304-301 for No. 2B ESS or Section 232-004-301 for No. 2 ESS for information on updating the program store memory). There are two responses to the T WT:UPD! message. TR WRT UPD CMP indicates the changes have been successfully entered into the recent change area and TR WT UPD FAL indicates that the recent change area is full and cannot handle the changes at this time (Fig. 2).

WEEKLY USAGE LIST CHANGES

2.06 The W schedule prints usage on either 64 randomly preselected customer lines, or a preselected concentrator and its mate. The lines or concentrators to be measured are specified on the WUL schedule, which can be changed by the messages shown in (a) and (b). Changes should not be made to the weekly usage list during the time that the weekly usage measurements are being collected. The following message enters desired changes directly into the recent change area. The changes become effective immediately. The changes can be verified by requesting a printout of the list by the message T PR:WUL!

(a) Measurement on Concentrators: The following message is used to assign a pair of concentrators to the weekly usage measurement list.

T CC:CON:nn cc!

CC = Traffic count change.

CON = Concentrator line usage.

nn = A 2-digit decimal network number (0 through 14) on which the concentrators appear.

cc = A 2-digit concentrator number (00 through 31). The measurements are collected on concentrators cc and cc + 32.

DAYS							
OCTAL DATA WORD	d	a			y		
DAY	SAT	FRI	THU	WED	TUE	MON	SUN
POSITION WEIGHT	1	4	2	1	4	2	1
BINARY BITS	0	1	1	1	1	1	0
OCTAL NUMBER	0	7			6		

Fig. 3—Binary-to-Octal Conversion (Day)

	AM HOURS											
OCTAL DATA WORD	a			m			h			r		
HOURS	11:00	10:00	9:00	8:00	7:00	6:00	5:00	4:00	3:00	2:00	1:00	MIDNIGHT
POSITION WEIGHT	4	2	1	4	2	1	4	2	1	4	2	1
BINARY BITS	0	1	1	0	0	0	0	0	0	0	0	0
OCTAL NUMBER	3			0			0			0		

Fig. 4—Binary-to-Octal Conversion (a m h r)

PM HOURS												
OCTAL DATA WORD	p			m			h			r		
HOURS	11:00	10:00	9:00	8:00	7:00	6:00	5:00	4:00	3:00	2:00	1:00	NOON
POSITION WEIGHT	4	2	1	4	2	1	4	2	1	4	2	1
BINARY BITS	0	0	0	0	0	0	0	1	1	0	0	0
OCTAL NUMBER	0			0			3			0		

Fig. 5—Binary-to-Octal Conversion (p m h r)

QUARTER HOURS				
OCTAL DATA WORD	q	h		
MINUTES	45	30	15	0
POSITION WEIGHT	1	4	2	1
BINARY BITS	0	1	0	0
OCTAL NUMBER	0	4		

Fig. 6—Binary-to-Octal Conversion (qh)

The usage measurements will be collected on all 64 network terminals (line terminals only in LO-1 and EF-1; line, centrex attendant loop, service circuit, and trunk terminals in EF-2 and later generics) of concentrators cc and cc + 32 of network nn.

Note: The word ***"line"*** as used in the previous sentence means noncentrex line, centrex station, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

(b) Measurement on Selected Lines: The following message is used to assign a customer line to the weekly usage measurement list.

T CC:CLU:rn nnx abcd!

CC = Count change

CLU = Customer line usage

rn = A 2-digit decimal register number (00-63) to which the line is to be assigned

nnx abcd = Telephone number of the line to be measured.

Note: Usage measurements on individual customer lines are not collected until register 00 has been assigned to a line. MLH group lines, LDNs for centrex groups, and lines with pseudo-NOCs are not allowed in LO-1 and EF-1 generic programs. All lines with directory numbers, except listed directory numbers for centrex groups may be assigned to the W schedule in the EF-2 generic programs.

H OR C SCHEDULE ASSIGNMENTS

2.07 Four measurement sections, office totals (OFT), junctor group (JCT), bylink group (BYL), and preroute and line screening class (PRC) may be assigned to either the H or C schedule but ***not*** both. The following message is used to specify which sections of traffic data are to be printed on the H or C schedule. The changes become effective immediately.

T WO:HCS:ab!

WO = Work table option

HCS = H or C schedule assignment

ab = Octal data word specifying the schedule each section is to appear on. Bit numbers are set equal to 0 for the H schedule and set equal to 1 for the C schedule. (Convert binary bit numbers to octal data word.)

2.08 Example of H or C Schedule Assignment: To assign PRC and OFT sections to the H schedule and BYL and JCT sections to the C schedule, the four bits corresponding to these sections must be set to 0, 1, 1, 0. To do this the variables are:

BIT NUMBER	3	2	1	0
TRAFFIC SECTION	PRC	BYL	JCT	OFT
OCTAL DATA WORD	a		b	
POSITION WEIGHT	1	4	2	1
BINARY BITS*	0	1	1	0
OCTAL VALUE	0		6	

a = 0
b = 6

* 1 = C Schedule
0 = H Schedule

T WO:HCS:06!

SWITCH AMA RECORDERS

2.09 This change is effective immediately. The AML entry in the TWT (see paragraph 2.03) specifies the time of day at which end-of-day labels will be placed on both AMA recorders. The AMA recorders will also be switched at that time if the corresponding day is specified by the following message:

T WO:AMS:day!

WO = Traffic work option

AMS = Switch AMA recorders when end-of-day label is entered

day = Octal data word specifying the days of the week. Bit numbers are set equal to 1 for the day or days of the week on which the item is to be done and set equal to 0 otherwise. (Convert binary bit numbers to octal data word.)

2.10 Example: To switch AMA recorders every day when the end-of-day labels are placed on the recorders (as scheduled in the typical TWT in Fig. 1) each bit must be set to 1. The variables are:

DAYS							
OCTAL	d	a			y		
DAY	SAT	FRI	THU	WED	TUE	MON	SUN
POSITION WEIGHT	1	4	2	1	4	2	1
BINARY BITS	1	1	1	1	1	1	1
OCTAL NUMBER	1	7			7		

d = 1
a = 7
y = 7

T WO:AMS:177!

LINE SCREENING CLASS CODE

2.11 Line screening class code changes or additions do not become effective until the program store has been updated. Any number of line screening class codes may be assigned to one of seven traffic registers of the H or C schedule by the input message:

A TC:LSC:aaa b!

aaa = A 3-digit decimal number (000 through 255) which specifies the line screening class number. This number can be obtained from the Line Class Code Record, form ESS 2306-R.

b = Traffic register number 1 to 7

= Blank or 0 to remove LSC from counter.

2.12 The assignment of a line screening class code to a traffic register may be verified by the input message:

A TV:LSC:aaa!

aaa = A 3-digit decimal number that specifies the line screening class number (000 through 255).

The desired system response to this message is a printout containing the line screening class code and the assigned register.

PREROUTE TRANSLATION CODE

2.13 This change or addition becomes effective immediately for No. 2B ESS and when enabled by the recent change hunt message (A RC:RCH:1!) for No. 2 ESS. One or more 3- or 6-digit translation codes may be assigned to 1 of 32 traffic registers of the H or C schedule by the input message following.

A TC:PRC:aaa bbb cc!

(a) To assign a 3-digit code

aaa = A 3-digit office code (110 through 119) or (200 through 999).

bbb = 0

cc = Traffic register number 00 to 31

= Blank to remove counter.

(b) To assign a 6-digit code

aaa = a 3-digit area code (110 through 119) or (200 through 999) of 6-digit code

bbb = A 3-digit office code (110 through 119) or (200 through 999) of 6-digit code.

cc = Traffic register number 00 to 31

= Blank to remove counter.

2.14 The assignment of a 3- or 6-digit code to a traffic register may be verified by the input message:

A TV:PRC:aaa bbb!

aaa = A 3-digit decimal number (110 through 119) or (200 through 999) that specifies the office code (nnx) on a 3-digit translation code or the area code (npa) on a 6-digit translation code.

bbb = A 3-digit decimal number (110 through 119) or (200 through 999) that specifies the office code (nnx) on a 6-digit translation code

= 0 if 3-digit translation code measurements are desired.

The desired system response to this message is a printout containing the 3- or 6-digit preroute class code and the assigned register.

CUSTOMER LINE OVERFLOW

2.15 Four traffic registers of the H or C schedule are available to count the number of times a given noncentrex line is found to be in a busy or talking condition by another call attempt. This measurement may be assigned to any noncentrex line, except those which have the series completion feature. The assignment of a customer line to an overflow register becomes effective immediately. The following message is used to assign a line to a customer line overflow register.

Conventional	Unique
A RC:L/	A RC:L/
ORD oooo/	ORD oooo/
TYP CHG/	TYP CHG/
OE nn gcsl/	TEN nn gcsl/
TN nnx abcd/	TN nnx abcd/
PTY pl	PTY pl
CLO c/	CLO c/
END!	END!

Each data line includes the parameter name (upper case letters) followed by one or more variable fields (lower case letters) as follows:

ORD oooo = The TELCo assigned order number (0000 through 9999)
TYP CHG = Indicates change or addition
TEN nn gcsl = The terminal equipment number
OE nn gcsl = The originating equipment number
TN nnx abcd = The customer telephone number
PTY p = Optional, omit if not a party line. If a party line, p = 1 if ring party or p = 2 if tip party.
CLO c = The assigned customer line overflow counter (0 through 3). To remove counter from line leave variable field c blank.

2.16 The change or addition can be verified by the following message:

A TV:CLO:x!

a = A one digit field to indicate the CLO entry number. The range is 0 through 7.

The desired system response to this message is a printout containing the customer telephone number and the number of the assigned customer line overflow register.

ASSIGNMENT OF SERVICE CIRCUIT GROUPS TO H OR C SCHEDULE

2.17 The change or addition of a service circuit group to a traffic H or C schedule becomes effective immediately. Any service circuit group may be assigned to either the H or C schedule or neither schedule. The assignment is made by the following message:

A TC:SVC:aaa 1 b! (LO-1 and EF-1 generics)
or
A TC:SVC:aaa b! (EF-2 and later generics)

aaa = The assigned number (001 through 255 in LO-1, and 001 through 511 in EF-1 and later generics)

b = 0 for the H schedule

= 1 for the C schedule

= Blank to remove from either schedule.

2.18 The assignment of a service circuit group to the H or C schedule can be verified by the following message.

A TV:SVC:aaa!

aaa = The assigned group number.

The desired system response to this message is a printout containing the assigned service circuit group number followed by 0 or 1 depending on which schedule it is assigned to.

ASSIGNMENT OF SIMULATED TRUNK GROUPS TO H OR C SCHEDULE (EF-1 and Later Generics)

2.19 Simulated (SIM) trunk groups are applicable only to offices with the EF-1 and later generic programs. The change or addition of a SIM trunk group to the H or C schedule becomes effective immediately. Any SIM trunk group may be assigned to either the H or C schedule or neither schedule. The assignment is made by the following input message:

A TC:SIM:aaa 1 b! (LO-1 and EF-1 generics)
or
A TC:SIM:aaa b! (EF-2 and later generics)

aaa = simulated trunk group number (001 through 127 in LO-1 and EF-1 generics and 001 through 1023 in EF-2 and later generics)

b = 0 for the H schedule

= 1 for the C schedule

= Blank to remove from either schedule

2.20 The simulation of a SIM trunk group to the H or C schedule can be verified by the following message:

A TV:SIM:aaa!

aaa = The simulated trunk group number.

The desired system response to this message is a printout containing the simulated trunk group number followed by 0 or 1 depending on which schedule it is assigned to.

ASSIGNMENT OF MLH GROUPS TO H OR C SCHEDULE

2.21 The change or addition of a MLH group to the H or C schedule becomes effective immediately. Any MLH group may be assigned to either the H or C schedule or neither schedule. The assignment is made by the following input message:

A TC:MLH:aaa 1 b! (LO-1 and EF-1 generics)
or
A TC:MLH:aaa b! (EF-2 and later generics)

aaa = The MLH group number 001 through 255

b = 0 for the H schedule

= 1 for the C schedule

= Blank to remove from either schedule.

2.22 The assignment of an MLH group to the H or C schedule can be verified by the following message:

A TV:MLH:aaa!

aaa = The MLH group number.

The desired system response to this message is a printout containing the MLH group number followed by 0 or 1 depending on which schedule it is assigned to.

