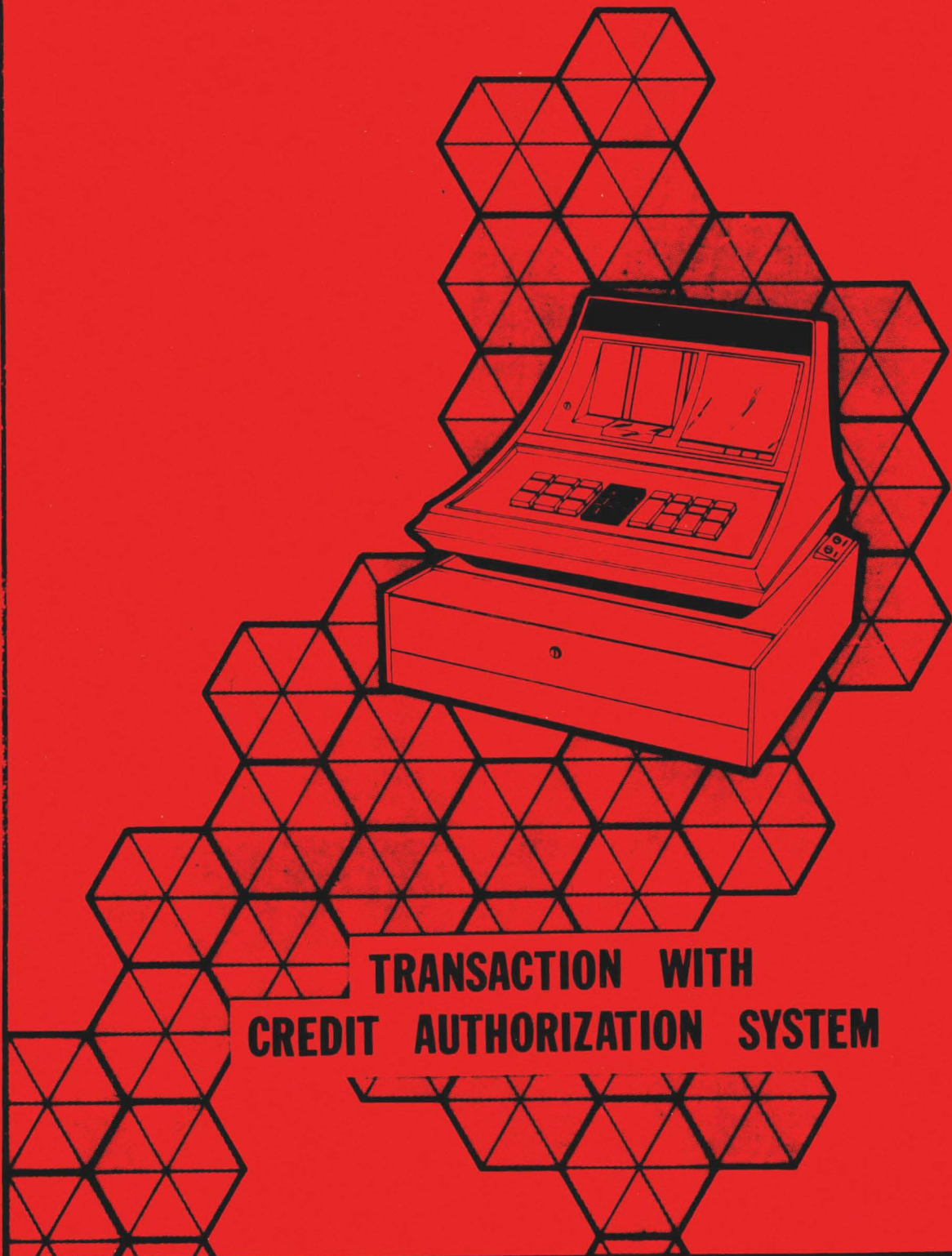


M D T S



**TRANSACTION WITH
CREDIT AUTHORIZATION SYSTEM**

MDTS COLLECTIVE STORE AND FORWARD SYSTEM
WITH DISC CREDIT AUTHORIZATION
AND CHRONOLOGICAL TRANSMISSION

Release Date: December 1, 1971

CR 0602

This manual documents the software package used in the Modular Data Transaction System (MDTS) environment at Sears. It does not include documentation on RBSA programs or utilities used by Sears.

All revisions prior to December 1, 1971, have been incorporated into this manual. The revision dates can be found at the bottom of each page.

All documentation of this MDTS software package prior to December 1, 1971, is superceded by this manual.

This release contains the following enhancements:

1. Improvement of criteria testing for ENDAY.
2. Addition of ATT12 message for logical day changing.
3. SCA partition buffer sharing for transmitting and receiving data.
4. Receipt of any communications option other than Function Text Option 2, Option 000, or Option 0nn will cause a buffer reset in the SCA partition similar to Function Text Option 1.
5. The printing of the Singer-Friden Company title, MDTS System software module name, second Julian form release date on the console device during program loading.
6. Correction of all outstanding software problems reported prior to this date.

This software release is compatible with all previously released MDTS System support and utility programs as well as all external referencing programs with the exception of the RBSA Series program NFR200 which is being concurrently released with the MDTS System software.

Release Date: December 1, 1971

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INTRODUCTION

SECTION 1

INTRODUCTION

The MDTs Collective Store and Forward System with Disc Credit Authorization operates with a minimum 10K common, 2K partition zero, 3K SCA partition, and 1K for each terminal partition.

Partition zero monitors all activities, accepts commands for reporting or altering data flow, automatically reports status at various points and reports machine malfunctions, should they occur.

The SCA partition handles all communication between the System Ten and a host computer. It requires two channels, but is considered one partition.

The terminal partitions service the point-of-sale terminals by responding to a credit inquiry, accepting transactions, and writing the completed transactions on disc. They also retrieve transactions during a host poll and update the credit file during a host select.

All partitions have access to the common data areas and routines. Software flags prevent simultaneous use of given common routines by more than one partition.

When the program is in normal operation, point-of-sale terminals will have first priority for service. A credit inquiry will be answered immediately. A transaction will be logged in a core queue. If no terminal attached to a particular partition is requesting service, the system will allow that partition to write data from the queue to disc. If the queue is empty, the system will allow a host computer request to be serviced.

At the completion of any single task, or upon recognizing no tasks pending, the partition in charge releases the system to the next partition. If the next partition is a terminal partition, the process is repeated. If it is the SCA partition, the system will check for a host command if none is currently pending, or will resume execution at the point it released control if a command is being processed.

When control passes to partition zero, a pending service request is acknowledged and serviced. If no service request is pending, any message passed to partition zero from one of the other partitions will be printed. If there is no message, control passes to partition one.

MULTI-PARTITION LOADING

SECTION 2

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MULTI-PARTITION SYSTEM LOADING

System loading in a multi-partition environment is accomplished with a special Channel Load and Execute program CHLOE. Features of this program are:

1. Checking of common size to insure that the size requested is available.
2. Computation of the number of blocks of core, 100 positions long, between the figure provided in CHLOE card 0002 and the upper limit of common less six blocks. This figure is placed in core positions 300-301 of common.
3. Computation of a figure, 200 core positions below common maximum and placement of that figure in core positions 302-303-304-305 of common.
4. Placing the number of a partition in core position 45, 46, 47 and 48 of the partition.
5. Placing five times the number of a partition in core position 25, 26, 27 and 28 of the partition.
6. Placing three times the number of a partition in core position 35, 36, 37 and 38 of the partition.
7. The ability to load any program into any partition or the same program into all partitions.
8. The ability to automatically cycle any partition that is not loaded.
9. The ability to request loading into non-existent partitions.
10. Automatic execution of programs commencing with partition zero upon completion of loading.

Restrictions of this program are:

1. Operates in an environment which includes at least one partition besides partition zero.
2. The first existing partition after partition zero cannot be an MTIOC type. (It must execute a recovery instruction at position zero when forced into a LOAD state instead of issuing a read control). Other partition following the first existing partition can be any type.
3. Partition zero will start at position 0300 unless the ST6 card is modified. All other partitions must begin at position 0000.
4. The common program to be loaded cannot insert any data or coding below position 320. These 20 positions are available for labeled work areas.

5. The partition zero program, to be loaded, cannot insert any data or coding below position 300.

The system to be loaded into the multi-partition environment is first assembled and the output intermixed with CHLOE. Only the output cards designated T are used and all other types from the assembly are to be discarded including the S type card(s).

CHLOE text cards 0001 and 0002 may require modification for various system configurations.

CHLOE card number 0001 designates, in columns 8 and 9, the amount of common core required for proper program operation. Comparison is made of this figure to the actual amount of common area available and an error message is written if the common area is not sufficient.

CHLOE card number 0002 designates in columns 8 and 9, the first two digits of the queue starting address plus 6. This is utilized in determining the block count of the queue and reserves three blocks in both front and rear for overflow purposes. The queue must start on an even hundred integer as the number of blocks is established from the first two digits. The queue maximum pointer, INPXA, is also established at 200 core positions below the common maximum.

If using the MDTS Basic CHLOE Loader, CHLOE1, text cards 0001 and 0002 will be immediately preceded by the ST1, ST2 and ST3 cards. These three cards comprise a re-entrant bootstrap for loading CHLOE and portions of the user program from any IOC device (card reader, 7102 paper tape reader, etc.). These cards must be present when using wither the MDTS Bootstrap to Disc or Bootstrap to Magnetic Tape. They are replaced by the ST0 card when using DMF CHLOE, CHLOE3.

CHLOE card number ST4 designates which partition or partitions are to be loaded with the assembly output which would immediately follow. Columns 40 through 59 indicate partitions 00 through 19 and a flag (1) in the partition position will load that partition.

A separate program may be loaded into another partition by inserting another ST4 card immediately prior to the new program. Partitions do not have to be loaded with program but may not have more than one program assigned. Partitions which are not loaded with program will be given an automatic cycling instruction so that they will not interfere with other partitions. Any attempt to load more than one program into the same partition will print an error message and terminate the loading program.

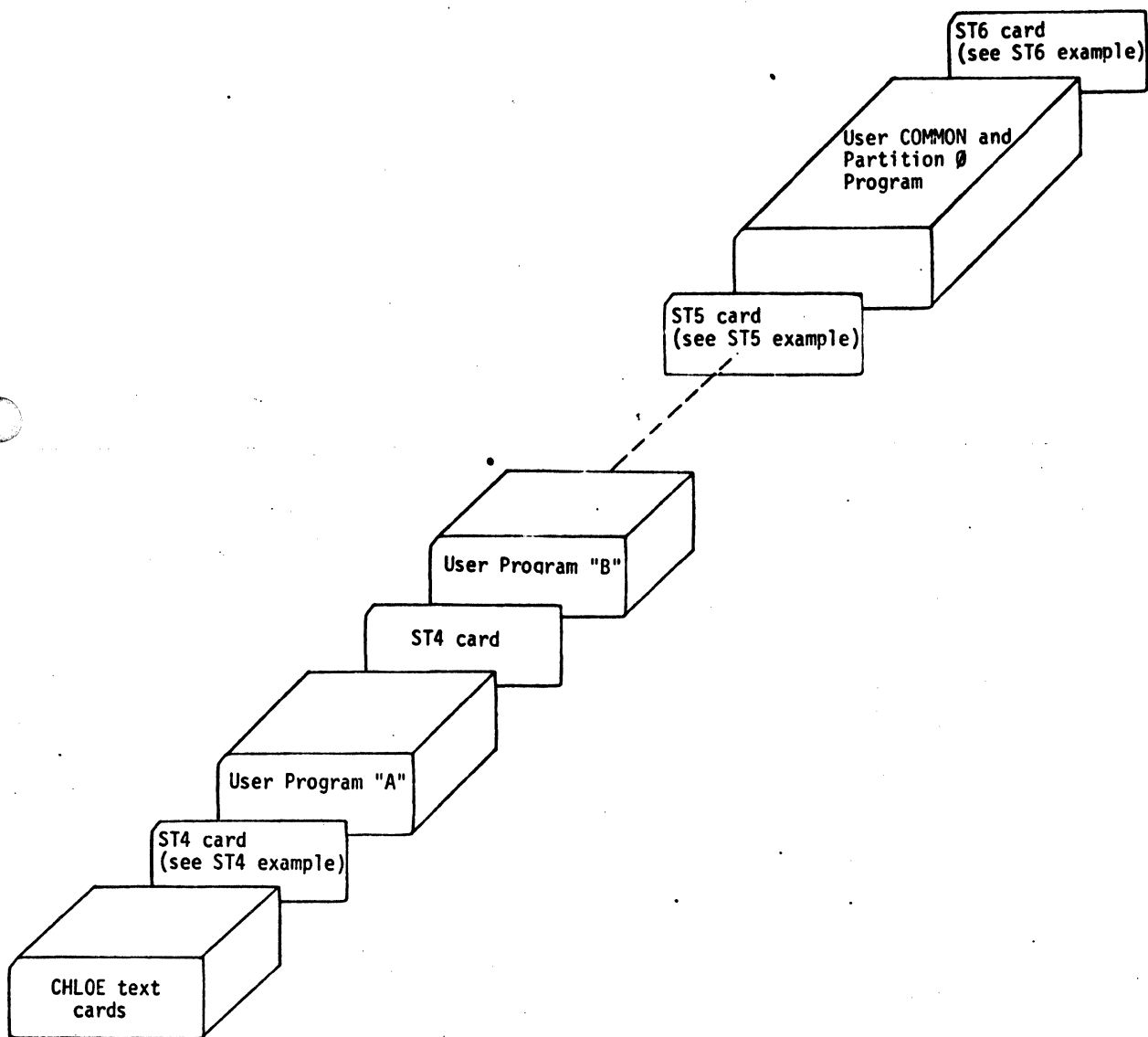
CHLOE card number ST5 indicates that partitions 1 through 19 have been loaded, if they were requested, and that the data for partition 0 and/or the common area follows.

CHLOE card number ST6 is the last card of the sequence and terminates the multi-partition loading process.

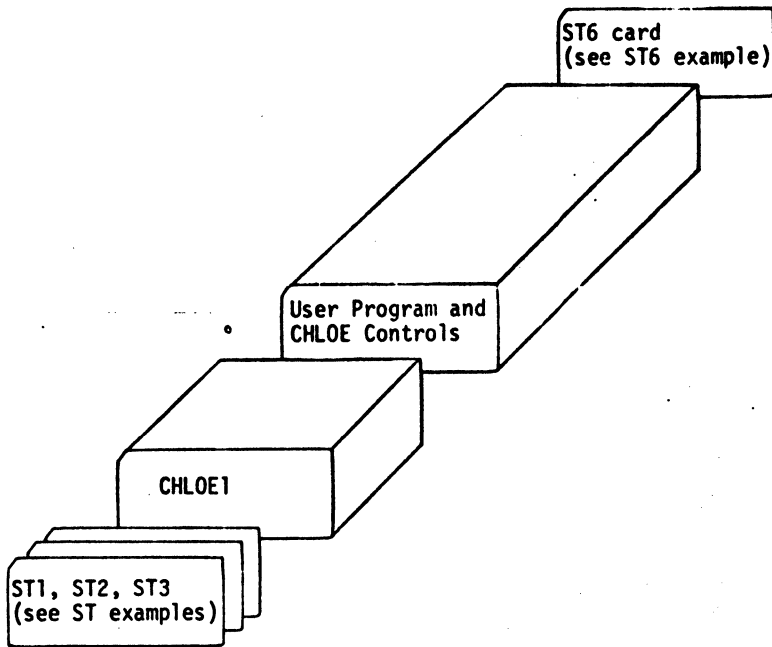
The following illustrations and supporting examples describe the deck contents for systems programs to be loaded with CHLOE from any media. Normally the system program deck is separated into its various partition programs and the appropriate CHLOE program and CHLOE control cards inserted as required. The card deck thus arranged can be converted to paper tape at this point if necessary. The section following the illustrations describes how the system program is loaded.

BASIC CHLOE LOADER

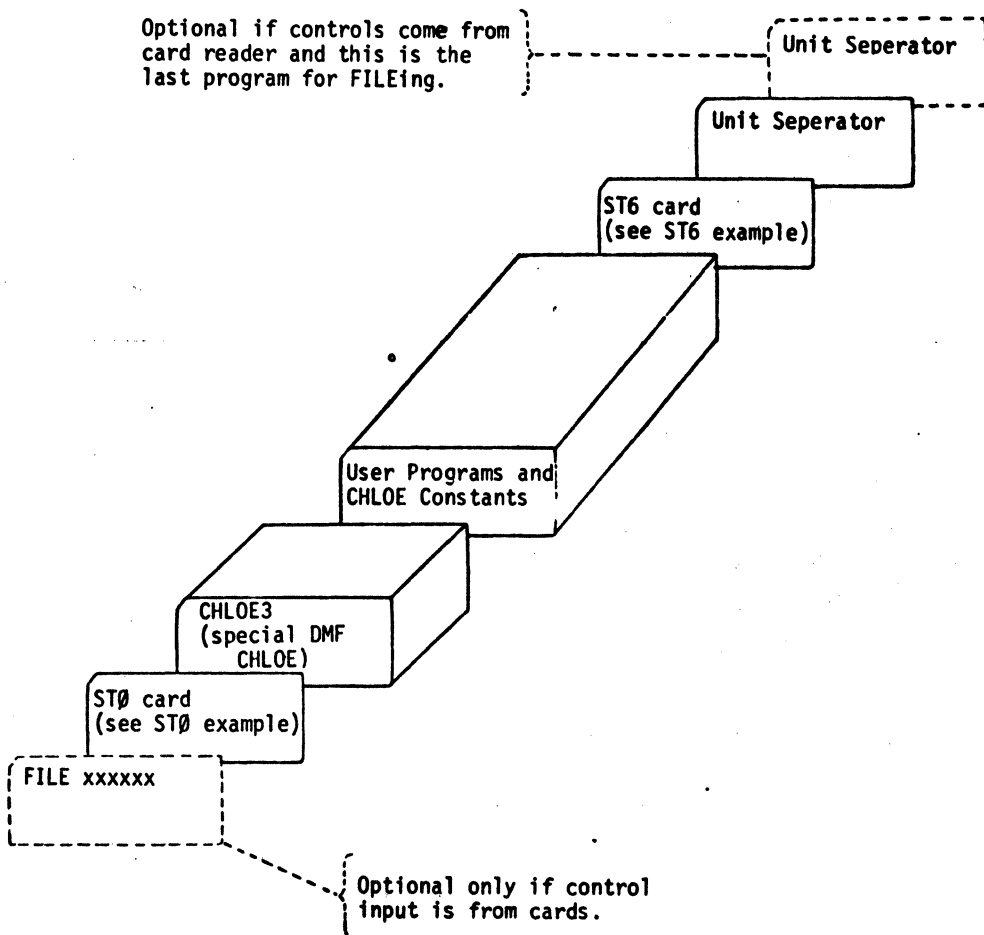
CARD DECK FORMAT



CHLOE1
MDTS BASIC CHLOE

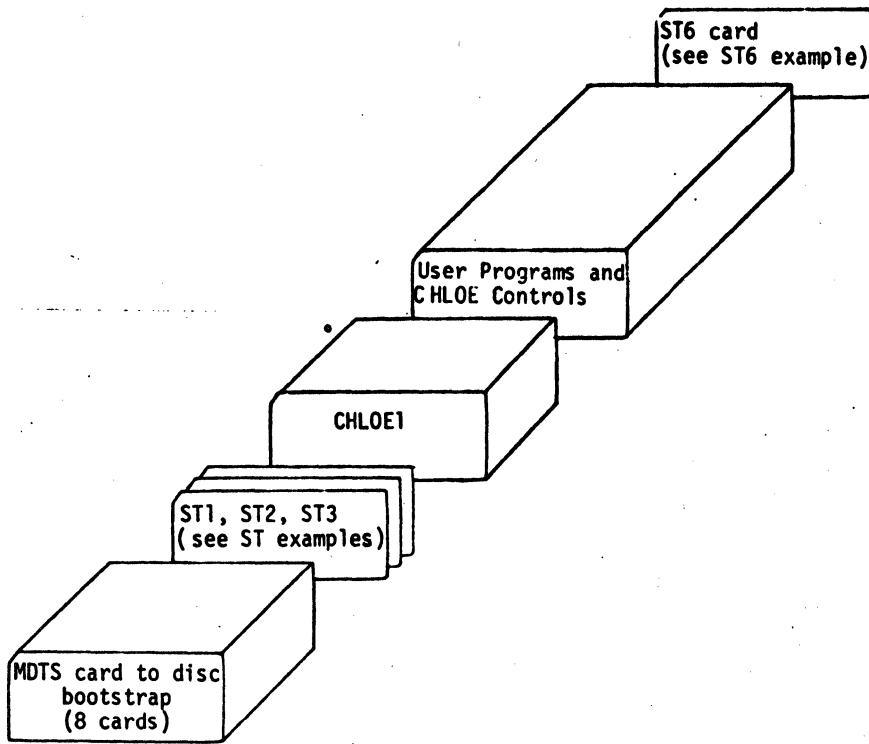


CHLOE3
DMF CHLOE LOADER



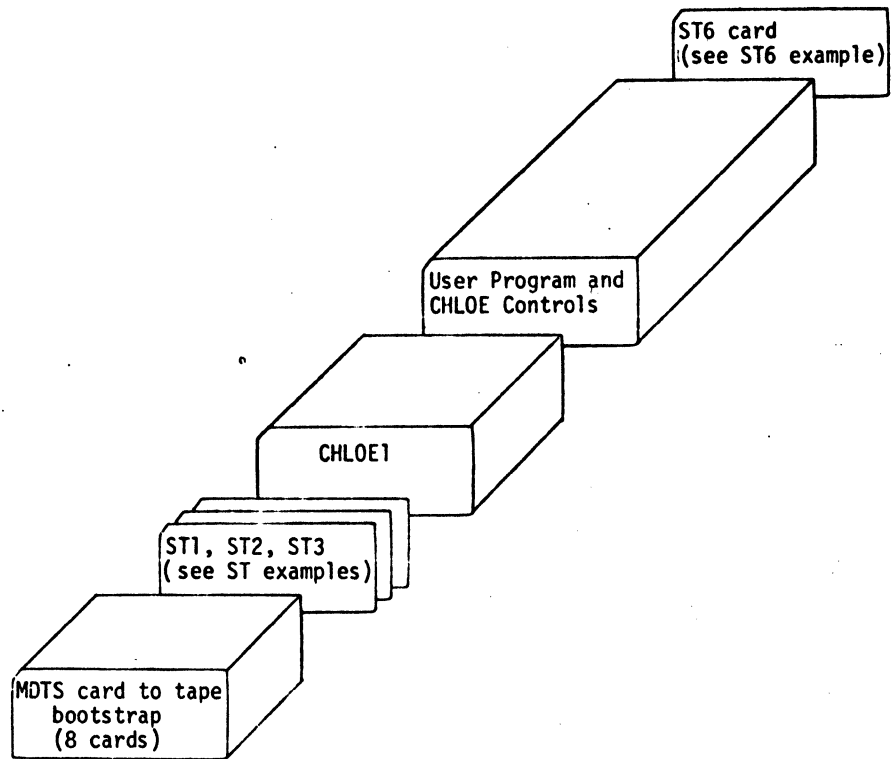
NOTE: Follow DMF FILE procedures for the system.

CHLOE5
MDTS BOOTSTRAP TO DISC



CHLOE7

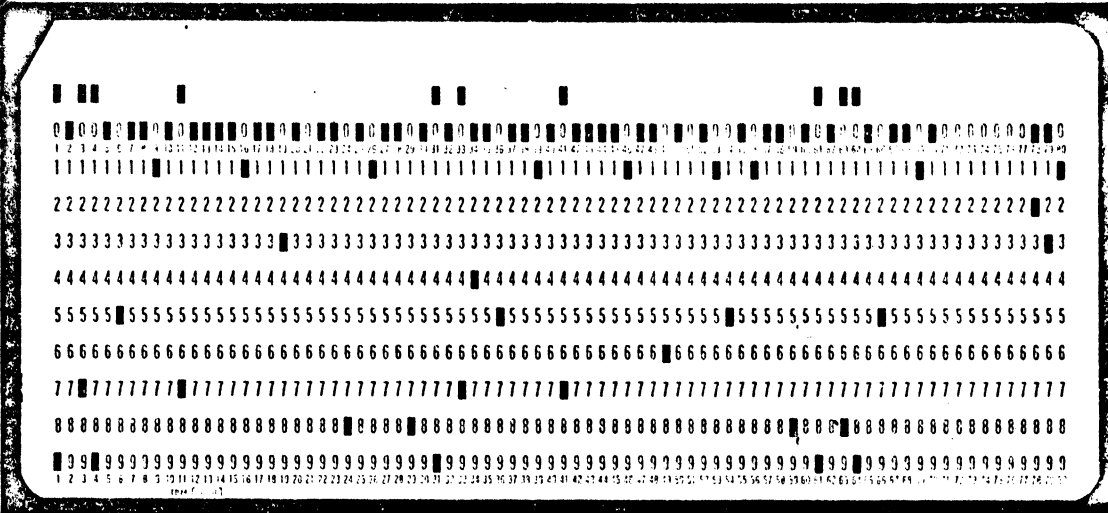
MDTS BOOTSTRAP TO TAPE



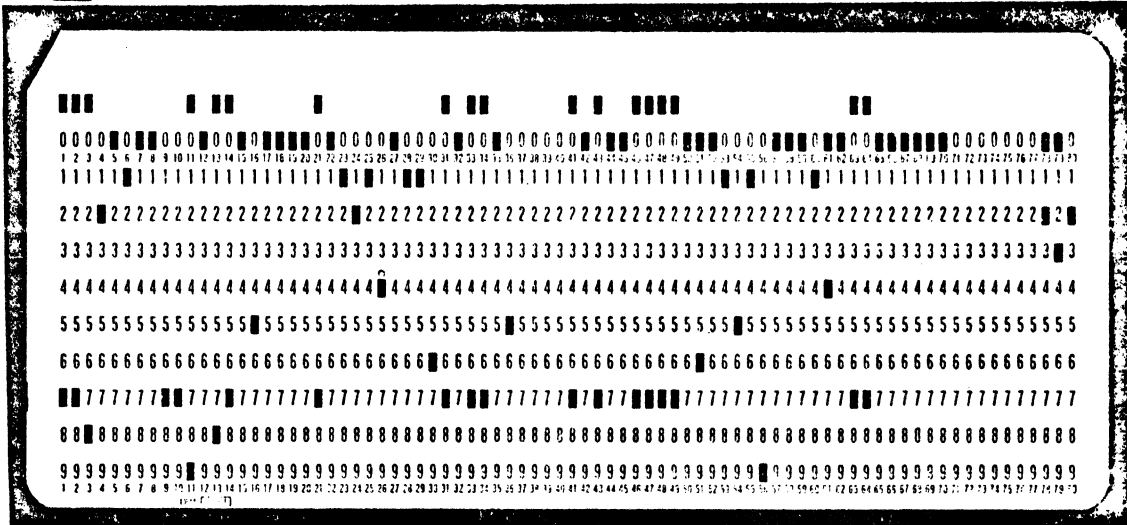
ST1, ST2, ST3 CARD EXAMPLES

These cards are the loader cards which will load the CHLOE loader. They are generated separately from CHLOE and added to the CHLOE deck prior to distribution.

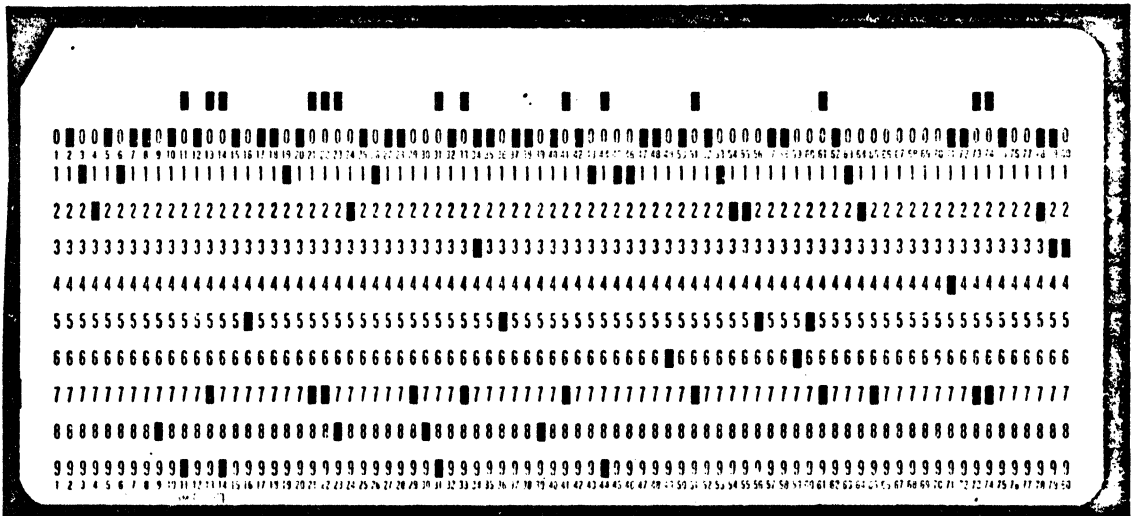
ST1



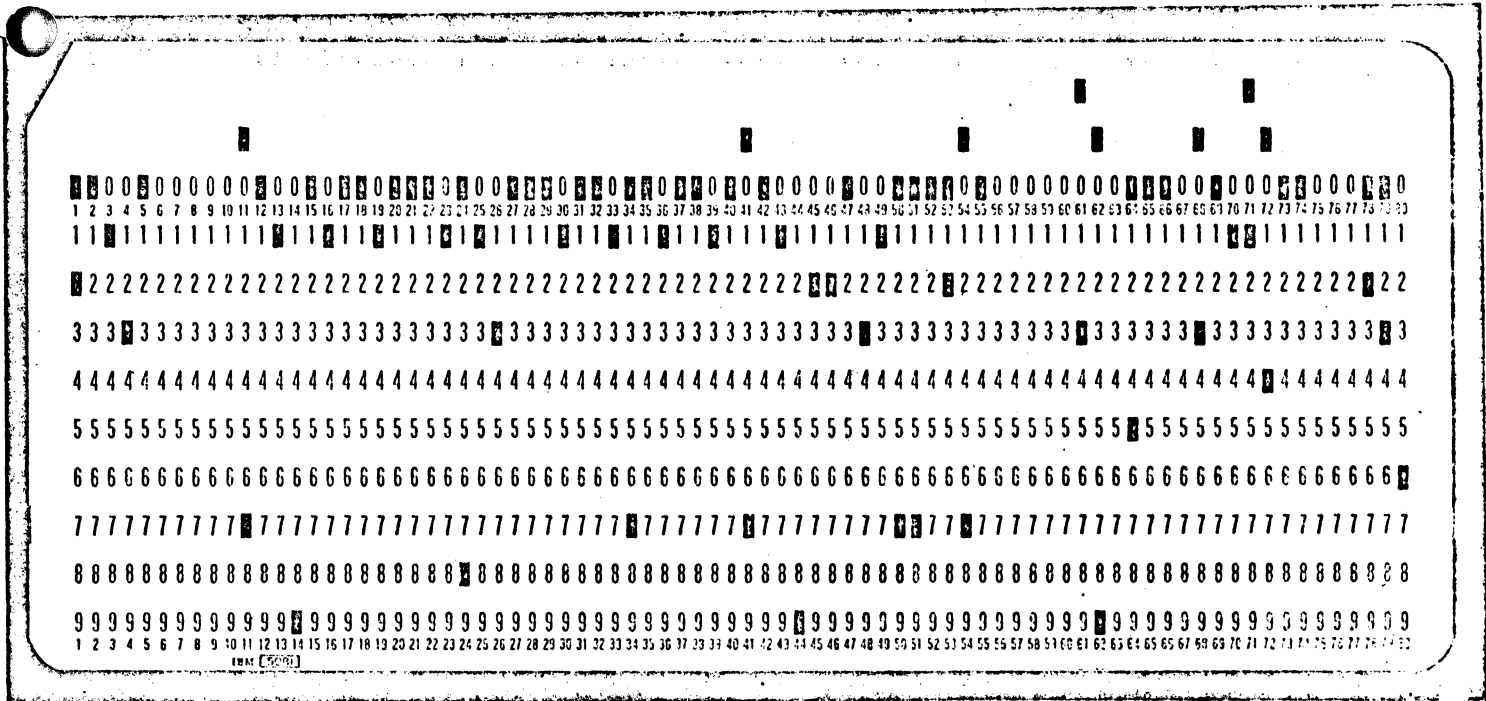
ST2



ST3



ST6 CARD EXAMPLE



Card Columns

Contents

- 1-5 S card execution address for this card.
- 6-10 Not Used
- 11-50 Instructions used by CHLOE to print the message in card columns 61-70 to show that program loading is complete.
- 51-55 The starting address of Partition 0. This must be the first five machine language characters of an unconditioned branch to the starting location desired. This address is available for user modification.
- 56-60 Not Used
- 61-70 Message to be printed signifying loading complete. This message may be user modified.
- 71-74 Constants used by CHLOE.
- 75-77 Not Used
- 78-80 ST6

Note: The ST6 card signifies that loading is complete and automatically executes Partition 0. The ST6 card contents is different for the Basic CHLOE and the DMF CHLOE. The example used is the ST6 for the Basic CHLOE.

PROGRAM LOADING

SECTION 3

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MDTS Program Loading

The MDTS program may be loaded in one of four ways depending upon the media and method used for program storage.

- A. Program stored using the Disc Management Facility librarian functions.
- B. Program stored on disc utilizing a special MDTS bootstrap.
- C. Program stored on magnetic tape utilizing a special MDTS bootstrap.
- D. Program stored on other media such as cards or paper tape.

The CHLOE (CHannel LOad Execute) multipartition system loader is used for each method of loading.

- A. Program stored using the Disc Management Facility librarian functions.
 1. Initiate the Conversational Loader by securing a LOAD condition in partition zero on the attached device zero console and completing the subsequent read from the console by either:

- a. Depressing the ENTER key on the workstation.
- b. Simultaneously depressing the Control key and the Question Mark key on the 7102 Communication Terminal.

or c. Keying in ten zeros on either device.

The Conversational Loader will respond with: A) ENTER PROGRAM NAME

2. Key in MDTS and complete the read from the console by either:

- a. Depressing the ENTER key on the workstation.
- or b. Simultaneously depressing the Control key and the Question Mark key on the 7102 Communications terminal.

The CHLOE loading messages and appropriate system messages will print as the program is loaded.

- B. Program stored on disc utilizing a special MDTS bootstrap.

1. Secure a LOAD condition in partition zero on the attached device zero console.
2. Key in the following special bootstrap:

0000100000

The CHLOE loading messages and appropriate system messages will print as the program is loaded.

C. Program stored on magnetic tape utilizing a special MDTS bootstrap.

1. Mount the program tape on tape drive 2.
2. Secure a LOAD condition in partition zero on the attached device zero console.
3. Key in the following special bootstrap:

2001000080

The CHLOE loading messages and appropriate system messages will print as the program is loaded.

D. Program stored on other media such as cards or paper tape.

1. Ready the program in the appropriate reader.
2. Secure a LOAD condition in partition zero on the attached device zero console.
3. Key in the following special bootstrap:

d001010080

where "d" is the reader device number.

The CHLOE loading messages and appropriate system messages will print as the program is loaded.

CHLOE Loading Messages

A. Normal Loading

SW NRM

This message indicates that the CHLOE loader is beginning to load remote partitions. If a subsequent message does not follow immediately, verify that the MODE SELECT switch on the display panel is turned to NORM.

C SIZE aaaa QLIM bb INPXA cccc

This message indicates the completion of the common core evaluation.

"aaaa" indicates the amount of core allocated to common. (0000=10K)

"bb" indicates the number of blocks allocated to the common data queue.

"cccc" indicates the data queue maximum block pointer.

PAR LOD 0XXXXXXXXXXXXXXXXXXXX

This indicates the partitions requested to be loaded.

x=0 indicates no request.

x=1 indicates a request.

Non-existent partitions may be requested for loading and will show in this message. Existing partitions not requested will be loaded with a cycling instruction.

XXXXXXXXXX (Load Complete Message)

This message is printed on completion of reading and executing the ST6 card of the CHLOE Loader. The message may contain from one to ten System Ten characters, and is a part of the ST6 card itself in columns 61-70. (See ST6 card Example Section 2 page 13 of this manual.)

B. Error Messages

Three error messages are:

1. "RD ST" to indicate a read status error.
2. "C SIZE NOT" to indicate insufficient common area available according to CHLOE card number 0001.
3. "LOAD REQ ERR" to indicate a load request error of either not a 0 or 1 in columns 40 thru 59 of the CHLOE ST4 card, or a request to load a program in a partition already loaded.

System Messages

A. Program Identifier

The system will first print a program identifier message. The identifier format is:

```
"SINGER-FRIDEN MDTs SYSTEM"  
ppvll-yyddd  
pp = Program Mnemonic  
vv = Version Number  
ll = Level of Distribution  
- = fixed dash  
yy = Year  
ddd = Julian day
```

B. Partition Check-In

Each partition properly loaded will report in with ATT09.
The ATT09 format is:

ATT09 U0SQP00nnr

nn is the partition number
r is a residual character

C. Special Messages

If a clock partition is present, a Clock Stopped message is printed at the initialization of the system. The Clock Stopped message format is:

CLOCK STOPPED AT dddhhmmss

ddd = Julian Day
hh = Hour
mm = Minute
ss = Second

To initialize the clock, follow the console instructions specified in item H, Section 5, page 2.

CONSOLE MESSAGES

SECTION 4

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CONSOLE MESSAGES

The 7102 Communications Terminal is attached to partition zero and various messages are passed to it from the other partitions via a common buffer. Partition zero examines this message buffer and prints it when filled.

Messages are 27 characters long formatted with a standard 5 character tag followed by up to 22 characters of data relative to the tag. For example, a disc read error will have a 5 character tag followed by the 6 character disc address where the error occurred.

The messages are separated into three categories; Attention, Warn, and Error. In general, the "Attention" messages indicate the completion of a command such as a transmission to the host computer. The "Warn" messages mean that something did not happen as expected, such as an attempt to delete a non-existing account number from the credit file. The "Error" messages indicate that an error has occurred such as a disc I/O error.

ATTENTION

ATTØ1 - This message indicates a successful transmission of a transaction file to the host computer. Accompanying the ATTØ1 tag is a 14 character code number for the data just transmitted and a 6 character count of the number of transactions sent. The code number must be entered for all subsequent resends of these transactions. The format of the ATTØ1 message is:

ATTØ1 bbbbbbbeeeeepp ccccc

bbbbbb = beginning disc address for this transaction file.

eeeeee = ending disc address for this transaction file.

pp = the picture address. This is the even sector of an even/odd pair in the home track that contain the picture data for this transmission.

cccccc = the character count of the number of transactions sent.

ATTØ2 - This message indicates the receipt and completion of an option 6 command from the host computer. This means that the credit file has been cleared and reinitialized and the system is ready to receive a new credit file. This message will appear when initializing a disc pack without host involvement. (See ATTØ5.)

ATTØ3 - Attention 3 indicates the completion of the building of a credit file or the completion of a series of on-line updates to the credit file. Accompanying the ATTØ3 tag will be a 6 digit count of the account numbers now on the credit file followed by 12 digits indicating the disc address for the beginning and ending of the credit file. The format of the ATTØ3 message is:

ATTØ3 cccccc bbbbbbbeeeee

cccccc = count of the account numbers now on the credit file.

bbbbbb = beginning disc address of the credit file.

eeeeee = ending disc address of the credit file.

ATTØ4 - This message occurs in standard MDTs Systems upon normal loading of the software in the System Ten partitions. It is a request for operator determination of the status of the disc pack mounted on drive number zero. Only one of the following replies will be accepted by the MDTs System before system loading can complete:

NRMLD This reply implies that a disc pack that has been previously initialized to MDTs System specification is mounted on disc drive zero (see MDTs System Initialization Program Documentation).

DINTL This reply states that the disc pack on drive zero has not been initialized to MDTs System specification. The MDTs System will then proceed to request system parameters (see ATTØ5).

ATTENTION (CONT)

ATT05 - This is a request for entry of MDTS System initialization parameters. It is generated when DINTL is used as a response to the ATT04 message. If the MDTS System Initialization Program is not available to the user, the required parameters may be entered on the console device at this time.

NOTE Extreme caution is advised if MDTS System initialization parameters are entered via the DINTL and ATT05 request as the parameters are not edited for validity and integrity. The support program, MDTS System Initialization Program, should be used for parameter entry to insure accurate system initialization.

Parameters entered via the ATT05 request must be in the exact order they are presented in the FILCON description in Section 7 of this manual. When the last character has been entered, the MDTS System will display them on the next console print line and it will accept the parameters only if the letter "Y" is entered on the console device. If any other reply is entered, such as "N", the MDTS System will repeat the ATT05 request for parameters.

When the parameters are accepted, the MDTS System will commence clearing the disc area specified for use as the credit file area. (see ATT11) and initialization is complete.

ATT06 - This is an indication of a break in the normal communication sequence with the host. The format of the ATT06 message is:

ATT06 fff aaa iiiiiiiiii

fff = 1 to 3 digit (as applicable) of the function command that was active.

aaa = the core address of the I/O instruction which faulted (timed-out).

iiiiiiiiiii = the actual instruction which faulted.

ATT07 - This indicates the completion of the ENDAY option. Accompanying the ATT07 tag will be two digits indicating the new day number. The format of the ATT07 message is:

ATT07 dd

dd = the new day number.

ATT08 - Attention 8 indicates an orderly close of the system. This message must follow a "SYSDN" command. It means that this disc is closed and all parameters updated appropriately. No terminal transaction or host commands will be accepted.

ATTENTION (CONT)

ATT09 - This indicates a pass through position 0000 of a partition. The 10 characters at position 40 of the partition are also reported. The format of the ATT09 message is:

ATT09 kaaalppppd

k = size (K) of the partition.
aaal = address of the instruction +11 (+1 if an I/O being executed at the time of the check. The zone bits of characters "aaa" indicate the condition code Flip-Flops of "CARRY", "MINUS", and "ZERO" and the zone bits of character "l" indicates the location of the instruction (partition or common).

If there was no ACU check condition, "aaal" have no relevance.

pppp = the partition number where the recovery occurred.
d = the last device that received an acknowledgement for service by the processor.

ATT10 - Indicates completion of host initiated reset of any communications routines in progress.

ATT11 - This message indicates that the system has been directed by the operator or communications to clear the negative credit file. The credit file cannot be accessed until an "ATT02" message is typed on the console monitor which indicates the completion of the clear function.

ATT12 - This message informs the operator that the ENDAY command cannot be automatically serviced because one or more point-of-sale terminals is not closed. The complete message format is:

ATT12 ALL TERMINALS NOT CLOSED

*xx*yyyyyyyyyy*

(More than one line may print, as required. See description of STATE command (Section 5) for "xx" and "yyy..." definition).

REPLY YES TO OVERRIDE OR NO --

The operator may reply "YES" and the condition will be overridden. Any other response such as "NO" will cause the MDTs System to resume normal cycling, having taken no action.

WARNING

- WRN01 - This message indicates the approaching end of the transaction file. It is accompanied by a two digit number indicating the number of tracks left before encountering WRN02.
- WRN02 - This message means that the last available track has been reached, and any data in queue is logged on disc. The disc will accept no further transactions until the system has received an option 0 command from the host and sent the transaction data. The WRN02 tag is accompanied by 2 digits indicating the number of tracks reserved to write data left in queue when encountering WRN02. Credit authorization will continue, but transactions will be blocked.
- WRN03 - This indicates an attempt to delete an account number not on the file. It is accompanied by the account number received. The number is ignored. Normal processing continues.
- WRN04 - This indicates an attempt to change the credit status of an account number not on the file. The number accompanies the tag and is ignored. Normal processing continues.
- WRN05 - Warning 5 means that an attempt to add to the credit file has not been successful because the overflow area is full. The number accompanies the tag and is ignored. Normal processing continues and other additions may very well be successful because not all additions will be going to the overflow area.
- WRN99 - Warning 99 is generated by the occurrence of a track check while trying to read the disc. The sector address is printed with this warning. If the second read of the sector yields the same result, the disc address printed is incremented by one and the read tried again. This logic is used because the disc arm position cannot be program verified. The procedure of incrementing the disc address allows access of the desired track only, and in the event of parity/track checks on all sectors of the given track, a loop is entered preventing access of the disc until operator intervention. This condition is detected by unending "WRN99" messages on the console device for the same track.

ERROR

- ERR01 - Error 1 is a parity error or LRCC miscompare on a disc I/O. The program will retry ten times and, if there is no change in status, report ERR03 for the same address before beginning an error recovery procedure. The disc address accompanies the ERR01 tag. The condition code is a 1.
- ERR02 - This message indicates the transmission of invalid characters for the credit file. The data sent accompanies the ERR02 tag. The data is ignored and normal processing continues.
- ERR03 - Error 3 indicates a bad sector on a disc I/O. If the instruction was a "WRITE", hardware will have written a bad sector blot on the sector. If the instruction was a "READ", hardware would have detected a bad sector blot from a previous write. Subsequent "READS" will always return a bad sector status. Subsequent "WRITES" may be successful, at which point the sector is available for normal use. The condition code is a 3.
- ERR04 - This message indicates that a disc I/O has returned a "drive not available" status. The system waits at the I/O instruction until the drive becomes available. The disc address accompanies the ERR04 tag. The condition code is a 4.
- ERR05 - This will indicate the recovery of bad data from the disc during a send of the transaction file to the host. The data on the disc is checked for the terminal's transmission start code "P" and a valid 1, 2, or 3 block count.
- The ERR05 tag is accompanied by the disc address being accessed and the invalid portion of the data on the disc.
- ERR06 - This message indicates that data in queue is in error. The validity check here is on the block count. The data is reported with the ERR06 tag and ignored. Normal processing continues.
- ERR07 - This indicates that no proper data was found in the file parameters of the picture which had been requested by the host as a resend. The host computer will receive a normal '*END' message and the ATT01 message is reported at the console with the non-numeric data following the ATT01.
- ERR08 - This indicates that improper data has been entered from the console during a TRACE - DDUMP or service request.
- ERR09 - This error occurs when the Host computer has attempted to transmit credit numbers with the transmission length either exceeding or being less than the required number of characters expected. The MDTs System will "NAK" the Host and attempt to reread the transmission. If a second failure is encountered the transmission is accepted and discarded as invalid. Those characters received from the transmission are printed with the error notation.
- ERR19 - This indicates an attempt to communicate from another computer without the proper identification. The identifier of the other computer is displayed following the ERR19 tag.

ERROR

CLOCK STOPPED AT *DDDHMMSS -

This message indicates that the software clock has stopped and no further transactions will be accepted by the system from any terminal.

REENTER TIME -

This message indicates that the previous time entry did not fall within the proper parameters.

WORKSTATION COMMANDS

SECTION 5

WORKSTATION COMMANDS

Various commands applicable to the MDTs System can be entered through the console device to either follow the path of the system, or to alter the data flow through the system. These commands are entered only after the program is loaded and operational by obtaining a Service Request.

At the time the Service Request is honored by the System, type one of the following five (5) character commands.

STATE
PRINT
ENDAY
DDUMP
SYSDN
SYSUP
TRACE

The above commands, their use, and formats are discussed as follows:

STATE - This command is used to determine which MDTs Terminals are active to the System. The format is:

*xx*yyyyyyyyyy*

xx - Partition Number

yyyyyyyyyy - Ten possible terminals which may be attached to this Partition. If the Terminal relative to the position shown is active a 1 will be displayed. If inactive or nonexistent the relative position will be 0.

PRINT - This command will print a series of internal accumulators for purposes of monitoring the system. The format is:

*NUQnn*INPaaaa*OPTcccc

nn = Number of Transaction blocks in the queue.

aaaa = Address of the next available queue location for terminal use.

cccc = Address of the next transaction in the queue to be written to the disc.

ENDAY - This command will cause the logical day number used in recording point-of-sale terminal transactions to be incremented by one. This has the effect of ending one logical days transactions and causing all subsequent terminal activity to be recorded against the next logical day (see DY, DAYNRT, and DAYNRD descriptions in Section 7 of this manual).

The day numbers used may range from 01 to 99 and will start at 01 again after 99 is reached.

ENDAY-(CONT)

Successful completion of the ENDAY functions is signaled by the ATT07 message. However, if all point-of-sale terminals are not in a "closed" state, the ATT12 message is reported on the console device. Completion of the ENDAY function will also block all further activity of the MDTS System and its terminals until the SYSUP command is entered or the System is reloaded.

DDUMP - This routine will dump the disc to the device required in increments of 100 character sectors. Servicing the DDUMP command, the System will wait for the proper parameter to be entered. The parameter format is:

aaaaadsssss

aaaaaa = The beginning disc address.

d = The output device (Ø is the console device).

sssss = Number of sectors to be dumped.

If the parameter above is not all numeric, "ERR08" is generated and displayed on the console device. See Section 4 for a discussion of the Console Messages.

SYSDN - This command is used to orderly shut the System down. After normal completion of the SYSDN command, the System will report completion (See ATT08 in Section 4) and block all terminal activity until the SYSUP command is entered, or the complete System is re-loaded.

SYSUP - This command is used to open the System after the completion of the SYSDN command. The System will report the completion of the command by printing the System Status Sector on the console device.

TRACE - This command allows the selective dumping of transactions to the console device. The operator may specify the terminal, the number of characters to be printed, the beginning and ending disc address. The routine searches the specified disc area, prints each transaction logged by the terminal being traced and its related disc address. The System returns to normal cycling when the operation is complete.

Servicing the TRACE command, the System will wait for the proper parameter to be entered. The parameter format is:

ppicccbbbbbeeeee

pp = Partition Number, 01-19

i = Terminal, 0-9

ccc = Number of characters to be printed.

bbbbbb= Beginning disc address for the TRACE.

eeeeee= Ending disc address.

TRACE-(CONT)

If the parameter above is not all numeric, "ERR08" is generated and displayed on the console device (see Section 4).

DISC ORGANIZATION

SECTION 6

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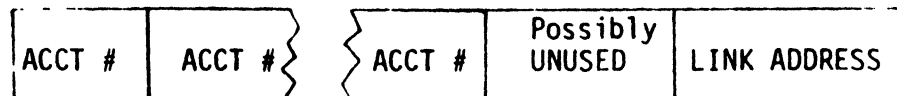
DISC ORGANIZATION:

The disc is organized to efficiently contain three important divisions:

1. System track
2. Credit file
3. Transaction file

1. The System Track contains key data relative to the credit and transaction files. The first sector contains the System Status Sector; the next contains labels for convenient isolation of data fields when printing the System Status Sector. (See SYSSS in Data Buffer Descriptions.) The remainder of the track contains daily pictures in sector pairs. (See TRMZAD and TRMZBD in Data Buffer Description.)
2. The Credit File is stored on disc at locations specified at initialization.

Each Sector is organized as follows:



Each account number is randomized to a sector in the credit file. If more account numbers randomize to a sector than the sector can hold, linkage will be established to an overflow area.

3. The transaction file location is specified at disc initialization. It is a dynamic file to all transactions. A particular day's transactions are logged consecutively as they enter the system. They begin at the first of a track and end at the last transaction logged prior to a host computer's signal to send transactions or the manual closing of the system, SYSDN or ENDAY. The pointers for a day's transaction are logged in its picture on the home track.

DATA BUFFER DESCRIPTIONS

SECTION 7

DATA BUFFER DESCRIPTION

This is a description of key data areas used in the MDTs program. This description is an aid to understanding processing details and tracing machine malfunctions.

SYSTEM STATUS SECTOR (SYSSS):

The System Status Sector contains a series of data fields relative to the current status of the system. It is stored in common and kept on the first sector of the home track (HOMAD) on disc. Any change in the System Status Sector in core will activate a routine to restore the new SYSSS back on disc. Closing the system with a SYSDN or ENDAY command will write the SYSSS on the disc being closed, and opening a system with a SYSUP command will read the SYSSS from the new disc into core.

The SYSSS is detailed as follows:

CURPIC - This is the 6 digit disc address of the current picture being processed. It refers to a picture in the home track. The picture referenced contains the data relative to the actual processing being done. It is described under the heading "TRMZA".

For example, a CURPIC of 000158 means that sectors 58 and 59 of track 1 contain the data relative to the current processing point. Closing the system at this point would write the TRMZA buffer into 000158 and 000159 and update CURPIC to 000160. The picture addresses wrap-around from the end of the home track, 000198 and 000199, to 000102 and 000103. The System Status Sector is stored at 000100.

NXPIC - This is 6 characters denoting the day indicator and the basic disc address of the next picture to be retrieved to send to the host. The first two characters are the day and the remaining four are the disc address when preceded with the first two digits of HOMAD. Upon receipt of a signal to send, the data in this picture is read into TRMZB for processing.

QBLOCK - This is a 1 character field which blocks the addition of data to the queue. It is activated in a WRNØ2 condition. Normal queue fills will occur with a value of Ø.

NXSND - This is the 6 character address of the next data to send to the host. It is incremented during the sending process, but is always set by the limits indicated in the data referenced by NXPIC prior to a send.

FILCON - This is 61 characters defining various system parameters. FILCON is loaded during disc initialization according to the following format:

- FIRAD - This is the first address of the transaction file.
- FIZLIM - This is the physical limit of the transaction file.
- DL1 - This is a 2 character constant entered at initialization indicating the number of tracks reserved for transactions following a WRNØ1 condition.
- DL2 - This 2 character field indicates the number of tracks reserved for data in queue following a WRNØ2 message.

DL2 must always have a smaller value than DL1 and must specify the number of tracks necessary to contain an entire queue.
- TTDRST - This 2 character constant is used to reset a counter to allow an efficient use of the TTD message during communications. Its value should be determined on the basis of machine configuration (number of terminal partitions) and expected communications timing (on-line with terminal activity or off-line).
- PRIME - This is a 6 character prime number indicating the number of sectors used by the credit file. PRIME is used in the randomizing routine to determine the actual disc address of account numbers.
- STADR - This is a 6 character disc address indicating the beginning of the credit file.
- LOVFL - This is the 6 character disc address indicating the end of the Credit File Overflow. It must be at least 10 sectors beyond STADR + PRIME. Any sector in the normal file (STADR to STADR + PRIME) which overflows will log into this area.
- NXLNK - This is the address of the next available address in the overflow area. It is initialized at STADR + PRIME. A SYSDN preserves NXLNK relative to the data logged on this disc. Option 6, Credit File Clear, resets it.
- BDLNK - This is the beginning of a save area in the bottom of the overflow area that will be used for any bad sectors encountered in the credit file. It is set at initialization time.

- NXTBD - This is the 6 character address pointing to the next sector available in the bad sector save area.
- LDATA - This is a 3 character field indicating the last account number in the credit file disc I/O buffer, DATA. See the description of DATA for the method of deriving LDATA.
- ACLNT - This is a 4 character field for the account number length. The first two digits are the minimum length and the last two digits are the maximum length which will be accepted and processed. The maximum length includes the check digit.
- DYNLM1 - This is a 6 character address indicating the first dynamic limit. It is calculated using DL1 and NXSND. This is the first dynamic limit which, if reached, will create a WRNØ1 condition. It is recalculated each time a picture is sent.
- DYNLM2 - This 6 character disc address is the second dynamic limit. Encountering it will create a WRNØ2 condition. It is recalculated each time a picture is sent.
- CICNT - This six character field is the count of credit numbers currently on the credit file.
- DY - This 2 character field contains the current day indicator.

CURRENT PICTURE BUFFER (TRMZA):

- TRMZA - This is a 10 character field preceding TRMZAD for addressing purposes. Its contents do not relate to the picture; only its length. The last digit must be a zero.
- TRMZAD - This is the first 100 characters of a 180 character field indicating which terminals are currently or have been active for this picture.
- TRMZBD - This is the remaining 80 characters of the table begun in TRMZAD. Each terminal used during this picture has a 1 set in the table. Terminals not active are flagged zero.
- FIRSTD - This is the first sector of the picture. Transactions sent to queue are logged on disc beginning at this address. When the picture is closed, this address will become the transmission start address in TRMZB.
- NXTAD - This is the address of the next sector to be written. When the picture is closed this becomes transmission end address.
- TRCNT - This is the count field for logging transactions on disc.

DAYNRD - This is the day indicator for this picture.

SEND PICTURE BUFFER (TRMZB):

TRMZB - These 10 characters are used for addressing only. The last character must be zero.

TRMZAT - These 100 characters begin the 180 character table to indicate which terminals were active for the picture being transmitted.

TRMZBT - This is the remaining 80 characters of the table. This table and the next three fields are read from the Home Track at the picture being sent. Each "1" in the table indicates a terminal that transmitted a message to the line concentrator.

TRSTT - This is the transmission start address. It corresponds to FIRSTD in TRMZA for this picture.

TRLIM - This 6 character address is the transmission limit. It is determined by the NXTAD field in TRMZA.

TRCNT - This 6 character field is used to count the transactions sent to the host. A transaction is defined as a transmission from the MDTs terminal to the queue. A single sale taking 400 characters requires 2 transmissions from the MDTs terminal and logs as two transactions.

DAYNRT - This is the day indicator which this picture was built to.

INTERMEDIATE TRANSMISSION BUFFER (MBUFF):

MBUFF - A total of 300 characters is used to hold up to three blocks of data for a single transaction. During a send of the transaction file, MBUFF is filled with one transaction only. Control then passes to a stuffing routine which packs and formats the data in the transmission buffers.

MBUFF's first 8 characters are always "ccdb111P" defined as follows:

"cc" is the partition, or channel, to which this terminal is attached.

"d" is the device number assigned to the terminal, determined by the connectors to which it is attached on the partition.

"b" is the number of 100 character blocks (sectors) taken by this transaction in storage on the disc.

"111" is the actual length of the message counting the 7 character prefix.

"P" is the beginning code of the transaction.

The last character of MBUFF is used for a full - not full flag. The SENDTR procedure will put 1 complete transaction in MBUFF and flag it full. The STUFF procedure will take it out and flag it empty.

COMMUNICATION BUFFERS:

This system is double buffered, having one Communication buffer in Common and the other in the SCA Partition. Depending on the function being acted on, the buffers may be either Send or Receive buffers. The act of send and receive cannot occur simultaneously, thus the dependency on the function being performed.

Associated with the buffer in Common are two flag fields of four (4) characters each. One flag pertains to the common buffer, the other to the SCA buffer. The first character of each field is a flag stating whether or not the associated buffer is full or empty. The remaining three positions of each is the number of characters in the buffer.

TERMINAL BUFFER (INBUF):

Data comes from the terminal to this buffer before being logged in queue. This buffer is located in the partition. The terminal transmits a communications character, a "P", and then a text. The communications character is removed so that INBUF effectively begins with "P" and is followed by text.

CREDIT AUTHORIZATION DISC I/O BUFFER (DATA):

DATA is a 94 character field with a 6 character link address used for disc I/O during credit operations. It contains the account numbers relative to a particular disc address. The account numbers are packed into each sector depending upon the account number length. For example, a 13 digit account number length will allow 7 account numbers in 94 characters. An 8 digit account number will allow 11. LDATA, mentioned in SYSSS, points to the last account number. LDATA is 078 in the 13 digit example, 680 in the 8 digit example.

The 6 character field called LNKAD is used to link a sector to the overflow area when the sector becomes full.

CLOSED TABLE:

The CLOSED TABLE is a 20 position table preceded by a zero (CLOFLG) that is used to indicate which partition is utilizing shared routines. It is a software flag used to protect shared routines and data buffers during partition switching.

The table must contain all zeros before a partition can request control of the routines. When a partition assumes control, a 1 is moved into the table position corresponding to the partition number. To release control, a zero is moved into the table position which corresponds to the partition number.

BRIEF DISCUSSION OF SHARED ROUTINES

SECTION 8

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BRIEF DISCUSSION OF SHARED ROUTINES

- SEND1 - The SEND1 entry point is the master control of the system. Entry is made here from each terminal partition that does not have a service request. System Ten functions are then selected on a priority basis giving queue to disc first priority, then, in order on-line credit file changes, transaction file transmission and rebuilding the credit file. If no function is pending, the system returns to a check of a service request and switches partitions.
- SENDQ - The SENDQ entry point writes data in blocks of one, two, or three to the disc. Illegal data is ignored and a message passed to the 7102 Communications Terminal. Queue pointers are updated and reset to the beginning if the queue is empty.
- SENDCK - This is the entry point for sending data to the host computer from the Transaction File. It is used for normal end of day sends, resends, and on-line sends. The data is read from the file as a single transaction for packing in the transmission buffer.
- STUFF - The STUFF entry point is used after reading a transaction from the file. It formats the data properly for transmission.
- HOWDY - HOWDY writes transactions from the queue to the transaction file on disc. Disc I/O status is tested and errors reported and proper recovery routines executed.
- BIEN - The BIEN/ADIOS routine increments the file disc address during a transmission of the transaction file to the host. It provides for automatic wraparound of the physical limits of the files area.
- OHELL - This routine reports disc I/O errors encountered during a transmission. Error recovery is handled in the calling routine.
- HELLO - This routine reads a single transaction into memory. Data is validated before it is allowed to be formatted in the transmission buffers and errors are reported at the 7102 Communications Terminal.
- UPNDWN - The UPNDWN routine will set the dynamic limits of the transaction files area on disc. A warning will be sent when data being written from queue reaches a user specified number of tracks from a disc full state. A warning and a halt will occur when the data reaches a second user defined number of tracks from a full condition. (See WRNØ1 & WRNØ2) Data in queue will be logged on disc, host computer commands will be accepted, and credit inquiries acknowledged, but no additional transactions from terminals will be accepted until the file is emptied.

- CLOSIN - This routine places the current picture on disc. It then sets up new tables for a new day and writes it on disc. This routine is accessed by an orderly close procedure.
- WELCUM - This routine updates the disc address while writing data from the queue. A picture of the pointers is logged on disc at each track change in the transaction file. Checks are made for dynamic limit overflows and appropriate warnings issued at the 7102 Communications Terminal. This routine also the physical limits of the files area.
- SNAPIC - This routine records a picture of the status of the transaction file at each track change as well as a normal closing procedure.
- PORTRT - This routine is used to record the System Status Sector on disc any time it changes.
- GETSYS - This routine reads the System Status Sector into core during initialization or reload.
- GETPIC - This routine will retrieve the current picture from disc and set up the tables necessary for operation. It is used for normal loads, and initialization.

It is also used to retrieve the picture to send to the host during a poll for transaction data.

- DSOF-DSBAD - These routines report disc I/O errors on the workstation.

The disc condition codes are:

- A. CC = 1 means parity check.
- B. CC = 4 means disc not available or fault.
- C. CC = 3 means bad sector or flag.

- TATTLE - This routine reports a pass through position zero of a partition. This normally corresponds to a hardware (ACU) check. Accompanying an ATT09 tag will be the 10 characters in position 40 of the partition (See ATT09 discussion.)
- OLUP - This entry point is made on a host signal for on-line updates. Transmitted data is validated, the type of update requested is determined, and appropriate routines are called in.
- FLBLDA - This is the entry point for building a new credit file. The input buffers are cleared and reset after the entire credit file area is cleared to zeros. A message signalling the end of the required option is passed to partition zero. The system then awaits account numbers which follow on a host command. The on-line entry point is then used to complete the file building operation and the number of account numbers logged on disc is reported at the workstation.

- CIREP - This routine checks the credit status during a credit inquiry from the terminals. The status found on disc is tabled with the current device. When returned to the partition, a check is made to verify that the device which initiated the request is actually the device being answered. If the account number was not on the file, "NOT HERE" code is returned to the terminal. If the number was found, a user specified digit is returned for display to the terminal.
- RNADR - This routine determines the disc address for each account number, giving a smooth distribution for the credit file.
- SEARCH - This routine searches the credit file for a specific data pattern. This pattern is the account number during an inquiry, change or delete and zeros during additions. It replies with a digit or a "NOT HERE" code.
- ACCADD - This routine adds a data pattern to the credit file. This pattern is the account number during file building and updates. It is zeros during deletes. The search routine finds one pattern on the file, and this routine writes a second pattern in its place.
- RERE - This routine allows for a read in the overflow area during credit file operations should it become necessary.

DETAILED DISCUSSION OF SUBTLE
PROGRAMMING TECHNIQUES

SECTION 9

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DETAILED DISCUSSION OF SUBTLE PROGRAMMING TECHNIQUES

This section explains the reasons for, and operations of various addresses, instructions, and techniques used in the MDTs Disc Credit Authorization Program.

