

SWITCHING SYSTEMS MANAGEMENT
NO. 2 ELECTRONIC SWITCHING SYSTEM (2-WIRE)
DATA MANAGEMENT

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1. INTRODUCTION

GENERAL

1.01 Data acquisition and the subsequent summarization and dissemination to other interested groups is an important job responsibility of the network administrator. Data acquisition in the No. 2 Electronic Switching System (ESS) dial system in some cases is generically programmed and in other cases is programmed through translations. By using the traffic work table (TWT), the network administrator is able to control the collection and printout times of the traffic measurement schedules. There are five distinct traffic measurement schedules in the No. 2 ESS—the Q, H, C, D, and W schedules. The Q, D, and W schedules are fixed in the generic program which contains the measurements and **cannot be changed.** The H and C schedules, however, are variable. The measurements for the trunks and service circuits in these schedules are assigned through translations. Each of these schedules and the determination of busy hours and busy season are explained in detail in Dial Facilities Management Practice, Division H, Section 10i, "Traffic Measurements." The TWT is discussed in the above section as well as in Section 10d(8), "Operational Features—Teletypewriters."

1.02 Once the busy hour or hours have been determined for call processing, network

usage, trunks, and service circuits, the Q, H, and C schedules should be programmed to print these hours of data. (The H schedule may also be programmed to print on tape which may be used in *Program for Administrative Traffic Reports On Line* [PATROL], a computer program which will be discussed in Part 2 of this section.) In addition, certain Q schedule register results should be produced in the least busy hour of the day. These registers are the Q5, Q6, Q7, Q11, and Q14. These readings will be used in determining the call capacity of the system.

1.03 The D schedule may be programmed to collect a 24-hour total of outgoing *toll* calls on all trunk groups or on specified trunk groups whenever this information is required. ***These are the only total day counts available at this time.***

1.04 The W schedule may be programmed to collect B-link usage counts for each of the concentrators (2:1) or pairs of concentrators (4:1) which are shown as NW(X) on the W schedule. These counts are used in the load balancing process. The methods of and procedures for load balancing are discussed in Dial Facilities Management Practice, Division H, Section 10g, "Load Balance." The Load Balance Index Plan is described in Dial Facilities Management Practice, Division A, Section 5b.

1.05 At least one year's data should be accumulated to determine the busy season months. If, however, the configuration of the office should change because of area line transfers, centrex, added equipment, new service offerings, etc, the accumulation of data should be continued for another 12-month period to verify the busy season. At the same time, the busy hours should be verified.

1.06 Summaries of this data may be done manually or through computerized programs which validate and perform calculations for the various reports. A portion of this practice is devoted to a description of one of these programs, PATROL, and to a manual summary of data.

1.07 The PATROL program summarizes an hour's data for all items from the H schedule. This data is primarily used for central office engineering (COE). All other schedules should be summarized at the telephone company location.

TOTAL NETWORK DATA SYSTEM

1.08 Eventually, PATROL will be integrated into the AT&T Total Network Data System (TNDS). The traffic data will be transmitted from the No. 2 ESS system into the Engineering and Administrative Data Acquisition System (EADAS). This system will provide real-time surveillance and exception reports. From this system, the traffic data will be sent via magnetic tape to the Traffic Data Administration System (TDAS) and transmitted to PATROL as well as to other programs such as Trunk Forecasting and Load Balance (Fig. 1). The EADAS System is discussed in Dial Facilities Management Practice, Division D, Section 4.

2. DESCRIPTION OF NO. 2 ESS PATROL

GENERAL

2.01 The PATROL program, as announced in AT&TCo General Letter 74-04-148, is a time-shared computer program which processes H schedule data from paper tapes which were punched on the No. 2 ESS traffic teletypewriter for the desired busy hours. Before processing begins, however, the tapes must be transmitted by the network administrator from another teletypewriter via the direct distance dialing (DDD) network to the AT&TCo time-shared VM 370 computer from which administrative and engineering reports will be generated.

2.02 The PATROL program provides the following features:

- (a) On-line access to large quantities of data
- (b) Daily, weekly, monthly, high day and busy season reports in "near real-time"
- (c) Data validation and threshold exception flagging capability
- (d) Control of data retention
- (e) Automatic selection of high day data
- (f) Conversational style of communication with the computer.

2.03 For assistance with any PATROL problems, it has been recommended that a company PATROL coordinator be appointed who will be the

liaison between the operating telephone company and the AT&T coordinator of PATROL.

2.04 Each person who wishes to utilize the PATROL program must be assigned a user identification number (user ID) and a unique password by the operating company's time-sharing computer coordinator. A PATROL user has read/write access only to data files associated with his or her user ID. "Read-only" access to another user's data files is allowed only by explicit request; ie, a request from a network designer needing data for traffic order purposes.

2.05 Initially, each user is assigned one cylinder of disk storage in the computer for the required data files (referred to as history files) and is given access to both the No. 1 and No. 2 ESS PATROL systems. More storage space may be assigned, if required, through the company's PATROL coordinator who makes the arrangements with the VM 370 computer manager.

2.06 A set of user instructions (lessons) is available and it is recommended that the operating telephone company PATROL coordinator obtain these instructions for the network administrator. (See Figure 2 for the commands and prompters used to obtain lessons.) These lessons define the commands required by the PATROL program to input or retrieve data, or to make necessary changes for the respective No. 2 ESS unit (user ID).

2.07 The No. 2 ESS PATROL system can be logically divided into five subsystems (Fig. 3):

- (a) Office description
- (b) Data entry
- (c) Report generation
- (d) Data management
- (e) Miscellaneous functions

2.08 In the computer, an executive routine maintains overall control of PATROL. The executive communicates with the user of the PATROL program in easily understood commands and prompters. The user's command is interpreted and, if additional information is required to complete the request, the executive routine will ask for the

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necessary information with specified prompts for the command (Table A).

OFFICE DESCRIPTION SUBSYSTEM

2.09 Information from the office description forms identifies in the PATROL System the types of equipment and measurements in the H schedule, along with the corresponding register numbers (Fig. 4). The operating telephone company PATROL coordinator may obtain the description forms, PAT-2-ESS, accompanying AT&TCo General Letters 74-01-148 and 74-08-202. Included in these office description forms are parameters such as main station counts, holding time thresholds, and engineered capacities which are used to produce administrative and engineering statistics. (The PATROL lessons explain the preparation of these forms.) The PATROL program does not report statistics for equipment or measurements which do not have a corresponding entry on the office description forms. However, the program does allow additions, changes, or deletions to the office description file through the UPDATE command process. After the forms are completed, they should be sent by the operating telephone company PATROL coordinator to AT&T. The forms will be keypunched and loaded into the computer and become available to the PATROL program. PATROL reads the keypunched cards and builds the office description file (ODF). After the office description file is built, the AT&T computer manager will call the operating telephone company coordinator to begin activating the file. The file is validated by the program and when activation occurs, the user is notified of any errors. If there are errors in the file, the user must correct the errors and the file is revalidated. If the session is interrupted for any reason, it will be automatically restarted the next time the user signs on. Once the file is successfully built and validated, the user may establish busy hours in the program and begin to enter H schedule tapes for these hours. Entries and validation procedures are discussed in the PATROL lessons. Figure 5 shows an example of the activate and update process and Figure 6 shows an example of the method of establishing busy hours and the first tape entry.

DATA ENTRY SUBSYSTEM

2.10 The data entry subsystem processes 1 hour of H schedule data for all of the items existing in the office description subsystem. The data may be entered as 1/4-, 1/2- or 1-hour H

schedule tapes. The 1/4- and 1/2-hour tapes will be accumulated into 1 hour of data by the data entry subsystem. Each tape is independently validated and is added to a temporary disk file containing the partial hour of H schedule data. When 1/4- or 1/2-hour H schedule tapes are accumulated, the times of the tape must fall within the hour preceding the busy hour specified by the user. *It is recommended that the first day of data entry begin on the first day of the service observing month.*

2.11 The format of the H schedule is fixed. The header line of the H schedule contains the date, time, and office identification. When a user inputs a paper tape, a computer routine summoned by PATROL begins to scan each line of the tape, looking for the header line. The letters PR H are used by PATROL to locate the items in the header line. If the header line is missing and the program encounters the letters TRK and if the remainder of the tape is good, the user will be prompted to supply the required header items. If the END message or the physical end of tape is encountered before the PR H or TRK words, the PATROL program assumes that an invalid tape has been entered and will terminate the session. If the data has not been correctly entered after three attempts, the PATROL program will also disconnect the user from the terminal. The time which appears in the header of the H schedule is not the scheduled time of data output, but the time when output of the tape began. If a No. 2 ESS machine encounters a heavily loaded condition and the output of the tape is delayed more than 1 minute (eg, 1701-01 rather than 1700-59), the PATROL program will not accept this time and the user will be disconnected.

2.12 Once the time, date, and office are obtained, further validations are performed. The office ID must correspond to an existing office description file. If the calculations need to be saved in the history files, the time must match one of the established busy hours and a tape for the same data must *not* have been entered previously. Finally, the data is checked to see that no more than five tapes have been entered since the end date of the current service observing month or year. If any of these validations fail, the tape entry attempt is rejected by the PATROL System.

2.13 After the header information has passed all of the validation tests, the traffic data is processed one line at a time. Each line is scanned

to determine if it is the beginning of a new section of the H schedule (ie, the line begins with the letters TRK, MLH, OFT, PRC, BYL, or JCT). The ten register values on the line are checked for nonnumeric characters. Each register value must be in the correct position on the line and there must not be any "garbage characters" between the register values. If any errors are detected on the line, the line is printed and a series of up arrows (↑) are printed beneath the bad characters. The user has the opportunity of doing either of the following:

- Reentering the entire line
- Reentering only those register values in error
- Skipping the line entirely
- Discontinuing the tape entry session.

If a tape entry session is interrupted before complete entry of the paper tape, the paper tape *must* be reentered.

2.14 Once the H schedule tape has been validated, a set of calculations is performed for each entry in the ODF. In addition, the office total calculations (OFT section of H schedule) are made independently. The register values in the H schedule for the office total calculations are programmed into PATROL rather than specified by entries in the ODF. Register values in the OFT and JCT sections of the H schedule are used in the office total calculations. An exception report is printed for those service circuits and miscellaneous trunks whose computed holding time falls outside the holding time threshold values specified by the user. Items which exceed certain parameters are considered "flagged" on the exception report and are annotated by an asterisk (*). No flagged items are used in computing averages for later reports (Fig. 6).

SAVING STATISTICS

2.15 The statistics which have been calculated for the selected busy hours must be saved in the daily and the high day/busy season (HD/BS) history files for those hours. *No raw traffic data is saved in the history files.* After the statistics for each entry in the ODF are calculated, the statistics are entered into the daily history files.

There is an HD/BS file corresponding to each daily history file. Each HD/BS file contains one record per entry in the ODF. The high day portion of the file contains 15 days of high day data. An average computed for the ten highest days will be printed on the machine load service summary (MLSS) report. The busy season file contains an average for each month. An average of the three busy season months and a listing of the average of each of the months will be printed on the MLSS report. A daily summary report is generated which contains office counts, dial tone speed, and matching loss statistics in addition to the flagged items (Fig. 6).

SUMMARY ONLY PROCESSING OF DATA

2.16 The user may enter tapes for odd hours of data and receive a summary only report. None of the H schedule statistics are saved in history files. The tape entry, validation, and statistical calculations are similar to those described in 2.10 through 2.14 under "Data Entry Subsystem". The summary only report contains a set of statistics for each ODF entry as well as any flagged items, office counts, dial tone speed, and incoming matching loss report (Fig. 7).

REPORT GENERATION

2.17 In addition to the daily summary report generated at the end of data entry, four other report types are available: the weekly, monthly, intermediate, and the MLSS (HD/BS) reports. Each report type varies in the amount of detail, the number of days of data, the number of sections, and which items within a section are requested.

2.18 The weekly and monthly reports are for five days and total service observing month, respectively. For each item, the statistics are listed by day and an average for the period is computed and printed. As the monthly averages are calculated for each item, the averages are entered into the HD/BS file. Figures 8 and 9 show examples of the requests and the actual reports. Monthly data must be retrieved within five days after the end-of-month period before additional data will be accepted. If 12 months of data have been accumulated, the HD/BS files will not accept additional data and must be recycled to a new 12-month period.

2.19 The intermediate report is a customized report which may contain daily or HD/BS

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data for selected items and a maximum of 70 days of data. An example of the request and the actual report are shown in Figure 10.

2.20 The MLSS contains a list for each item of the 15 high days of data followed by the 10 high day average, 12 monthly averages, and a 3 high month busy season average. The high days are selected by CCS per main station or the main station calling rate, depending on the item. An example of the request for MLSS and an actual report are shown in Figure 11.