ASSIGNMENT OF FSH GROUPS TO H OR C SCHEDULE (EF-2 and Later Generics)

2.23 The change or addition of a FSH group to the H or C schedule becomes effective immediately. Any FSH group may be assigned to either the H or C schedule or neither schedule. The assignment is made by the following input message:

A TC:FSH:aaa b!

aaa = The FSH group number 001 through 255

b = 0 for the H schedule

= 1 for the C schedule

= Blank to remove from either schedule.

2.24 The assignment of a FSH group to the H or C schedule can be verified by the following message:

A TV:FSH:aaa!

aaa = The FSH group number.

The desired system response to this message is a printout containing the FSH group number followed by 0 or 1 depending on which schedule it is assigned to.

ASSIGNMENT OF TRUNK GROUPS TO THE H OR C SCHEDULE

2.25 The change or addition of an incoming, outgoing, or 2-way trunk group to the H or C schedule becomes effective immediately. Any incoming, outgoing, or 2-way trunk may be assigned to either the H or C schedule or neither schedule. The assignment is made by the following message:

A TC:TRK:aaa b c!

aaa = The trunk group number (065 through 255 in LO-1 or 065 through 511 in EF-1 or 70 through whatever the maximum defined trunk group number is for this office in the EF-2 and later generic programs.

b = 1 - Assign or remove an incoming, outgoing, or 2-way trunk group on traffic H or C schedule.

c = 0 for the H schedule

= 1 for the C schedule

= Blank to remove from either schedule.

2.26 The assignment of a trunk group to the H or C schedule may be verified by the following message:

A TV:TRK:aaa!

aaa = The trunk group number.

The desired system response to this message is a printout containing the trunk group number followed by 0 or 1 depending on which schedule the group is assigned to.

BYLINK TRUNK GROUPS

2.27 The change or addition of a bylink trunk group to a traffic register becomes effective immediately. All bylink trunk groups that are not individually assigned to registers are counted in register 0 (BYL counter 00). Fifteen individual bylink groups can be assigned to registers 1 through 15 (BYL counters 01 through 15). The assignment of a bylink trunk group to a traffic register is made by the following message:

A TC:TRK:aaa b cc!

aaa = Bylink trunk group number (065 through 255 in LO-1, or 065 through 511 in EF-1 and later generics)

b = 2 - Assign or remove a peg counter on an incoming bylink trunk group.

cc = Traffic register number 01 through 15

= 0 or blank to remove trunk group from counter.

2.28 The assignment of a bylink trunk group to a traffic register can be verified by the following message:

A TV:TRK:aaa!

The desired system response to this message is a printout containing the bylink trunk group number and the number of the assigned traffic register.

OUTGOING TOLL CALLS OVER SPECIFIED TRUNK GROUPS

2.29 The change or addition of a traffic toll register to an outgoing or 2-way trunk group becomes effective immediately. On the D schedule, four traffic registers are provided for counting the number of toll calls made over specified outgoing or 2-way trunk groups. One or more outgoing or 2-way trunk groups may be assigned to a traffic register by the following input message:

A TC:TRK:aaa b c!

aaa = Trunk group number (065 through 255 in LO-1, or 065 through 511 in EF-1 and later generics)

b = 3 - Assign or remove a toll call counter on an outgoing or 2-way trunk group

c = Traffic register number 0 through 3

= Blank to remove trunk group from counter.

2.30 The assignment of a trunk group to a traffic register can be verified by the following message:

A TV:TRK:aaa!

aaa = Trunk group number.

The desired system response to this message is a printout containing the trunk group number followed by the number of the assigned traffic register.

ASSIGNMENT OF CENTREX GROUP TO H OR C SCHEDULE

2.31 Centrex (CTX) groups are applicable only to offices with the EF-1 and later generic programs. CTX will appear as many times as there are customer groups to be printed. The counter labeled CTX01 will be the centrex group number to which counters (CTX02 through 20 in EF-1 only; CXA02 through 10, CXB01 through 10, CXC01 through 10 and CXD01 through 10 in EF-2 and later generics) apply. The change or addition of a CTX group to the H or C schedule becomes effective immediately. Any CTX group may be assigned to either the H or C schedule or neither schedule. The assignment is made by the following input message:

A TC:CTX:aaa b!

aaa = centrex group number (001 through 127)

b = 0 for the H schedule

= 1 for the C schedule

= blank to remove from either schedule

2.32 The assignment of a CTX group to the H or C schedule can be verified by the following message:

A TV:CTX:aaa!

aaa = the CTX group number.

CENTREX CUSTOMER LINE OVERFLOW

2.33 Four traffic registers (OFT57 through 60 for EF-2 and later generic programs) of the H or C schedule are available to count the number of times a centrex line is found to be in a busy or talking condition by a second call attempt. This measurement may be assigned to any centrex line, except those which have the series completion feature. The assignment of a centrex customer line to an overflow register becomes effective immediately. The following message is used to assign a centrex line to a centrex customer line overflow register:

Conventional	Unique
A RC:L/	A RC:L/
ORD oooo/	ORD oooo/
TYP ttt/	TYP ttt/
OE nn gcsl/	TEN nn gcsl/
TN nnx abcd/	TN nnx abcd/
CTX aaa/	CTX aaa/
CLO c/	CLO c/
END!	END!

Each data line includes the parameter name (upper case letters) followed by one or more variable fields (lower case letters) as follows:

ORD oooo = The TELCO assigned order number (0000 through 9999)
TYP ttt = CHG to indicate change or addition
OE nn gcsl = The originating equipment number
TEN nn gcsl = The terminal equipment number
TN nnx abcd = The customer telephone number
CTX aaa = Centrex group number
CLO c = The assigned customer line overflow counter (0 through 3). To remove counter from line leave variable field c blank.

2.34 The assignment of centrex customer lines to overflow registers may be verified by the following input message:

A TV:CLO:x!

x = A one-digit field to indicate the CLO entry number. The range is 0 through 2.

The desired system response to this message is AR VY L with the keyword parameter and data fields.

ASSIGNMENT OF CENTREX SPECIAL SERVICE REGISTERS TO H OR C SCHEDULE

2.35 The change or addition of the three special service (SPS) registers (CXA8 through CXA10) for a centrex group is implemented by the following input message from a maintenance channel, service order channel, or traffic channel TTY. (Available in EF-2 and later generics only.)

A RC:DIT/
CTX aaa/
DTP ttt/
NDT ttt/
DGT nnnn/
SPS c/
END!

Each data line includes the parameter name (upper case letters) followed by a variable data field as follows:

CTX aaa = Centrex group number
DTP ttt = Data type presently stored in the terminal entry
NDT ttt = New data type to be stored in the terminal entry
DGT nnnn = Digit which points to the terminal entry to be changed. It may be 1 to 4 digits in length.
SPS c = counter to which register is assigned
= 0 - no counter
= 1 - SPS register 1
= 2 - SPS register 2
= 3 - SPS register 3

2.36 The change or addition of an assignment of an SPS register to a terminal entry can be verified by the following input message:

```
A VY:DIT/
CTX aaa/
DGT nnnn/
END!
```

CTX aaa = Centrex group number

DGT nnnn = Digits which point to terminal entry to be verified.

The desired system response to this message is a printout containing the centrex group number and the special service register (SSR) number.

ASSIGNMENT OF WORKING MEMBER RECORDS TO H, C, D, W, OR PLT SCHEDULE

2.37 In EF-2 and later generics, the working member record (WMR) can be assigned by the operating company to be printed on one of five traffic schedules (H, C, D, W, or PLT). The WMR verifies the number of assigned trunks and service circuits in each group. The number of trunks is equal to the number of trunks that can receive calls plus the number of trunks that are maintenance busy. The number of service circuits is equal to the number of service circuits that can be accessed plus the number of service circuits that are maintenance busy. The assignment of the WMR to the desired traffic schedule is made by the following input message:

```
T WO:WMR:a!
```

T = Traffic message

.WO = Work option

WMR = Working member record

a = schedule on which the WMR will be printed

= 0 - don't print the WMR on any traffic schedule

= 1 - print WMR on H schedule

= 2 - print WMR on C schedule

= 3 - print WMR on D schedule

= 4 - print WMR on W schedule

= 5 - print WMR on PLT schedule

The WMR will be printed as the last section of the traffic schedule to which it is assigned.

3. TTY PRINT REQUESTS

3.01 A manual TTY request for a printout of a traffic schedule, call store copy of TWT, or the weekly usage list (WUL) may be made at any time from any TTY. The request will be honored unless

the TRAFIC program is presently printing on another TTY channel. A manual request will not recycle or zero any traffic register.

3.02 A manual TTY print request is made via the following input message:

T PR:cod!

cod = Q—Quarter-hour schedule

= H—Busy hour H schedule

= C—Non-Busy hour C schedule

= D—Daily schedule

= W—Weekly schedule

= LSM—Load service measurements

= PLT—Plant measurements

= TWT—Traffic work table

= WUL—Weekly usage list.

The measurements printed on a manual request contain data collected since the last recycle of the registers.

4. OUTPUT MESSAGE FORMATS

4.01 This part contains the output message formats of the traffic data messages. The printouts are automatic when scheduled by the TWT or can be manually requested via a TTY input message.

4.02 All traffic output messages begin with the following heading:

mn Tx PR cod day m-dy hrmn-sc npa nnx (for No. 2 ESS)
mn Tx PR cod bay mm/dy/yr hr:mn:sc npannx (for No. 2B ESS)

mn = Minutes after the hour

x = I if traffic message is scheduled by TWT

= R if traffic message is response to a TTY input request

PR = Print request

cod = Traffic output schedule to be printed

day = 3-letter abbreviation for the day of the week

mm,m = Numerical designation for the month

dy = Day of the month

yr = year

hr = Hour

mn = Minute after the hour

sc = Seconds

npa,nnx = Office identification code, or any other meaningful 6 alphanumeric characters, as determined by the TELCo.

When TI is printed in the message heading, the traffic registers of the schedule are being recycled as the data is read from them and printed.

Caution: The BREAK key should never be operated when a traffic schedule is being printed automatically (scheduled by TWT), except on the Q or LSM output message. When a traffic schedule is being printed, the operation of the BREAK key will terminate the printout and not cause the remaining traffic counts to be zeroed. This could influence the next printout of the same schedule.

4.03 One of two system trouble indicators may appear between COD and DAY of the message heading.

- DSP—If the system is in dynamic service protection at the time of the printout
- SOL—If the system is in a system overload condition at the time of the printout.

4.04 Each data line of the output message contains ten 5-digit decimal numbers separated by a space. The numbers are printed such that leading zeros are replaced by spaces except for the low zero which will be printed when a number is all zeros. The TTY will continue to print zeros to the end of a line even if the number of available registers has been exceeded. The example printouts which follow will show only meaningful entries and will not contain entries where the TTY prints zeros to the end of a line.

4.05 The following line indicates the end of a traffic output schedule and the time at which it was completed.

END PR TRF day m-dy hrmn-sc npa nnx (for No. 2 ESS)
or
END PR TRF (see paragraph 4.02 for details for 2B ESS)

TRAFFIC SCHEDULES AND PLANT SCHEDULE

4.06 The following are examples of the layout of each traffic schedule printout and the plant schedule printout. The data fields have alphanumeric designations which correspond to the register designations of the traffic schedules in Tables A through I.

4.07 The Q Schedule (all Generics):

mn Tx PR Q day (time of day)
Q01 Q02 Q03 Q04 Q05 Q06 Q07 Q08 Q09 Q10 Q11 Q12 Q13 Q14
END PR TRF day (time of day)

Refer to Table A for register descriptions.

4.08 The LSM Schedule (all generics):

mn Tx PR LSM day (time of day)

	LSM01	LSM02	LSM03	LSM04	LSM05	LSM06	LSM07	LSM08	LSM09	LSM10
	LSM11	LSM12	LSM13	LSM14						

END PR TRF day (time of day)

Refer to Table A for register descriptions.