BASE ADDRESSES:

A series of base address labels are defined in the low order of COMMON. They are BAZ, BAS1, BAS3, and BAS4. These labels give a base address for instructions. Data in the low order of COMMON is protected and these labels do not in any way affect this protected area. They simply provide a base address for an instruction. For example, the instruction labeled MARK in the STUFF routine does not move data to zero in common as it superficially appears. The preceding instructions have modified MARK so that the B operand, BAZ, simply provided a common flag for the "Move To" address.

WORK AREA IN 300 (C):

Twenty positions, 300 to 319 in common, contain work areas and loader set constants that must be resident in these locations.

MODIFIED BRANCHES:

It is necessary at several points to modify branch instructions. The statement labeled FSTONE in the SENDTR entry point is a good example. The first signal to send transactions enters at SENDTR. MBUFF's flag will be zero (it's empty) so the condition code following SENDTR will be 1. The first half of the branch at FSTONE is not satisfied and the second half is pulled. Initially, the B Modifier is zero, a fall through condition code. This allows a series of reset instructions to be executed one time only.

This branch is made unconditional at RSFST for the remainder of the transmission and is reset to a fall through at its completion.

These instructions are also reset during the operation of a SYSUP command to insure an initial condition upon starting.

COMMON ADDRESS MODIFICATION:

Addresses in COMMON carry a high bit which is arithmetically negative. Incrementing a COMMON address, therefore, requires a subtract operation. The instruction following MARK in the STUFF routine is an example. The field STUFFA contains a TBUF address. It is incremented to the next available position for a transaction by subtracting a positive character count. Subtracting (+5) from (-10) gives (-15).

CONSTANTS IN INSTRUCTIONS:

If the first half of a branch instruction is satisfied, the second half is never pulled. If the first half is an unconditional branch (code 5 or 8) it is always satisfied. It is therefore, possible to utilize the remaining 5 positions of the instruction for data or work areas.

ACU CHECK CONDITION:

On occasion, the System Ten hardware forces the system to execute an instruction at position zero of a partition. At position zero of each partition, therefore, is an unconditional branch to a routine labeled TATTLE. This routine reports an ATT09 message to the workstation and returns to a selected restart address in the partition. The restart address is conveniently stored in positions 6-9 of the partition.

PARTITION POSITION SETTING IN CLOSED:

Each partition contains a 4 character field which is initialized at the address of a routine's-in-use table labeled CLOSED. After loading, the actual value of this field is set to its corresponding position in the CLOSED table. This is necessary so that a partition claiming the routines can release them under ACU check conditions without affecting the status of other partitions.

For example, suppose CLOSED begins at 2000 (C). Upon loading, the program in partitions above 0 will modify the address by adding the number of the partition to the base address of CLOSED. Partition 5, for example, will now have an address of 2005(C) while partition 11 will have an address of 2011(C), and the shared routines will be claimed or released by moving a 1 or 0 to the specified address.

INSTRUCTION REPLACEMENT:

Execution of partition zero begins at 0300 (P). Upon loading for the first time, position 0300 contains a branch to LOADST. It is later replaced, and subsequently operates with a branch on service request. Compare ROX to XROX.

During initialization of a disc, it is necessary to simulate an option 6, credit file clear. During a normal load, it is necessary to clear PSFLAG, but execution of the normal load routine following a disc initialization cannot reset PSFLAG, therefore, a series of instruction replacements must occur.

In the initialization routine, an instruction labeled DIDY is defined. When executed, it will move an instruction labeled DITY from SEND1 to an instruction labeled DUTY in the normal load routine. When initializing a disc, DUTY is replaced with DIDY. When the normal load routine is executed, DUTY replaces itself with DITY. Subsequent reloads will then execute DUTY unless a disc initialization is called for, in which case the DIDY to DUTY, DITY to DUTY is repeated.

RESIDUAL COUNT:

A read for data from a terminal is for 245 characters. The actual number of characters transmitted is calculated from a residual count in the protected area of COMMON. Each partition's residual count address is kept at 0025 in that partition. Now examine TAG3 and instructions following in the MDT5 partition program. The contents of 0025 (P) (the residual count address for this partition) is moved to an instruction. The residual count (contents of the COMMON address moved in) is subtracted from 0245 in WORK3.

The residual count is actually 1 less than the number of characters remaining to be sent. Two of the characters sent are communications constants, not data. The actual character count sent is finally calculated by subtracting three from WORK3.

MDTS COMMUNICATIONS PROCEDURES

SECTION 10

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MDTS System Communications Procedures*, Dial-In SCA

The procedures of the MDTS System SCA partition software which support Binary Synchronous Communications in a dial-in environment are described in the following sections:

- 1) ID Exchange (Handshake)
- 2) Function Text Analysis
- 3) Communications Standards
- 4) Transaction Transmission
- 5) Account Number Transmission
- 6) Special Features
- 7) Pictorial Examples

* Communications procedures described in this chapter adhere to conventions for Binary Synchronous Communications as outlined in document X3.3.4/212, Procedures for the Use of the Communications Control Characters of the American National Standard Code for Information Interchange in Specified Data Communications Links, of the American National Standards Committee X3 on Computers and Information Processing.

1) ID Exchange

A communications link between the MDTS System Ten and a "host" computer is accomplished by dialing and successfully transmitting six data characters of identification to the MDTS System Ten. The ID characters must contain a predetermined character configuration and be followed by an ENQ control character:

E
xxxxxxN
Q

The configuration for "xxxxxx" is determined at MDTS System generation time. Any ID transmission which does not match this configuration will cause a NAK response from the MDTS System Ten, the ERR19 message is generated (see MDTS System error message descriptions), and the MDTS System Ten will attempt to read a "host" computer ID again. If the ID received by the MDTS System Ten is valid, it will acknowledge acceptance by replying with its own six character identification followed by an ACKØ. The MDTS System Ten ID configuration is also specified at System generation time.

When this handshaking procedure has been successfully completed, the MDTS System Ten will continue communications with its Function Text Analysis phase. If a DLE,EOT is detected at any time during the handshaking, the MDTS System Ten will disconnect the line and force the "host" computer to redial to establish a communications link again.

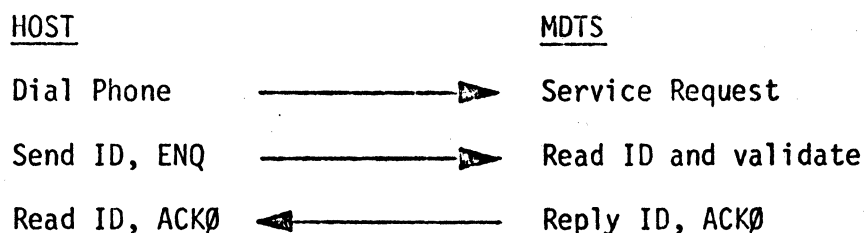


FIGURE 1. Normal ID exchange.

The MDTS System will reject any communications link for the following reasons:

- 1) Another communications function is active.
- 2) The MDTS System is inactive (see SYSDN and ENDAY commands).

2) Function Text Analysis

The transmission of a Function Text option by the "host" computer is the means by which it directs the MDTs System to perform the following functions:

<u>Option</u>	<u>Description</u>
000	Transaction Transmission of the next single "logical day" or up to the most recent point-of-sale terminal transaction which has been logged on the disc when the next "logical day" is the "current day". See "*" below.
0nn	Resend Transaction Transmission, where the "nn" is the two digit number of a specific MDTs System picture containing transactions for transmission. See "*" below.
1	Reset Transaction Transmission pointers. This Function Text is commonly used when the communications link is interrupted during "resend" or transaction transmission. If this has happened and the "host" computer does not wish to continue on from the point of previous interrupt, this Function Text option will reset ("erase") all traces of that interrupted function (see Transaction Transmission procedure).
2	MDTs System Status request. This causes the *STA message to be generated and transmitted to the "host" computer (see Special Features).
5	Account Number Transmission.
6	Clear account number file (see Special Features).

* When Function Text options 000 or 0nn are used immediately following reestablishment of a lost communications link, they will cause the MDTs System to resume the interrupted Function Text option if that Function Text option was a 000 or 0nn. Only the first character of new Function Text option is tested in this instance and any 'nn' characters will be ignored. (See also Function Text option 1.)

The Function Text option must be transmitted to the MDTS System Ten in the following format:

```
S      E
T*FUNd..T
X      B
```

d..= One to three digits which correspond to a valid Function Text option.

The control characters DEL,EOT may also be transmitted by the "host" computer at this time to signal an orderly line disconnect (hangup). This will cause the MDTS System Ten to correspondingly relinquish its communications link.

Possible responses to receipt of a Function Text option from the "host" computer are:

- ACK1 - This response means the MDTS System Ten has accepted the valid option and will now follow procedures necessary to service it.
- NAK - A parity error was detected or too many characters were received. The "host" computer should resend the Function Text option.
- WACK - The MDTS System Ten is busy servicing the previously received Function Text option. The only allowable "host" computer reply to this WACK is the standard ENQ or a terminating EOT.
- EOT - This response by the MDTS System Ten means that the Function Text transmission received does not contain a valid configuration of characters. (See also Clear Account File description in Special Features section.) An ENQ reply from the "host" computer is expected in return and the MDTS System Ten will respond to that ENQ with an ACKØ and read for another Function Text option from the "host" computer.

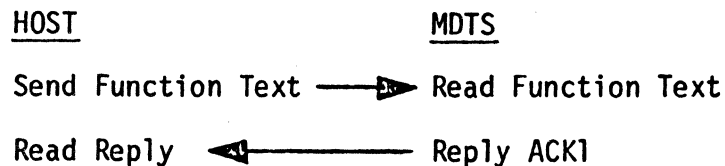


FIGURE 2. Normal Function Text Transmission.

3) Communications Standards

The MDTS System SCA partition software adheres to standard binary synchronous communications procedures for the following situations:

Line Reversal (Turnaround)

This is the procedure by which one computer (Computer 'A' in Figure 3) ends its data transmissions and prepares to receive data from the other computer (Computer 'B' in Figure 3) without disconnecting the communications link. This is accomplished by 'Computer A' transmitting an EOT control character after sending its data block(s). The proper reply from 'Computer B' is an ENQ control character, which 'Computer A' acknowledges with an ACKØ.

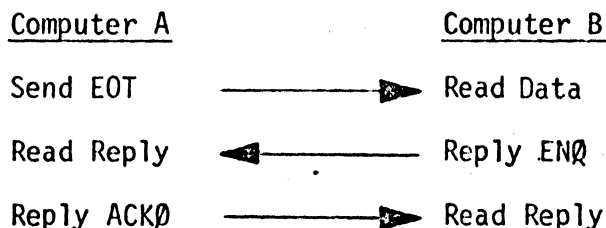


FIGURE 3. Normal Line Reversal.

As described above, the MDTS System Ten or the "host" computer may assume the role of 'Computer A'. This is determined by the operations which are required to service the Function Text option currently in effect in the MDTS System Ten computer.

All errors detected by the MDTS System during this sequence of operations are handled by the MDTS System SCA software Error Recovery procedures, as described in this section.

ACKn Sequences

The ACKØ and ACK1 sequences are used alternately in response to "host" computer transmissions requiring them. The MDTS System Ten will set the ACKn sequence to start at ACKØ upon establishing a communications link (see ID Exchange section) and Line Reversal.

Communications Fault (Timeout)

The MDTS System SCA partition software will retry all "read" type communications I/O instructions when a "fault" condition (no SYN characters received) is detected upon the first issuance of that instruction. (Refer to Singer System Ten publication 524-700721-M33, Synchronous Communications Adapter Reference Manual). The instruction will be re-executed up to 7 times before being reported by the ATT06 console message and disconnecting the line.

Error Recovery

The MDTS System SCA software will respond with a NAK to all transmissions of data which contain parity errors or are too large to be received in the circumstance. The MDTS System Ten will expect a retransmission of the correct data to be forthcoming.

The MDTS System SCA software will respond with an ENQ to all transmissions of control character responses from the "host" computer which contain parity errors or are invalid for the response expected (see Control Standards in this section).

Control Standards

The MDTS System SCA software adheres to the standard usages of the following control characters:

- WACK - This control character is used by the computer receiving data when it must temporarily stop receiving data transmissions. It is sent in place of an acknowledgment (ACKn) of the last complete data block received. The WACK implies a "wait before acknowledgment". The proper reply to a WACK is an ENQ control character however if the computer which is transmitting data does not wish to "wait", the EOT control character should be its reply. The EOT used at this time should cause the normal Function Text option termination sequence to be prematurely invoked (see Line Reversal in this section).
- EOT - This control character has the primary function of signifying the end of a sequence of data transmissions by a computer and signaling a change in its mode to receive data transmissions (see Line Reversal in this section). The MDTS System will also use the EOT control character for rejecting an invalid Function Text option (see Function Text Analysis section), and to force Line Reversal in an attempt to maintain its "slave" status with the "host" computer when a "receive data" sequence is ending (see Account Number Transmission section for example).
- ENQ - This control character is used primarily to "inquire" to another computer, what control character it had previously transmitted (see Error Recovery in this section). It is also used as a standard reply to the EOT and WACK control characters (see Line Reversal and WACK descriptions in this section).

DLE, EOT - This transmission is accepted by the MDTS System SCA software only when it is received in place of a Function Text option or during ID Exchange. If detected at any other time during a communications link, the MDTS System Ten will fault (time-out) on the next logical communications I/O instruction.

4) Transaction Transmission

Transmission of stored point-of-sale terminal transactions by the MDTS System SCA software is signified by directing the MDTS System Ten with the Function Text option number 000 or 0nn (see Function Text Analysis). Receipt of this Function Text option by the MDTS System Ten is expected to be followed by a Line Reversal from the "host" computer and allow the MDTS System Ten to assume a send data, read reply sequence.

Transaction data is transmitted in variable length transmissions of 18 to 250 data characters, framed with the control characters STX and ETB. More than one transaction may be contained in a single transmission, however, single transactions will not be split between two transmissions. The format is:

```
S                                     E
Tdddddddddddddddd(up to 250 char.)T
X                                     B
```

The expected response to this transmission is the proper ACKn sequence from the "host" computer. If a NAK is received the MDTS System Ten will re-transmit the transaction block. The WACK or any invalid response received will cause the MDTS System Ten to send an ENQ and read for an ACKn reply again.

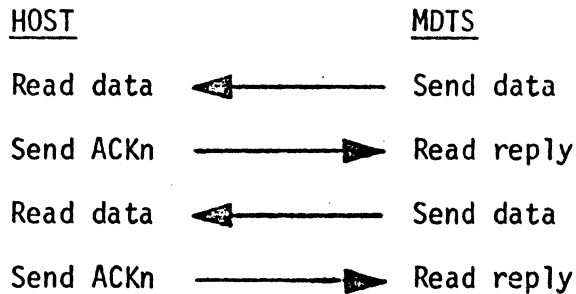


FIGURE 4. Normal Transaction Transmission.

The MDTS System Ten will terminate Transaction Transmission when the stored transaction data limits for the given Function Text option are reached (see Function Text Analysis section). This condition causes the MDTS System to relinquish its control of the communications line via Line Reversal (see Communications Standards section).

If the communications link is lost due to a fault detection (see Communications Standards), the MDTS System will retain all control information that enables Transaction Transmission to continue from its point of premature interrupt, i.e., the last transmission not

acknowledged, when the next Function Text option 000 or 0nn is received. To bypass this feature it will be necessary for the "host" computer to use Function Text option 1 prior to using Function Text option 000 or 0nn (see Function Text Analysis).

TTD Message.

During transmission of transactions to the "host" computer, it may become necessary to delay the transmission of a block of data because the MDTS System Ten has encountered one of the following conditions.

- a) A higher priority task is being serviced (i.e., reading point-of-sale terminals, etc.).
- b) The System is preparing to service the MDTS System SCA Function Text option.
- c) Disc errors are being encountered, and the MDTS System is attempting recovery.
- d) A required MDTS System Ten disc drive is disabled or inoperable.

The above conditions do not prevent SCA communications, however they do degrade the MDTS System's ability to service a Transaction Transmission Function Text option. While those conditions exist the MDTS System SCA will transmit a "temporary text delay" message (TTD) which has the following format:

```
S                               E
TTTTT...(18 letter T's)T
X                               B
```

This message should be acknowledged and discarded by the "host" computer. However it is recommended that the "host" computer maintain a count of continuous TTD messages received and take some type of action when the count reaches an unreasonable limit.

*END Message.

When the end of a transaction picture (see Disc Organization section) in the stored point-of-sale terminal transaction file is encountered, an ATTO1 console message displayed and an *END message is generated and placed in the Transaction Transmission data block. A transmission block containing this message may reside in the block alone or may be preceded by transaction data. It will never be followed by transaction data in

the same transmission block. The message format is:

```
S  
T(preceding data, if any)*ENDpptttttmncabbbbbbeeeeeT  
X  
B
```

*END = Four characters to indicate the type of message.

pp = Two digits for this picture number. These two digits must be passed back to the MDTs program for a resend. A resend will be for a picture only. A resend can occur only by the passing of these two digits to the MDTs program. This picture number must be an even number, ranging from 02 to 98 inclusive.

tttttt = Six digits representing the number of transactions retrieved from the disc in this picture. This would correspond to the number of "P's" transmitted since each transaction begins with a "P".

m = A one digit flag with the following meaning:

1 = There are more pictures with data for this day on the disc. (This flag must be examined in connection with Field 5 to determine whether the data is in the current or a past day).

NOTE: See example 3 for exception.

0 = There are no more pictures in this day with data. The next MDTs write will be an EOT character.

n = A one digit flag with the following meaning:

1 = Next day to be sent will be the current day. The next MDTs write will be the EOT Line Reversal procedure. The host may pick up this data in the current day by sending a normal poll function following the line reversal procedure. It may leave the data for a subsequent poll by changing functions or by signaling a disconnect.

0 = The next day to be sent is not the beginning of the current day.

- c = A one digit flag with the following meaning:
 - 1 = This picture is in the current day.
 - 0 = This picture is not in the current day.
- a = A one digit flag indicating terminal activity with the following meaning:
 - 1 = All terminals are currently closed.
 - 0 = At least one terminal is not closed.
- bbbbbb = Six digit disc address of beginning transaction file sector for the picture in Field 2.
- eeeeee = Six digit disc address of ending transaction file sector for the picture in Field 2.

***END EXAMPLES**

Field 4, 5, and 6 may be used by the host to determine its next logical step.

The following examples illustrate some of the combinations of Fields 4, 5, and 6.

Example 1: No data has been transmitted for three days. Today is Thursday; the store is open and running into one picture. The other days are configured as follows:

<u>Day</u>	<u>Picture Code</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>Next MDTs Write</u>
Monday	04	0	0	0	EOT character & line reversal sequence.
Tuesday	06	1	0	0	Next data block.
	08	1	0	0	Next data block.
	10	0	0	0	EOT character & line reversal sequence
Wednesday	12	1	0	0	Next data block.
	14	1	1	0	EOT character & line reversal sequence.
Thursday	16				

This example illustrates three consecutive polls (function code 000) to pick up Monday's, Tuesday's, and Wednesday's data. If a fourth poll were sent by the 360 after receiving the third EOT character from the MDTs, the data in picture 16 will be transmitted and Thursday will be reconfigured as follows:

Example 2:

<u>Day</u>	<u>Picture Code</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>Next MDTs Write</u>
Thursday	16	0	0	1	EOT character
	18				

Example 3: If data came into the system during the transmission of picture 16 of Thursday's data, the flags will be 1 0 1, indicating more data to come in this day. Picture 18 will be closed, picture 20 opened, and the data in 18 transmitted. This process will occur only this once, however. If data came into picture 20 during the transmission of 18, the *END message will reflect this with 1 0 1, but an EOT character and line reversal sequence will be transmitted next.

5) Account Number Transmission

Transmission of account numbers to the MDTS System Ten from the "host" computer is signified by directing the MDTS System Ten with the Function Text option number 5 (see Function Text Analysis). This causes the MDTS System Ten SCA partition to commence reading and acknowledging successful transmissions of up to 250 characters of data framed with the control characters STX and ETB (or ETX). The acceptable format of each account number transmission block is:

S		E	E
T	nnnnn...na(nnnnn...nannnnn...na[up to 250 char])	T	(or T)
X		B	X

nnnnn...n = Each account number, plus display code. This must be equal in length to the maximum account number size specified during MDTS System Initialization.

a = Action code, used to determine what is to be done with the associated account number:

2 = Add the number.

3 = Delete the number.

4 = Change the display code specification.

5 = Add the number.

Normal response to the "host" computer for an accepted block of transmitted data is the proper ACKn sequence.

The NAK response by the MDTS System Ten signifies that the last transmission block received was in error for one of the following reasons:

- 1) A parity error was detected.
- 2) The combined count of control and data characters received exceeds 252.

When the NAK response is transmitted, the MDTS System Ten will accept a resend of the transmission block in error or an EOT to terminate the Function Text option.

In the event that the MDTS System Ten becomes temporarily preoccupied with other services (i.e., point-of-sale terminal servicing, etc.) a WACK response is transmitted to the "host" computer which signifies that the last block of data is accepted but the proper ACK response will be delayed until the MDTS System Ten is again free to accept the next transmission block. The only replies from the "host" computer that the MDTS System Ten will accept in response to a WACK is the standard ENQ reply or the EOT reply which will terminate the Function Text option.

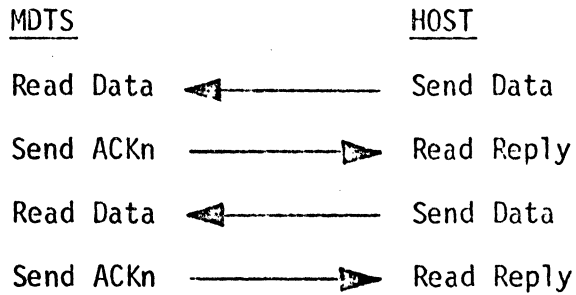


FIGURE 5. Normal Account Number Transmission.

Termination of Account Number Transmission is accomplished when the MDTS System receives an EOT control character instead of data. This will cause the MDTS System to reply ENQ and then force itself into a "slave" status to the "host" computer by responding EOT to the ACKn from the "host".

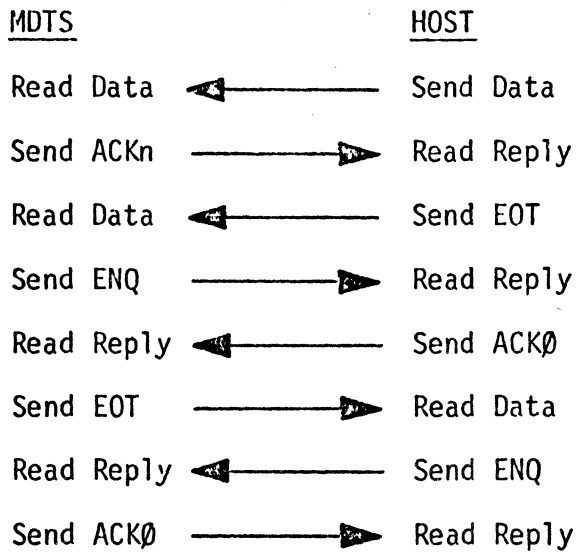


FIGURE 6. "Slave" Status Assumed By MDTS System.

It will be noted that the procedure shown in Figure 6 is two consecutive Line Reversal sequences where the "host" is 'Computer A' and then the MDTS System is 'Computer A' (see Line Reversal in Communications Standards section). Following this sequence the MDTS System will resume Function Text Analysis.

6) Special Features

The MDTS System SCA software package includes the following features which supports conversational "host" computer control of MDTS System functions:

MDTS System Status Request

This feature allows the "host" computer to interrogate the MDTS System Ten operational status. This is accomplished by the Function Text option 2 which, when received by the MDTS System Ten, requires a Line Reversal by the "host" computer to allow the MDTS System Ten to transmit a *STA message. When that message is successfully acknowledged by the "host" computer, the MDTS System Ten will commence Line Reversal and then resume Function Text Analysis.

The *STA message is in the following format:

```
S                                     E
T*STAcaptnnnnnnxxybbbbbeeeeeT
X                                     B
```

*STA = Four characters identifying the message.

c = One digit indicating the status of days in the MDTS System. Its values are:

1 = The next day to transmit is the current day.

0 = The next day to transmit is not the current day.

NOTE: Two interesting situations may not be readily apparent. The end of a day is determined by an operator command. First, should the operator have failed to enter this command, this flag will be a 1. The data is still available by polling in a normal way. Second, had the operator erroneously generated a series of days without data, this flag will be 0 even though the day which is now receiving data may not have ended.

a = A one digit flag indicating terminal activity with the following meaning:

1 = All terminals are currently closed.

0 = At least one terminal is not closed.

p = Results of the previous communications link. The values are:

Space = Terminated properly.

Digit = Value indicating the last communication option that terminated incorrectly. This corresponds to the function code digit such as 0 for poll, etc.

t = Previous poll type.

0 = The previous poll was properly terminated.

R = The last poll was a resend abnormally terminated.

D = The last poll was a data poll abnormally terminated.

NOTE: The system is specifically designed to pick up the prematurely ended poll. If the user does not wish to pick up at the dropped point, he must signal a system reset before specifying a different function.

nnnnnn = Six digits indicating the number of account numbers currently on the credit file.

xyxy = Four digits used to indicate the number of logical days remaining to be sent to the host computer. The format is "xyxy" where "xx" indicates next logical day to be sent and "yy" indicates the current logical day.

bbbbbb = Six digit address of the beginning sector of stored transaction data in the MDTS System.

eeeeee = Six digit disc address of the ending sector (exclusive) of stored transaction data in the MDTS System.

Reset Transaction Transmission Pointers

This feature permits the "host" computer to reset to a "clear" state, the Transaction Transmission buffers and pointers after loss of communications link for a previous Transaction Transmission Function Text option. The transmission pointers for the stored transaction file in the MDTS System are reset for the beginning of the MDTS System picture which was partially transmitted prior to the communications loss.

This feature is invoked by Function Text option 1. The MDTS System Ten will expect an EOT transmission after it acknowledges this Function Text option. Upon receipt of the EOT, the MDTS System Ten will commence Line Reversal and then resume Function Text Analysis.

Clear Account File

This feature allows the "host" computer to "prepare" the MDTS System storage area that was assigned to the Negative Credit File during MDTS System Initialization. This preparation consists of removal of all account numbers from the file.

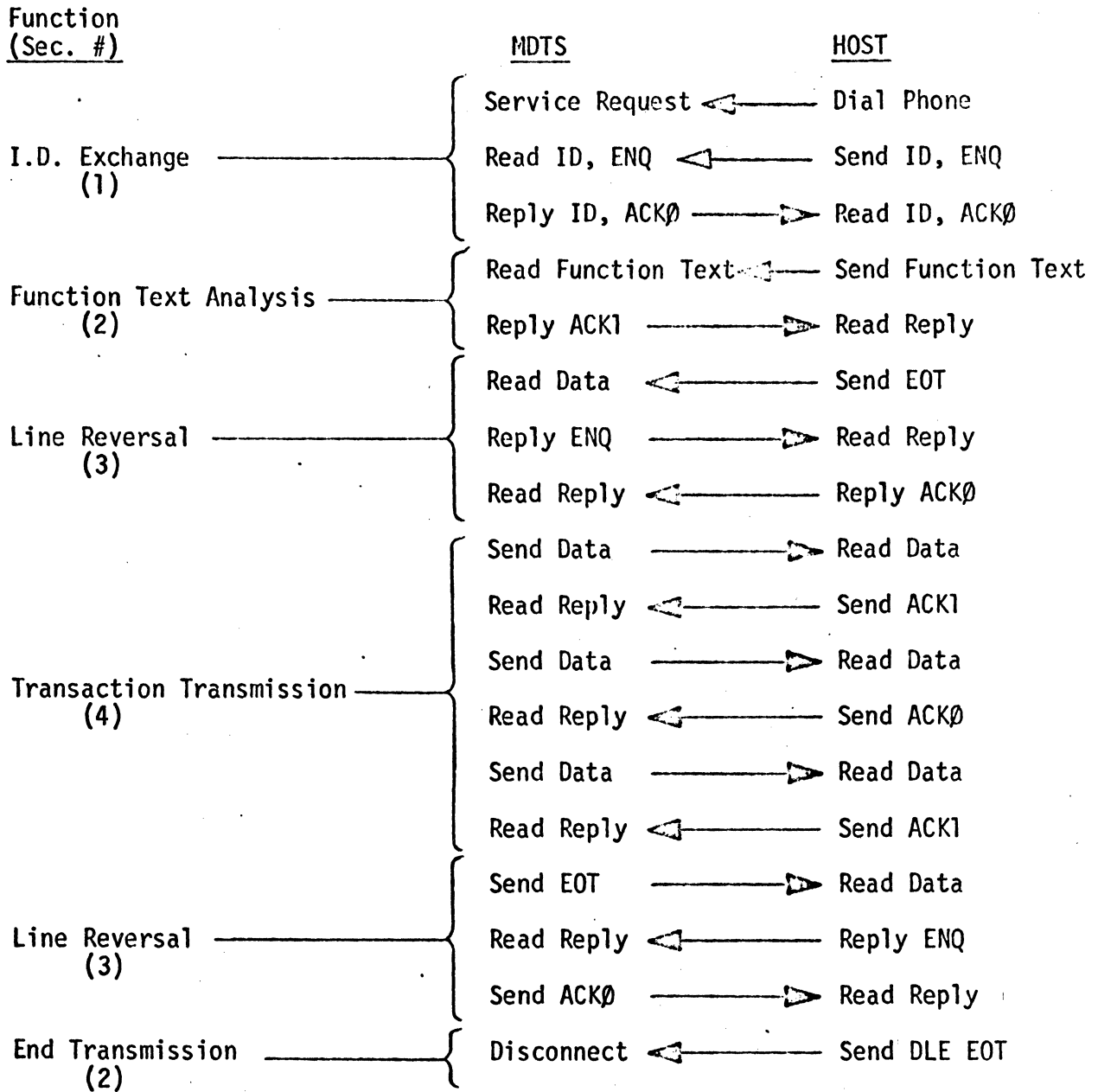
This feature is invoked by Function Text option 6. The MDTS System Ten will expect an EOT transmission after it acknowledges this Function Text option. Upon receipt of the EOT, the MDTS System Ten will commence Line Reversal and then resume Function Text Analysis.

NOTE: During execution of the Function Text option 6, no other Function Text options will be accepted (see WACK description in Function Text Analysis section).

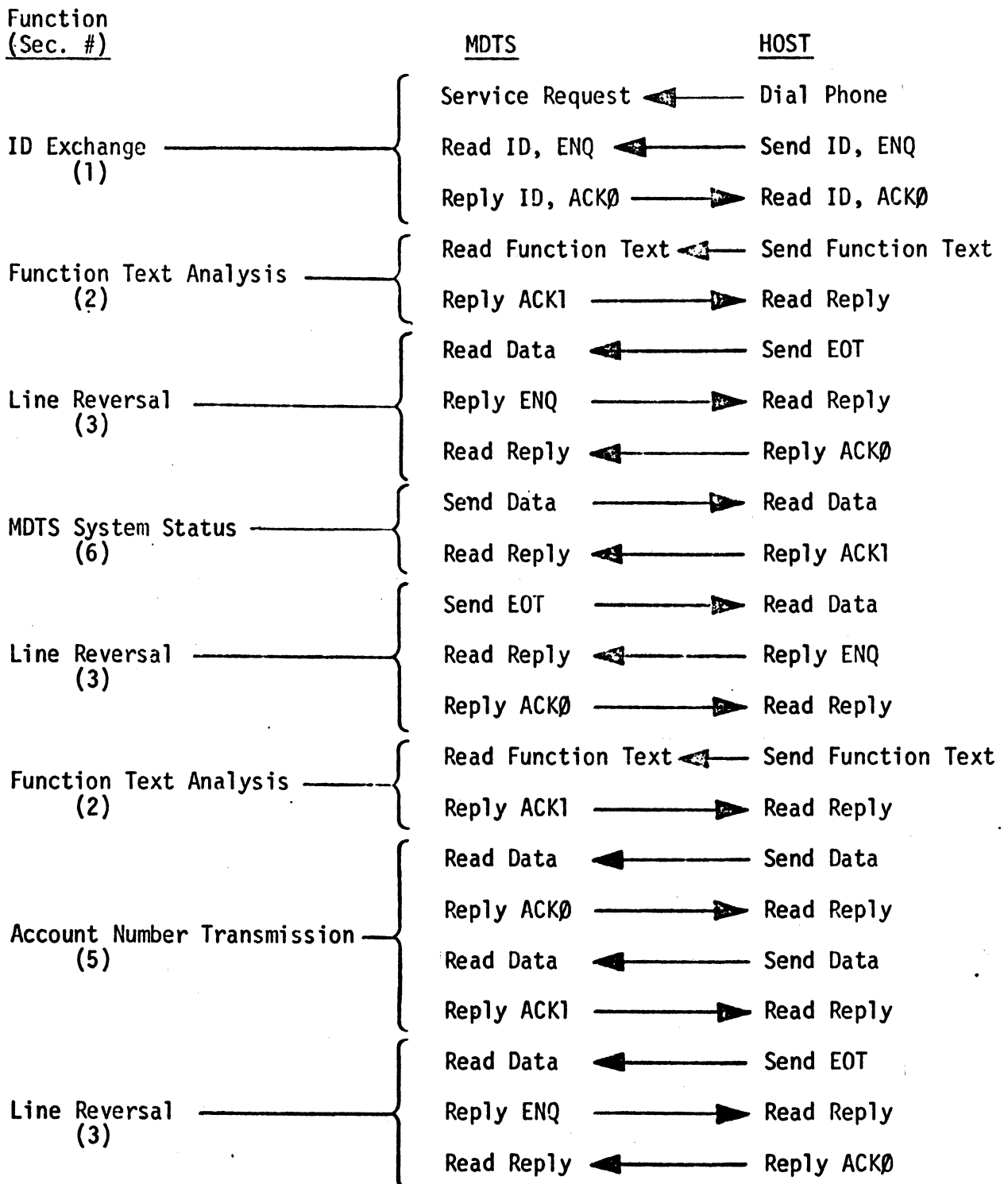
7) Pictoral Examples of MDTS System Communications.

The following examples attempt to show the normal communications I/O sequences between a MDTS System Ten and another computer designated as "HOST".

Example 1. Transaction Transmission.



Example 2. MDTs System Status Request Followed By Account Number Transmission.



Example 2 (continued).

Function
(Sec. #)

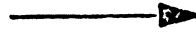
Line Reversal
(3)

End Transmission
(2)

MDTS

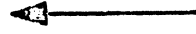
HOST

Send EOT



Read Data

Read Reply



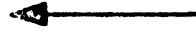
Reply ENQ

Reply ACKØ



Read Reply

Disconnect



Send DLE EOT

CONSOLE CREDIT FILE UPDATE

Section 11

7-13-71

CR-0602

CONSOLE CREDIT FILE UPDATE

General Description

The facilities of Console Credit File Updating, as described in this section is considered an optional feature of the MDTS "Collective Store and Forward System with Credit Authorization". The routine uses as its load vehicle the RBSA program NFR200.

Capabilities have been provided for the adding of credit numbers, deleting numbers, and/or changing them. The routines may also be used to alter the display code of any number.

The security of the credit file rests solely with the operator and his ability to use this option. Audit trails and proofs other than the console typewriter sheet have not been provided.

General Operating Features

The Credit File Update routine may be accessed from either the Workstation¹ or the Console Monitor². It should be kept in mind, that all updating of the file is handled through normal MDTS System routines. All message reporting (errors, warnings, etc.) are handled by the Console Monitor regardless of the device used. The routine is entered by securing a Service Request, keying the update's mnemonic to call the routine into operation, and entering a phase identifier to denote the operation intended.

Phases applicable to the routine are; ADD (to add numbers to the file), DELETE (to remove existing numbers from the file), or CHANGE (to alter the display code of an existing number). Upon the completion of entering any phase's account numbers, the routine may be terminated by signaling for the end-of-job, or another phase may be used by signaling for an end-of-phase.

Normal MDTS message processing will occur on-line with the Credit File Update and will be reported by the Console Monitor. While this routine is in operation, all Service Requests from the Workstation or Console Monitor will be ignored.

- *1. The Workstation is the Model 70 Workstation assigned Device Address 7.
- *2. The Console Monitor is the Model 70 Workstation or Model 7102 assigned Device Address 0.

Due to the address modifications required to allow interfacing with existing MUTS and RBSA coding techniques, it is imperative that any update be terminated only by signalling an end-of-job. If the routine is interrupted by a LOAD condition on the Console Monitor, a restart branch code of "P0PP050300" must be initiated and the end-of-job code entered properly. If this procedure is not adhered to, the system will remain in the Console Credit File Update routine indefinitely.

Operator Instructions

1. Secure a "Service Request" on the Workstation or Console Monitor. The device used in obtaining the Service Request will be used in entering the account numbers, and in communicating with the Credit File Update routine.
2. When the Service Request is honored, enter the routine mnemonic, "NAFUD", the system will respond in one of the following possible manners.
 - a. If the system is not in a "SYSUP" state, a message will be printed on the Console Monitor "SYSTEM NOT IN SYSUP CONDITION" to indicate this condition, and normal MDTs cycling will continue. (See SYSUP, SYSDN and ENDAY commands in Section 5, "Workstation Commands").
 - b. If the system is currently involved in communications routines, a message will be printed on the Console Monitor, "COMMUNICATIONS IN PROGRESS", to indicate this condition and normal MDTs cycling will continue. Console Credit File Updating may not occur simultaneously with communications procedures due to conflicts in buffer uses.
 - c. If the system is in a "SYSUP" state and communications are not in progress, it is therefore accessible and will respond with a message on the Console Monitor, "START CREDIT FILE UPDATE INTERFACE - ENTER PHASE", to indicate that the system will accept Credit File Updating.
3. When the system is operable and has responded with "START CREDIT FILE UPDATE INTERFACE - ENTER PHASE", the operator must respond with a phase name as described below followed by a "unit separator"³.

*3 The "Unit Separator" is used in completing all responses to messages generated by this routine and must follow each response or account number entered. The unit separator is generated on the Workstation by depressing the ENTER Key, where as on the Model 7102 it requires the depressing of the Control and / Keys simultaneously.

- a. ADD = to add account numbers to the Credit File.
- b. DELETE = to remove existing account numbers from the Credit File.
- c. CHANGE = to alter the display code of an existing account number.
- d. EOJ = to halt processing and return to normal MDTs processing.

An error in entering the Phase name, an account number or an end request, is bypassed by pressing the ERROR Keys⁴. The message "INVALID ENTRY. RE-ENTER" is printed on the Console Monitor and the system waits for the proper data to be entered.

4. Having entered one of the phase names described in 3 above, the operator may then enter as many 13 digit account numbers as are applicable to the phase. The check digit is included in the account number and must be entered. All account numbers must be followed by the display code. The total entry per account must be 14 characters. Account numbers with less than 13 digits must be preceded with as many zeros as are required to make a 13 digit number. All digit entries must be followed by a "Unit Separator" (See footnote 3, pg. 11-2).
5. Should the system be unable to dispose of an account number entered as a "DELETE" or "CHANGE", the number is typed on the console monitor. (See WRN03 and WRN04 pg. 11-4). In as much as the "Check Digit" is required for number entry only, the "Display Code" replaces the Check Digit on the Credit File. Any account number accompanying the WRN03 and WRN04 will reflect this replacement of the Check Digit by the Display Code.
6. At the conclusion of any of the phases described above, the operator may then enter one of the following:
 - a. EOP = indicates the end of the phase. The message "END OF PHASE" is printed on the Console Monitor and the System waits for the next phase name to be entered as discussed in 3 above.
 - b. EOJ = indicates the end of the Console Credit File Update activity and returns the system to normal MDTs cycling. The message "END CREDIT FILE UPDATE FROM CONSOLE" is printed on the Console Monitor.

*4 Errors in entering data may be bypassed on the Workstation by pressing the ERROR Key, where as on the Model 7102 the combination of Control-A, Control / is required.

Possible messages printed on the Console Monitor in conjunction with the Console Credit File Update.

Message	DEV	Caused By	Required Action
ATT03	B	Entering EOJ to exit from the routine.	None.
COMMUNICATIONS IN PROGRESS.	A	The system is involved in communications routines. Credit File Updating cannot be performed due to a conflict in buffer area.	None - Communications must be completed.
END CREDIT FILE UPDATE FROM CONSOLE	A	Entering EOJ to exit from the routine.	None.
END OF PHASE	A	Entering EOP to change from one phase to another	Enter a phase name to continue File updating.
ERR02	B	Account number length incorrect.	Re-enter the proper account number as described in Number 4 of the "Operator Instructions".
INVALID ENTRY. RE-ENTER	A	Entering an incorrect Phase name, account number, or end request and pressing the ERROR key.	Enter proper name or number to continue.
START CREDIT FILE INTERFACE - ENTER PHASE	A	Service Request honoring of Routine Mnemonic "NAFUD".	Enter "ADD", "DELETE" or "CHANGE", to process, or "EOJ" to abort the routine.
SYSTEM NOT IN SYSUP CONDITION	A	The MDTs system is not operational at the time the service request is honored. (See SYSUP, SYS DN and ENDAY commands in Section 5).	Complete operations involved in and follow directions required in making the system operational.
WRN03 aaaaaaaaaaad	B	Attempt to Delete a non-existent account aaaaaaaaaa = the first 12 digits of the number entered d = the Display Code which has replaced the Check Digit.	Enter proper account number, including check digit and display code.
WRN04 aaaaaaaaaaad	B	Attempt to alter the Display Code of a non-existent account. aaaaaaaaaa = the first 12 digits of the number entered. d = the Display Code which has replaced the Check Digit.	Enter proper account number, including check digit and display code.
WRN05	B	Credit File area Full for numbers which would randomize to that area. Does not imply all Credit File Area is full.	None. Account number is printed but not written to the credit file.

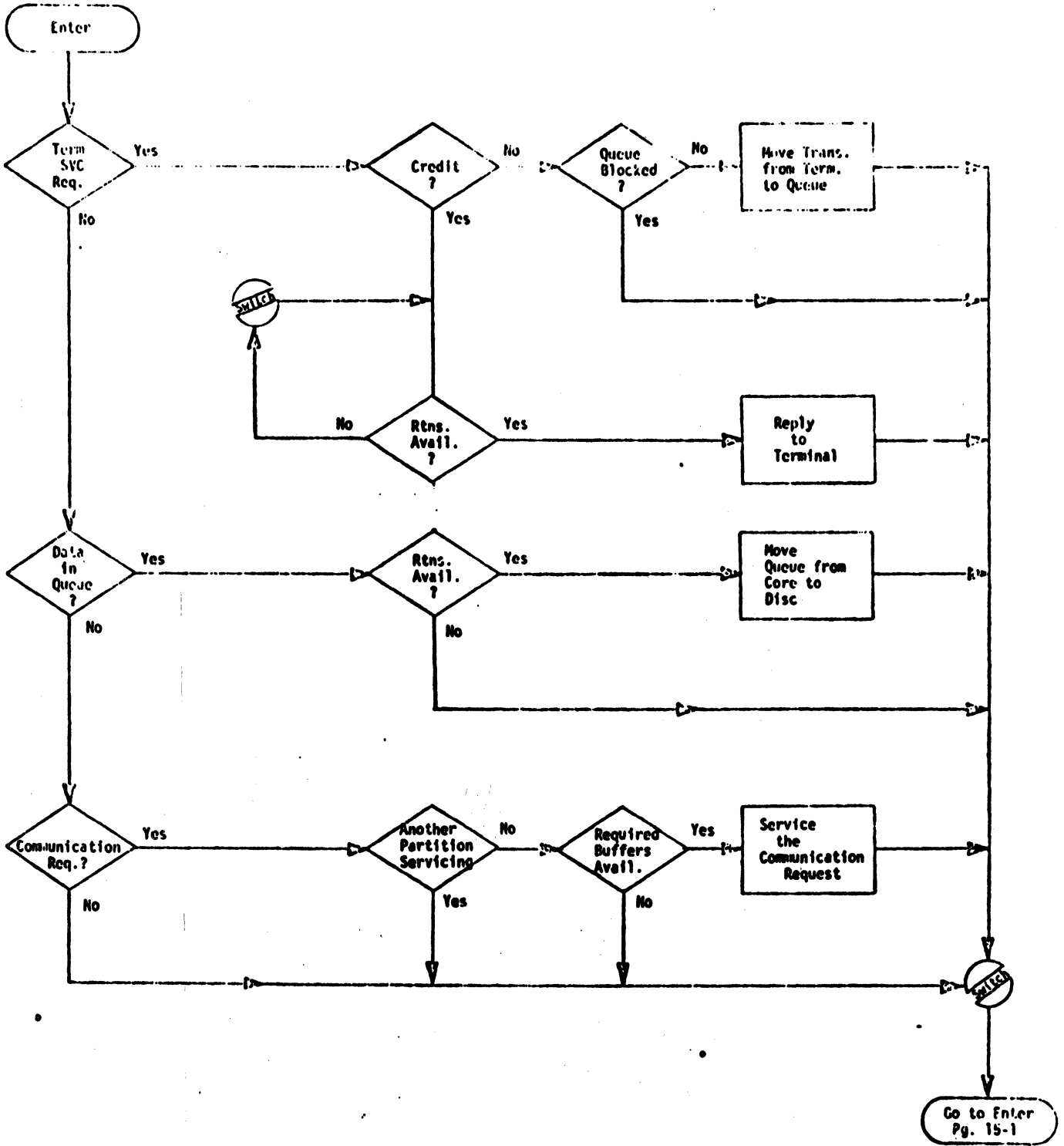
A = Device at which the Service Request was secured to initiate the routine.

B = Console Monitor, Device 0 only.

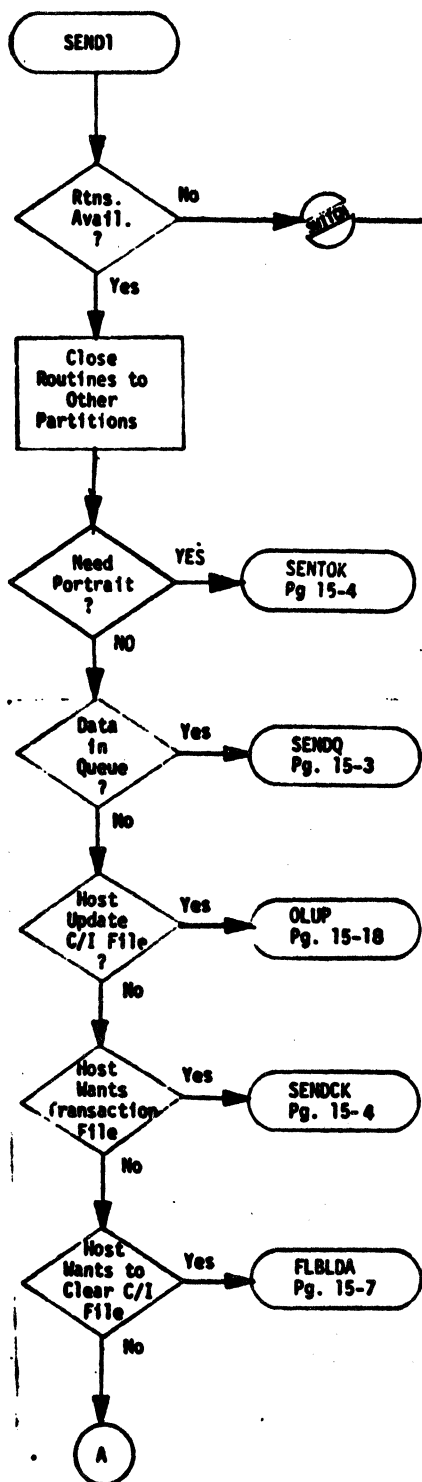
SYSTEM FLOWCHARTS

SECTION 15

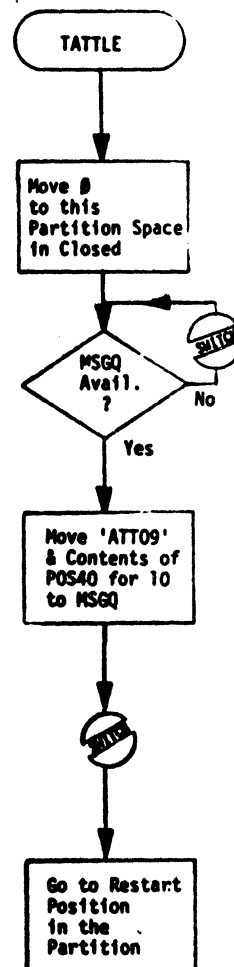
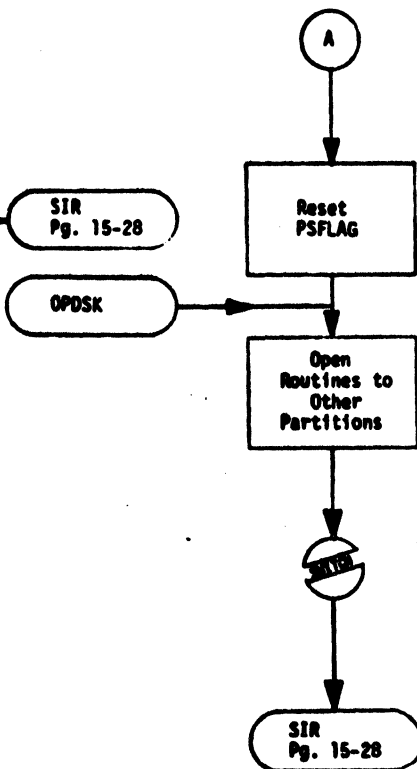
MOTS SYSTEM OVERVIEW



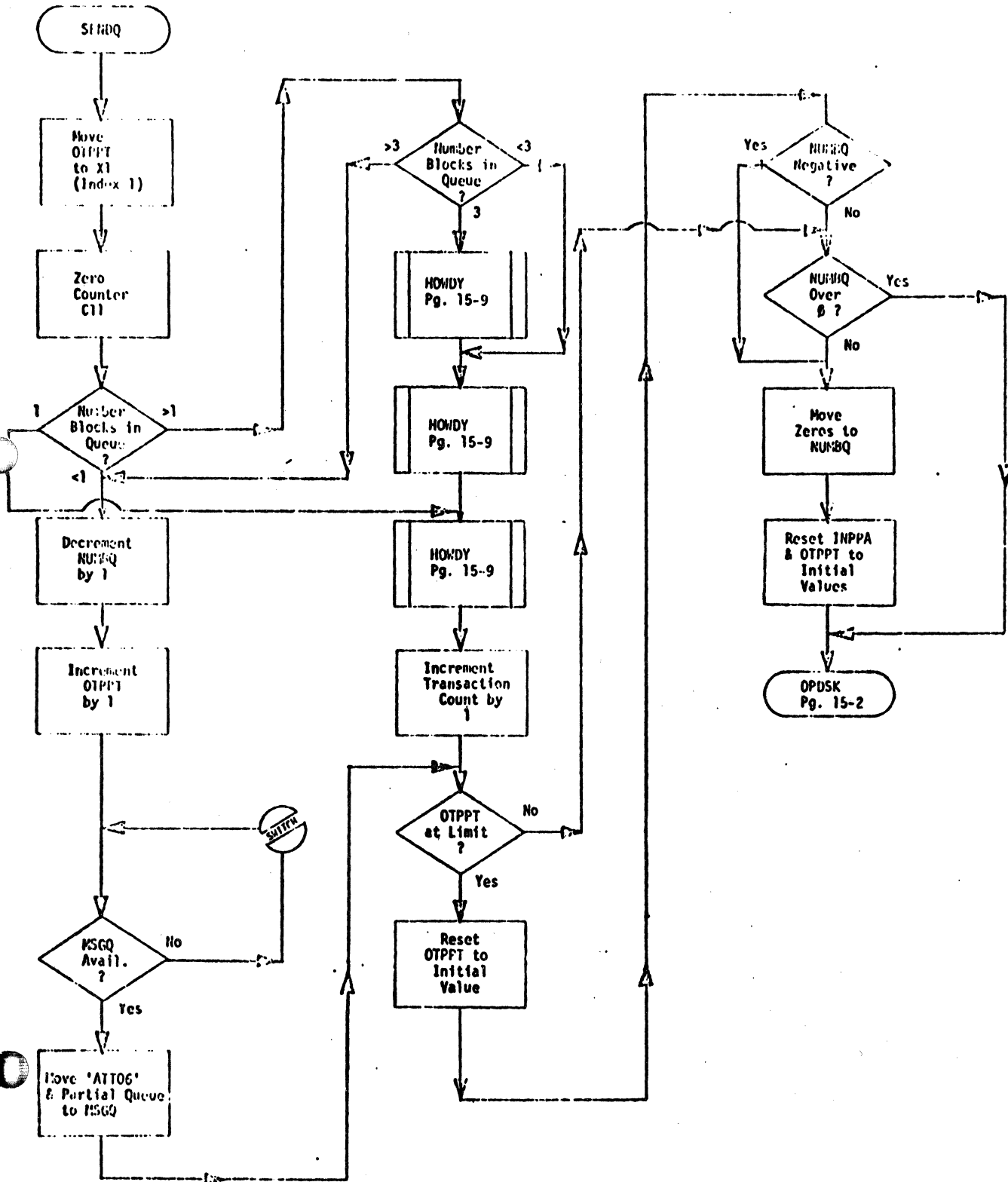
SEND1 ROUTINE (Function Director)

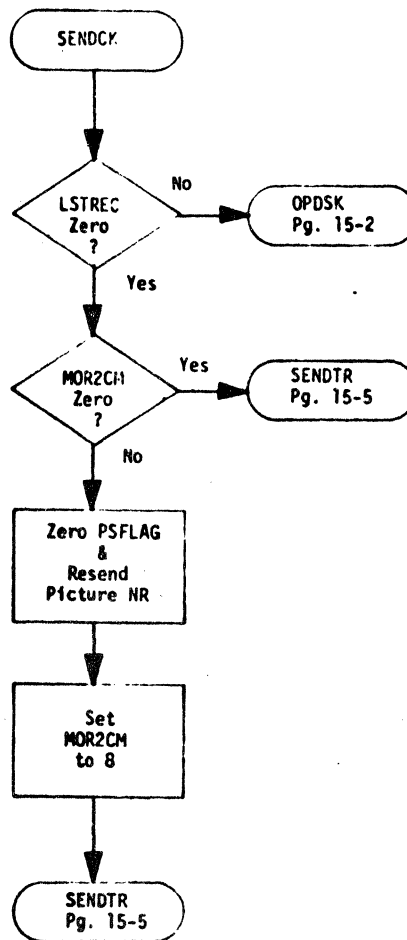
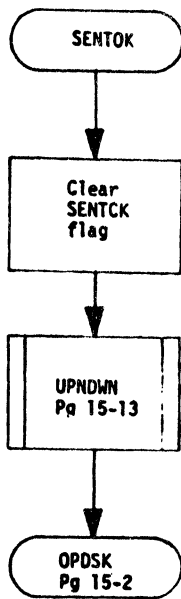


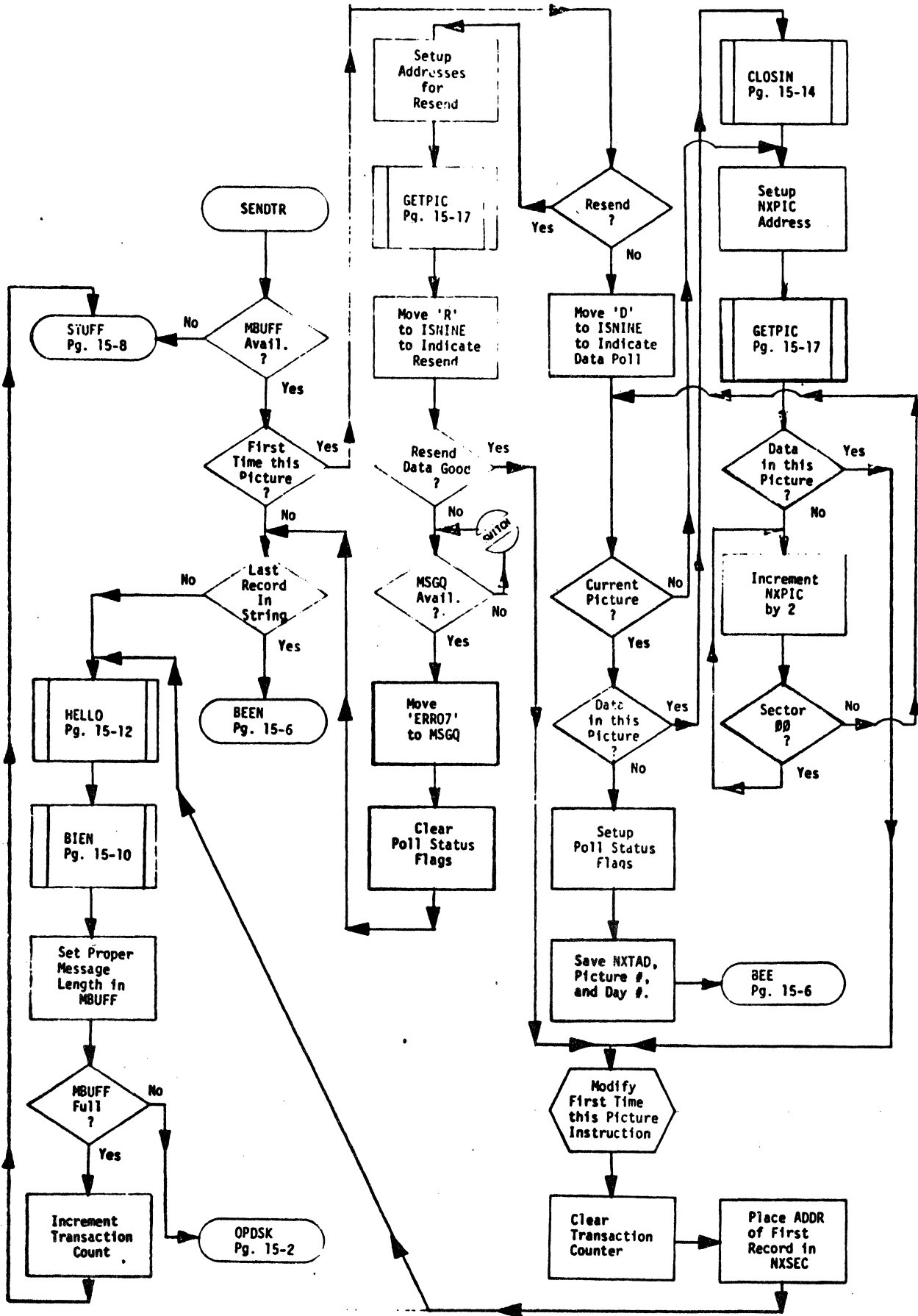
TATTLE ROUTINE (ACU)

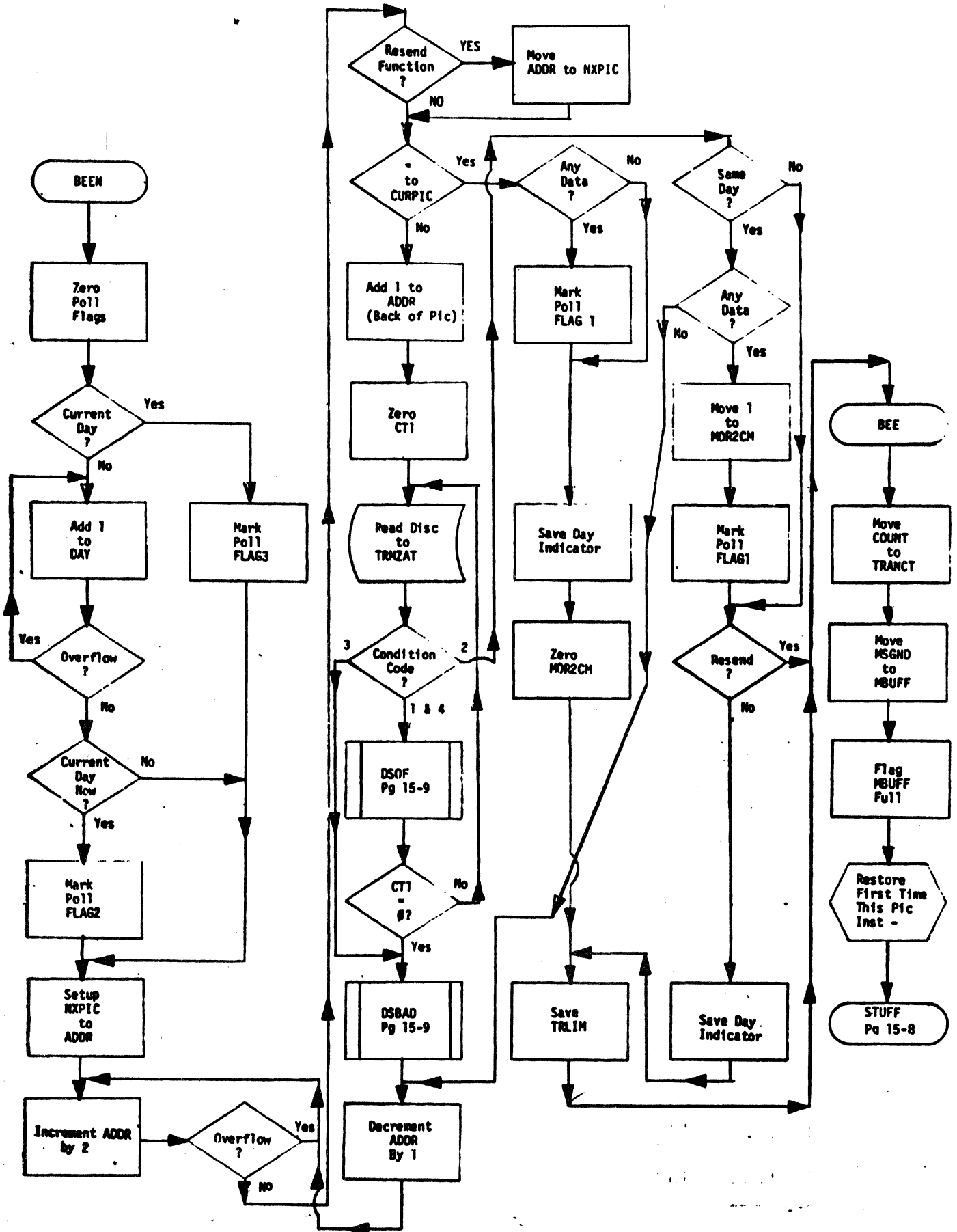


SENDQ ROUTINE (Transactions to Disc)