2.21 Because some reports are lengthy and detailed, the PATROL user may request that the reports be printed remotely at the computer location and mailed to the user. This results in considerable savings in processing and printing costs to the user and is recommended for MLSS, monthly reports, lessons, and cost statistics.

SHARING DATA INFORMATION

2.22 Some users can share other user's files on a read-only basis. For example, network administration and network design personnel will be interested in accessing the history data for a No. 2 ESS office. For administrative and cost control purposes, the separate groups are usually assigned different user ID numbers. The history data is maintained on the network administrator's ID. When the network designer wants to access the history data to produce reports, the network administrator's ID is attached and allows the network designer to access the data on a read-only basis. While the network designer is attached, the network administrator *can* gain access to the history files. If the network administrator is attached, the network designer *cannot* gain access to the history files.

DATA MANAGEMENT

2.23 The network administrator has the prime responsibility for managing the data once it has been entered into the history files. The network administrator must validate the data in the history files and decide which data should be kept and how long it should be kept. The data entry routines do elementary validations on the H schedule data for such errors as wrong formats and incorrect data values. In addition, the holding time ranges for service circuits are compared to the holding time ranges defined initially by the

user in the ODF (see Table B and Fig. 12). (In addition, Table B shows the upper and lower bounds of suggested threshold values for exception reports which will be punched in the EADAS system.) If the holding time falls outside the established ranges, the statistics for that item are flagged. It is the responsibility of the user to "unflag" the item if the data is legitimate and to flag invalid data which eluded the holding time validation tests. The user also must decide which data should be kept and which should be deleted from the history files. A balance must be found between keeping the data long enough to generate all necessary reports and keeping too much data too long which is expensive for storage space costs. ***Before data is deleted all items which need to be flagged or unflagged must be completed; otherwise, incorrect data will remain in the files.***

PATROL COSTS

2.24 Whenever the PATROL program is used, the current time, the number of processor seconds used, and the number of input/output accesses up to that point are recorded. When the user "logs-off" PATROL, the elapsed time (terminal connect time), processor usage, and input/output are computed and used to calculate the approximate session charges. Neither the disk storage charges nor the prorated costs of PATROL upkeep are included in this total.

SUMMARY OF DATA

2.25 In order that developing trends can be seen, certain data may be summarized in chart form similar to the form in Figure 13. CCS/main station trending, CCS/working terminal (TEN) trending, and calling rate/main station trending in graphic form may be helpful also (Fig. 14). No recommendation can be made for load-service graphs, since no empirical data has been accumulated up to the present time.

3. NONMECHANIZED PROCESSING OF DATA

GENERAL

3.01 From the various traffic teletypewriter printouts, the network administrator will collect, record, and validate data needed to administer, design, and evaluate the performance of a No. 2 ESS.

DATA PACKAGE

3.02 The network administrator should obtain the AT&TCo General Letter which transmits the No. 2 ESS—Standard Traffic Data Forms, Revised, for recording data from the Q, H, C, D, and W schedules. Each form is self-explanatory. The service observing month should be the time frame for accumulation of data.

DATA MANAGEMENT

3.03 The network administrator has the *prime* responsibility for managing the data. The following important items should be verified:

- That the registers are collecting data properly
- That the number of servers in each grouping is programmed properly
- That the engineered capacities are shown for each equipment component
- That the true busy hour and busy season months are studied
- That clerical forces are adequate in number and are properly trained
- That entries are accurately recorded
- That computations are accurate
- That only "good" data is accumulated.

3.04 In addition to the above, there are several validation checks which can be made. The figures will not always be equal because of the time frame in which the information is printed. Some calls are lost because of peripheral order buffer and continuity failures, also. The validation checks are shown in graphic form in Figure 12.

- (a) Holding time ranges for service circuits are given in Table B.
- (b) Total line originations (OFT 05) = total originating calls (OFT 06) plus permanent signals (OFT 23) plus false starts (OFT 24).

- (c) Total customer digit receiver peg count = total line originations (OFT 05).
- (d) Total originating calls (OFT 06) = outgoing calls (OFT 14) plus intraoffice calls (OFT 11) plus partial dial abandoned calls (OFT 21) plus partial dial timed-out calls (OFT 22).
- (e) Outgoing calls (OFT 14) = multifrequency peg count plus dial pulse (DP) transmitter peg count plus straight forward trunks or no pulsing trunks peg count (operator, desk, etc).
- (f) Total trunk originations (OFT 07) = incoming bylink peg count plus multifrequency (MF) receivers peg count plus DP receivers peg count.
- (f) Incoming calls (OFT 08) less incoming lines found busy (OFT 28) plus intraoffice calls (OFT 11) less intraoffice lines found busy (OFT 27) = special ringing circuits peg count plus total of regular ringing phases peg count.
- (h) Busy tone peg count = intraoffice lines found busy (OFT 27) plus incoming calls found busy (OFT 28).
- (i) Permanent signals (OFT 23) = permanent signal announcement peg count.
- (j) Partial dial time-out (OFT 22) = partial dial announcement peg count.

SUMMARY OF DATA

3.05 In order that developing trends can be seen, certain data may be summarized in chart form similar to the one in Figure 13. CCS/main station trending, CCS/working terminal trending, and calling rate/main station trending in graphic form may be helpful also (Fig. 14). No recommendations can be made for load-service graphs since little empirical data has been accumulated to the present time.

3.06 The network administrator and the network designer should agree on which data the network designer should receive as well as the form in which it should be received (ie, actual forms or in summary form only).

TABLE A
COMMANDS AND PROMPTERS

COMMAND	DESCRIPTION OF COMMAND	PROMPTERS REQUIRED	DESCRIPTION OF PROMPTERS	LEGAL VALUES FOR PROMPTERS
S, LETTER O, CARRIAGE RETURN	After connection established and in response to the high-pitched tone type S with carriage return on 100-word teletypewriters; for 30-word, type letter O and carriage return; for 15-word type, carriage return.	—	—	—
ACTIVATE	Establishes initial office description files.	OFFICE	Office ID	NNNNNNH (NPA, office code)
ADDRESS	Changes a user's mailing address.			
ATTACH	Permits read-only access to files of another user.	IDENT	User ID	Any valid PATROL user ID
BUSY	Saves busy hour for a given session or until used again or cleared.	BUSY	Busy hour	NN:NN
CANCEL	Cancels all previously requested remote reports for the day.			
CHANGE	Changes service observing month end.	OFFICE, BUSY, DAY	Office ID, busy hour, end of service observing month	NNNNNNH, NN:NN, day number between 1 and 31
CYCLE	Reinitiates high day, busy season data files.	OFFICE, BUSY	Office ID, busy hour	NNNNNNH, NN:NN
DATES	Lists available report dates.	OFFICE, BUSY, BEGIN, END	Office ID, busy hour, begin date, end date	NNNNNNH, NN:NN, Mo/Dy/Yr, Mo/Dy/Yr
DELETE	Deletes data no longer needed. Deletes data in daily history files only. Does not affect the HD/BS/files. Should be used to delete large blocks of data from the daily history files which will not be needed again for detailed reports. This releases storage for new data.	OFFICE, BUSY, OPTION, BEGIN, END	Office ID, busy hour, printing option, begin date, end date	Office ID, busy hour, local or remote, Mo/Dy/Yr, Mo/Dy/Yr

TABLE A (Cont)

COMMAND	DESCRIPTION OF COMMAND	PROMPTERS REQUIRED	DESCRIPTION OF PROMPTERS	LEGAL VALUES FOR PROMPTERS
DETACH	Removes read-only access from files of another user.	—	—	—
DIFFID	Terminates a session on one ID and initiates a login sequence for another ID.	—	—	—
ENTER	Enters a 1-hour paper tape of block H data which is entered into history files.	—	—	—
FLAG	Places a flag(*) on questionable data.	OFFICE, BUSY, BEGIN, END, DATA, ITEMS	Office ID, busy hour, begin date, end date, type of data which may be office totals or call processing registers or service circuits or miscellaneous peg counts, item numbers desired	NNNNNNH, NN:NN, Mo/Dy/Yr, Mo/Dy/Yr, office or call or serv or misc or none or all, up to 20 numbers separated by commas or all or none
HOUR	Specifies additional busy hour to be processed.	OFFICE, BUSY, DAY	Office ID, busy hour, end of service observing month	NNNNNNH, NN:NN, day number between 1 and 31
LESSONS	Prints lessons at user's terminal or remotely.	PTION, ITEMS	Printing option, items	Local or remote, up to 20 numbers separated by commas or all or none
LIST	Lists item numbers by "REPORT," "FLAG," and "UNFLAG" requests.	OFFICE, BUSY, OPTION, DATA	Office ID, busy hour, printing option, data desired	NNNNNNH, NN:NN, local or remote, office or call or serv or misc or all or none
LOGOUT	Terminates a session.	—	—	—
NEWS	Obtains information on current changes. Specific requests to use will be given during login procedure.	—	—	—
OFFICE	Saves office ID for a given session until used again or cleared.	OFFICE	Office ID	NNNNNNH
OMIT	Removes a specific day or days of data from all files (daily and HD/BS files).	OFFICE, BUSY, BEGIN,	Office ID, busy hour, begin date	NNNNNNH, NN:NN, Mo/Dy/Yr
PRINT 2ESSODF	Obtains a printout of the office description file.	OFFICE, OPTION	Office ID, printing	NNNNNNH, local or remote
REMOVE	Removes all daily and high day data for a given busy hour.	OFFICE, BUSY	Office ID, busy hour	NNNNNNH, NN:NN

TABLE A (Cont)

COMMAND	DESCRIPTION OF COMMAND	PROMPTERS REQUIRED	DESCRIPTION OF PROMPTERS	LEGAL VALUES FOR PROMPTERS
REPORT (MONTHLY)	Prints the monthly report.	OFFICE, BUSY, OPTION, TYPE, MONTH, MLSS	Office ID, busy hour, printing option, report type, month ending, MLSS printing option	NNNNNNH, NN:NN, local or remote, monthly, Mo/Yr, Yes or No
REPORT (WEEKLY)	Prints the weekly report.	OFFICE, BUSY, OPTION, TYPE, BEGIN, END	Office ID, busy hour, printing option, report type, begin date, end date	NNNNNNH, NN:NN, local or remote, weekly, Mo/Dy/Yr, Mo/Dy/Yr
REPORT (MLSS)	Prints the monthly load service summary report.	OFFICE, BUSY, OPTION, TYPE, DATA, ITEMS	Office ID, busy hour, printing option report type, type of data desired which may be office totals or call processing registers or service circuits or miscellaneous peg counts, item numbers desired	NNNNNNH, NN:NN, local or remote, MLSS, office or call or serv or misc or none or all, up to 20 numbers separated by commas or all or none
REPORT (INTERMEDIATE)	Prints an intermediate report.	OFFICE, BUSY, OPTION, TYPE, BEGIN, END, DATA, REPORT, ITEMS	Office ID, busy hour, printing option, report type, begin date, end date, data desired, report code which may be: 1 = detailed report for all equipment items in the specified data type including a summary of averages or 2 = summary of averages for all items in the specified data type or 3 = detailed report for specified item(s) including a summary of averages or 4 = summary of averages for specified item(s), item numbers desired	NNNNNNH, NN:NN, local or remote, intermediate, Mo/Dy/Yr, Mo/Dy/Yr, office totals or service circuits or call processing registers or miscellaneous peg counts or all or none, 1 or 2 or 3 or 4, up to 20 numbers separated by commas or all or none
STORAGE	Indicates disk storage left and lists the history data currently on file.	—	—	—
SYSTEM	Allows user to switch to the No. 1 ESS PATROL system.	—	—	—
TAPES	Enters ¼- or ½-hour paper tapes of block H data for the files mode which are entered into history files or 1 hour of data in the summary mode.	OPTION	Printing option	Local or remote

TABLE A (Cont)