4.09 The H or C Schedule (LO-1 and EF-1):

mn Tx PR H day (time of day)

TRK	TRK01	TRK02	TRK03	TRK04	TRK05	TRK01	TRK02	TRK03	TRK04	TRK05
	TRK01	TRK02	TRK03	TRK04	TRK05	TRK01	TRK02	TRK03	TRK04	TRK05
	TRK01	TRK02	TRK03	TRK04	TRK05	TRK01	TRK02	TRK03	TRK04	TRK05
SIM	SIM01	SIM02	SIM03	SIM04	SIM05	SIM01	SIM02	SIM03	SIM04	SIM05
	SIM01	SIM02	SIM03	SIM04	SIM05	SIM01	SIM02	SIM03	SIM04	SIM05
	SIM01	SIM02	SIM03	SIM04	SIM05	SIM01	SIM02	SIM03	SIM04	SIM05
MLH	MLH01	MLH02	MLH03	MLH04	MLH05	MLH01	MLH02	MLH03	MLH04	MLH05
	MLH01	MLH02	MLH03	MLH04	MLH05	MLH01	MLH02	MLH03	MLH04	MLH05
OFT	OFT01	OFT02	OFT03	OFT04	OFT05	OFT06	OFT07	OFT08	OFT09	OFT10
	OFT11	OFT12	OFT13	OFT14	OFT15	OFT16	OFT17	OFT18	OFT19	OFT20
	OFT21	OFT22	OFT23	OFT24	OFT25	OFT26	OFT27	OFT28	OFT29	OFT30
	OFT31	OFT32	OFT33	OFT34	OFT35	OFT36	OFT37	OFT38	OFT39	OFT40
	OFT41	OFT42	OFT43	OFT44	OFT45	OFT46	OFT47	OFT48	OFT49	OFT50
**	OFT51	OFT52	OFT53	OFT54						
**	OFT61	OFT62								
BYL	BYL00	BYL01	BYL02	BYL03	BYL04	BYL05	BYL06	BYL07	BYL08	BYL09
	BYL10	BYL11	BYL12	BYL13	BYL14	BYL15				
PRC	PRC00	PRC01	PRC02	PRC03	PRC04	PRC05	PRC06	PRC07	PRC08	PRC09
	PRC10	PRC11	PRC12	PRC13	PRC14	PRC15	PRC16	PRC17	PRC18	PRC19
	PRC20	PRC21	PRC22	PRC23	PRC24	PRC25	PRC26	PRC27	PRC28	PRC29
	PRC30	PRC31	PRC32	PRC33	PRC34	PRC35	PRC36	PRC37	PRC38	
JCT	W0000	C0000								
A	W0100	C0100	W0101	C0101						
B	W0200	C0200	W0201	C0201	W0202	C0202				
C	W0300	C0300	W0301	C0301	W0302	C0302	W0303	C0303		
D	W0400	C0400	W0401	C0401	W0402	C0402	W0403	C0403	W0404	C0404
•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•
N	W1400	C1400	W1401	C1401	W1402	C1402	W1403	C1403	W1404	C1404
	W1405	C1405	W1406	C1406	W1407	C1407	W1408	C1408	W1409	C1409
	W1410	C1410	W1411	C1411	W1412	C1412	W1413	C1413	W1414	C1414
CTX	CTX01	CTX02	CTX03	CTX04	CTX05	CTX06	CTX07	CTX08	CTX09	CTX10
	CTX11	CTX12	CTX13	CTX14	CTX15	CTX16	CTX17	CTX18	CTX19	CTX20
CTX	CTX01	CTX02	CTX03	CTX04	CTX05	CTX06	CTX07	CTX08	CTX09	CTX10
	CTX11	CTX12	CTX13	CTX14	CTX15	CTX16	CTX17	CTX18	CTX19	CTX20

END PR TRF day (time of day)

**OFT51 through OFT70, 2B-EF-1 and EF-1 only.

Refer to Table B for register descriptions.

4.10 The H or C Schedule (EF-2 and later generics):

mn Tx PR H day (time of day)

SVC	SVC01	SVC02	SVC03	SVC04	SVC05	SVC01	SVC02	SVC03	SVC04	SVC05
	SVC01	SVC02	SVC03	SVC04	SVC05	SVC01	SVC02	SVC03	SVC04	SVC05
	SVC01	SVC02	SVC03	SVC04	SVC05	SVC01	SVC02	SVC03	SVC04	SVC05
TKO	TKO01	TKO02	TKO03	TKO04	TKO05	TKO01	TKO02	TKO03	TKO04	TKO05
	TKO01	TKO02	TKO03	TKO04	TKO05	TKO01	TKO02	TKO03	TKO04	TKO05
	TKO01	TKO02	TKO03	TKO04	TKO05	TKO01	TKO02	TKO03	TKO04	TKO05
TKI	TKI01	TKI02	TKI03	TKI01	TKI02	TKI03	TKI01	TKI02	TKI03	
	TKI01	TKI02	TKI03	TKI01	TKI02	TKI03	TKI01	TKI02	TKI03	
TKT	TKT01	TKT02	TKT03	TKT04	TKT05	TKT06	TKT07			
	TKT01	TKT02	TKT03	TKT04	TKT05	TKT06	TKT07			
SIM	SIM01	SIM02	SIM03	SIM04	SIM05	SIM01	SIM02	SIM03	SIM04	SIM05
	SIM01	SIM02	SIM03	SIM04	SIM05	SIM01	SIM02	SIM03	SIM04	SIM05
	SIM01	SIM02	SIM03	SIM04	SIM05	SIM01	SIM02	SIM03	SIM04	SIM05
MLH	MLH01	MLH02	MLH03	MLH04	MLH05	MLH01	MLH02	MLH03	MLH04	MLH05
	MLH01	MLH02	LMH03	MLH04	MLH05	MLH01	MLH02	MLH03	MLH04	MLH05
	MLH01	MLH02	MLH03	MLH04	MLH05	MLH01	MLH02	MLH03	MLH04	MLH05
FSH	FSH01	FSH02	FSH03	FSH04	FSH05	FSH01	FSH02	FSH03	FSH04	FSH05
	FSH01	FSH02	FSH03	FSH04	FSH05	FSH01	FSH02	FSH03	FSH04	FSH05
	FSH01	FSH02	FSH03	FSH04	FSH05	FSH01	FSH02	FSH03	FSH04	FSH05
OFT	OFT01	OFT02	OFT03	OFT04	OFT05	OFT06	OFT07	OFT08	OFT09	OFT10
	OFT11	OFT12	OFT13	OFT14	OFT15	OFT16	OFT17	OFT18	OFT19	OFT20
	OFT21	OFT22	OFT23	OFT24	OFT25	OFT26	OFT27	OFT28	OFT29	OFT30
	OFT31	OFT32	OFT33	OFT34	OFT35	OFT36	OFT37	OFT38	OFT39	OFT40
	OFT41	OFT42	OFT43	OFT44	OFT45	OFT46	OFT47	OFT48	OFT49	OFT50
	OFT51	OFT52	OFT53	OFT54	OFT55	OFT56	OFT57	OFT58	OFT59	OFT60
	OFT61	OFT62	OFT63	OFT64	OFT65	OFT66	OFT67	OFT68	OFT69	OFT70
	OFT71	OFT72	OFT73	OFT74	OFT75	OFT76	OFT77	OFT78	OFT79	OFT80
BYL	BYL00	BYL01	BYL02	BYL03	BYL04	BYL05	BYL06	BYL07	BYL08	BYL09
	BYL10	BYL11	BYL12	BYL13	BYL14	BYL15				
PRC	PRC00	PRC01	PRC02	PRC03	PRC04	PRC05	PRC06	PRC07	PRC08	PRC09
	PRC10	PRC11	PRC12	PRC13	PRC14	PRC15	PRC16	PRC17	PRC18	PRC19
	PRC20	PRC21	PRC22	PRC23	PRC24	PRC25	PRC26	PRC27	PRC28	PRC29
	PRC30	PRC31	PRC32	PRC33	PRC34	PRC35	PRC36	PRC37	PRC38	

JCT	W0000	C0000								
A	W0100	C0100	W0101	C0101						
B	W0200	C0200	W0201	C0201	W0202	C0202				
C	W0300	C0300	W0301	C0301	W0302	C0302	W0303	C0303		
D	W0400	C0400	W0401	C0401	W0402	C0402	W0403	C0403	W0404	C0404
•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•
N	W1400	C1400	W1401	C1401	W1402	C1402	W1403	C1403	W1404	C1404
	W1405	C1405	W1406	C1406	W1407	C1407	W1408	C1408	W1409	C1409
	W1410	C1410	W1411	C1411	W1412	C1412	W1413	C1413	W1414	C1414
CXA	CXA1	CXA2	CXA3	CXA4	CXA5	CXA6	CXA7	CXA8	CXA9	CXA10
CXB	CXB1	CXB2	CXB3	CXB4	CXB5	CXB6	CXB7	CXB8	CXB9	CXB10
CXC	CXC1	CXC2	CXC3	CXC4	CXC5	CXC6	CXC7	CXC8	CXC9	CXC10
CXD	CXD1	CXD2	CXD3	CXD4	CXD5	CXD6	CXD7	CXD8	CXD9	CXD10
WMR	WMR01	WMR02	WMR01	WMR02	WMR01	WMR02	WMR01	WMR02	WMR01	WMR02
	WMR01	WMR02	WMR01	WMR02						

END PR TRF day (time of day)

Refer to Table C for register descriptions.

4.11 The D Schedule (LO-1 and EF-1):

mn Tx PR D day (time of day)
D01 D02 D03 D04 D05 D06 D07 D08 D09 D10
END PR TRF day (time of day)

Refer to Table D for register descriptions.

4.12 The D Schedule (EF-2 and later generics):

mn Tx PR D day (time of day)

	D01	D02	D03	D04	D05	D06	D07	D08	D09	D10
WMR	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2
	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2
	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2

END PR TRF day (time of day)

Refer to Table E for register descriptions.

4.13 The W Schedule (LO-1 and EF-1):

mn Tx PR W day (time of day)

NW	NW_00	NW_01	NW_02	NW_03	NW_04	NW_05	NW_06	NW_07	NW_08	NW_09
	NW_10	NW_11	NW_12	NW_13	NW_14	NW_15	NW_16	NW_17	NW_18	NW_19
	NW_20	NW_21	NW_22	NW_23	NW_24	NW_25	NW_26	NW_27	NW_28	NW_29
	NW_30	NW_31								
NWA	NWA00	NWA01	NWA02	NWA03	NWA04	NWA05	NWA06	NWA07	NWA08	NWA09
	NWA10	NWA11	NWA12	NWA13	NWA14	NWA15	NWA16	NWA17	NWA18	NWA19
	NWA20	NWA21	NWA22	NWA23	NWA24	NWA25	NWA26	NWA27	NWA28	NWA29
	NWA30	NWA31								
CLU	CLU00	CLU01	CLU02	CLU03	CLU04	CLU05	CLU06	CLU07	CLU08	CLU09
	CLU10	CLU11	CLU12	CLU13	CLU14	CLU15	CLU16	CLU17	CLU18	CLU19
	CLU20	CLU21	CLU22	CLU23	CLU24	CLU25	CLU26	CLU27	CLU28	CLU29
	CLU30	CLU31	CLU32	CLU33	CLU34	CLU35	CLU36	CLU37	CLU38	CLU39
	CLU40	CLU41	CLU42	CLU43	CLU44	CLU45	CLU46	CLU47	CLU48	CLU49
	CLU50	CLU51	CLU52	CLU53	CLU54	CLU55	CLU56	CLU57	CLU58	CLU59
	CLU60	CLU61	CLU62	CLU63	CLU64					

END PR TRF day (time of day)

Refer to Table F register descriptions.

4.14 The W Schedule (EF-2 and later generics):

mn Tx PR W day (time of day)

NW	NW_00	NW_01	NW_02	NW_03	NW_04	NW_05	NW_06	NW_07	NW_08	NW_09
	NW_10	NW_11	NW_12	NW_13	NW_14	NW_15	NW_16	NW_17	NW_18	NW_19
	NW_20	NW_21	NW_22	NW_23	NW_24	NW_25	NW_26	WN_27	NW_28	NW_29
	NW_30	NW_31								
NWA	NWA00	NWA01	NWA02	NWA03	NWA04	NWA05	NWA06	NWA07	NWA08	NWA09
	NWA10	NWA11	NWA12	NWA13	NWA14	NWA15	NWA16	NWA17	NWA18	NWA19
	NWA20	NWA21	NWA22	NWA23	NWA24	NWA25	NWA26	NWA27	NWA28	NWA29
	NWA30	NWA31								
CLU	CLU00	CLU01	CLU02	CLU03	CLU04	CLU05	CLU06	CLU07	CLU08	CLU09
	CLU10	CLU11	CLU12	CLU13	CLU14	CLU15	CLU16	CLU17	CLU18	CLU19
	CLU20	CLU21	CLU22	CLU23	CLU24	CLU25	CLU26	CLU27	CLU28	CLU29
	CLU30	CLU31	CLU32	CLU33	CLU34	CLU35	CLU36	CLU37	CLU38	CLU39
	CLU40	CLU41	CLU42	CLU43	CLU44	CLU45	CLU46	CLU47	CLU48	CLU49
	CLU50	CLU51	CLU52	CLU53	CLU54	CLU55	CLU56	CLU57	CLU58	CLU59
	CLU60	CLU61	CLU62	CLU63	CLU64					
WMR	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2
	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2
	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2

END PR TRF day (time of day)

Refer to Table G register descriptions.