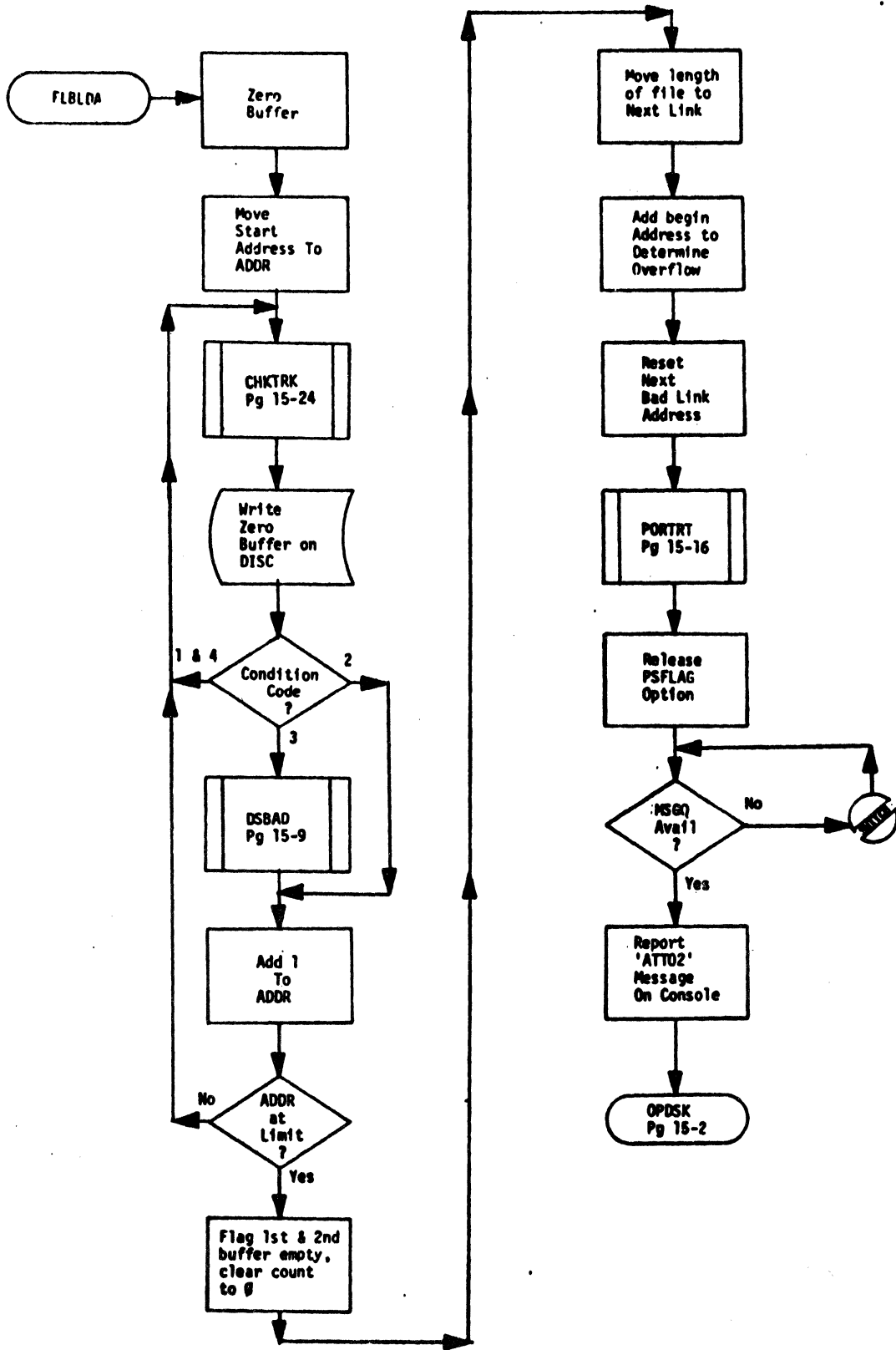




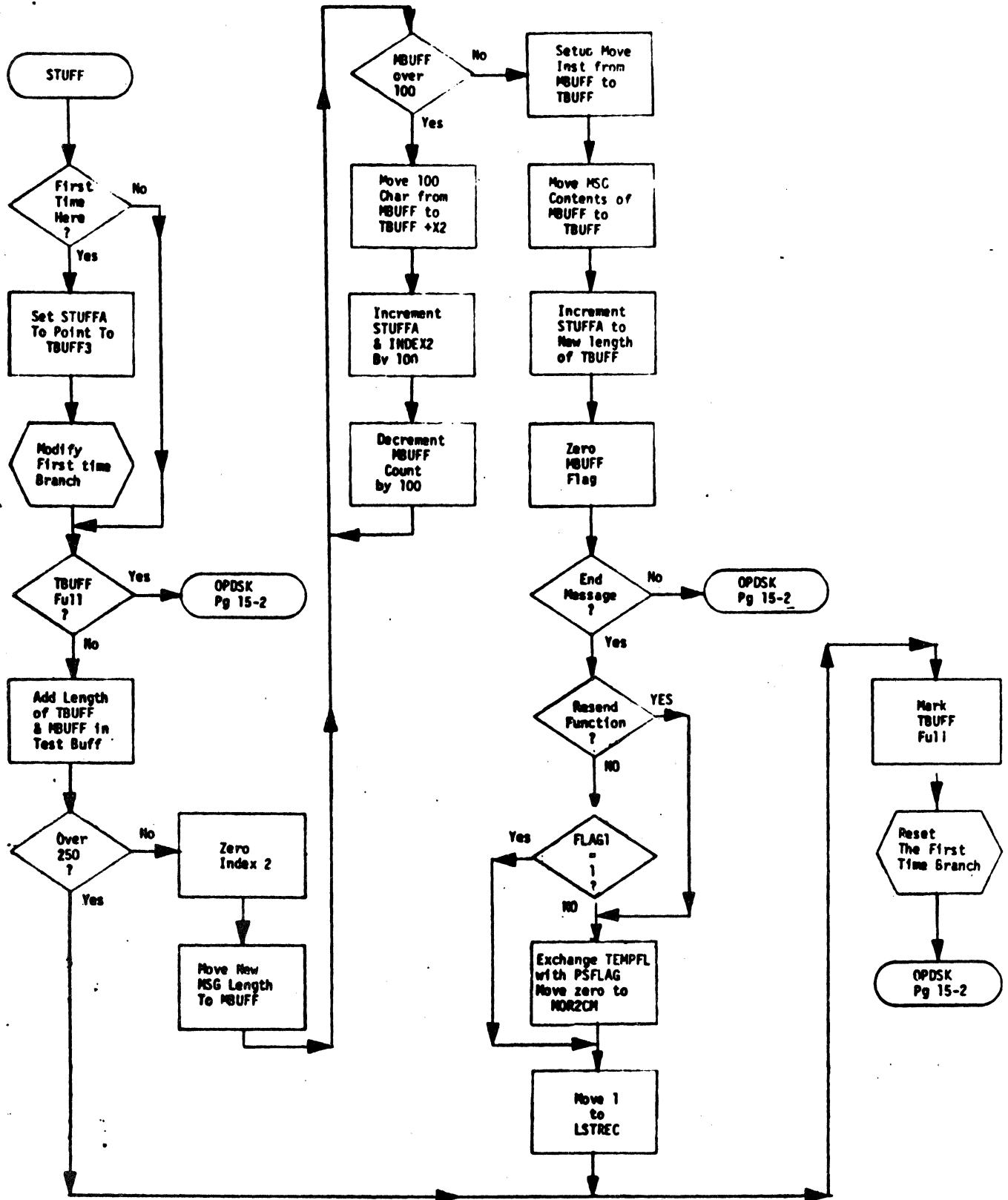




CLEAR CREDIT FILE

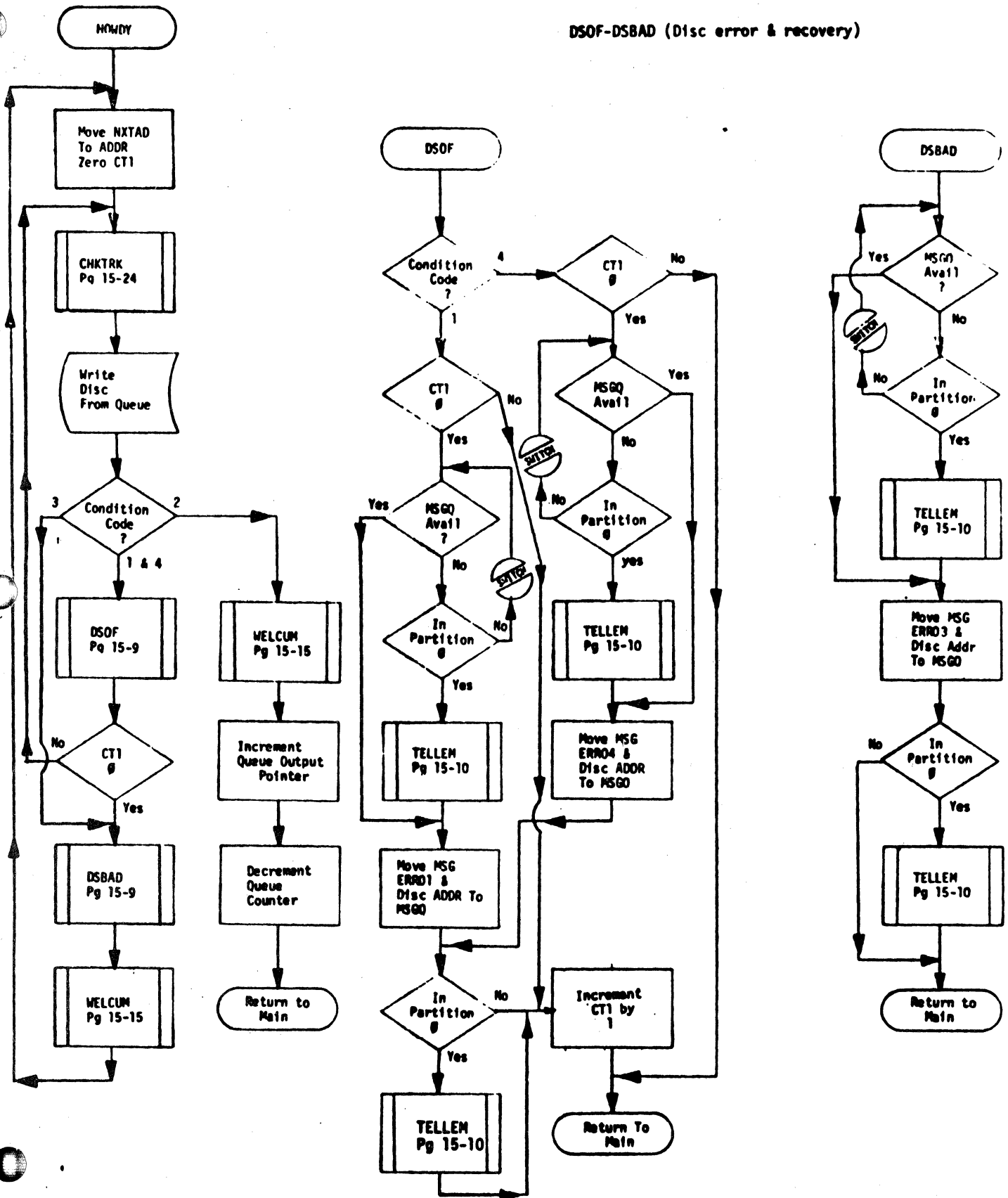


STUFF ROUTINE (Format Transactions for Transmission)

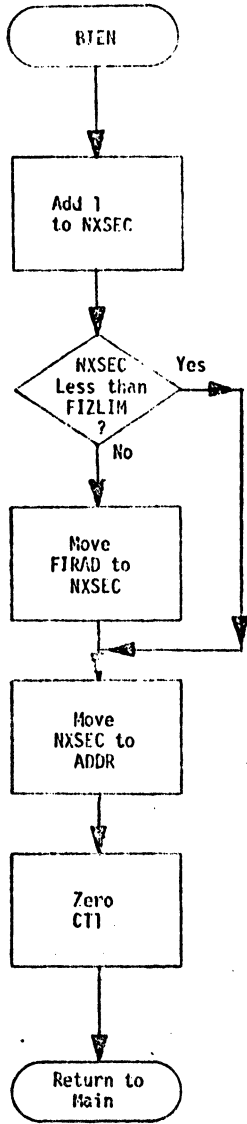


HOWDY ROUTINE (Write Block To Disc)

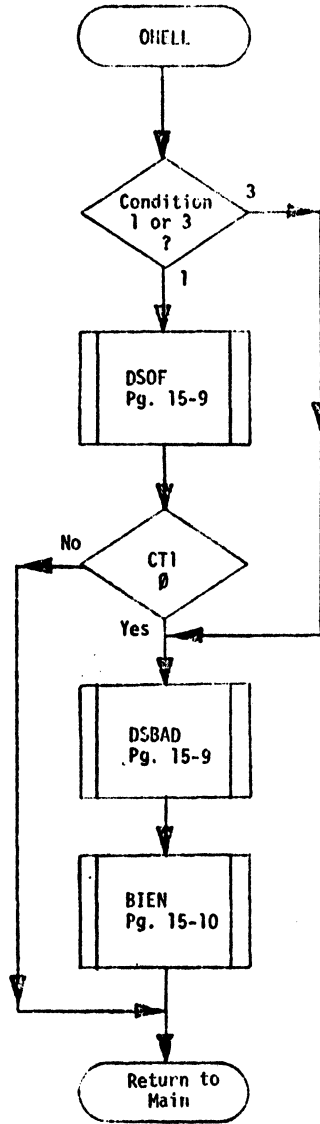
DSOF-DSBAD (Disc error & recovery)



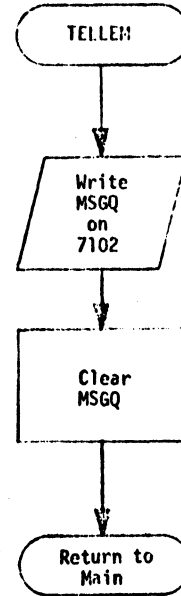
BIEN ROUTINE
(Increment Disc Address
During Transmission)



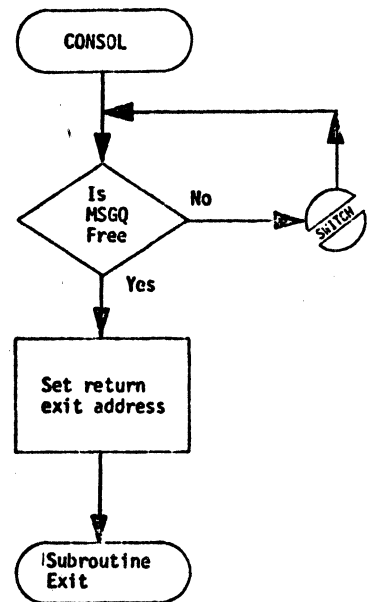
OHELL ROUTINE
(Disc Error Reporting
and Recovery Routine)



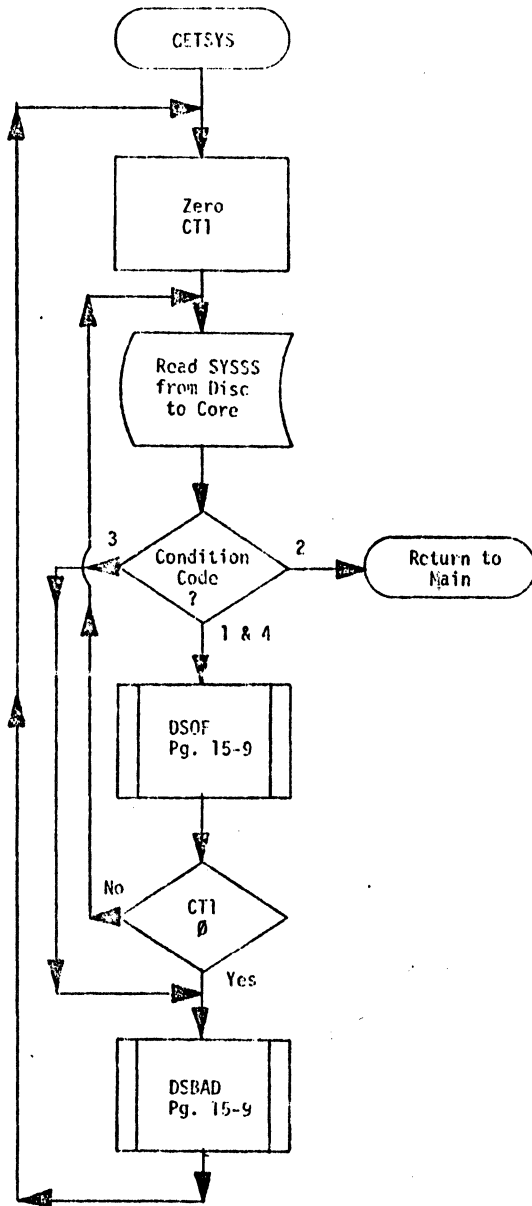
TELLEM ROUTINE
(MSGQ Reporting on 7102)



CONSOL ROUTINE
(MSGQ Availability Test)

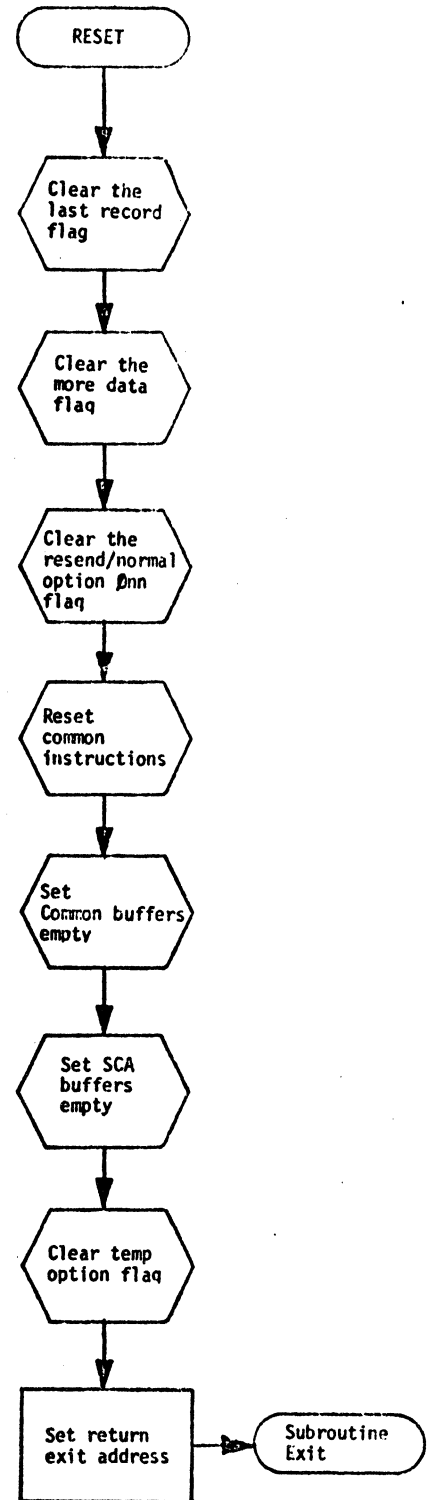


GETSYS ROUTINE (Retrieve SYSSS from Disc)

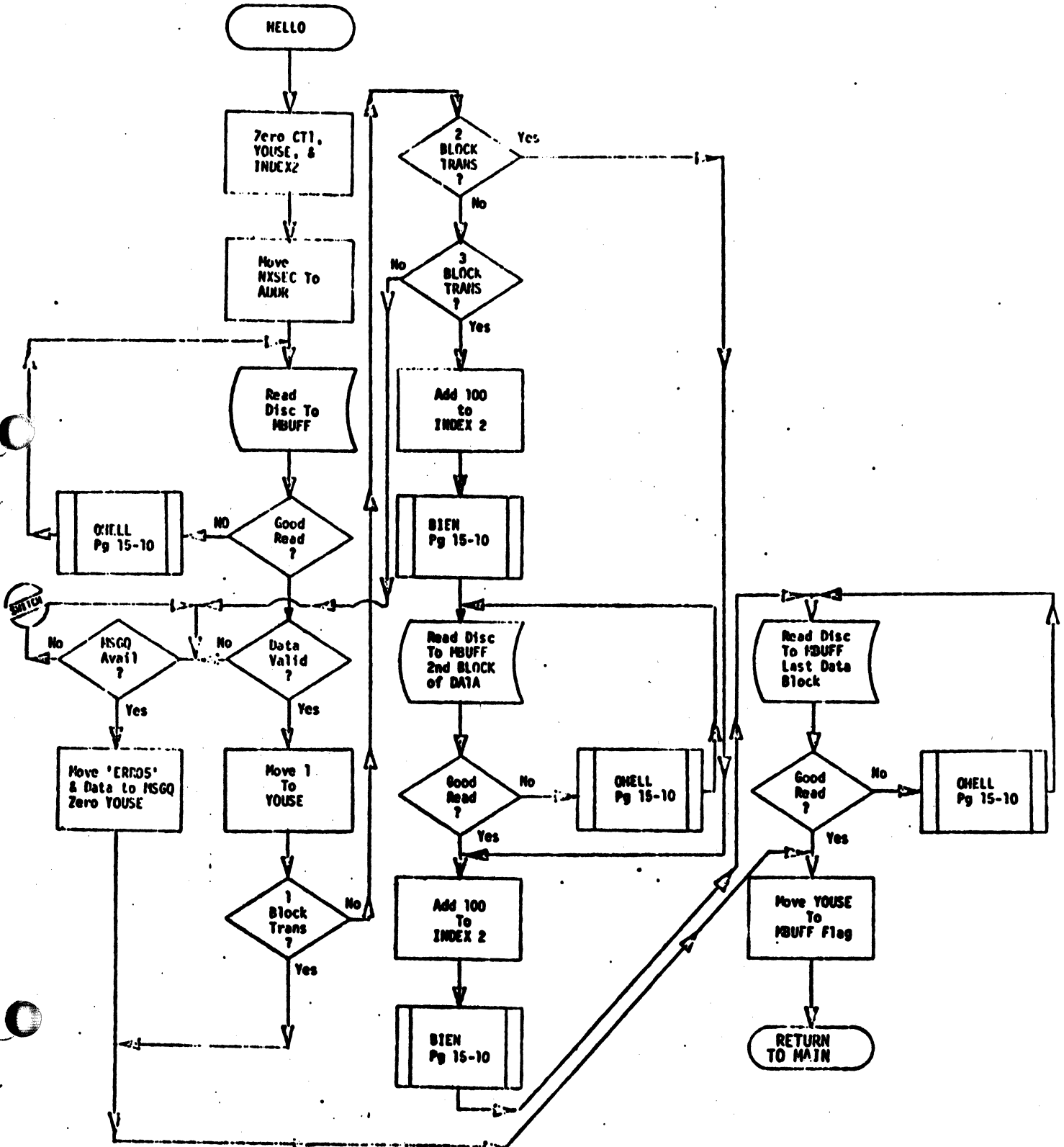


RESET Routine

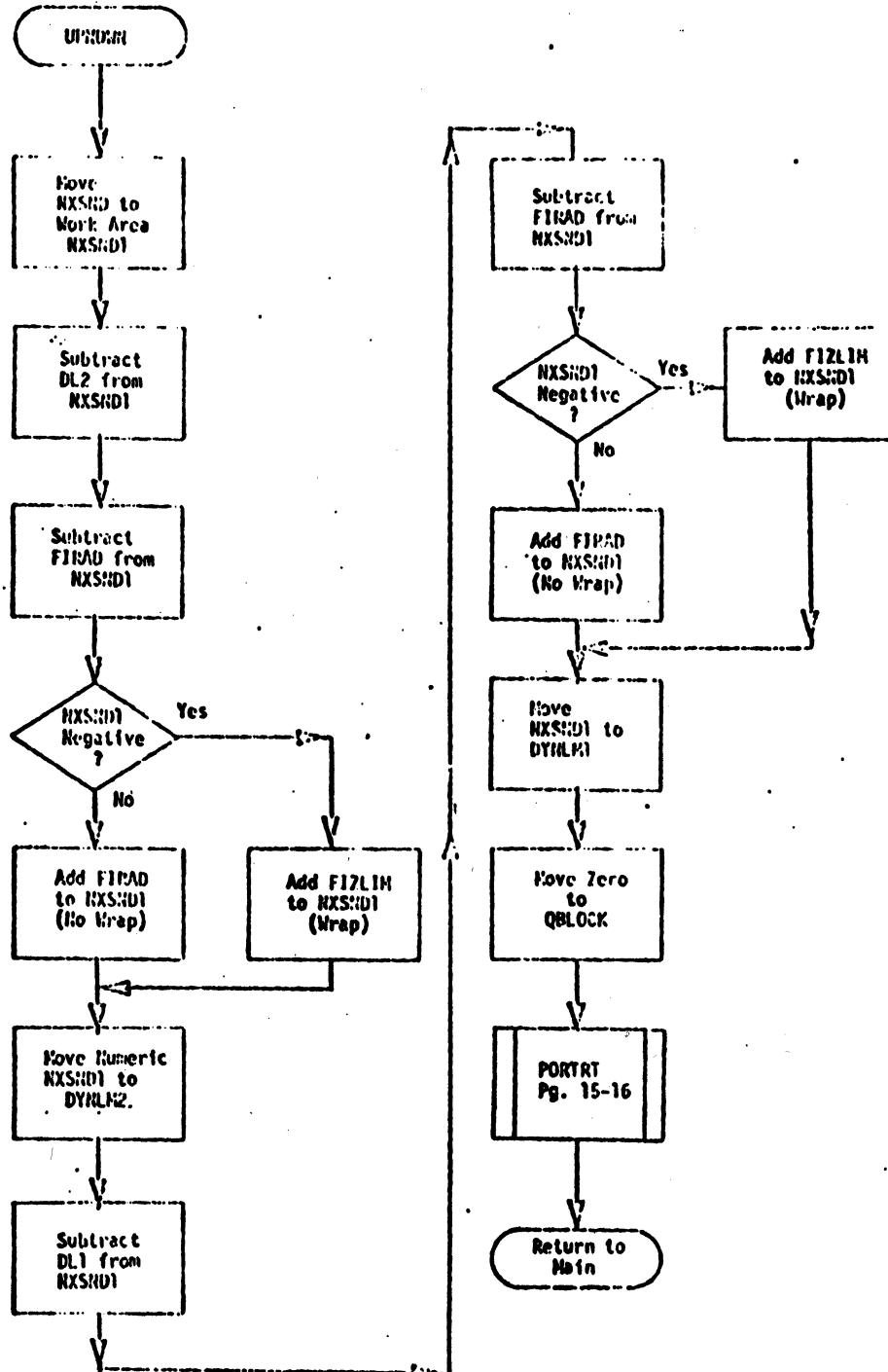
(Reset the transaction file transmission pointers)



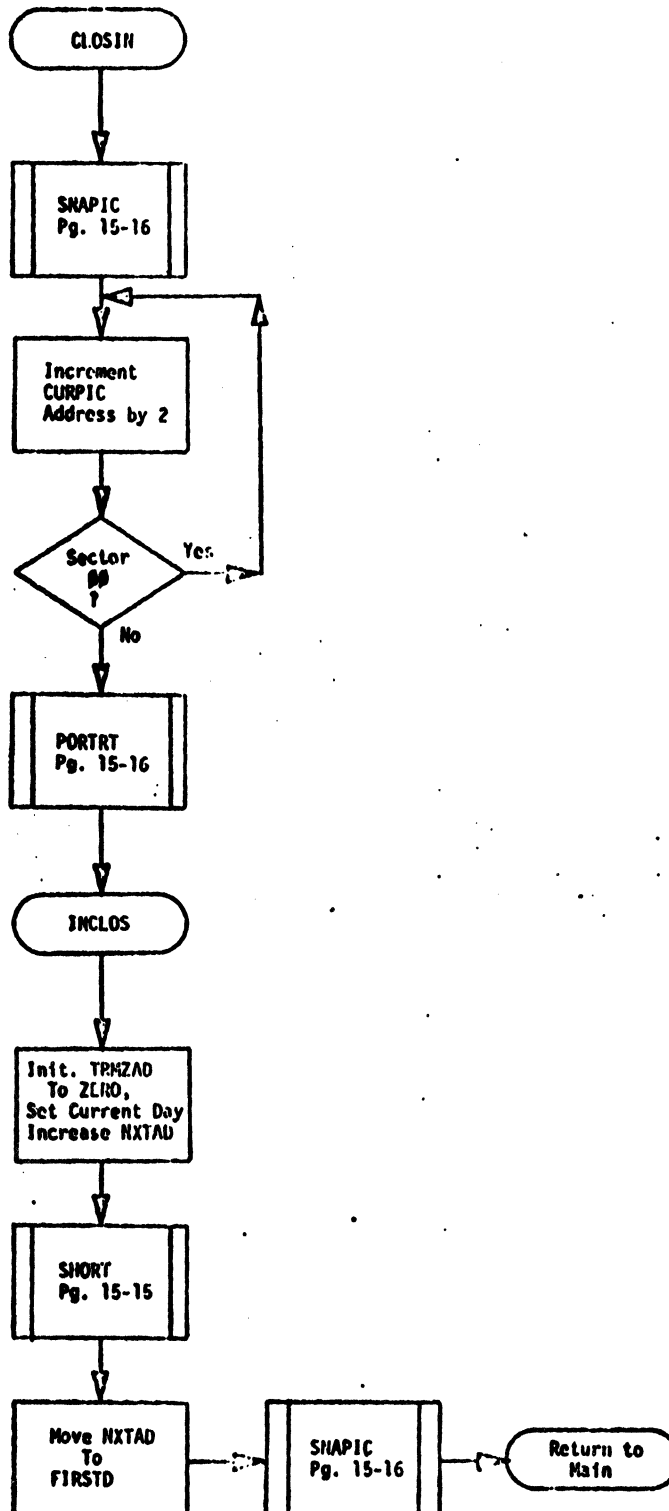
HELLO ROUTINE (Retrieve Transaction Data From Disc for Transmission)



UPNDRM ROUTINE (Set Dynamic Limits of Transaction File)

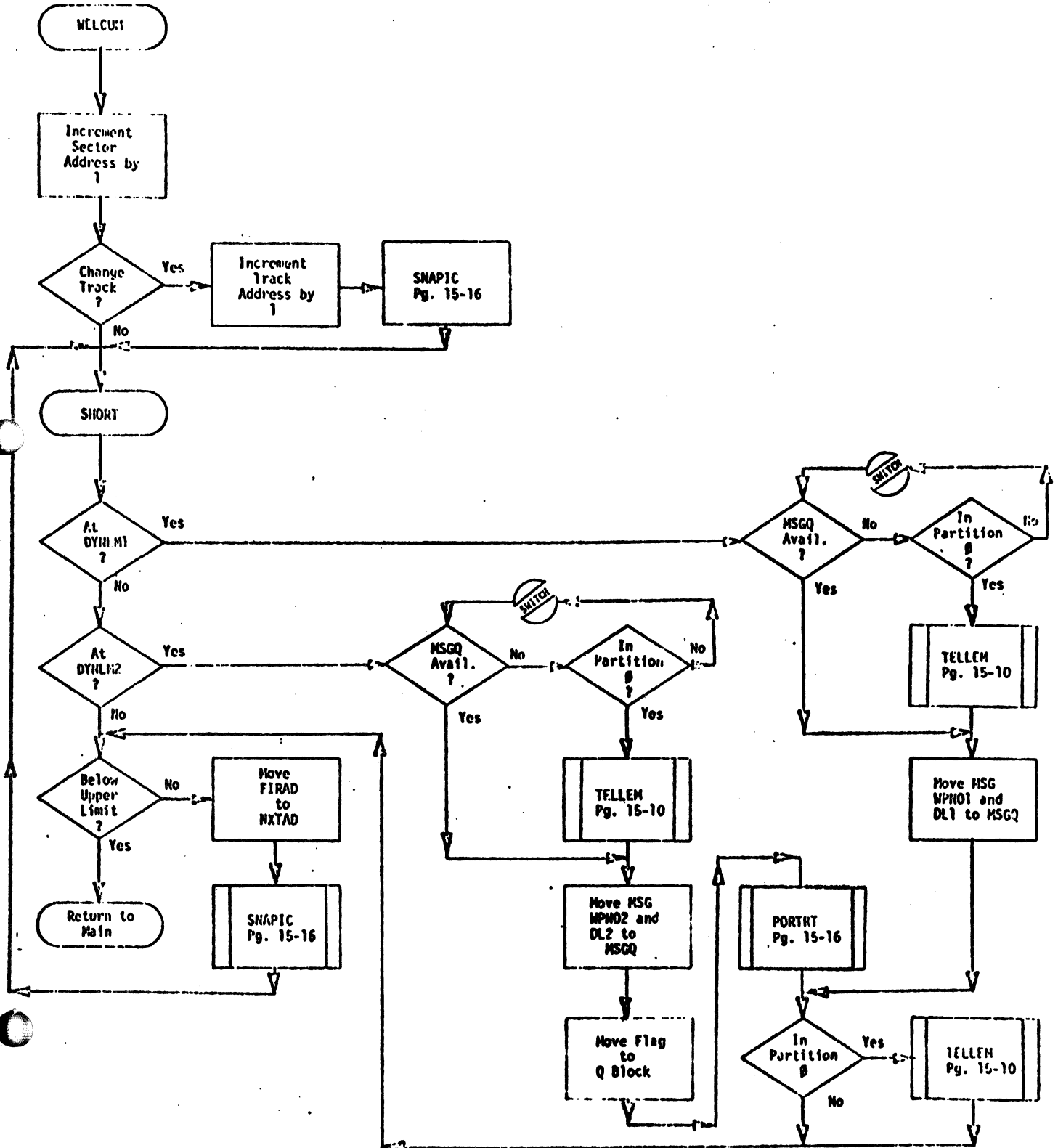


CLOSIN ROUTINE (Close Current Picture and Open Next)

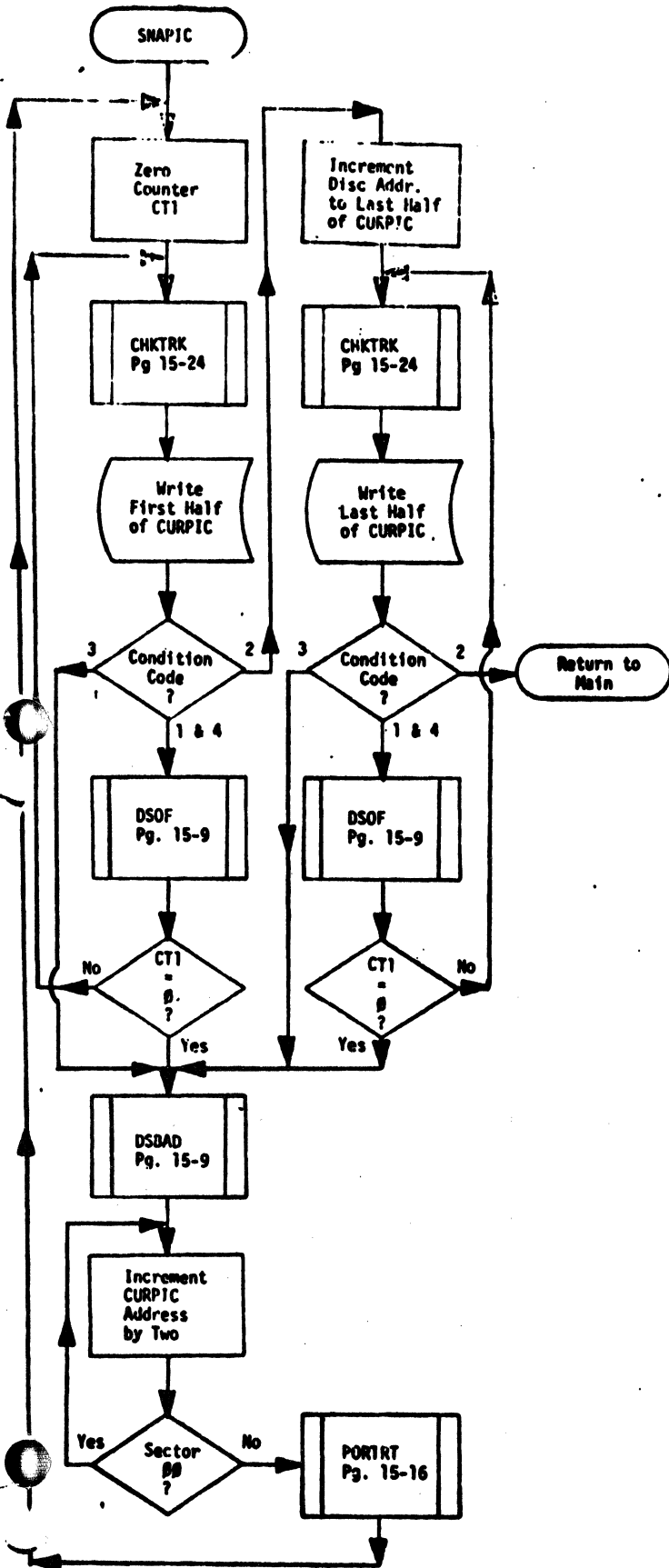


WELCUM ROUTINE (Increment Disc Address
During Writing of Transaction Data)

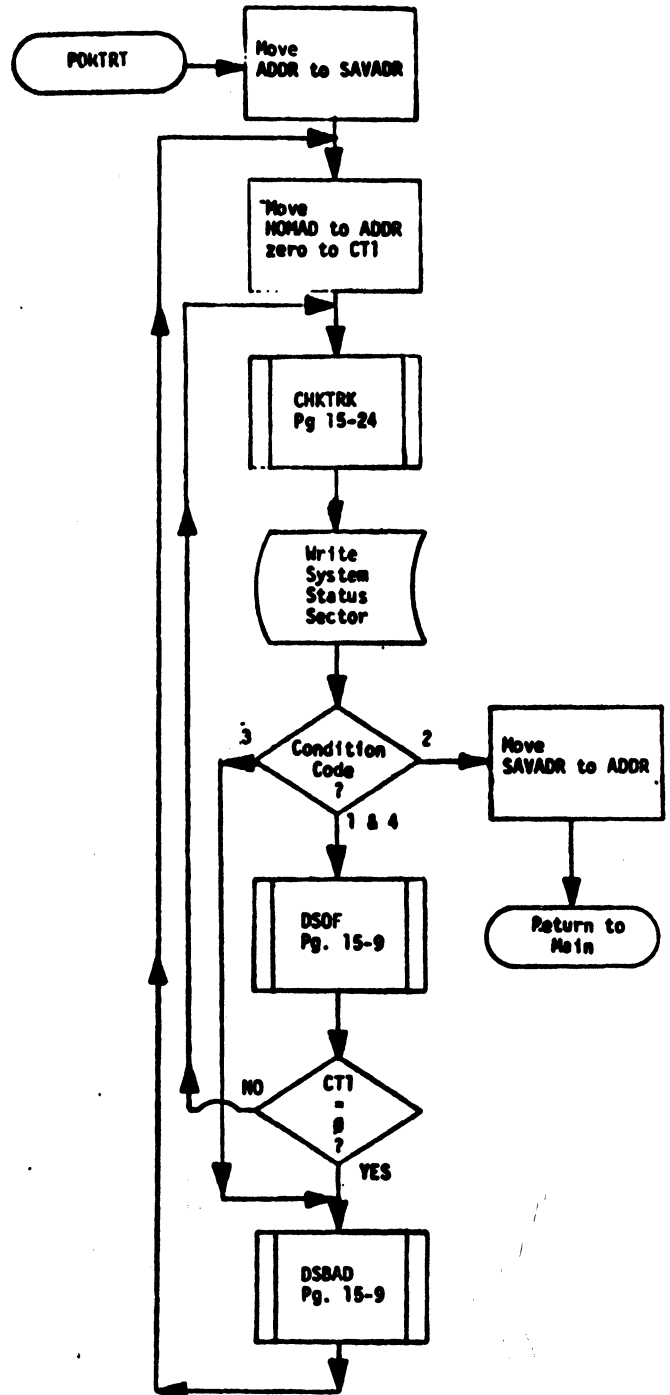
(Short Routine)



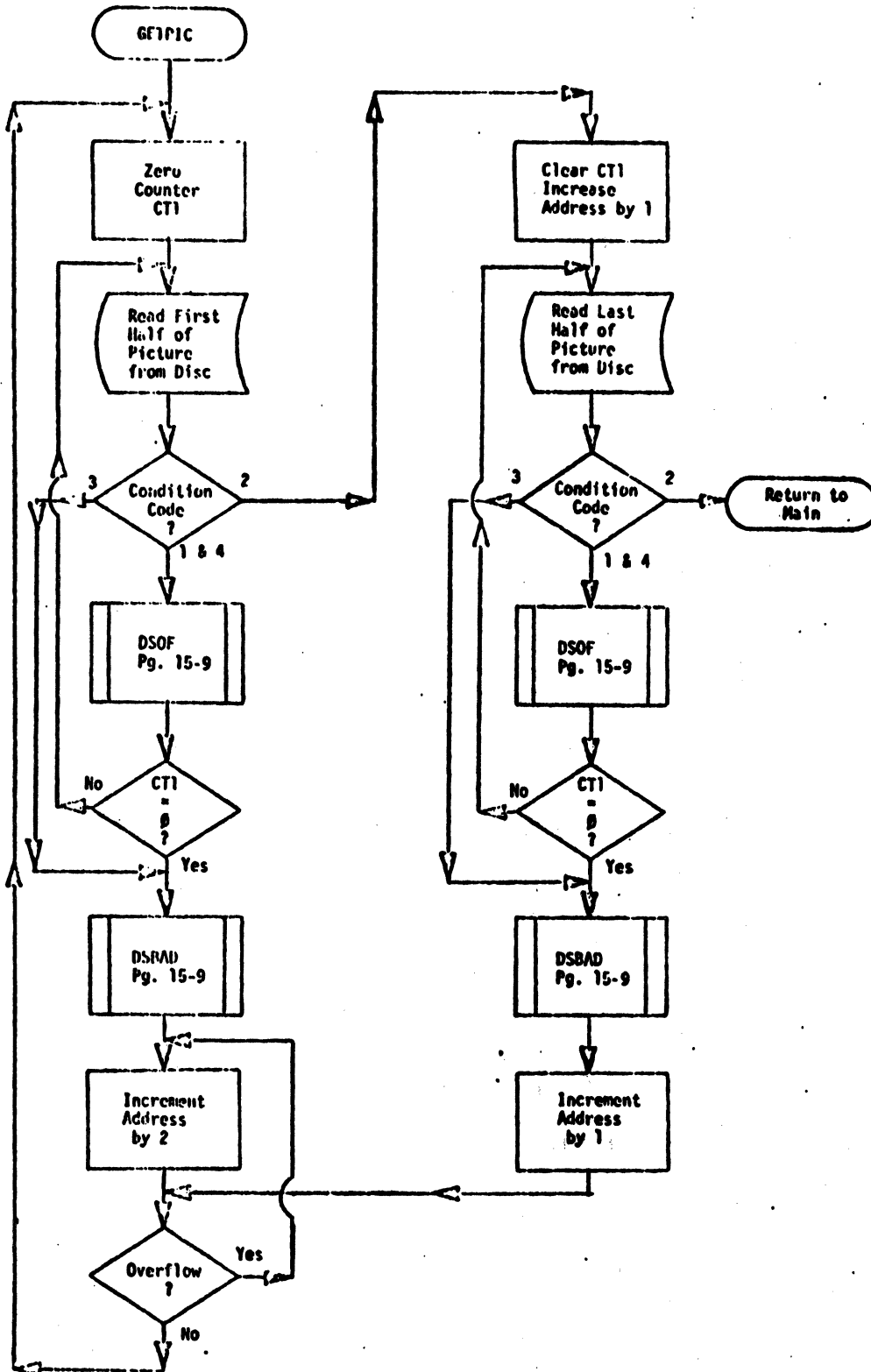
SNAPIC ROUTINE (Write Picture on Home Track)



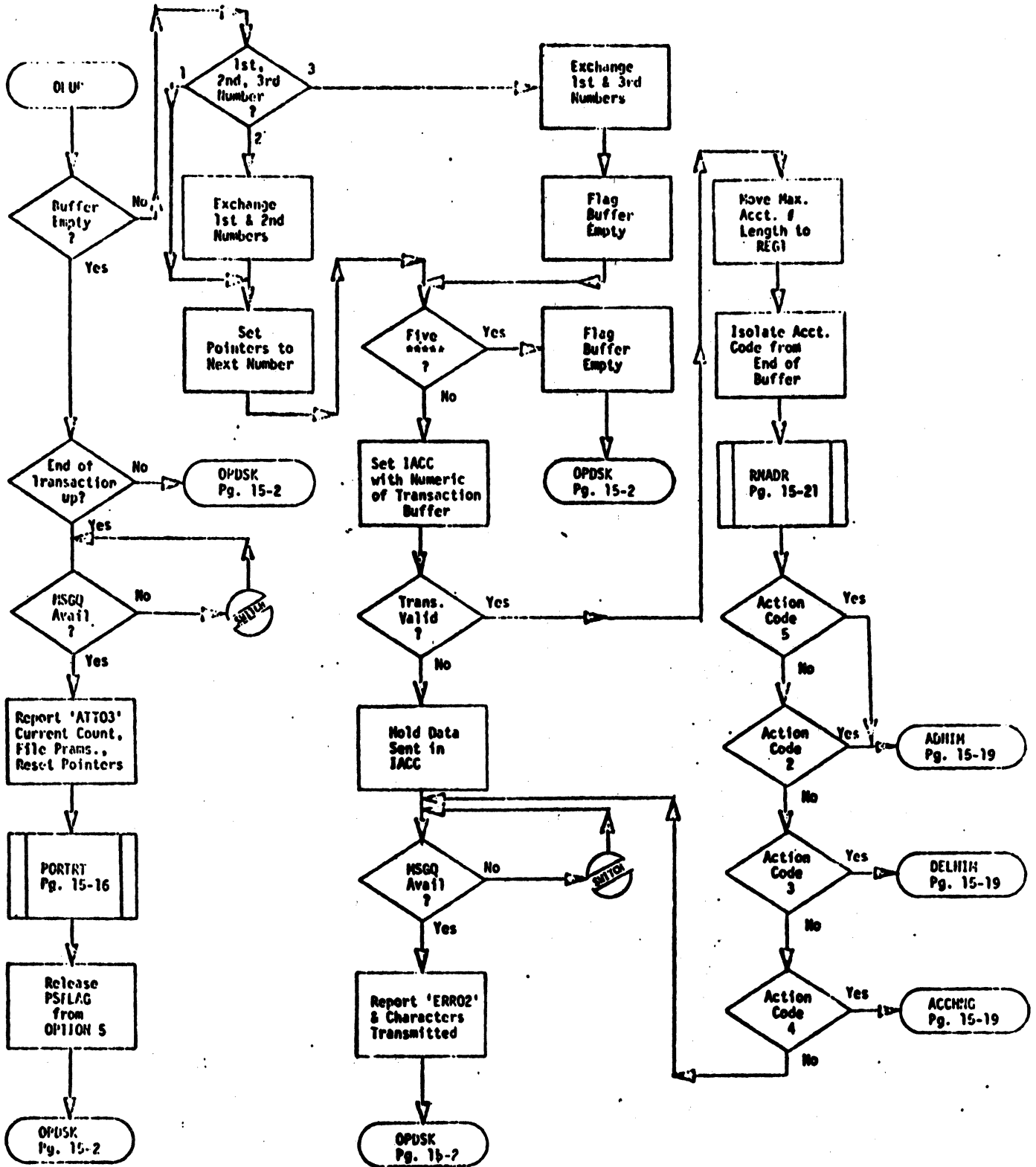
PORTRT ROUTINE (Write System Status Sector)

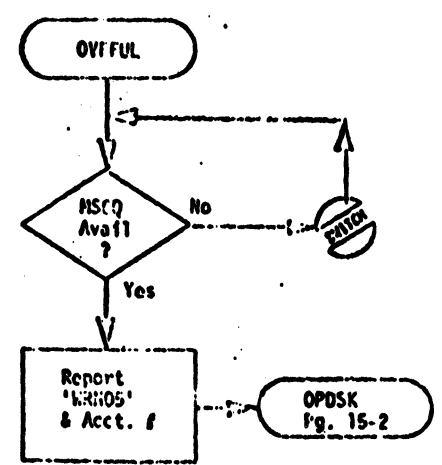
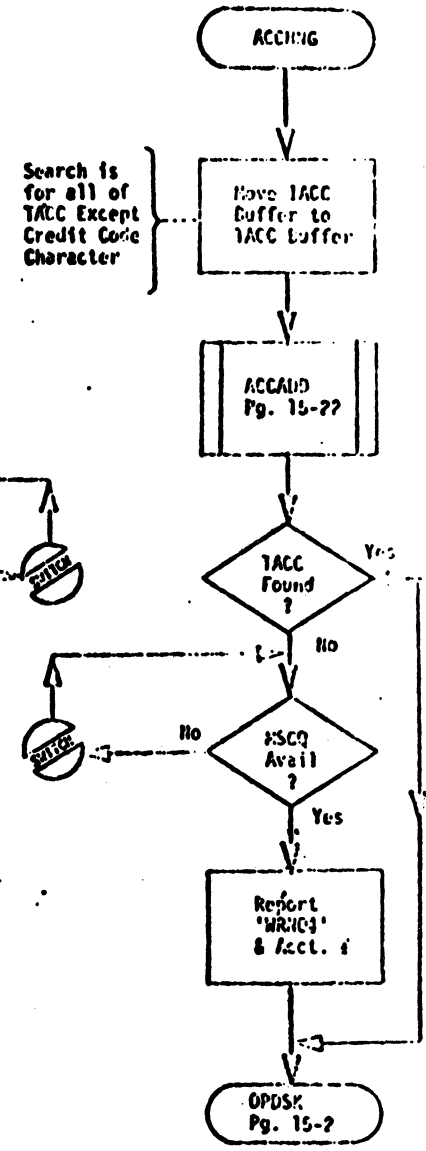
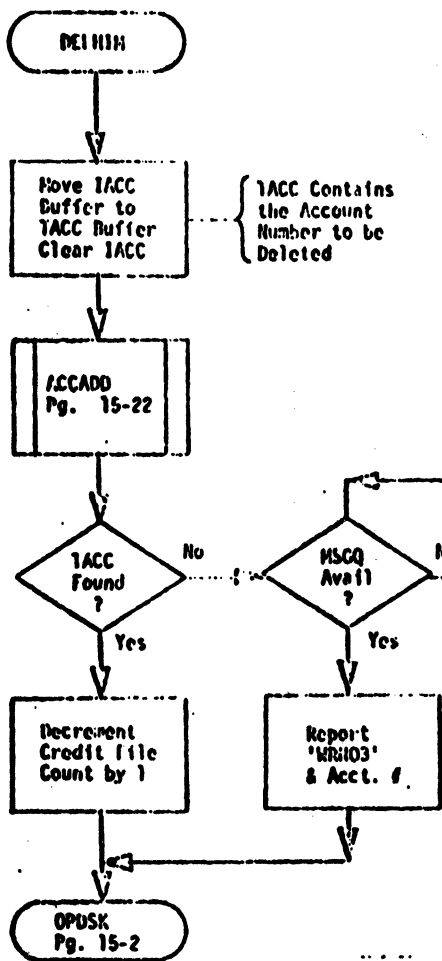
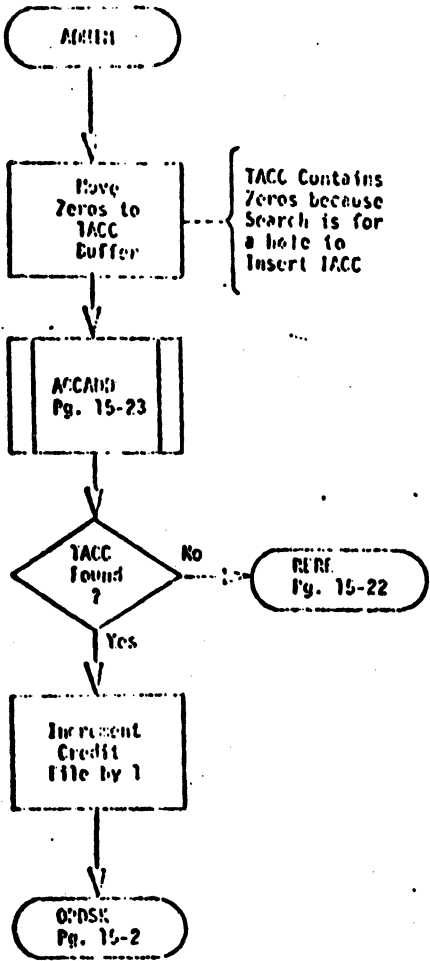


GETPIC ROUTINE (Retrieve Picture from Home Track)



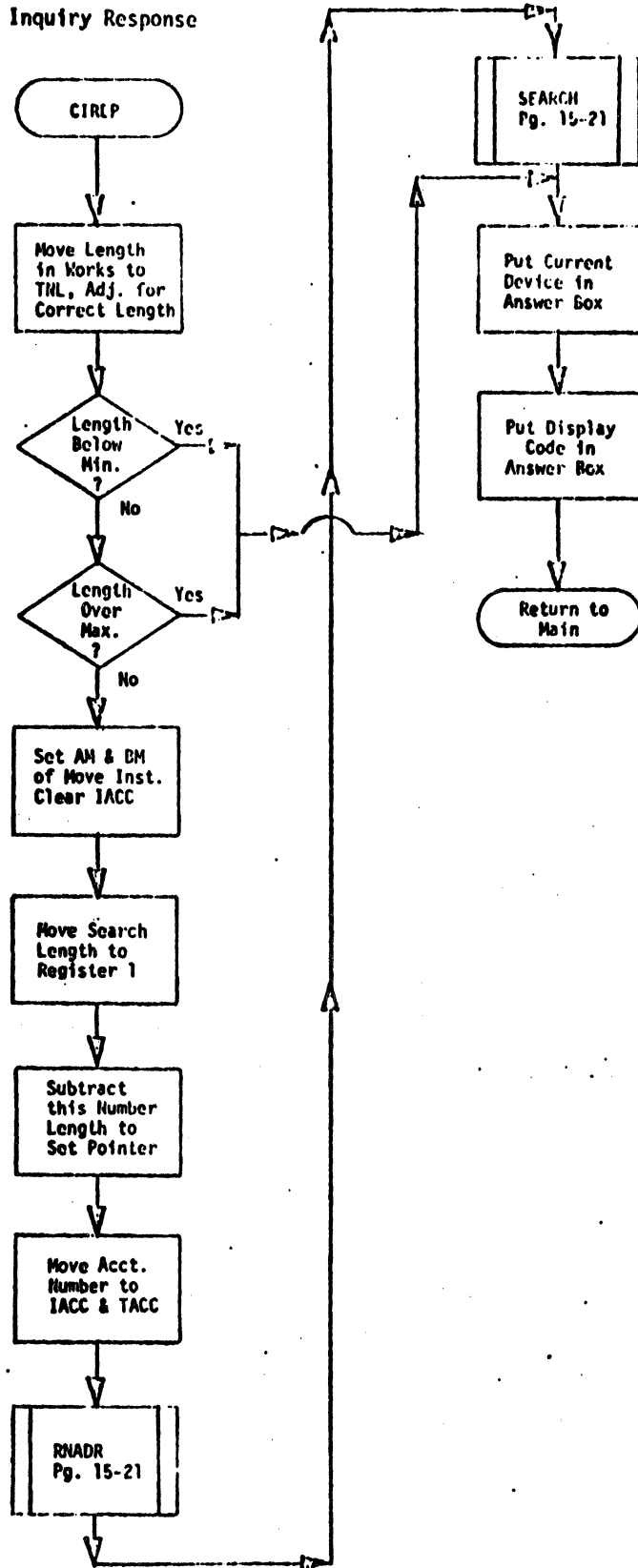
OLUP ENTRY POINT (Entry Point for On-Line Updates to the Credit File)