COMMAND	DESCRIPTION OF COMMAND	PROMPTERS REQUIRED	DESCRIPTION OF PROMPTERS	LEGAL VALUES FOR PROMPTERS
UNFLAG	Remove a flag (*) on questionable data.	OFFICE, BUSY, BEGIN, END, DATA, ITEMS	Office ID, busy hour, begin date, end date, type of data desired which may be office totals or call processing registers or service circuits or miscellaneous peg counts, item numbers desired	NNNNNNNH, NN:NN, Mo/Dy/Yr, Mo/Dy/Yr, office or call or serv or misc or none or all, up to 20 numbers separated by commas or all or none
UPDATE	Changes the existing office description file with the following additional commands: ADD — Adds a new entry and its associated data fields to the end of the list of entries of its type in the office description file CHANGE — Changes the content of a particular field for a specified entry in the office description file CLEAR — Command to any prompter which allows the user to cancel the current update request.	OFFICE ENTRY, NAME, MS, NCKT, CPY, MIN HT, MAX HT, REG 1, REG 2, FS, REFNO FIELD, NEW VALUE, ENTRY NO., NEW OFFICE ID —	Office ID Entry number type from office description forms, description of entry, main stations or entry number of TMS from office description forms, number of working circuits or registers or junctors, engineered capacity, minimum holding time, maximum holding time, trunk group number or usage register number or peg count register number or junctor usage from network number to network number, overflow register number, fast scan indicator(*) or blank, PATROL reference number from office description forms Identification of item to be changed, value of field specified and response depends on field type, entry number type from office description forms, PATROL office ID —	NNNNNNNH TMS NNN or TRKNNN or MUSNNN or MPCNNN, 1 to 11 characters, NNNNNN or TMSNNN, NNNN, NNNNN, N. N to NNNN. NN, N.NN to NNNN.NN, TGNNNN or MLH NNN or OFT NNN or BYLNNN or PRCNNN or JCNNNN or JWNNNN, OFTNNN, * or BLANK, NNNNN Name or MS or NCKT or CPY or MIN or MAX or REG 1 or REG 2 or REF NO or FS or ENTRY or C&G (updates company ID, generic, and local office name) or OFF (changes office ID), any valid number, TMSNNN or TRKNNN or MUSNNN or MPCNNN, NNNNNNH —

TABLE A (Cont)

COMMANDS	DESCRIPTION OF COMMAND	PROMPTERS REQUIRED	DESCRIPTION OF PROMPTERS	LEGAL VALUES FOR PROMPTERS
	DELETE — Deletes a specified entry from the office description file.	ENTRY NUMBER	Entry number type from office description forms	TMSNNN or TRKNNN or MUSNNN or MPCNNN
	LOGOUT — Allows immediate disconnect from the update session yet allows reentry to update the next time the user signs onto the patrol system. All updates from the previous session are saved.	—	—	—
	NONE — Indicates that the update session is completed.	—	—	—
	PRINT — Prints the contents of field for a specified entry or entries.	—	—	—
VALIDATE	Validates 2ESSODF file data.	OFFICE	Office ID	NNNNNNH

TABLE B

EXECPTION REPORTING LIMITS –
EADAS FOR NO. 2 ESS

SERVICE CIRCUIT	TRUNK GROUP NUMBER	HOLDING TIME RECOMMENDED BOUND	
		LOWER	UPPER
Customer digit receiver – DP	1	10	16
Customer digit receiver – TT	2	6	13
MF receiver	3	1.2	3.3
DP receiver	4	4	12
MF transmitter	5	2.3	5.5
DP transmitter	6	1.8	8.5
Special ring	7	7	33
Regular ring	8-10	11	47
Coin control	11	.7	4.4
3-port. conference	12	25	165
Dial tone first annc	16	5	23
Initial coin test annc	17	3	10
Permanent signal annc	18	2	23
Partial dial annc	19	6	21
“1+” dialing error annc (omitted)	20	5	29
Custom calling error annc	21	7	39
Local CN overtime annc	23	3	15
“1+” dialing error annc (in error)	24	3	18
ROH tone	30	6	39
Busy tone	31	4	8
High tone	32	1.1	2.3
Low tone	33	1.1	2.3
Overflow tone	34	3	30
Vacant code/no such no annc	—	8	40
INDICATOR	TYPE OF BOUND	RECOMMENDED BOUND	
		LOWER	UPPER
Percent outgoing ML	UB	—	2.5
Percent incoming ML	UB	—	2.5
Percent IAO ML	UB	—	2.5
Percent tandem ML	UB	—	2.5
Tandem calls	UB	—	No recommendation
Office holding time	LU	100	300
Percent DT delay – DP	UB	—	1.5
Percent DT delay – TT	UB	—	1.5
Percent overflow	UB	—	.1
Percent maintenance busy (CDR)	UB	—	10
Percent trunk group overflow	UB	—	1
Percent maintenance busy	UB	—	10

TELEPHONE NUMBER

S
VM/370 ONLINE SYS A

.LOGIN ABC116
ENTER PASSWORD:
\$\$\$\$\$\$\$

ENTER A/C INFO

.EM
LOGON AT 11:07:49 NYT THURSDAY 10/03/74
CMS VERSION 2.6 9/17/74

SYSTEM (1ESS, 2 ESS OR NONE) =
>2ESS

**** NO. 2 ESS PATROL ONLINE ****

*** 09/10/74 SEE NEWS MESSAGE FOR NEW PHONE NUMBERS
*** 09/02/74 IT IS NOW POSSIBLE TO USE PATROL FOR EF-1 GENERIC
OFFICES: FOR DETAILS SEE THE NEWS MESSAGE
*** 09/02/74 RECENT LESSON CHANGES LESSONS 2,28

FILE NOT FOUND.

NO MAILING ADDRESS IS KNOWN FOR USER ABC116
PLEASE ENTER REQUESTED INFORMATION.

TYPE OPERATING COMPANY NAME.

>ABCDEFGH BELL TEL
TYPE NAME OF INDIVIDUAL TO WHOM OUTPUT SHOULD BE MAILED.

>MARY JANE DOE
TYPE STREET ADDRESS AND ROOM NUMBER.

>1234 DOWN TOWN ST.
TYPE CITY, STATE, AND ZIP

>ANY CITY, NEW YORK 48502

REQUEST = >LESSONS
LOCAL OR REMOTE = >REMOTE
SPECIFY LESSON NOS. SEPARATED BY COMMAS OR ALL, OR NONE
LESSONS = >ALL

THIS REMOTE JOB HAS BEEN ASSIGNED JOB NUMBER 1

REQUEST = >LOGOUT
PUN FILE 6918 TO CMSBATCH COPY 01 NONHOLD
CONFIRMATION: REMOTE JOBS REQUESTED WILL BE RUN
TONIGHT. CHECK MESSAGES WHEN YOU LOGON TOMMORROW.

*** THE APPROXIMATE SESSION COST IS \$ 1.60 ***

CONNECT = 00:10:39 VIRT CPU = 000:04.44 TOT CPU = 000:10.23 IOS =
00001239
LOGOFF AT 11:18:28 NYT THURSDAY 10/03/74

Fig. 2—Example of How to Obtain PATROL Lessons

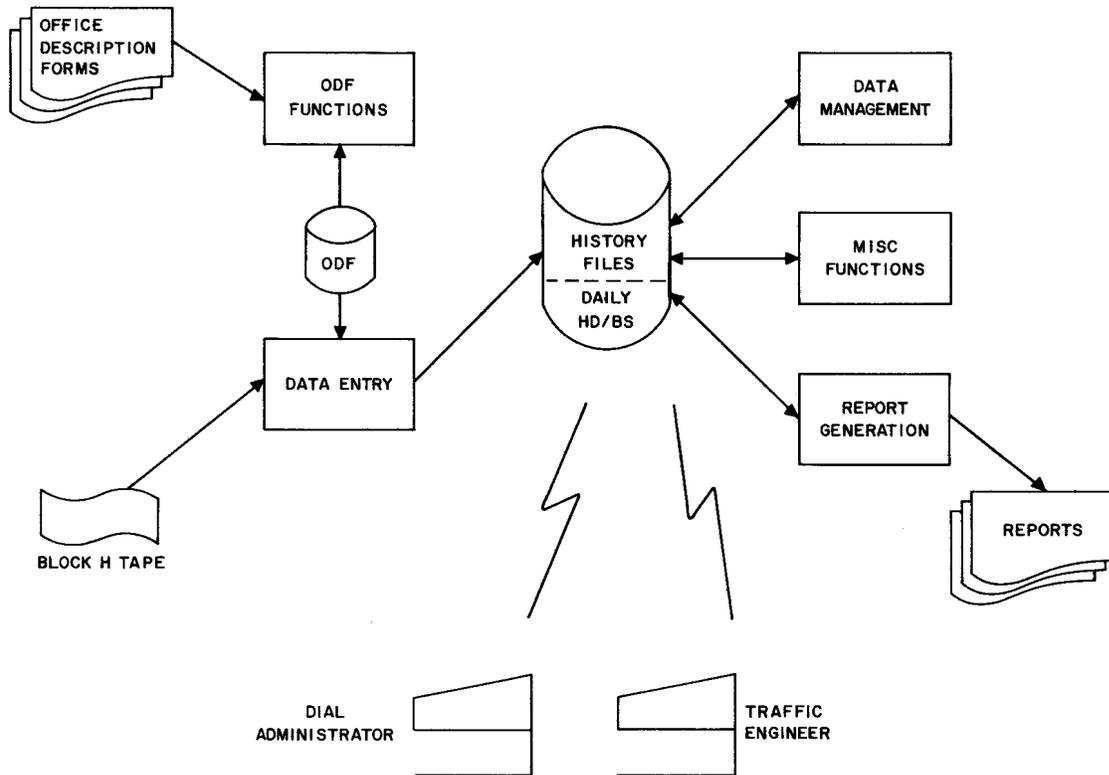
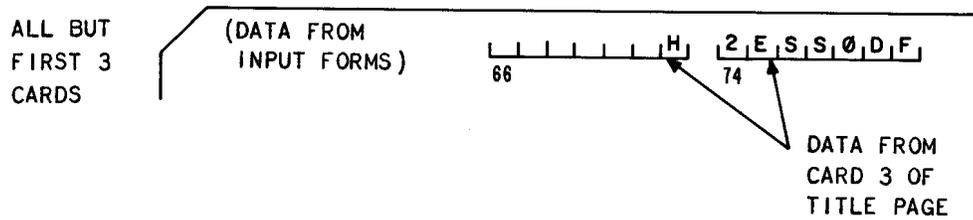


Fig. 3—PATROL Schematic

SECTION 10p

1. THE TITLE PAGE CONTAINS INFORMATION FOR PUNCHING THE FIRST THREE CARDS. THE DATA SHOULD BE PUNCHED EXACTLY AS SHOWN, INCLUDING THE PREPRINTED INFORMATION.
2. THE REMAINDER OF THE CARDS SHOWN SHOULD BE PUNCHED IN THE ORDER THAT THE DATA APPEAR ON THE INPUT FORMS. SEQUENCING INFORMATION FROM CARD 3 ON THE TITLE PAGE SHOULD BE PUNCHED IN COLUMNS 66 - 80 OF EACH CARD.



3. NO CARDS SHOULD BE PUNCHED FOR LINES WITH A BLANK IN COLUMN 1.
4. THE LETTER "O" IS SLASHED.
5. BLANK FIELDS SHOULD NOT BE ZEROED.
6. VERIFY ALL CARDS.
7. RETURN CARDS AND INPUT FORMS TO KEN MATTHEWS.

B. KEYPUNCHING INSTRUCTIONS

Fig. 4—PATROL Office Description Forms (Sheet 2 of 3)

PAGE ____ OF ____
 USER ID _____
 OFFICE ID _____

I	ENTRY NO.	DESCRIPTION	MAIN STATIONS	PATROL REF. NO.
	2	3	4	12
	2	8	19	55
*	T,M,S,0,0,1	T,Ø,T,A,L,M,S		0,0,0,0,0
*	T,M,S,0,0,2	D,P,M,S		0,0,0,1,0
*	T,M,S,0,0,3	T,T,M,S		0,0,0,2,0
*	T,M,S,0,0,4	C,Ø,I,N,M,S		0,0,0,3,0
*	T,M,S,0,0,5	C,T,X,M,S		0,0,0,4,0
*	T,M,S,0,0,6	W,O,R,K,T,E,R,M,S		0,0,0,5,0
*	T,M,S,0,0,7	M,F,I,N,C,T,R,K,S		0,0,0,6,0
*	T,M,S,0,0,8	D,P,I,N,C,T,R,K,S		0,0,0,7,0
*	T,M,S,0,0,9	4,8,8,P,T,Y,M,S		0,0,0,8,0
*	T,M,S,0,1,0	D,L,T,N,F,S,T,M,S		0,0,0,9,0
*	T,M,S,0,1,1	P,R,E,P,A,Y,M,S		0,0,1,0,0
*	T,M,S,0,1,2	3-W,C,A,L,L,M,S		0,0,1,1,0
*	T,M,S,0,1,3	C,L,W,A,I,T,M,S		0,0,1,2,0
*	T,M,S,0,1,4	C,L,F,W,D,M,S		0,0,1,3,0
*	T,M,S,0,1,5	1,D,G,T,S,P,C,L		0,0,1,4,0
*	T,M,S,0,1,6	2,D,G,T,S,P,C,L		0,0,1,5,0
	T,M,S,0,1,7			0,0,1,6,0
	T,M,S,0,1,8			0,0,1,7,0
	T,M,S,0,1,9			0,0,1,8,0
	T,M,S,0,2,0			0,0,1,9,0
	T,M,S,0,2,1			0,0,2,0,0
	T,M,S,0,2,2			0,0,2,1,0
	T,M,S,0,2,3			0,0,2,2,0
	T,M,S,0,2,4			0,0,2,3,0
	T,M,S,0,2,5			0,0,2,4,0
	T,M,S,0,2,6			0,0,2,5,0

C. TRUNK AND MAIN STATION INVENTORY

Fig. 4—PATROL Office Description Forms (Sheet 3 of 3)

SECTION 10p

TELEPHONE NUMBER

S
VM/370 ONLINE SYS A

.LOGIN ABC116

ENTER PASSWORD:

\$\$\$\$\$\$\$\$

ENTER A/C INFO

.EM

LOGON AT 11:07:49 NYT THURSDAY 10/03/74

CMS VERSION 2.6 9/17/74

SYSTEM (1ESS, 2ESS OR NONE) =

>2ESS

**** NO. 2 ESS PATROL ONLINE ****

*** 09/10/74 SEE NEWS MESSAGE FOR NEW PHONE NUMBERS

*** 09/02/74 IT IS NOW POSSIBLE TO USE PATROL FOR EF-1 GENERIC
OFFICES: FOR DETAILS SEE THE NEWS MESSAGE

*** 09/02/74 RECENT LESSON CHANGES LESSONS 2,28

FILE NOT FOUND.