4.15 The PLT Schedule (LO-1 and EF-1):

mn Tx PR PLT day (time of day)

CUA	CUA01	CUA02	CUA03	CUA04	CUA05	CUA06	CUA07	CUA08	CUA09	CUA10
	CUA11	CUA12	CUA13	CUA14	CUA15	CUA16	CUA17	CUA18	CUA19	CUA20**
	CUA21	CUA22								
PUM	PUM01	PUM02	PUM03	PUM04	PUM05	PUM06	PUM07	PUM08	PUM09	PUM10
	PUM11	PUM12	PUM13	PUM14	PUM15	PUM16	PUM17	PUM18	PUM19	PUM20
TDR	TDR01	TDR02	TDR03	TDR04	TDR05	TDR06	TDR07	TDR08	TDR09	TDR10
	TDR11	TDR12	TDR13	TDR14	TDR15	TDR16	TDR17	TDR18	TDR19	TDR20
	TDR21	TDR22	TDR23	TDR24	TDR25	TDR26	TDR27	TDR28	TDR29	TDR30
	TDR31	TDR32	TDR33	TDR34	TDR35	TDR36				
BSM	BSM01	BSM02	BSM03	BSM04	BSM05	BSM06	BSM07	BMS08	BSM09	BSM10
	BSM11	BSM12	BSM13	BSM14	BSM15	BSM16	BSM17	BSM18	BSM19	BSM20
	BSM21	BSM22	BSM23	BSM24	BSM25	BSM26	BSM27	BSM28	BSM29	BSM30
RCA†	RCA01	RCA02	RCA03	RCA04	RCA05	RCA06	RCA07	RCA08	RCA09	RCA10
AD*	AD01	AD02	AD03	AD04	AD05	AD06	AD07			
	AD01	AD02	AD03	AD04	AD05	AD06	AD07			

END PR TRF day (time of day)

* AD is 2B-EF-1 and EF-1 only.
** CUA 20 — CUA22 are 2B-EF-1 and EF-1 only.
† May be more than one line in 2B-EF-1.

Refer to Table H register descriptions.

4.16 The PLT Schedule (EF-2 and later generics):

mn Tx PR PLT day (time of day)

CUA	CUA01	CUA02	CUA03	CUA04	CUA05	CUA06	CUA07	CUA08	CUA09	CUA10
	CUA11	CUA12	CUA13	CUA14	CUA15	CUA16	CUA17	CUA18	CUA19	CUA20
	CUA21	CUA22	CUA23	CUA24	CUA25	CUA26	CUA27	CUA28	CUA29	CUA30
	CUA31	CUA32	CUA33	CUA34	CUA35	CUA36	CUA37	CUA38	CUA39	CUA40*
PUM	PUM01	PUM02	PUM03	PUM04	PUM05	PUM06	PUM07	PUM08	PUM09	PUM10
	PUM11	PUM12	PUM13	PUM14	PUM15	PUM16	PUM17	PUM18	PUM19	PUM20
	PUM21	PUM22	PUM23	PUM24	PUM25	PUM26	PUM27	PUM28	PUM29	PUM30*
TDR	TDR01	TDR02	TDR03	TDR04	TDR05	TDR06	TDR07	TDR08	TDR09	TDR10
	TDR11	TDR12	TDR13	TDR14	TDR15	TDR16	TDR17	TDR18	TDR19	TDR20
	TDR21	TDR22	TDR23	TDR24	TDR25	TDR26	TDR27	TDR28	TDR29	TDR30
	TDR31	TDR32	TDR33	TDR34	TDR35	TDR36				
BSM	BSM01	BSM02	BSM03	BSM04	BSM05	BSM06	BSM07	BSM08	BSM09	BSM10
	BSM11	BSM12	BSM13	BSM14	BSM15	BSM16	BSM17	BSM18	BSM19	BSM20
	BSM21	BSM22	BSM23	BSM24	BSM25	BSM26	BSM27	BSM28	BSM29	BSM30
	BSM31	BSM32	BSM33	BSM34	BSM35	BSM36	BSM37	BSM38	BSM39	BSM40
RCA†	RCA01	RCA02	RCA03	RCA04	RCA05	RCA06	RCA07	RCA08	RCA09	RCA10
AD	AD01	AD02	AD03	AD04	AD05	AD06	AD07	AD08		
	AD01	AD02	AD03	AD04	AD05	AD06	AD07	AD08		
	AD01	AD02	AD03	AD04	AD05	AD06	AD07	AD08		
	AD01	AD02	AD03	AD04	AD05	AD06	AD07	AD08		
	AD01	AD02	AD03	AD04	AD05	AD06	AD07	AD08		
WMR	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2
	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2
	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2	WMR1	WMR2

END PR TRF day (time of day)

* CUA31 through CUA40 are for No. 2B ESS only.
** PUM21 through PUM30 are for No. 2B ESS only.
† May be more than one line in 2B ESS.

Refer to Table I for register descriptions.

CALL STORE COPY OF TWT

4.17 A complete description of the call store copy of the TWT is available via a TTY input message (see Part 3). The body of the TWT is printed with the following format:

cod day amhr pmhr qh.

Refer to paragraph 2.03 for a description of each variable field.

4.18 The following is a printout of the call store copy of the TWT as it is scheduled in Fig. 1.

```
mn TR PR TWT day (time of day)
  TQ    000076  007000  000007  000017
  HA    000076  003000  000000  000001
  HB    000076  004000  000001  000002
  HC    000076  000000  000006  000004
  C     000076  000400  000004  000010
  MQ    000076  007000  000007  000017
  D     000076  000001  000000  000002
  W     000040  000000  000020  000001
  PLT   000177  000001  000000  000004
  ATT   000177  000002  000000  000001
  AST   000177  000004  000000  000001
  AJT   000177  000010  000000  000001
  AML   000177  000010  000000  000001
  LIT   000177  000002  000000  000001
  WKE   000076  002000  000005  000001
  WKS   000076  005000  000002  000001
END PR TRF day (time of day)
```

WEEKLY USAGE LISTS (WUL)

4.19 The WUL output message, available by manual TTY request only, describes what is being measured by the customer line usage (CLU) section of the weekly (W) traffic schedule. The CLU section contains 64 customer line usage counters which can be assigned to 64 randomly selected customer lines or to the 64 possible network terminals of a pair of concentrators (line terminals only in LO-1 or EF-1; line, centrex attendant loop service circuit, or trunk terminals in EF-2 and later generics).

> ***Note:*** The word ***"lines"*** as used in the previous sentence and in the following two paragraphs means noncentrex line, centrex station, coin line, trunk test panel, and manual lines (both centrex and noncentrex).

4.20 If all lines on two concentrators are being measured, a one-line printout occurs indicating the network number and concentrator numbers of those measured.

```
mn TR PR WUL day (time of day)
        N    C1    C2
End PR TRF day (time of day)
```

N = Network number

C1 = Concentrator number 00-31

C2 = Concentrator number 32-63 (C1 + 32).

4.21 All 64 selected customer lines (see note in paragraph 4.19) are measured, each line of the printout indicates the counter number C and the directory numbers of the lines assigned to counter C and C + 1. MLH group lines and lines with pseudo NOCs cannot be measured using this option in LO-1 and EF-1. Counters not assigned have a directory number of 0.

mn TR PR WUL day (time of day)

0	NNX	XXXX	NNX	XXXX
2	NNX	XXXX	NNX	XXXX
4	NXX	XXXX	NNX	XXXX
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
60	NNX	XXXX	NNX	XXXX
62	NNX	XXXX	NNX	XXXX

END PR TRF day (time of day)

0,2,4,...60,62 = Counter numbers.

NNX = Office code of customer line.

XXXX = Directory number of customer line.

5. TRUNK COUNTS DURING CALL PROCESSING AND DIAGNOSTICS

5.01 The four counts listed below may be made for the purpose of taking traffic data on trunk groups. See Fig. 7A, 7B, 8A, 8B, 9A and 9B for flowcharts depicting where peg and overflow counts are made on most trunk and service circuit selections.

(1) Peg counts are a cumulative count of the number of times a circuit from the given group is selected during a fixed time interval. It includes overflow counts (below).

(2) Overflow counts are a cumulative count of the number of times a circuit could not be selected due to all circuits in the group being busy.

(3) Maintenance busy counts are the number of circuits in the group which are maintenance busy at the time the traffic printout is made.

(4) Usage counts are a cumulative count of the number of circuits that are busy during each periodic scan of that particular group. Service circuits are scanned every 10 seconds and maintenance busy circuits are not included; trunks are scanned every 100 seconds and maintenance busy counts are included in the usage counts in LO-1 and EF-1 but are not included in EF-2 and later generics.

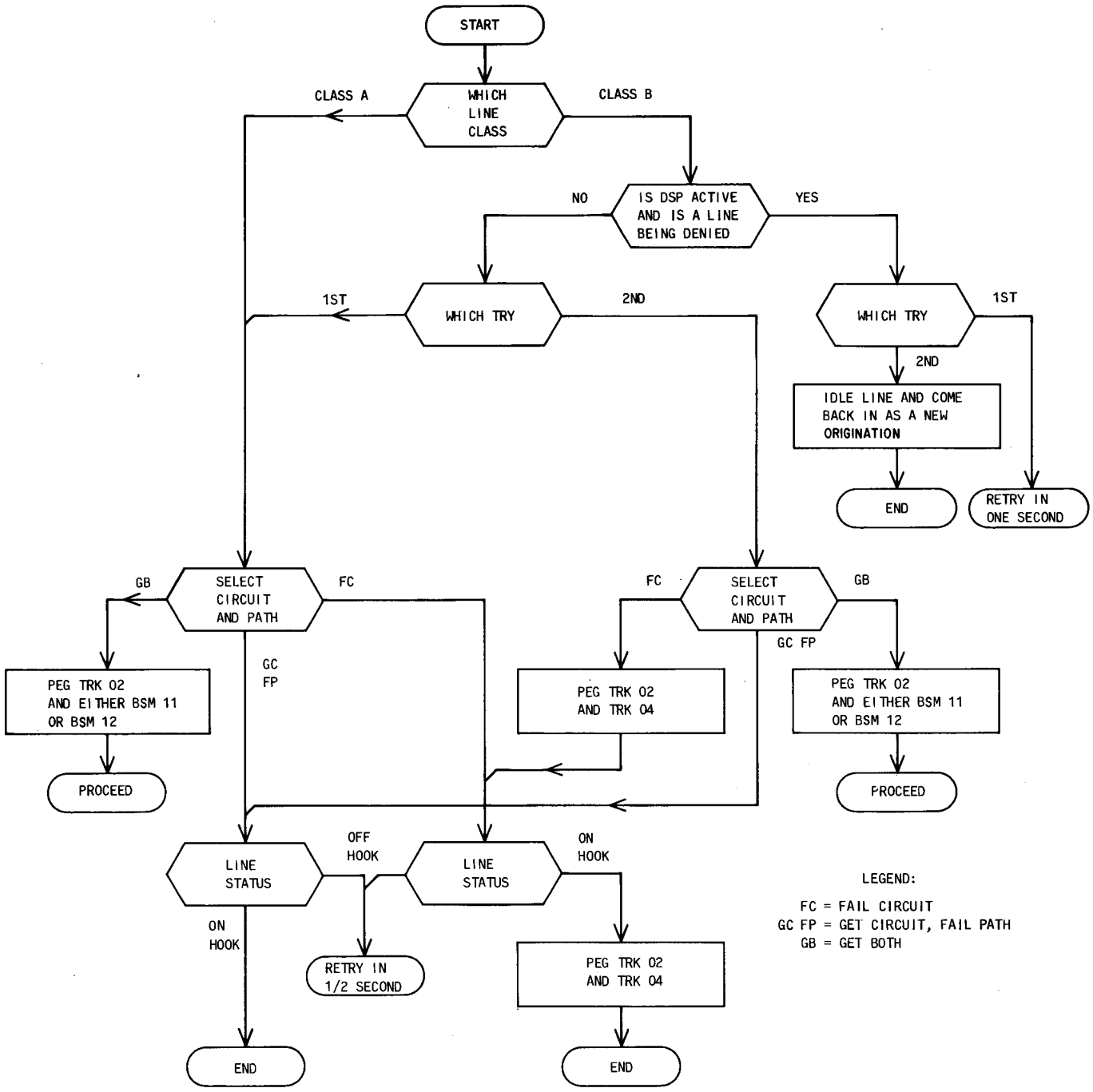

Fig. 7A—Flow Diagram for Selecting a CDPR (LO-1 and EF-1 Generics)