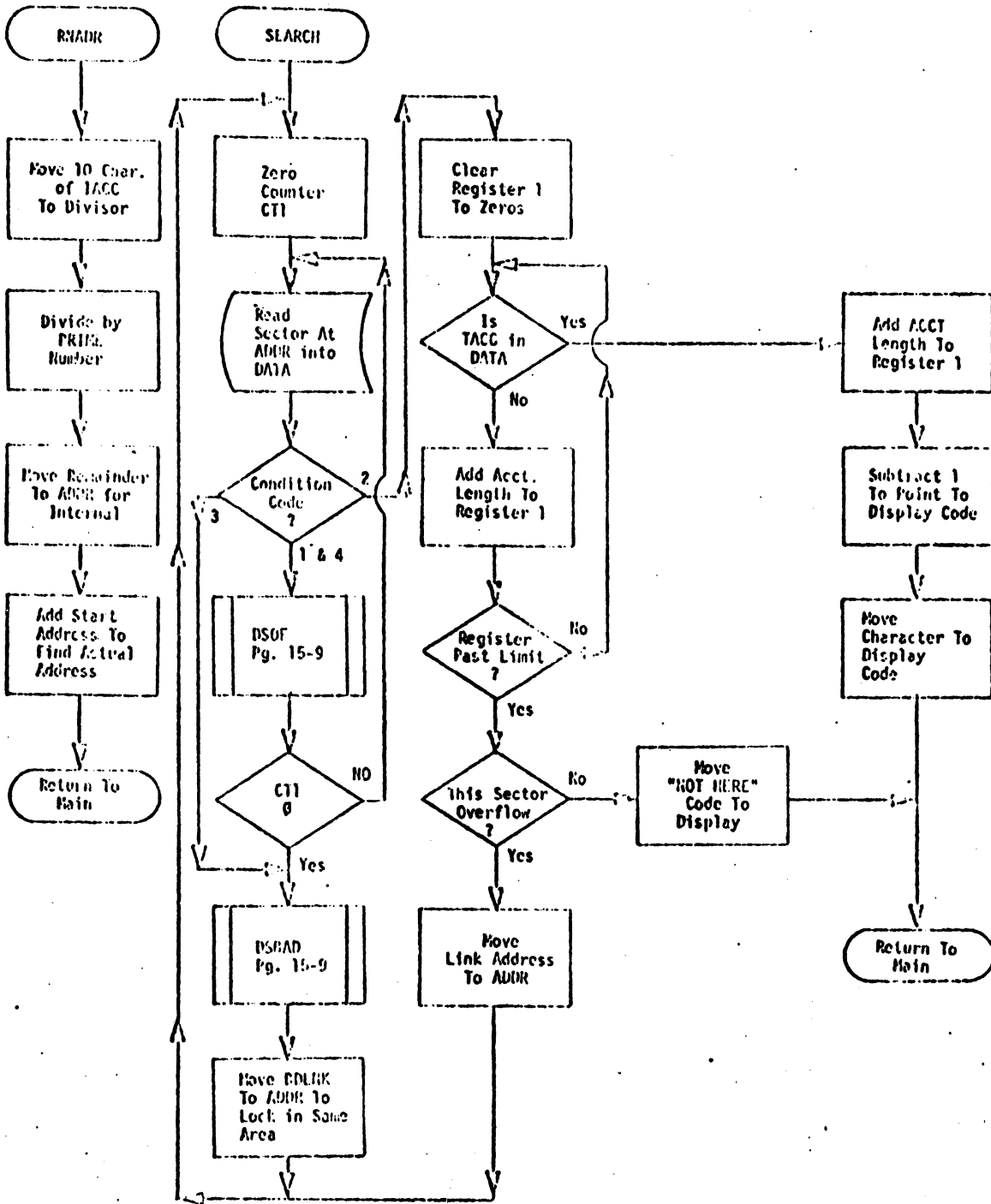




Credit Authorization Subroutines

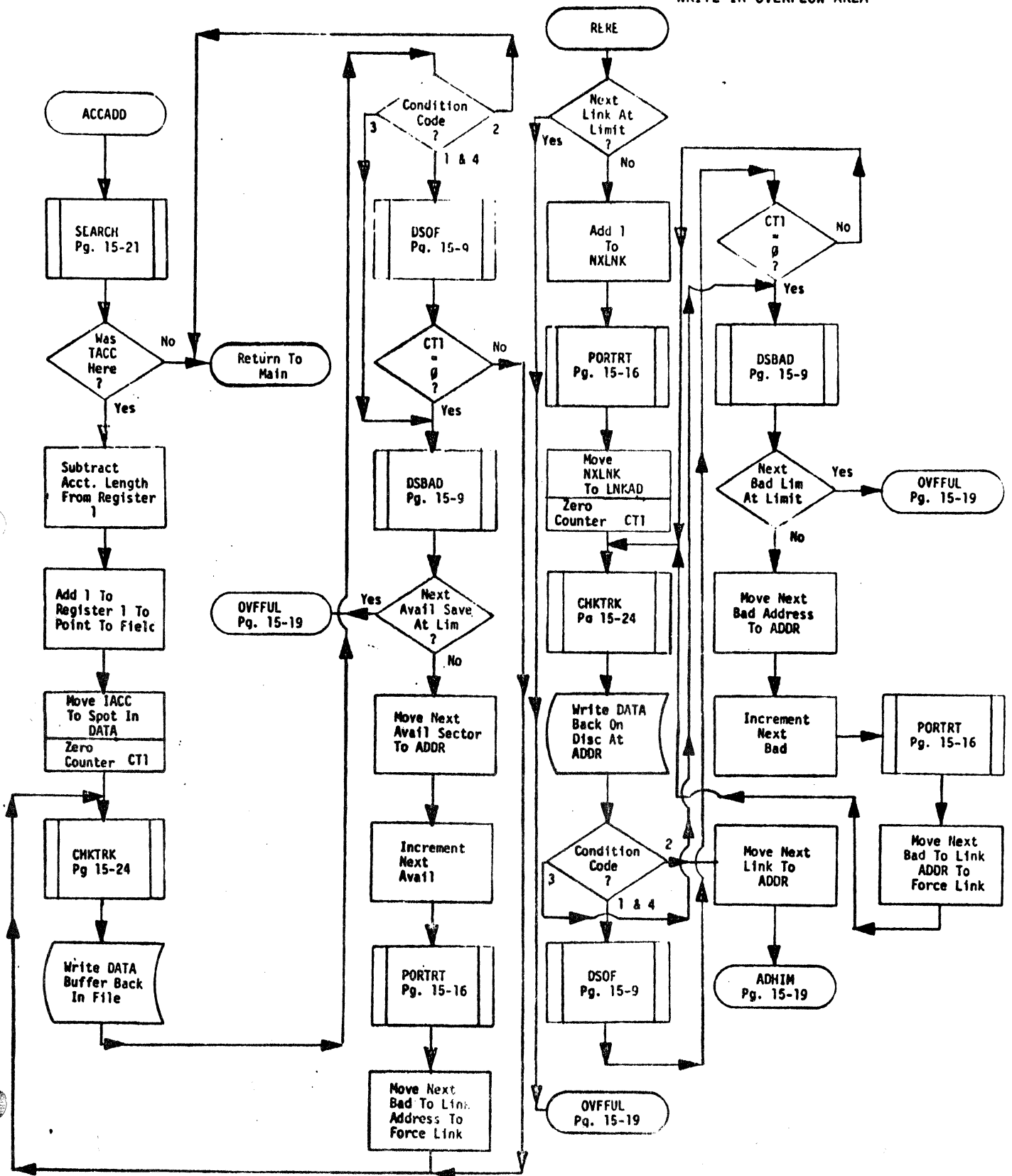
Inquiry Response

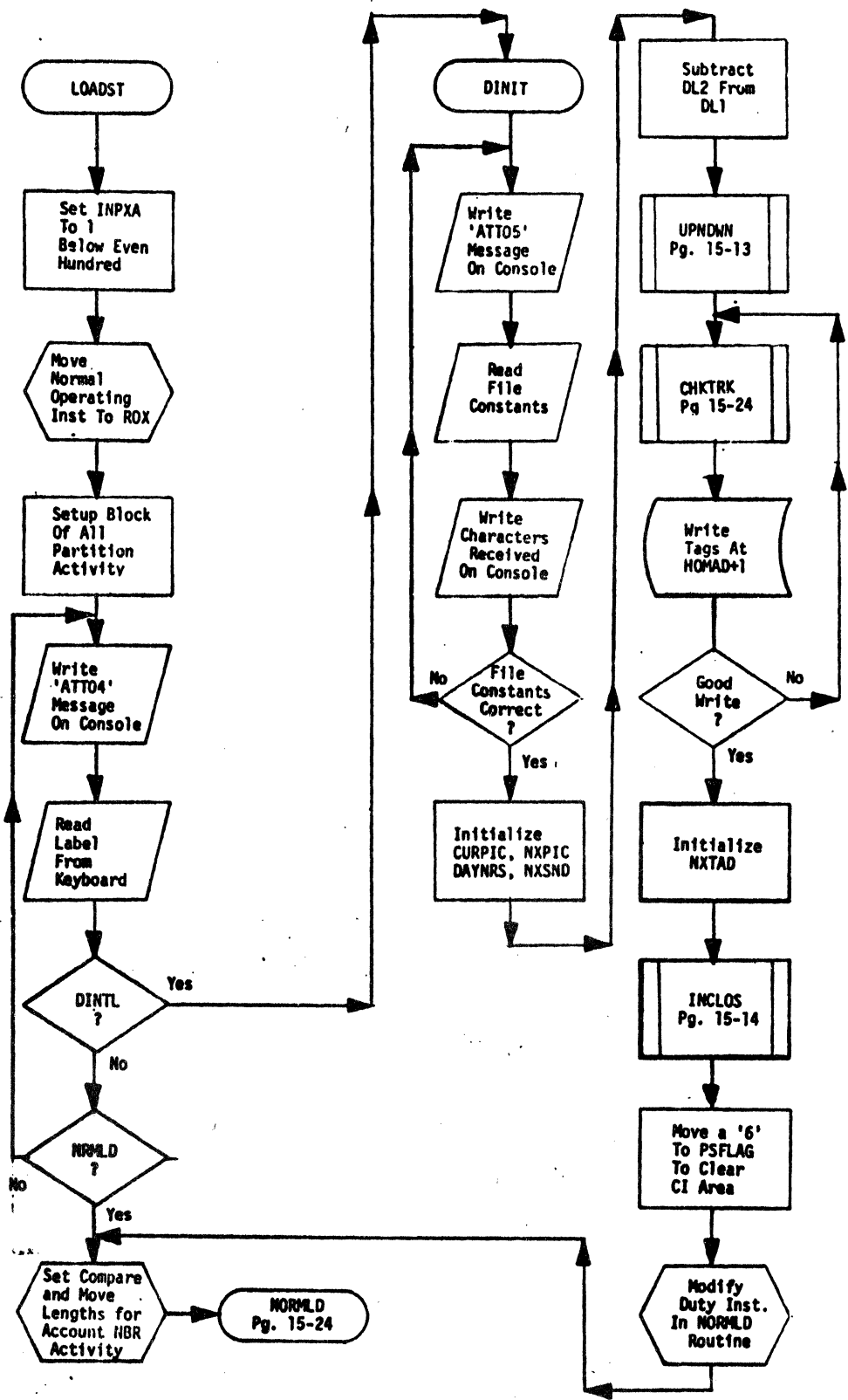




ADD FIELD TO CREDIT FILE

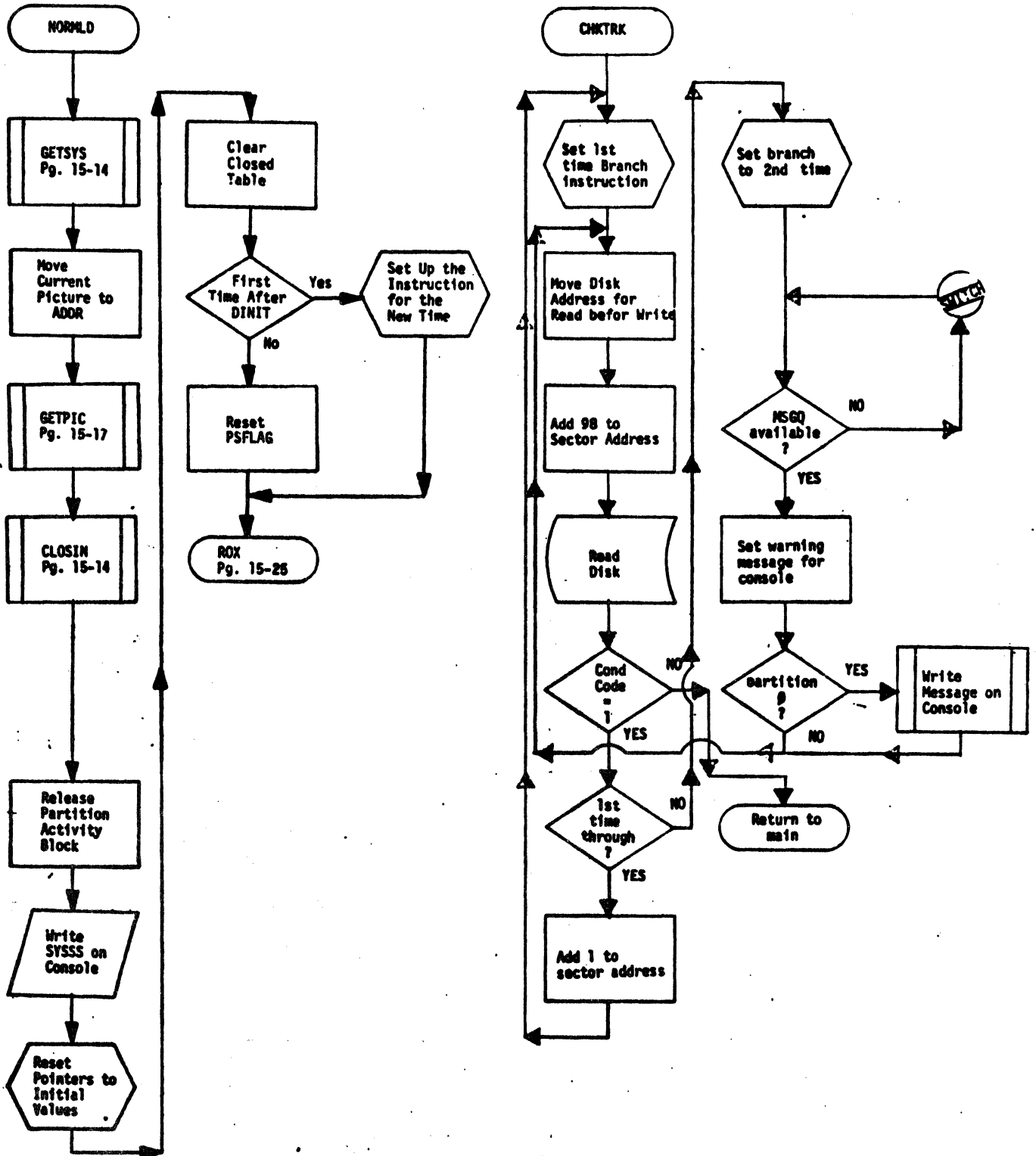
WRITE IN OVERFLOW AREA



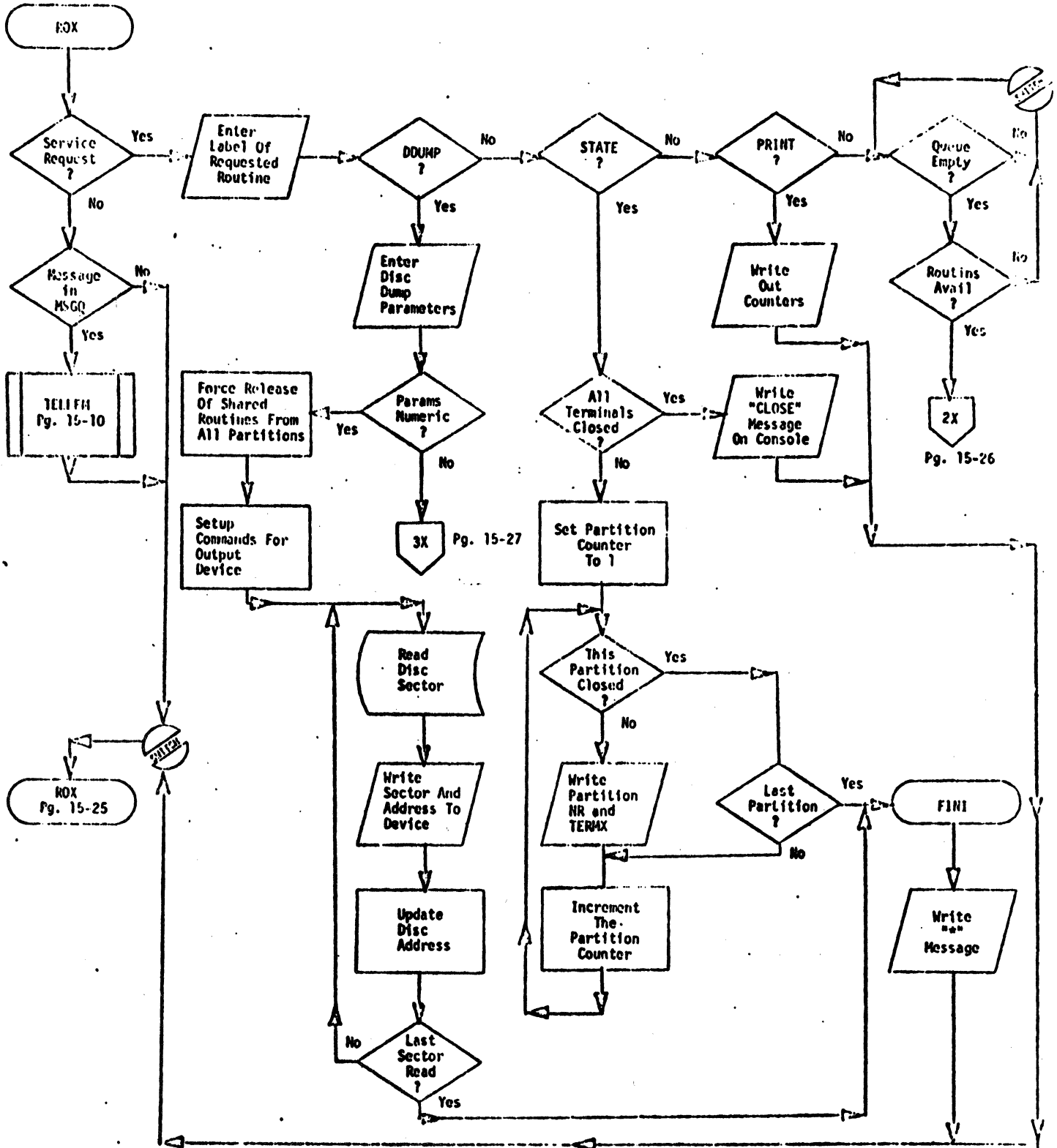


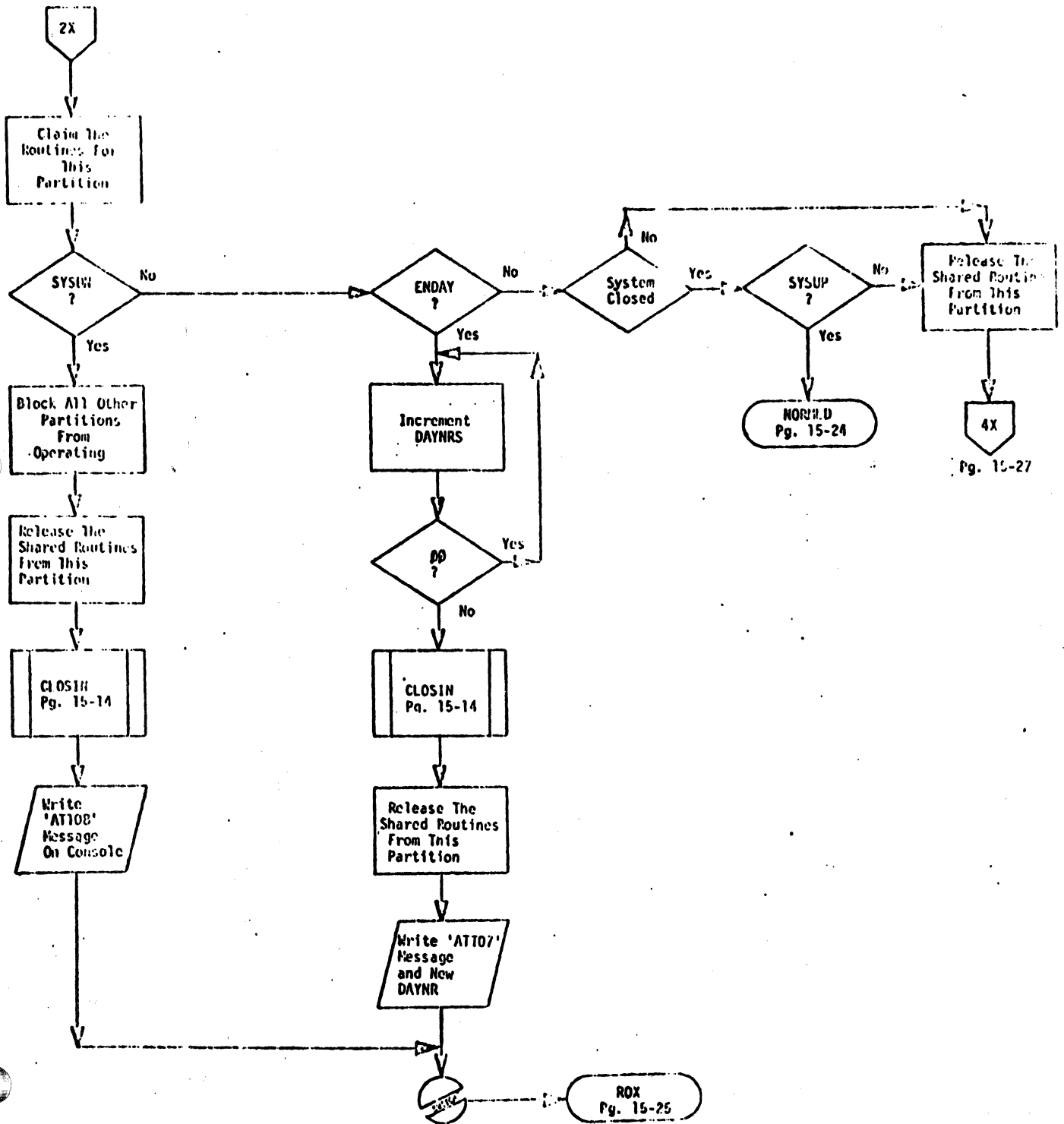
NORMAL LOAD ROUTINE

DISC READ BEFORE WRITE ROUTINE

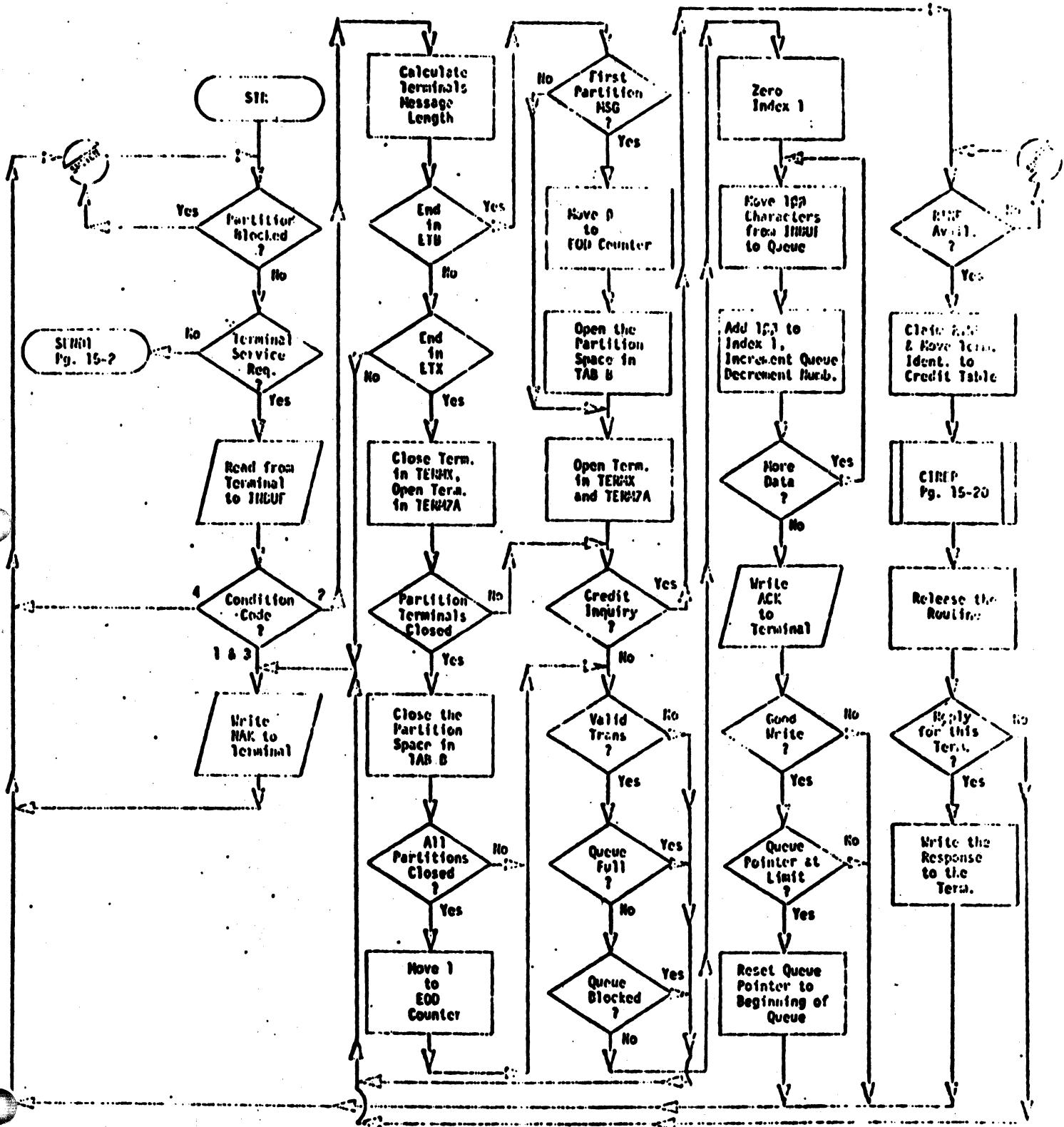


PARTITION ZERO (Monitor)

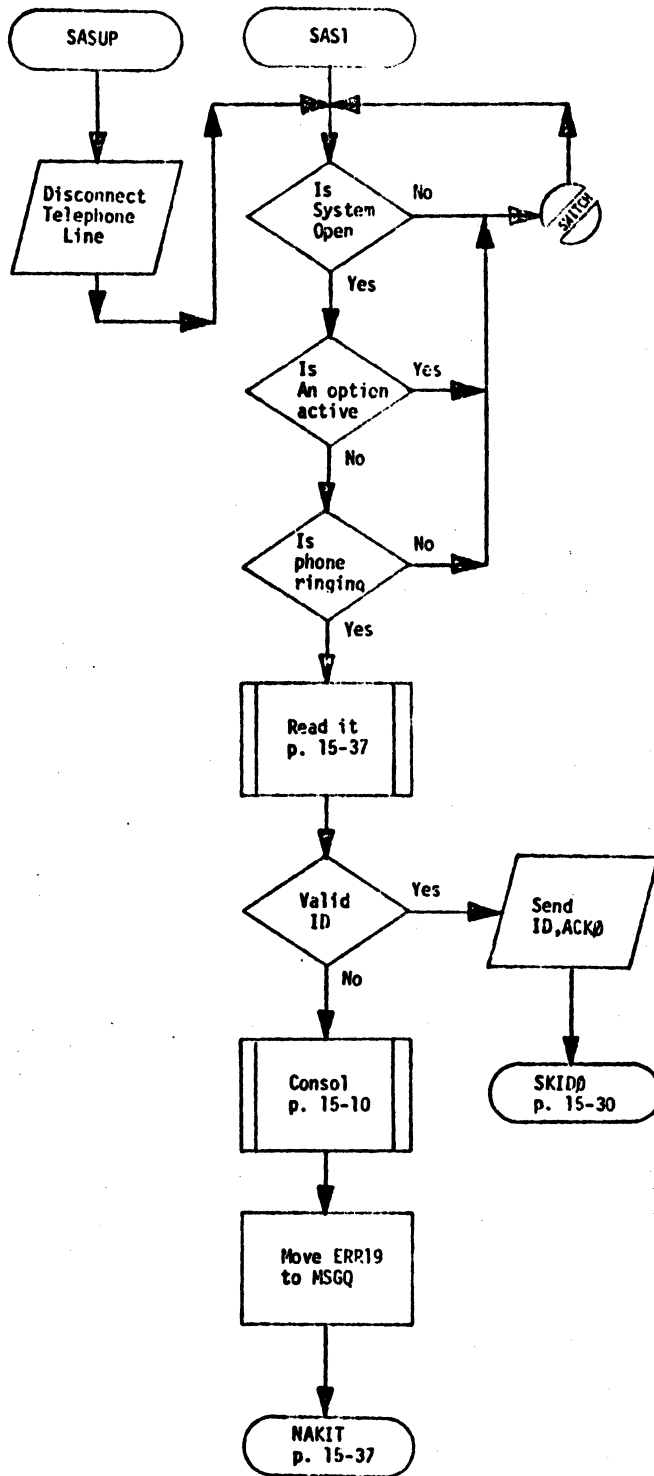




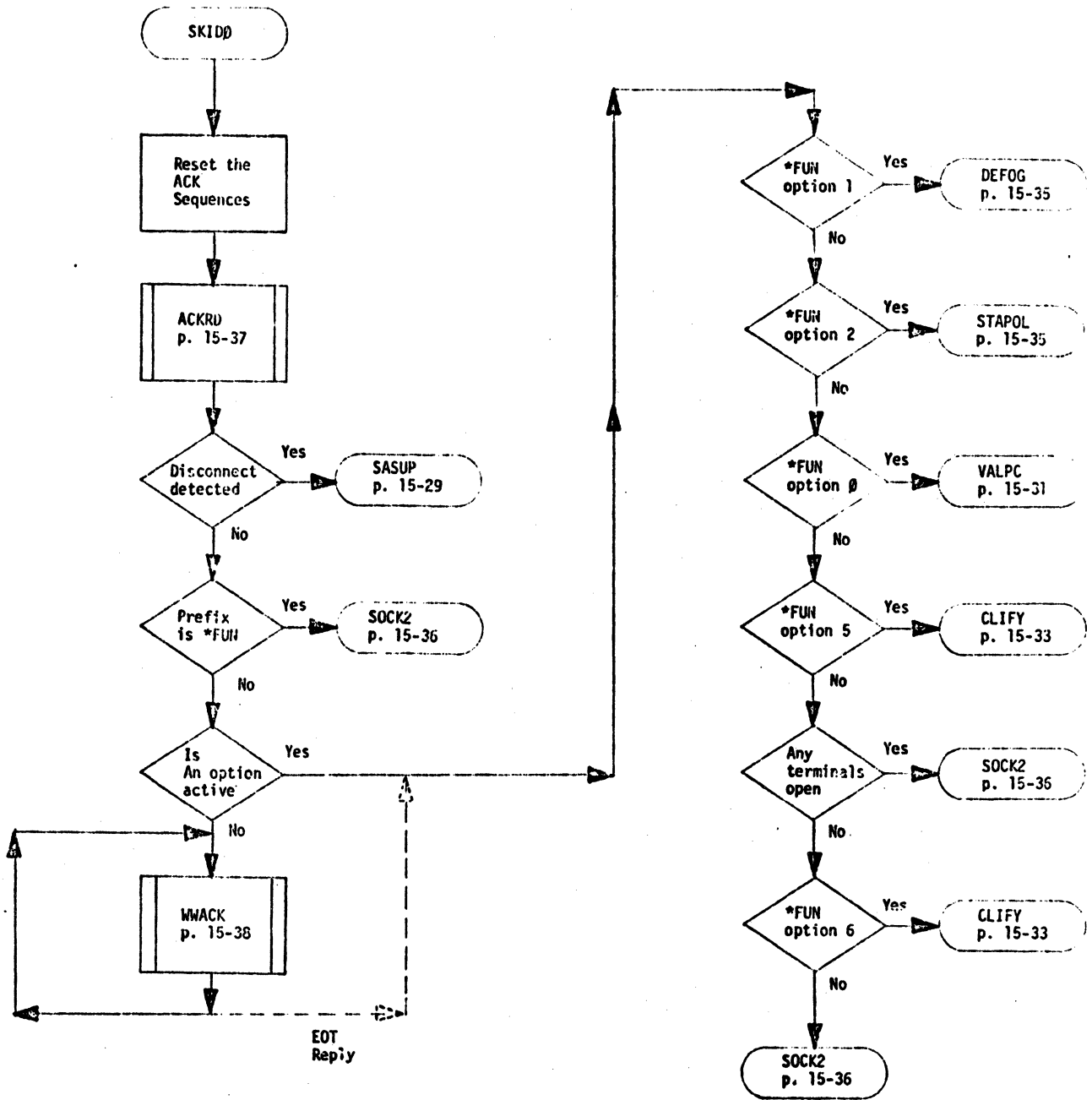
TERMINAL PARTITION



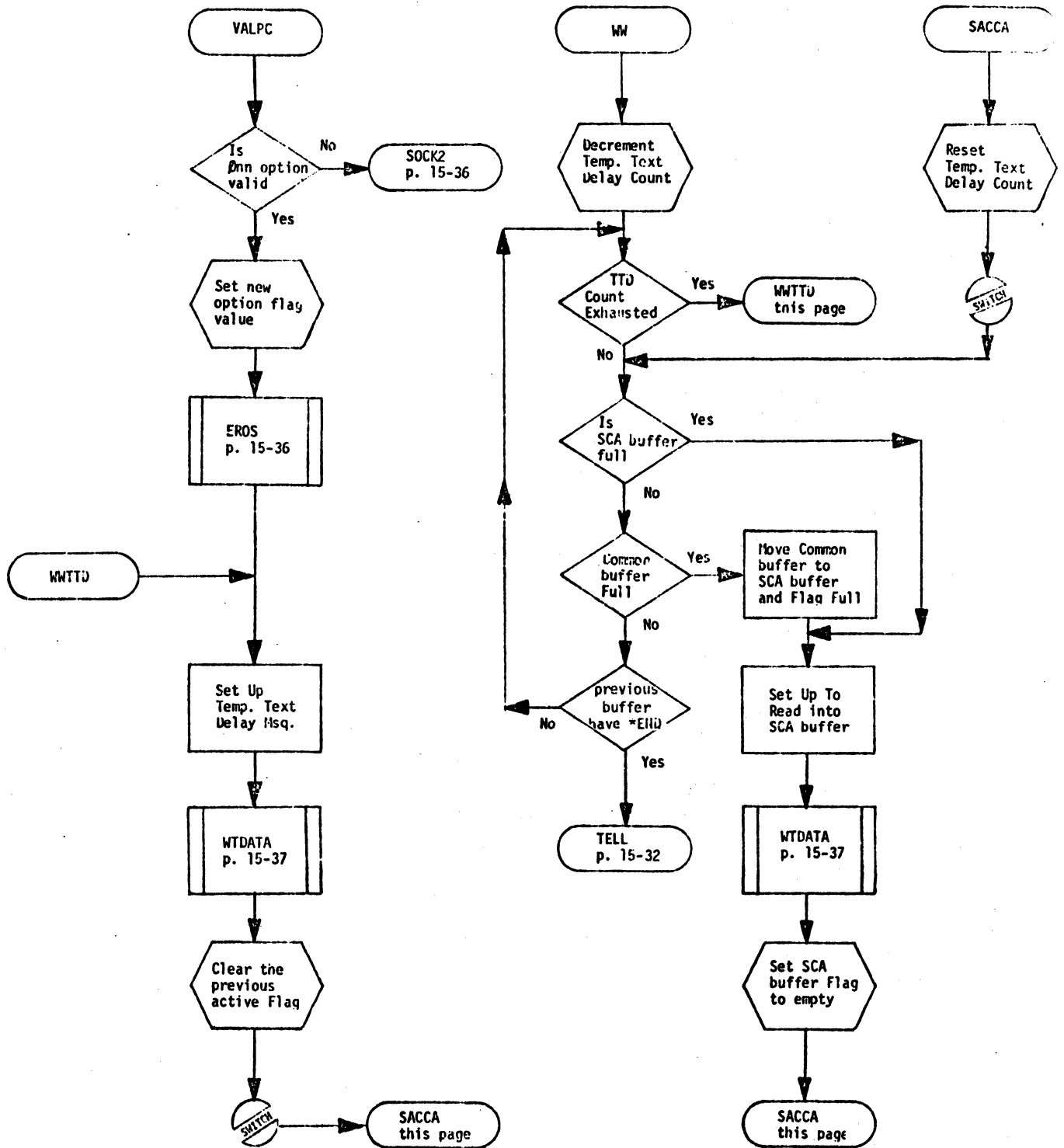
SCA Dial-in ID Exchange



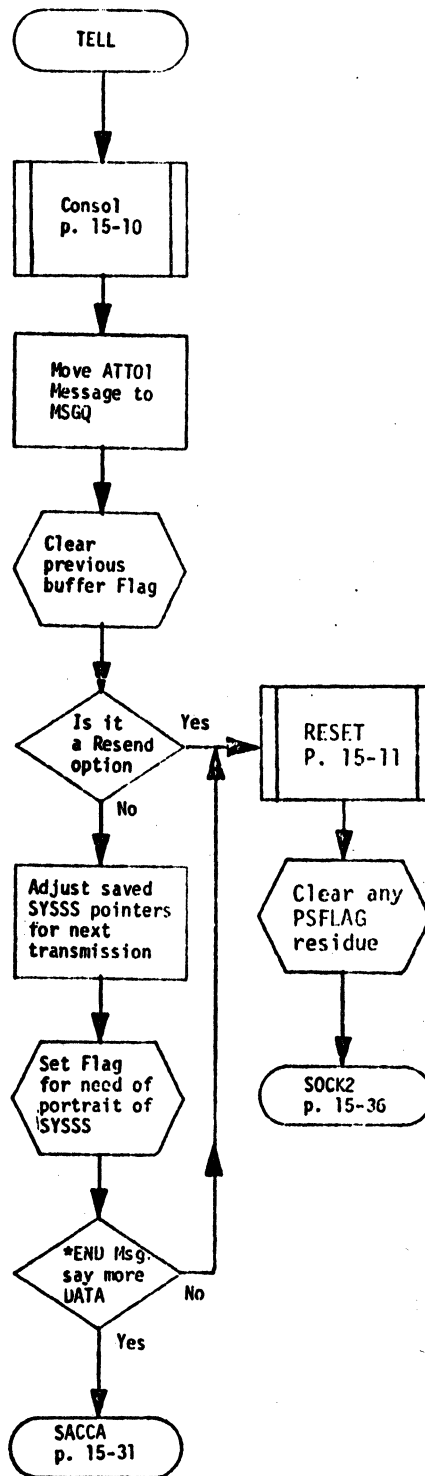
SCA Function Text Analysis



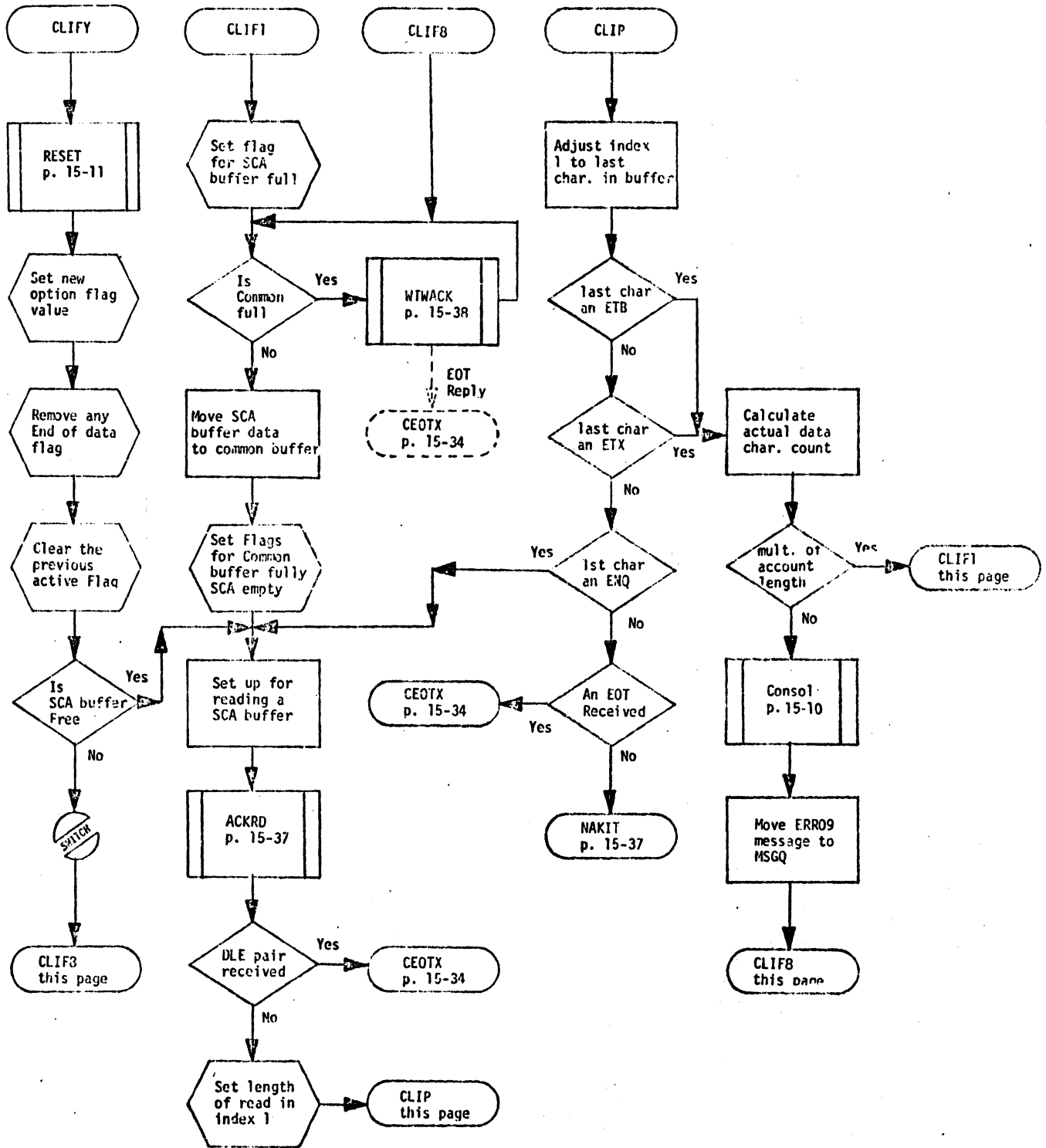
SCA Transaction Transmission



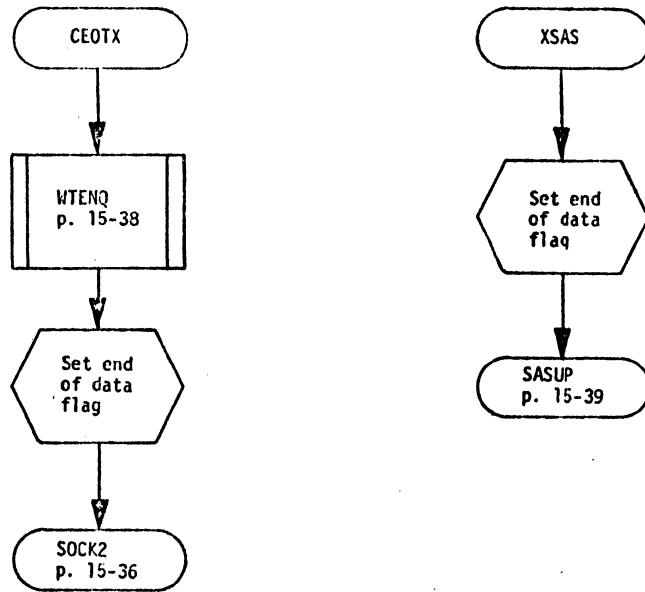
SCA Transaction Transmission (cont.)



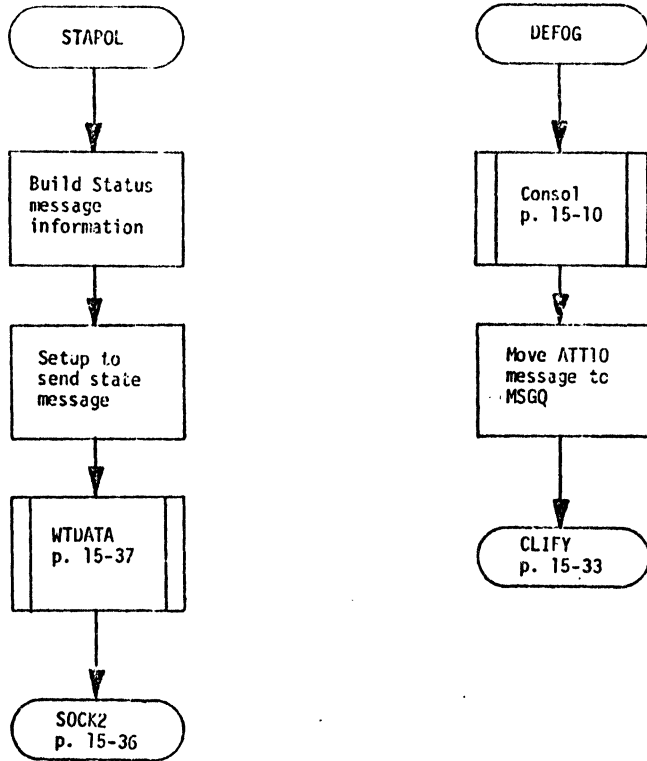
SCA Account Number Transmission



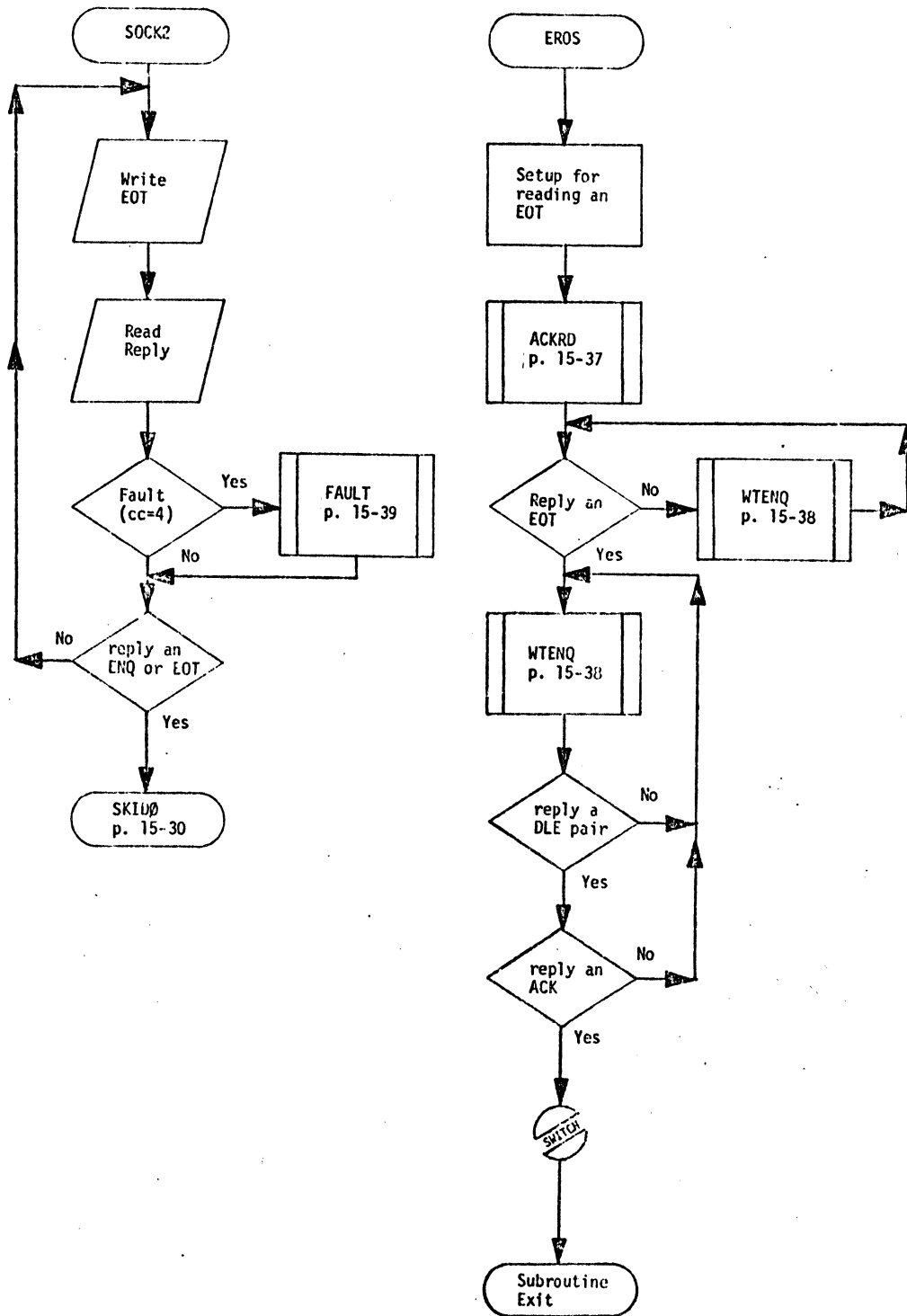
SCA Account Number Transmission (cont.)



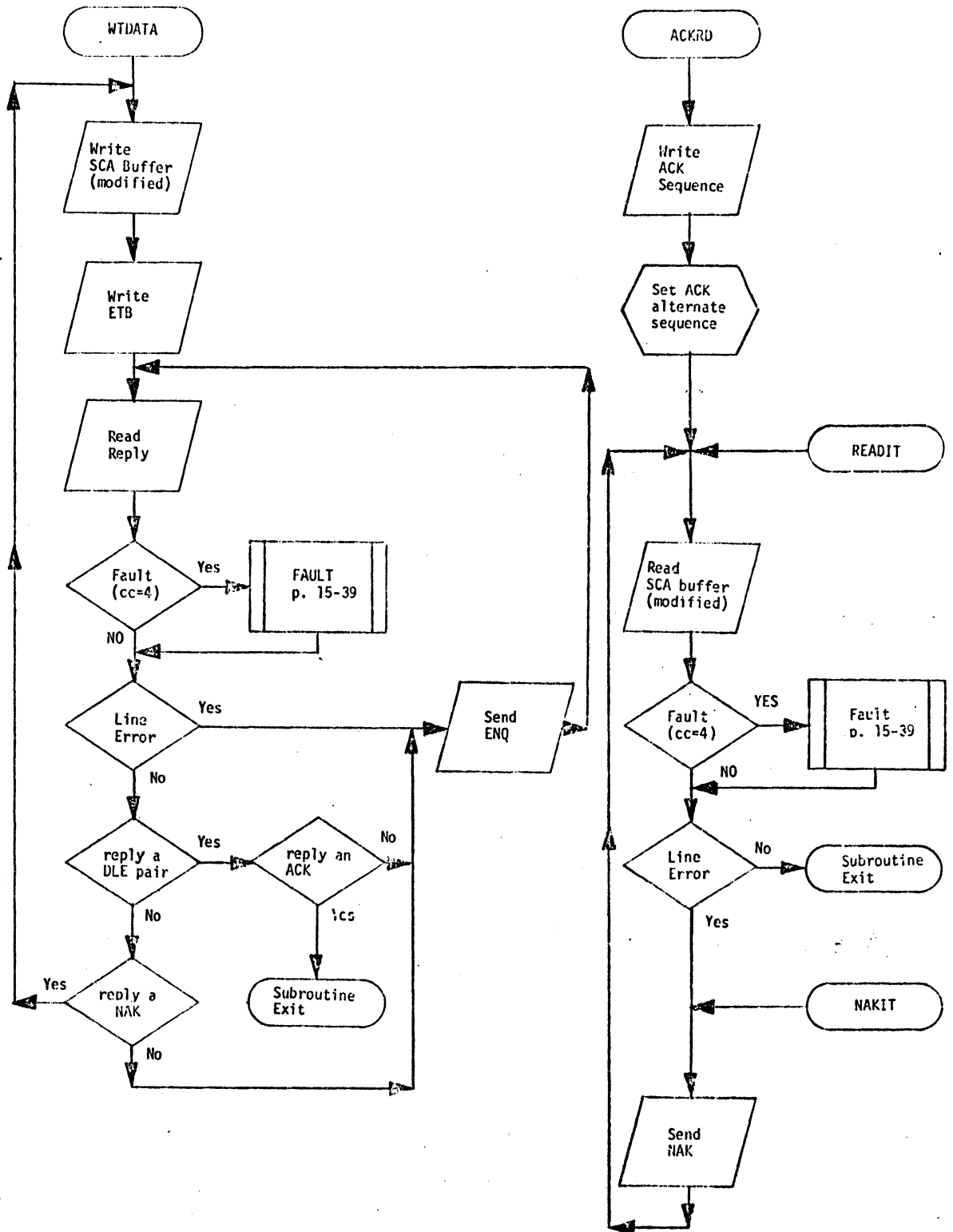
SCA Special Features



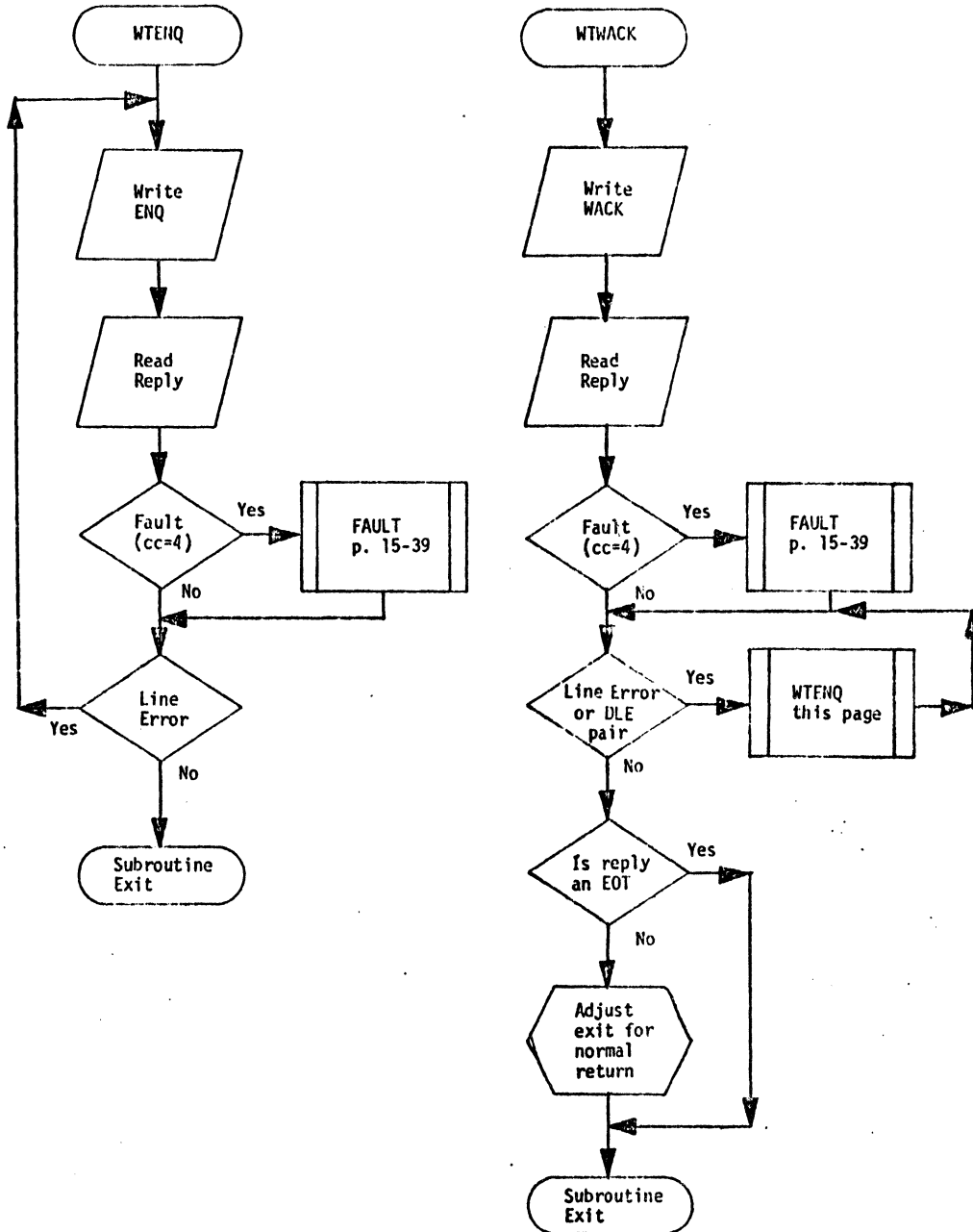
SCA Line Reversal



SCA Dial-in Communications



SCA Dial-in Communications (cont.)



WORKSTATION MESSAGES DURING COMMUNICATIONS

1. <u>ATT01</u>	FFFFF From Disc Address	TTTTT To Disc Address	DD Day Num	NNNNN Number Trans- actions sent
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Normal Poll end message

2. ATT02 Option 6 (clear credit file completed)
3. ATT03 Option 5 (update credit file completed)
4. ATT06 xxx temporary halt in transmission where xxx is the function that was being executed i.e. 000 Poll, 0xx resend, 1 system clear, 2 status message, 5 credit file update, 6 credit file clear; NOTE: if no value is printed with msg. a Dial-In call has occurred and timed out.
5. ATT10 Option 1 (system reset from a previous call has been completed)
6. WRN03 A Credit # to be deleted using option five was not found on the file.
7. WRN04 A Credit # to be changed using option five was not found on the credit file.
8. ERR02 Account number received from host computer is invalid i.e. contains alpha characters.
9. ERR07 The automatic resend option did not specify a valid picture number for a data resend.
10. ERR09 Incorrect block length of update function received by system ten i.e. block was not the proper size count must be 44 characters in length STX-3-14 char account numbers and ETE/ETX.
11. ERR19 Unauthorized host computer attempted to contact system 10.

ASSEMBLY LISTING

SECTION 20

MDTS COLLECTIVE STORE AND FORWARD
SYSTEM WITH CREDIT AUTHORIZATION
CR0602

MDTS COLLECTIVE STORE AND FORWARD
SYSTEM WITH CREDIT AUTHORIZATION
CR0602

MDTS COLLECTIVE STORE AND FORWARD
SYSTEM WITH CREDIT AUTHORIZATION
CR0602

SEQ. NO.	INSTR/DATA OP	A/R	M I	R/S	M I	LINE	IMAGE
0002						0002	*****
0004						0003	*
0006						0004	*
0008						0005	* MDTs COLLECTIVE STORE AND FORWARD
0010						0006	* SYSTEM WITH CREDIT AUTHORIZATION
0012						0007	*
0014						0008	* CR0602
0016						0009	*
						0010	* RELEASE DATE = 10/11/71 (RFL)
0020						0011	*
0022						0012	* THIS VERSION SUPERSEDES ALL PREVIOUS
0024						0013	* RELEASES OF THIS SYSTEM.....
0026						0014	*
0028						0015	*
0030						0016	*****
0032	0000C					0017	COMMON
0034						0018	*
0036						0019	* THE FOLLOWING CONSOLE MESSAGES ARE PRINTED AS COMMENTS
0038						0020	* TO FACILITATE REFERENCE. ACTUAL TAGS ARE DEFINED
0040						0021	* ELSEWHERE IN THE PROGRAM LISTING
0042						0022	*
0044						0023	*ATT01 DM C'ATT01' TRANSMISSION TO HOST COMPLETE
0046						0024	*ATT02 DM C'ATT02' OPTION 6 RECD AND COMPLETED
0048						0025	*ATT03 DM C'ATT03' OPTION 5 COMPLETED
0050						0026	*ATT04 DM C'ATT04' REQUEST ACTIVITY LABEL
0052						0027	*ATT05 DM C'ATT05' ENTER DISC. INITIALIZATION PARA
0054						0028	*ATT06 DM C'ATT06' TEMP HALT IN XMSSN
0056						0029	*ATT07 DM C'ATT07' DAY HAS ENDED
0058						0030	*ATT08 DM C'ATT08' SYSTEM CLOSED PROPERLY
0060						0031	*ATT09 DM C'ATT09' PASS THRU POS 0000 IN PTN
0062						0032	*ATT10 DM C'ATT10' RESET RECEIVED FROM HOST
0064						0033	*ATT11 DM C'ATT11' CREDIT FILE BEING CLEARED
0066						0034	*ATT12 DM C'ATT12' TERMINALS NOT CLOSED
0068						0035	*WRN01 DM C'WRN01' TRANSACTION FILE NEARING FULL
0070						0036	*WRN02 DM C'WRN02' TRANSACTION FILE FILLED
0072						0037	*WRN03 DM C'WRN03' DELETE NOT ON FILE
						0038	*WRN04 DM C'WRN04' RESERVED FOR FUTURE USE
0076						0039	*WRN05 DM C'WRN05' C/I OVERFLOW FILLED
0078						0040	*WRN99 DM C'WRN99' TRACK CHECK ON DISC SECTOR
0080						0041	*ERR01 DM C'ERR01' DISC PARITY ERROR
0082						0042	*ERR02 DM C'ERR02' BAD TRANSMISSION FROM HOST
0084						0043	*ERR03 DM C'ERR03' DISC BAD SECTOR (CC = 3)
0086						0044	*ERR04 DM C'ERR04' DISC FAULT CONDITION
0088						0045	*ERR05 DM C'ERR05' BAD DISC DATA MESSAGE
0090						0046	*ERR06 DM C'ERR06' BAD DATA IN QUEUE
0092						0047	*ERR07 DM C'ERR07' RESEND DATA INCORRECT
0094						0048	*ERR08 DM C'ERR08' INCORRECT LABEL ENTRY ON S/R
0096						0049	*ERR09 DM C'ERR09' INCORRECT LENGTH ACCT NRS RECD
0098						0050	*ERR19 DM C'ERR19' INVALID HOST ID TRANSMITTED
0100						0051	*
0102	0000C					0052	ORG 0000
0104	0000C	0000C			0001	0053	BAZ DM C1 BASE ADDRESS ZERO
0106	0001C	0001C				0054	ORG 0001
0108	0001C	0001	0001			0055	BAS1 DM C1 BASE ADDRESS ONE
0110	0002C	0002C				0056	ORG 0003
0112	0003C	0001	0001			0057	BAS3 DM C1 BASE ADDRESS THREE

SEQ.	LOCN	INSTR/DATA	OP	A/R	M/I	R/S	M/I	LINE	IMAGE
0114	0004C							0058	ORG C300
0116	0300C							0059	QLIM DM C2
0118	0302C							0060	INPXA DM C4
0120	0306C							0061	WORKA DM C4
0122	0310C							0062	ADDR DM C6
0124	0316C							0063	NXSND1 DM C6
0126	0322C	R79Y						0064	INPPAS DM A'QBEGIN'
0128	0326C							0065	FREE DM C1'
0130	0327C							0066	MSGQ DM C27'
0132								0067	*
0134								0068	*
0136								0069	*
0138								0070	*
0140								0071	*
0142								0072	*
0144								0073	*
0146								0074	*
0148								0075	*
0150								0076	*
0152	0354C	000100						0077	HOMAD DM C6'000100'
0154	0360C							0078	SYSSS DM 0C100
0156	0360C	000000						0079	CURPIC DM C6'000000'
0158	0366C	000000						0080	NXPIC DM C6'000000'
0160	0372C	1						0081	QRLOCK DM C1'1'
0162	0373C	000000						0082	NXSND DM C6'000000'
0164	0379C							0083	FILCON DM 0C61
0166	0379C	000000						0084	FIRAD DM C6'000000'
0168	0385C	000000						0085	FIZLIM DM C6'000000'
0170	0391C	00						0086	DL1 DM C2'00'
0172	0393C	00						0087	DL2 DM C2'00'
0174	0395C	00						0088	TTDRST DM C2'00'
0176	0397C	000000						0089	PRIME DM C6'000000'
0178	0403C	000000						0090	STADR DM C6'000000'
0180	0409C	000000						0091	LOVFL DM C6'000000'
0182	0415C	000000						0092	NXLNK DM C6'000000'
0184	0421C	000000						0093	BOLNK DM C6'000000'
0186	0427C	000000						0094	NXTSD DM C6'000000'
0188	0433C	000						0095	LDATA DM C3'000'
0190	0436C	0000						0096	ACLNT DM C4'0000'
0192	0440C	000000						0097	DYNLM1 DM C6'000000'
0194	0446C	000000						0098	DYNLM2 DM C6'000000'
0196	0452C	000000						0099	CICNT DM C6'000000'
0198	0458C	00						0100	DAYNRS DM C2'00'
0200								0101	*
0202								0102	*
0204								0103	*
0206								0104	*
0208								0105	*
0210								0106	*
0212	0460C							0107	ACNML DM C4
0214	0464C							0108	ACNSL DM C4
0216	0468C							0109	ORG *-8
0218	0460C	0000000000						0110	TRMZA DM C10'0000000000'
0220	0470C	0						0111	TRMZAD DM 100C1'0'
0222	0570C	0						0112	TRMZBD DM 80C1'0'
0224	0650C	000000						0113	FIRSTD DM C6'000000'

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	R/S	M I	LINE	IMAGE
0224	0656C	000000			0001	0006		0114	NXTAD DM C6'000000'
0228	0662C	000000			0001	0006		0115	TRCNT DM C6'000000'
0230	0668C	00			0001	0002		0116	DAYNRD DM C2'00'
0232	0670C				0001	0006		0117	MXSEC DM C6
0234	0676C				0001	0002		0118	TNL DM C2
0236	0678C			0670C				0119	ORG *-8
0238								0120	*
0240								0121	*
0242								0122	*
0244								0123	*
0246								0124	*
0248								0125	*
0250								0126	*
0252								0127	*
0254	0670C	0000000000			0001	0010		0128	TRMZB DM C10'0000000000'
0256	0680C	0			0100	0001		0129	TRMZAT DM 100C1'0'
0258	0780C	0			0080	0001		0130	TRMZBT DM 80C1'0'
0260	0860C	000000			0001	0006		0131	TRSTT DM C6'000000'
0262	0866C	000000			0001	0006		0132	TRLIM DM C6'000000'
0264	0872C	000000			0001	0006		0133	TRCTR DM C6'000000'
0266	0878C	00			0001	0002		0134	DAYNRT DM C2'00'
0268								0135	*
0270								0136	*
0272								0137	*
0274								0138	*
0276								0139	*
0278	0880C			0300		0001		0140	MBUFF DM 300C1' '
0280	1180C			1179C				0141	ORG *-1
0282	1179C	0		0001		0001		0142	DM C10'
0284								0143	*
0286								0144	*
0288								0145	*
0290								0146	*
0292								0147	*
0294								0148	*
0296								0149	*
0298								0150	*
0300								0151	*
0302								0152	*
0304								0153	*
0306								0154	*
0308								0155	*
0310	1180C	0000			0001	0004		0156	COMFLG DM C4'0000'
0312	1184C	0000			0001	0004		0157	SCAFLG DM C4'0000'
0314	1188C			0250		0001		0158	COMBUF DM 250C1
0316	1438C			0001		0001		0159	ENDCOM DM C
0318								0160	*
0320								0161	* CREDIT TABLE
0322	1439C			0001		0020		0162	CREDIT DM C20'
0324	1459C			0001		0020		0163	DM C20'
0326	1479C			0001		0020		0164	DM C20'
0328	1499C	00000		0001		0005		0165	ZEROS DM C5'00000'
0330	1504C	0000000000		0020		0010		0166	TERMX DM 20C10'0000000000'
0332	1704C	0		0001		0001		0167	TABR DM C1'0'
0334	1705C	0000000000		0001		0020		0168	TABR DM C20'00000000000000000000'
0336								0169	*

NEXT SECTOR TO WRITE
 TRANSACTION COUNT
 THIS NUMBER LENGTH
 TRMZB IS THE TWO SECTORS OF DATA USED DURING A SEND TO THE HOST. IT IS FILLED WITH THE TWO SECTORS OF DATA PREVIOUSLY LOGGED AT THE NXPIC ADDRESS FOR A NORMAL SEND OR AT THE PARAMETER ADDRESS ENTERED DURING A RESEND TRANSMISSION IS FROM TRSTT TO TRLIM. THE NUMBER OF TRANSACTIONS SENT IS COUNTED AT TRCTR.
 TRANSMIT PICTURE DATA
 FIRST 180 CHARS TERMINAL FLAGS
 TRANSMISSION START ADDRESS
 TRANSMISSION STOP ADDRESS
 TRANSACTION COUNTER
 MBUFF BUFFERS DATA BETWEEN THE DISC AND THE TRANSMISSION BUFFERS. IT CONTAINS ONE FULL TRANSACTION WITH CORRECT LENGTH PARAMETERS WHEN SENDING THE TRFILE.
 BUFFER FOR TRFILE TO TRUFF'S
 BEGIN MBUFF FLAG EMPTY
 THE COMMON BUFFER AREA 'COMBUF' IS USED TO RECIEVE FROM AND SEND TO THE SCA PARTITION THE DATA RELATIVE TO THE ACTIVE FUNCTION TEXT. EACH TERMINAL PARTITION HAS ACCESS TO THIS AREA TO FILL ITS OPERATIONAL FUNCUIONS. THE FLAGS 'COMFLG' AND 'SCAFLG' ARE USED TO REFLECT THE STATUS OF THE COMMON BUFFER AND ITS COUNTERPART IN THE SCA PARTITION 'SCABUF'. THE STATUSES ARE:
 0 = EMPTY (NO DATA IN THE BUFFER).
 1 = FULL (DATA IN THE BUFFER)
 ADDITIONALLY, EACH FLAG WILL CONTAIN A THREE DIGIT COUNT OF THE NUMBER OF DATA CHARACTERS IN EACH RESPECTIVE BUFFER.
 COMMON BUFFER FLAG AND CHAR COUNT
 SCA BUFFER FLAG AND CHAR COUNT
 COMMON DATA BUFFER FOR SCA XMSN
 END OF COMMON BUFFER AND SPILL POS
 ZEROS CONTINUE IN TERMX
 TERMINAL TABLES FOR 20 PARTITIONS
 ACTIVE PARTITION TABLE

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE
0338										0170	* AN END MESSAGE IS SENT WITH THE LAST OF THE DATA
0340										0171	*
0342	1725C			0000			0035			0172	MSGND DM 0C35 *END MESSAGE BUFFER AREA
0344	1725C	189102R		0001			0007			0173	DM C7'1891028' *END LENGTH & I.D. CONSTANT
0346	1732C	*END		0001			0004			0174	DM C4'*END'
0348	1736C	00		0001			0002			0175	HOLPIC D' C2'00'
0350	1738C	000000		0001			0006			0176	TRANCT DM C6'000000'
0352	1744C	000		0001			0003			0177	FLAG1 DM C3'000'
0354	1747C	1		0001			0001			0178	END DM C'1'
0356	1748C	0000000000		0001			0012			0179	TRANAD DM C12'000000000000'
0358										0180	* HOLD THE PICTURES DATA ADDRESSFS
0360	1760C	0		0001			0001			0181	CLOFLG DM C'0' MUST PRECEDE CLOSED TABLE
0362	1761C	1		0020			0001			0182	CLOSED DM 20C'1' SHARED ROUTINE PROTECT TABLE
0364										0183	*
0366										0184	* COUNTERS
0368										0185	*
0370	1781C	*NUQ		0001			0004			0186	EDIT2 DM C4'*NUQ'
0372	1785C	00		0001			0002			0187	NUMBQ DM C2'00' NUMBER OF ITEMS IN QUEUE
0374	1787C	*INP		0001			0004			0188	DM C4'*INP'
0376	1791C	879Y		0001			0004			0189	INPPA DM A4'QBEGIN' INPUT POINTER
0378	1795C	*OPT		0001			0004			0190	DM C4'*OPT'
0380	1799C	879Y		0001			0004			0191	OTPPT DM A4'QBEGIN' OUTPUT POINTER
0382										0192	*
0384										0193	* THE SEND1 ENTRY POINT IS THE MASTER CONTROL OF THE SYSTEM.
0386										0194	* ENTRY IS MADE HERE FROM EACH MOTS PARTITION THAT DOES NOT
0388										0195	* HAVE A TERMINAL SERVICE REQUEST. LINE CONCENTRATOR
0390										0196	* FUNCTIONS ARE THEN SELECTED ON A PRIORITY BASIS GIVING
0392										0197	* QUEUE TO DISC FIRST PRIORITY, THEN, IN ORDER
0394										0198	* ON-LINE CREDIT FILE CHANGES, TRANSACTION FILE
0396										0199	* TRANSMISSION, AND REBUILDING THE CREDIT FILE. IF NO
0398										0200	* FUNCTION IS PENDING, THE SYSTEM RETURNS TO A CHECK OF A
0400										0201	* SERVICE REQUEST AND SWITCHES PARTITIONS.
0402										0202	*
0404	1810C	PQVRU2149Y	14	1785C	0	0	1499C	2	0	0203	SEND1 C NUMBQ,ZEROS DATA IN QUEUE?
0406	1820C	S1YVPP00000	11	1960C	3	0	0000	0	0	0204	BC SENDG(3) LOG IT ON DISC
0408	1830C	PTVAY1450H	14	4669C	0	0	4505C	1	0	0205	C SENTCK,ONE DID PREV SCA *FUN 0 COMPLETE OK ?
0410	1840C	P4TRFD00000	11	4410C	2	0	0000	0	0	0206	BC SENTOK(2) IF IT DID DO UPDOWN AND PORTRT NOW
0412	1850C	PTG7W1450Y	14	4377C	0	0	4509C	1	0	0207	C PSFLAG,FIVE CHECK FOR UPDATE
0414	1860C	R6RUP000000	11	6250C	2	0	0000	0	0	0208	BC OLUP(2) BRANCH TO UPDATE IF YES
0416	1870C	PTG7W1149Y	14	4377C	0	0	1499C	1	0	0209	C PSFLAG,ZEROS SEND TRANSACTIONS?
0418	1880C	R2RSP000000	11	2230C	2	0	0000	0	0	0210	BC SENDCK(2) YES, GO TO SENDCK
0420	1890C	PTS7W1463Y	14	4377C	0	0	4639C	1	0	0211	C PSFLAG,SIX CHECK FOR BUILD
0422	1900C	R7RUP000000	11	7050C	2	0	0000	0	0	0212	BC FLBLDA(2) BRANCH TO BUILD IF YES
0424	1910C	P437V3+374	08	4376C	0	0	4377C	3	0	0213	DITY MC SPACE(3),PSFLAG RESET IN CASE INVALID
0426	1920C	P001A4193V	08	0016	0	0	1936C	4	0	0214	QPD SK MC CHEAT,CHACHA+6 ADJUST TO PARTITION FOR FLAG
0428	1930C	P149Y1176Q	08	1499C	0	0	1761C	1	0	0215	CHACHA MC ZEROS(1),CLOSED RELEASE SHARFD ROUTINES
0430	1940C	P000A4195V	08	0006	0	0	1956C	4	0	0216	RETRY MC 06P(4),RESUME+6 PLACE CORRECT RETURN ADDRESS
0432	1950C	P0PPP50R20	11	0000C	0	0	0R20	5	0	0217	RESUME BC 0(0),REX(5) GO BACK WHERE YOU CAME FROM
0434										0218	*
0436										0219	* THE SENDQ ENTRY POINT WRITES DATA IN BLOCKS OF ONE,
0438										0220	* TWO OR THREE TO THE DISC. ILLEGAL DATA IS IGNORED AND
0440										0221	* A MESSAGE PASSED TO THE WORKSTATION. QUEUE POINTERS ARE
0442										0222	* UPDATED AND RESET TO THE BEGINNING IF THE QUEUE IS EMPTY.
0444										0223	*
0446	1960C	P179Y40011	08	1799C	0	0	0011	4	0	0224	SENDQ MC OTPPT,REG1 OUTPUT POINTER IN INDEX REGISTER
0448	1970C	P149Y1395X	08	1499C	0	0	3958C	1	0	0225	MC ZEROS(1),CT1 CLEAR DISC READ COUNTER