NO MAILING ADDRESS IS KNOWN FOR USER ABC116

PLEASE ENTER REQUESTED INFORMATION.

TYPE OPERATING COMPANY NAME.

>ABCDEGHI BELL TEL

TYPE NAME OF INDIVIDUAL TO WHOM OUTPUT SHOULD BE MAILED.

>JAMES DOE

TYPE STREET ADDRESS AND ROOM NUMBER.

>1234 DOWNTOWN ST.

TYPE CITY, STATE, AND ZIP

>ANY CITY, NEW YORK 46502

REQUEST = >ACTIVATE

2204 THE 2ESSODF FILE FOR OFFICE NNN 736H IS BEING ACTIVATED.
PLEASE WAIT FOR FINISHED MESSAGE.

OFFICE NNN 736H HAS BEEN SUCCESSFULLY ACTIVATED. YOU MUST
USE THE "HOURS" COMMAND TO SET UP THE DESIRED BUSY HOURS.

212: END OF ACTIVATE, ENTERING DATA VALIDATION STEP.

DASD 195 DEFINED 005 CYL

THE 2ESSODF FILE FOR OFFICE NNN 736H IS NOW BEING VALIDATED.
PLEASE WAIT FOR A VALIDATION STATUS MESSAGE

Fig. 5—Example of Activating PATROL Office Description File (Sheet 1 of 4)

*** IMPORTANT: 5 ERRORS HAVE BEEN FOUND IN THE 2ESSODF FILE. THE "UPDATE" REQUEST SHOULD BE USED TO CORRECT ALL ERRORS. YOU WILL NOT BE ALLOWED TO ENTER BLOCK-H TAPES UNTIL ALL ERRORS HAVE BEEN CORRECTED.

DO YOU WANT A LOCAL PRINTOUT OF THE VALIDATE SESSION?
(REPLY YES OR NO) >YES

***** VALIDATE SESSION *****
2ESSODF FILE FOR OFFICE NNN 736H ON 10/03/74

TRK001 DP CDR TM5002 0 0 TGN001 * 10000

2323: ERROR- NCKTS MUST BE GREATER THAN ZERO.

2326: ERROR- CPY MUST BE GREATER THAN ZERO.

2332: ERROR- MINHT MUST BE A REAL NUMBER OF THE FORM "NNNN.NN".

2332: ERROR- MAXHT MUST BE A REAL NUMBER OF THE FORM "NNNN.NN".

TRK002 IT CDR TMS 32 594 7.50 13.50 TGN002 *10010

2318: ERROR- THE MAIN STATION COUNT CAN REFERENCE TMS001 TO TMS050 AND TMS098, TMS099 ONLY.

*** IMPORTANT: 5 ERRORS HAVE BEEN FOUND IN THE 2ESSODF FILE. THE "UPDATE" REQUEST SHOULD BE USED TO CORRECT ALL ERRORS. YOU WILL NOT BE ALLOWED TO ENTER BLOCK-H TAPES UNTIL ALL ERRORS HAVE BEEN CORRECTED.

VALIDATE SESSION PRINTOUT FINISHED.

END OF VALIDATION SESSION

REQUEST = >LOGOUT

*** THE APPROXIMATE SESSION COST IS \$ 4.80 ***

CONNECT= 00:10:39 VIRTCPU= 000:04.44 TOTCPU= 000:10.23 IOS = 00001239
LOGOFF AT 11:18:28 NYT THURSDAY 10/03/74

Fig. 5—Example of Activating PATROL Office Description File (Sheet 2 of 4)

SECTION 10p

TELEPHONE NUMBER

S
VM/370 ONLINE SYS A

.LOGIN ABC116
ENTER PASSWORD:
\$\$\$\$\$\$\$\$
ENTER A/C INFO

.EM
LOGON AT 11:07:49 NYT THURSDAY 10/03/74
CMS VERSION 2.6 9/17/74

SYSTEM (1ESS, 2ESS OR NONE) =
>2ESS

**** NO. 2 ESS PATROL ONLINE ****

*** 09/10/74 SEE NEWS MESSAGE FOR NEW PHONE NUMBERS
*** 09/02/74 IT IS NOW POSSIBLE TO USE PATROL FOR EF-1 GENERIC
OFFICES: FOR DETAILS SEE THE NEWS MESSAGE
*** 09/02/74 RECENT LESSON CHANGES LESSONS 2,28

** YOUR 2ESSODF FILE FOR OFFICE NNN 736H HAS ERRORS WHICH MUST BE
CORRECTED USING "UPDATE" BEFORE ANY BLOCK-H DATA MAY BE ENTERED.

REQUEST = >UPDATE
WHAT OFFICE = >NNN736H

UPDATE= >DELETE
ENTRY= >TRK001

2110: ENTRY TRK001 HAS BEEN DELETED

ENTRY	NAME	MS	NCKT	CPY	MIN	HT	MAX	HT	REG1	REG2	FS
REFNO											
TRK001	DP CDR	TMS002	0	0					TGN001		
* 10000											

UPDATE= > CHANGE
FIELD= > MS
NEW VALUE= > TMS001

ENTRY=>TRK002
OLD TMS
NEW TMS001

Fig. 5—Example of Activating PATROL Office Description File (Sheet 3 of 4)

THE 2ESSODF FILE FOR OFFICE NNN736H IS NOW BEING VALIDATED.
PLEASE WAIT FOR A VALIDATION STATUS MESSAGE

*** IMPORTANT: THIS 2ESSODF FILE IS VALID FOR
ENTRY OF BLOCK-H TAPES.

THE VALIDATE SESSION PRINTOUT IS AVAILABLE
DO YOU WANT TO SEE IT? (REPLY YES OR NO) >YES

***** VALIDATE SESSION *****
2ESSODF FILE FOR OFFICE NNN736H ON 10/03/74

TRK001 DP CDR TMS002 0 0 TGN001 * 10000

ATTENTION: LINE HAS BEEN DELETED.

TRK002 TT CDR TMS001 32 594 7.50 13.50 TGN002 * 10010

ATTENTION: LINE HAS BEEN CHANGED.

END OF VALIDATION SESSION

REQUEST = >LOGOUT

*** THIS APPROXIMATE SESSION COST IS \$ 1.10 ***

CONNECT= 00:10:39 VIRTCPU= 000:04:44 TOTCPU= 000:10:23 IOS = 00001239
LOGOFF AT 11:18:28 NYT THURSDAY 10/03/74

Fig. 5—Example of Activating PATROL Office Description File (Sheet 4 of 4)

SECTION 10p

TELEPHONE NUMBER

S
VM/370 ONLINE SYS A

.LOGIN ABC116
ENTER PASSWORD:
\$\$\$\$\$\$\$\$
ENTER A/C INFO

.EM
LOGON AT 14:25:35 NYT FRIDAY 09/06/74
CMS VERSION 2.3 7/5/74

SYSTEM (1ESS, 2ESS OR NONE) =
>2ESS

**** NO. 2 ESS PATROL ONLINE ****

*** 09/02/74 IT IS NOW POSSIBLE TO USE PATROL FOR EF-1 GENERIC
OFFICES: FOR DETAILS SEE THE NEWS MESSAGE
*** 09/02/74 RECENT LESSON CHANGES LESSONS 2,28

REQUEST = >HOURS
WHAT OFFICE = >NNNNNNH
ENTER LAST DAY OF SERVICE OBSERVING MONTH OR NONE = 20
HOUR ENDING OR NONE = >17:00

HOUR ENDING OR NONE = >19:30

HOUR ENDING OR NONE = >NONE

REQUEST = >LOGOUT

CONFIRMATION: REMOTE JOBS REQUESTED WILL BE RUN
TONIGHT. CHECK MESSAGES WHEN YOU LOGON TOMMOROW.

*** THE APPROXIMATE SESSION COST IS \$.40 ***

CONNECT = 00:16:38 VIRTCPU= 000:03:65 TOTCPU= 000:09:10 IDS= 0000698
LOGOFF AT 14:42:14 NYT FRIDAY 09/06/74
10K<0

Fig. 6—Example of Establishing Busy Hours in PATROL (Sheet 1 of 4)

TELEPHONE NUMBER

S
VM/370 ONLINE SYS A

•LOGIN ABC116
ENTER PASSWORD:
\$\$\$\$\$\$\$\$
ENTER A/C INFO

•EM
LOGON AT 11:07:49 NYT THURSDAY 10/03/74
CMS VERSION 2.6 9/17/74

SYSTEM (1ESS, 2ESS OR NONE) =
>2ESS

**** NO. 2 ESS PATROL ONLINE ****

- *** 09/10/74 SEE NEWS MESSAGE FOR NEW PHONE NUMBERS
- *** 09/02/74 IT IS NOW POSSIBLE TO USE PATROL FOR EF-1 GENERIC OFFICES: FOR DETAILS SEE THE NEWS MESSAGE
- *** 09/02/74 RECENT LESSON CHANGES LESSONS 2,28

REQUEST = >ENTER

** TAPE MAY BE STOPPED AFTER THE "END PR TRF" LINE.
SET UP PAPER TAPE -- WAIT FOR A PROMPTER THEN START TAPE.

Fig. 6—Example of Establishing Busy Hours in PATROL (Sheet 2 of 4)

SECTION 10p

30 TI PR H		TUE 10-01 1930-24 NNN 725								
TRK	1	2623	3370	0	0	2	551	465	0	0
	3	630	193	0	0	4	0	0	0	0
	5	643	184	0	0	6	477	319	0	0
	7	33	64	0	0	8	600	809	0	0
	9	575	781	0	0	10	557	720	0	0
	11	95	21	0	0	12	0	0	0	0
	16	0	0	0	0	18	61	77	0	0
	19	21	34	0	0	20	58	67	0	0
	21	0	0	0	0	30	19	56	0	0
	31	334	199	0	0	32	0	0	0	0
	33	0	0	0	0	34	46	50	0	0
	35	0	0	0	0	40	11	37	11	0
	41	0	0	0	0	42	11	2	0	0
	43	0	0	0	0	44	0	3	0	0
	45	0	0	0	0	46	0	6	0	0
	47	67	30	65	0	48	0	0	0	0
	49	0	0	0	0	50	0	0	0	0
	51	0	0	0	0	52	0	0	0	0
	53	1	4	0	0	54	56	75	0	0
MLH	1	0	0	0	0	2	0	0	0	0
	3	0	0	0	0	4	0	0	0	0
	5	0	0	0	0	6	0	0	0	0
	7	0	0	0	0	8	0	0	0	0
	9	0	0	0	0	10	0	0	0	0
	11	0	0	0	0	13	0	0	0	0
	14	0	0	0	0	15	0	0	0	0
	16	0	0	0	0	17	0	0	0	0
	19	1	0	0	0	20	1	1	0	0
	22	9	13	2	0	0	0	0	0	0
OFT	746	154	0	0	3764	2516	1344	1099	0	711
	1038	0	745	1220	0	978	1	0	0	0
	176	22	55	390	119	0	163	174	0	0
	1053	424	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	9597	0
BYL	721	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
PRC	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	52	0	0	0	0	0	0	0
JCT	573	108	0	0	0	0	0	0	0	0
A	1239	421	640	210	0	0	0	0	0	0
B	1444	392	1262	395	651	276	0	0	0	0
END PR	TRF	TUE	10-01	1935-42	NNN	725				

Fig. 6—Example of Establishing Busy Hours in PATROL (Sheet 3 of 4)

THE FOLLOWING CIRCUITS WERE FLAGGED ON A HOLDING TIME BASIS

CIRCUITS	USAGE TRFFC	PEG MB COUNT	HT SEC.	STATED RANGE		OFL %	CAPACITY %	CCS	NCI
				MIN HT	MAX HT				
DIAL 0 WATS*	337		0	0.50	12.00			5	2

DATA ON OFFICE NNN 725H FOR 10/01/1974 19:30
HAS BEEN PROCESSED AND RECORDED.