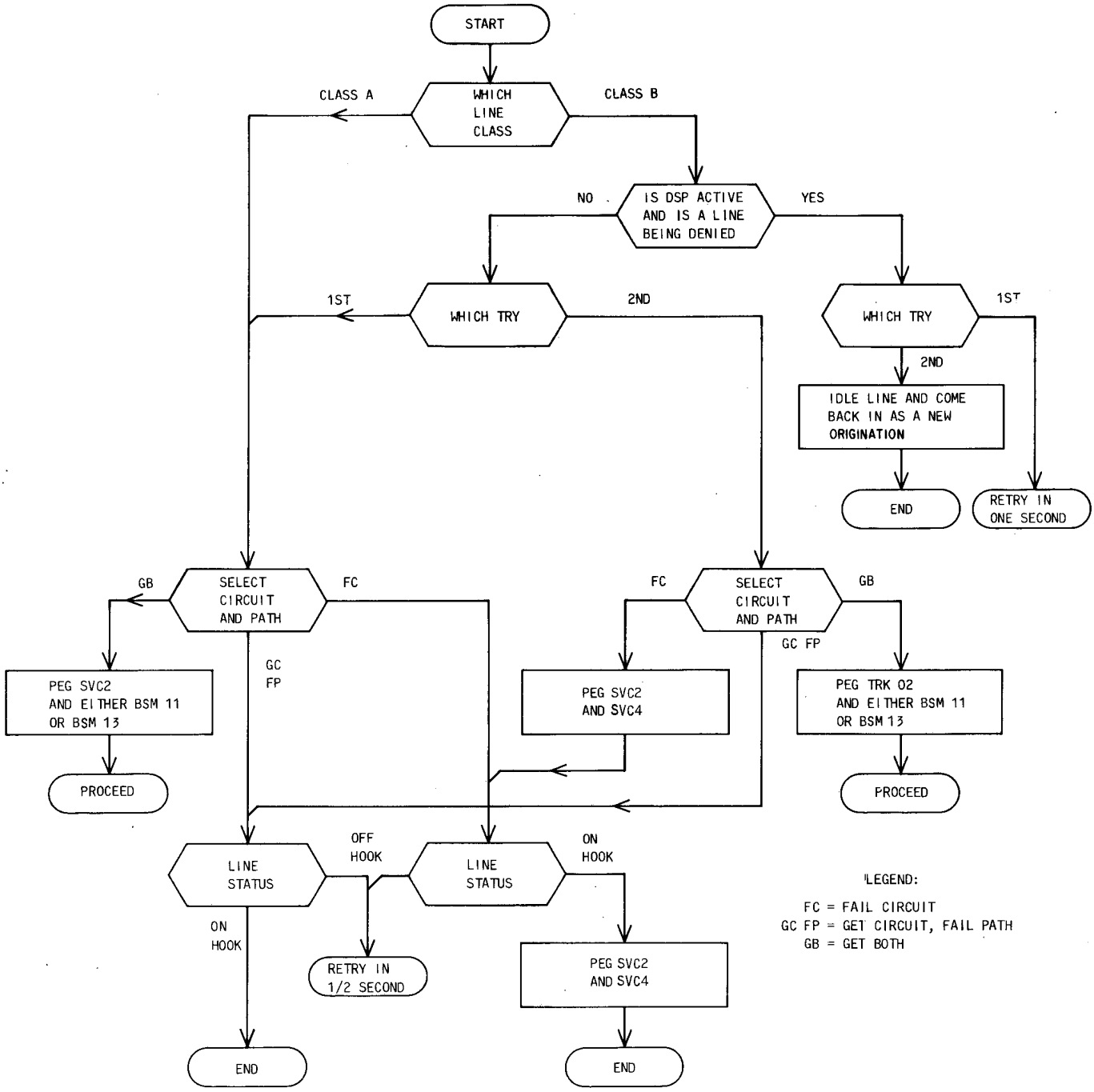

Fig. 7B—Flow Diagram for Selecting a CDPR (EF-2 and Later Generics)

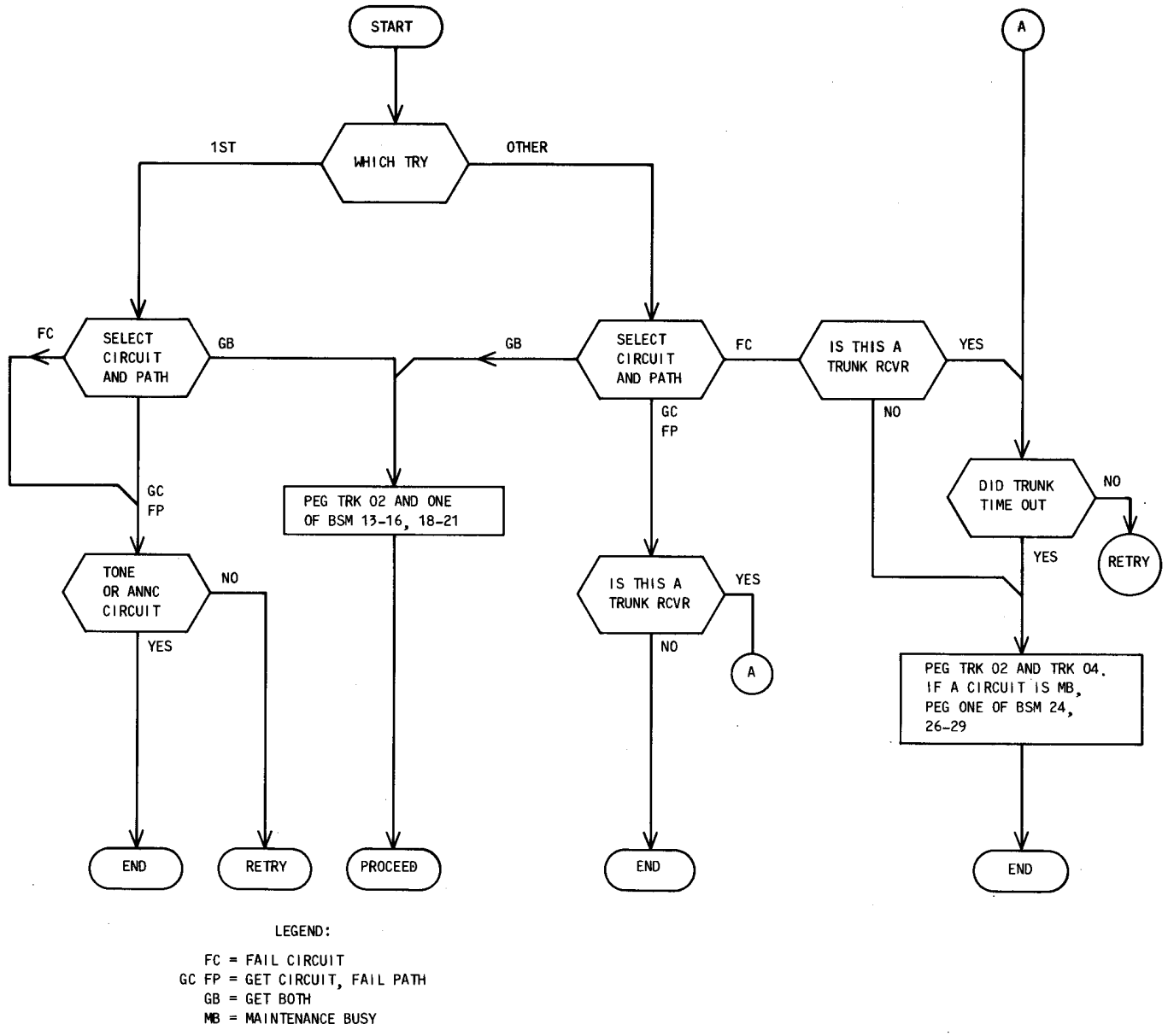

Fig. 8A—Flow Diagram for Selecting Service Circuit (LO-1 and EF-1 Generics)

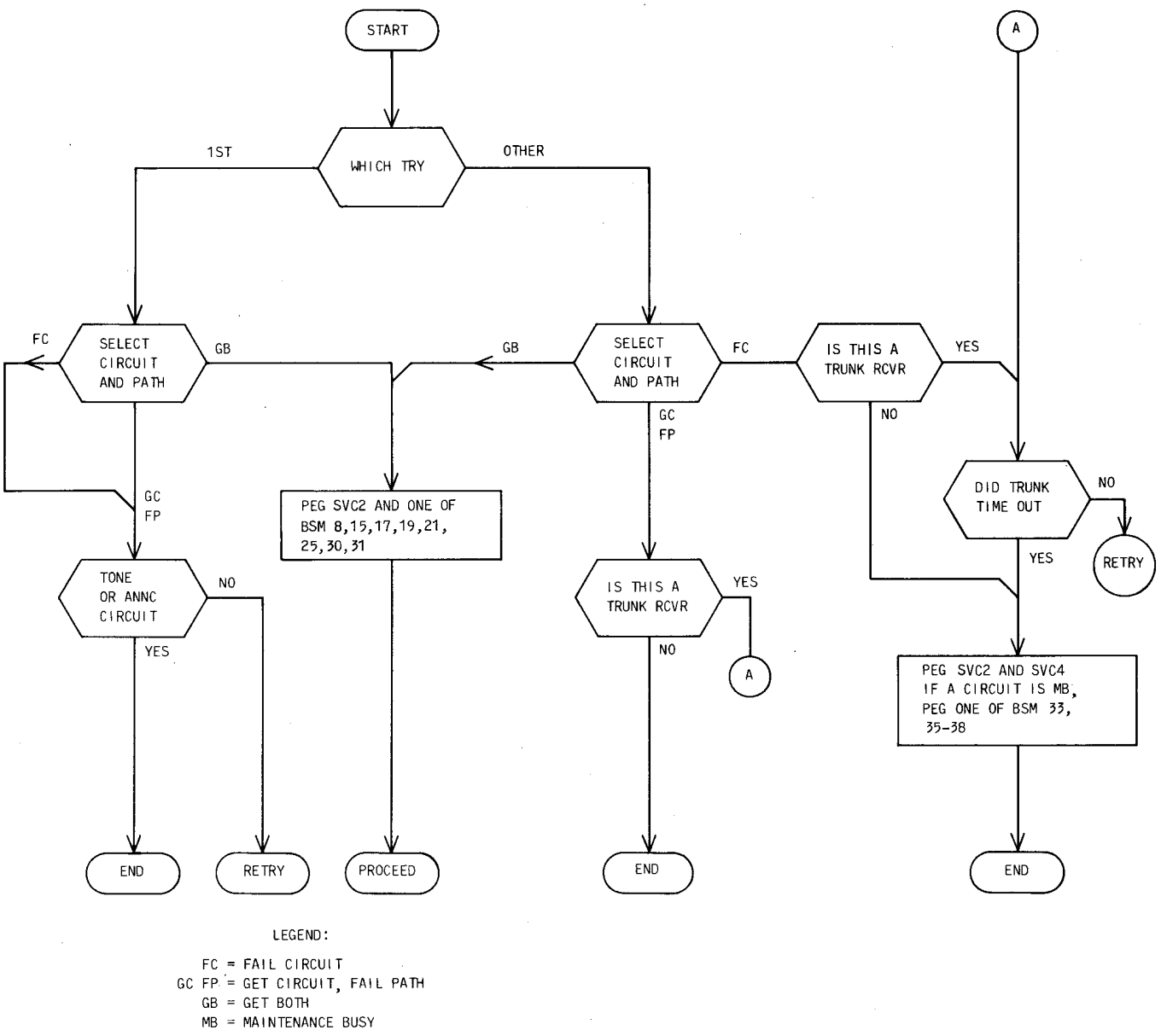

Fig. 8B—Flow Diagram for Selecting a Service Circuit (EF-2 and Later Generics)