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	B/S	M I	LINE	IMAGE	
0450	1980C	PPR0S1T50H	14	0003C	0 1	4505C	1 0	0226	C BAS3(1,1),ONE	CHECK NUMBER OF BLOCKS IN QUEUE
0452	1990C	R20PR2206P	11	2100C	2 0	2060C	3 0	0227	BC HWDY1(2),HWDY3(3)	ONE HOWDY IF ONE BLOCK
0454	2000C	1T0P12178H	07	4505C	1 0	1785C	2 0	0228	QDERR S ONE,NUMBQ	IGNORE THIS BLOCK
0456	2010C	1T50H2179Y	04	4505C	1 0	1799C	2 0	0229	A ONE,OTPPT(2)	INCREMENT OUTPUT POINTER
0458	2020C	V0P565595P	11	0036	6 0	5950C	5 0	0230	BC NFED+1(6),CONSOL(5)	GO TO TEST MSG AVAILABILITY
0460	2030C	P205H5032W	08	2055C	0 0	0327C	5 0	0231	MC ERR06,MSGQ	REPORT QUEUE DATA ERROR
0462	2040C	Q000P9P33S	08	0000C	1 1	0333C	9 0	0232	MC BAZ(19,1),MSGQ+6	REPORT DATA
0464	2050C	U20PR00000	11	2120C	5 0	0000	0 0	0233	BC CKOUT(5)	CHECK OUT OF ROUTINE
0466	2060C			2055C				0234	ORG *-5	
0468	2055C	ERR06		0001		0005		0235	ERR06 DM C'ERR06'	BAD DATA IN QUEUE
0470	2060C	PPR0S1T50H	14	0003C	0 1	4507C	1 0	0236	HWDY3 C BAS3(1,1),THREE	IS MESSAGE 3 BLOCKS?
0472	2070C	S20PR1209P	11	2000C	3 0	2090C	1 0	0237	BC QDERR(3),HWDY2(1)	ERROR IF OVER THREE
0474	2080C	V3XT05369P	11	3841C	6 0	3690C	5 0	0238	BC SOLONG+1(6),HOWDY(5)	WRITE 1 OF 3
0476	2090C	V3XT05369P	11	3841C	6 0	3690C	5 0	0239	HWDY2 BC SOLONG+1(6),HOWDY(5)	WRITE 2 OF 3 OR 1 OF 2
0478	2100C	V3XT05369P	11	3841C	6 0	3690C	5 0	0240	HWDY1 BC SOLONG+1(6),HOWDY(5)	WRITE 3 OF 3, 2 OF 2 OR 1 OF 1
0480	2110C	1T50H4066R	04	4505C	1 0	0662C	6 0	0241	A ONE,TRCNT	COUNT TRANSACTION LOGGED
0482	2120C	PQ49Y4030R	14	1799C	0 0	0302C	4 0	0242	CKOUT C OTPPT,INPX	CHECK OUTPUT POINTER FOR LIMIT
0484	2130C	Q20PR00000	11	2170C	1 0	0000	0 0	0243	BC CKNQ(1)	CHECK NUMBER IN QUEUE IF LFSS
0486	2140C	P032R4179Y	08	0322C	0 0	1799C	4 0	0244	MC INPPAS,OTPPT	RESET IF AT LIMIT
0488	2150C	PG48V1463V	14	1786C	0 0	4636C	1 0	0245	C NUMBQ+1(1),NINE	SEE IF NUMBQ IS NEGATIVE
0490	2160C	S20PR00000	11	2190C	3 0	0000	0 0	0246	BC CLRIT(3)	RESET NUMBQ AND POINTERS
0492	2170C	PQ49Y2149Y	14	1785C	0 0	1499C	2 0	0247	CKNQ C NUMBQ,ZEROS	IS ANYTHING IN QUEUE?
0494	2180C	S1YRP00000	11	1920C	3 0	0000	0 0	0248	BC OPDSK(3)	LEAVE IF THERE IS
0496	2190C	P149Y2178H	08	1499C	0 0	1785C	2 0	0249	CLRIT MC ZEROS(2),NUMBQ	CLEAR NUMBQ FOR SURE
0498	2200C	P032R4179Y	08	0322C	0 0	1791C	4 0	0250	MC INPPAS,INPPA	RESET INPUT POINTER
0500	2210C	P032R4179Y	08	0322C	0 0	1799C	4 0	0251	MC INPPAS,OTPPT	RESET OUTPUT POINTER
0502	2220C	U1YRP00000	11	1920C	5 0	0000	0 0	0252	BC OPDSK(5)	RELEASE SHARED ROUTINES
0504	2230C			2225C				0253	ORG *-5	
0506	2225C	0000		0001		0004		0254	WORKS DM C'0000'	MESSAGE LENGTH WORK AREA
0508	2229C	0		0001		0001		0255	YOUSE DM C'10'	POTENTIAL MBUFF FULL FLAG
0510								0256	*	
0512								0257	*	
0514								0258	*	THIS IS THE ENTRY POINT FOR SENDING DATA TO
0516								0259	*	THE HOST COMPUTER FROM THE TRFILE. IT IS USED FOR
0518								0260	*	NORMAL END OF DAY SENDS, RESENDS AND ON LINE
0520								0261	*	SENDS. THE DATA GOES TO MBUFF AS A SINGLE
0522								0262	*	TRANSACTION FOR PACKING BY THE STUFF
0524								0263	*	ROUTINE. PSFLAG IS RESET AT THE END OF A
0526								0264	*	TRANSMISSION, APPROPRIATE POINTERS UPDATED AND
0528								0265	*	A PORTRAIT OF THE NEW SYSSS IS TAKEN.
0530	2230C	PT02K1149Y	14	4027C	0 0	1499C	1 0	0266	SENDCK C LSTREC,ZEROS	TEST FOR PREV XMISSION COMPLTE
0532	2240C	R20PR5192P	11	2250C	2 0	1920C	5 0	0267	RC **10(2),OPDSK(5)	EXIT FROM PARTITION IF IT WAS NOT
0534	2250C	PS00H1149Y	14	3105C	0 0	1499C	1 0	0268	C MOR2CM,ZEROS	TEST FOR BEGINNING OF XMISSION
0536	2260C	R20PR00000	11	2290C	2 0	0000	0 0	0269	BC SENDTR(2)	BRANCH IF IT IS
0538	2270C	P149Y3437W	08	1499C	0 0	4377C	3 0	0270	MC ZEROS(3),PSFLAG	SET PSFLAG TO ALL ZEROS
0540	2280C	P463W1310H	08	4637C	0 0	3105C	1 0	0271	MC EIGHT(1),MOR2CM	INDICATES SUCCESSIVE PASS
0542	2290C	PQ07Y1450H	14	1179C	0 0	4505C	1 0	0272	SENDTR C MBUFF+299(1),ONE	MBUFF AVAILABLE
0544	2300C	R30VPC272P	11	3260C	2 0	2720C	0 0	0273	FSTONE BC STUFF(2),SECND(10)	STUFF TRUFF IF NOT
0546	2310C	P0T9Y2437X	14	1499C	0 0	4378C	2 0	0274	C ZEROS(2),PSFLAG+1	IS THIS A RESEND REQUEST
0548	2320C	U20XP2258P	11	2580C	1 0	2580C	3 0	0275	RC RSND1(1),RSND1(3)	SET UP FOR RESEND IF YES
0550	2330C	P787X1310V	08	7878C	0 0	3106C	1 0	0276	MC D,ISNINE	FLAG ISNINE DATA POLL
0552	2340C	PR06T2037P	14	0364C	0 0	0370C	2 0	0277	WHRTO C CURPIC+4(2),NXPIC+4	NEXT PICTURE MATCH THIS ONE
0554	2350C	Q21VP3246P	11	2460C	1 0	2460C	3 0	0278	BC NXGT(1),NXGT(3)	GET NEXT IF NOT
0556	2360C	PPV4RA149Y	14	0662C	0 0	1499C	6 0	0279	C TRCNT,ZEROS	ANY DATA IN THIS ONE
0558	2370C	S20PR00000	11	2450C	3 0	0000	0 0	0280	RC CLTHS(3)	CLOSE THIS IF NOT ZERO
0560	2380C	Q065PR086P	08	0650C	1 0	0860C	8 0	0281	MC FIRSTD(18),TRSTT	PREPARE NULL REPORT

SEQ.	LINE	INSTR/DATA	OP	A/R	M I	R/S	M I	LINE	IMAGE	
0562	2390C	P036T2173V	08	0364C	0 0	1736C	2 0	0282	MC CURPIC+4(2),HOLPIC	REPORT CURRENT PICTURE
0564	2400C	QT5PH3174T	13	4505C	1 0	1744C	3 0	0283	FN ONE(1),FLAG1(3)	SET FLAGS 1-2-3 TO 001
0566	2410C	P041V4444T	09	0456C	0 0	4434C	6 0	0284	MN NXTAD,HOLLIM	SAVE THE SENT DATA ADDRESS
0568	2420C	P036T2349X	08	0364C	0 0	3498C	2 0	0285	MC CURPIC+4(2),HOLDAY+2	SAVE NEXT PICTURE NO. IN HOLD AREA
0570	2430C	P045X2349V	08	0458C	0 0	3496C	2 0	0286	MC DAYNRS(2),HOLDAY	SAVE NEXT DAY NO. IN THE HOLD AREA
0572	2440C	U3R3P00000	11	3210C	5 0	0000	0 0	0287	RC BEE(5)	GO TO SET-UP *END MSG FOR STUFFING
0574	2450C			2444C				0288	ORG *-6	USE ANY UNUSED SPACE
0576	2444C	VVVVVVD		0001		0006		0289	EOTD DM C'VVVVVD'	EOT COMMUNICATIONS CONSTANT
0578	2450C			2449C				0290	ORG *-1	USE SAME CHARACTER
0580	2449C			0001		0001		0291	EOT DM C	EOT CHARACTER CONSTANT
0582	2450C	V4JVQ5444P	11	4761C	6 0	4640C	5 0	0292	CLTHS BC CLOSOT+1(6),CLOSIN(5)	CLOSE CURRENT PICTURE
0584	2460C	P035T4031P	08	0354C	0 0	0310C	6 0	0293	NXGT MC HOMAD,ADDR	SET UP DISC ADDRESS
0586	2470C	P037P2031T	08	0370C	0 0	0314C	2 0	0294	MC NXPIC+4(2),ADDR+4	SET THE NXPIC ADDRESS
0588	2480C	V5JVQ5544P	11	5561C	6 0	5440C	5 0	0295	BC CLAC+1(6),GETPIC(5)	GET PICTURE IN TRMZB
0590	2490C	P031T2173V	08	0314C	0 0	1736C	2 0	0296	MC ADDR+4(2),HOLPIC	SAVE PICTURE BEING ACCESSED
0592	2500C	1R0PP2173V	07	2500C	1 0	1736C	2 0	0297	S *(1),HOLPIC	ADJUST IT TO ACTUAL PICTURE NUMBER
0594	2510C	PPX7R6149Y	14	0872C	0 0	1499C	6 0	0298	C TRCTR,ZEROS	ANY DATA IN THIS PICTURE
0596	2520C	S2U0P00000	11	2550C	3 0	0000	0 0	0299	RC RSFST(3)	RESET FIRST TO UNCD BRCH
0598	2530C			2526C				0300	ORG *-4	USE ANY UNUSED SPACE
0600	2526C	Q47P		0001		0004		0301	ATAD DM A'TRMZAD'	ADDRESS OF TRMZAD
0602	2530C	1T50V2037P	04	4506C	1 0	0370C	2 0	0302	A TWO,NXPIC+4(2)	TRY NEXT PICTURE IF NO DATA HERE
0604	2540C	T20SP5234P	11	2530C	4 0	2340C	5 0	0303	RC *-10(4),WHRT0(5)	ALLOW WRAPAROUND ON OVERFLOW
0606	2550C	P45PY1230H	09	4509C	0 0	2305C	1 0	0304	RSFST M4 FIVE,FSTONE+5	FSTONE NOW SKIPS PRECEDING
0608	2560C	P149Y40R7R	08	1499C	0 0	0872C	6 0	0305	MC ZEROS(6),TRCTR	CLEAR TRANS COUNTER
0610	2570C	U2WSP00000	11	2730C	5 0	0000	0 0	0306	BC AYEI(5)	START LOADING BUFFER
0612	2580C			2575C				0307	ORG *-5	
0614	2575C	Q57P		0001		0004		0308	ATBD DM A'TRMZBD'	ADDRESS OF TRMZBD
0616	2580C	P437X2031T	08	4378C	0 0	0314C	2 0	0309	RSND1 MC PSFLAG+1(2),ADDR+4	SET PICTURE CODE
0618	2590C	P035T4031P	08	0354C	0 0	0310C	4 0	0310	MC HOMAD(4),ADDR	USE HOMAD FOR BASE
0620	2600C	V5JVQ5544P	11	5561C	6 0	5440C	5 0	0311	BC CLAC+1(6),GETPIC(5)	GET RESEND PICTURE
0622	2610C	P031T2173V	08	0314C	0 0	1736C	2 0	0312	MC ADDR+4(2),HOLPIC	SAVE PICTURE BEING ACCESSED
0624	2620C	1R0PP2173V	07	2620C	1 0	1736C	2 0	0313	S *(1),HOLPIC	ADJUST IT TO ACTUAL PICTURE NUMBER
0626	2630C	P737Y1310V	08	7379C	0 0	3106C	1 0	0314	MC R,ISNINE	FLAG ISNINE RESEND POLL
0628	2640C	P03V05510H	09	0861C	0 0	5105C	5 0	0315	M4 TRST+1(5),TESTIT	SET UP FOR TEST OF PICTURE FIELD
0630	2650C	PPX6Q5510H	14	0861C	0 0	5105C	5 0	0316	C TRST+1(5),TESTIT	TEST TRST FOR VALID NUMERICS
0632	2660C	R2VAP5269P	11	2670C	2 0	2690C	5 0	0317	RC *-10(2),RSGOOF(5)	ERROR IF NO MATCH
0634	2670C	PPX7R6149Y	14	0872C	0 0	1499C	6 0	0318	C TRCTR,ZEROS	ANY DATA IN THIS PICTURE
0636	2680C	S2U0P5269P	11	2650C	3 0	2690C	5 0	0319	BC RSFST(3),RSGOOF(5)	GO TO RSFST FOR DATA OR REPORT
0638	2690C	V0PSA5595P	11	0036	6 0	5950C	5 0	0320	RSGOOF RC NEED+1(6),CONSOL(5)	GO TO TEST MSGO AVAILABILITY
0640	2700C	P285U5032W	08	2855C	0 0	0327C	5 0	0321	MC FRR07,MSGO	MESSAGE TO OPERATOR
0642	2710C	P149Y40R7R	08	1499C	0 0	0872C	6 0	0322	MC ZEROS(6),TRCTR	CLEAR TRCTR FOR NULL REPORT
0644	2720C	U2X0P5275P	11	2810C	5 0	2750C	5 0	0323	SECND BC BEEN(5),FLMB(5)	TRANS LIMIT TO BEEN OR FILL MBUF
0646	2730C	P036P4067P	08	0860C	0 0	0670C	6 0	0324	AYEI MC TRST,NXSEC	RESET NXSEC
0648	2740C	P14YY1272P	09	1499C	0 0	2720C	1 0	0325	M4 ZEROS(1),SECND	NO-OP FIRST HALF OF BRANCH
0650	2750C	V4TPQ5403P	11	4401C	6 0	4300C	5 0	0326	FLMB RC DQLY+1(6),HELLO(5)	FILL MBUFF IF THERE IS
0652	2760C	1TVSX30RRT	07	4638C	1 0	0884C	3 0	0327	S SEVEN,MBUFF+4(3)	SET LENGTH TO DESIRED CHARS
0654	2770C	P007Y1450H	14	1179C	0 0	4505C	1 0	0328	C MBUFF+299(1),ONE	IS MBUFF REALLY FULL
0656	2780C	R2XYP5192P	11	2790C	2 0	1920C	5 0	0329	BC CNTIT(2),OPDSK(5)	RELEASE PARTITION IF NOT
0658	2790C	1T50H40R7R	04	4505C	1 0	0872C	6 0	0330	CNTIT A ONE,TRCTR	COUNT THIS TRANSACTION
0660	2800C	U3RVPC0000	11	3260C	5 0	0000	0 0	0331	RC STUFF(5)	GO TO PUT TRANS IN THE BUFFER
0662	2810C			2805C				0332	ORG *-5	
0664	2805C	ATTQ2		0001		0005		0333	ATTQ2 DM C'ATTQ2'	OPTION 6 RECVD AND COMPLETFD
0666	2810C	P149Y3174T	08	1499C	0 0	1744C	3 0	0334	BEEN MC ZEROS(3),FLAG1	CLEAR FLAGS 1-2-3
0668	2820C	PPX7X2045X	14	0878C	0 0	0458C	2 0	0335	C DAYNRT,DAYNRS	IS DAYNRT SAME AS CURRENT
0670	2830C	R2XTP5284P	11	2840C	2 0	2860C	5 0	0336	BC *-10(2),REFN1(5)	YES, TO NEXT. NO, TO BEEN1
0672	2840C	P450H1174V	08	4505C	0 0	1746C	1 0	0337	MC ONE,FLAG1+2	FLAG AS THE CURRENT DAY

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	B/S	M I	LINE	IMAGE
0674	2850C	U2YRPO0000	11	2920C	5 0	0000	0 0	0338	BC MORDTA(5)
0676	2860C			2855C				0339	ORG +=5
0678	2855C	FRPO7		0001		0005		0340	ERRO7 DM C'ERRO7'
0680	2860C	P087Y2310W	08	0878C	0 0	3107C	2 0	0341	BEEN1 MC DAYNRT,WORKX
0682	2870C	1T50U2310W	04	4505C	1 0	3107C	2 0	0342	A ONE,WORKX
0684	2880C	T2XAP00000	11	2870C	4 0	0000	0 0	0343	BC +=10(4)
0686	2890C	PS00W2045X	14	3107C	0 0	0458C	2 0	0344	C WORKX,DAYNRS
0688	2900C	R2YQPS292P	11	2910C	2 0	2920C	5 0	0345	BC +=10(2),MORDTA(5)
0690	2910C	P450U1174U	08	4505C	0 0	1745C	1 0	0346	MC ONE,FLAG1+1
0692	2920C	P173V2031T	08	1736C	0 0	0314C	2 0	0347	MORDTA MC HOLPIC,ADDR+4
0694	2930C	P035T4031P	08	0354C	0 0	0310C	4 0	0348	MC HOMAD(4),ADDR
0696	2940C	1T50V2031T	04	4506C	1 0	0314C	2 0	0349	RETRYA A TWO,ADDR+4(2)
0698	2950C	T2YTP00000	11	2940C	4 0	0000	0 0	0350	BC +=10(4)
0700	2960C	PS00V1787Y	14	3106C	0 0	7879C	1 0	0351	BC ISNINE,R
0702	2970C	R2YTP00000	11	2960C	2 0	0000	0 0	0352	BC +=20(2)
0704	2980C	P031T2349Y	08	0314C	0 0	3498C	2 0	0353	MC ADDR+4(2),HOLDAY+2
0706	2990C	PPSAP4031P	14	0360C	0 0	0310C	6 0	0354	C CURPIC,ADDR
0708	3000C	R3VSP00000	11	3630C	2 0	0000	0 0	0355	BC RELESE(2)
0710	3010C	1T50U2031T	04	4505C	4 0	0314C	2 0	0356	A ONE,ADDR+4(2)
0712	3020C	P149Y1395X	08	1499C	0 0	3958C	1 0	0357	MC ZEROS(1),CT1
0714	3030C	0068P0031P	00	0680C	0 0	0310C	0 0	0358	RETRYB R TRMZAT(0),ADDR(0)
0716	3040C	R30SP3308P	11	3110C	2 0	3080C	3 0	0359	BC GUUDUN(2),ARE(3)
0718	3050C	V5WTD1543P	11	5741C	6 0	5630C	1 0	0360	BC DSOF+1(6),DSOF(1)
0720	3060C	PSY5X1149Y	14	3958C	0 0	1499C	1 0	0361	C CT1,ZEROS
0722	3070C	S3RSP00000	11	3030C	3 0	0000	0 0	0362	BC RETRYB(3)
0724	3080C	V5WWD0557P	11	5771C	6 0	5750C	5 0	0363	ABE BC DSBAD+1(6),DSBAD(5)
0726	3090C	1T0PH2031T	07	4505C	1 0	0314C	2 0	0364	ARIE S ONE,ADDR+4(2)
0728	3100C	X2YTP00000	11	2940C	8 0	0000	0 0	0365	BC RETRYA(8)
0730	3110C			3105C				0366	ORG +=5
0732	3105C	0		0001		0001		0367	MOR2CM DM C'0'
0734	3106C	0		0001		0001		0368	ISNINE DM C'0'
0736	3107C	0		0001		0002		0369	WORKX DM C'00'
0738	3110C	PPY7X2077X	14	0878C	0 0	0778C	2 0	0370	GUUDUN C DAYNRT(2),DAYNRT=100
0740	3120C	R30SP5317P	11	3130C	2 0	3170C	5 0	0371	BC +=10(2),MORE2(5)
0742	3130C	PPX7RA149Y	14	0772C	0 0	1499C	6 0	0372	C TRCTR=100(6),ZEROS
0744	3140C	R3PYP00000	11	3090C	2 0	0000	0 0	0373	BC ARIE(2)
0746	3150C	P450U1310U	08	4505C	0 0	3105C	1 0	0374	MC ONE,MOR2CM
0748	3160C	P450U1174T	08	4505C	0 0	1744C	1 0	0375	MC ONE,FLAG1
0750	3170C	PS00V1787Y	14	3106C	0 0	7879C	1 0	0376	MORE2 C ISNINF,R
0752	3180C	R3RSP00000	11	3210C	2 0	0000	0 0	0377	BC 8FE(2)
0754	3190C			3186C				0378	ORG +=4
0756	3186C	068P		0001		0004		0379	ATAT DM A'TRMZAT'
0758	3190C	P077X2349V	08	0778C	0 0	3496C	2 0	0380	MC DAYNRT=100(2),HOLDAY
0760	3200C	P08VV4443T	09	0866C	0 0	4434C	6 0	0381	NOMAS MV TRLIM,HOLLIM
0762	3210C	P087RA173X	08	0872C	0 0	1738C	6 0	0382	BEE MC TRCTR,TRANCT
0764	3220C	Q086P2174X	08	0860C	1 0	1748C	2 0	0383	MC TRST(12),TRANAD
0766	3230C	S172U5088P	08	1725C	3 0	0880C	5 0	0384	MC MSGND,MBUFF
0768	3240C	P450U1117Y	08	4505C	0 0	1179C	1 0	0385	MC ONE,MBUFF+299
0770	3250C	P14YY1230U	09	1499C	0 0	2305C	1 0	0386	MN ZEROS(1),FSTONE+5
0772								0387	*
0774								0388	*
0776								0389	*
0778								0390	*
0780								0391	*
0782								0392	*
0784								0393	*

SEE IF THERE IS MORE DATA

RESEND DATA INCORRECT

SHIFT TRANSMIT DAY NR TO WORKX

ADD ONE TO TRANSMIT DAY NR

GO BACK IF IS 00

IS THIS NOW THE CURRENT NR

IF YES, GO TO NEXT

SET FLAG AS NEXT IS CURRENT DAY

MOVE PICTURE ADDR

SET UP FIRST PART OF DISC ADDR

INCREMENT TO NEXT PICTURE

GO BACK IF WRAPAROUND

TEST IF THIS IS A RESEND FUNCTION

SKIP SETTING NXPIC IF IT IS

SAVE NEXT PICTURE NO. IN HOLD AREA

IS THIS THE CURRENT PICTURE

GO TO RELESE IF SO

INCREMENT TO LAST HALF OF PICTURE

ZERO OUT THE ERROR COUNTER

READ DISC INTO TRMZAT

GO TO GUUDUN IF GOOD READ

LINK TO DSOF FOR SOFT CHECK

TEN TRIES YET

NO, TRY READING AGAIN

LINK TO BAD SECTOR REPORTING

DECREMENT THE ADDRESS

LOOP BACK TO TRY NEXT PICTURE

1 OF 2. MORE TO COME THIS XMSN

2 OF 2. USED TO STORE POLL TYPE

IS THIS THE SAME DAY AS WE HAD

SAME DAY TO NEXT

IS THERE DATA IN THIS PIC

NO DATA, LOOK AT NEXT

SET MORE TO COME FLAG

SET FLAG TO SHOW MORE DATA

TEST IF THIS IS A RESEND FUNCTION

SKIP UP TO BEE ROUTINE IF IT IS

ADDRESS OF TRMZAT BUFFER

SAVE NEXT DAY NO. IN THE HOLD AREA

SAVE THE SENT DATA ADDRESS

MOVE COUNT INTO MSGND

SET PICTURE'S DATA ADDR IN *FND

PUT LAST MESSAGE IN BUFFER

FLAG BUFFER FULL

RESET FIRST INSTRUCTION

THE STUFF ENTRY POINT IS USED WHEN MBUFF IS FILLED

TO FORMAT TRANSACTION FILE DATA IN THE COMMON

BUFFER FOR TRANSMISSION.

MBUFF FORMAT CCDB123P--TEXT MBUFF+299 = FULL FLAG

THE SCA BUFFER SIZE IS 250 CHARACTERS.

SEQ	LOC	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE	
078A	3260C	P3YRPO0000	11	3290C	0	0	0000	0	0	0394	STUFF BC SKIP(0)	FALL THROUGH FIRST TIME
078R	3270C	P33V4341V	08	3306C	0	0	3416C	4	0	0395	MC PTRTHR,STUFFA	INITIALIZE RESULTANT ADDRESS
079D	3280C	P45PY132AP	09	4509C	0	0	3260C	1	0	0396	MN FIVE,STUFF	SET SWITCH FOR ADDIT TRANS
079P	3290C	P0RRP1450U	14	1180C	0	0	4505C	1	0	0397	SKIP C COMFLG(1),ONE	TEST FOR EMPTY COMMON BUFFFR
079A	3300C	R1YRPO0000	11	1920C	2	0	0000	0	0	0398	BC OPDSK(2)	IF IT IS EMPTY EXIT FROM ROUTINE
079A	3310C			3306C						0399	ORG **4	
079R	3306C	118Y		0001			0004			0400	PTRTHR DM A'COMBUF'	ADDRESS OF COMMON BUFFER AREA
0800	3310C	S01X04343V	13	1181C	3	0	3436C	4	0	0401	FN COMFLG+1(3),KAR1	SET COMMON BUFFER DATA LENGTH
0802	3320C	3PXR4343V	04	0884C	3	0	3436C	4	0	0402	A MBUFF+4(3),KAR1(4)	ADD MBUFF SIZE TO CURRENT COMMON
0804	3330C	PST3V4387V	14	3436C	0	0	3876C	4	0	0403	C KAR1,KON250	TEST FOR TOTAL EXCEEDING 250 CHR
0806	3340C	S3VPP0000P	11	3600C	3	0	0000C	0	0	0404	BC MAR3(3),0(0)	FULL IF PAST 250
080R	3350C	P149Y40021	08	1499C	0	0	0021	4	0	0405	MC ZEROS(4),IR2	IR2 IS USED AS A SOURCE PTR
0810	3360C	P343R1180	08	3437C	0	0	1181C	3	0	0406	MC KAR1+1(3),COMFLG+1	SET COMMON DATA LENGTH IN THE FLAG
081P	3370C	PPXR43440U	14	0884C	0	0	4405C	3	0	0407	MARA C MBUFF+4(3),KON100	IS MBUFF MESSAGE LESS THAN 100 CHR
0814	3380C	S3TTP00000	11	3440C	3	0	0000	0	0	0408	BC MAR3(3)	GO TO 100 CHRS MOVE
081A	3390C	P0RXU1341P	09	0885C	0	0	3410C	1	0	0409	MN MBUFF+5(1),MARK	FIRST DIGIT OF MOVE LENGTH
081R	3400C	P0RXV1341U	09	0886C	0	0	3415C	1	0	0410	MN MBUFF+6(1),MARK+5	2ND DIGIT
0820	3410C	P0RRWP000P	08	0887C	0	2	0000C	0	0	0411	MARK MC MBUFF+7(100,2),BAZ	TRANSFER INSTRUCTION
0822	3420C			3416C						0412	ORG **4	
0824	3416C			0001			0004			0413	STUFFA DM C4	MUST FOLLOW LABEL MARK
082A	3420C	3PXR4341V	07	0884C	3	0	3416C	4	0	0414	S MBUFF+4(3),STUFFA	ADJUST THE COMMON BUFFER POINTER
082R	3430C	U3UPP00000	11	3500C	5	0	0000	0	0	0415	BC MARP(5)	GO TO MARK MBUFF EMPTY
0830	3440C			3436C						0416	ORG **4	USE ANY UNUSED SPACE
083P	3436C	0000		0001			0004			0417	KAR1 DM C'0000'	WORK AREA FOR COMMON BUFFER SIZE
083A	3440C	P343V4345V	09	3416C	0	0	3456C	4	0	0418	MARB MN STUFFA(4),MARL+6	SET TRANSFER LENGTH
0836	3450C	P0RRWF000P	08	0887C	0	2	0000C	0	0	0419	MARL MC MBUFF+7(100,2),BAZ	BAZ IS A DUMMY LABEL
083R	3460C	3T40U40021	04	4405C	3	0	0021	4	0	0420	A KON100(3),IR2(4)	INCREMENT INPUT POINTER
0840	3470C	3TTPU4341V	07	4405C	3	0	3416C	4	0	0421	S KON100(3),STUFFA	ADJUST THE COMMON BUFFER POINTER
084P	3480C	3TTPU3088T	07	4405C	3	0	0884C	3	0	0422	S KON100(3),MBUFF+4(3)	REDUCE MBUFF MESSAGE LENGTH
084A	3490C	U3SNP00000	11	3370C	5	0	0000	0	0	0423	BC MARA(5)	TRY TEST ON MESSAGE LENGTH
084A	3500C			3496C						0424	ORG **4	USE ANY UNUSED SPACE
084R	3496C	0000		0001			0004			0425	HOLDAY DM C4'0000'	HOLD AREA FOR NEXT DAY AND PICTURE
0850	3500C	P149Y1117Y	08	1499C	0	0	1179C	1	0	0426	MARP MC ZEROS(1),MBUFF+299	CLEAR MBUFF FILL FLAG
085P	3510C	3PXR45173R	14	0887C	1	0	1732C	5	0	0427	C MBUFF+7(15),MSGND+7	IS THIS LAST MESSAGE
085A	3520C	R3LSP5192P	11	3530C	2	0	1920C	5	0	0428	RC **10(2),OPDSK(5)	RELEASE PARTITION IF IT IS NOT
0856	3530C	P532V1787Y	14	3106C	0	0	7879C	1	0	0429	RC ISMINE,R	IS *END FOR A RESEND FUNCTION?
085R	3540C	R3UAP00000	11	3570C	2	0	0000	0	0	0430	BC **30(2)	SKIP *END MSG TEST IF IT IS
0860	3550C	P044T1450U	14	1744C	0	0	4505C	1	0	0431	C FLAG1(1),ONE	TEST *END MESSAGE FOR MORE TO COME
086P	3560C	R3UYP00000	11	3590C	2	0	0000	0	0	0432	BC MARP(2)	YES, GO TO MAR2
086A	3570C			3566C						0433	ORG **4	
086A	3566C	02+5		0001			0004			0434	KON245 DM C'02+5'	
086R	3570C	P149Y1310U	08	1499C	0	0	3105C	1	0	0435	MC ZEROS(1),MOR2CM	CLEAR THE MORE TO COME FLAG
0870	3580C	P54VW3437W	15	3797C	0	0	4377C	3	0	0436	X TEMPFL,PSFLAG	SAVE PSFLAG AND CLEAR IT
087P	3590C	P450U1402W	08	4505C	0	0	4027C	1	0	0437	MAR2 MC ONE,LSTREC	SET LSTREC FLAG ON
087A	3600C	P450U1118P	08	4505C	0	0	1180C	1	0	0438	MAR3 MC ONE,COMFLG	SET COMMON BUFFER FLAG FOR 'FIN L'
087A	3610C	P149Y132AP	09	1499C	0	0	3260C	1	0	0439	MN ZEROS(1),STUFF	RESET BRANCH TO 1ST TIME
087R	3620C	U1YRPO0000	11	1920C	5	0	0000	0	0	0440	BC OPDSK(5)	RETURN
0880	3630C			3625C						0441	ORG **5	
088P	3625C	ATT01		0001			0005			0442	ATT01 DM C'ATT01'	TRANSMISSION TO HOST COMPLETE
088A	3630C	PPVARA149Y	14	0662C	0	0	1499C	6	0	0443	RELEASE C TRCNT,ZEROS	IS THERE ANY DATA CURRENT
0886	3640C	R3VVP00000	11	3660C	2	0	0000	0	0	0444	BC **20(2)	SKIP NEXT INSTR IF NO DATA
088R	3650C	P450U1174T	08	4505C	0	0	1744C	1	0	0445	MC ONE,FLAG1	FLAG DATA IS COMING
0890	3660C	P045X2349V	08	0458C	0	0	3496C	2	0	0446	MC DAYNRS(2),HOLDAY	SAVE THE NEXT DAY'S NUMBER
089P	3670C	P149Y1310U	08	1499C	0	0	3105C	1	0	0447	MC ZEROS(1),MOR2CM	RESET THE MOR2CM FLAG
089A	3680C	U3RPP00000	11	3200C	5	0	0000	0	0	0448	RC NOMAS(5)	GO UPDATE THE SYSSS
089A										0449	*	

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE	C
089X										0450	*****	
0900										0451	*	
0902										0452	* SUBROUTINES CALLED BY PRECEDING MAINLINE ENTRY POINTS	
0904										0453	*	
0906										0454	*****	
0908										0455	*	
0910										0456	* HOWDY WRITES FROM QUEUE TO THE NEXT ADDRESS ON DISC.	
0912										0457	* BAD WRITES ARE REPORTED AND IF ERROR WAS SOFT, UP TO 10	
0914										0458	* REWRITES ARE ATTEMPTED. A BAD SECTOR REPORTS THE SECTOR	
0916										0459	* ADDRESS. AFTER 10 REWRITES A SECTOR IS CONSIDERED BAD.	
0918										0460	* RECOVERY IS TO THE NEXT AVAILABLE ADDRESS.	
0920										0461	*	
0922	3690C	P065VA031P	08	0656C	0	0	0310C	6	0	0462	HOWDY MC NXTAD,ADDR	HOLD DISC ADDRESS FOR ERRORS
0924	3700C	P149Y1395X	08	1499C	0	0	3958C	1	0	0463	MC ZFROS(1),CT1	CLEAR DISC READ ERROR COUNTER
0926	3710C	V81005R44P	11	8511C	6	0	8460C	5	0	0464	HDYW BC ONTRK+1(6),CHKTRK(5)	GO TO PRE-ALIGN DISK ARM ON TRACK
0928	3720C	000PP0P31P	01	0000C	0	1	0310C	0	0	0465	W BAZI(0,1),ADDR(0)	WRITE THE DISC SECTOR NOW
0930	3730C	R3XPP3377P	11	3800C	2	0	3770C	3	0	0466	BC WLCM(2),RAD1(3)	GO TO WELCUM IF GOOD WRITE
0932	3740C	V54TQ1563P	11	5741C	6	0	5630C	1	0	0467	BC DSOF+1(6),DSOF(1)	REPORT SOFT ERROR
0934	3750C	PSY5X1149Y	14	3958C	0	0	1499C	1	0	0468	C CT1,ZEROS	CHECK READ COUNTER FOR ZERO
0936	3760C	Q340P3371P	11	3710C	1	0	3710C	3	0	0469	BC HDYW(1),HDYW(3)	ALLOW 10 SOFT ERROR RETRYS
0938	3770C	V54W05575P	11	5771C	6	0	5750C	5	0	0470	BAD1 BC DSBADE+1(6),DSRAD(5)	REPORT BAD SECTOR
0940	3780C	V4XTQ5477P	11	4841C	6	0	4770C	5	0	0471	BC BYEBYE+1(6),WELCUM(5)	INCREMENT WITH WRAP AROUND
0942	3790C	U3VYPC0000	11	3690C	5	0	0000	0	0	0472	BC HOWDY(5)	TRY IT AGAIN, SAM
0944	3800C			3797C						0473	ORG *-3	
0946	3797C			0001			0003			0474	TEMPFL DM C1	HOLD AREA FOR PSFLAG AFTER *END
0948	3800C	V4XTQ5477P	11	4841C	6	0	4770C	5	0	0475	WLCM BC BYEBYE+1(6),WELCUM(5)	INCREMENT WITH WRAP AROUND
0950	3810C	1T50H20011	04	4505C	1	0	0011	2	0	0476	A ONE,X1(2)	INCREMENT INDEX BY 100
0952	3820C	1T50H2179Y	04	4505C	1	0	1799C	2	0	0477	A ONE,OTPPT(2)	INCREMENT OUTPUT POINTER BY 100
0954	3830C	1T50H2178H	07	4505C	1	0	1785C	2	0	0478	S ONE,NUMBQ	DECREMENT NUMBER IN QUEUE
0956	3840C	U0PPP00000	11	0000C	5	0	0000	0	0	0479	SO LONG BC 0(5)	RETURN
0958	3850C			3845C						0480	ORG *-5	
0960	3845C	078P		0001			0004			0481	ATBT DM A'TRMZBT'	ADDRESS OF TRMZBT
0962										0482	*	
0964										0483	*	
0966										0484	* THE BIEN/ADIOS ROUTINE UPDATES THE NXSEC ADDRESS DURING	
0968										0485	* A SEND OF THE TRFILE TO THE HOST. IT PROVIDES FOR	
0970										0486	* AUTOMATIC WRAPAROUND FROM THE PHYSICAL LIMIT TO THE	
0972										0487	* BEGINNING OF THE FILE	
0974	3850C	1T50H20067P	04	4505C	1	0	0670C	6	0	0488	BIEN A ONE,NXSEC	ADD ONE TO CURRENT ADDRESS
0976	3860C	PPV7P6032H	14	0670C	0	0	0385C	6	0	0489	C NXSEC,FIZLIM	COMPARE FOR END OF FILE
0978	3870C	Q3XYPC0000	11	3890C	1	0	0000	0	0	0490	BC NOTYT(1)	OKAY AS IS IF LESS
0980	3880C			3876C						0491	ORG *-4	USE ANY UNUSED SPACE
0982	3876C	0250		0001			0004			0492	KON250 DM C'0250'	COMMON BUFFER SIZE LIMIT
0984	3880C	P037YA067P	08	0379C	0	0	0670C	6	0	0493	MC FIRAD,NXSEC	WRAP AROUND IF NOT LESS
0986	3890C	P067P6031P	08	0670C	0	0	0310C	6	0	0494	NOTYT MC NXSEC,ADDR	HOLD ADDRESS FOR ERROR MESSAGES
0988	3900C	P149Y1395X	08	1499C	0	0	3958C	1	0	0495	MC ZFROS(1),CT1	CLEAR READ COUNTER
0990	3910C	PPV7P60R4V	14	0670C	0	0	0866C	6	0	0496	C NXSEC,TRLIM	AT TRANS LIMIT YET
0992	3920C	R3YSP5395P	11	3930C	2	0	3950C	5	0	0497	BC **10(2),ADIOS(5)	YES, TO NEXT. NO, TO ADIOS
0994	3930C	P45PY1272P	09	4509C	0	0	2720C	1	0	0498	MN FIVE,SEOND	SET FIRST HALF OF BRANCH
0996	3940C	U49YP00000	11	4390C	5	0	0000	0	0	0499	BC MARKIT(5)	GET OUT OF HERE
0998	3950C	U0PPP00000	11	0000C	5	0	0000	0	0	0500	ADIOS BC 0(5)	RETURN
1000	3960C			3958C						0501	ORG *-2	USE ANY UNUSED SPACE
1002	3958C	0		0001			0001			0502	CT1 DM C'01	DISC ERROR RETRY COUNTER
1004	3959C			0001			0001			0503	DCODE DM C1	THIS DISPLAY CODE
1006										0504	*	
1008										0505	* THIS ROUTINE REPORTS DISC I/O ERRORS ENCOUNTERED DURING	

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	R/S	M I	LINE	IMAGE
1010								0506	* A TRFILE SEND ON THE WORKSTATION. ERROR RECOVERY IS
1012								0507	* HANDLED IN THE CALLING ROUTINE IN THE SAME WAY AS THE
1014								0508	* SENDO ROUTINE, IE INCREMENT TO THE NEXT SECTOR.
1016								0509	*
1018	3960C	Q3YWP3400P	11	3970C	1 0	4000C	3 0	0510	OHELL BC OHECK(1),SHOOT(3) WHAT KIND OF ERROR WAS IT
1020	3970C	V5WTO1543P	11	5741C	6 0	5630C	1 0	0511	OHECK BC DSOF+1(6),DSOF(1) REPORT SOFT ERROR ON CC = 1
1022	3980C	PSYSX1149Y	14	3958C	0 0	1499C	1 0	0512	C CT1,ZEROS TRIED TEN TIMES YET
1024	3990C	W4PRP3402P	11	4020C	1 0	4020C	3 0	0513	BC HELPT(1),HELPT(3) TRY AGAIN IF NOT
1024								0514	* TEN TRIES ON SOFT ERROR COUNT AS CC = 3
1028	4000C	V5WQ5575P	11	5771C	6 0	5750C	5 0	0515	SHOOT BC DSBADE+1(6),DSBAD(5) REPORT BAD SECTOR ON CC = 3
1030	4010C	V3YHO5385P	11	3951C	6 0	3850C	5 0	0516	BC ADIOS+1(6),BIEN(5) INCREMENT ADDRESS FOR RECOVERY
1032	4020C	U0PPP00000	11	0000C	5 0	0000	0 0	0517	HELPT BC 0(5) RETURN
1034	4030C			4025C				0518	ORG **5
1036	4025C	*		0001		0001		0519	STAR DM C'+' ASTERISK CONSTANT
1038	4026C			0001		0001		0520	EOTFL DM C' ' EOT FLAG
1040	4027C	0		0001		0001		0521	LSTREC DM C'0' LAST RECCRD TO SCA FLAG
1042	4028C	1		0001		0001		0522	BLOKAC DM C'1' BLOCK ALL ACTIVITY
1044								0523	*
1046								0524	* THIS ROUTINE READS DATA IN ONE TRANSACTION GROUPS
1048								0525	* INTO MBUFF AND ACTIVATES THE STUFF ENTRY POINT TO
1050								0526	* FILL THE TRANSMISSION BUFFERS. DATA IS VALIDATED
1052								0527	* BEFORE IT IS ALLOWED TO BE STUFFED IN THE TRANSMISSION
1054								0528	* BUFFERS AND ERRORS ARE REPORTED AT THE WORKSTATION.
1056								0529	*
1058								0530	*
1060	4030C	P149Y1395X	08	1499C	0 0	3958C	1 0	0531	HELLO MC ZEROS(1),CT1 CLEAR READ COUNTER
1062	4040C	P149Y1222Y	08	1499C	0 0	2229C	1 0	0532	MC ZEROS(1),YOUSE CLEAR YOUSE FLAG
1064	4050C	P149Y40021	08	1499C	0 0	0021	4 0	0533	MC ZEROS(4),REG2 CLEAR REG2 FOR POINTER
1066	4060C	P067PA031P	08	0670C	0 0	0310C	6 0	0534	MC NXSEC,ADDR. HOLD NXSEC FOR DISC ERRORS
1068	4070C	Q088P0067P	00	0880C	0 0	0670C	0 0	0535	TRRD1 R MBUFF(0),NXSEC(0) READ FIRST BLOCK OF DATA
1070	4080C	R400P00000	11	4110C	2 0	0000	0 0	0536	BC DTCK(2) CHECK VALID DATA IF GOOD READ
1072	4090C	V4PP0539AP	11	4021C	6 0	3960C	5 0	0537	BC HELPT+1(6),OHELL(5) REPORT DISC ERROR AND RECOVER
1074	4100C	X4RWP00000	11	4070C	8 0	0000	0 0	0538	BC TRRD(8) LOOP BACK TO TRY NEXT SECTOR
1076	4110C			4105C				0539	ORG **5
1078	4105C	0099		0001		0004		0540	KON99 DM C'0099' IS TRANSMISSION CODE THERE?
1080	4110C	PPXRS1431Y	14	0887C	0 0	4319C	1 0	0541	DTCK C MBUFF+7(1),P GO TO FLAG MBUFF AS FULL
1082	4120C	R40YP00000	11	4190C	2 0	0000	0 0	0542	BC RGCK1(2) GO TO TEST MSGQ AVAILABILITY
1084	4130C	V0PS65595P	11	0036	6 0	5950C	5 0	0543	BADTA BC NEED+1(6),CONSOL(5) REPORT TYPE OF ERROR
1086	4140C	P41XU5032W	08	4185C	0 0	0327C	5 0	0544	MC ERROS,MSGQ REPORT DISC ADDRESS
1088	4150C	P067PA033S	08	0670C	0 0	0333C	6 0	0545	MC NXSEC,MSGQ+6 REPORT BAD DATA
1090	4160C	Q088P2034P	08	0880C	1 0	0340C	2 0	0546	MC MBUFF(12),MSGQ+13 INSURE EMPTY BUFFER
1092	4170C	P149Y1222Y	08	1499C	0 0	2229C	1 0	0547	MC ZEROS(1),YOUSE LEAVE ROUTINE
1094	4180C	U4SXPC00000	11	4380C	5 0	0000	0 0	0548	BC MFRDY(5)
1096	4190C			4185C				0549	ORG **5
1098	4185C	ERR05		0001		0005		0550	ERR05 DM C'ERR05' BAD DISC DATA MESSAGE
1100	4190C	P450U1222Y	08	4505C	0 0	2229C	1 0	0551	RGCK1 MC ONE,YOUSE FLAG BUFFER AS POTENTIALLY FULL
1102	4200C	PPXRS1450U	14	0883C	0 0	4505C	1 0	0552	C MBUFF+3(1),ONE ONE BLOCK MESSAGE?
1104	4210C	R4SXPC00000	11	4380C	2 0	0000	0 0	0553	BC MFRDY(2) BUFFER IS READY IF YES
1106	4220C	PPXRS1450V	14	0883C	0 0	4506C	1 0	0554	C MBUFF+3(1),TWO TWO BLOCKS, PERHAPS?
1108	4230C	R4SRP00000	11	4320C	2 0	0000	0 0	0555	BC TRRD(2) READ ONE MORE, THEN
1110	4240C	PPXRS1450W	14	0883C	0 0	4507C	1 0	0556	C MBUFF+3(1),THREE MAYBE THREE?
1112	4250C	R4RVP5413P	11	4260C	2 0	4130C	5 0	0557	BC TRRD(2),BADTA(5) READ TWO MORE
1114	4260C	1T50U20021	04	4505C	1 0	0021	2 0	0558	TRRD3 A ONE,REG2(2) INCREMENT REG2 BY 100 FOR NEXT
1116	4270C	V3YHO5385P	11	3951C	6 0	3850C	5 0	0559	BC ADIOS+1(6),BIEN(5) INCREMENT DISC ADDRESS
1118	4280C	Q088P067P	00	0880C	0 2	0670C	0 0	0560	TRRD4 R MBUFF(0,2),NXSEC(0) READ NEXT BLOCK INTO MBUFF
1120	4290C	R4SRP00000	11	4320C	2 0	0000	0 0	0561	BC TRRD(2) PREPARE FOR NEXT BLOCK OF GOOD

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE	
1122	4300C	V4PR05396P	11	4021C	6	0	3960C	5	0	0562	BC HELPT+1(6),OHELL(5)	REPORT BAD READ AND RECOVER
1124	4310C	X4RXP00000	11	4280C	8	0	0000	0	0	0563	BC TRRD4(8)	LOOP BACK TO TRY NEXT SECTOR
1126	4320C			4315C						0564	ORG *-5	
1128	4315C	0101		0001		0004				0565	KON101 DM C'0101'	
1130	4319C	P		0001		0001				0566	P DM C'1P'	THE LETTER *P*
1132	4320C	1T40U20021	04	4505C	1	0	0021	2	0	0567	TRRD2 A ONE,REG2(2)	INCREMENT REG2 FOR NEXT BLOCK
1134	4330C	V3YU05385P	11	3951C	6	0	3850C	5	0	0568	BC ADIOS+1(6),BIEN(5)	INCREMENT DISC ADDRESS
1136	4340C	00X2PP0A7P	00	0280C	0	2	0670C	0	0	0569	TRRD5 R MBUFF(0,2),NXSEC(0)	READ LAST BLOCK
1138	4350C	R4SXP00000	11	4380C	2	0	0000	0	0	0570	BC MBFRDY(2)	FLAG MBUFF READY IF GOOD READ
1140	4360C	V4PR05396P	11	4021C	6	0	3960C	5	0	0571	BC HELPT+1(6),OHELL(5)	REPORT ERROR AND RECOVER
1142	4370C	X4STP00000	11	4340C	8	0	0000	0	0	0572	BC TRRD5(8)	LOOP BACK TO TRY NEXT SECTOR
1144	4380C			4375C						0573	ORG *-5	
1146	4375C	?		0001		0001				0574	NOTHR DM C'?'	*NOT HERE* DISPLAY (QUES MARK)
1148	4376C			0001		0001				0575	SPACE DM C' '	
1150	4377C			0001		0001				0576	PSFLAG DM C' '	POLL/SELECT FLAG
1152	4378C			0001		0002				0577	DM C' '	HOLDS LAST TWO CHAR OF PSFLAG
1154	4380C	V3YU05385P	11	3951C	6	0	3850C	5	0	0578	MBFRDY BC ADIOS+1(6),BIEN(5)	UPDATE NXSEC DISC ADDRESS
1156	4390C	P222Y1117Y	08	2229C	0	0	1179C	1	0	0579	MARKIT MC YOUSE,MBUFF+299	FLAG MBUFF APPROPRIATELY
1158	4400C	U0PPP00000	11	0000C	5	0	0000	0	0	0580	DOLLY BC 0(5)	RETURN
1160	4410C			4405C						0581	ORG *-5	
1162	4405C	100		0001		0003				0582	KON100 DM C'100'	
1164										0583	*	
1166										0584	*	THE SENTOK ROUTINE ADJUSTS DYNAMIC LIMITS AND UPDATES THE
1168										0585	*	SYSTEM STATUS SECTOR ONLY AFTER A SUCCESSFUL TRANSMISSION
1170										0586	*	OF A COMPLETE PICTURE BY THE SCA PARTITION.
1172										0587	*	
1174	4410C	P149Y1466Y	08	1499C	0	0	4669C	1	0	0588	SENTOK MC ZEROS(1),SENTOK	CLEAR THE REQUESTING FLAG
1176	4420C	V4VSO5444P	11	4631C	6	0	4440C	5	0	0589	BC DWNUP+1(6),UPNDWN(5)	GO TO SET DYNLM'S AND SYSSS
1178	4430C	U1YRP00000	11	1920C	5	0	0000	0	0	0590	BC OPDSK(5)	GO TO COMMON EXIT
1180	4440C			4434C						0591	ORG *-6	USE ANY AVAILABLE SPACE
1182	4434C			0001		0006				0592	HOLLIM DM C6	HOLD AREA FOR SENT DATA ADDRESS
1184										0593	*	
1186										0594	*	SET DYNAMIC LIMITS OF TRANSACTION FILE ON DISC.
1188										0595	*	A WARNING WILL BE SENT WHEN DATA BEING WRITTEN FROM
1190										0596	*	QUEUE REACHES DL1 TRACKS FROM A DISC FULL STATE.
1192										0597	*	A WARNING AND A HALT WILL OCCUR WHEN THE DATA
1194										0598	*	REACHES DL2 TRACKS FROM A FULL CONDITION. DATA IN QUEUE
1196										0599	*	WILL BE LOGGED ON DISC AND HOST COMPUTER COMMANDS
1198										0600	*	ACCEPTED, BUT NO ADDITIONAL DATA FROM TERMINALS MAY ENTER.
1200										0601	*	CUSTOMER WILL DETERMINE DL1 AND DL2 AT INITIALIZATION.
1202										0602	*	
1204	4440C	P0375A031V	08	0373C	0	0	0316C	6	0	0603	UPNDWN MC NXSDN,NXSND1	NEXT SEND ADDRESS TO WORKARFA
1206	4450C	P03YS2452V	09	0393C	0	0	4586C	2	0	0604	MN DL2,DLARK	MOVE LIMIT COUNT TO WORK ARFA
1208	4460C	4TUXV6031V	07	4586C	4	0	0316C	6	0	0605	S DLWRK,NXSND1	ADJUST NEXT-TO-SEND ADDRESS
1210	4470C	6P34YA031V	07	0379C	6	0	0316C	6	0	0606	S FIRAD,NXSND1	CHECK FOR WRAP AROUND CONDITION
1212	4480C	R4U0P3451P	11	4510C	2	0	4510C	3	0	0607	BC NOFW1(2),NOFW1(3)	SKIP NEXT INSTRUCTION IF NOT
1214	4490C	6P38UA031V	04	0385C	6	0	0316C	6	0	0608	A FIZLIN,NXSND1	WRAP AROUND TO END
1216	4500C	U4URP00000	11	4520C	5	0	0000	0	0	0609	BC MC1(5)	SKIP NEXT INSTRUCTION
1218	4510C			4505C						0610	ORG *-5	
1220	4505C	1		0001		0001				0611	ONE DM C'1'1'	
1222	4506C	2		0001		0001				0612	TWO DM C'1'2'	
1224	4507C	3		0001		0001				0613	THREE DM C'1'3'	
1226	4508C	4		0001		0001				0614	FOUR DM C'1'4'	
1228	4509C	5		0001		0001				0615	FIVE DM C'1'5'	
1230	4510C	6P37Y4031V	04	0379C	6	0	0316C	6	0	0616	NOFW1 A FIRAD,NXSND1	RESET SINCE NO WRAP AROUND
1232	4520C	P032V4044V	09	0316C	0	0	0446C	4	0	0617	MC1 MN NXSDN1(4),DYNLM2	MOVE WORK AREA TO LIMIT ARFA

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE
1234	4530C	P03Y02458V	09	0391C	0	0	4586C	2	0	0618	MN DL1,DLWRK MOVE LIMIT COUNT TO WORK AREA
1236	4540C	4T0XVA031V	07	4586C	4	0	0316C	6	0	0619	S DLWRK,NXSND1 ADJUST NEXT-TO-SEND ADDRESS
1238	4550C	6P3WY6031V	07	0379C	6	0	0316C	6	0	0620	S FIRAD,NXSND1 CHECK IT FOR WRAP AROUND
1240	4560C	R40YPR455P	11	4590C	2	0	4590C	3	0	0621	RC NOFW2(2),NOFW2(3) SKIP NEXT INSTRUCTION IF NOT
1242	4570C	6P3R06031V	04	0385C	6	0	0316C	6	0	0622	A FIZLIM,NXSND1 RESET FOR WRAP AROUND
1244	4580C	U4VPP00000	11	4600C	5	0	0000	0	0	0623	BC MC2(5) SKIP NEXT INSTRUCTION
1246	4590C			4586C						0624	ORG *-4 USE ANY UNUSED SPACE
1248	4586C	0000		0001		0004				0625	DLWRK DM C'0000' WORK AREA FOR DYNLIM CALCULATION
1250	4590C	6P37Y6031V	04	0379C	6	0	0316C	6	0	0626	NOFW2 A FIRAD,NXSND1 RESET FOR NO WRAP AROUND
1252	4600C	P03QV4044P	09	0316C	0	0	0440C	4	0	0627	MC2 MN NXSND1(4),DYNLM1 MOVE FROM WORK AREA TO LIMIT
1254	4610C	P149Y1037R	08	1499C	0	0	0372C	1	0	0628	MC ZFROS(1),QBLOCK OPEN QUEUE
1256	4620C	V5T9Q5531P	11	5431C	6	0	5310C	5	0	0629	BC POROUT+1(6),PORTRT(5) TAKE A PORTRAIT
1258	4630C	U0PPP00000	11	0000C	5	0	0000	0	0	0630	DOWNNUP BC 0(5) RETURN
1260	4640C			4635C						0631	ORG *-5
1262	4635C	Y		0001		0001				0632	LETRY DM C'Y' AFFIRMATIVE RESPONSE
1264	4636C	9		0001		0001				0633	NINE DM C'9'
1266	4637C	8		0001		0001				0634	EIGHT DM C'8'
1268	4638C	7		0001		0001				0635	SEVEN DM C'7'
1270	4639C	6		0001		0001				0636	SIX DM C'6'
1272										0637	*
1274										0638	*
1276										0639	*
1278										0640	*
1280										0641	*
1282										0642	*
1284										0643	*
1286	4640C	V5R405512P	11	5271C	6	0	5120C	5	0	0644	CLOSIN BC CLIC+1(6),SNAPIC(5) SNAPSHOT OF THIS DAY TO DISC
1288	4650C	1T50V2036T	04	4506C	1	0	0364C	2	0	0645	A TWO,CURPIC+4(2) CURRENT PICTURE TO NEXT SECTOR
1290	4660C	T4V0P00000	11	4650C	4	0	0000	0	0	0646	BC *-10(4) REPEAT IF OVERFLOW
1292	4670C			4669C						0647	ORG *-1 USE ANY SPACE AVAILABLE
1294	4669C	0		0001		0001				0648	SENTCK DM C'0' GOOD PICTURE TRANSMISSION FLAG
1296	4670C	V5T9Q5531P	11	5431C	6	0	5310C	5	0	0649	BC POROUT+1(6),PORTRT(5) TAKE A PORTRAIT
1298	4680C	Y046Y0047P	08	0469C	9	0	0470C	0	0	0650	INCLOS MC TRMZAD=1(90),TRMZAD CLEAR FIRST HALF OF TERM FLAGS
1300	4690C	Y055Y0056P	08	0559C	9	0	0560C	0	0	0651	MC TRMZAD+89(90),TRMZAD+90 CLEAR SECOND HALF
1302	4700C	P149Y8066P	08	1499C	0	0	0660C	8	0	0652	MC ZEROS(8),NXTAD+4 CLEAR NXTAD AND TRCNT
1304	4710C	P045X2066X	08	0458C	0	0	0668C	2	0	0653	MC DAYNRS(2),DAYNRD MOVE IN THE DAY INDICATOR
1306	4720C	1T50U4066V	04	4505C	1	0	0656C	4	0	0654	A ONE,NXTAD(4) INCREMENT TO NEXT TRACK
1308	4730C	V4XT05479P	11	4841C	6	0	4790C	5	0	0655	BC BYEBYE+1(6),SHORT(5) TAKE A SHORT WELCUM
1310	4740C	P045VA066P	08	0656C	0	0	0650C	6	0	0656	MC NXTAD,FIRSTD SET BOTH ADDRESSES FOR NEW DAY
1312	4750C	V5R405512P	11	5271C	6	0	5120C	5	0	0657	BC CLIC+1(6),SNAPIC(5) TAKE A SNAPSHOT OF NEW DAY
1314	4760C	U0PPP00000	11	0000C	5	0	0000	0	0	0658	CLOSOT BC 0(5) RETURN
1316	4770C			4765C						0659	ORG *-5
1318	4765C	DDUMP		0001		0005				0660	DDUMP DM C'DDUMP'
1320										0661	*
1322										0662	*
1324										0663	*
1326										0664	*
1328										0665	*
1330										0666	*
1332										0667	*
1334										0668	*
1336										0669	*
1338										0670	*
1340	4770C	1T50U2066P	04	4505C	1	0	0660C	2	0	0671	WELCUM A ONE,NXTAD+4(2) INCREMENT NEXT ADDRESS SECTOR
1342	4780C	T4XAP00000	11	4870C	4	0	0000	0	0	0672	BC OFW(4) INCREMENT TRACK IF OVERFLOW
1344	4790C	P045VA044P	14	0656C	0	0	0440C	6	0	0673	SHORT C NXTAD,DYNLM1 CHECK FOR WARN LIMIT