NNN725H NO.2 ESS SUMMARY OF TRAFFIC DATA FROM 10/01/1974 to 10/01/1974
HOUR ENDING 19:30

O+T CCS/MS	NETWK CCS/WT	O+I MSCR	O+I CALLS	AVERAGE HLD TME	STATIONS POTS	IN COIN	SERV CTX	WORK TEN
OFFICE COUNT 2.06	3.30	0.78	3615	210.5	4614	71	0	4614

DIAL TONE	DIAL PULSE			TOUCH-TONE			WGHTED %DELAY
	STA. TEST	%DELAY		STA. TEST	%DELAY		
	4049	746	0.00	565	154	0.00	0.00

MATCHING LOSS	INCOMING			OUTGOING			INTRAOFFICE		
	MSCR	CALLS	%M-LOSS	MSCR	CALLS	%M-LOSS	MSCR	CALLS	%M-LOSS
0.24	1099	0.00	0.26	1220	0.00	0.22	1038	0.00	

REQUEST = > LOGOUT

*** THE APPROXIMATE SESSION COST IS \$ 3.60 ***

CONNECT = 00:10:39 VIRTCPU= 000:04.44 TOTCPU= 000L10.23 IOS= 00001239
LOGOFF AT 11:18:28 NYT THURSDAY 10/03/74

Fig. 6—Example of Establishing Busy Hours in PATROL (Sheet 4 of 4)

SECTION 10p

TELEPHONE NUMBER

S
 VM/370 ONLINE SYS A
 .LOGIN ABC 116
 ENTER PASSWORD:
\$\$\$\$\$\$\$\$
 ENTER A/C INFO
 .EM
 LOGON AT 14:25:35 NYT FRIDAY 09/06/74
 CMS VERSION 2.3 7/5/74

SYSTEM (1ESS, 2ESS OR NONE) =
 >2ESS

**** NO. 2 ESS PATROL ONLINE ****

*** 09/02/74 IT IS NOW POSSIBLE TO USE PATROL FOR EF-1 GENERIC
 OFFICES: FOR DETAILS SEE THE NEWS MESSAGE

*** 09/02/74 RECENT LESSON CHANGES LESSONS 2, 28

REQUEST = >TAPES
 NUMBER OF TAPES (QUARTER=4, HALF=2 OR HOUR=1)? = >1
 SUMMARY ONLY OR FILES (S OR F)? = >S
 LOCAL OR REMOTE = >LOCAL

1 TAPE(S) MUST BE ENTERED TO COMPLETE THIS TAPES SESSION

** TAPE MAY BE STOPPED AFTER THE HIGHEST ODF REGISTER LINE

SET UP PAPER TAPE -- WAIT FOR A '.' PROMPTER THEN START TAPE.

./1 PR H THR 9-05 1730-24 NNN 736										
TRK	2	2698	3326	0	1	3	778	167	0	0
	4	3	3	0	0	5	753	169	0	0
	6	454	283	0	0	7	3	3	0	0
	8	582	832	0	0	9	580	869	0	0
	10	568	855	0	0	11	32	5	0	0
	12	0	0	0	0	18	47	58	0	0
	19	27	35	0	0	20	25	32	0	1
	21	0	0	0	0	30	16	41	0	0
	31	330	161	0	0	32	0	0	0	0
	33	0	0	0	0	34	9	6	0	0
	54	24	27	0	0	0	0	0	0	0
MLH	1	17	20	0	0	25	50	45	2	0
OFT	726	174	0	0	2692	2265	1550	1472	0	887
	644	0	444	1396	0	1328	37	0	31	0
	175	27	46	330	88	0	112	206	0	0
	862	413	0	2	0	0	0	0	0	0
	0	0	0	0	0	3	0	0	7521	0
BYL	0	278	71	148	75	99	8	16	5	2
	3	14	3	1	0	0	0	0	0	0
PRC	149	149	0	149	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
JCT	763	103	0	0	0	0	0	0	0	0
A	1280	307	689	139	0	0	0	0	0	0
B	1226	156	1281	104	484	164	0	0	0	0
END PR TRF THR 9-05 1733-39 NNN 736										

Fig. 7—Example of a Summary Only Session in PATROL (Sheet 1 of 3)

DASD 195 DEFINED 005 CYL

NN 736H NO.2 ESS SUMMARY OF TRAFFIC DATA FOR 09/05/1974
 HOUR ENDING 17:30

	O+T CCS/MS	NETWK CCS/WT	O+I MSCR	O+I CALLS	AVERAGE HLD TME	STATIONS POTS	IN COIN	SERV CTX	WORK TERM
OFFICE CNT	2.31	3.32	1.15	3737	177.3	3254	45	0	4038
	DIAL PULSE		TOUCH-TONE		WGHTED				
	STA. TEST DELAY		STA. TEST DELAY		DELAY				
DI SPEED	2709	726	0.00	545	174	0.00	0.00		
	INCOMING			OUTGOING			INTRAOFFICE		
	MSCR	CALLS	%M-LOSS	MSCR	CALLS	%M-LOSS	MSCR	CALLS	M-LOSS
MATCH.LOSS	0.45	1472	0.00	0.43	1396	0.00	0.20	644	0.00

NNN 736H NO.2 ESS SERVICE CIRCUITS AND SPECIAL TRUNKS
 SUMMARY FOR 09/05/1974
 HOUR ENDING 17:30

	PER STATION		USAGE		PEG	HT	OFL	OCC	CAPACITY		
	CCS	CALLS	TRFFC	MB	COUNT	SEC.			CCS	NCI	
TT CDR	0.1022	0.829	333	1	2698	12.33	0.0	29	56	594	32
MF RCVR	0.1210	5.638	17	0	778	2.15	0.0	8	42	40	6
TRK DP RCVR	0.0016	0.016	0	0	3	10.00	0.0	0	4	7	3
MF XMTR	0.0052	0.231	17	0	753	2.24	0.0	8	42	40	6
TRK DP XMTR	0.0087	0.140	28	0	454	6.23	0.0	7	20	145	12
SPEC RNGS	0.1000	1.000	0	0	3	10.00	0.0	0	1	27	5
R RNDR PH1	0.0256	0.179	83	0	582	14.30	0.0	23	44	188	10
R RNDR PH2	0.0267	0.178	87	0	580	14.98	0.0	27	52	166	9
R RNDR PH3	0.0263	0.175	86	0	568	15.05	0.0	26	52	166	9
CN CONT CKT	0.0111	0.711	1	0	32	1.56	0.0	0	3	15	4
3-PORT CONF	0.0000	0.000	0	0	0			0	0	166	13
PERM SIG	0.0018	0.014	6	0	47	12.34	0.0	3	13	46	5
PART DIAL	0.0011	0.008	4	0	27	12.96	0.0	1	2	172	11
NO 1+ ERR	0.0010	0.008	3	1	25	12.80	0.0	2	11	30	4
	PER STATION		TRFFC MB		COUNT	SEC.	OFL	OCC	CAPACITY		
									CCS	NCI	
COST CL ERR	0.0000	0.000	0	1	0			0	0	16	3
ROH TONE	0.0013	0.005	4	0	16	25.62	0.0	3	27	15	4
BT60 TONE	0.0049	0.101	16	0	330	4.88	0.0	6	23	71	8
HIGH TONE	0.0000	0.000	0	0	0			0	0	5	2
LOW TONE	0.0000	0.000	0	0	0			0	0	5	2
BT120 TONE	0.0002	0.003	1	0	9	6.67	0.0	0	1	40	6
VAC CODE AN	0.0008	0.007	3	0	24	11.25	0.0	1	3	84	7

Fig. 7—Example of a Summary Only Session in PATROL (Sheet 2 of 3)

NNN 736H NO.2 ESS CALL PROCESSING REGISTERS AND MISC. USAGE MEAS.
 SUMMARY FOR 09/05/1974
 HOUR ENDING 17:30

	CCS/MS	TRFFC USAGE	OCC	CAPACITY		REGS INST
				%	CCS	
JCT-WIRE0-0	0.3934	1280	44	64	2002	80
JCT-CKT 0-0	0.0317	103	12	36	289	24
JCT-WIRE0-1	0.3934	1280	30	40	3240	120
JCT-CKT 0-1	0.0943	307	27	57	542	32
JCT-WIRE0-2	0.3768	1226	28	38	3240	120
JCT-CKT 0-2	0.0479	156	14	29	542	32
JCT-WIRE1-1	0.2117	689	24	34	2002	80
JCT-CKT 1-1	0.0418	136	16	47	289	24
JCT-WIRE1-2	0.3937	1281	30	40	3240	120
JCT-CKT 1-2	0.0320	104	9	19	542	32
JCT-WIRE2-2	0.1487	484	17	24	2002	80
JCT-CKT 2-2	0.0504	164	19	57	289	24

REQUEST =>LOGOUT

CONFIRMATION: REMOTE JOBS REQUESTED WILL BE RUN
 TONIGHT. CHECK MESSAGES WHEN YOU LOGON TOMMOROW.

*** THE APPROXIMATE SESSION COST IS \$ 3.40 ***

CONNECT= 00:16:38 VIRTCPU= 000:03.65 TOTCPU= 000:09.10 IOS = 00000698
 LOGOFF AT 14:42:13 NYT FRIDAY 09/06/74
 10K<0

Fig. 7—Example of a Summary Only Session in PATROL (Sheet 3 of 3)

TELEPHONE NUMBER

S
VM/370 ONLINE SYS A

.LOGIN ABC116

ENTER PASSWORD:

\$\$\$\$\$\$\$

ENTER A/C INFO

.EM

LOGON AT 13:10:39 NYT MONDAY 11/04/74

CMS VERSION 2.6.1 10/11/74

SYSTEM (1ESS, 2ESS OR NONE) =

>2ESS

**** NO. 2 ESS PATROL ONLINE ****

*** 09/10/74 SEE NEWS MESSAGE FOR NEW PHONE NUMBERS

*** 09/02/74 IT IS NOW POSSIBLE TO USE PATROL FOR EF-1 GENERIC
OFFICES: FOR DETAILS SEE THE NEWS MESSAGE

*** 09/02/74 RECENT LESSON CHANGES LESSONS 2,28

REQUEST = >REPORT

WHAT OFFICE = >NNNNNH

HOUR ENDING = >19:30

REPORT TYPE = WEEKLY

LOCAL OR REMOTE = >REMOTE

BUSY HOUR DATA ARE AVAILABLE FROM 09/23/74 TO 10/30/74

SPECIFY REPORT BEGIN DATA AS MM/DD/YR

OR NONE = >10/14/74

SPECIFY REPORT END DATA AS MM/DD/YR

OR NONE = >10/18/74

THIS REMOTE REPORT HAS BEEN ASSIGNED JOB NUMBER 3

REQUEST = >LOGOUT

RUN FILE 7369 TO CMSBATCH COPY 01 NOHOLD

CONFIRMATION: REMOTE JOBS REQUESTED WILL BE RUN
TONIGHT. CHECK MESSAGES WHEN YOU LOGON TOMMOROW.