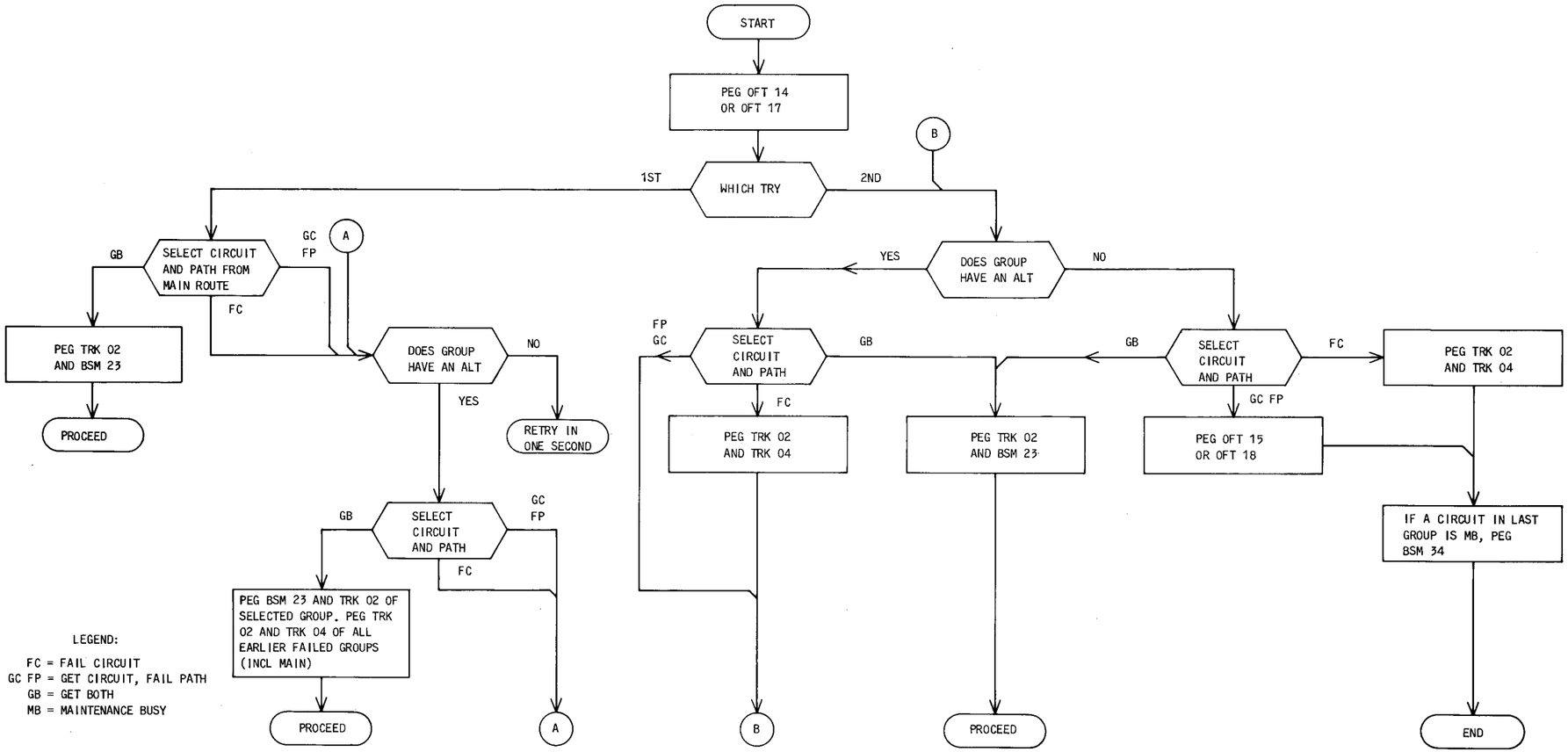

Fig. 9A—Flow Diagram for Selecting a Trunk (LO-1 and EF-1 Generics)

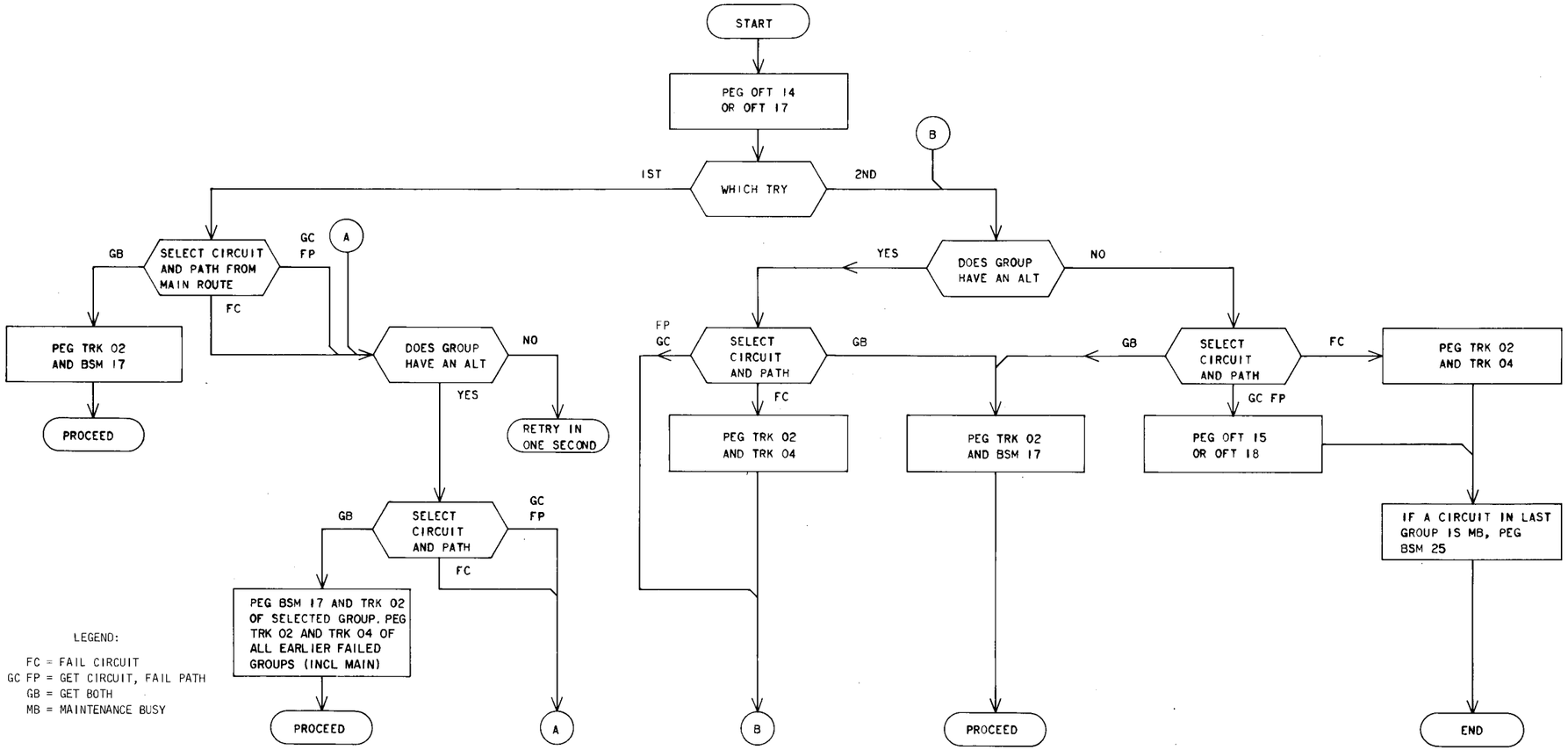

Fig. 9B—Flow Diagram for Selecting a Trunk (EF-2 and Later Generics)

5.02 All four counts may be taken for each service circuit group and each outgoing, incoming, or 2-way trunk group in the H or C schedules as follows:

TYPE CIRCUIT	LO-1 AND EF-1 GENERICS				EF-2 AND LATER GENERICS			
	PEG	USAGE	OVFL	MB	PEG	USAGE	OVFL	MB
SERVICE CIRCUITS	X	X	X	X	X	X	X	X
TRUNKS								
OUTGOING GROUPS	X	X	X	X	X	X	X	X
INCOMING GROUPS	—	—*	—	—	X	X	—	—
2-WAY GROUPS								
OUTGOING CALLS	X	X†	X	X	X	X†	X	X
INCOMING CALLS	—	X†	—	X	X	X†	—	—

* Can be made if the group is artificially designed as a 2-way group.

† Combined incoming and outgoing usage.

Counts are not made on group 064 (and 065 in EF-1 and later generics), since these groups hold the noncontrolling ports of various multiport circuits. Trunks and service circuits can be "used" in the following ways:

(1) During normal call processing

(a) On regular calls—such as CDPR, ringer, tone, etc.

(b) On test calls where the digits dialed take the call to a maintenance routine—such as Station Ringer Test (SRTT), synchronous trunk test (SYNC), etc.

(2) While the circuit itself is being diagnosed.

(3) While the circuit is being used in the process of diagnosing another circuit. Section 232-105-302 indicates which circuits are used to test other circuits. Examples of these categories are:

(a) A test circuit used only by a maintenance routine—such as the continuity and polarity test circuit (Group 41).

(b) A regular circuit accessed by the maintenance routines directly—such as the MF transmitter circuit (Group 5), when used to diagnose the MF receiver circuit (Group 3).

(c) A regular circuit accessed by the maintenance routines through normal call processing routines—such as the MF transmitter when used to diagnose an outgoing trunk and outpulsing is required.

(d) A test circuit accessed by the maintenance routines through normal call processing routines such as the MF environment test circuit (Group 42).

(4) While the circuit is connected to the trunk test panel, the circuit is considered traffic busy even if maintenance busy before and after. Therefore, usage counts are made during connection.

5.03 Referring only to peg and usage counts, one or more of the above statements may apply to each trunk or service circuit group. Tables K, L, and M show which counts are taken on each SD number, Trunk Order Code, and group respectively. For any trunk or service circuit groups defined by operating companies, the counts taken would be the same as shown in the attachment, assuming the same trunk order code.