C

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	J	R/S	M	I	LINE	IMAGE	
1346	4800C	R4YPR00000	11	4900C	2	0	0000	0	0	0674	BC WEL1(2)	REPORT IF EQUAL
1348	4810C	PR95V6044V	14	0656C	0	0	0446C	6	0	0675	C NXTAD,DYNLM2	CHECK FOR FINAL LIMIT
1350	4820C	R52PR00000	11	5000C	2	0	0000	0	0	0676	BC WEL2(2)	REPORT IF EQUAL
1352	4830C	PR95V6038U	14	0656C	0	0	0385C	6	0	0677	WEL3 C NXTAD,FIZLIM	CHECK FOR WRAP AROUND
1354	4840C	R02PR00000	11	0000C	1	0	0000	0	0	0678	BYEBYE BC 0(1)	GET OUT IF NOT WRAP AROUND
1356	4850C	R037Y6065V	08	0379C	0	0	0656C	6	0	0679	MC FIRAD,NXTAD	RESET IF WRAP AROUND
1358	4860C	U4XXPC0000	11	4280C	5	0	0000	0	0	0680	BC OFX(5)	TAKE A SNAPSHOT
1360	4870C	1T50H4065V	04	4505C	1	0	0656C	4	0	0681	OFW A ONE,NXTAD(4)	INCREMENT TRACK
1362	4880C	V5R9G5512P	11	5271C	6	0	5120C	5	0	0682	OFX BC CLIC(16),SNAPIC(5)	SNAPSHOT EACH TRACK CHANGE
1364	4890C	U4XYP00000	11	4790C	5	0	0000	0	0	0683	BC SHORT(5)	GO BACK TO CHECK LIMITS
1366	4900C			4295C						0684	ORG *-5	
1368	4895C	WRN01		0001			0005			0685	DM C'WRN01'	TRANSACTION FILE NEARING FULL
1370	4900C	R02PT1492H	09	0004C	0	0	4925C	1	0	0686	WEL1 MN 4C(1),ISIT01	MOVE IN PARTITION ZERO FLAG
1372	4910C	RPS2V1032W	14	0326C	0	0	0327C	1	0	0687	WAIT1 C FREE,MSG0	IS MSG0 AVAILABLE
1374	4920C	R4YTP1499P	11	4940C	2	0	4990C	1	0	0688	BC **20(2),GWAIT1(1)	YES, GO ON, NO, GO WAIT
1376	4930C			4925C						0689	ORG *-5	
1378	4925C	1		0001			0001			0690	ISIT01 DM C'1'	B MODIFIER OF THE ABOVE BRANCH
1380	4930C	V03W150340	11	0371	6	0	0340	5	0	0691	BC LEAVIT+1(6),TELLEM(5)	DISPOSE OF PRESENT MESSAGE
1382	4940C	R489U5032W	08	4895C	0	0	0327C	5	0	0692	MC WRN01,MSG0	PUT MESSAGE IN MSG0
1384	4950C	R039G2033S	08	0391C	0	0	0333C	2	0	0693	MC DL1,MSG0+6	REPORT TRACK LIMITS
1386	4960C	RY2H1149Y	14	4925C	0	0	1499C	1	0	0694	C ISIT01(1),ZEROS	ARE YOU IN PARTITION ZERO?
1388	4970C	V03W120340	11	0371	6	0	0340	2	0	0695	BC LEAVIT+1(6),TELLEM(2)	YES, PRINT CONTENTS OF MSG0
1390	4980C	U4XSP00000	11	4830C	5	0	0000	0	0	0696	BC WEL3(5)	CHECK FOR FIZLIM
1392	4990C	X4YCP00000	11	4910C	8	0	0000	0	0	0697	GWAIT1 BC WAIT1(8)	GO BACK AND WAIT
1394	5000C			4995C						0698	ORG *-5	
1396	4995C	WRN02		0001			0005			0699	WRN02 DM C'WRN02'	TRANSACTION FILE FILLED
1398	5000C	R02PT1502H	09	0004C	0	0	5025C	1	0	0700	WEL2 MN 4C(1),ISIT02	MOVE IN PARTITION ZERO FLAG
1400	5010C	RPS2V1032W	14	0326C	0	0	0327C	1	0	0701	WAIT2 C FREE,MSG0	IS MSG0 AVAILABLE
1402	5020C	R52PT1511P	11	5040C	2	0	5110C	1	0	0702	BC **20(2),GWAIT2(1)	YES, GO ON, NO, GO WAIT
1404	5030C			5025C						0703	ORG *-5	
1406	5025C	1		0001			0001			0704	ISIT02 DM C'1'	B MODIFIER OF ABOVE BRANCH
1408	5030C	V03W150340	11	0371	6	0	0340	5	0	0705	BC LEAVIT+1(6),TELLEM(5)	DISPOSE OF PRESENT MESSAGE
1410	5040C	R489U5032W	08	4895C	0	0	0327C	5	0	0706	MC WRN02,MSG0	PUT MESSAGE IN MSG0
1412	5050C	R039S2033S	08	0393C	0	0	0333C	2	0	0707	MC DL2,MSG0+6	REPORT TRACK LIMITS
1414	5060C	R450U1037P	08	4505C	0	0	0372C	1	0	0708	MC ONE,GBLOCK	BLOCK ALL FURTHER TRANS
1416	5070C	V5TSC5531P	11	5431C	6	0	5310C	5	0	0709	BC POPOUT+1(6),PORTRT(5)	PORTRAIT OF SYSSS WITH CHANGE
1418	5080C	PUP2H1149Y	14	5025C	0	0	1499C	1	0	0710	C ISIT02(1),ZEROS	ARE YOU IN PARTITION ZERO?
1420	5090C	V03W120340	11	0371	6	0	0340	2	0	0711	BC LEAVIT+1(6),TELLEM(2)	YES, PRINT CONTENTS OF MSG0
1422	5100C	U4XSP00000	11	4830C	5	0	0000	0	0	0712	BC WEL3(5)	CHECK FOR PHYSICAL LIMIT
1424	5110C			5105C						0713	ORG *-5	
1426	5105C			0001			0005			0714	TESTIT DM C5	HOLD AREA FOR NUMERIC TESTING
1428	5110C	X52PC00000	11	5010C	8	0	0000	0	0	0715	GWAIT2 BC WAIT2(8)	GO BACK AND WAIT
1430	5120C			5115C						0716	ORG *-5	
1432	5115C	C		0001			0001			0717	ETX DM C'1'C'	
1434	5116C	F		0001			0001			0718	ACK DM C'1'F'	
1436	5117C	F?		0001			0002			0719	ACKQ DM C'2'F?'	ACK QUESTION MARK FOR REPLY
1438										0720	*	
1440										0721	*	THE SNAPIC ROUTINE RECORDS A PICTURE OF THE STATUS OF THE
1442										0722	*	TRFILE AT EACH TRACK CHANGE FOR ERROR RECOVERY AS WELL
1444										0723	*	AS THE NORMAL CLOSING PROCEDURE.
1446										0724	*	
1448	5120C	R036P6031P	08	0360C	0	0	0310C	6	0	0725	SNAPIC MC CURPIC,ADDR	HOLD PICTURE ADDRESS
1450	5130C	P149Y1395X	08	1499C	0	0	3958C	1	0	0726	MC ZEROS(1),CT1	ZERO DISC ERROR COUNTER
1452	5140C	V82UC5246P	11	8511C	6	0	8460C	5	0	0727	SNW1 BC CNTRK+1(6),CHKTRK(5)	GO TO PRE-ALIGN DISK ARM ON TRACK
1454	5150C	QC-WP0031P	01	0470C	0	0	0310C	0	0	0728	W TRMZAD(0),ADDR(0)	WRITE THE DISC SECTOR NOW
1456	5160C	R5RUP352CP	11	5250C	2	0	5200C	3	0	0729	BC SNP1(2),BADADR(3)	WRITE SECOND HALF IF GOOD

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	H/S	M I	LINE	IMAGE
1458	51700	V5AT01563P	11	57410	6 0	56300	1 0	0730	BC DSOFF+1(6),DSOF(1) REPORT BAD DISC I/O
1460	51800	PSY5X1149Y	14	39580	0 0	14990	1 0	0731	C CT1,ZEROS ALLOW MORE TRIES
1462	51900	S5TRP00000	11	51400	3 0	0000	0 0	0732	BC SNW1(3) REPEAT IF NOT ENOUGH
1464	52000	V5AAG5575P	11	57710	6 0	57500	5 0	0733	RADADR BC DSBADF+1(6),DSBAD(5) REPORT BAD SECTOR
1466	52100	1T50V203AT	04	45060	1 0	03640	2 0	0734	A TWO,CURPIC+4(2) INCREMENT SECTOR
1468	52200	15RDP00000	11	52100	4 0	0000	0 0	0735	BC *-10(4) REPEAT ON OVERFLOW
1470	52300	V5TSC5531P	11	54310	6 0	53100	5 0	0736	BC POROUT+1(6),PORTRT(5) PORTRAIT OF SYSSS WITH CHANGE
1472	52400	U5JRP00000	11	51200	5 0	0000	0 0	0737	BC SNAPIC(5) RETURN TO TRY AGAIN
1474	52500			52450				0738	ORG *-5
1476	52450	WRN03		0001		0005		0739	WRN03 DM C'WRN03' DELETE NOT ON FILE
1478	52500	1T50U6031P	04	45050	1 0	03100	6 0	0740	SNP1 A ONE,ADDR INCREMENT ADDRESS
1480	52600	005NP0031P	01	05700	0 0	03100	0 0	0741	SNW2 W TRMZBD(10),ADDR(0) WRITE SECOND HALF OF TABLE
1482	52700	R0RPP3520P	11	00000	2 0	52000	3 0	0742	CLIC BC 0(2),BADADR(3) OUT IF GOOD
1484	52800	PSY5X1149Y	14	39580	0 0	14990	1 0	0743	C CT1,ZEROS RETRY IF SOFT ERROR
1486	52900	V5AT01563P	11	57410	6 0	56300	1 0	0744	RC DSOFF+1(6),DSOF(1) REPORT SOFT ERROR
1488	53000	S5RVP5520P	11	52600	3 0	52000	5 0	0745	BC SNW2(3),RADADR(5) GO BACK OR TRY ANOTHER SECTOR
1490								0746	*
1492								0747	* THE PORTRAIT ROUTINE IS USED TO RECORD THE SYSTEM
1494								0748	* STATUS SECTOR ON DISC ANY TIME IT CHANGES. IT REQUIRES
1496								0749	* THAT THE HOMAD SECTOR BE GOOD AND WILL LOCK UP IF NOT
1498								0750	*
1500	53100	R0RCP4543T	09	03100	0 0	54340	6 0	0751	PORTRT MN ADDR,SAVADR SAVE THE CURRENT DISC ADDRESS
1502	53200	R0R5TA031P	08	03540	0 0	03100	6 0	0752	PORLOP MC HOMAD,ADDR SET SYSSS ADDRESS IN DISC ADDRESS
1504	53300	R149Y1395X	08	14990	0 0	39580	1 0	0753	MC ZEROS(1),CT1 ZERO DISC ERROR COUNTER
1506	53400	V81D05844P	11	85110	6 0	84600	5 0	0754	PW1 BC ONTRK+1(6),CHKTRK(5) GO TO PRE-ALIGN DISK ARM ON TRACK
1508	53500	R0RVP0031P	01	03600	0 0	03100	0 0	0755	W SYSSS(10),ADDR(0) WRITE THE DISC SECTOR NOW
1510	53600	R5TRP3540P	11	54200	2 0	54000	3 0	0756	BC PORTXT(2),BAD2(3) GO TO EXIT IF DISC I/O IS O.K.
1512	53700	V5AT01563P	11	57410	6 0	56300	1 0	0757	BC DSOFF+1(6),DSOF(1) REPORT SOFT ERROR
1514	53800	PSY5X1149Y	14	39580	0 0	14990	1 0	0758	C CT1,ZEROS ALLOW MULTIPLE RETRIES
1516	53900	S5STR00000	11	53400	3 0	0000	0 0	0759	BC PW1(3) REPEAT WRITE
1518	54000	V5AAG5575P	11	57710	6 0	57500	5 0	0760	BAD2 BC DSBADF+1(6),DSBAD(5) REPORT BAD SECTOR
1520	54100	U5JRP00000	11	53200	5 0	0000	0 0	0761	BC PORLOP(5) SYSSS IS BAD
1522	54200			54150				0762	ORG *-5
1524	54150	ATT06		0001		0005		0763	ATT06 DM C'ATT06' TEMP HALT IN TRANSMISSION
1526	54200	R54ST6031P	09	54340	0 0	03100	6 0	0764	PORTXT MN SAVADR,ADDR RESTORE THE SAVED DISC ADDRESS
1528	54300	U0RPP00000	11	00000	5 0	0000	0 0	0765	POROUT BC 0(5) PORTRT ROUTINE EXIT
1530	54400			54340				0766	ORG *-6
1532	54340	000000		0001		0006		0767	SAVADR DM C'000000' HOLD AREA FOR DISC ADDRESS
1534								0768	*
1536								0769	* THE GETPIC ROUTINE WILL RETRIEVE THE CURRENT PICTURE
1538								0770	* FROM DISC AND SET UP THE TABLE NECESSARY FOR CONTINUED
1540								0771	* OPERATIONS. IT IS USED FOR NORMAL LOADS, RECOVERY LOADS
1542								0772	* INITIALIZATION AND CLOSING ROUTINES
1544								0773	* THE GETPIC ROUTINE IS ALSO USED TO LOAD THE PICTURE TO
1546								0774	* SEND TO THE HOST INTO TRMZB DURING OPTION 0.
1548								0775	*
1550	54400	R149Y1395X	08	14990	0 0	39580	1 0	0776	GETPIC MC ZEROS(1),CT1 ZERO DISC ERROR COUNTER
1552	54500	R047P0031P	00	04700	0 0	03100	0 0	0777	PICRO R TRMZAD(10),ADDR(0) READ FIRST HALF OF TABLE
1554	54600	R5JSP3550P	11	55300	2 0	55000	3 0	0778	BC PICR1(2),BAD4(3) READ SECOND HALF IF GOOD
1556	54700	V5AT01563P	11	57410	6 0	56300	1 0	0779	BC DSOFF+1(6),DSOF(1) LINK TO DSOFF ROUTINES
1558	54800	PSY5X1149Y	14	39580	0 0	14990	1 0	0780	C CT1,ZEROS ALLOW RETRY
1560	54900	S5TRP00000	11	54500	3 0	0000	0 0	0781	BC PICRO(3) REPEAT READ
1562	55000	V5AAG5575P	11	57710	6 0	57500	5 0	0782	BAD4 RC DSBADF+1(6),DSBAD(5) REPORT BAD SECTOR
1564	55100	1T50V2031T	04	45060	1 0	03140	2 0	0783	BAD9 A TWO,ADDR+4(2) INCREMENT TO NEXT PICTURE
1566	55200	15RCP5544P	11	55100	4 0	54400	5 0	0784	BC *-10(4),GETPIC(5) GO BACK ON OVERFLOW OR TRY AGAIN
1568	55300	1T50U6031P	04	45050	1 0	03100	6 0	0785	PICR1 A ONE,ADDR INCREMENT ADDRESS

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	B/S	M I	LINE	IMAGE	
1682	5870C	X5WYP00000	11	5790C	8 0	0000	0 0	0842	GWAIT3 BC WAIT3(8)	GO BACK AND WAIT
1684	5880C			5875C				0843	ORG +=5	
1684	5875C			0001		0005		0844	ERMG DM CI	TEMP HOLD AREA FOR ERR MSG
1688								0845	*	
1690								0846	*	
1692								0847	*	
1694								0848	*	THE TATTLE ROUTINE REPORTS THE EXECUTION OF A RECOVERY
1696								0849	*	INSTRUCTION AT POSITION 0000 OF A PARTITION AND RESTARTS
1698								0850	*	THE PARTITION AT THE DESIRED INSTRUCTION.
1700								0851	*	
1702	5880C	P001645R9V	08	0016	0 0	5896C	4 0	0852	TATTLE MC CHEAT,TANGO+6	ADJUST TO PARTITION
1704	5890C	P149Y11740	08	1499C	0 0	1761C	1 0	0853	TANGO MC ZEROS(1),CLOSED	RELEASE SHARED ROUTINES
1706	5900C	V0PS65595P	11	0036	6 0	5950C	5 0	0854	BC NEED+1(6),CONSOL(5)	GO TO TEST MSGG AVAILABILITY
1708	5910C	P669U0002P	08	6695C	0 0	0327C	5 0	0855	MC ATTO9,MSGQ	REPORT PASS THRU POS 0000
1710	5920C	Q00400033S	08	0040	1 0	0333C	0 0	0856	MC 40P(10),MSGQ+6	REPORT POSITION 40 FOR DIAGNOSTCS
1712	5930C	P00064594V	08	0006	0 0	5946C	4 0	0857	MC 06P(4),GETOUT+6	MAKEUP PROPER ADDRESS TO GETOUT
1714	5940C	P4XTPE395P	11	4840C	0 0	3950C	5 0	0858	GETOUT BC BYEBYE(0),ADIOS(5)	RETURN TO BEGINNING OF PARTITION
1716								0859	*	
1718								0860	*	
1720								0861	*	THIS SUBROUTINE IS USED TO WAIT FOR THE
1722								0862	*	MESSAGE QUEUE TO FREE UP FOR ANOTHER MESSAGE.
1724	5950C	PPSPV1032W	14	0326C	0 0	0327C	1 0	0863	CONSOL C FREE,MSGQ	TEST FOR MESSAGE QUEUE AVAILABLE
1726	5960C	R5Y4PR595P	11	5970C	2 0	5950C	8 0	0864	BC +=10(2), +=10(8)	LOOP BACK AND WAIT HERE IF NOT FRE
1728	5970C	P00364598V	08	0036	0 0	5986C	4 0	0865	MC NEED+1(4), +=16	SET RETURN ADDRESS IN NEXT INSTR.
1730	5980C	P0PPP5000P	11	0000C	0 0	0000C	5 0	0866	BC 0(0),0(5)	RETURN TO EACH RESPECTIVE PART.
1732								0867	*	
1734								0868	*	
1736								0869	*	THIS SUBROUTINE IS USED BY THE MONITOR AND SCA PARTITIONS
1738								0870	*	TO CLEAR AND RESET TRANSMISSION FLAGS AND BUFFER FLAGS.
1740	5990C	P149Y1402W	08	1499C	0 0	4027C	1 0	0871	RESET MC ZEROS(1),LSTREC	CLEAR THE LAST RECORD FLAG
1742	6000C	P149Y2310U	08	1499C	0 0	3105C	2 0	0872	MC ZEROS(2),MOR2CM	CLEAR MOR2CM AND ISNINE
1744	6010C	P149Y1230U	09	1499C	0 0	2305C	1 0	0873	MN ZEROS(1),FSTONE+5	RESET FSTONE INSTRUCTION
1746	6020C	P14YY1326P	09	1499C	0 0	3260C	1 0	0874	MN ZEROS(1),STUFF	RESET STUFF INSTRUCTION, TOO
1748	6030C	P149Y1117Y	08	1499C	0 0	1179C	1 0	0875	MC ZEROS(1),MBUFF+299	SET FLAG OF MBUFF FOR 'EMPTY'
1750	6040C	P149YR118P	08	1499C	0 0	1180C	8 0	0876	MC ZEROS(8),COMFLG	SET COMMON AND SCA FLAGS 'EMPTY'
1752	6050C	P437V1379W	08	4376C	0 0	3797C	1 0	0877	MC SPACE,TEMPFL	CLEAR TEMPORARY FLAG
1754	6060C	P00364607V	08	0036	0 0	6076C	4 0	0878	MC NEED+1(4), +=16	SET RETURN ADDRESS IN NEXT INSTR.
1756	6070C	P0PPP5000P	11	0000C	0 0	0000C	5 0	0879	BC 0(0),0(5)	RETURN
1758								0880	*	
1760								0881	*	
1762								0882	*	MOTIS PARTITION OVERFLOW INSTRUCTIONS FOLLOW
1764	6080C	P00T640011	09	0046	0 0	0011	4 0	0883	TAR2 MN CHANX=1(4,0),REG1(,0)	CHANNEL-DEVICE POINT TO TARLF
1766	6090C	P149Y115PT	08	1499C	0 0	1504C	1 1	0884	MC ZEROS(1,0),TERMX(,1)	SPACE EQUALS TERMINAL INACTIVE
1768	6100C	P450U104VP	08	4505C	0 0	0460C	1 1	0885	MC ONE,TRMZA(,1)	FLAG TRMZA
1770	6110C	P149Y10014	08	1499C	0 0	0014	1 0	0886	MC ZEROS(1),REG1+3	SET REG1 FOR TENS COMPARE
1772	6120C	Q0JCT015PT	14	1504C	1 0	1504C	0 1	0887	C TERMX(10,0),TERMX(,1)	IS THIS PARTITION CLOSED?
1774	6130C	Q0XT05621P	11	0740	2 0	6210C	5 0	0888	BC SET1(2),TAR3(5)	IF NOT RETURN
1776	6140C	P14YY10810	09	1499C	0 0	0810	1 0	0889	TPEN MN ZEROS(1,0),TARA(,0)	MAKE BRANCH A FALL THRU
1778	6150C	P08051174W	08	0805	0 0	1747C	1 0	0890	MC LFTR, EOD	FLAG TERMINALS ACTIVE
1780	6160C	P00T540011	09	0045	0 0	0011	4 0	0891	MN CL(4,0),REG1(,0)	CHANX TO REGISTER 1
1782	6170C	P450U117PU	08	4505C	0 0	1705C	1 1	0892	MC ONE(1,0),TARB(,1)	TARLF PARTITION OPEN
1784	6180C	P00T640011	09	0046	0 0	0011	4 0	0893	TAR1 MN CHANX=1(4,0),REG1(,0)	CHANNEL-DEVICE POINT TO TARLF
1786	6190C	P450U115PT	08	4505C	0 0	1504C	1 1	0894	MC ONE(1,0),TERMX(,1)	FLAG THE CURRENT TERMINAL
1788	6200C	P450U104VP	08	4505C	0 0	0460C	1 1	0895	MC ONE,TRMZA(,1)	BUILD STATUS TABLE FOR PICTURE
1790	6210C	PPP541437V	14	0054	0 0	4376C	1 0	0896	TAR3 C INBUF+1(1,0),SPACE(,0)	CHECK FOR CREDIT INQUIRY
1792	6220C	RDXS05623P	11	0830	2 0	6230C	5 0	0897	BC CTIN(2),VALD(5)	CI IF BLANK, ELSE TRANSACTION

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE
1794	62300	PPR5+1431Y	14	0054	0	0	4319C	1	0	089R	VALID C INBUF+1(1),P
1796	62400	ROUV050400	11	0560	2	0	0400	5	0	0899	BC TROK(2),TAGP(5)
1798										0900	*
1800										0901	*****
1802										0902	*
1804										0903	*
1806										0904	*
1808										0905	*****
1810										0906	*
1812										0907	*
1814										0908	*
1816										0909	*
1818										0910	*
1820										0911	*
1822										0912	*
1824										0913	*
1824	62500	P00RP1149Y	14	1180C	0	0	1499C	1	0	0914	OLUP C COMFLG(1),ZEROS
1828	62600	R6R4P543AP	11	6270C	2	0	6360C	5	0	0915	BC CKEOT(2),GRABAC(5)
1830	62700	PTP2V1450U	14	4026C	0	0	4505C	1	0	0916	CKEOT C EOTFL,ONE
1832	62800	R6RYP5192P	11	6290C	2	0	1920C	5	0	0917	BC CLPS(2),OPDSK(5)
1834	62900	V0PSA5595P	11	0036	6	0	5950C	5	0	0918	CLPS BC NFED+1(6),CONSOL(5)
1836	63000	P5R4H5032W	08	5R65C	0	0	0327C	5	0	0919	MC ATTO3,MSGQ
1838	63100	P045H4033S	08	0452C	0	0	0333C	6	0	0920	MC CIGNT,MSGQ+6
1840	63200	Q040S2034P	08	0403C	1	0	0340C	2	0	0921	MC STADR(12),MSGQ+13
1842	63300	V5TSQ5531P	11	5431C	6	0	5310C	5	0	0922	BC POROUT+1(6),PORTRT(5)
1844	63400	P437V3437W	08	4376C	0	0	4377C	3	0	0923	MC SPACE(3),PSFLAG
1846	63500	U1YRP00000	11	1920C	5	0	0000	0	0	0924	RC OPDSK(5)
1848	63600			6355C						0925	ORG *-5
	6355C	WRN04		0001			0005			0926	WRN04 DM C'WRN04'
1852	63600	P00RX1690V	14	1188C	0	0	6906C	1	0	0927	GRABAC C COMBUF(1),ETB
1854	63700	R6VPP00000	11	6600C	2	0	0000	0	0	0928	BC CLRBUF(2)
1856	63800			6376C						0929	ORG *-4
1858	63760	143X		0001			0004			0930	COMEND DM A'ENDCOM'
1860	63800	P00RX1511U	14	1188C	0	0	5115C	1	0	0931	INSTR1 C COMBUF(1),ETX
1862	63900	R6VPP00000	11	6600C	2	0	0000	0	0	0932	BC CLRBUF(2)
1864	64000			6396C						0933	ORG *-4
1866	63960	11XX		0001			0004			0934	BUFFAD DM A'COMBUF'
1868	64000	P63RX04643V	09	6381C	0	0	6436C	4	0	0935	MN INSTR1+1(4),TESTAD
1870	64100	PPTVR4643V	07	0462C	2	0	6436C	4	0	0936	S ACNML+2(2),TESTAD
1872	64200	PVT3V4637V	14	6436C	0	0	6376C	4	0	0937	C TESTAD,COMEND
1874	64300	Q6TUP00000	11	6450C	1	0	0000	0	0	0938	RC **20(1)
1876	64400			6436C						0939	OR; *-4
1878	64360	000P		0001			0004			0940	TESTAD DM C'000P'
1880	64400	P63RV4643V	08	6396C	0	0	6436C	4	0	0941	MC BUFFAD,TESTAD
1882	64500	Q149Y40155	08	1499C	1	0	0155	4	0	0942	MC ZEROS(14),IACC
1884	64600	P00RX5789U	14	1188C	0	0	7895C	5	0	0943	INSTR2 C COMBUF(5),ASTRSK
1886	64700	R6VPP00000	11	6600C	2	0	0000	0	0	0944	BC CLRBUF(2)
1888	64800	Q11XX40155	09	1188C	1	0	0155	4	0	0945	GRABAS MN COMBUF(14),IACC
1890	64900	Q00RX40155	14	1188C	1	0	0155	4	0	0946	GRBAC C COMBUF(14),IACC
1892	65000	R6VPP5664P	11	6510C	2	0	6640C	5	0	0947	BC **10(2),BADAC(5)
1894	65100	V6HYR5653P	11	6591C	6	0	6530C	5	0	0948	RC ADJUST+1(6),ADDRES(5)
1896	65200	U6VPP00000	11	6700C	5	0	0000	0	0	0949	BC GUDAC(5)
1898	65300			6525C						0950	ORG *-5
1900	65250	ATTO7		0001			0005			0951	ATTO7 DM C'ATTO7'
1902	65300	P64SV46360	09	6436C	0	0	6361C	4	0	0952	ADDRES MN TESTAD,GRABAC+1
1904	65400	P64SV46490	09	6436C	0	0	6491C	4	0	0953	MN TESTAD,GRBAC+1

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE
1906	6550C	P64SV4668R	09	6436C	0	0	6881C	4	0	0954	MN TESTAD, INSTR1+1 SET BUFFER POINTER ADDRESS
1908	6560C	P64SV4666R	09	6436C	0	0	6461C	4	0	0955	MN TESTAD, INSTR2+1 SET BUFFER POINTER ADDRESS
1910	6570C	P64SV4668R	09	6436C	0	0	6481C	4	0	0956	MN TESTAD, GRABAS+1 SET BUFFER POINTER ADDRESS
1912	6580C	P64SV4666R	09	6436C	0	0	6441C	4	0	0957	MN TESTAD, BADAC+1 SET ADDRESS IN ERROR ROUTINE
1914	6590C	UORPPP00000	11	0000C	5	0	0000	0	0	0958	ADJUST BC 0(5) EXIT
1916	6600C			6595C						0959	ORG *-5 USE ANY UNUSED SPACE
1918	6595C	ATT11		0001			0005			0960	ATT11 DM C'ATT11' CREDIT FILE BEING CLEARED
1920	6600C	P149Y4118P	08	1499C	0	0	1180C	4	0	0961	CLRBUF MC ZEROS(4), COMFLG FLAG THE COMMON BUFFER FOR 'EMPTY'
1922	6610C	P639V4643V	08	6396C	0	0	6436C	4	0	0962	MC BUFFAD, TESTAD SET COMMON BUFFER BEGIN ADDRESS
1924	6620C	V61YQ5653P	11	6591C	6	0	6530C	5	0	0963	BC ADJUST+1(6), ADDRES(5) GO TO SET ADDRESSES FOR ACCESS
1926	6630C	U1YRPO00000	11	1920C	5	0	0000	0	0	0964	BC OPOSK(5) RELEASE SHARED ROUTINES
1928	6640C			6635C						0965	ORG *-5
1930	6635C	ERR09		0001			0005			0966	DM C'ERR09' INCORRECT LENGTH ACCT NRS RECD
1932	6640C	Q118X40155	08	1188C	1	0	0155	4	0	0967	BADAC MC COMBUF(14), IACC SET NUMBER IN ERROR IN TEST AREA
1934	6650C	VOPSA5595P	11	0036	6	0	5950C	5	0	0968	BADAC1 BC NFEED+1(6), CONSOL(5) GO TO TEST MSGQ AVAILABILITY
1936	6660C	P568U5032W	08	5685C	0	0	0327C	5	0	0969	MC ERRO2, MSGQ REPORT BAD TRANSMISSION
1938	6670C	Q01554033S	08	0155	1	0	0333C	4	0	0970	ACMV MC IACC(1+), MSGQ+6 REPORT DATA RECEIVED
1940	6680C	V61YQ5653P	11	6591C	6	0	6530C	5	0	0971	BC ADJUST+1(6), ADDRES(5) GO TO ADJUST CUFF ACCESSING INSTRS
	6690C	X1YRPO00000	11	1920C	8	0	0000	0	0	0972	BC OPOSK(8) RELEASE SHARED ROUTINES
1944	6700C			6695C						0973	ORG *-5
1946	6695C	ATT09		0001			0005			0974	ATT09 DM C'ATT09' PASS THRU POS 0000 IN PTN
1948	6700C	RP49X40011	13	0438C	2	0	0011	4	0	0975	GUDAC FN ACINT+2(2), REG1(4) MAX ACCOUNT LENGTH TO REG1
1950	6710C	P01551P168	08	0155	0	1	0168	1	0	0976	MC IACC(1), ACTINC SAVE ACTION CODE
1952	6720C	V71YQ5754P	11	7591C	6	0	7540C	5	0	0977	BC RNDXIT+1(6), RNADR(5) DETERMINE DISK ADDRESS
1954	6730C	PP3681450Y	14	0168	0	0	4509C	1	0	0978	C ACTINC, FIVE CHECK ACTION CODE FOR A FIVE
1956	6740C	R64YR3665P	11	6790C	2	0	6650C	3	0	0979	BC ADHIM(2), BADAC1(3) YES, TO ADHIM, HIGHER TO BADAC1
1958	6750C	PP3681450W	14	0168	0	0	4507C	1	0	0980	C ACTINC, THREE CHECK ACTION CODE FOR A THREE
	6760C	R64YR3665P	11	6850C	2	0	6650C	3	0	0981	BC DELHIM(2), BADAC1(3) YES, TO DELHIM, HIGHER TO BADAC1
1962	6770C	PP3681450V	14	0168	0	0	4506C	1	0	0982	C ACTINC, TWO CHECK ACTION CODE FOR A TWO
1964	6780C	R64YR3665P	11	6790C	2	0	6650C	5	0	0983	BC ADHIM(2), BADAC1(5) YES, TO ADHIM, NO, TO BADAC1
1966										0984	* MAINLINE ENTRY FOR ADDITIONS
1968	6790C	Q149Y30169	08	1499C	1	0	0169	3	0	0985	ADHIM MC ZEROS(13), TACC LOOK FOR ZEROS
1970	6800C	V8PSQ5794P	11	8031C	6	0	7940C	5	0	0986	BC ACATED+1(6), ACCADD(5) BRANCH TO ADD ROUTINE
1972	6810C	PSY5Y1437U	14	3959C	0	0	4375C	1	0	0987	C DCODE, NOTHR CHECK FOR FOUND
1974	6820C	R8YRPO00000	11	8150C	2	0	0000	0	0	0988	BC RERE(2) REREAD IF NOT
1976	6830C	1T50U6045R	04	4505C	1	0	0452C	6	0	0989	A ONE, CICNT COUNT IF YES
	6840C	X1YRPO00000	11	1920C	8	0	0000	0	0	0990	BC OPOSK(8) RELEASE SHARED ROUTINES
1980										0991	* MAINLINE ENTRY FOR DELETES
	6850C	Q015530169	08	0155	1	0	0169	3	0	0992	DELHIM MC IACC, TACC SEARCH FOR TACC
	6860C	Q149Y30155	08	1499C	1	0	0155	3	0	0993	MC ZEROS(13), IACC WRITE ZEROS
	6870C	P149Y1690Y	08	1499C	0	0	6909C	1	0	0994	MC ZEROS(1), FLAGX RESET FLAGX
	6880C	V8PSQ5794P	11	8031C	6	0	7940C	5	0	0995	BKAGIN BC ACATED+1(6), ACCADD(5) LINK TO ADD ROUTINE
	6890C	PSY5Y1437U	14	3959C	0	0	4375C	1	0	0996	C DCODE, NOTHR CHECK FOR FOUND
	6900C	R6YRPO00000	11	6950C	2	0	0000	0	0	0997	BC COMPFQ(2) TO COMPARE FLAGX IF NOT
	6910C			6906C						0998	ORG *-4 USE ANY UNUSED SPACE
	6906C	#		0001			0001			0999	ETB DM C'#' ETR CONSTANT FOR COMMUNICATIONS
	6907C	00		0001			0002			1000	TTDCNT DM C'00' TTO COUNTER
	6908C	0		0001			0001			1001	FLAGX DM C'0' FLAG FOR DELETE SEARCH
	6910C	1T50U6045R	07	4505C	1	0	0452C	6	0	1002	S ONE, CICNT DECREMENT COUNT
	6920C	P450U1690Y	08	4505C	0	0	6909C	1	0	1003	MC ONE, FLAGX FLAG AS A NUMBER FOUND
	6930C	X6XXP000000	11	6880C	8	0	0000	0	0	1004	BC BKAGIN(8) GO LOOK FOR MORE
	6940C	VVVVVF		0001			0006			1005	ENGE DM C'VVVVVF' ENQ COMMUNICATIONS CONSTANT
	6946C			6945C						1006	ORG *-1 USE DUPLICATE CHARACTER
	6945C			0001			0001			1007	ENQ DM C' ENQ CHARACTER CONSTANT
	6950C	PTUQU1690Y	14	4505C	0	0	6909C	1	0	1008	COMPFQ C ONE, FLAGX FOUND A NUMBER YET?
	6960C	R7PRP5697P	11	7020C	2	0	6970C	5	0	1009	BC LEAVE(2), DELNOT(5) YES, GET OUT, NO, REPORT

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE
2022										1010	* REQUESTED DELETE NOT ON FILE
2024	69700	0016930155	08	0169	1	0	0155	3	0	1011	DELNOT MC TACC,IACC MOVE TACC TO IACC
2026	69800	P524U5704U	08	5245C	0	0	7045C	5	0	1012	MC WRN03,LITMSG MOVE WRN03 INTO HOLD BUFF
2028	69900	V0PS65595P	11	0036	6	0	5950C	5	0	1013	CHGNOT BC NFED+1(6),CONSOL(5) GO TO TEST MSGQ AVAILABILITY
2030	70000	P704U5032W	08	7045C	0	0	0327C	5	0	1014	MC LITMSG,MSGQ MOVE HOLDING BUFF TO MSGQ
2032	70100	001553033S	08	0155	1	0	0333C	3	0	1015	MVIAC MC IACC,MSGQ+6 REPORT THE NUMBER
	70200	X1YRP00000	11	1920C	8	0	0000	0	0	1016	LEAVE BC OPDSK(8) GET OUT
2036	70300			7024C						1017	ORG *-6 USE ANY UNUSED SPACE
2038	70240	VVVVVVU		0001			0006			1018	NACK DM C'VVVVVVU' NAK CONSTANT FOR COMMUNICATIONS
2040	70300			7029C						1019	ORG *-1 USE DUPLICATE CHARACTER
2042	70290			0001			0001			1020	NAK DM C NAK CHARACTER CONSTANT
2044	70300	P834U5704U	08	8345C	0	0	7045C	5	0	1021	OVFFUL MC WRN05,LITMSG PLACE WRN05 INTO THE HOLD BUFF
2046	70400	U6YYP00000	11	6990C	5	0	0000	0	0	1022	BC CHGNOT(5) GO TO PASS IT ON TO MSGQ
2048	70500			7045C						1023	ORG *-5
2050	7045C			0001			0005			1024	LITMSG DM C'
2052										1025	*
2054										1026	* THIS IS THE ENTRY POINT FOR BUILDING A NEW CREDIT FILE.
2056										1027	* THE INPUT BUFFERS ARE CLEARED AND RESET AFTER THE ENTIRE
2058										1028	* CREDIT FILE AREA IS CLEARED TO ZEROS. A MESSAGE
2060										1029	* SIGNALLING THE END OF THE REQUIRED OPTION IS PASSED
2062										1030	* ON TO THE WORKSTATION. THE SYSTEM THEN AWAITs
2064										1031	* CREDIT DATA WHICH FOLLOWS ON A HOST COMMAND. THE
2066										1032	* ON-LINE ENTRY POINT IS THEN USED TO COMPLETE THE FILE
2068										1033	* BUILDING OPERATION AND THE NUMBER OF ACCOUNT NUMBERS
2070										1034	* LOGGED ON DISC IS REPORTED AT THE WORKSTATION.
2072										1035	*
2074	70500	P149Y10055	08	1499C	0	0	0055	1	0	1036	FLBLDA MC ZEROS(1),DATA CLEAR DISK I/O BUFFER
2076	70600	Y055690056	08	0055	9	0	0056	9	0	1037	MC DATA(99),DATA+1 COMPLETE CLEARING BUFFER
2078	70700	P040SA031P	08	0403C	0	0	0310C	6	0	1038	MC STADR,ADDR INITIATE FILE BUILD ROUTINE
2080	70800	V0PS65595P	11	0036	6	0	5950C	5	0	1039	BC NEED+1(6),CONSOL(5) GO TO TEST MSGQ AVAILABILITY
2082	70900	P659U5032W	08	6595C	0	0	0327C	5	0	1040	MC ATT11,MSGQ REPORT CREDIT FILE BEING CLEARED
2084	71000	V840DE846P	11	8511C	6	0	8460C	5	0	1041	FILEC BC ONTRK+1(6),CHKTRK(5) GO TO PRE-ALIGN DISK ARM ON TRACK
2086	71100	000U50031P	01	0055	0	0	0310C	0	0	1042	W DATA(0),ADDR(0) WRITE THE DISC SECTOR NOW
2088	71200	R70TR1710P	11	7140C	2	0	7100C	1	0	1043	BC CUTTY(2),FILEC(1) HANG IN IF SOFT ERROR
2090	71300	V540U575P	11	5771C	6	0	5750C	3	0	1044	BC DSBAD+1(6),DSHAD(3) BAD SECTOR MESSAGE IF HARD
2092	71400	1T60U6031P	04	4505C	1	0	0310C	6	0	1045	CUTTY A ONE,ADDR INCREMENT ADDRESS
2094	71500	PPS1PAC040Y	14	0310C	0	0	0409C	6	0	1046	C ADDR,LOVFL CHECK FOR LAST ADDRESS
2096	71600	S7JWPR710P	11	7170C	3	0	7100C	8	0	1047	BC **10(3),FILEC(8) LOOP BACK (AND SWITCH) IF NOT LAST
2098	71700	P149Y6045R	08	1499C	0	0	0452C	6	0	1048	MC ZEROS(6),CICNT CLEAR COUNT OF CREDIT NUMBERS
2100	71800	P039KA041U	08	0397C	0	0	0415C	6	0	1049	MC PRIME,NXLNK RESET NEXT LINK ADDRESS
2102	71900	6P40SA041U	04	0403C	6	0	0415C	6	0	1050	A STADR,NXLNK LINKS BEGIN AT END OF FILE
2104	72000	P042DA042W	08	0421C	0	0	0427C	6	0	1051	MC BDLNK,NXTBD RESET BAD LINK AREA
2106	72100	V5TS0R531P	11	5431C	6	0	5310C	5	0	1052	BC POROUT+1(6),PORTRT(5) PORTRAIT OF SYSS
2108	72200	P437V3437W	08	4376C	0	0	4377C	3	0	1053	MC SPACE(3),PSFLAG RELEASE PSFLAG OPTION
2110	72300	V0PS65595P	11	0036	6	0	5950C	5	0	1054	BC NFED+1(6),CONSOL(5) GO TO TEST MSGQ AVAILABILITY
2112	72400	P280UR032W	08	2805C	0	0	0327C	5	0	1055	MC ATTO2,MSGQ REPORT C/I FILE CLEARED
2114	72500	U1YRP00000	11	1920C	5	0	0000	0	0	1056	BC OPDSK(5) RELEASE SHARED ROUTINES
2116										1057	*
2118										1058	*****
2120										1059	*
2122										1060	* SUBROUTINES CALLED DURING CREDIT AUTHORIZATION ONLY
2124										1061	*
2126										1062	*****
2128										1063	*
2130										1064	*
2132										1065	* THIS ROUTINE CHECKS THE CREDIT STATUS DURING A CREDIT

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE
2134										1066	* INQUIRY FROM THE TERMINALS. THE STATUS FOUND ON DISC
2134										1067	* IS TARLED IN CREDIT ALONG WITH THE CURRENT DEVICE.
2134										1068	* WHEN RETURNED TO THE PARTITION, A CHECK IS MADE TO
2140										1069	* VERIFY THAT THE DEVICE REQUESTING IS ACTUALLY THE
2142										1070	* DEVICE BEING ANSWERED. IF THE ACCOUNT NUMBER WAS NOT
2144										1071	* ON THE FILE, A NOT HERE CODE IS RETURNED TO THE TERMINAL
2144										1072	*
2144	7260C	P222X2067V	08	2227C	0	0	0676C	2	0	1073	CIREP MC WORKS+2(2),TNL MOVE MESSAGE LENGTH TO TNL
2150	7270C	P443V1395Y	08	4436C	0	0	3959C	1	0	1074	MC NINE,DCODE MOVE A NINE INTO DCODE
2152	7280C	PPP551753U	14	0055	0	0	7535C	1	0	1075	C INBUF+2(1),ATSGN DOES THIS CI HAVE EXTRA '0'
2154	7290C	R7SPP5732P	11	7300C	2	0	7320C	5	0	1076	BC ATCRD(2),NOTAT(5) ADJUST IF YES, ELSE NORMAL
2156	7300C	1TIPU2067V	07	4505C	1	0	0676C	2	0	1077	ATCRD S ONE(1),TNL(2) DECREMENT LENGTH BY ONE
2158	7310C	QPPH550056	15	0055	1	0	0056	5	0	1078	X INBUF+2(15),INBUF+3 ADJUST FIELD
2160	7320C	1TIPU2067V	07	4505C	1	0	0676C	2	0	1079	NOTAT S ONE,TNL DECREMENT BY ONE
2162	7330C	PPT3V2067V	14	0436C	0	0	0676C	2	0	1080	C ACLNT(2),TNL CK MIN LENGTH ACCT NUMBER
2164	7340C	S703P00000	11	7510C	3	0	0000	0	0	1081	BC MOVCD(3) GET OUT IF TOO SMALL
2166	7350C			7348C						1082	ORG *-2 USE ANY UNUSED SPACE
2168	7348C	10		0001			0002			1083	TEN DM C'10' CONSTANT OF TEN
2170	7350C	PPT3X2067V	14	0438C	0	0	0676C	2	0	1084	C ACLNT+2(2),TNL CK MAX LENGTH ACCT NUMBER
2172	7360C	Q7IQP00000	11	7510C	1	0	0000	0	0	1085	BC MOVCD(1) GET OUT IF TOO LARGE
2174	7370C	1TIPU2067V	07	4505C	1	0	0676C	2	0	1086	S ONE,TNL DECREMENT TNL BY ONE MORE
2176	7380C	P064V1745P	09	0676C	0	0	7450C	1	0	1087	MN TNL(1),FIXIT MOVE THIS NUMBER LENGTH
2178	7390C	P064W1745U	09	0677C	0	0	7455C	1	0	1088	MN TNL+1(1),FIXIT+5 TO FIXIT INSTRUCTION
2180	7400C	P064V1746P	09	0676C	0	0	7460C	1	0	1089	MN TNL(1),CHKIT SET 'A' LENGTH MODIFIER IN CHKIT
2182	7410C	P064W1746U	09	0677C	0	0	7465C	1	0	1090	MN TNL+1(1),CHKIT+5 SET 'B' LENGTH MODIFIER IN CHKIT
2184	7420C	Q149Y20155	08	1499C	1	0	0155	3	0	1091	MC ZEROS(13),IACC CLEAR IACC
2186	7430C	P064T40011	08	0464C	0	0	0011	4	0	1092	MC ACNSL,REG1 SEARCH LENGTH TO REG1
2188	7440C	2PVAV40011	07	0676C	2	0	0011	4	0	1093	S TNL,REG1 ADJUST POINTER
2190	7450C	Q0005C0105	09	0055	1	0	0155	0	1	1094	FIXIT MN INBUF+2(10),IACC(1) MOVE NUMBER TO TACC
2192	7460C	QPP5500105	14	0055	1	0	0155	0	1	1095	CHKIT C INBUF+2(10),IACC(1) TEST FOR VALID NUMERICS
2194	7470C	R7TXP50400	11	7480C	2	0	0400	5	0	1096	BC **10(2),TAG2(5) GO TO REPLY NAK IF NOT NUMERICS
2196	7480C	Q015530169	08	0155	1	0	0169	3	0	1097	MC IACC,TACC MOVE IACC TO TEST AREA
2198	7490C	V70YQ5754P	11	7591C	6	0	7540C	5	0	1098	BC RNDXIT+1(6),RNADR(5) DETERMINE DISK ADDRESS
2200	7500C	V7YSQ5740P	11	7931C	6	0	7600C	5	0	1099	BC ENJSC+1(6),SEARCH(5) SEARCH DISK
2202	7510C	P004911TTP	08	0049	0	0	1440C	1	3	1100	MOVCD MC DEVICE(1),CREDIT+1(,3) ANSWERING PARTITION
2204	7520C	P395Y11TTQ	08	3959C	0	0	1441C	1	3	1101	MC DCODE,CREDIT+2(,3) DISPLAY CODE
2206	7530C	U0PPP00000	11	0000C	5	0	0000	0	0	1102	ROUT BC 0(5) RETURN
2208	7540C			7535C						1103	ORG *-5
2210	7535C			0001			0001			1104	ATSGN DM C'0' COMMERCIAL 'A' SIGN
2212										1105	*
2214										1106	* THIS ROUTINE DETERMINES A DISC ADDRESS FOR EACH ACCOUNT
2216										1107	* NUMBER GIVING A SMOOTH DISTRIBUTION FOR THE CREDIT FILE
2218										1108	*
2220	7540C	Q149Y40182	08	1499C	1	0	0182	6	0	1109	RNADR MC ZFROS(16),DVND CLEAR DVND BUFFER OF HIGH BITS
2222	7550C	Q0155C0188	08	0155	1	0	0188	0	0	1110	RNADR1 MC IACC(10),DVND+6 SET LOW-ORDER OF NUMBER AS DIVIDEN
2224	7560C	6P3YW00182	05	0397C	6	0	0182	0	0	1111	D PRIME,QUO DIVIDE BY PRIME
2226	7570C	P01926031P	08	0192	0	0	0310C	6	0	1112	MC REM,ADDR USE REMAINDER AS BASE
2228	7580C	6P4056031P	04	0403C	6	0	0310C	6	0	1113	A STADR,ADDR ADD START FOR ADDRESS
2230	7590C	U0PPP00000	11	0000C	5	0	0000	0	0	1114	RNDXIT BC 0(5) RETURN
2232	7600C			7595C						1115	ORG *-5
2234	7595C	ERR01		0001			0005			1116	ERR01 DM C'ERR01' DISC PARITY ERROR
2236										1117	*
2238										1118	*
2240										1119	* THIS ROUTINE SEARCHES THE CREDIT FILE FOR A MATCH ON
2242										1120	* THE DATA IN TACC. TACC CONTAINS THE ACCOUNT NUMBER DURING
2244										1121	* AN INQUIRY, CHANGE OR DELETE AND ZEROS DURING ADDITIONS. IT REPLIES WITH A NUMBER OR A NOT HERE CODE AFTER

SEG.	LOC.	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE
2246										1122	* SEARCHING ALL POSSIBLE LOCATIONS IN THE FILE. THIS
2248										1123	* DOES NOT MEAN A SEQUENTIAL SEARCH. DATA IS RANDOMIZED
2250										1124	* TO A SECTOR AND LINKED DIRECTLY TO AN OVERFLOW AREA.
2252										1125	*
2254	7600C	R149Y1395Y	08	1499C	0	0	3958C	1	0	1126	SEARCH MC ZEROS(1),CT1 RESET DISC ERROR COUNTER
2256	7610C	000550031P	00	0055	0	0	0310C	0	0	1127	RDINS R DATA(0),ADDR(0) READ DISK
2258	7620C	R74XP3766P	11	7780C	2	0	7660C	3	0	1128	BC RGNM(2),BAD6(3) BEGIN COMPARE IF GOOD
2260	7630C	V51T01563P	11	5741C	6	0	5630C	1	0	1129	BC DSQF+1(6),DSOF(1) TO DSOF IF DISK IS OFF
2262	7640C	PSY5Y1149Y	14	3958C	0	0	1499C	1	0	1130	C CT1,ZEROS CHECK COUNTER
2264	7650C	S7VSP00000	11	7610C	3	0	0000	0	0	1131	BC RDINS(3) RETRY IF POSSIBLE
2266	7660C	V54Q05575P	11	5771C	6	0	5750C	5	0	1132	RAD6 BC DSRAD+1(6),DSBAD(5) TO DSBAD IF NOT OFF
2268	7670C	PR1204031P	14	0421C	0	0	0310C	6	0	1133	C BDLNK,ADDR TEST FOR BAD LINK ITSELF FOR RAD
2270	7680C	R7VYP5776P	11	7690C	2	0	7760C	5	0	1134	BC **10(2),MOVBAD(5) GO TO SET IT IN ADDR IF NOT BAD
2272	7690C	1W69P6031P	04	7690C	1	0	0310C	6	0	1135	A *(1),ADDR INCREMENT THE BDLNK EQUIVLENT
2274	7700C	PPS1PA040Y	14	0310C	0	0	0409C	6	0	1136	C ADDR,LOVFL TEST FOR END OF CREDIT FILE AREA
2276	7710C	G74TR00000	11	7740C	1	0	0000	0	0	1137	BC BADGUD(1) GO TO SET NEXT BDLNK IF NOT FND
2278	7720C	G019Y30169	14	1499C	1	0	0169	3	0	1138	C ZEROS(13),TACC TEST FOR 'ADD' TYPE SEARCH
2280	7730C	R7PSP5788P	11	7030C	2	0	7880C	5	0	1139	BC OVFFUL(2),NOFND(5) REPORT EOF IF 'ADD' ELSE NOT FOUND
2282	7740C	P031PA0420	08	0310C	0	0	0421C	6	0	1140	BADGUD MC ADDR,BDLNK ADJUST BAD LINK TO NEW VALUE
2284	7750C	V5TS05531P	11	5431C	6	0	5310C	5	0	1141	BC POROUT+1(6),PORTRT(5) GO TO UPDATE THE SYSS ON DISK
2286	7760C	P04204031P	08	0421C	0	0	0310C	6	0	1142	MOVBAD MC BDLNK,ADDR SET BAD LINK ADDRESS FOR ACCESS
2288	7770C	U7VPP00000	11	7600C	5	0	0000	0	0	1143	BC SEARCH(5) RETURN TO SEARCH
2290	7780C	P143Y40011	08	1499C	0	0	0011	4	0	1144	RGNM MC ZEROS(4),REG1
2292	7790C	YPP554P169	14	0055	9	1	0169	4	0	1145	COMP C DATA(1),TACC LOOK FOR TACC
2294	7800C	R7VPP00000	11	7900C	2	0	0000	0	0	1146	BC FOUND(2) TO FOUND IF MATCH
2296	7810C	2P43X40011	04	0438C	2	0	0011	4	0	1147	A ACLNT+2(2),REG1 INCREMENT REG1 BY MAX LENGTH
2298	7820C	PP21230439	14	0012	0	0	0433C	3	0	1148	C REG1+1(3),LDATA CHECK FOR LAST ACCOUNT
2300	7830C	G74YP2779P	11	7790C	1	0	7790C	2	0	1149	BC COMP(1),COMP(2) BRANCH TO COMP IF NOT
2302	7840C	PP3496149Y	14	0149	0	0	1499C	6	0	1150	C LNKAD,ZEROS CHECK FOR LINK TO OVERFLOW
2304	7850C	R74XP00000	11	7880C	2	0	0000	0	0	1151	BC NOFND(2) NOT FOUND IF NO LINK
2306	7860C	P01496031P	08	0149	0	0	0310C	6	0	1152	MC LNKAD,ADDR LINK TO OVERFLOW AREA
2308	7870C	U7VPP00000	11	7600C	5	0	0000	0	0	1153	BC SEARCH(5) CHECK OVERFLOW AREA
2310	7880C			7877C						1154	ORG *-3 USE ANY UNUSED SPACE
2312	7877C			0001		0001				1155	ANS DM C1 RESPONSE BUFFER
2314	7878C	D		0001		0001				1156	D DM C'DI
2316	7879C	R		0001		0001				1157	R DM C'RI
2318	7880C	P437U1395Y	08	4375C	0	0	3959C	1	0	1158	NOFND MC NOTHR,DCODE NOT HERE CODE TO DCODE
2320	7890C	U7YSP00000	11	7930C	5	0	0000	0	0	1159	BC ENDSC(5) END SEARCH
2322	7900C			7895C						1160	ORG *-5 USE ANY UNUSED SPACE
2324	7895C	*****		0001		0005				1161	ASTRSK DM C'*****' ASTERISK CONSTANT FOR FILL TEST
2326	7900C	2P43X40011	04	0438C	2	0	0011	4	0	1162	FOUND A ACLNT+2(2),REG1 ADJUST POINTERS
2328	7910C	1T1P1140011	07	4505C	1	0	0011	4	0	1163	S ONE,REG1 TO POINT TO CREDIT STATUS
2330	7920C	P02551S95Y	08	0055	0	1	3959C	1	0	1164	MC DATA(1,1),DCODE CREDIT STATUS TO DCODE
2332	7930C	U0PPP00000	11	0000C	5	0	0000	0	0	1165	ENDSC BC 0(5) RETURN
2334										1166	*
2336										1167	* THIS ROUTINE ADDS THE CONTENTS OF IACC TO A FILE.
2338										1168	* IACC CONTAINS THE ACCOUNT NUMBER DURING FILE BUILDING
2340										1169	* AND UPDATES. IT CONTAINS ZEROS DURING DELETES.
2342										1170	* THE SEARCH ROUTINE FINDS TACC ON THE FILE, AND THIS
2344										1171	* ROUTINE WRITES IACC IN THE SELECTED PLACE.
2346										1172	*
2348	7940C	V7YS05760P	11	7931C	6	0	7600C	5	0	1173	ACCADD BC ENDSC+1(6),SEARCH(5) SEARCH FOR TACC
2350	7950C	PSY5Y1437U	14	3959C	0	0	4375C	1	0	1174	C DCODE,NOTHR WAS IT FOUND
2352	7960C	R8PSP00000	11	8030C	2	0	0000	0	0	1175	BC ACAD(2) LEAVE IF NOT
2354	7970C	2PTSX40011	07	0438C	2	0	0011	4	0	1176	S ACLNT+2(2),REG1 ADJUST POINTERS
2356	7980C	1T50U40011	04	4505C	1	0	0011	4	0	1177	A ONE,REG1 TO SPOT IN DATA

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE	C
2352	7990C	Q01553000H	08	0155	1	0	0055	3	1	1178	MOVER MC IACC,DATA(,1)	MOVE IACC TO DATA
2360	8000C	P149Y1395X	08	1499C	0	0	3958C	1	0	1179	MC ZEROS(1),CT1	ZERO ERROR COUNTER
2362	8010C	V8U005R44P	11	8511C	6	0	8460C	5	0	1180	WTINS BC ONTRK+1(6),CHKTRK(5)	GO TO PRE-ALIGN DISK ARM ON TRACK
2364	8020C	Q00U50031P	01	0055	0	0	0310C	0	0	1181	W DATA(0),ADDR(0)	WRITE THE DISC SECTOR NOW
2366	8030C	R0PPP3R07P	11	0000C	2	0	8070C	3	0	1182	ACADED BC 0(2),BAD7(3)	ITS ADDED IF WRITE WAS GOOD
2368	8040C	V5WTQ1563P	11	5741C	6	0	5630C	1	0	1183	BC DSOFE+1(6),DSOF(1)	TO DSOF ROUTINE IF DISK OFF
2370	8050C	PSY5X1149Y	14	3958C	0	0	1499C	1	0	1184	C CT1,ZEROS	CHECK ERROR COUNTER
2372	8060C	S8PQP00000	11	8010C	3	0	0000	0	0	1185	RC WTINS(3)	REPEAT IF POSSIBLE
2374	8070C	V5W005575P	11	5771C	6	0	5750C	5	0	1186	BAD7 BC DSBADE+1(6),DSRAD(5)	REPORT BAD SECTOR IF NOT
2376	8080C	PPT2W4040Y	14	0427C	0	0	0409C	6	0	1187	C NXTBD,LOVFL	CHECK FOR END OF FILE
2378	8090C	S7PSP00000	11	7030C	3	0	0000	0	0	1188	BC OVFFUL(3)	REPORT OVERFLOW IF NO ROOM
2380	8100C	P042W4031P	08	0427C	0	0	0310C	6	0	1189	MC NXTBD,ADDR	TRY NEXT SECTOR
2382	8110C	1T50U4042W	04	4505C	1	0	0427C	6	0	1190	A ONE,NXTBD	INCREMENT SAVE AREA POINTER
2384	8120C	V5TS05531P	11	5431C	6	0	5310C	5	0	1191	BC POROUT+1(6),PORTRT(5)	TAKE A PORTRAIT
2384	8130C	P042W40149	08	0427C	0	0	0149	6	0	1192	MC NXTBD,LNKAD	FORCE LINKAGE IN SAVE AREA
2388	8140C	U8PQP00000	11	8010C	5	0	0000	0	0	1193	BC WTINS(5)	GO TO WRITE INSTRUCTION
2390										1194	*	
2392										1195	*	
2394										1196	*	
2396										1197	*	
2398										1198	*	
2400	8150C	1T50U4041U	04	4505C	1	0	0415C	6	0	1199	RERE A ONE,NXLNK	INCREMENT TO NEXT OVERFLOW SECTOR
2402	8160C	PP11U4042R	14	0415C	0	0	0421C	6	0	1200	C NXLNK,BDLNK	TEST FOR END OF OVERFLOW SECTORS
2404	8170C	Q80XP5703P	11	8180C	1	0	7030C	5	0	1201	BC **10(1),OVFFUL(5)	MESSAGE TO WORK STATION IF EQUAL
2406	8180C	V5TS05531P	11	5431C	6	0	5310C	5	0	1202	BC POROUT+1(6),PORTRT(5)	TAKE A PORTRAIT
2408	8190C	P041U40149	08	0415C	0	0	0149	6	0	1203	MC NXLNK,LNKAD	NEXT LINK IN LNKAD IF NOT
2410	8200C	P149Y1395X	08	1499C	0	0	3958C	1	0	1204	MC ZEROS(1),CT1	ZERO ERROR COUNTER
2412	8210C	V8U005R44P	11	8511C	6	0	8460C	5	0	1205	WTINS1 BC ONTRK+1(6),CHKTRK(5)	GO TO PRE-ALIGN DISK ARM ON TRACK
2414	8220C	Q00U50031P	01	0055	0	0	0310C	0	0	1206	W DATA(0),ADDR(0)	WRITE THE DISC SECTOR NOW
2416	8230C	R8SUP3R27P	11	8350C	2	0	8270C	3	0	1207	BC LNKEH(2),BAD8(3)	TO LNKEH IF GOOD WRITE
2418	8240C	V5WTQ1563P	11	5741C	6	0	5630C	1	0	1208	BC DSOFE+1(6),DSOF(1)	TO DSOF IF DISK IS OFF
2420	8250C	PSY5X1149Y	14	3958C	0	0	1499C	1	0	1209	C CT1,ZEROS	CHECK ERROR COUNTER
2422	8260C	S8PQP00000	11	8210C	3	0	0000	0	0	1210	BC WTINS1(3)	TO WRITE AND WAIT IF IT WAS
2424	8270C	V5W005575P	11	5771C	6	0	5750C	5	0	1211	BAD8 BC DSBADE+1(6),DSRAD(5)	TO REPORT BAD SECTOR IF NOT OFF
2426	8280C	PPT2W4040Y	14	0427C	0	0	0409C	6	0	1212	C NXTBD,LOVFL	PREPARE TO SAVE DATA
2428	8290C	S7PSP00000	11	7030C	3	0	0000	0	0	1213	BC OVFFUL(3)	REPORT OVERFLOW IF NO ROOM
2430	8300C	P042W4031P	08	0427C	0	0	0310C	6	0	1214	MC NXTBD,ADDR	TRY NEXT SECTOR
2432	8310C	1T50U4042W	04	4505C	1	0	0427C	6	0	1215	A ONE,NXTBD	INCREMENT SAVE AREA POINTER
2434	8320C	V5TS05531P	11	5431C	6	0	5310C	5	0	1216	BC POROUT+1(6),PORTRT(5)	TAKE A PORTRAIT
2436	8330C	P042W40149	08	0427C	0	0	0149	6	0	1217	MC NXTBD,LNKAD	FORCE LINKAGE IN SAVE AREA
2438	8340C	U8PQP00000	11	8210C	5	0	0000	0	0	1218	BC WTINS1(5)	TRY TO WRITE THIS DATA
2440	8350C			8345C						1219	ORG **5	
2442	8345C	WRN05		0001			0005			1220	WRN05 CM C/WRN05	C/I OVERFLOW FILLED
2444	8350C	P041U4031P	08	0415C	0	0	0310C	6	0	1221	LNKEM MC NXLNK,ADDR	PUT LINK ADDRESS IN SECTOR DATA
2446	8360C	U6WYP00000	11	6790C	5	0	0000	0	0	1222	BC ADHIM(5)	RETURN TO ADD
2448										1223	*	
2450										1224	*	
2452										1225	*	
2454										1226	*	
2456										1227	*	
2458	8370C	P035TA031P	08	0354C	0	0	0310C	6	0	1228	GETSYS MC HOMAD,ADDR	HOLD ADDRESS FOR ERRORS
2460	8380C	P149Y1395X	08	1499C	0	0	3958C	1	0	1229	MC ZEROS(1),CT1	ZERO DISC ERROR COUNTER
2462	8390C	0036P0031P	00	0360C	0	0	0310C	0	0	1230	GW1 R SYSSS(0),ADDR(0)	READ SYSTEM STATUS SECTOR
2464	8400C	R0PPP3R44P	11	0000C	2	0	8440C	3	0	1231	GETSYO BC 0(2),BAD3(3)	GET OUT IF GOOD
2466	8410C	V5WTQ1563P	11	5741C	6	0	5630C	1	0	1232	BC DSOFE+1(6),DSOF(1)	REPORT SOFT ERROR
2468	8420C	PSY5X1149Y	14	3958C	0	0	1499C	1	0	1233	C CT1,ZEROS	CHECK RETRIES

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE
2470	8430C	S8SYPO0000	11	8390C	3	0	0000	0	0	1234	BC GW1(3)
2472	8440C	V5W405575P	11	5771C	6	0	5750C	5	0	1235	BAD3 BC DSBAD+1(6),DSBAD(5)
2474	8450C	U8SWP00000	11	8370C	5	0	0000	0	0	1236	BC GETSYS(5)
2476	8460C			8455C						1237	ORG *=5
2478	8455C	ATTOR		0001			0005			1238	ATT08 DM C'ATT08'
2480										1239	*
2482										1240	*
2484										1241	*
2486										1242	*
2488	8460C	P031PAR65U	08	0310C	0	0	8655C	6	0	1243	CHKTRK MC ADDR,ADDRCK
2490	8470C	PX52X2R65Y	04	8528C	2	0	8659C	2	0	1244	A NINE8,ADDRCK+4(2)
2492	84X0C	P14YY1R52P	09	1499C	0	0	8520C	1	0	1245	CHKTRC MN ZEROS(1),CHKPNT
2494	8490C	002000R65U	00	0200	0	0	8655C	0	0	1246	TRKRD R 200P(0),ADDRCK(0)
2496	8500C	T810P1R52P	11	8510C	4	0	8520C	1	0	1247	BC **10(4),CHKPNT(1)
2498	8510C	U0PPP00000	11	0000C	5	0	0000	0	0	1248	ONTRK BC 0(5)
2500	8520C	PRVTP00000	11	8640C	0	0	0000	0	0	1249	CHKPNT BC TRKBD(0)
2502	8530C			8528C						1250	ORG **2
2504	8528C	98		0001			0002			1251	NINE8 DM C'98'
2506	8530C	P45PY1R52P	09	4509C	0	0	8520C	1	0	1252	MN FIVE,CHKPNT
2508	8540C	P00PT1R54U	09	0004C	0	0	8565C	1	0	1253	MN 4C(1),ISIT04
2510	8550C	PPS2V1032W	14	0326C	0	0	0327C	1	0	1254	WAIT4 C FREE,MSG0
2512	8560C	R8UXP1R63P	11	8580C	2	0	8630C	1	0	1255	BC **20(2),GWAIT4(1)
2514	8570C			8565C						1256	ORG **5
2516	8565C	1		0001			0001			1257	ISIT04 DM C'1'
2518	8570C	V05W150340	11	0371	6	0	0340	5	0	1258	BC LEAVIT+1(6),TELLEM(5)
2520	8580C	PR62U5032W	08	8625C	0	0	0327C	5	0	1259	MC WRN99,MSG0
2522	8590C	PR65U4033S	08	8655C	0	0	0333C	6	0	1260	MC ADDRCK,MSG0+6
2524	8600C	PX14U1149Y	14	8565C	0	0	1499C	1	0	1261	C ISIT04,ZEROS
2526	8610C	V05W120340	11	0371	6	0	0340	2	0	1262	BC LEAVIT+1(6),TELLEM(2)
2528	8620C	URTYP00000	11	8490C	5	0	0000	0	0	1263	BC TRKRD(5)
2530	8630C			8625C						1264	ORG **5
2532	8625C	WRN99		0001			0005			1265	WRN99 DM C'WRN99'
2534	8630C	X81UP00000	11	8550C	8	0	0000	0	0	1266	GWAIT4 BC WAIT4(8)
2536	8640C	IT50U2R65Y	04	4505C	1	0	8659C	2	0	1267	TRKBD A ONE,ADDRCK+4(2)
2538	8650C	URTXP00000	11	8480C	5	0	0000	0	0	1268	BC CHKTRK(5)
2540	8660C			8655C						1269	ORG **5
2542	8655C	000000		0001			0006			1270	ADDRCK DM C'000000'
2544										1271	*
2546										1272	*
2548	8661C			8799C						1273	ORG 8799
2550	8799C			0000			0001			1274	QREGIN DM OC1
2552										1275	*
2554										1276	*
2556										1277	*
2558	8800C	IT50U4030R	04	4505C	1	0	0302C	4	0	1278	LOADST A ONE,INPXA
2560	8810C	G944P00300	08	9440C	1	0	0300	0	0	1279	MC XRX(10),ROX
2562	8820C	P450U1402X	08	4505C	0	0	4028C	1	0	1280	MC ONE,BLOCKAC
	8830C	P03P000000	11	0000	0	0	0000	0	0	1281	BC OP(0),OP(0)
	8840C	P0PP000000	11	0000	0	0	0000	0	0	1282	BC OP(0),OP(0)
2568	8850C	095XU30000	01	9585C	0	0	0001C	3	0	1283	W CR(0),1(3)
2570	8860C	0940R1001W	01	9612C	0	0	0017C	1	0	1284	W TITLE2(0),17(1)
2572	8870C	095XU30000	01	9585C	0	0	0001C	3	0	1285	W CR(0),1(3)
2574	8880C	0110930000	01	1119	0	0	0001C	3	0	1286	ASK+IT W CARRET(0),1(3)
2576	8890C	095W05000U	01	9571C	0	0	0005C	5	0	1287	W ATTO4(0),5(5)
2578	8900C	003755000U	00	0375	0	0	0005C	5	0	1288	R LABEL(0),5(5)
2580	8910C	PPS755943U	14	0375	0	0	9435C	5	0	1289	C LABEL,DINTL