*** THE APPROXIMATE SESSION COST IS \$ 2.00 ***

CONNECT= 00:09:16 VIRTCPU= 000:02.82 TOTCPU= 000:08.16 IOS = 00000882

LOGOFF AT 13:19:56 NYT MONDAY 11/04/74

Y

Fig. 8—Example of How to Request a Weekly Report in PATROL and Sample Pages From a Weekly Report
(Sheet 1 of 3)

SECTION 10p

NNN725H NO.2 ESS SERVICE CIRCUITS AND SPECIAL TRUNKS
 DETAILED HOURLY DATA FROM 10/14/1974 TO 10/18/1974
 HOUR ENDING 19:30

TT CDR	PER STATION		USAGE		PEG COUNT	HT SEC.	OFL %	OCC %	CAPACITY		
	CCS	CALLS	TRFFC	MB					%	CCS	NCI
10-14-74	0.0680	0.828	38	0	468	8.21	0.0	12	44	88	9
10-15-74	0.1319	1.218	75	0	688	10.83	0.0	23	85	88	9
10-16-74	0.0825	0.920	47	0	520	8.96	0.0	14	53	88	9
10-17-74	0.0805	0.961	46	0	543	8.38	0.0	14	52	88	9
10-18-74	0.1030	1.204	58	0	680	8.56	0.0	18	66	88	9
AVERAGE	0.0932	1.026	53	0	580	8.99	0.0	16	60	88	9
MF RCVR	PER STATION		USAGE		PEG COUNT	HT SEC.	OFL %	OCC %	CAPACITY		
	CCS	CALLS	TRFFC	MB <th>%</th> <th>CCS</th> <th>NCI</th>					%	CCS	NCI
10-14-74	0.2200	10.222	10	0	460	2.15	0.0	5	15	64	6
10-15-74	0.2511	11.956	11	0	538	2.10	0.0	5	18	64	6
10-16-74	0.2267	10.822	10	0	487	2.09	0.0	5	16	64	6
10-17-74	0.2178	10.222	10	0	460	2.13	0.0	5	15	64	6
10-18-74	0.2289	11.111	10	0	500	2.06	0.0	5	16	64	6
AVERAGE	0.2289	10.867	10	0	489	2.11	0.0	5	16	64	6
TRK DP RCVR	PER STATION		USAGE		PEG COUNT	HT SEC.	OFL %	OCC %	CAPACITY		
	CCS	CALLS	TRFFC	MB <th>%</th> <th>CCS</th> <th>NCI</th>					%	CCS	NCI
10-14-74	0.0000	0.000	0	0	0		0	0	16	3	
10-15-74	0.0000	0.000	0	0	0		0	0	16	3	
10-16-74	0.0000	0.000	0	0	0		0	0	16	3	
10-17-74	0.0000	0.000	0	0	0		0	0	16	3	
10-18-74	0.0000	0.000	0	0	0		0	0	16	3	
AVERAGE	0.0	0.0	0	0	0		0	0	16	3	
MF XMTR	PER STATION		USAGE		PEG COUNT	HT SEC.	OFL %	OCC %	CAPACITY		
	CCS	CALLS	TRFFC	MB <th>%</th> <th>CCS</th> <th>NCI</th>					%	CCS	NCI
10-14-74	0.0036	0.114	16	0	526	3.12	0.0	6	23	71	8
10-15-74	0.0039	0.126	18	0	582	3.11	0.0	6	25	71	8
10-16-74	0.0036	0.120	17	0	554	3.00	0.0	6	23	71	8
10-17-74	0.0039	0.126	18	0	582	3.13	0.0	6	26	71	8
10-18-74	0.0040	0.150	18	0	693	2.66	0.0	6	26	71	8
AVERAGE	0.0038	0.127	18	0	587	3.00	0.0	6	25	71	8

Fig. 8—Example of How to Request a Weekly Report in PATROL and Sample Pages From a Weekly Report (Sheet 2 of 3)

NNN725H NO.2 ESS SERVICE CIRCUITS AND SPECIAL TRUNKS
 SUMMARY OF AVERAGES FROM 10/14/1974 TO 10/18/1974
 HOUR ENDING 19:30

	PER STATION		USAGE		PEG COUNT	HT SEC.	OFL %	OCC %	CAPACITY		
	CCS	CALLS	TRFFC	MB					%	CCS	NCI
TT CDR	0.0932	1.026	53	0	580	8.99	0.0	16	60	88	9
MF RCVR	0.2289	10.867	10	0	489	2.11	0.0	5	16	64	6
TRK DP RCVR	0.0	0.0	0	0	0			0	0	16	3
MF XMTR	0.0038	0.127	18	0	587	3.00	0.0	6	25	71	8
TRK DP XMTR	0.0058	0.094	27	0	433	6.19	0.0	7	25	107	10
R RNGR PH1	0.0176	0.120	79	0	539	14.68	0.0	22	43	186	10
R RNGR PH2	0.0185	0.124	83	0	557	14.96	0.0	26	50	167	9
R RNGR PH3	0.0181	0.122	81	0	548	14.86	0.0	25	49	167	9
CN CONT CKT	0.0442	1.932	3	0	137	2.29	0.0	2	21	15	4
3-PORT CONF			0	0	0			0	0	145	12
DL TN FIRST			0	0	0			0	0	16	3
PERM SIG	0.0019	0.019	9	0	88	12.89	0.0	4	14	64	6
PART DIAL	0.0005	0.004	2	0	19	10.63	0.0	0	1	195	12
NO 1+ ERR	0.0012	0.014	6	0	64	9.04	0.0	3	9	64	6
CUST CL ERR	0.0	0.0	0	0	0			0	0	30	4
ROH TONE	0.0070	0.003	3	0	14	24.21	0.0	2	11	30	4
BT60 TONE	0.0035	0.061	16	0	283	5.68	0.0	4	15	107	10
HIGH TONE	0.0	0.0	0	0	0			0	0	5	2
LOW TONE	0.0	0.0	0	0	0			0	0	5	2
BT120 TONE	0.0003	0.003	1	0	13	11.38	0.0	0	1	253	17
VAC CODE AN	0.0016	0.013	7	0	58	12.69	0.0	4	16	46	5
SPEC RNGRS	0.0725	0.339	8	0	39	21.08	0.0	5	14	58	5
DP CDR	0.0753	0.570	305	0	2307	13.22	0.0	37	78	392	23
DIAL O WATS										5	2

****INVALID NUMBER

Fig. 8—Example of How to Request a Weekly Report in PATROL and Sample Pages From a Weekly Report
 (Sheet 3 of 3)

SECTION 10p

TELEPHONE NUMBER

S
VM/370 ONLINE SYS A

.LOGIN ABC116
ENTER PASSWORD:
\$\$\$\$\$\$\$
ENTER A/C INFO

.EM
LOGON AT 13:10:39 NYT MONDAY 11/04/74
CMS VERSION 2.6.1 10/11/74

SYSTEM (1 ESS, 2 ESS OR NONE) =
>2 ESS

**** NO. 2 ESS PATROL ONLINE ****

*** 09/10/74 SEE NEWS MESSAGE FOR NEW PHONE NUMBERS
*** 09/02/74 IT IS NOW POSSIBLE TO USE PATROL FOR EF-1 GENERIC
OFFICES: FOR DETAILS SEE THE NEWS MESSAGE
*** 09/02/74 RECENT LESSON CHANGES LESSONS 2,28

REQUEST =>REPORTS
WHAT OFFICE = >NNNNNH
HOUR ENDING = >16:30

REPORT TYPE = >MONTHLY
LOCAL OR REMOTE = >REMOTE
SPECIFY MONTH AS MM/YR OR NONE = >10/74
DO YOU WANT A MACHINE LOAD AND SERVICE SUMMARY REPORT (MLSS)
ANSWER YES OR NO = >NO

THIS REMOTE REPORT HAS BEEN ASSIGNED JOB NUMBER 1

REQUEST = >LOGOUT
PUN FILE 7369 TO CMSBATCH COPY 01 NOHOLD

CONFIRMATION: REMOTE JOBS REQUESTED WILL BE RUN
TONIGHT. CHECK MESSAGE WHEN YOU LOGON TOMMOROW.

*** THE APPROXIMATE SESSION COST IS \$ 2.00 ***

CONNECT= 00:09:16 VIRTCPU= 000:02.82 TOTCPU= 000:08.16 IOS = 00000882
LOGOFF AT 13:19:56 NYT MONDAY 11/04/74

Fig. 9—Example of How to Request a Monthly Report in PATROL and Sample Pages From a Monthly Report
(Sheet 1 of 3)

NN725H NO.2 ESS OFFICE COUNT DATA FROM 09/21/1974 TO 10/20/1974
 HOUR ENDING 16:30

	O+T CCS/MS	NETWK CCS/WT	O+I MSCR	O+I CALLS	AVERAGE HLD TME	STATIONS POTS	IN COIN	SERV CTX	WORK TERM
09-23-74	1.74	2.93	0.81	3717	182.0	4614	71	0	4614
09-24-74	1.67	2.76	0.80	3685	172.7	4614	71	0	4614
09-25-74	1.65	2.80	0.75	3482	185.3	4614	71	0	4614
09-26-74	1.65	2.77	0.79	3652	175.1	4614	71	0	4614
09-27-74	1.59	2.74	0.83	3815	165.3	4614	71	0	4614
09-30-74	1.86	3.01	0.83	3837	180.7	4614	71	0	4614
10-01-74	1.79	2.96	0.81	3742	182.0	4614	71	0	4614
10-02-74	1.74	2.90	0.81	3721	179.1	4614	71	0	4614
10-03-74	1.76	2.89	0.80	3703	179.5	4614	71	0	4614
10-04-74	1.67	2.88	0.86	3983	166.2	4614	71	0	4614
10-07-74	1.84	3.07	0.79	3643	192.7	4614	71	0	4614
10-08-74	1.65	2.79	0.78	3584	178.3	4614	71	0	4614
10-09-74	1.60	2.73	0.76	3499	178.2	4614	71	0	4614
10-10-74	1.52	2.54	0.75	3477	168.1	4614	71	0	4614
10-11-74	1.59	2.71	0.79	3649	170.5	4614	71	0	4614
10-14-74	1.76	2.86	0.78	3576	184.3	4614	71	0	4614
10-15-74	1.67	2.84	0.80	3692	176.8	4614	71	0	4614
10-16-74	1.68	2.89	0.79	3624	182.9	4614	71	0	4614
10-17-74	1.61	2.75	0.81	3760	167.7	4614	71	0	4614
10-18-74	1.70	2.89	0.82	3768	176.4	4614	71	0	4614
AVERAGE	1.69	2.84	0.80	3680	177.2	4614	71	0	4614

Fig. 9—Example of How to Request a Monthly Report in PATROL and Sample Pages From a Monthly Report
 (Sheet 2 of 3)

SECTION 10p

RRNGR PH1

	PER STATION		USAGE		PEG COUNT	HT SEC.	OFL %	OCC CAPACITY			
	CCS	CALLS	TRFFC	MB				%	%	CCS	NCI
10-09-74	0.0167	0.114	75	0	512	14.71	0.0	21	40	186	10
10-10-74	0.0188	0.122	84	0	547	15.43	0.0	23	45	186	10
10-11-74	0.0194	0.127	87	0	572	15.28	0.0	24	47	186	10
10-14-74	0.0176	0.122	79	0	549	14.41	0.0	22	43	186	10
10-15-74	0.0215	0.133	97	0	597	16.21	0.0	27	52	186	10
10-16-74	0.0187	0.124	84	0	560	15.02	0.0	23	45	186	10
10-17-74	0.0200	0.130	90	0	584	15.45	0.0	25	48	186	10
10-18-74	0.0211	0.144	95	0	646	14.67	0.0	26	51	186	10
AVERAGE	0.0195	0.128	88	0	578	15.23	0.0	24	47	186	10

Fig. 9—Example of How to Request a Monthly Report in PATROL and Sample Pages From a Monthly Report (Sheet 3 of 3)

TELEPHONE NUMBER

S
VM/370 ONLINE SYS A

.LOGIN ABC116

ENTER PASSWORD:

\$\$\$\$\$\$\$\$

ENTER A/C INFO

.EM

LOGON AT 13:10:39 NYT MONDAY 11/04/74

CMS VERSION 2.6.1 10/11/74

SYSTEM (1ESS, 2ESS OR NONE) =

>2ESS

**** NO. 2 ESS PATROL ONLINE ****

*** 09/10/74 SEE NEWS MESSAGE FOR NEW PHONE NUMBERS

*** 09/02/74 IT IS NOW POSSIBLE TO USE PATROL FOR EF-1 GENERIC
OFFICES: FOR DETAILS SEE THE NEWS MESSAGE

*** 09/02/74 RECENT LESSON CHANGES LESSONS 2,28

REQUEST =>REPORTS

WHAT OFFICE =>NNNNNNH

HOUR ENDING =>19:30

REPORT TYPE =>INTERMEDIATE

LOCAL OR REMOTE =>REMOTE

BUSY HOUR DATA ARE AVAILABLE FROM 09/23/74 TO 10/30/74

SPECIFY REPORT BEGIN DATE AS MM/DD/YR

OR NONE =>10/07/74

SPECIFY REPORT END DATE AS MM/DD/YR

OR NONE =>10/08/74

SPECIFY DATA DESIRED,

OR ALL OR NONE =>SERV CKT

SPECIFY REPORT CODE =>2

THIS REMOTE REPORT HAS BEEN ASSIGNED JOB NUMBER 2

REQUEST =>LOGOUT

PUN FILE 7369 TO CMSBATCH COPY 01 NOHOLD

CONFIRMATION: REMOTE JOBS REQUESTED WILL BE RUN
TONIGHT. CHECK MESSAGES WHEN YOU LOGON TOMORROW.