TABLE K

PEG AND USAGE COUNTS ON CIRCUITS SORTED BY SD NUMBER

SD	TRUNK ORDER CODE	SVC/ TRK GRP	PEG AND USAGE COUNTS MADE: DURING CALL PROC PEG	DURING CALL PROC USAGE	TTP OR WHEN DGN PEG	TTP OR WHEN DGN USAGE	NOTES	WHEN USED BY DGN OF ANOTHER CKT USAGE	PEG COUNTS NOT MADE WHEN USED TO DIAGNOSE THESE CKTS	PEG COUNTS ARE MADE WHEN USED TO DIAGNOSE THESE CKTS
2H101	156XX	>69	Yes	Yes	No	Yes	3, 9	—	—	
2H103	001XX	>69	Yes	Yes	No	Yes	3	—	—	
2H104	102XX	>69	Yes	Yes	No	Yes	3, 9	—	—	
2H105	203XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H107	204XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H108	305XX	>69	Yes	Yes	—	—	2, 3, 9	—	—	
2H109	306XX	>69	Yes	Yes	—	—	2, 3, 9	—	—	
2H110	407XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H111	108XX	>69	Yes	Yes	—	—	2, 3, 9	—	—	
2H112	509XX	>69	Yes	Yes	No	Yes	3	—	—	
2H113	201XX	062	Yes	Yes	—	—	2, 3	—	—	
2H114	611XX	001-002	Yes	Yes	No	Yes	—	Yes	2H132	
2H116	612XX	008-010	Yes	Yes	No	Yes	3	—	—	
2H118	614XX	016-024	Yes	Yes	No	Yes	3	—	—	
2H118	614XX	029-032	Yes	Yes	No	Yes	3, 8	—	—	
2H118	614XX	034	Yes	Yes	No	Yes	3	—	—	
2H118	614XX	033	Yes	Yes	No	Yes	4	Yes	—	1H137 (*3)
2H119	615XX	016-024	Yes	Yes	No	Yes	3	—	—	
2H121	617XX	005	Yes	Yes	No	Yes	7	Yes	2H124	2H103 (MF), 112 (MF), 144, 158
2H122	618XX	006	Yes	Yes	No	Yes	7	Yes	—	2H103 (DP), 174, 180
2H123	619XX	004	Yes	Yes	No	Yes	3	—	—	
2H123	619XX	013	Yes	Yes	No	Yes	3	—	—	
2H124	620XX	003	Yes	Yes	No	Yes	—	Yes	2H121	
2H125	621XX	011	Yes	Yes	No	Yes	3	—	—	
2H126	622XX	007	Yes	Yes	No	Yes	3	—	—	
2H126	673XX	007	Yes	Yes	No	Yes	3	—	—	
2H127	723XX	049	Yes	Yes	No	Yes	3	—	—	
2H127	723XX	048	Yes	Yes	No	Yes	3, 6	—	—	
2H127	723XX	050	Yes	Yes	No	Yes	—	Yes	2H128	
2H128	724XX	041A	—	—	No	Yes	1	Yes	2H101, 103, 104, 112, 122, 127, 132, 135	
2H128	724XX	041B	—	—	No	Yes	1	Yes	2H136, 144, 157, 158, 174, 178, 180, 185	
2H129	725XX	045	Yes	Yes	—	—	2, 3	—	—	
2H131	727XX	046	—	—	—	—	1, 2, 5	Yes	2H114 (02), 2H123 (13), 2H177 (02)	2H178
2H132	728XX	047A	—	—	No	Yes	1, 4, 5	Yes	2H102, 103, 112, 114, 123, 136 (35, 43)	2H118, 119, 137 (*4), 172, 173
2H132	728XX	047B	—	—	No	Yes	1, 4	Yes	2H144, 145, 157, 158, 174, 177, 180	2H176 (*7), 178, 182
2H133	729XX	040	—	—	—	—	1, 2	Yes	2H114, 2H123, 2H178, 2H177	
2H134	730XX	042	—	—	—	—	1, 2	Yes	—	2H121, 124
2H135	731XX	044	—	—	No	Yes	1	Yes	2H116, 2H125, 2H126	
2H136	732XX	035	Yes	Yes	No	Yes	3	—	—	
2H136	732XX	043	Yes	Yes	No	Yes	3	—	—	
2H136	732XX	052	Yes	Yes	No	Yes	3	—	—	

Notes:

(1) Cannot be used by 'Call Processing' (see 5.02).
(2) Cannot be diagnosed.
(3) Not used to DGN another CKT.
(4) Number in parenthesis (*Y) indicates quantity of pegs on one diagnostic.
(5) Number in parenthesis (XX) indicates this SD is used only if given SD is in group XX.
(6) Used by call proc (test call) to give sync test responses to incoming trunks.
(7) "MF" or "DP" in parenthesis indicates this SD is used only if the outgoing trunk is MF or DP.
(8) Groups 31 and 32 used by call processing (test call) to give charge tests response to incoming trunks.
(9) In LO-1 and EF-1, usage counts on incoming trunks can be made if the trunk is defined in a 2-way trunk group. No peg can be obtained. In EF-2 and later generics, peg and usage counts are made on all incoming trunk groups.

TABLE K (Contd)

PEG AND USAGE COUNTS ON CIRCUITS SORTED BY SD NUMBER

SD	TRUNK ORDER CODE	SVC/ TRK GRP	PEG AND USAGE COUNTS MADE: DURING CALL PROC PEG	DURING CALL PROC USAGE	TTP OR WHEN DGN PEG	TTP OR WHEN DGN USAGE	NOTES	WHEN USED BY DGN OF ANOTHER CKT USAGE	WHEN USED BY DGN OF ANOTHER CKT PEG COUNTS NOT MADE WHEN USED TO DIAGNOSE THESE CKTS	WHEN USED BY DGN OF ANOTHER CKT PEG COUNTS ARE MADE WHEN USED TO DIAGNOSE THESE CKTS
2H136	732XX	048	Yes	Yes	No	Yes	3, 6	—	—	
2H137	633XX	012	Yes	Yes	No	Yes	3	—	—	
2H141	235XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H142	736XX	051	—	—	—	—	1, 2	Yes	Subscriber Lines	
2H144	238XX	>69	Yes	Yes	No	Yes	3	—	—	
2H147	248XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H148	550XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H149	149XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H151	239XX	058-061	Yes	Yes	—	—	2, 3, 9	—	—	
2H154	157XX	>69	Yes	Yes	—	—	2, 3, 9	—	—	
2H155	660XX	>69	Yes	Yes	—	—	2, 3			
2H157	565XX	>69	Yes	Yes	No	Yes	3	—	—	
2H158	566XX	>69	Yes	Yes	No	Yes	3	—	—	
2H159	767XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H169	746XX	053	—	—	—	—	1, 2, 4	Yes	2H132, 2H145	2H102, 172, 173, 176, (*3), 182
2H174	553XX	>69	Yes	Yes	No	Yes	3	—	—	
2H176	662XX	>69	Yes	Yes	No	Yes	3	—	—	
2H177	658XX	001-002	Yes	Yes	No	Yes	—	Yes	2H132	
2H178	663XX	014-015	Yes	Yes	No	Yes	3	—	—	
2H180	564XX	>69	Yes	Yes	No	Yes	3	—	—	
2H184	770XX	039	Yes	Yes	—	—	2, 3	—	—	
2H185	769XX	049	Yes	Yes	No	Yes	3	—	—	
2H185	769XX	050	Yes	Yes	No	Yes	—	Yes	2H128	
2H186	672XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H212	682XX	>69	Yes	Yes	No	Yes	3	—	—	

Notes:

(1) Cannot be used by 'Call Processing' (see 5.02).
(2) Cannot be diagnosed.
(3) Not used to DGN another CKT.
(4) Number in parenthesis (*Y) indicates quantity of pegs on one diagnostic.
(5) Number in parenthesis (XX) indicates this SD is used only if given SD is in group XX.
(6) Used by call proc (test call) to give sync test responses to incoming trunks.
(7) "MF" or "DP" in parenthesis indicates this SD is used only if the outgoing trunk is MF or DP.
(8) Groups 31 and 32 used by call processing (test call) to give charge test response to incoming trunks.
(9) In LO-1 and EF-1, usage counts on incoming trunks can be made if the trunk is defined in a 2-way trunk group. No peg can be obtained. In EF-2 and later generics, peg and usage counts are made on all trunk groups.

TABLE L

PEG AND USAGE COUNTS ON CIRCUITS SORTED BY TRUNK ORDER CODE

SD	TRUNK ORDER CODE	SVC/ TRK GRP	PEG AND USAGE COUNTS MADE: DURING CALL PROC PEG	DURING CALL PROC USAGE	TTP OR WHEN DGN PEG	TTP OR WHEN DGN USAGE	NOTES	WHEN USED BY DGN OF ANOTHER CKT USAGE	PEG COUNTS NOT MADE WHEN USED TO DIAGNOSE THESE CKTS	PEG COUNTS ARE MADE WHEN USED TO DIAGNOSE THESE CKTS
2H103	001XX	>69	Yes	Yes	No	Yes	3	—	—	
2H104	102XX	>69	Yes	Yes	No	Yes	3, 9	—	—	
2H111	108XX	>69	Yes	Yes	—	—	2, 3, 9	—	—	
2H149	149XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H101	156XX	>69	Yes	Yes	No	Yes	3, 9	—	—	
2H154	157XX	>69	Yes	Yes	—	—	2, 3, 9			
2H105	203XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H107	204XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H113	210XX	062	Yes	Yes	—	—	2, 3	—	—	
2H141	235XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H144	238XX	>69	Yes	Yes	No	Yes	3	—	—	
2H151	239XX	058-061	Yes	Yes	—	—	2, 3, 9	—	—	
2H147	248XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H108	305XX	>69	Yes	Yes	—	—	2, 3, 9	—	—	
2H109	306XX	>69	Yes	Yes	—	—	2, 3, 9	—	—	
2H110	407XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H112	509XX	>69	Yes	Yes	No	Yes	3	—	—	
2H148	550XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H174	553XX	>69	Yes	Yes	No	Yes	3	—	—	
2H180	564XX	>69	Yes	Yes	No	Yes	3	—	—	
2H157	565XX	>69	Yes	Yes	No	Yes	3	—	—	
2H158	566XX	>69	Yes	Yes	No	Yes	3	—	—	
2H114	611XX	001-002	Yes	Yes	No	Yes	—	Yes	2H132	
2H116	612XX	008-010	Yes	Yes	No	Yes	3	—	—	
2H118	614XX	033	Yes	Yes	No	Yes	4	Yes	—	2H137 (*3)
2H118	614XX	016-024	Yes	Yes	No	Yes	3	—	—	
2H118	614XX	029-032	Yes	Yes	No	Yes	3, 8	—	—	
2H118	614XX	034	Yes	Yes	No	Yes	3	—	—	
2H119	615XX	016-024	Yes	Yes	No	Yes	3	—	—	
2H121	617XX	005	Yes	Yes	No	Yes	7	Yes	2H124	2H103 (MF), 112 (MF), 144, 158
2H122	618XX	006	Yes	Yes	No	Yes	7	Yes	—	2H103 (DP), 174, 180
2H123	619XX	013	Yes	Yes	No	Yes	3	—	—	
2H123	619XX	004	Yes	Yes	No	Yes	3	—	—	
2H124	620XX	003	Yes	Yes	No	Yes	—	Yes	2H121	
2H125	621XX	011	Yes	Yes	No	Yes	3	—	—	
2H126	622XX	007	Yes	Yes	No	Yes	3	—	—	
2H137	633XX	012	Yes	Yes	No	Yes	2	—	—	
2H177	658XX	001-002	Yes	Yes	No	Yes	—	Yes	2H132	
2H155	660XX	>69	Yes	Yes	—	—	2, 3			
2H176	662XX	>69	Yes	Yes	No	Yes	3	—	—	
2H178	663XX	014-015	Yes	Yes	No	Yes	3	—	—	

Notes:

(1) Cannot be used by 'Call Processing' (see 5.02).
(2) Cannot be diagnosed.
(3) Not used to DGN another CKT.
(4) Number in parenthesis (*Y) indicates quantity of pegs on one diagnostic.
(5) Number in parenthesis (XX) indicates this SD is used only if given SD is in group XX.
(6) Used by call proc (test call) to give sync test responses to incoming trunks.
(7) "MF" or "DP" in parenthesis indicates this SD is used only if the outgoing trunk is MF or DP.
(8) Groups 31 and 32 used by call processing (test call) to give charge test responses to incoming trunks.
(9) In LO-1 and EF-1, usage counts on incoming trunks can be made if the trunk is defined in a 2-way trunk group. No peg can be obtained. In EF-2 and later generics, peg and usage counts are made on all incoming trunk groups.