REPEAT IF POSSIBLE
 REPORT BAD SECTOR
 RE-TRY ANYWAY
 SYSTEM CLOSED PROPERLY
 THIS ROUTINE PERFORMS THE FUNCTION OF A 'READ BEFORE WRITE'
 TO ASSURE PROPER DISC ARM POSITIONING BEFORE WRITING DATA.
 GET DISC ADDRESS FOR ADJUSTMENT
 ADJUST TO READ PRECEDING SECTOR
 CLEAR THE FIRST-TIME BRANCH INSTR
 READ PRECEDING SECTOR TO NOWHERE
 BRANCH TO CHKPNT ON PARITY OR
 TRACK CHECK ELSE EXIT
 FALL THRU ON 1ST TIME ONLY ELSE GO
 CONSTANT OF NINTEIGHT
 SET 1ST TIME BRANCH AFTER 1ST TIME
 GET PARTITION ZEROS ACTIVE BIT
 IS MESSAGE QUEUE AVAILABLE ?
 GO TO WAIT IF IT IS NOT
 USE ACTIVE BIT AS BRANCH MODIFIER
 ACTIVE BIT AREA IN INSTRUCTION
 GO TO CONSOLE REPORTING ROUTINE
 SET WARNING MESSAGE FOR CONSOLE
 APPEND THE DISC ADDRESS TO IT
 IS THIS NOT PARTITION ZERO
 GO TO REPORT THE CONDITION IF NOT
 GO BACK TO TRY IT AGAIN
 WARNING MESSAGE
 SWITCH PARTITIONS AND TRY AGAIN
 INCR. TO READ NEXT SECTOR
 GO TO READ THE NEXT SECTOR
 USE HIGH COMMON FOR QUEUE AREA
 BEGINNING OF QUEUE
 THIS ROUTINE IS ENTERED UPON EACH RELOAD OF THE PROGRAM
 SET INPXA BELOW EVEN LIMIT
 RESET ROX FOR NORMAL OPERATION
 BLOCK ALL ACTIVITY DURING LOAD
 NO-OP BUT HOLD CORE POSITION
 NO-OP BUT HOLD CORE POSITION
 ONE CARRIAGE RETURN
 DISPLAY MODULE AND RELEASE DATE
 ONE CARRIAGE RETURN
 CARRIAGE RETURN
 REQUEST ACTIVITY LABEL FROM OPER
 READ IT
 CHECK INITIALIZATION REQUEST

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LTNE	IMAGE	
2582	89200	RRYIP00000	11	89500	2	0	0000	0	0	1290	BC DINIT(2)	INITIALIZE ROUTINE
2584	89300	PP9756954V	14	0375	0	0	95660	5	0	1291	C LAHEL,NRMLD	NORMAL PROGRAM LOAD?
2586	89400	R9CX05888P	11	91800	2	0	8X800	5	0	1292	BC PRESET(2),ASK+IT(5)	GO TO SET INSTR'S ELSE ASK AGAIN
2588	89500	0110930000	01	1119	0	0	00010	3	0	1293	DINIT W CARRET(0),1(3)	CARRIAGE RETURN
2590	89600	095WV50000	01	95760	0	0	00050	5	0	1294	W ATTO5(0),5(5)	REQUEST INITIALIZATION DATA
2592	89700	0037Y50060	00	03790	0	0	00610	5	0	1295	R FILCON(0),61(5)	READ SYSTEM PARAMETERS
2594	89800	0110930000	01	1119	0	0	00010	3	0	1296	W CARRET(0),1(3)	CARRIAGE RETURN
2596	89900	0037Y50060	01	03790	0	0	00610	5	0	1297	W FILCON(0),61(5)	WRITE SYSTEM PARAMETERS
2598	90000	07X7W50000	00	78770	0	0	00010	5	0	1298	R ANS(0),1(5)	WAIT FOR ACKNOWLEDGMENT
2600	90100	PWX7W1463H	14	78770	0	0	46350	1	0	1299	C ANS,LETRY	ENTER *Y* FOR OKAY DATA
2602	90200	Q8YIP03895P	11	89500	1	0	89500	3	0	1300	BC DINIT(1),DINIT(3)	BAD ENTRY, RETURN
2604	90300	P035T6036P	08	03540	0	0	03600	6	0	1301	MC HOMAD,CURPIC	SET CURRENT PICTURE ADDRESS
2606	90400	1T50V6036P	04	45060	1	0	03600	6	0	1302	A TWO,CURPIC	INCREMENT PAST SYSSS
2608	90500	P03AR4036X	08	03620	0	0	03680	4	0	1303	MC CURPIC+2(4),NXPIC+2	SET NEXT PICTURE ADDRESS
2610	90600	P037Y6037S	08	03790	0	0	03730	6	0	1304	MC FIRAD,NXSND	SET NEXT SEND ADDRESS
2612	90700	2PGYS20390	07	03930	2	0	03910	2	0	1305	S DL2,DL1	MODIFY DL1 FOR CALCULATIONS
2614	90800	GT5PH2045X	13	45050	1	0	04580	2	0	1306	FN ONE(1),DAYNRS(2)	CREATE THE FIRST DAY INDICATOR
2616	90900	P045X2036V	08	04580	0	0	03660	2	0	1307	MC DAYNRS(2),NXPIC	MOVE DAY TO NXPIC
2618	91000	V4V905444P	11	46310	6	0	44400	5	0	1308	BC DOWNUP+1(6),UPDOWN(5)	CALCULATE DYNAMIC LIMITS
2620	91100	P954P6031P	08	95600	0	0	03100	6	0	1309	MC TAGADR,ADDR	SET ADDRESS FOR SYSSS TAGS
2622	91200	094VP0031P	01	94600	0	0	03100	0	0	1310	W TAGS(0),ADDR(0)	WRITE LABELS ON DISC
2624	91300	R93TP5912P	11	91400	2	0	91200	5	0	1311	BC **+10(2),**+10(5)	CONTINUE IF GOOD
2626	91400	P037Y6065V	08	03790	0	0	06560	6	0	1312	MC FIRAD,NXTAD	SET UP NEXT ADDRESS
2628	91500	V4JV0544XP	11	47610	6	0	46800	5	0	1313	BC CLOSOT+1(6),INCLOS(5)	BLANK TRMZAD TABLES
2630	91600	P463Y1437W	08	46390	0	0	43770	1	0	1314	MC SIX,PSFLAG	SIMULATE OPTION SIX TO CLEAR FILE
2632	91700	0945P01820	08	94500	1	0	1820	0	0	1315	MC DITY(10),DUTY	SET DUTY INSTRUCTION FOR INTLZN
2634	91800	V8TR05837P	11	84010	6	0	83700	5	0	1316	PRESET BC GETSYD+1(6),GETSYS(5)	LOAD MOST CURRENT SYSSS INTO CORE
2636	91900	RP4SX4046T	13	04380	2	0	04640	4	0	1317	FN ACLNT+2(2),ACNSL(4)	SET LENGTHS IN COMPARE AND MOVES
2638	92000	1T5PH4046T	07	45050	1	0	04640	4	0	1318	S ONE,ACNSL	ACNSL = ACLNT - 1
2640	92100	RP4SX4046P	13	04380	2	0	04600	4	0	1319	FN ACLNT+2(2),ACNML(4)	ACCT NUMBER MOVE LENGTH IS ONE
2642	92200	1T5PH4046P	04	45050	1	0	04600	4	0	1320	A ONE,ACNML	GREATER THAN ACLNT
2644	92300	P04VV1779P	09	04660	0	0	77900	1	0	1321	MN ACNSL+2(1),COMP	SET AM OF COMP
2646	92400	P04VW1779H	09	04670	0	0	77950	1	0	1322	MN ACNSL+3(1),COMP+5	SET BM OF COMP
2648	92500	P04SX1749P	09	04380	0	0	79900	1	0	1323	MN ACLNT+2(1),MOVER	SET AM OF MOVER
2650	92600	P04SY1799H	09	04390	0	0	79950	1	0	1324	MN ACLNT+3(1),MOVER+5	SET BM OF MOVER
2652	92700	P74YPA701P	09	79900	0	0	70100	6	0	1325	MN MOVER(6),MVIAC	SET AM AND BM OF MVIAC
2654	92800	P04VR1667P	09	04620	0	0	66700	1	0	1326	MN ACNML+2(1),ACMV	SET AM OF ACMV
2656	92900	P04VS1667H	09	04630	0	0	66750	1	0	1327	MN ACNML+3(1),ACMV+5	SET BM OF ACMV
2658	93000	P04VV1755P	09	04660	0	0	75500	1	0	1328	MN ACNSL+2(1),RNADR1	SET AM OF RNADR1
2660	93100	P04VW1755H	09	04670	0	0	75550	1	0	1329	MN ACNSL+3(1),RNADR1+5	SET BM OF RNADR1
2662	93200	P046T49580	08	04640	0	0	95810	4	0	1330	MC ACNSL,CALCLN	SET FIELD FOR CALCULATION
2664	93300	2WSTX49580	07	73480	2	0	95810	4	0	1331	S TFN,CALCLN	FIND NO. OF CHAR. OVER TFN
2666	93400	095VP2936P	11	93600	1	0	93600	2	0	1332	BC **+20(1),**+20(2)	SKIP ADJUSTMENT IF LESS THAN TEN
2668	93500	2Y5XS47550	04	95830	2	0	75510	4	0	1333	A CALCLN+2(2),RNADR1+1(4)	ADJUST RANDOMIZER FOR LOW-ORDER
2670	93600	P04VR1648P	09	04620	0	0	64800	1	0	1334	MN ACNML+2(1),GRABAS	SET AM OF GRABAS
2672	93700	P04VS1648H	09	04630	0	0	64850	1	0	1335	MN ACNML+3(1),GRABAS+5	SET BM OF GRABAS
2674	93800	P64XPA649P	09	64800	0	0	64900	6	0	1336	MN GRABAS(6),GRBAC	SET AM AND BM OF GRBAC
2676	93900	P04VR1664P	09	04620	0	0	66400	1	0	1337	MN ACNML+2(1),BADAC	SET ERROR ROUTINE LENGTH
2678	94000	P04VS1664H	09	04630	0	0	66450	1	0	1338	MN ACNML+3(1),BADAC+5	SET ERROR ROUTINE LENGTH
2680	94100	P63YV4643V	09	63960	0	0	64360	4	0	1339	MN BUFFAD,TESTAD	SET COMMON ADDRESS FOR ROUTINE INT
2682	94200	V61Y04653P	11	65910	6	0	65300	5	0	1340	BC ADJUST+1(6),ADDRES(5)	GO TO SET ADDRESSES FOR ACCESS
2684	94300	U1VX000000	11	1680	5	0	0000	0	0	1341	BC NRMLD(5)	COMPLETE WITH NORMAL LOAD
2686	94400			94350						1342	ORG **+5	USE ANY UNUSED SPACE
2688	94350	DTNTI		0001			0005			1343	DINTL D% CS'DINTL'	INITIALIZE DISC COMMAND
2690	94400	W10Y500380	11	1195	7	0	0380	0	0	1344	XROX BC DEVR(7),ENTER(0)	NORMAL ROX INSTRUCTION
2692	94500	Q191P01820	08	19100	1	0	1820	0	0	1345	OIDY MC DITY(10),DUTY	DUTY INST FOR INITIALIZATION

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	B/S	M I	LINE	IMAGE
2694	9460C	CURPC	NXPT	0001		0049		1346	TAGS DM C'CURPC NXPIC GNXSND FIRAD FIZLM D1D2RSPRIME STADR '
2696	9509C	LOVFL	NXLN	0001		0051		1347	DM C'LOVFL NXLNK BDLNK NXTBD LDTACL DYNL1 DYNL2 CICNT DY'
2698	9560C	000101		0001		0006		1348	TAGADR DM C'000101' TAG SECTOR CONSTANT
2700	9566C	NRMLD		0001		0005		1349	NRMLD DM C5'NRMLD' NRMLD LOAD COMMAND
2702	9571C	ATT04		0001		0005		1350	ATT04 DM C'ATT04' REQUEST ACTIVITY LABEL
2704	9576C	ATT05		0001		0005		1351	ATT05 DM C'ATT05' ENTER DISC INITIALIZATION PARA
2706	9581C	0000		0001		0004		1352	CALCLN DM C'0000' CALCULATE 'OVER-TEN' AREA
2708	9585C	MM		0001		0002		1353	CR DM C'MM' TWO CARRIAGE RETURNS CONSTANT
2710	9587C	SINGER-FRI		0001		0025		1354	TITLE1 DM C'SINGER-FRIDEN MDTs SYSTEM' PROGRAM TITLE
2712	9612C	CR060		0001		0017		1355	TITLE2 DM C' CR0602-71284' PROGRAM MODULE AND DATE
2714								1356	*
2716								1357	* END OF COMMON ROUTINES
2718								1358	*

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE	
2722										1360	* BEGIN MONITOR PARTITION	
2724										1361	*	
2726										1362	*	
2728										1363	* THIS PARTITION HAS THE LOADING DEVICE ATTACHED	
2730										1364	* AND MONITORS THE SYSTEMS ACTIVITY. MESSAGES TO	
2732										1365	* THE OPERATOR FROM OTHER PARTITIONS ARE PASSED	
2734										1366	* TO THIS PARTITION. IT ALSO WILL RECOGNIZE A SERVICE	
2736										1367	* REQUEST AND ALLOW THE OPERATOR TO MONITOR OR ALTER DATA	
2738										1368	* FLOW BY ENTERING VARIOUS COMMANDS.	
2740	0000									1369	* NORMAL	
2742										1370	*	
2744										1371	*	
2746										1372	* THE CONSTANT FIELD 'NEED' IS DEFINED IN THE SCA	
2748										1373	* PARTITION HOWEVER IT IS ADDRESSED AND USED FOR ALL	
2750										1374	* PARTITIONS.	
2752										1375	* ORG 35 USE THIS AREA IN ALL PARTITIONS	
2754	0000									1376	* *NEED DM C5 HOLD AREA FOR COMMON RETURN ADDRESS	
2756										1377	* ORG 45	
2758	0045	0001			0100					1378	* * TEMPORARY BUFFER FOR UTILITY DISK DUMP	
2760	0145	0001			0001					1379	* XATA DM C100	
2762	0146	0001			0006					1380	* CAT DM C6	
2764	0152	0001			0001					1381	* DOG DM C1	
2766	0153	0001			0005					1382	* RHINO DM C5	
2768	0158	0001			0001					1383	* TAPIR DM C1	
2770	0159	0000			0018					1384	* TRCAD DM OC18 TRACE PARAMETERS	
2772	0159	0001			0003					1385	* TRMNL DM C3 TRACE THIS TERMINAL	
2774	0162	0001			0003					1386	* PRLNT DM C3 PRINT THIS LENGTH	
2776	0165	0001			0006					1387	* TRCST DM C6 BEGIN HERE	
2778	0171	0001			0006					1388	* TREND DM C6 END HERE	
2780	0177	0001			0001					1389	* TRCHK DM C1	
2782	0178	0001			0006					1390	* D4 DM C6	
2784	0184	0001			0003					1391	* D3 DM C3	
2786	0187	0001			0003					1392	* D2 DM C3	
2788	0190	0001			0006					1393	* D1 DM C6	
2790	0196	0001			0001					1394	* DM C1	
2792	0197	0300								1395	* ORG 300	
2794										1396	*	
2796										1397	* RC DEVNR(7),ENTER(0) REPLACES THE FOLLOWING INSTRUCTION	
2798										1398	* AFTER INITIALIZATION. SEE INSTRUCTION LABELED	
2800										1399	* XROX FOR MACHINE LANGUAGE FORMAT.	
2802										1400	*	
2804	0300	URXRP00000	11		RR00C	5	0	0000	0	0	1401	* ROX BC LOADST(5) USED ONLY DURING LOADING
2806											1402	* *ROX BC DEVNR(7),ENTER(0) MONITOR SERVICE REQUEST?
2808	0310	PPS2V1032W	14		0326C	0	0	0327C	1	0	1403	* C FREE,MSGQ IS FIRST POSITION OF MSGQ BLANK?
2810	0320	V09W110340	11		0371	6	0	0340	1	0	1404	* BC LEAVIT+1(6),TELLEM(1) NO, GO TO TELLEM
2812	0330	X05P000000	11		0300	8	0	0000	0	0	1405	* BC ROX(8) GO TO ROX
2814	0340	0110930001	01		1119	0	0	0001	3	0	1406	* TELLEM W CARRET(0),1(3) WRITE ONE CARRIAGE RETURN
2816	0350	003RW10027	01		0327C	0	0	0027	1	0	1407	* W MSGQ(0),27(1) WRITE THE MSGQ AREA
2818	0360	R032V7032W	08		0326C	2	0	0327C	7	0	1408	* MC FREE(27),MSGQ CLEAR THE AREA
2820	0370	U054000000	11		0370	5	0	0000	0	0	1409	* LEAVIT RC LEAVIT(5) RETURN TO NEXT INSTRUCTION
2822	0380				0375						1410	* ORG *-5
2824	0375				0001			0005			1411	* LABEL DM C5 ENTER
2826	0380	0110930001	01		1119	0	0	0001	3	0	1412	* W CARRET(0),1(3) WRITE ONE CARRET
2828	0390	0037510006	00		0375	0	0	0005	1	0	1413	* R LABEL(0),5(1) ENTER A 5 CHAR LABEL FROM KYRD
2830	0400	PPS755476U	14		0375	0	0	4765C	5	0	1414	* C LABEL,DDUMP REQUEST FOR DISC DUMP
2832	0410	R110000000	11		1510	2	0	0000	0	0	1415	* BC DUDHP(2) GO TO DISC UTILITY DUMP

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE	
2834	0420	PPS7551190	14	0375	0	0	1190	5	0	1416	C LABEL,STATE	IS THE LABEL STATE?
2836	0430	ROYV000000	11	0960	2	0	0000	0	0	1417	BC STATE1(2)	IF YES, GO TO THE STATE1 ROUTINE
2838	0440	PPS7551835	14	0375	0	0	1835	5	0	1418	C LABEL,PRINT	IS THE LABEL PRINT?
2840	0450	ROYT000000	11	0940	2	0	0000	0	0	1419	BC PRINT1(2)	IF YES, GO TO PRINT1 ROUTINE
2842	0460	PQJXU2149Y	14	1785C	0	0	1499C	2	0	1420	C NUMB0,ZEROS	IS QUEUE EMPTY?
2844	0470	ROTX020460	11	0480	2	0	0460	8	0	1421	BC **+10(2),*-10(8)	WAIT IF NOT
2846	0480	RQJAP01760	14	1760C	2	0	1761C	0	0	1422	C CLOFLG(20),CLOSED	CHECK SHARED ROUTINES ACTIVITY
2848	0490	ROJPOX0460	11	0500	2	0	0460	8	0	1423	BC **+10(2),*-30(8)	WAIT AT Q TEST IF ACTIVE
2850	0500	P450U11760	08	4505C	0	0	1761C	1	0	1424	MC ONE,CLOSED	CLAIM SHARED ROUTINES
2852	0510	PPS7551185	14	0375	0	0	1185	5	0	1425	C LABEL,SYSDN	IS VERR SYSTEM DOWN
2854	0520	ROYT000000	11	0640	2	0	0000	0	0	1426	BC CLOSIT(2)	TO CLOSE IT ROUTINE
2856	0530	PPS7550905	14	0375	0	0	0905	5	0	1427	C LABEL,ENDAY	IS THE LABEL ENDAY
2858	0540	ROJPO00000	11	0700	2	0	0000	0	0	1428	BC ENDAY0(2)	YES, GO TO ENDAY0
2860	0550	PTP2X1450U	14	4028C	0	0	4505C	1	0	1429	C BLOKAC,ONE	IS THE SYSTEM CLOSED?
2862	0560	ROJ4050590	11	0570	2	0	0590	5	0	1430	BC **+10(2),**+30(5)	IF YES, GO TO NEXT COMMAND
2864	0570	PPS7550695	14	0375	0	0	0695	5	0	1431	C LABEL,SYSDN	REQUEST TO BRING SYSTEM UP
2866	0580	R1VX000000	11	1680	2	0	0000	0	0	1432	BC NORMLD(2)	TO NORMAL LOAD IF YES
2868	0590	P149Y11760	08	1499C	0	0	1761C	1	0	1433	MC ZEROS(1),CLOSED	RELEASE SHARED ROUTINES
2870	0600	PPS7551505	14	0375	0	0	1505	5	0	1434	C LABEL,TRACE	IS THE LABEL TRACE
2872	0610	P1R0000000	11	1210	2	0	0000	0	0	1435	BC TRCR(2)	TO TRACE ROUTINE IF YES
2874	0620	009U510005	01	0955	0	0	0005	1	0	1436	DUMMY W ERR08(0),5(1)	NO LEGAL LABEL ENTERED, ERROR
2876	0630	X0SP000000	11	0300	8	0	0000	0	0	1437	BC ROX(8)	GO TO ROX AND SWITCH
2878	0640	P450U1402X	08	4505C	0	0	4028C	1	0	1438	CLOSIT MC ONE,BLOKAC	BLOCK ALL FURTHER ACTION
2880	0650	P149Y11760	08	1499C	0	0	1761C	1	0	1439	MC ZEROS(1),CLOSED	RELEASE SHARED ROUTINES
2882	0660	V4WV05444P	11	4761C	6	0	4640C	5	0	1440	BC CLOSOT+1(6),CLOSIN(5)	PERFORM CLOSE ROUTINE
2884	0670	0110930001	01	1119	0	0	0001	3	0	1441	W CARRET(0),1(3)	CARRIAGE RETURN
2886	0680	0840U10005	01	8455C	0	0	0005	1	0	1442	W ATT07(0),5(1)	WRITE ATTOR MESSAGE
2888	0690	X0SP000000	11	0300	8	0	0000	0	0	1443	BC ROX(8)	BRANCH AND SWITCH
2890	0700			0695						1444	ORG **5	
2892	0695	SYSUP		0001			0005			1445	SYSUP DM C'SYSUP1	BRING SYSTEM UP VERB
2894	0700	RQJOT0170U	14	1704C	2	0	1705C	0	0	1446	ENDAY0 C TABA(20),TARB	ARE ALL TERMINALS CLOSED?
2896	0710	ROX0000000	11	0810	2	0	0000	0	0	1447	BC ENDAY1(2)	YES, GO TO ENDAY1
2898	0720	0110930001	01	1119	0	0	0001	3	0	1448	W CARRET(0),1(3)	CARRIAGE RETURN
2900	0730	01XTC10030	01	1840	0	0	0030	1	0	1449	W MSGXX1(0),30(1)	WRITE MSGXX1
2902	0740	V100151020	11	1111	6	0	1020	5	0	1450	BC FINIS+1(6),HERTIS(5)	LINK TO HERTIS ROUTINE
2904	0750	0110930001	01	1119	0	0	0001	3	0	1451	MSGXXX W CARRET(0),1(3)	WRITE A CARRIAGE RETURN
2906	0760	01XW010031	01	1870	0	0	0031	1	0	1452	W MSGXX2(0),31(1)	WRITE MSGXX2
2908	0770	0037510004	00	0375	0	0	0004	1	0	1453	R LABEL(0),4(1)	ENTER REPLY
2910	0780	RQJY050750	11	0790	2	0	0750	5	0	1454	BC **+10(2),MSGXXX(5)	CONTINUE OR ASK AGAIN
2912	0790	PPS7531901	14	0375	0	0	1901	3	0	1455	C LABEL(3),YES	IS ANSWER YES?
2914	0800	ROX0050910	11	0810	2	0	0910	5	0	1456	BC ENDAY1(2),FINI(5)	GO TO ENDAY1 OR CYCLE
2916	0810	1T50U2045X	04	4505C	1	0	0458C	2	0	1457	ENDAY1 A ONE,DAYNRS	INCREMENT CURRENT DAY INDICATOR
2918	0820	TOX0000000	11	0810	4	0	0000	0	0	1458	BC *-10(4)	INCREMENT PAST 00
2920	0830	P450U1402X	08	4505C	0	0	4028C	1	0	1459	MC ONE,BLOKAC	BLOCK ALL FURTHER ACTION
2922	0840	V4WV05444P	11	4761C	6	0	4640C	5	0	1460	BC CLOSOT+1(6),CLOSIN(5)	CLOSE THE CURRENT PICTURE
2924	0850	P149Y11760	08	1499C	0	0	1761C	1	0	1461	MC ZEROS(1),CLOSED	RELEASE THE SHARED ROUTINES
2926	0860	0110930001	01	1119	0	0	0001	3	0	1462	W CARRET(0),1(3)	WRITE A CARRIAGE RETURN
2928	0870	0650U10005	01	6525C	0	0	0005	1	0	1463	W ATT07(0),5(1)	WRITE ATTENTION MSG
2930	0880	007RV10001	01	0326C	0	0	0001	1	0	1464	W FREE(0),1(1)	SPACE A CHARACTER
2932	0890	004UX10002	01	0458C	0	0	0002	1	0	1465	W DAYNRS(0),2(1)	WRITE THE NOW CURRENT DAY IND
2934	0900	X0SP000000	11	0300	8	0	0000	0	0	1466	BC ROX(8)	GO TO ROX
2936	0910			0905						1467	ORG **5	
2938	0905	ENDAY		0001			0005			1468	ENDAY DM C'ENDAY1	
2940	0910	011Y610001	01	1196	0	0	0001	1	0	1469	FINI W EDIT(0),1(1)	WRITE 1 ASTERISK TO SHOW FINISH
2942	0920	P149Y11760	08	1499C	0	0	1761C	1	0	1470	MC ZEROS(1),CLOSED	RELEASE THE SHARED ROUTINES
2944	0930	X0SP000000	11	0300	8	0	0000	0	0	1471	BC ROX(8)	GO BACK TO CYCLING

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	R/S	M I	LINE	IMAGE
2944	0940	017XQ10022	01	1781C	0 0	0022	1 0	1472	PRINT1 W EDIT2(0),22(1)
2948	0950	XOSP000000	11	0300	8 0	0000	0 0	1473	BC ROX(8)
2950	0960			0955				1474	ORG **5
2952	0955	ERROR		0001		0005		1475	ERROR DM C'ERROR'
2954	0960	R040T0170H	14	1704C	2 0	1705C	0 0	1476	STATE1 C TABA(20),TARB
2956	0970	R1PP000000	11	1000	2 0	0000	0 0	1477	BC STATE2(2)
2958	0980	V100151020	11	1111	6 0	1020	5 0	1478	BC FINIS+1(6),HERTIS(5)
2960	0990	XOSP000000	11	0300	8 0	0000	0 0	1479	BC ROX(8)
2962	1000	0100510005	01	1015	0 0	0005	1 0	1480	STATE2 W CLOSE(0),5(1)
2964	1010	XOSP000000	11	0300	8 0	0000	0 0	1481	BC ROX(8)
2966	1020			1015				1482	ORG **5
2968	1015	CLOSE		0001		0005		1483	CLOSE DM C5'CLOSE'
2970	1020	P149Y21117	08	1499C	0 0	1117	2 0	1484	HERTIS MC ZEROS(2),PEARL
2972	1030	R040T1170H	14	1704C	0 0	1705C	1 0	1485	WHYNOT C TABA,TABB
2974	1040	Q10R031120	11	1120	1 0	1120	3 0	1486	BC THISON(1),THISON(3)
2976	1050	1T50U21117	04	4505C	1 0	1117	2 0	1487	CUMBK A ONE,PEARL
2978	1060	1T0R041036	07	4505C	1 0	1036	4 0	1488	S ONE,WHYNOT+6(4)
2980	1070	P001721115	14	1117	0 0	1115	2 0	1489	C PEARL,TWENTY
2982	1080	Q1PS000000	11	1030	1 0	0000	0 0	1490	BC WHYNOT(1)
2984	1090	P036441036	08	0966	0 0	1036	4 0	1491	MC STATE1+6(4),WHYNOT+6
2986	1100	011Y610001	01	1196	0 0	0001	1 0	1492	W EDIT1(0),1(1)
2988	1110	XOPP000000	11	0000	8 0	0000	0 0	1493	FINIS BC OP(8)
2990	1120			1115				1494	ORG **5
2992	1115	20		0001		0002		1495	TWENTY DM C2'20'
2994	1117	00		0001		0002		1496	PEARL DM C2'00'
2996	1119	M		0001		0001		1497	CARRET DM C1'M'
2998	1120	0110930001	01	1119	0 0	0001	3 0	1498	THISON W CARRET(0),1(3)
3000	1130	P111721197	08	1117	0 0	1197	2 0	1499	MC PEARL,EDIT1+1
3002	1140	2011731151	04	1117	2 0	1151	3 0	1500	A PEARL,MODIFY+1(3)
3004	1150	Q150T01200	08	1504C	1 0	1200	0 0	1501	MODIFY MC TERM,EDIT1+4
3006	1160	2000731151	07	1117	2 0	1151	3 0	1502	S PEARL,MODIFY+1(3)
3008	1170	011Y610014	01	1196	0 0	0014	1 0	1503	W EDIT1(0),14(1)
3010	1180	U1P0000000	11	1050	5 0	0000	0 0	1504	BC CUMBK(5)
3012	1190			1185				1505	ORG **5
3014	1185	SYSDN		0001		0005		1506	SYSDN DM C'SYSDN'
3016	1190	STATF		0001		0005		1507	STATE DM C5'STATE'
3018	1195			0001		0001		1508	DEVNR DM C1
3020	1196	*00*000000		0001		0014		1509	EDIT1 DM C14'*00*0000000000'
3022								1510	* TRACE ROUTINE
3024	1210	0015910018	00	0159	0 0	0018	1 0	1511	TRCER R TRCAD(0),18(1)
3026	1220	P149Y10177	08	1499C	0 0	0177	1 0	1512	MC ZEROS(1),TRCHK
3028	1230	PP1VR00187	13	0168	0 0	0187	0 0	1513	FN TRCST+3(10),02(10)
3030	1240	PP1U900178	13	0159	0 0	0178	0 0	1514	FN TRMNL(10),04(10)
3032	1250	0P059A0178	14	0159	1 0	0178	8 0	1515	C TRMNL(18),04
3034	1260	R1R0050A20	11	1270	2 0	0620	5 0	1516	BC **10(2),DUMMY(5)
3036	1270	SP1V240021	13	0162	3 0	0021	4 0	1517	FN PRLNT(3),21P(4)
3038	1280	1T63X30142	04	4638C	1 0	0162	3 0	1518	A SEVEN(1),PRLNT(3)
3040	1290	P01V231497	09	0162	0 0	1497	3 0	1519	MN PRLNT(3),PRLNL+7
3042	1300	0014500165	00	0045	0 0	0165	0 0	1520	TRCRD R XATA(0),TRCST(0)
3044	1310	R1SS031370	11	1330	2 0	1370	3 0	1521	BC GITHIM(2),INK1(3)
3046	1320	T0SP011300	11	0300	4 0	1300	1 0	1522	BC ROX(4),TRCRD(1)
3048	1330	PP0521431V	14	0052	0 0	4319C	1 0	1523	GITHIM C XATA+7(1),P
3050	1340	R1SS051370	11	1350	2 0	1370	5 0	1524	BC **10(2),INK1(5)
3052	1350	PP2481450H	14	0048	0 0	4505C	1 0	1525	C XATA+3(1),ONE
3054	1360	R1T0031390	11	1410	2 0	1390	3 0	1526	BC BLOK1(2),BLOK2(3)
3056	1370	1T50H40165	04	4505C	1 0	0165	6 0	1527	INK1 A ONE(1),TRCST(6)

WRITE EDIT2 LINE
GO TO ROX AND SWITCH
INCORRECT LABEL ENTRY
IS TABB ALL ZEROS?
YES GOES TO STATE2
LINK TO HERTIS ROUTINE
GO BACK TO CYCLING
WRITE CLOSE
GO TO ROX AND SWITCH
MOVE ZEROS TO COUNTER NAMFD PEARL
COMPARE ONE POSITION OF TABB TO 0
IF TABB NOT ZERO, GO TO THISON
INCREMENT PEARL BY ONE
INCREMENT WHYNOT B ADDRESS BY ONE
IS PEARL EQUAL TO 20?
IF LESS THAN, GO TO WHYNOT
RESTORE WHYNOT TO THE ORIG B ADDR
WRITE 1 ASTERISK TO SHOW FINISH
RETURN FROM THE HERTIS ROUTINE
WRITE ONE CARRET
MOVE THE PAR NR TO THE EDIT1 LINE
INCREMENT TERMX TO THE PROPER PAR
MOVE TERMX OF THE PAR TO EDIT1
RESTORE MODIFY TO THE ORIG ADDR
WRITE THE LINE EDIT1
GO TO CUMBK AND CHECK REST OF PAR
CLOSE DISC VERB
READ PARAMETERS FROM WORKSTATION
MOVE IN A ZERO
PASS ON ONLY NUMERICS
PASS ON ONLY NUMERICS
WERE NUMBERS REALLY ENTERED
YES, TO NEXT. NO, TO DUMMY
SET LENGTH TO PRINT IN PFG 2
PRINT SEVEN MORE CHARACTERS
MODIFY PRINTLINE INSTRUCTION
READ DATA INTO XATA
CHECK DISC READ STATUS
IGNORE IF NOT 1 OR 2
IS THIS BEGINNING BLOCK
CONTINUE IF YES
IS BLOCK COUNT A 1?
ONE IS OKAY, CHECK IF HIGHER
NOT START IF LESS THAN ONE

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE
3058	1380	U1TT000000	11	1440	5	0	0000	0	0	1528	BC INK3(5) TRY NEXT SECTOR IF NOT AT END
3060	1390	PPP4R1450W	14	0048	0	0	4507C	1	0	1529	BLOK2 C XATA+3(1),THREE HOW ABOUT THREE BLOCKS?
3062	1400	S1SW051410	11	1370	3	0	1410	5	0	1530	BC INK1(3),BLOK1(5) NOT A BLOCK IF HIGH
3064	1410	PP05930045	14	0159	0	0	0045	3	0	1531	BLOK1 C TRMNL(3),XATA IS THIS ONE OF THEM?
3066	1420	R1TV051430	11	1460	2	0	1430	5	0	1532	BC GOTCHA(2),INK2(5) PRINT IF MATCH
3068	1430	1P048A0165	04	0048	1	0	0165	6	0	1533	INK2 A XATA+3(1),TRCST(6) INCREMENT BY BLOCKS
3070	1440	PP065A0171	14	0165	0	0	0171	6	0	1534	INK3 C TRCST(6),TREND UP TO LIMIT YET?
3072	1450	SOY0051300	11	0910	3	0	1300	5	0	1535	BC FINI(3),TRCRD(5) GO OUT IF PAST LIMIT
3074	1460	P032V10P45	08	0326C	0	0	0045	1	2	1536	GOTCHA MC FREE(1),XATA(,2) FORMAT PRINT LINE
3076	1470	P0165A0P46	08	0165	0	0	0046	6	2	1537	MC TRCST(6),XATA+1(,2) REPORT ADDRESS
3078	1480	0110930001	01	1119	0	0	0001	3	0	1538	W CARRET(0),1(3) CARRIAGE RETURN
3080	1490	000T550107	01	0045	0	0	0107	5	0	1539	PRNLN W XATA(0),107(5) PRINT LINE
3082	1500	U1TS000000	11	1430	5	0	0000	0	0	1540	BC INK2(5) INCREMENT BY BLOCKS
3084	1510			1505						1541	ORG *-5
3086	1505	TRACF		0001			0005			1542	TRACE DM C'TRACE' TRACE VERB
3088										1543	* DISC UTILITY DUMP
3090	1510	0014610012	00	0146	0	0	0012	1	0	1544	DUOMP R CAT(0),12(1) READ DUMP PARAMETERS
3092	1520	R105050620	11	1530	2	0	0620	5	0	1545	FC *-10(2),DUMMY(5) REPORT AN ERROR IF CONSOL CC PAD
3094	1530	P149Y10158	08	1499C	0	0	0158	1	0	1546	MC ZEROS(1),TAPIR SETUP A ZERO
3096	1540	WP110270190	13	0152	7	0	0190	7	0	1547	FN DOG(7),D1(7) PASS ON ONLY NUMERICS
3098	1550	WP1T670184	13	0146	7	0	0184	7	0	1548	FN CAT(7),D3(7) PASS ON ONLY NUMERICS
3100	1560	QP34620184	14	0146	1	0	0184	2	0	1549	C CAT(12),D3 WERE NUMBERS REALLY ENTERED
3102	1570	R10X050620	11	1580	2	0	0620	5	0	1550	BC *-10(2),DUMMY(5) YES, TO NEXT. NO, TO DUMMY
3104	1580	P032V10145	08	0326C	0	0	0145	1	0	1551	MC FREE,CAT=1 PUT SPACE IN PRINT LINE
3106	1590	1T0PH50153	07	4505C	1	0	0153	5	0	1552	S ONE,RHINO DECREMENT COUNT BY ONE
3108	1600	P010211430	09	0152	0	0	1630	1	0	1553	MN DOG,HIPPO1 MOVE DEVICE CODE TO WRITE CONTROL
3110	1610	P010211440	09	0152	0	0	1640	1	0	1554	MN DOG,HIPPO2 MOVE DEVICE CODE TO WRITE DATA
3112	1620	0004500146	00	0045	0	0	0146	0	0	1555	LION R XATA(0),CAT(0) READ DISC (NO STATUS CHECK)
3114	1630	0110930001	01	1119	0	0	0001	3	0	1556	HIPPO1 W CARRET(0),1(3) CARRIAGE RETURN IF APPLICABLE
3116	1640	000T550107	01	0045	0	0	0107	5	0	1557	HIPPO2 W XATA(0),107(5) WRITE DATA AND ADDRESS
3118	1650	1T50H00146	04	4505C	1	0	0146	6	0	1558	A ONE,CAT INCREMENT ADDRESS
3120	1660	1T0PH50153	07	4505C	1	0	0153	5	0	1559	S ONE,RHINO DECREMENT COUNT
3122	1670	00Y0051620	11	0910	1	0	1620	5	0	1560	BC FINI(1),LION(5) TO FINI IF FINISHED
3124										1561	*
3126										1562	* THIS IS THE BEGINNING OF THE NORMAL LOAD PROCEDURE
3128										1563	* ENTERED ON INITIALIZATION AND SYSUP
3130										1564	*
3132	1680	V8TP05R37P	11	8401C	6	0	8370C	5	0	1565	NORMLD BC GETSY0+1(6),GETSYS(5) GET CURRENT SYSSS FOR THIS DISC
3134	1690	P036PA031P	08	0360C	0	0	0310C	6	0	1566	MC CURPIC,ADDR SET COMMON ADDRESS TO CURPIC
3136	1700	P25RV45450	09	2526C	0	0	5451C	4	0	1567	MN ATAD,PICR0+1 SET AD OF GET PIC ROUTINE
3138	1710	P25RV45550	09	2575C	0	0	5551C	4	0	1568	MN ATAD,PICR2+1 SET AD OF SECOND READ IN GETPIC
3140	1720	V5HVR05544P	11	5561C	6	0	5440C	5	0	1569	BC CLAC+1(6),GETPIC(5) GET CURRENT PICTURE
3142	1730	V4WVR05444P	11	4761C	6	0	4640C	5	0	1570	BC CLOSOT+1(6),CLOSIN(5) FORCE A NORMAL CLOSE ON IT
3144	1740	P149Y1402X	08	1499C	0	0	4028C	1	0	1571	MC ZFROS(1),BLOKAC UNBLOCK ALL ACTION
3146	1750	0110930001	01	1119	0	0	0001	3	0	1572	W CARRET(0),1(3) CARRIAGE RETURN
3148	1760	003VP50100	01	0360C	0	0	0100	5	0	1573	W SYSSS(0),100(5) WRITE SYSTEM STATUS SECTOR
3150	1770	P31XV45650	09	3186C	0	0	5451C	4	0	1574	MN ATAT,PICR0+1 SET WRITE INSTRUCTION IN
3152	1780	P38TH45550	09	3845C	0	0	5551C	4	0	1575	MN ATBT,PICR2+1 GETPIC ROUTINE
3154	1790	P149Y40035	08	1499C	0	0	0035	5	0	1576	MC ZFROS(5),NEED INITIALIZE LINK ADDRESS AREA
3156	1800	V0PS45598P	11	0036	6	0	5990C	5	0	1577	MC NEED+1(6),RESET(5) GO TO CLEAR AND RESET POINTERS ETC
3158	1810	R17AP01740	08	1760C	2	0	1761C	0	0	1578	MC CLOFLG(20),CLOSED MAKE SHARED ROUTINES AVAILABLE
3160	1820	Q191P01820	08	1910C	1	0	1820	0	0	1579	DUTY MC DITY(10),DUTY AFTER DINTL, MOVE SPACE TO PSFLAG
3162	1830	U0SP000000	11	0300	5	0	0000	0	0	1580	BC ROX(5) DOMINUS VOBISCUM
3164	1840			1835						1581	ORG *-5
3166	1835	PRINT		0001			0005			1582	PRINT DM C5'PRINT'
3168	1840	ATT12 ALL		0001			0030			1583	MSGXX1 DM C'ATT12 ALL TERMINALS NOT CLOSED'

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	B/S	M I	LINE	IMAGE
3188								1593 *	
3190								1594 *	BEGIN TERMINAL PARTITIONS PROGRAM
3192								1595 *	
3194								1596 *	
3196								1597 *	THIS IS THE TERMINAL PARTITION. IT IS DESIGNED TO
3198								1598 *	ACCEPT TRANSMISSIONS FROM THE MDTs TERMINALS AND PASS
3200								1599 *	CONTROL TO VARIOUS ROUTINES. IT ALSO SERVICES TRANSACTIONS
3202								1600 *	IN THE CORE QUEUE AND SERVICES THE SCA PARTITION'S
3204								1601 *	COMMUNICATIONS REQUIREMENTS IF APPLICABLE.
3206								1602 *	
3208	0000			0000				1603	ORG 0
3210	0000	U00P000000	11	0100	5 0	0000	0 0	1604	BC MAK(5)
3212	0010			0011				1605	ORG 0011
3214	0011			0000		0004		1606	X1 DM 0C4
3216	0011	0000		0001		0004		1607	REG1 DM C4'0000'
3218	0015			0016				1608	ORG 0016
3220	0016	1760		0001		0004		1609	CHEAT DM A'CLOSED'
3222	0020			0021				1610	ORG 0021
3224	0021	0000		0001		0004		1611	REG2 DM C4'0000'
3226	0025			0031				1612	ORG 0031
3228	0031	0000		0001		0004		1613	REG3 DM C4'0000'
3230								1614 *	
3232								1615 *	THE CONSTANT FIELD 'NEED' IS DEFINED IN THE SCA
3234								1616 *	PARTITION HOWEVER IT IS ADDRESSED AND USED FOR ALL
3236								1617 *	PARTITIONS.
3238								1618 *	ORG 35
3240	0035			0045				1619	DM C5
3242	0045	00		0001		0002		1620	CL DM C'00'
3244	0047			0001		0002		1621	CHANX DM C2
3246	0049	0		0001		0001		1622	DEVICE DM C'0'
3248	0050			0050				1623	ORG 0050
3250	0050	0000		0001		0004		1624	WORK3 DM C'0000'
3252	0054			0053				1625	ORG *-1
3254	0053			0001		0245		1626	INBUF DM C245(1)
3256	0298			0055				1627	ORG 55
3258								1628 *	
3260	0055			0001		0094		1629	DATA DM C94
3262	0149			0001		0006		1630	LNKAD DM C6
3264	0155			0001		0013		1631	IACC DM C13
3266	0168			0001		0001		1632	ACTNC DM C1
3268	0169			0001		0013		1633	TACC DM C13
3270	0182			0000		0016		1634	DVND DM 0C16
3272	0182			0001		0010		1635	QUO DM C10
3274	0192			0001		0006		1636	REM DM C6
3276								1637 *	
3278	0198			0100				1638	ORG 0100
3280								1639 *	INITIATING ROUTINE
3282	0100	4T31040025	04	4315C	4 0	0025	4 0	1640	MAK A KON101(4),0025(4)
3284	0110	P003540031	08	0035	0 0	0031	4 0	1641	MC 0035(4),REG3
3286	0120	Q017000000	08	0170	1 0	0000	0 0	1642	MC DURL(10),0000
3288	0130	4PPT540016	07	0045	4 0	0016	4 0	1643	S 45P(4),CHEAT(4)
3290	0140	4PPT540896	07	0045	4 0	0896	4 0	1644	S 45P(4),OPNDIS+6(4)
3292	0150	4PPT540856	07	0045	4 0	0856	4 0	1645	S 45P(4),CLODIS+6(4)
3294	0160	P149Y50035	08	1499C	0 0	0035	5 0	1646	MC ZFROS(5),NEED
3296	0170	U5xxP00000	11	5880C	5 0	0000	0 0	1647	DURL BC TATTLE(5)
3298	0180			0176				1648	ORG *-4

BRANCH TO INITIATING ROUTINE

INDEX REGISTER 1 LABEL

PARTITION FLAG IN CLOSED

THE CONSTANT FIELD 'NEED' IS DEFINED IN THE SCA PARTITION HOWEVER IT IS ADDRESSED AND USED FOR ALL PARTITIONS.

USE THIS AREA IN ALL PARTITIONS
HOLD AREA FOR COMMON RETURN ADDRESS

PARTITION NUMBER SET BY CHLOE

TERMINAL INPUT BUFFER

DISK I/O BUFFER
LINK ADDRESS--MUST FOLLOW DATA
INPUT ACCOUNT NUMBER
ACTION CODE
TEST ACCOUNT NUMBER
RANDOMIZE ADDRESS WORK AREA
RANDOMIZE ADDRESS WORK AREA
RANDOMIZE ADDRESS WORK AREA

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	R/S	M I	LINE	IMAGE
3300	0176	ORPO						1649	DM A'REX'
3302								1650	CREATE ADDRESS OF FIRST INSTR
3304	0120							1651	* ORG 300
3306	0300	PTP2X1149Y	14	4028C	0 0	1499C	1 0	1652	SIR C BLOKAC,ZEROS
3308	0310	ROGROR0300	11	0320	2 0	0300	8 0	1653	RC **10(2),SIR(8)
3310	0320	WOT900380	11	0049	7 0	0380	0 0	1654	HC DEVICE(7),READ(0)
3312	0330	ROHAP01760	14	1760C	2 0	1761C	0 0	1655	C CLOFLG(20),CLOSED
3314	0340	ROSL05194P	11	0350	2 0	1940C	5 0	1656	RC **10(2),RETRY(5)
3316	0350	P001440366	08	0016	0 0	0366	4 0	1657	MC CHEAT,RHUMBA+6
3318	0360	P450111760	08	4505C	0 0	1761C	1 0	1658	RHUMBA MC ONE,CLOSED
3320	0370	U1X0P00000	11	1810C	5 0	0000	0 0	1659	RC SEND(5)
3322								1660	* READ MOTS ON SERVICE REQUEST
3324	0380	0005350245	00	0053	0 0	0245	5 0	1661	READ R INBUF(0,0),245(5,0)
3326	0390	ROTH040820	11	0420	2 0	0820	4 0	1662	BC TAG3(2),REX(4)
3328	0400	070RY30001	01	7029C	0 0	0001	3 0	1663	TAG2 W NAK(0,0),1(3,0)
3330	0410	U0X5000000	11	0820	5 0	0000	0 0	1664	BC REX(5)
3332	0420	P35AV40050	08	3566C	0 0	0050	4 0	1665	TAG3 MC KON245(4,0),WORK3(,0)
3334	0430	P00R540441	09	0025	0 0	0441	4 0	1666	MN 0025(4),TAG+1
3336	0440	4P2R040050	07	0001C	4 0	0050	4 0	1667	TAG4 S RAS1(4),WORK3(4)
3338	0450	1T0PW40050	07	4507C	1 0	0050	4 0	1668	S THREE(1,0),WORK3(4,0)
3340	0460	P005040011	08	0050	0 0	0011	4 0	1669	MC WORK3(4,0),11(,0)
3342	0470	P005042220	08	0050	0 0	2225C	4 0	1670	MC WORK3(4,0),WORK5(,0)
3344	0480	1T43X40050	04	4638C	1 0	0050	4 0	1671	A SEVEN(1),WORK3(4)
3346	0490	P410114030V	08	4105C	0 0	0306C	4 0	1672	MC KON99(4,0),WORKA(,0)
3348	0500	4P0504030V	04	0050	4 0	0306C	4 0	1673	A WORK3(4,0),WORKA(4,0)
3350	0510	P000410050	08	0307C	0 0	0050	1 0	1674	MC WORKA+1(1,0),WORK3(,0)
3352	0520	PPR541V90V	14	0054	0 1	6906C	1 0	1675	C INBUF+1(1,1),ETB(,0)
3354	0530	ROX0000000	11	0810	2 0	0000	0 0	1676	BC TARA(2),0(0)
3356	0540	PPR541U11U	14	0054	0 1	5115C	1 0	1677	C INBUF+1(1,1),ETX
3358	0550	R6PX050400	11	6080C	2 0	0400	5 0	1678	BC TAR2(2),TAG2(5)
3360	0560	P04R112030P	14	1785C	0 0	0300C	2 0	1679	TROK C NUMBQ(2),QLIM
3362	0570	S0TP000000	11	0400	3 0	0000	0 0	1680	BC TAG2(3),0(0)
3364	0580	PP57R1149Y	14	0372C	0 0	1499C	1 0	1681	C GRLOCK,ZEROS
3366	0590	ROVRO50400	11	0600	2 0	0400	5 0	1682	BC **10(2),TAG2(5)
3368	0600	P149Y40011	08	1499C	0 0	0011	4 0	1683	MC ZEROS(4,0),11(,0)
3370	0610	P17Y040626	09	1791C	0 0	0626	4 0	1684	TAR4 MN INPP4(4,0),TAB+6(,0)
3372	0620	P004708000	08	0047	0 1	0001C	0 0	1685	TAB MC CHANX(100,1),RAS1(,0)
3374	0630	3T40140011	04	4405C	3 0	0011	4 0	1686	A KON100(3,0),11(4,0)
3376	0640	3TTR041790	07	4405C	3 0	1791C	4 0	1687	S KON100(3,0),INPPA(4,0)
3378	0650	1T5012178U	04	4505C	1 0	1785C	2 0	1688	A ONE(1,0),NUMBQ(2,0)
3380	0660	3TTR030051	07	4405C	3 0	0051	3 0	1689	S KON100(3,0),WORK3+1(3,0)
3382	0670	S0VR000000	11	0610	3 0	0000	0 0	1690	BC TAR4(3),0(0)
3384	0680	0510V30001	01	5116C	0 0	0001	3 0	1691	W ACK(0,0),1(3,0)
3386	0690	ROXRO50820	11	0700	2 0	0820	5 0	1692	BC **10(2),REX(5)
3388	0700	P04R04070R	14	1791C	0 0	0302C	4 0	1693	C INPPA(4,0),INPX(,0)
3390	0710	ROXRO00000	11	0820	1 0	0000	0 0	1694	BC REX(1),0(0)
3392	0720	P04R041790	08	0322C	0 0	1791C	4 0	1695	MC INPPAS(4,0),INPPA(,0)
3394	0730	U0XRO00000	11	0820	5 0	0000	0 0	1696	BC REX(5),0(0)
3396	0740	P004540011	08	0045	0 0	0011	4 0	1697	SET1 MC CL(4,0),REG1(,0)
3398	0750	P45PY10810	09	4509C	0 0	0810	1 0	1698	MN FIVE(1),TARA
3400	0760	P14YY117PH	09	1499C	0 0	1705C	1 1	1699	MN ZEROS(1,0),TAB9(,1)
3402	0770	ROXRO170U	14	1704C	2 0	1705C	0 0	1700	C TABA(20),TABB
3404	0780	06RSP0623P	11	6230C	1 0	6230C	3 0	1701	BC VALD(1),VALD(3)
3406								1702	* MAY INSERT BC CLOSOT+1(6),CLOSIN(5)
3408	0790	P0R061174W	08	0806	0 0	1747C	1 0	1703	MC LTRB,EOD
3410	0800	U6RSP00000	11	6230C	5 0	0000	0 0	1704	BC VALD(5)

SEQ.	LOCK	INSTR/DATA	OP	A/R	M I	R/S	M I	LINE	IMAGE
3412	0810							1705	ORG **5
3414	0805	0		0001		0001		1706	LETRA DM C'0'
3416	0806	1		0001		0001		1707	LETRB DM C'1'
3418								1708	* SWITCH BRANCH TO OPEN PARTITION
3420	0810	U60TP5618P	11	6140C	5 0	6180C	5 0	1709	TARA BC TPEN(5),TAR1(5)
3422	0820	X0SP000000	11	0300	8 0	0000	0 0	1710	REX BC SIR(8),0(0)
3424								1711	*
3426								1712	* FORMAT CREDIT-INQUIRIES AND REPLY TO TERMINAL
3428								1713	*
3430	0830	P0V6P01760	14	1760C	2 0	1761C	0 0	1714	CTIN C CLOFLG(20),CLOSED
3432	0840	P0XU0R0830	11	0850	2 0	0830	8 0	1715	BC **10(2),CTIN(8)
3434	0850	P450U11760	08	4505C	0 0	1761C	1 0	1716	CLODIS MC ONE,CLOSED
3436	0360	P004911TSY	08	0049	0 0	1439C	1 3	1717	MC DEVICE(1,0),CREDIT(,3)
3438	0870	P402U11TTP	08	4025C	0 0	1440C	1 3	1718	MC STAR,CREDIT+1(,3)
3440	0830	V7US05726P	11	7531C	6 0	7260C	5 0	1719	BC ROUT+1(6),CIREP(5)
3442	0890	P149Y11760	08	1499C	0 0	1761C	1 0	1720	OPNDIS MC ZEROS(1),CLOSED
3444	0900	P012Y00TTP	14	1439C	0 3	1440C	1 3	1721	C CPEDT(1,3),CREDIT+1(,3)
3446	0910	ROYR050400	11	0920	2 0	0400	5 0	1722	BC CTIN3(2),TAG2(5)
3448	0920	P14400U11X	08	1441C	0 3	5118C	1 0	1723	CTIN3 MC CREDIT+2(1,3),ACK0+1
3450	0930	0510W30002	01	5117C	0 0	0002	3 0	1724	W ACK0(0,0),2(3,0)
3452	0940	U0XR000000	11	0820	5 0	0000	0 0	1725	BC REX(5)
3454								1726	*
3456								1727	* THE FOLLOWING TWO LINES ARE USED FOR SEPARATION BETWEEN SECTIONS.
3458	0950			0000				1728	ORG 0
3460	0000	\$\$\$---000		0007		0009		1729	DM 7C9'\$\$\$---000'

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE
3464										1731	*
3466										1732	*
3468										1733	*
3470										1734	*
3472										1735	*
3474										1736	*
3476										1737	*
3478	0063									1738	ORG 0000
3480										1739	*
3482										1740	*
3484										1741	*
3486										1742	*
3488										1743	*
3490										1744	*
3492	0000	UPSN000000	11							1745	BC MAK5(5) BRANCH TO INITIALIZING ROUTINE
3494	0010									1746	ORG 0011
3496	0011	0000								1747	IR1 DM C4'0000'
3498	0015									1748	ORG 0016
3500	0016	1760								1749	CHIET DM A'CLOSED' PARTITION POS IN CLOSED TABLE
3502	0020									1750	ORG 21
3504	0021	0000								1751	IR2 DM C4'0000'
3506	0025									1752	ORG 31
3508	0031									1753	IR3 DM C4 INDEX REGISTER THREE
3510	0035									1754	ORG 35 USE THIS AREA IN ALL PARTITIONS
3512	0035									1755	NEED DM C5 HOLD AREA FOR COMMON RETURN ADDRESS
3514	0040									1756	ORG 0050
3514										1757	*
3518										1758	* THIS SCA PARTITION HAS ANSWERING CAPABILITIES IN A DIAL UP SYSTEM
3520										1759	* THE CALLING CPU GENERATES A S/P BRANCH TO AN ANSWERING ROUTINE
3522										1760	* THE 1ST TEXT AFTER ID VERIFICATION ESTABLISHES THE COMM FUNCTION
3524										1761	* CPU SIGNALS TRIBUTARY STATIONS TO HANG UP WITH DLE EOT
3524										1762	*
3528										1763	*
3530										1764	* NORMAL CYCLING ROUTINE IF NOT ACTIVE
3532	0050	2000030000	01							1765	SASUP W 0(2),0(3) HANG UP THE PHONE
3534	0060	PTP2X1149Y	14							1766	SAS1 C BLOKAC,ZEROS TEST WHETHER THE SYSTEM IS OPEN
3536	0070	R09Y080060	11							1767	BC ++10(2),SAS1(8) IGNORE A CALL IF SYSDN
3538	0080	PT07W1437V	14							1768	C PSFLAG(1),SPACE IS THERE ANOTHER OPTION ACTIVE
3540	0090	R09P080060	11							1769	BC ++10(2),SAS1(8) IGNORE A CALL IF THERE IS
3542	0100	R09Y600120	11							1770	BC DOOR(7),READID(0) PHONE RING CAUSES SERVICE REQUEST
3544	0110	X09V000000	11							1771	BC SAS1(8) RETURN IF NOT CALLED
3546										1772	*
3548										1773	*
3550										1774	* ID EXCHANGE ROUTINE
3552	0120	R221001760	08							1775	READID MC RDID(10),READIT SET READ ID INSTRUCTION IN ROUTINE
3554	0130	V14X651760	11							1776	BC ACKRDX+6(6),READIT(5) GO TO COMMON READ ROUTINE
3556	0140	PR27462250	14							1777	C SACK2(6),KABEL COMPARE RECEIVED ID WITH KEY
3558	0150	R09P050160	11							1778	BC SKID(2),++10(5) REPORT BAD IDEN
3560	0160	V09S65595P	11							1779	BC NFED+1(6),CONSOL(5) GO TO TEST MSGQ AVAILABILITY
3562	0170	P14355032W	08							1780	MC ERR19,MSGQ INCORRECT ID ERROR MESSAGE
3564	0180	P22746033S	08							1781	MC SACK2(6),MSGQ+6 INCORRECT DATA TO MESSAGE ALSO
3566	0190	U14Y000000	11							1782	BC NAKIT(5) REPLY NACK TO INVALID ID
3568	0200									1783	ORG ++4 USE ANY UNUSED AREA
3570	0196									1784	DOOR DM C'1 DIAL S/R CHAR
3572	0197	000								1785	WORKD DM C3'000' PICTURE CALCULATION WORK AREA
3574										1786	*

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE		
3576	0200	5220A10011	01	2256	5	0	0011	1	0	1787	SKID	W SID(5),11(1)	WRITE ID
3578										1788	*		
3580										1789	*	INTERPRET HOST COMMAND ROUTINE	
3582										1790	*		
3584	0210	P149Y1235R	08	1499C	0	0	235R	1	0	1791	SKIDO	MC ZEROS(1),ACK0+6	RESET ACK SEQUENCE
3584	0220	P450U11209	08	4505C	0	0	1209	1	0	1792		MC ONE,ACK1	RESET ACK SEQUENCE
3584	0230	Q222001760	08	2220	1	0	1760	0	0	1793		MC R0FUM(10),PEADIT	SET I/O INSTRUCTION IN ROUTINE
3590	0240	V14X651740	11	1786	6	0	1740	5	0	1794		BC ACKRDX+6(6),ACKRD(5)	BRANCH TO COMMON READ DATA ROUTINE
3592	0250	S0PH000000	11	0050	3	0	0000	0	0	1795		BC SASUP(3)	GO TO HANGUP PHONE ON DLE FOT
3594	0260	PR2R42176	14	2283	0	0	2176	4	0	1796		C STXT+1(4),FUN	IS FUNCTION TEXT VALID
3594	0270	R0RY051490	11	0280	2	0	1490	5	0	1797		BC **10(2),SOCK2(5)	CONTINUE IF VALID, ELSE SEND EOT
3594	0280	PTS7W1437V	14	4377C	0	0	4376C	1	0	1798		C PSFLAG,SPACE	ANOTHER OPTION ACTIVE?
3600	0290	V1YS631850	11	1936	6	0	1850	3	0	1799		BC WACKX+6(6),WTWACK(3)	GO TO SEND A WACK REPLY
3602										1800	*		
3604										1801	*	TEST FUNCTION CODE TO DETERMINE LOGICAL ROUTE DEMANDED	
3606										1802	*		
3608	0300	PRR71450U	14	2287	0	0	4505C	1	0	1803		C RID,ONE	TEST FOR SYSTEM CLEAR FUNCTION
3610	0310	R1PVC00000	11	1060	2	0	0000	0	0	1804		BC DEFOG(2)	
3612	0320	PRR71450V	14	2287	0	0	4506C	1	0	1805		C RID,TWO	TEST FOR STATUS POLL
3614	0330	R0Y0000000	11	0910	2	0	0000	0	0	1806		BC STAPOL(2)	
3616	0340	PRR71149Y	14	2287	0	0	1499C	1	0	1807		C RID,ZEROS	TEST FOR DATA POLL
3618	0350	R0TR000000	11	0420	2	0	0000	0	0	1808		BC VALPC(2)	
3620	0360	PRR71450Y	14	2287	0	0	4509C	1	0	1809		C RID,FIVE	TEST FOR ON-LINE UPDATE
3622	0370	R1PX000000	11	1080	2	0	0000	0	0	1810		BC KLEEN(2)	
3624	0380	PCX41450U	14	1747C	0	0	4505C	1	0	1811		C EOD,ONE	ANYBODY ACTIVE
3624	0390	R0TR051490	11	0400	2	0	1490	5	0	1812		BC **10(2),SOCK2(5)	CONTINUE ONLY IF CLOSED
3628	0400	PRR71463Y	14	2287	0	0	4639C	1	0	1813		C RID,SIX	TEST FOR CLEAR
3630	0410	R1PX051490	11	1080	2	0	1490	5	0	1814		BC KLEEN(2),SOCK2(5)	GO SEND EOT IF NOT VALID
3632										1815	*		
3634										1816	*	VALIDATE PICTURE CODE BEFORE CONTINUING	
3636										1817	*		
3638	0420	RR2XR20197	13	2288	2	0	0197	2	0	1818	VALPC	FN PICNR(2),WORKD(2)	LOAD WORK AREA
3640	0430	PRR71450V	14	2287	0	0	0197	2	0	1819		C PICNR(2),WORKD	VERIFY NUMERICS ONLY
3642	0440	R0TR051490	11	0450	2	0	1490	5	0	1820		BC **10(2),SOCK2(5)	SEND EOT IF INVALID
3644	0450	1TJ0V20197	06	4509C	1	0	0197	2	0	1821		M FIVE,WORKD(2)	MULTIPLY TO VERIFY EVEN
3646	0460	PR0991149Y	14	0199	0	0	1499C	1	0	1822		C WORKD+2(1),ZEROS	SPIII CHARACTER IS ZERO IF EVEN
3648	0470	R0TY051490	11	0480	2	0	1490	5	0	1823		BC **10(2),SOCK2(5)	GO ON IF GOOD, ELSE EOT
3650	0480	P22R73437W	08	2287	0	0	4377C	3	0	1824		MC RID(3),PSFLAG	SET PSFLAG AND PICTURE CODF
3652	0490	V1VPE51530	11	1606	6	0	1530	5	0	1825		BC RVR5BC+6(6),EROS(5)	REVERSE THE LINE
3654										1826	*		
3656										1827	*	TEMPORARY TEXT DELAY LOOP	
3658										1828	*		
3660	0500	0219001630	08	2190	1	0	1630	0	0	1829	WTTD	MC WTWRT(10),WTDATA	SET TTD INSTR IN WRITE ROUTINE
3662	0510	V1W5451630	11	1736	6	0	1630	5	0	1830		BC WDATA+6(6),WTDATA(5)	BRANCH TO COMMON WRITE ROUTINE
3664	0520	P437V1232R	08	4376C	0	0	232R	1	0	1831		MC SPACE,ACTVFL	ERASE ACTIVE FLAG
3666	0530	X0VVC00000	11	0690	8	0	0000	0	0	1832		BC SACCA(8)	
3668	0540	1TJ0V2690W	07	4505C	1	0	6907C	2	0	1833	WW	S ONE,TTDCNT	DECREMENT TTD COUNTER
3670	0550	T0J0R0560	11	0500	4	0	0560	8	0	1834		BC WTTD(4),SACC(8)	SEND MESSAGE IF OVERFLOW
3672										1835	*		
3674										1836	*	SEND TRANSACTION TRANSMISSION ROUTINE	
3676										1837	*		
3678	0560	P03RT1450U	14	1184C	0	0	4505C	1	0	1838	SACC	C SCAFLG(1),ONE	TEST SCA BUFFER FOR 'FULL'
3680	0570	R0Y1000000	11	0640	2	0	0000	0	0	1839		BC SACD(2)	GO SEND IT IF IT IS
3682	0580	P03RT1450U	14	1180C	0	0	4505C	1	0	1840		C COMFLG(1),ONE	TEST COMMON BUFFER FOR 'FULL'
3684	0590	R0VPE05710	11	0600	2	0	0710	5	0	1841		BC **10(2),SAS2(5)	GO TEST FOR TTD IF NOT
3686	0600	P11RX02365	08	1188C	0	0	2365	0	0	1842		MC COMRUF(100),SCABUF	MOVE THE COMMON DATA BUFFER TO SCA