*** THE APPROXIMATE SESSION COST IS \$ 1.50 ***

CONNECT= 00:09:16 VIRTCPU= 000:02.82 TOTCPU= 000:08.16 IOS = 00000882

LOGOFF AT 13:19:56 NYT MONDAY 11/04/74

Y

Fig. 10—Example of How to Request an Intermediate Report in PATROL and Sample Pages From an Intermediate Report (Sheet 1 of 3)

SECTION 10p

725H NO.2 ESS SERVICE CIRCUITS AND SPECIAL TRUNKS
 SUMMARY OF AVERAGES FROM 10/07/1974 TO 10/08/1974
 HOUR ENDING 19:30

	PER STATION		USAGE		PEG COUNT	HT SEC.	OFL %	OCC %	CAPACITY		NCI
	CCS	CALLS	TRFFC	MB					%	CCS	
TT CDR	0.0781	0.888	44	0	502	8.80	0.0	14	50	88	9
MF RCVR	0.2356	10.711	11	0	482	2.20	0.0	5	17	64	6
TRK DP RCVR	0.0000	0.000	0	0	0			0	0	16	3
MF XMTR	0.0037	0.121	17	0	561	3.05	0.0	6	24	71	8
TRK DP XMTR	0.0061	0.099	28	0	455	6.18	0.0	8	26	107	10
R RNGR PH1	0.0163	0.120	73	0	539	13.63	0.0	20	39	186	10
R RNGR PH2	0.0186	0.126	84	0	569	14.70	0.0	26	50	167	9
R RNGR PH3	0.0159	0.118	71	0	530	13.51	0.0	22	43	167	9
CN CONT CKT	0.0324	1.739	2	0	124	1.87	0.0	2	15	15	4
3-PORT CONF			0	0	0			0	0	145	12
DL TN FIRST			0	0	0			0	0	16	3
PERM SIG	0.0018	0.013	8	0	58	13.99	0.0	4	13	64	6
PART DIAL	0.0003	0.004	1	0	17	8.45	0.0	0	1	195	12
NO 1+ ERR	0.0014	0.014	6	0	65	9.84	0.0	3	10	64	6
CUST CL ERR	0.0000	0.000	0	0	0			0	0	30	4
ROH TONE	0.0006	0.003	3	0	13	22.98	0.0	2	10	30	4
BT60 TONE	0.0035	0.064	16	0	296	5.42	0.0	4	15	107	10
HIGH TONE	0.0000	0.000	0	0	0			0	0	5	2
LOW TONE	0.0000	0.000	0	0	0			0	0	5	2
BT120 TONE	0.0005	0.005	2	0	25	9.96	0.0	0	1	253	17
VAC CODE AN	0.0016	0.013	7	0	62	11.62	0.0	4	16	46	5
SPEC RNGRS	0.0697	0.325	8	0	37	21.58	0.0	4	14	58	5
DP CDR	0.0767	0.594	310	0	2407	12.90	0.0	37	79	392	23
DIAL O WATS										5	2

Fig. 10—Example of How to Request an Intermediate Report in PATROL and Sample Pages From an Intermediate Report (Sheet 2 of 3)

NNN725H NO.2 ESS SERVICE CIRCUITS AND SPECIAL TRUNKS
 DETAILED HOURLY DATA FROM 09/21/1974 TO 10/20/1974
 HOUR ENDING 16:30

TRK DP XMTR

	PER STATION		USAGE		PEG COUNT	HT SEC.	OFL %	OCC %	CAPACITY		NCI
	CCS	CALLS	TRFFC	MB					%	CCS	
09-23-74	0.0077	0.127	36	0	588	6.04	0.0	10	33	107	10
09-24-74	0.0078	0.118	36	0	545	6.61	0.0	10	34	107	10
09-25-74	0.0067	0.115	31	0	530	5.81	0.0	9	29	107	10
09-26-74	0.0073	0.127	34	0	588	5.70	0.0	9	31	107	10
09-27-74	0.0083	0.132	39	0	608	6.33	0.0	11	36	107	10
09-30-74	0.0073	0.124	34	0	570	5.93	0.0	9	32	107	10
10-01-74	0.0071	0.120	33	0	554	5.94	0.0	9	31	107	10
10-02-74	0.0074	0.117	34	0	542	6.31	0.0	9	32	107	10
10-03-74	0.0067	0.114	31	0	525	5.90	0.0	9	29	107	10
10-04-74	0.0089	0.141	41	0	650	6.32	0.0	11	38	107	10
10-07-74	0.0073	0.117	34	0	541	6.19	0.0	9	31	107	10
10-08-74	0.0074	0.123	34	0	567	6.05	0.0	10	32	107	10
10-09-74	0.0068	0.108	31	0	500	6.24	0.0	9	29	107	10
10-10-74	0.0076	0.126	35	0	582	6.01	0.0	10	33	107	10
10-11-74	0.0075	0.117	35	0	540	6.44	0.0	10	33	107	10
10-14-74	0.0070	0.114	32	0	527	6.13	0.0	9	30	107	10
10-15-74	0.0074	0.121	34	0	557	6.10	0.0	9	32	107	10
10-16-74	0.0067	0.118	31	0	545	5.71	0.0	9	29	107	10
10-17-74	0.0080	0.132	37	0	610	6.07	0.0	10	35	107	10
10-18-74	0.0075	0.126	35	0	580	5.97	0.0	10	32	107	10
AVERAGE	0.0074	0.122	34	0	562	6.09	0.0	10	32	107	10

R RNGE PH1

	PER STATION		USAGE		PEG COUNT	HT SEC.	OFL %	OCC %	CAPACITY		NCI
	CCS	CALLS	TRFFC	MB					%	CCS	
09-23-74	0.0223	0.127	101	0	571	17.60	0.0	28	54	186	10
09-24-74	0.0211	0.127	95	0	570	16.63	0.0	26	51	186	10
09-25-74	0.0176	0.111	79	0	501	15.85	0.0	22	43	186	10
09-26-74	0.0195	0.125	88	0	563	15.58	0.0	24	47	186	10
09-27-74	0.0198	0.138	89	0	620	14.34	0.0	25	48	186	10
09-30-74	0.0191	0.134	86	0	602	14.25	0.0	24	46	186	10
10-01-74	0.0180	0.120	81	0	542	14.94	0.0	22	44	186	10
10-02-74	0.0216	0.141	97	0	636	15.28	0.0	27	52	186	10
10-03-74	0.0190	0.131	86	0	590	14.49	0.0	24	46	186	10
10-04-74	0.0213	0.145	96	0	652	14.71	0.0	27	52	186	10
10-07-74	0.0184	0.135	83	0	609	13.63	0.0	23	45	186	10
10-08-74	0.0194	0.120	88	0	540	16.20	0.0	24	47	186	10

Fig. 10—Example of How to Request an Intermediate Report in PATROL and Sample Pages From an Intermediate Report (Sheet 3 of 3)

SECTION 10p

TELEPHONE NUMBER

S
VM/370 ONLINE SYS A

.LOGIN ABC116
ENTER PASSWORD
\$\$\$\$\$\$\$\$
ENTER A/C INFO

.EM
LOGON AT 13:10:39 NYT MONDAY 11/04/74
CMS VERSION 2.6.1 10/11/74

SYSTEM (1ESS, 2ESS OR NONE) =
>2ESS

**** NO. 2 ESS PATROL ONLINE ****

*** 09/10/74 SEE NEWS MESSAGE FOR NEW PHONE NUMBERS
*** 09/02/74 IT IS NOW POSSIBLE TO USE PATROL FOR EF-1 GENERIC
OFFICES: FOR DETAILS SEE THE NEWS MESSAGE
*** 09/02/74 RECENT LESSON CHANGES LESSONS 2,28

REQUEST =>REPORT
WHAT OFFICE =>NNNNNNH
HOUR ENDING =>16:30
REPORT TYPE = MLSS
LOCAL OR REMOTE =>REMOTE
SPECIFY DATA DESIRED,
OR ALL OR NONE =>ALL
SPECIFY ITEM NOS. SEPARATED BY COMMAS, ALL, OR NONE
ITEMS =>ALL

THIS REMOTE REPORT HAS BEEN ASSIGNED JOB NUMBER 1

REQUEST =>LOGOUT
PUN FILE 8177 TO CMSBATCH COPY 01 NOHOLD

CONFIRMATION: REMOTE JOBS REQUESTED WILL BE RUN
TONIGHT. CHECK MESSAGES WHEN YOU LOGON TOMORROW.

*** THE APPROXIMATE SESSION COST IS \$ 2.90 ***
CONNECT= 00:09:16 VIRTCPU= 000:02.82 TOTCPU= 000:08.16 IOS = 00000882
LOGOFF AT 13:19:56 NYT MONDAY 11/04/74
Y

Fig. 11—Example of How to Request an MLSS Report and Sample Pages From an MLSS Report (Sheet 1 of 3)

NNN725H NO.2 ESS OFFICE COUNT DATA
 TRAFFIC MACHINE LOAD AND SERVICE SUMMARY -- 10/30/1974
 HOUR ENDING 16:30

O+T	NETWK	O+I	O+I	STATIONS IN SERV WORK RA/FIT-						
CCS/MS	CCS/WT	MSCR	CALLS	H.T.	POTS	COIN	CTX	TERM	BS	RAT

HIGH DAYS:

09-30-74	1.84	3.01	0.83	3837	180.7	4614	71	0	4614	1.17	1.26
10-07-74	1.84	3.07	0.79	3643	192.7	4614	71	0	4614	1.16	1.23
10-01-74	1.79	2.96	0.81	3742	182.0	4614	71	0	4614	1.13	1.21
09-03-74	1.78	3.01	0.89	4089	169.3	4600	71	0	4600	1.12	1.20
10-22-74	1.77	2.90	0.78	3633	184.3	4637	69	0	4637	1.12	1.19
10-03-74	1.76	2.89	0.80	3703	179.5	4614	71	0	4614	1.11	1.18
08-28-74	1.76	3.17	0.82	3760	193.7	4600	71	0	4600	1.11	1.17
10-14-74	1.76	2.86	0.78	3576	184.3	4614	71	0	4614	1.10	1.17
09-16-74	1.75	2.92	0.81	3735	179.7	4600	71	0	4600	1.10	1.16
10-02-74	1.74	2.90	0.81	3721	179.1	4614	71	0	4614	1.10	1.16
10-21-74	1.74	2.94	0.80	3723	181.7	4637	69	0	4637	1.10	1.15
09-04-74	1.74	2.88	0.79	3648	181.5	4600	71	0	4600	1.09	1.15
09-23-74	1.74	2.93	0.81	3717	182.0	4614	71	0	4614	1.09	1.15
09-11-74	1.70	2.76	0.81	3714	170.6	4600	71	0	4600	1.07	1.14
10-18-74	1.70	2.89	0.82	3768	176.4	4614	71	0	4614	1.07	1.14
	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----
AVG 10 HD	1.78	2.97	0.81	3744	182.5	4612	71	0	4612	1.12	1.19

MONTHLY AVERAGES:

10-74	1.69	2.84	0.80	3680	177.2	4614	71	0	4614	1.06
09-74	1.62	2.73	0.78	3590	174.9	4600	71	0	4600	1.02
08-74	1.46	2.52	0.73	3350	172.5	4596	69	0	4596	0.92
	----	----	----	-----	-----	-----	-----	-----	-----	-----
AVG BS	1.59	2.69	0.77	3540	174.8	4603	70	0	4603	1.00

Fig. 11—Example of How to Request an MLSS Report and Sample Pages From an MLSS Report (Sheet 2 of 3)

SECTION 10p

NNN725H NO.2 ESS SERVICE CIRCUITS AND SPECIAL TRUNKS
 TRAFFIC MACHINE LOAD AND SERVICE SUMMARY -- 10/30/1974
 HOUR ENDING 16:30

MF RCVRs

PER STATION CCS	CALLS	USAGE TRFFC	MB	PEG COUNT	HT SEC	OFL %	OCC %	RA/BS	FIT- RAT
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HIGH DAYS:

09-24-74	0.4844	16.156	22	0	727	3.00	0.0	10	1.55	1.63
07-01-74	0.4511	14.778	20	0	665	3.05	0.0	9	1.44	1.54
09-23-74	0.4511	14.711	20	0	662	3.07	0.0	9	1.44	1.49
10-03-74	0.4444	16.622	20	0	748	2.67	0.0	9	1.42	1.46
10-02-74	0.4378	14.889	20	0	670	2.94	0.0	9	1.40	1.43
10-01-74	0.4356	14.911	20	0	671	2.92	0.0	9	1.39	1.42
10-04-74	0.3956	14.467	18	0	651	2.73	0.0	8	1.26	1.40
09-25-74	0.3933	13.467	18	0	606	2.92	0.0	8	1.26	1.38
10-18-74	0.3844	14.578	17	0	656	2.64	0.0	8	1.23	1.37
08-14-74	0.3756	13.267	17	0	597	2.83	0.0	8	1.20	1.36
08-19-74	0.3644	13.644	16	0	614	2.67	0.0	8	1.16	1.35
08-12-74	0.3578	14.133	16	0	636	2.53	0.0	7	1.14	1.34
08-20-74	0.3489	11.778	16	0	530	2.96	0.0	7	1.11	1.33
09-30-74	0.3444	14.089	16	0	634	2.44	0.0	7	1.10	1.32
09-13-74	0.3422	13.844	15	0	623	2.47	0.0	7	1.09	1.31