TABLE L (Contd)

PEG AND USAGE COUNTS ON CIRCUITS SORTED BY TRUNK ORDER CODE

SD	TRUNK ORDER CODE	SVC/ TRK GRP	PEG AND USAGE COUNTS MADE: DURING CALL PROC PEG	DURING CALL PROC USAGE	TTP OR WHEN DGN PEG	TTP OR WHEN DGN USAGE	NOTES	WHEN USED BY DGN OF ANOTHER CKT USAGE	WHEN USED BY DGN OF ANOTHER CKT: PEG COUNTS NOT MADE WHEN USED TO DIAGNOSE THESE CKTS	WHEN USED BY DGN OF ANOTHER CKT: PEG COUNTS ARE MADE WHEN USED TO DIAGNOSE THESE CKTS
2H186	672XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H126	673XX	007	Yes	Yes	No	Yes	3	—	—	
2H212	682XX	>69	Yes	Yes	No	Yes	3	—	—	
2H127	723XX	050	Yes	Yes	No	Yes	—	Yes	2H128	
2H127	723XX	049	Yes	Yes	No	Yes	3	—	—	
2H127	723XX	048	Yes	Yes	No	Yes	3, 6	—	—	
2H128	724XX	041A	—	—	No	Yes	1	Yes	2H101, 103, 104, 112, 122, 127, 132, 135	
2H128	724XX	041B	—	—	No	Yes	1	Yes	2H136, 144, 157, 158, 174, 178, 180, 185	
2H129	725XX	045	Yes	Yes	—	—	2, 3	—	—	
2H131	727XX	046	—	—	—	—	1, 2, 5	Yes	2H114 (02), 2H123 (13), 2H177 (02)	2H178
2H132	728XX	047A	—	—	No	Yes	1, 4, 5	Yes	2H102, 103, 112, 114, 123, 136 (35, 43)	2H118, 119, 137 (*4), 172, 173
2H132	728XX	047B	—	—	No	Yes	1, 4	Yes	2H144, 145, 157, 158, 174, 177, 180	2H176 (*7), 178, 182
2H133	729XX	040	—	—	—	—	1, 2	Yes	2H114, 2H123, 2H178, 2H177	
2H134	730XX	042	—	—	—	—	1, 2	Yes	—	2H121, 124
2H135	731XX	044	—	—	No	Yes	1	Yes	2H116, 2H125, 2H126	
2H136	732XX	035	Yes	Yes	No	Yes	3	—	—	
2H136	732XX	043	Yes	Yes	No	Yes	3	—	—	
2H136	732XX	052	Yes	Yes	No	Yes	3	—	—	
2H136	732XX	048	Yes	Yes	No	Yes	3, 6	—	—	
2H142	736XX	051	—	—	—	—	1, 2	Yes	Subscriber Lines	
2H169	746XX	053	—	—	—	—	1, 2, 4	Yes	2H132, 2H145	2H102, 172, 173, 176 (*3), 182
2H159	767XX	>01	Yes	Yes	—	—	2, 3	—	—	
2H185	769XX	049	Yes	Yes	No	Yes	3	—	—	
2H185	769XX	050	Yes	Yes	No	Yes	—	Yes	2H128	
2H184	770XX	039	Yes	Yes	—	—	2, 3	—		

Notes:

(1) Cannot be used by 'Call Processing' (see 5.02).
(2) Cannot be diagnosed.
(3) Not used to DGN another CKT.
(4) Number in parenthesis (*Y) indicates quantity of pegs on one diagnostic.
(5) Number in parenthesis (XX) indicates this SD is used only if given SD is in group XX.
(6) Used by call proc (test call) to give sync test responses to incoming trunks.
(7) "MF" or "DP" in parenthesis indicates this SD is used only if the outgoing trunk is MF or DP.
(8) Groups 31 and 32 used by call processing (test call) to give charge test responses to incoming trunks.
(9) In LO-1 and EF-1, usage counts on incoming trunks can be made if the trunk is defined in a 2-way trunk group. No peg can be obtained. In EF-2 and later generics, peg and usage counts are made on all incoming trunk groups.

TABLE M

PEG AND USAGE COUNTS ON CIRCUITS SORTED BY GROUP NUMBER

SD	TRUNK ORDER CODE	SVC/ TRK GRP	PEG AND USAGE COUNTS MADE: DURING CALL PROC PEG	DURING CALL PROC USAGE	TTP OR WHEN DGN PEG	TTP OR WHEN DGN USAGE	NOTES	WHEN USED BY DGN OF ANOTHER CKT USAGE	WHEN USED BY DGN OF ANOTHER CKT PEG COUNTS NOT MADE WHEN USED TO DIAGNOSE THESE CKTS	WHEN USED BY DGN OF ANOTHER CKT PEG COUNTS ARE MADE WHEN USED TO DIAGNOSE THESE CKTS
2H159	767XX	>01	Yes	Yes	—	—	2, 3	—	—	
2H104	102XX	>69	Yes	Yes	No	Yes	3, 9	—	—	
2H111	108XX	>69	Yes	Yes	—	—	2, 3, 9	—	—	
2H149	149XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H101	156XX	>69	Yes	Yes	No	Yes	3, 9	—	—	
2H154	157XX	>69	Yes	Yes	—	—	2, 3, 9			
2H105	203XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H107	204XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H103	001XX	>69	Yes	Yes	No	Yes	3	—	—	
2H141	235XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H144	238XX	>69	Yes	Yes	No	Yes	3	—	—	
2H186	672XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H147	248XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H108	305XX	>69	Yes	Yes	—	—	2, 3, 9	—	—	
2H109	306XX	>69	Yes	Yes	—	—	2, 3, 9	—	—	
2H110	407XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H112	509XX	>69	Yes	Yes	No	Yes	3	—	—	
2H148	550XX	>69	Yes	Yes	—	—	2, 3	—	—	
2H174	553XX	>69	Yes	Yes	No	Yes	3	—	—	
2H180	564XX	>69	Yes	Yes	No	Yes	3	—	—	
2H157	565XX	>69	Yes	Yes	No	Yes	3	—	—	
2H158	566XX	>69	Yes	Yes	No	Yes	3	—	—	
2H176	662XX	>69	Yes	Yes	No	Yes	3	—	—	
2H155	660XX	>69	Yes	Yes	—	—	2, 3			
2H212	682XX	>69	Yes	Yes	No	Yes	3	—	—	
2H177	658XX	001-002	Yes	Yes	No	Yes	—	Yes	2H132	
2H114	611XX	001-002	Yes	Yes	No	Yes	—	Yes	2H132	
2H124	620XX	003	Yes	Yes	No	Yes	—	Yes	2H121	
2H123	619XX	004	Yes	Yes	No	Yes	3	—	—	
2H121	617XX	005	Yes	Yes	No	Yes	7	Yes	2H124	2H103 (MF), 112 (MF), 144, 158
2H122	618XX	006	Yes	Yes	No	Yes	7	Yes	—	2H103 (DP), 174, 180
2H126	622XX	007	Yes	Yes	No	Yes	3	—	—	
2H126	673XX	007	Yes	Yes	No	Yes	3	—	—	
2H116	612XX	008-010	Yes	Yes	No	Yes	3	—	—	
2H125	621XX	011	Yes	Yes	No	Yes	3	—	—	
2H137	633XX	012	Yes	Yes	No	Yes	3	—	—	
2H123	619XX	013	Yes	Yes	No	Yes	3	—	—	
2H178	663XX	014-015	Yes	Yes	No	Yes	3	—	—	
2H119	615XX	016-024	Yes	Yes	No	Yes	3	—	—	

Notes:

(1) Cannot be used by 'Call Processing' (see 5.02).
(2) Cannot be diagnosed.
(3) Not used to DGN another CKT.
(4) Number in parenthesis (*Y) indicates quantity of pegs on one diagnostic.
(5) Number in parenthesis (XX) indicates this SD is used only if given SD is in group XX.
(6) Used by call proc (test call) to give sync test responses to incoming trunks.
(7) "MF" or "DP" in parenthesis indicates this SD is used only if the outgoing trunk is MF or DP.
(8) Groups 31 and 32 used by call processing (test call) to give charge test responses to incoming trunks.
(9) In LO-1 and EF-1, usage counts on incoming trunks can be made if the trunk is defined in a 2-way trunk group. No peg can be obtained. In EF-2 and later generics, peg and usage counts are made on all incoming trunk groups.

TABLE M (Contd)

PEG AND USAGE COUNTS ON CIRCUITS SORTED BY GROUP NUMBER

SD	TRUNK ORDER CODE	SVC/ TRK GRP	PEG AND USAGE COUNTS MADE: DURING CALL PROC PEG	DURING CALL PROC USAGE	TTP OR WHEN DGN PEG	TTP OR WHEN DGN USAGE	NOTES	WHEN USED BY DGN OF ANOTHER CKT USAGE	WHEN USED BY DGN OF ANOTHER CKT PEG COUNTS NOT MADE WHEN USED TO DIAGNOSE THESE CKTS	WHEN USED BY DGN OF ANOTHER CKT PEG COUNTS ARE MADE WHEN USED TO DIAGNOSE THESE CKTS
2H118	614XX	016-024	Yes	Yes	No	Yes	3	—	—	
2H118	614XX	029-032	Yes	Yes	No	Yes	3, 8	—	—	
2H118	614XX	033	Yes	Yes	No	Yes	4	Yes	—	2H137 (*3)
2H118	614XX	034	Yes	Yes	No	Yes	3	—	—	
2H136	732XX	035	Yes	Yes	No	Yes	3	—	—	
2H184	770XX	039	Yes	Yes	—	—	2, 3	—	—	
2H133	729XX	040	—	—	—	—	1, 2	Yes	2H114, 2H123, 2H178, 2H177	
2H128	724XX	041A	—	—	No	Yes	1	Yes	2H101, 103, 104, 112, 122, 127, 132, 135	
2H128	724XX	041B	—	—	No	Yes	1	Yes	2H136, 144, 157, 158, 174, 178, 180, 185	
2H134	730XX	042	—	—	—	—	1, 2	Yes	—	2H121, 124
2H136	732XX	043	Yes	Yes	No	Yes	3	—	—	
2H135	731XX	044	—	—	No	Yes	1	Yes	2H116, 2H125, 2H126	
2H129	725XX	045	Yes	Yes	—	—	2, 3	—	—	
2H131	727XX	046	—	—	—	—	1, 2, 5	Yes	2H114 (02), 2H123 (13), 2H177 (02)	2H178
2H132	728XX	047A	—	—	No	Yes	1, 4, 5	Yes	2H102, 103, 112, 114, 123, 136 (35, 43)	2H118, 119, 137 (*4), 172, 173
2H132	728XX	047B	—	—	No	Yes	1, 4	Yes	2H144, 145, 157, 158, 174, 177, 180	2H176 (*7), 178, 182
2H127	723XX	048	Yes	Yes	No	Yes	3, 6	—	—	
2H136	732XX	048	Yes	Yes	No	Yes	3, 6	—	—	
2H127	723XX	049	Yes	Yes	No	Yes	3	—	—	
2H185	769XX	049	Yes	Yes	No	Yes	3	—	—	
2H127	723XX	050	Yes	Yes	No	Yes		—	Yes	2H128
2H185	769XX	050	Yes	Yes	No	Yes		—	Yes	2H128
2H142	736XX	051	—	—	—	—	1, 2	Yes	Subscriber Lines	
2H136	732XX	052	Yes	Yes	No	Yes	3	—	—	
2H169	746XX	053	—	—	—	—	1, 2, 4	Yes	2H132, 2H145	2H102, 172, 173, 176 (*3), 182
2H151	239XX	058-061	Yes	Yes	—	—	2, 3, 9	—	—	
2H113	210XX	062	Yes	Yes	—	—	2, 3	—	—	

Notes:

(1) Cannot be used by 'Call Processing' (see 5.02).
(2) Cannot be diagnosed.
(3) Not used to DGN another CKT.
(4) Number in parenthesis (*Y) indicates quantity of pegs on one diagnostic.
(5) Number in parenthesis (XX) indicates this SD is used only if given SD is in group XX.
(6) Used by call proc (test call) to give sync test responses to incoming trunks.
(7) "MF" or "DP" in parenthesis indicates this SD is used only if the outgoing trunk is MF or DP.
(8) Groups 31 and 32 used by call processing (test call) to give charge test responses to incoming trunks.
(9) In LO-1 and EF-1, usage counts on incoming trunks can be made if the trunk is defined in a 2-way trunk group. No peg can be obtained. In EF-2 and later generics, peg and usage counts are made on all incoming trunk groups.

TABLE N

H AND C SCHEDULE (EF-2 ARRANGED WITH EADAS)*

REGISTER	DESCRIPTION	COMMENT
TRUNK AND SERVICE CIRCUIT MEASUREMENTS		
TRK01	Trunk group number.	Only those trunk groups defined on the H and C schedules are printed.
TRK02	Group peg count.	Peg count is the total number of selection attempts (includes overflow.) See paragraphs 5.01 through 5.04 and Fig. 7B, 8B and 9B.
TRK03	Group usage measurement.	A 10-second usage measurement is performed on all service circuit groups. A 100-second usage measurement is performed on all trunk groups. Both incoming and outgoing usage measurements are included on 2-way trunk groups. Maintenance busy circuits are not included. See paragraphs 5.01 through 5.04.
TRK04	Group overflow count.	An overflow count is scored if on the last attempt to select a circuit all circuits are busy (maximum count of 8191). See Fig. 7B, 8B, and 9B.
TRK05	Maintenance busy count.	The number of circuits in this group that is maintenance busy at the time of the printout.

* The TRK section is printed with the same format as the H or C schedule (LO-1 and EF-1) TRK section.

5.04 From Tables K, L, and M, it can be seen that all combinations of peg and usage counts can be obtained in a given hour; peg and usage, peg and no usage, no peg and usage, and no peg nor usage. Some of these combinations may even appear on a given service circuit group from hour to hour, depending on the mix of circuits tested. It should be noted that for some test circuits where the holding time is very short (well under one second), the traffic schedule may show pegs with no apparent usage, even though the attachment says both are counted. This is just statistical averaging.