AVG 10 HD	0.4253	14.784	19	0	665	2.88	0.0	9	1.36	1.45
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MONTHLY AVERAGES:

10-74	0.3521	13.570	16	0	611	2.58	0.0	7	1.12	
09-74	0.2943	12.743	13	0	573	2.31	0.0	6	0.94	
08-74	0.2928	12.152	13	0	547	2.40	0.0	6	0.94	

	0.3131	12.822	14	0	577	2.43	0.0	7	1.00	

Fig. 11—Example of How to Request an MLSS Report and Sample Pages From an MLSS Report (Sheet 3 of 3)

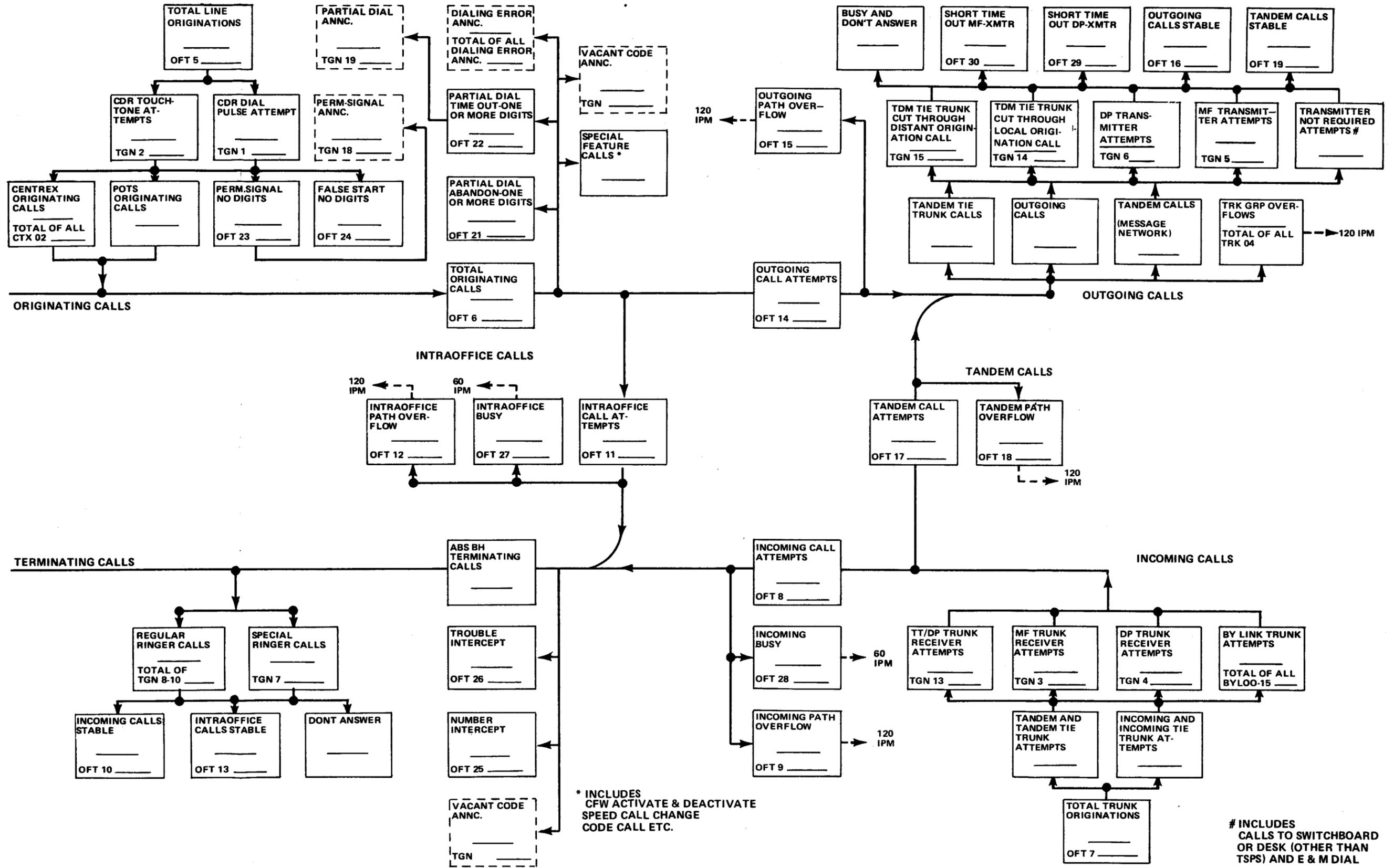


Fig. 12—Example of Holding Time Ranges for Service Circuits and Threshold Items for EADAS

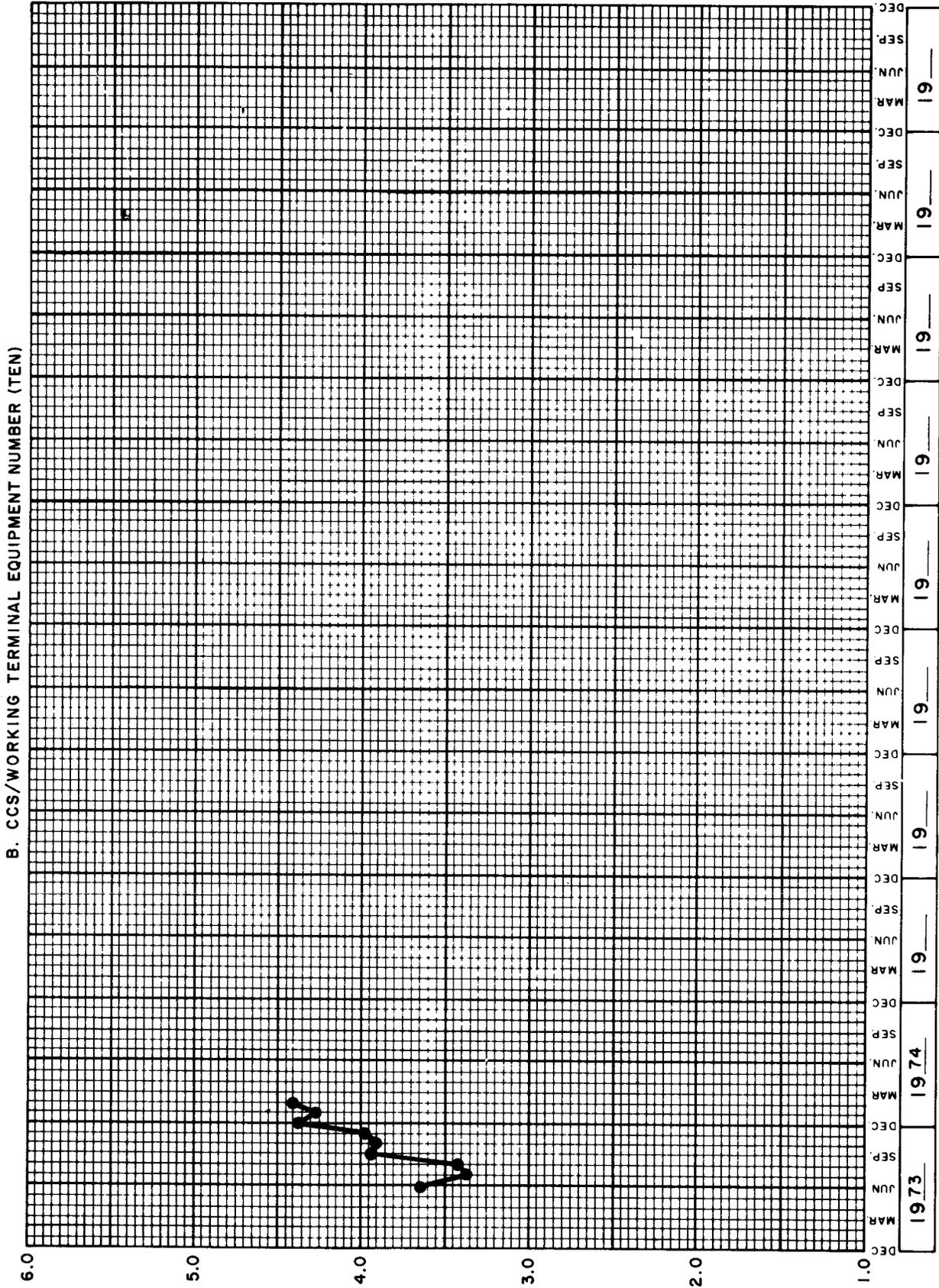


Fig. 14—Examples of CCS/MS, CCS/WTEN, and CR/MS Graphs (Sheet 2 of 3)

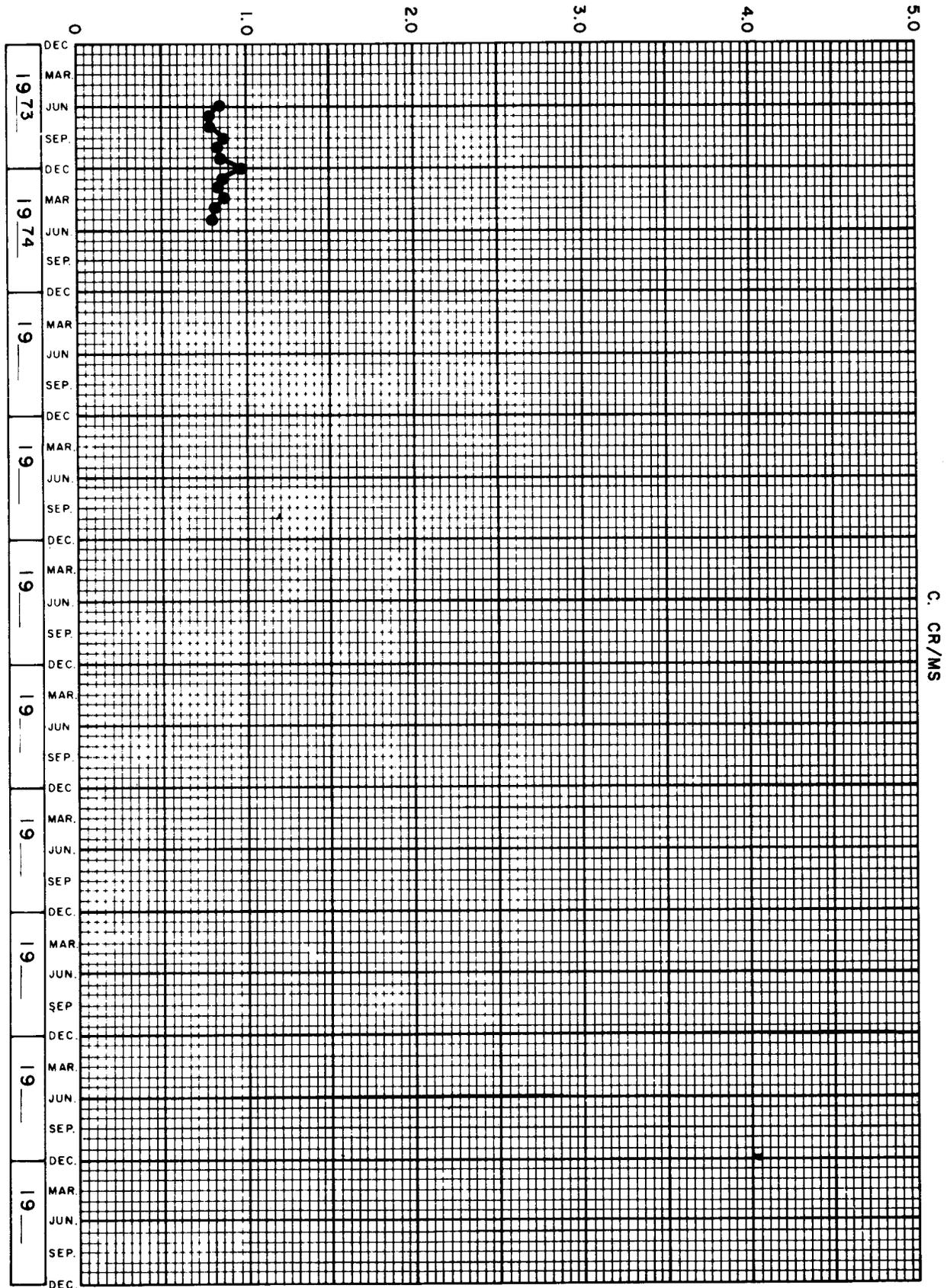


Fig. 14—Examples of CCS/MS, CCS/WTEN, and CR/MS Graphs (Sheet 3 of 3)