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE	C
3658	0610	P128XC2465	08	1288C	0	0	2465	0	0	1843	MC COMBUF+100(100),SCABUF+100	
3690	0620	U138XC2565	08	1388C	5	0	2565	0	0	1844	MC COMBUF+200(50),SCABUF+200	
3692	0630	P03XP4118T	15	1180C	0	0	1184C	4	0	1845	X COMFLG,SCAFLG	SET SCA 'FULL' AND COMMON 'EMPTY'
3694	0640	P118U32207	08	1185C	0	0	2207	3	0	1846	SACD MC SCAFLG+1(3),DTWRT+7	SET CHAR COUNT IN I/O INSTRUCTION
3696	0650	1T63Y32207	04	4639C	1	0	2207	3	0	1847	A SIX(1),DTWRT+7(3)	ADJUST BY 6 FIR SYNS AND STX
3698	0660	Q220001630	08	2200	1	0	1630	0	0	1848	MC DTWRT(10),WTDATA	SET DATA INSTR IN WRITE ROUTINE
3700	0670	V18S651630	11	1736	6	0	1630	5	0	1849	BC WDATA+6(6),WTDATA(5)	BRANCH TO COMMON WRITE ROUTINE
3702	0680	P149Y4118T	08	1499C	0	0	1184C	4	0	1850	MC ZEROS(4),SCAFLG	SETSCA BUFFER FOR 'EMPTY'
3704	0690	P039U2690W	08	0395C	0	0	6907C	2	0	1851	SACCA MC TDRST,TTDCNT	RESET TTD COUNTER
3706	0700	X03V000000	11	0560	8	0	0000	0	0	1852	BC SACC(8)	RETURN FOR NEXT BUFFER ON SWITCH
3708										1853	*	
3710										1854	*	
3712										1855	*	
3714	0710	PT22K1450U	14	4027C	0	0	4505C	1	0	1856	SAS2 C LSTREC(1),ONE	LAST RECORD ?
3716	0720	R04S050540	11	0730	2	0	0540	5	0	1857	BC TELL(2),HW(5)	REPORT IT IF LAST RECORD FIF BACK
3718										1858	*	
3720										1859	*	
3722										1860	*	
3724	0730	V023A5595P	11	0036	6	0	5950C	5	0	1861	TELL BC NEED+1(6),CONSOL(5)	GO TO TEST MSGO AVAILABILITY
3726	0740	P3A2U0532W	08	3A25C	0	0	0327C	5	0	1862	MC ATT01,MSGO	REPORT END OF TRANS TO HOST
3728	0750	Q08AP2033S	08	0860C	1	0	0333C	2	0	1863	MC TRSTT(12),MSGO+6	REPORT DISC LIMITS
3730	0760	P123V2034U	08	1736C	0	0	0345C	2	0	1864	MC HOLPIC,MSGO+18	REPORT PICTURE
3732	0770	P0A7PA034X	08	0872C	0	0	0348C	6	0	1865	MC TRCTR,MSGO+21	REPORT NUMBER RETRIEVED
3734	0780	P149Y1402K	08	1499C	0	0	4027C	1	0	1866	MC ZEROS(1),LSTREC	TURN LSTREC OFF
3736	0790	PS40V1787Y	14	3106C	0	0	7879C	1	0	1867	C ISNINE,R	IS *END FOR A RESEND FUNCTION ?
3738	0800	PCYX000000	11	0880	2	0	0000	0	0	1868	BC AROUND(2)	SKIP FIELD 4 TEST IF IT IS
3740	0810	P44ST6037S	09	4434C	0	0	0373C	6	0	1869	MN HOLLIM,NXSND	SET ADDRESS OF LAST SENT DATA
3742	0820	P349X2037P	08	3498C	0	0	0370C	2	0	1870	MC HOLIDAY+2(2),NXPIC+4	SET NEXT PICTURE FOR TRANSMISSION
3744	0830	P349V2036V	08	3496C	0	0	0366C	2	0	1871	MC HOLIDAY(2),NXPIC	SET DAY NUMBER OF THE NEXT PICTURE
3746	0840	P450U1466Y	08	4505C	0	0	4669C	1	0	1872	MC ONE,SENTCK	SET FLAG FOR GOOD TRANSMISSION
3748	0850	SR22740031	13	2207	3	0	0031	4	0	1873	FN DTWRT+7(3),IR3	SET XMISSION LENGTH IN INDFX3
3750	0860	PRS430T50U	14	2343	0	3	4505C	1	0	1874	C PREBUF-16(1,3),ONE	TEST FIELD 4 OF THE *END MESSAGE
3752	0870	R04Y000000	11	0690	2	0	0000	0	0	1875	BC SACC(2)	ONE MEANS THERE IS MORE SO BRANCH
3754	0880	V023A5599P	11	0036	6	0	5990C	5	0	1876	AROUND BC NEED+1(6),RESET(5)	GO TO CLEAR BUFFER POINTERS
3756	0890	P437V1437W	08	4376C	0	0	4377C	1	0	1877	MC SPACE,PSFLAG	CLEAR ANY RESIDUAL PSFLAG VALUES
3758	0900	U1TY000000	11	1490	5	0	0000	0	0	1878	BC SOCK2(5)	GO TO RELINQUISH THE LINE
3760										1879	*	
3762										1880	*	
3764										1881	*	
3766	0910	P22R71437W	08	2287	0	0	4377C	1	0	1882	STAPOL MC RID(1),PSFLAG	SET FUNCTION TEXT OPTION
3768	0920	V1VP651530	11	1606	6	0	1530	5	0	1883	BC RVRSEB+6(6),EROS(5)	REVERSE THE LINE
3770	0930	P174W12327	08	1747C	0	0	2327	1	0	1884	MC EOD(1),STABUF+11	SET TERMINAL ACTIVE FLAG IN BUFF
3772	0940	P310V12329	08	3106C	0	0	2329	1	0	1885	MC ISNINE,STABUF+13	SET TYPE OF UNCOMPLETED POLL
3774	0950	PC45862330	08	0452C	0	0	2330	6	0	1886	MC CXCNT(6),STABUF+14	SET CREDIT NUMBER COUNT
3776	0960	P036V22336	08	0366C	0	0	2336	2	0	1887	MC NXPIC(2),STABUF+20	SET TRANSMISSION DAY IN *STA MSG
3778	0970	P045X22338	08	0458C	0	0	2338	2	0	1888	MC DAYNRS(2),STABUF+22	MOVE IN THE CURRENT DAY
3780	0980	P149Y12326	08	1499C	0	0	2326	1	0	1889	MC ZEROS(1),STABUF+10	PRE-SET FLAG TO NOT CURRENT STATUS
3782	0990	PR45V2045X	14	0366C	0	0	0458C	2	0	1890	C NXPIC(2),DAYNRS	TEST FOR CURRENT DAY TRANSMISSION
3784	1000	R1P0051020	11	1010	2	0	1020	5	0	1891	BC ++10(2),++20(5)	DO NOT SET CURRENT FLAG IF NOT
3786	1010	P450U12326	08	4505C	0	0	2326	1	0	1892	MC ONE,STABUF+10	SET TODAY IS CURRENT
3788	1020	Q047Y22340	08	0379C	1	0	2340	2	0	1893	MC FIRAD(12),TRLIMS	SET TRANS FILE LIMITS IN *STA MSG
3790	1030	Q218001630	08	2180	1	0	1630	0	0	1894	MC STWRT(10),WTDATA	SET *STA INSTR IN WRITE ROUTINE
3792	1040	V18S651630	11	1736	6	0	1630	5	0	1895	BC WDATA+6(6),WTDATA(5)	BRANCH TO COMMON WRITE ROUTINE
3794	1050	U1TY000000	11	1490	5	0	0000	0	0	1896	BC SOCK2(5)	RETURN FOR FUNCTION TEXT
3796										1897	*	
3798										1898	*	

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE	C	
3800										1899	*		
3802	1060	VOPSA5595P	11	0036	6	0	5950C	5	0	1900	DEFOG	BC NEED+1(6),CONSOL(5)	GO TO TEST MSGQ AVAILABILITY
3804	1070	P21055032W	08	2105	0	0	0327C	5	0	1901	MC ATT10,MSGQ	REPORT CLEARING	
3806										1902	*		
3808										1903	*	PREPARE TO RECIEVE TRANSMISSION BLOCKS	
3810										1904	*		
3812	1080	VOPSA5599P	11	0036	6	0	5990C	5	0	1905	KLEEN	BC NEED+1(6),RESET(5)	GO TO CLEAR BUFFER POINTERS
3814	1090	P22871437W	08	2287	0	0	4377C	1	0	1906	MC RID,PSFLAG	SET PSFLAG VALUE	
3816	1100	P149Y1402V	08	1499C	0	0	4026C	1	0	1907	MC ZEROS(1),EOTFL	RESET EOT FLAG	
3818	1110	P437V1232R	08	4376C	0	0	2328	1	0	1908	MC SPACE,ACTVFL	ERASE ACTIVE FLAG	
3820	1120	PQQR11149Y	14	1184C	0	0	1499C	1	0	1909	C SCAFLG(1),ZEROS	TEST SCA BUFFER FOR 'EMPTY'	
3822	1130	R1RR081150	11	1220	2	0	1150	8	0	1910	BC CLIF2(2),CLIF8(8)	GO CHECK COMM BUFFER IF NOT	
3824										1911	*		
3826										1912	*	RFCEIVE ACCOUNT NUMBERS	
3828										1913	*		
3830	1140	P450U1118Y	08	4505C	0	0	1184C	1	0	1914	CLIF1	MC ONE,SCAFLG	SET FLAG FOR SCA BUFFER 'FULL'
3832	1150	PQQR1450U	14	1180C	0	0	4505C	1	0	1915	CLIF8	C COMFLG(1),ONE	TEST COMMON BUFFER FOR 'FULL'
3834	1160	V1YSA21850	11	1936	6	0	1850	2	0	1916	BC WACKX+6(6),WTWACK(2)	GO TO SEND WACK IF IT IS	
3836	1170	R1TV000000	11	1460	2	0	0000	0	0	1917	BC CEOTX(2)	BRANCH IF AN EOT WAS RECIEVED	
3838	1180	P23660118X	08	2366	0	0	1188C	0	0	1918	MC SCABUF+1(100),COMBUF	MOVE SCA (LESS STX) TO COMMON	
3840	1190	P24660128X	08	2466	0	0	1288C	0	0	1919	MC SCARUF+101(100),COMBUF+100		
3842	1200	U25661138Y	08	2566	5	0	1388C	1	0	1920	MC SCABUF+201(51),COMBUF+200	MOVE REMAINDER (WITH ETX OR FTB)	
3844	1210	PQXP4118Y	15	1180C	0	0	1184C	4	0	1921	X COMFLG,SCAFLG	SET COMMON 'FULL' AND SCA 'EMPTY'	
3846	1220	Q224001760	08	2240	1	0	1760	0	0	1922	CLIF2	MC RDATA(10),READIT	SET I/O INSTRUCTION IN ROUTINE
3848	1230	V1YX651740	11	1786	6	0	1740	5	0	1923	BC ACKROY+6(6),ACKRD(5)	BRANCH TO COMMON READ DATA ROUTINE	
3850	1240	S1TV000000	11	1460	3	0	0000	0	0	1924	BC CEOTX(3)	GO TO TERMINATE FUNCTION IF DLF	
3852										1925	*		
3854										1926	*	EVALUATE DATA RECEIVED	
3856										1927	*		
3858	1250	P224440011	08	2246	0	0	0011	4	0	1928	MC RDATA+6(4),IR1	SET READ LENGTH IN INDEX	
3860	1260	4PPPP40011	07	0000C	4	0	0011	4	0	1929	CLIP	S BAZ(4),IR1	GET CHAR COUNT IN IR1
3862	1270	PRS631V90V	14	2363	0	1	6906C	1	0	1930	C SCARUF-2(1,1),ETB	TEST LAST CHAR IN BUFFER FOR FTB	
3864	1280	R1SH000000	11	1350	2	0	0000	0	0	1931	BC CLIF6(2)	ETB AS FINAL CHAR CONTINUE	
3866	1290	PRS631U11U	14	2363	0	1	5115C	1	0	1932	C SCABUF-2(1,1),ETX	TEST LAST CHAR IN BUFFER FOR FTX	
3868	1300	R1SH000000	11	1350	2	0	0000	0	0	1933	BC CLIF6(2)	GOOD ENDING IF YES	
3870	1310	PRS651694U	14	2365	0	0	6945C	1	0	1934	C SCABUF(1),END	TEST FOR END RECIEVED	
3872	1320	R1RR000000	11	1220	2	0	0000	0	0	1935	BC CLIF2(2)	ACK THEIR END XMISSION	
3874	1330	PRS651244Y	14	2365	0	0	2449C	1	0	1936	C SCABUF(1),EOT	TEST FOR EOT RECIEVED	
3876	1340	R1TV051790	11	1460	2	0	1790	5	0	1937	BC CEOTX(2),NAKIT(5)	GO TO NACK IF UNIDENTIFYABLE REPLY	
3878	1350	1TRPW40011	07	4507C	1	0	0011	4	0	1938	CLIF6	S THREE,IR1(4)	ADJUST INDEX FOR DATA COUNT
3880	1360	TP00161484	13	0011	4	0	1484	6	0	1939	FN IR1(4),DAREA	SET COUNT IN DIVIDE AREA	
3882	1370	P24VR41484	05	0462C	2	0	1484	4	0	1940	D ACNML+2(2),DAREA(4)	DIVIDE TO FIND VALID LENGTH	
3884	1380	QP19Y2148R	14	1499C	0	0	1488	2	0	1941	C ZEROS(2),DAREA+4	THERE SHOULD BE NO REMAINDER	
3886	1390	R10T000000	11	1140	2	0	0000	0	0	1942	BC CLIF1(2)	BRANCH IF GOOD (NO REMAINDER)	
3888	1400	VOPSA5595P	11	0036	6	0	5950C	5	0	1943	BC NEED+1(6),CONSOL(5)	GO TO TEST MSGQ AVAILABILITY	
3890	1410	P663U5032W	08	6635C	0	0	0327C	5	0	1944	MC ERRO9,MSGQ	MOVE IN THE ERROR MESSAGE	
3892	1420	P23651033S	08	2365	2	0	0333C	1	0	1945	MC SCABUF(21),MSGQ+6	MOVE FIRST CHARS OF BUFFER TO MSGQ	
3894	1430	U100000000	11	1150	5	0	0000	0	0	1946	BC CLIF8(5)	ACK AND GET THE NEXT ONE	
3896	1440			1435						1947	ORG *-5	USE ANY UNUSED AREA	
3898	1435	ERR19		0001			0005			1948	ERR19	DM C'ERR19'	CPU IDEN REJECT
3900										1949	*		
3902										1950	*	NORMAL END OF ACCOUNT NUMBER RECEIPT	
3904										1951	*		
3906	1440	P450U1402V	08	4505C	0	0	4026C	1	0	1952	XSAS	MC ONE,EOTFL	REPORT LAST BUFFER TO PARTITIONS
3908	1450	U0PU000000	11	0050	5	0	0000	0	0	1953	BC SASUP(5)	GO TO DISCONNECT PHONE ON ABORTING	
3910										1954	*		

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE
3912										1955	* NORMAL END OF ACCOUNT NUMBER RECEIPT
3914										1956	*
3916	1460	V1XT651R10	11	1846	6	0	1810	5	0	1957	CEOTX BC WTENDX+6(6),WTEND(5) GO TO WRITE AN ENQ RESPONSE
3918	1470	P450H1402V	08	4505C	0	0	4026C	1	0	1958	MC ONE, EOTFL REPORT LAST BUFFER TO PARTITIONS
3920	1480	U1TY000000	11	1490	5	0	0000	0	0	1959	BC SOCK2(5) GO TO LINE REVERSAL
3922	1490			1484						1960	ORG *-6
3924	1484	000000		0001			0006			1961	DAREA DM C6'000000' DIVIDE AREA FOR CLIF ROUTINES
3926										1962	*
3928										1963	*
3930										1964	* LINE REVERSAL (TURNAROUND) FOR HOST TRANSMISSIONS
3932	1490	6244T10006	00	2444C	6	0	0006	1	0	1965	SOCK2 R EOTD(6),6(1) SEND AN EOT RESPONSE
3934	1500	0171710002	00	1717	0	0	0002	1	0	1966	R REPLY(0),2(1) READ COMMUNICATIONS REPLY
3936	1510	VOPR141940	11	0021	6	0	1940	4	0	1967	BC IR2(6),FAULT(4) BRANCH IF TIME-OUT (FAULT)
3938	1520	ROR0051490	11	0210	2	0	1490	5	0	1968	BC SKID0(2),SOCK2(5) BACK FOR COMMAND IF GOOD
3940										1969	*
3942										1970	* LINE REVERSAL (TURNAROUND) FOR MDTs TRANSMISSIONS
3944										1971	*
3946	1530	Q223001760	08	2230	1	0	1760	0	0	1972	EROS MC RREOT(10),READIT SET I/O INSTR IN COMMON ROUTINE
3948	1540	V1WX651740	11	1786	6	0	1740	5	0	1973	BC ACKRDX+6(6),ACKRD(5) GO TO COMMON READ ROUTINE
3950	1550	PQ4171244Y	14	1717	0	0	2449C	1	0	1974	EMBRAC C REPLY(1),EOT TEST FOR EOT RESPONSE
3952	1560	R10X051610	11	1570	2	0	1610	5	0	1975	BC **10(2),DEVIAT(5) GO TO RESPOND ENQ IF NOT
3954	1570	V1XT651R10	11	1846	6	0	1810	5	0	1976	SPASH BC WTENDX+6(6),WTEND(5) GO TO WRITE AN ENQ RESPONSE
3956	1580	R10X000000	11	1570	2	0	0000	0	0	1977	BC SPASH(2) ANY NON-DLE-PAIR IS NOT ACCEPTABLE
3958	1590	PQ4171450H	14	1717	0	0	4505C	1	0	1978	C REPLY(1),ONE CHECK FOR ACK
3960	1600	S10X050000	11	1570	3	0	0000	5	0	1979	RVRSRC BC SPASH(3),0(5) GO BACK IF NOT ACK ELSE EXIT
3962	1610	V1X0651R10	11	1816	6	0	1810	5	0	1980	DEVIAT BC WTEND+6(6),WTEND(5) GO TO REPLY ENQ AND READ RESPONSE
3964	1620	U100000000	11	1550	5	0	0000	0	0	1981	BC EMBRAC(5) GO TO TEST THE RESPONSE
3966										1982	*
3968										1983	* WRITE-DATA READ-REPLY SUBROUTINE
3970										1984	*
3972	1630	I/O INSTR.		0001			0010			1985	WTDATA DM C'I/O INSTR.' I/O INSTR FOR EXECUTION GOFS HERE
3974	1640	1690V10001	00	6906C	1	0	0001	1	0	1986	R ETR(1),1(1) WRITE A TRAILING ETB CHARACTER
3976	1650	0171710003	00	1717	0	0	0003	1	0	1987	RDRPLY R REPLY(0),3(1) READ HOST RESPONSE
3978	1660	VOPR141940	11	0021	6	0	1940	4	0	1988	BC IR2(6),FAULT(4) BRANCH IF TIME-OUT (FAULT)
3980	1670	Q1X031720	11	1700	1	0	1720	3	0	1989	BC SNDENG(1),TSTDLE(3) BRANCH ON ERROR OR DLE PAIR
3982	1680	PQ4171702Y	14	1717	0	0	7029C	1	0	1990	C REPLY(1),NAK TEST FOR NAK RESPONSE
3984	1690	R1VS000000	11	1630	2	0	0000	0	0	1991	BC WTDATA(2) GO TO RESEND DATA ON AN ENQ REPLY
3986	1700	1694P10001	00	6940C	1	0	0001	1	0	1992	SNDENG R ENDE(1),1(1) SEND AN ENQ TO THE HOST
3988	1710	U1V0000000	11	1650	5	0	0000	0	0	1993	BC RDRPLY(5) GO TO READ THE HOST REPLY AGAIN
3990	1720			1717						1994	ORG *-3 USE ANY UNUSED SPACE
3992	1717			0001			0003			1995	REPLY DM C' ' COMMUNICATION RESPONSE AREA
3994	1720	PQ4171450H	14	1717	0	0	4505C	1	0	1996	TSTDLE C REPLY(1),ONE TEST FOR AN ACK REPLY
3996	1730	S10P050000	11	1700	3	0	0000	5	0	1997	WTDATA BC SNDENG(3),0(5) EXIT IF ACK REPLY ELSE SEND ENQ
3998										1998	*
4000										1999	* WRITE-ACK READ-DATA SUBROUTINE
4002										2000	*
4004	1740	7235210007	00	2352	7	0	0007	1	0	2001	ACKRD R ACK0(7),7(1) WRITE THE PROPER ACK REPLY
4006	1750	PRSR11809	15	2358	0	0	1809	1	0	2002	X ACK0+6(1),ACK1 CHANGE ACK SEQUENCE
4008	1760	I/O INSTR.		0001			0010			2003	READIT DM C'I/O INSTR.' EXECUTE THE SCA READ INSTRUCTION
4010	1770	VOPR141940	11	0021	6	0	1940	4	0	2004	BC IR2(6),FAULT(4) BRANCH IF TIME-OUT (FAULT)
4012	1780	Q1X050000	11	1790	1	0	0000	5	0	2005	ACKRDX BC NAKIT(1),0(5) SEND NAK IF ERROR ELSE EXIT
4014	1790	6702T10006	00	7024C	6	0	0006	1	0	2006	NAKIT R NACK(6),6(1) REPLY NAK ON ERROR FROM READ INSTR
4016	1800	U1V0000000	11	1760	5	0	0000	0	0	2007	BC READIT(5) GO BACK TO READ AGAIN
4018	1810			1809						2008	ORG *-1 USE ANY UNUSED AREA FOR CONSTANTS
4020	1809	1		0001			0001			2009	ACK1 DM C'1' ACK RESPONSE SEQUENCE AREA
4022										2010	*

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	R/S	M I	LINE	IMAGE	
4024								2011	*	WRITE-ENQ READ-REPLY SUBROUTINE
4026								2012	*	
4028	1810	6694P10006	00	6940C	6 0	0006	1 0	2013	WTENG	R ENQ(6),6(1) WRITE AN ENQ RESPONSE
4030	1820	0171710003	00	1717	0 0	0003	1 0	2014	R	RPLY(0),3(1) READ THE COMMUNICATIONS REPLY
4032	1830	VOPR141940	11	0021	6 0	1940	4 0	2015	BC	IR2(6),FAULT(4) BRANCH IF TIME-OUT (FAULT)
4034	1840	Q1X0050000	11	1810	1 0	0000	5 0	2016	WTENGX	BC WTENG(1),0(5) LOOP IF ERROR ELSE EXIT
4036								2017	*	
4038								2018	*	WRITE=WACK READ-REPLY SUBROUTINE
4040								2019	*	
4042	1850	7226710007	00	2267	7 0	0007	1 0	2020	WTWACK	R WACK(7),7(1) SEND A WACK
4044	1860	0171710003	00	1717	0 0	0003	1 0	2021	R	RPLY(0),3(1) READ THE HOST REPLY
4046	1870	VOPR141940	11	0021	6 0	1940	4 0	2022	BC	IR2(6),FAULT(4) BRANCH IF TIME-OUT (FAULT)
4048	1880	V1XT451890	11	1846	6 0	1890	5 0	2023	BC	WTENGX+6(6),**+10(5) PRESET THE ERROR BRANCH
4050	1890	R1YPO51810	11	1900	2 0	1810	5 0	2024	BC	**+10(2),WTENG(5) SEND AN ENQ FOR ANY INVALID REPLY
4052	1900	PQ.171244Y	14	1717	0 0	2449C	1 0	2025	C	RPLY(1),EOT TEST FOR AN EOT RESPONSE
4054	1910	R1YS000000	11	1930	2 0	0000	0 0	2026	BC	WACKX(2) GO TO EXIT IF IT IS EOT
4056	1920	1TIPV31936	07	4506C	1 0	1936	3 0	2027	S	TWO,WWACKX+6(3) ADJUST ADDRESS FOR LOOP ON TEST
4058	1930	POPPOR0000	11	0000	0 0	0000	8 0	2028	WWACKX	BC 0(0),0(8) EXIT
4060								2029	*	
4062								2030	*	TIME-OUT (FAULT) ON READ SUBROUTINE
4064								2031	*	
4066	1940	P208812089	08	2088	0 0	2089	1 0	2032	FAULT	MC RTRYS,RTRCT SET RETRY COUNTER
4068	1950	Q9980P1990	08	9980	1 2	1990	0 0	2033	MC	9980(10),2),SCAIO SET I/O INSTR TO BE RE-EXECUTED
4070	1960	P002142006	08	0021	0 0	2006	4 0	2034	MC	IR2(4),FAULTX+6 SET EXIT ADDRESS FOR RETURN
4072	1970	1QY4012089	07	1970	1 0	2089	1 0	2035	FLOOP	S *(1),RTRCT DECREMENT THE RETRY COUNTER
4074	1980	R223000000	11	2010	2 0	0000	0 0	2036	BC	MAC9(2) BRANCH WHEN COUNT IS EXHAUSTED
4076	1990	I/O INSTR.		0001		0010		2037	SCAIO	DM C'I/O INSTR.' I/O INSTR TO BE EXECUTED GOES HERE
4078	2000	T1YX050000	11	1970	4 0	0000	5 0	2038	FAULTX	BC FLOOP(4),0(5) LOOP ON PERSISTING FAULT ELSE EXIT
4080	2010	VOPR56595P	11	0036	6 0	5950C	5 0	2039	MAC9	BC NEED+1(6),CONSOL(5) GO TO TEST MSGQ AVAILABILITY
4082	2020	P541105032X	08	5415C	0 0	0327C	5 0	2040	MC	ATT06,MSGQ REPORT TIME OUT
4084	2030	P437W3033S	08	4377C	0 0	0333C	3 0	2041	MC	PSFLAG(3),MSGQ+6 REPORT FUNCTION IN PROGRESS
4086	2040	1TIPV30021	07	4506C	1 0	0021	3 0	2042	S	TWO,IR2(3) ADJUST ADDRESS OF I/O INSTRUCTION
4088	2050	P00214033W	08	0021	0 0	0337C	4 0	2043	MC	IR2(4),MSGQ+10 SET I/O ADDRESS IN MESSAGE
4090	2060	Q19900034E	08	1990	1 0	0342C	0 0	2044	MC	SCAIO(10),MSGQ+15 DISPLAY ACTUAL INSTRUCTION IN MSG
4092	2070	PT57W1437V	14	4377C	0 0	4376C	1 0	2045	C	PSFLAG,SPACE IF PSFLAG CLEARED
4094	2080	R223000000	11	2110	2 0	0000	0 0	2046	BC	TSTMP(2) GO TEST TEMPFL
4096	2090			2088				2047	ORG	**2 USE ANY UNUSED SPACE
4098	2088	7		0001		0001		2048	RTRYS	DM C'7' CONSTANT FOR 7 RETRYS ON TIME-OUT
4100	2089	7		0001		0001		2049	RTRCT	DM C'7' TIME-OUT RETRY COUNTER
4102	2090	P437W1232X	08	4377C	0 0	2328	1 0	2050	MC	PSFLAG,ACTVFL ELSE MOVE PSFLAG TO ACTVFL
4104	2100	U2JT000000	11	2140	5 0	0000	0 0	2051	BC	MAC10(5) AND GET OUT
4106	2110			2105				2052	ORG	**5
4108	2105	ATT10		0001		0005		2053	ATT10	DM C'ATT10' HOST SIGNAL TO CLEAR AND RESET
4110	2110	PS49W1437V	14	3797C	0 0	4376C	1 0	2054	TSTMP	C TEMPFL(1),SPACE TEST FOR BLANK TEMPFL FIELD
4112	2120	R223000000	11	2140	2 0	0000	0 0	2055	BC	MAC10(2) GET OUT ELSE
4114	2130	P379W1232X	08	3797C	0 0	2328	1 0	2056	MC	TEMPFL(1),ACTVFL MOVE TEMPFL (PREV. PSFLAG) TO *STA
4116	2140	PT57W1450X	14	4377C	0 0	4508C	1 0	2057	MAC10	C PSFLAG(1),FOUR IS PSFLAG OPTION 5 OR ABOVE
4118	2150	S1TT000000	11	1440	3 0	0000	0 0	2058	BC	XSAS(3) GO TO ABNORMAL 'SELECT' END
4120	2160	P437V3437W	08	4376C	0 0	4377C	3 0	2059	MC	SPACE(3),PSFLAG ERASE PSFLAGS
4122	2170	UOPHC00000	11	0050	5 0	0000	0 0	2060	BC	SASUP(5) GO TO HANGUP THE PHONE LINE
4124	2180			2176				2061	ORG	**4 USE ANY UNUSED SPACE
4126	2176	*FUN		0001		0004		2062	FUN	DM C'*FUN' FUNCTION TEXT TEST CONSTANT
4128								2063	*	
4130								2064	*	CONSTANTS AND DATA BUFFERS
4132								2065	*	
4134	2180	6230610036	01	2316	6 0	0036	1 0	2066	STWRT	W STABUF(6),36(1) WRITE STATUS BUFFER INSTRUCTION

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	R/S	M I	LINE	IMAGE
4134	2190	622Y210024	01	2292	6 0	0024	1 0	2067	WTWRT W TTD(6),24(1) WRITE A TEMP TEXT DELAY PATTERN
4133	2200	62310910259	01	2359	6 0	0259	1 0	2068	DTWRT W PREBUF(6),259(1) WRITE THE SCA BUFFER
4140	2210	0227410008	00	2274	0 0	0008	1 0	2069	RDID R SACK2(0),8(1) READ THE DIALING COMPUTER ID
4142	2220	0228210010	00	2282	0 0	0010	1 0	2070	RDFUN R STXT(0),10(1) READ A FUNCTION TEXT MESSAGE
4144	2230	0171710002	00	1717	0 0	0002	1 0	2071	RDEOT R REPLY(0),2(1) READ AN FOT REPLY FROM HOST
4146	2240	0236510253	00	2365	0 0	0253	1 0	2072	RDDATA R SCABUF(0),253(1) READ INTO THE SCA BUFFER
4148								2073	*
4150	2250	SYS360		0001		0006		2074	KABEL DM C'SYS360' CPU STATION IDEN
4152	2256	VVVVVVSY510		0001		0011		2075	SID DM C'VVVVVSY510' MDT5 ID FOR HANDSHAKE
4154	2267	VVVVVV;		0001		0007		2076	WACK DM C'VVVVVVP;' WACK COMMUNICATIONS CHARACTER
4156	2274			0001		0008		2077	SACK2 DM C8 HOST ID BUFFER
4158	2282			0001		0005		2078	STEXT DM C5 1/4 FUNCTION HEADING & STX
4160	2287			0001		0001		2079	RID DM C1 2/4 FUNCTION CODE
4162	2288			0001		0002		2080	PICNR DM C2 3/4 PICTURE NUMBER FOR DATA POLL
4164	2290			0001		0002		2081	DM C2 4/4 SPILL AREA
4166	2292	VVVVVVTTTT		0001		0024		2082	TTD DM C'VVVVVBTTTTTTTTTTTTTTTTTTTTTTT' TTD BUFFER
4168	2316			0000		0036		2083	STARUF DM C036 *STA MESSAGE BUFFER AREA
4170	2316	VVVVVV*STA		0001		0012		2084	DM C'VVVVVB*STA00' *STA MESSAGE BUFFER AREA
4172	2328			0001		0001		2085	ACTVFL DM C' ' ACTIVE COMMUNICATION FUNCTION
4174	2329	0000000000		0001		0011		2086	DM C'0000000000' ACTIVE COMMUNICATION FUNCTION
4176	2340	0000000000		0001		0012		2087	TRLIMS DM C12'000000000000' HOLD TRANS FILE LIMITS FOR *STA
4178	2352	VVVVVVPO		0001		0007		2088	ACKO DM C'VVVVVVP0' ACK RESPONSE AREA
4180								2089	*
4182								2090	* THE SCA BUFFER AREA 'SCABUF' IS USED TO RECEIVE AND
4184								2091	* TRANSMIT DATA WITH A 'HOST' COMPUTER.
4186								2092	*
4188	2359	VVVVVV		0001		0006		2093	PREBUF DM C'VVVVVB' SYNS AND STX FOR DATE TRANSMISSION
4190	2365			0253		0001		2094	SCABUF DM 253C SCA DATA AND CONTROL INPUT BUFFER
4192								2095	*
4194								2096	* SCA PARTITION INITIALIZING ROUTINE
4196								2097	*
4198	2618			2365				2098	ORG SCABUF USE BUFFER AREA DURING INITIALIZE
4200	2370	0242000000	08	2420	1 0	0000	0 0	2099	MAKS MC DUMS(10),0P LOAD PROPER INSTRUCTION INTO 00
4202	2380	4PPT540016	07	0045	4 0	0016	4 0	2100	S 45P(4),CHIET(4) ADJUST CHIET TO THIS PARTITION
4204	2390	4TR1040025	04	4315C	4 0	0025	4 0	2101	A KON101(4),25P(4) POINT_25 TO B COUNTER
4206	2400	P00R541261	09	0025	0 0	1261	4 0	2102	MN 25P(4),CLIP+1 LOAD CLIP INSTRUCTION
4208	2410	P149Y50035	08	1499C	0 0	0035	5 0	2103	MC ZEROS(5),NEED INITIALIZE LINK ADDRESS ARFA
4210	2420	U5XXP00000	11	5880C	5 0	0000	0 0	2104	DUMS BC TATTLE(5) RECOVERY INSTRUCTION
4212	2430			2426				2105	ORG **4
4214	2426	0050		0001		0004		2106	DM A'SASUP'
4216	2430			8800C				2107	EXEC LOADST
4218	2430							2108	END

TYP I LNTH ADDRESS LINE SYMBOI

***REFERENCES**

0005	1499C	0165	ZEROS	U0203 C -R	U0209 C -B	U0215 MC -A	U0225 MC -A	U0247 C -B	U0249 MC -A	U0266 C -R
				U0268 C -B	U0270 MC -A	U0274 C -A	U0279 C -B	U0298 C -B	U0305 MC -A	U0318 C -R
				U0322 MC -A	U0325 MN -A	U0334 MC -A	U0357 MC -A	U0361 C -B	U0372 C -B	U0386 MN -A
				U0405 MC -A	U0426 MC -A	U0435 MC -A	U0439 MN -A	U0443 C -B	U0447 MC -A	U0463 MC -A
				U0468 C -B	U0495 MC -A	U0512 C -B	U0531 MC -A	U0532 MC -A	U0533 MC -A	U0547 MC -A
				U0588 MC -A	U0628 MC -A	U0652 MC -A	U0694 C -B	U0710 C -B	U0726 MC -A	U0731 C -R
				U0743 C -B	U0753 MC -A	U0758 C -B	U0776 MC -A	U0780 C -B	U0786 MC -A	U0790 C -R
				U0806 C -B	U0814 C -B	U0837 C -B	U0853 MC -A	U0871 MC -A	U0872 MC -A	U0873 MN -A
				U0874 MN -A	U0875 MC -A	U0876 MC -A	U0884 MC -A	U0886 MC -A	U0889 MN -A	U0914 C -R
				U0942 MC -A	U0961 MC -A	U0985 MC -A	U0993 MC -A	U0994 MC -A	U1036 MC -A	U1048 MC -A
				U1091 MC -A	U1109 MC -A	U1126 MC -A	U1130 C -B	U1138 C -A	U1144 MC -A	U1150 C -R
				U1179 MC -A	U1184 C -B	U1204 MC -A	U1209 C -B	U1229 MC -A	U1233 C -B	U1245 MN -A
				U1261 C -B	U1420 C -B	U1433 MC -A	U1439 MC -A	U1461 MC -A	U1470 MC -A	U1484 MC -A
				U1512 MC -A	U1546 MC -A	U1571 MC -A	U1576 MC -A	U1646 MC -A	U1652 C -B	U1681 C -R
				U1683 MC -A	U1699 MN -A	U1720 MC -A	U1766 C -B	U1791 MC -A	U1807 C -B	U1822 C -R
				U1850 MC -A	U1866 MC -A	U1889 MC -A	U1907 MC -A	U1909 C -B	U1941 C -A	U2103 MC -A

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE	C
0006										0002	*****	
0007										0003	* NFR200 ON-LINE INTERFACE WITH THE MDT5 SYSTEM SOFTWARE *	
										0004	* PACKAGE (CR0602) DATED 10/11/71 (RFL). *	
0010										0005	*****	
0020										0006	*	
0025										0007	*****	
0030										0008	*	
0035										0009	* LABELS IN THE MDT5 PROGRAM THAT ARE USED IN	
0040										0010	* THE ON-LINE INTERFACE WITH THE STORE OPERATOR	
0045										0011	*	
0050										0012	*****	
0055										0013	*	
0060	0000C									0014	COMMON	
0065	0000C			0326C						0015	ORG 326	
0070	0326C			0001		0001				0016	FREE DM C1	
0075	0327C			0001		0027				0017	MSGG DM C27	
0080	0354C			0366C						0018	ORG 366	
0085	0366C			0001		0001				0019	NXPIC DM C1	MDT5 NEXT PICTURE LABEL
0090	0367C			0458C						0020	ORG 458	
0095	0458C			0001		0001				0021	DAYNRS DM C1	MDT5 CURRENT DAY LABEL
0096	0459C			1180C						0022	ORG 1180	
0097	1180C			0001		0001				0023	COMFLG DM C	COMMON BUFFER FLAG
0098	1181C			1188C						0024	ORG 1188	
0099	1182C			0001		0001				0025	COMBUF DM C	COMMON DATA BUFFER
0100	1189C			1747C						0026	ORG 1747	
0105	1747C			0001		0001				0027	E00 DM C1	MDT5 LABEL
0106	1748C			4026C						0028	ORG 4026	
0107	4026C			0001		0001				0029	E0TFL DM C1	
0110	4027C			4028C						0030	ORG 4028	
0115	4028C			0001		0001				0031	BLOKAC DM C1	MDT5 LABEL
0116	4029C			4377C						0032	ORG 4377	
0118	4377C			0001		0001				0033	PSFLAG DM C1	
0120	4378C			8880C						0034	ORG 8880	
0125	8880C	U93XP00000	11	9180C	5	0	0000	0	0	0035	ASK4IT BC PRESET(5)	BRANCH AROUND SYSTEM LOADING REF0
0127	8890C			9180C						0036	ORG 9180	
0128	9180C			0001		0001				0037	PRESET DM C	FORCE NORMAL LOADING FROM HERE
0130	9181C			9440C						0038	ORG 9440	
0135	9440C	V2PQ152000	11	2011	6	0	2000	5	0	0039	XROX BC SRVCE+1(6),REQST(5)	MODIFY RCX FOR GENERAL S/R
0140										0040	*	
0145										0041	*****	
0150										0042	*	
0155										0043	* LABELS IN PARTITION ZERO FOR THE INTERFACE	
0160										0044	*	
0165										0045	*****	
0170										0046	*	
0175	0000									0047	NORMAL	
0180	0000			0011						0048	ORG 11	
0185	0011			0001		0004				0049	R1 DM A	REGISTER 1 LABEL
0190	0015			0015						0050	ORG 15	
0195	0015			0000		0006				0051	DM 0C6	DMF LOADER DISC ADDRESS
0200	0015			0021						0052	ORG 21	
0205	0021			0001		0004				0053	R2 DM A	REGISTER 2 LABEL
0210	0025			0025						0054	ORG 25	
0215	0025			0000		0006				0055	DM 0C6	DMF PROGRAM NAME FOR LOCATOR
0220	0025			0031						0056	ORG 31	
0225	0031			0001		0004				0057	R3 DM A	REGISTER 3 LABEL

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	B/S	M I	LINE	IMAGE
0230	0035							0058	ORG 60
0235	0060							0059	DM OC10 DMF LOADER ENTRY POINT
0240	0060							0060	ORG 200
0245	0200							0061	DM OC100 DMF LOADER INPUT BUFFER
0260	0200							0062	ORG 300
0265	0300							0063	ROX DM OC1 MDTs LABEL
0270	0300							0064	ORG 375
0275	0375							0065	LABEL DM 05 MDTs LABEL
0280	0380							0066	ORG 380
0285	0380							0067	ENTER DM OC1
0290	0380							0068	ORG 610
0295	0610	R1R0052430	11	1210	2 0	2430	5 0	0069	BC TRCER(2),LABLTS(5) MODIFY PO SYNTAX ANALYZER
0300	0620							0070	ORG 620
0305	0620							0071	DUMMY DM C RETURN POINT FOR INVALID COMMAND
0307	0621							0072	ORG 900
0308	0900	USWY000000	11	5790	5 0	0000	0 0	0073	BC ROLLER(5) BRANCH TO RBSA CONTROLLER CALL
0309	0910							0074	ORG *=5 USE SPACE SAME AS MDTs PROGRAM
0310	0905	ENDAY						0075	DM C'ENDAY' END DAY COMMAND CONSTANT
0311	0910							0076	ORG 1210
0315	1210							0077	TRCER DM C1
0330	1211							0078	ORG 2000
0335								0079	*
0340								0080	* * * * *
0345								0081	*
0350								0082	* GENERAL SERVICE REQUEST ROUTINE. THIS ROUTINE IS
0355								0083	* ENTERED WITH BC SRVCE+1(6),REQST(5). IF NO
0360								0084	* SERVICE REQUEST IS POSTED AT THE TIME OF THE TEST,
0365								0085	* THE ROUTINE RETURNS CONTROL AT THE NEXT
0370								0086	* EXECUTABLE INSTRUCTION FOLLOWING THE BRANCH AND LINK
0375								0087	* IF A SERVICE REQUEST IS POSTED, THE ROUTINE DETERMINES
0380								0088	* WHICH DEVICE AND TAKES THE APPROPRIATE BRANCH
0385								0089	*
0390								0090	* * * * *
0395								0091	*
0400	2000	W2PQ502020	11	2015	7 0	2020	0 0	0092	REQST BC WHOM(7),**20(0) TEST FOR SERVICE REQUEST
0405	2010	U2PQ000000	11	2010	5 0	0000	0 0	0093	SRVCE BC *(5) RETURN IF NOT
0410	2020							0094	ORG *=5
0415	2015							0095	WHOM DM C1 DEVICE SIGNALING S/R
0420	2016	7						0096	SEVN DM C'7' IS IT A DEVICE 7 WKSTN?
0425	2020	PRP1612015	14	2016	0 0	2015	1 0	0097	C SEVN,WHOM
0430	2030	R2PQ000000	11	2110	2 0	0000	0 0	0098	BC WKST(2) YES, TRY ITS BRANCHES
0435	2040	PRP1515964	14	2015	0 0	5964	1 0	0099	C WHOM,ZERO IS IT DEVICE ZERO
0440	2050	R2PQ000000	11	2100	2 0	0000	0 0	0100	BC COMTER(2)
0445	2060	P201517779	08	2015	0 0	7779	1 0	0101	MC WHOM,N*00+16 NOT VALID DEVICE
0450	2070	051T030001	01	5140	0 0	0001	3 0	0102	W CR(0),1(3) REPORT INVALID DEVICE TO DFV 0
0455	2080	077V350032	01	7763	0 0	0032	5 0	0103	W NN00(0),32(5)
0460	2090	R2PQ082070	11	2010	2 0	2070	8 0	0104	BC SRVCE(2),**20(8) RETURN TO CALLER
0465	2100	U0SX055720	11	0380	5 0	5720	5 0	0105	COMTER BC ENTER(5),LSTLNE(5) DEVICE ZERO S/R BRANCH
0470	2110	U2PQ055720	11	2120	5 0	5720	5 0	0106	WKST BC WKSTEN(5),LSTLNE(5) DEVICE SEVEN S/R BRANCH
0475								0107	*
0480								0108	* * * * *
0485								0109	*
0490								0110	* WORKSTATION AS DEVICE SEVEN ENTERS HERE. COMMANDS ARE
0495								0111	* ACCEPTED, ANALYZED AND ACTED UPON APPROPRIATELY.
0500								0112	*
0505								0113	* * * * *

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE	C
0790	2430	PP37552755	14	0375	0	0	2755	5	0	0170	LABLTS C LABEL,RRLPK	PRINT ON LINE PRINTER?
0795	2440	R2U0000000	11	2510	2	0	0000	0	0	0171	BC MILL(2)	
0797	2450			2446						0172	ORG **4	
0798	2446	7975		0001			0004			0173	MSGPT2 DM A'MSGTAB'	
0800	2450	PP37556145	14	0375	0	0	6145	5	0	0174	C LABEL,RRPRN	PRINT ON WORKSTATION DEV 02
0805	2460	R2XU000000	11	2850	2	0	0000	0	0	0175	BC PENNY(2)	
0810	2470			2466						0176	ORG **4	
0815	2466	7975		0001			0004			0177	TABRST DM A'MSGTAB'	
0820	2470	PP37555135	14	0375	0	0	5135	5	0	0178	C LABEL,RRREP	REQUEST TO RE-PRINT?
0825	2480	R2YT000000	11	2940	2	0	0000	0	0	0179	BC NICKL(2)	
0830	2490			2486						0180	ORG **4	
0835	2486	9545		0001			0004			0181	MSGLM DM A'MSGTAB+1620'	
0870	2490	PW00850375	14	7108	0	0	0375	5	0	0182	C NAFUD,LABEL	REQUEST FOR CREDIT FILE UPDATE ?
0875	2500	R3YS0R0620	11	3930	2	0	0620	8	0	0183	BC CIUPD(2),DUMMY(8)	
0880										0184	*	
0885										0185	* * * * *	
0890										0186	*	
0895										0187	* LINE PRINTER WRITER ROUTINE	
0900										0188	*	
0905										0189	* * * * *	
0910										0190	*	
0915	2510	Q2R4000330	08	2840	1	0	0330	0	0	0191	MILL MC SCURMN(10),330P	MODIFY MDTs PO FOR PRINTER
0920	2520	22RP530001	01	2805	2	0	0001	3	0	0192	W FF(2),1(3)	
0925	2530	P59V412710	09	5964	0	0	2710	1	0	0193	MN ZERO(1),FFSW	TURN FORM FEED SWITCH OFF
0930	2540	V6UJ156470	11	6501	6	0	6470	5	0	0194	BC GETIN+1(6),STATBL(5)	RETRIEVE STATUS TABLE
0935	2550	P546440031	08	5964	0	0	0031	4	0	0195	MC ZEROS(4),R3	
0940	2560	P679262994	08	6792	0	0	2994	6	0	0196	MC D3,ADR	INITIALIZE ADDRESS
0945	2570	P53V412615	09	5964	0	0	2615	1	0	0197	PRNTR MN ZERO(1),STOPSW+5	TURN STOP SWITCH OFF
0950	2580	P59V412685	09	5964	0	0	2685	1	0	0198	MN ZERO(1),STAPSW+5	TURN STAPSW OFF
0955	2590	PVW92VXY2	14	6792	0	3	6892	6	3	0199	PRIACT C D3(,3),D4(,3)	THIS FILE AT LIMIT
0960	2600	V6SQ126170	11	6311	6	0	6170	2	0	0200	BC LINK+1(6),PRNTFL(2)	LINK ON EQUAL
0965	2610	P2X0002570	11	2810	0	0	2570	0	0	0201	STOPSW BC PRNTON(0),PRNTR(0)	STOPSW TURNED ON IN LINK ROUTINE
0970	2620	P700644061	08	7006	0	0	6061	4	0	0202	MC LINEAD,READ1+1	SET READ FOR FIRST SECTOR
0975	2630	V6QT156050	11	6141	6	0	6050	5	0	0203	BC RED1+1(6),DSC(5)	
0980	2640	1S50634061	04	3506	1	0	6061	3	0	0204	A FIGHT,READ1+1(3)	BUMP TO SECOND
0985	2650	V6QT156050	11	6141	6	0	6050	5	0	0205	BC PED1+1(6),DSC(5)	
0990	2660	PUR4R27795	14	5248	0	0	7795	2	0	0206	C SLASH,LINE	TEST FOR END
0995	2670	V6SQ126150	11	6311	6	0	6150	2	0	0207	BC LINK+1(6),PRFLE(2)	LINK IF EQUAL
1000	2680	P2X0002570	11	2810	0	0	2570	0	0	0208	STAPSW BC PRNTON(0),PRNTR(0)	STAPSW TURNED ON IN LINK ROUTINE
1005	2690	PUR4527795	14	5245	0	0	7795	3	0	0209	C EUP,LINE	TEST FOR END OF PAGE CODE
1010	2700	R2W0052760	11	2710	2	0	2760	5	0	0210	EOPTST BC FFSW(2),WRTLN(5)	TRY FORM FEED IF YES, ELSE WRITE
1015	2710	P2WT000000	11	2740	0	0	0000	0	0	0211	FFSW BC TRNOFF(0)	SWITCH IS OFF IF NO-OPPED
1020	2720	22RP530001	01	2805	2	0	0001	3	0	0212	W FF(2),1(3)	TOP OF FORM TO PRINTER
1025	2730	S2KT0R2720	11	2740	3	0	2720	8	0	0213	BC **10(3),**=10(8)	
1030	2740	P59V412710	09	5964	0	0	2710	1	0	0214	TRNOFF MN ZERO(1),FFSW	TURN SWITCH BACK OFF
1035	2750	X0SP000000	11	0300	8	0	0000	0	0	0215	BC ROX(8)	
1040	2760			2755						0216	ORG **5	
1045	2755	RRI PR		0001			0005			0217	RRLPR DM C'RRLPR'	
1050	2760	277Y550132	01	7795	2	0	0132	5	0	0218	WRTLN W LINE(2),132(5)	WRITE A LINE OF REPORT
1055	2770	R2WT032790	11	2740	2	0	2790	3	0	0219	BC TRNOFF(2),TURNON(3)	GOOD IF 2, AUTO TCF IF 3
1060	2780	X2WV000000	11	2760	8	0	0000	0	0	0220	BC WRTLN(8)	ELSE FAULT
1065	2790	P298912710	09	2939	0	0	2710	1	0	0221	TURNON MN FIVE(1),FFSW	TURN SWITCH ON
1070	2800	X0SP000000	11	0300	8	0	0000	0	0	0222	BC ROX(8)	
1075	2810			2805						0223	ORG **5	
1080	2805	LLLLL		0001			0005			0224	FF DM C'LLLLL'	
1085	2810	22RP530004	01	2805	2	0	0004	3	0	0225	PRNTON W FF(2),4(3)	CLEAN PRINTER

C

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE
1090	2820	V3YP1R3740	11	3901	6	0	3740	8	0	0226	BC SETBK+1(6),NORML(8) RESET MODIFIED INSTRUCTIONS
1095	2830	X0SP000000	11	0300	8	0	0000	0	0	0227	MJRRY BC ROX(8) RETURN TO NORMAL SYSTEM
1100	2840	X2UY000000	11	2590	8	0	0000	0	0	0228	SCURMN BC PRIACT(8) MODIFYING INSTRUCTION
1105										0229	*
1110										0230	*****
1115										0231	*
1120										0232	WORKSTATION AS DEVICE ZERO PRINT LOGIC
1125										0233	*
1130										0234	*****
1135										0235	*
1140										0236	*
1145										0237	ENTRY POINT FOR NORMAL PRINTING USING DEVICE 0 WORKSTATION
1150										0238	*
1155	2850	P59V412100	09	5964	0	0	2100	1	0	0239	PENNY MN ZERO(1),COMTER ALLOW S/R INTERRUPT
1160	2860	V3WS1R3510	11	3731	6	0	3510	8	0	0240	BC SETWRT+1(6),DEVZR(8) SET I/O TO DEVICE ZERO
1165	2870	V3PS1R3000	11	3031	6	0	3000	8	0	0241	BC PRELM+1(6),INARY(8) DO PRELIMINARIES
1170	2880	V3QP153040	11	3101	6	0	3040	5	0	0242	BC TARSET+1(6),ALFRM(5)
1175	2890	PP92V1032W	14	0326C	0	0	0327C	1	0	0243	MSGTST C FREE,MSGQ IS THERE A MESSAGE FROM MDTs?
1180	2900	V5JX115470	11	5781	6	0	5670	1	0	0244	BC RITN+1(6),TBLMSG(1) TABLE MESSAGE IF THERE IS
1185	2910	V2PQ152000	11	2011	6	0	2000	5	0	0245	BC SRVCE+1(6),REQST(5) TEST S/R INTERRUPT
1190	2920	V5WX154640	11	5781	6	0	4640	5	0	0246	BC RITN+1(6),READ(5) READ AND WRITE A LINE
1195	2930	X2XY000000	11	2890	8	0	0000	0	0	0247	BC MSGTST(8) GO BACK FOR MORE
1200	2940			2936						0248	ORG **4
1205	2936	004		0001			0003			0249	OHFOUR DM C'004' CONSTANT OHFOUR
1210	2939	5		0001			0001			0250	FIVE DM C'5' CONSTANT FIVE
1215										0251	*
1220										0252	ENTRY FOR REPRINT OPTION USING DEVICE 0 WORKSTATION
1225										0253	*
1230	2940	P59V412100	09	5964	0	0	2100	1	0	0254	NICKL MN ZERO(1),COMTER ALLOW S/R INTERRUPT
1235	2950	V3WS1R3510	11	3731	6	0	3510	8	0	0255	BC SFTWRT+1(6),DEVZR(8) SET I/O TO DEV ZERO
1240	2960	V3PS153000	11	3031	6	0	3000	5	0	0256	BC PRELM+1(6),INARY(5) DO PRELIMINARY ROUTINE
1245	2970	V3UP1R3110	11	3501	6	0	3110	8	0	0257	BC WHADA+1(6),YAWANT(8) FIND OUT WHAT TO RE-PRINT
1250	2980	V3QP153040	11	3101	6	0	3040	5	0	0258	BC TARSET+1(6),ALFRM(5) DO ALIGN FORM MESSAGE
1255	2990	X2XY000000	11	2890	8	0	0000	0	0	0259	BC MSGTST(8) GO TO NORMAL WRITE LOOP
1260	3000			2994						0260	ORG **6
1265	2994	000000		0001			0006			0261	ADR DM C'000000'
1380										0262	*
1385										0263	*****
1390										0264	*
1395										0265	PRELIMINARY ROUTINES FOR PRINTING REPORT
1400										0266	*
1405										0267	*****
1410										0268	*
1415	3000	V6UP154470	11	6501	6	0	6470	5	0	0269	INARY BC GETIN+1(6),STATBL(5) RETRIEVE STATUS TABLE
1420	3010	P596440031	08	5964	0	0	0031	4	0	0270	MC ZEROS(4),R3
1425	3020	P6792VR994	08	6792	0	3	2994	6	0	0271	MC D3(6,3),ADR INITIALIZE ADR
1430	3030	X3PS000000	11	3030	8	0	0000	0	0	0272	PRELM BC *(8) RETURN
1435	3040	051T030001	01	5140	0	0	0001	3	0	0273	ALFRM W CR(0),1(3)
1440	3050	773J650053	01	7356	7	0	0053	5	0	0274	ALFRM1 W ALMSG(7),53(5) WRITE ALIGN FORM MESSAGE
1445	3060	R3PW0R3040	11	3070	2	0	3040	8	0	0275	BC **10(2),ALFRM(8)
1450	3070	W0P0003090	11	0200	7	0	3090	0	0	0276	BC 200(7),**20(0) WAIT FOR SERVICE REQUEST
1455	3080	X3PW000000	11	3070	8	0	0000	0	0	0277	BC **10(8)
1460	3090	V5JX1R5440	11	5781	6	0	5440	8	0	0278	BC RITN+1(6),VTAB1(8) LOAD VERT TAB REGISTER
1465	3100	U3QP000000	11	3100	5	0	0000	0	0	0279	TARSET BC *(5) RETURN
1470										0280	*
1475										0281	*****

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	R/S	M	I	LINE	IMAGE	C
1480										0282	*	
1485										0283	*	
1490										0284	*	
1495										0285	*	
1500										0286	*	
1505	3110	751T030001	01	5140	7	0	0001	3	0	0287	YAWANT W	
1510	3120	774P950035	01	7409	7	0	0035	5	0	0288	YAW1 W	CR(7),1(3)
1515	3130	R3JT0R3110	11	3140	2	0	3110	8	0	0289	BC	REPME(7),35(5)
1520	3140	7703150015	00	7031	7	0	0015	5	0	0290	YAW2 R	REQUEST PAGE CODE
1525	3150	R3JV0R3110	11	3160	2	0	3110	8	0	0291	BC	**+10(2),YAWANT(8)
1530	3160	P70S162994	09	7031	0	0	2994	6	0	0292	MN	STRSTP(7),15(5)
1535	3170	PRY9467031	14	2994	0	0	7031	6	0	0293	C	READ CODE
1540	3180	R3JY0R3110	11	3190	2	0	3110	8	0	0294	BC	**+10(2),YAWANT(8)
1545	3190	751T030001	01	5140	7	0	0001	3	0	0295	YAW3 W	USE NUMERICS
1550	3200	774T450027	01	7444	7	0	0027	5	0	0296	YAW4 W	VALIDATE ENTRY
1555	3210	751T030001	01	5140	7	0	0001	3	0	0297	YAW41 W	ASK AGAIN IF NOT
1560	3220	774W150035	01	7471	7	0	0035	5	0	0298	YAW42 W	REQUEST ENDING CONDITIONS
1565	3230	R3RT0R3190	11	3240	2	0	3190	8	0	0299	BC	CR(7),1(3)
1570	3240	7703710008	00	7037	7	0	0008	1	0	0300	YAW5 R	MESREP(7),27(5)
1575	3250	R3RV0R3190	11	3260	2	0	3190	8	0	0301	BC	**+10(2),YAW3(8)
1580	3260	P596440031	08	5964	0	0	0031	4	0	0302	MC	ZEROS(4),R3
1585	3270	PS10717037	14	3507	0	0	7037	1	0	0303	C	DEE,STRSTP+6
1590	3280	R3SU000000	11	3350	2	0	0000	0	0	0304	BC	DAILY(2)
1595	3290	PS10R17037	14	3508	0	0	7037	1	0	0305	C	TEST FOR DAILY
1600	3300	R3ST000000	11	3340	2	0	0000	0	0	0306	BC	DBU,STRSTP+6
1605	3310	PS10917037	14	3509	0	0	7037	1	0	0307	C	WEEKLY(2)
1610	3320	R3SS053190	11	3330	2	0	3190	5	0	0308	BC	TEST FOR WEEKLY
1615	3330	1V49540031	04	6995	1	0	0031	4	0	0309	MONTHLY A	EM,STRSTP+6
1620	3340	1V39540031	04	6995	1	0	0031	4	0	0310	WEEKLY A	TEST FOR MONTHLY
1625	3350	PRY94661Y2	14	2994	0	0	6592	6	3	0311	DAILY C	BC MONTHLY(2),YAW3(5)
1630	3360	Q3JQ000000	11	3110	1	0	0000	0	0	0312	BC	SIX,R3
1635	3370	PRY9466VY2	14	2994	0	0	6692	6	3	0313	C	BUMP REGISTER
1640	3380	Q3SY0R3110	11	3390	1	0	3110	8	0	0314	BC	BUMP REGISTER
1645	3390	PUS4917038	14	5349	0	0	7038	1	0	0315	C	SIX,R3
1650	3400	R3JP000000	11	3500	2	0	0000	0	0	0316	BC	ADR,D1(,3)
1655	3410	P70SR67000	09	7038	0	0	7000	6	0	0317	MN	ADR,D2(,3)
1660	3420	PWP0067038	14	7000	0	0	7038	6	0	0318	C	SPACE(1),STRSTP+7
1665	3430	R3TT0R3190	11	3440	2	0	3190	8	0	0319	BC	TEST FOR *TO END* CONDITION
1670	3440	PWP00661Y2	14	7000	0	0	6592	6	3	0320	C	LEAVE IF YES
1675	3450	Q3QY000000	11	3190	1	0	0000	0	0	0321	BC	USE NUMERICS
1680	3460	PWP0066VY2	14	7000	0	0	6692	6	3	0322	C	VALIDATE ENTRY
1685	3470	Q3TX0R3190	11	3480	1	0	3190	8	0	0323	BC	**+10(2),YAW3(8)
1690	3480	P20S916270	09	2939	0	0	6270	1	0	0324	MN	ADRA,STRSTP+7
1695	3490	P59VA144660	09	5964	0	0	4660	1	0	0325	MN	ADRA,D1(,3)
1700	3500	U3PT000000	11	3040	5	0	0000	0	0	0326	WHADA BC	ALFRM(5)
1705	3510			3505						0327	ORG	*=5
1710	3505	1		0001			0001			0328	ONE	DM C'I'
1715	3506	8		0001			0001			0329	EIGHT	DM C'R'
1720	3507	D		0001			0001			0330	DEE	DM C'D'
1725	3508	W		0001			0001			0331	DRU	DM C'W'
1730	3509	M		0001			0001			0332	EM	DM C'M'
1735										0333	*	
1740										0334	*	
1745										0335	*	
1750										0336	*	
1755										0337	*	

ROUTINE TO QUERY OPERATOR ON A REPRINT OPTION

ROUTINE TO SET I/O INSTRUCTIONS TO DESIRED CODE

SED.	LOCN	INSTR/DATA	OP	A/R	M I	B/S	M I	LINE	IMAGE	C
1760								0338	*****	
1765								0339	*	
1770	3510	P596413525	08	5964	0 0	3525	1 0	0340	DEVZR MC ZERO(1),DEVCD	SET DEVICE CODE TO ZERO
1775	3520	U30T000000	11	3540	5 0	0000	0 0	0341	BC **20(5)	SKIP NEXT
1780	3530			3525				0342	ORG *-5	
1785	3525			0001		0091		0343	DEVCD DM C1	
1790	3530	P201613525	08	2016	0 0	3525	1 0	0344	DEVSU MC SEVN,DEVCD	SET DEVICE CODE TO SEVEN
1795	3540	P352514980	08	3525	0 0	4980	1 0	0345	MC DEVCD,WCHR	BEGIN MODIFYING INSTRUCTIONS
1800	3550	P352515290	08	3525	0 0	5290	1 0	0346	MC DEVCD,TAB2	
1805	3560	P352515420	08	3525	0 0	5420	1 0	0347	MC DEVCD,VTABA	
1810	3570	P352515440	08	3525	0 0	5440	1 0	0348	MC DEVCD,VTAB1	
1815	3580	P352515590	08	3525	0 0	5590	1 0	0349	MC DEVCD,HALT	
1820	3590	P352515600	08	3525	0 0	5600	1 0	0350	MC DEVCD,HALT1	
1825	3600	P352515740	08	3525	0 0	5740	1 0	0351	MC DEVCD,CRIN	
1830	3610	P352515750	08	3525	0 0	5750	1 0	0352	MC DEVCD,CRIN1	
1835	3620	P352515760	08	3525	0 0	5760	1 0	0353	MC DEVCD,CRIN2	
1840	3630	P352513040	08	3525	0 0	3040	1 0	0354	MC DEVCD,ALFRM	
1845	3640	P352513050	08	3525	0 0	3050	1 0	0355	MC DEVCD,ALFRM1	
1850	3650	P352513110	08	3525	0 0	3110	1 0	0356	MC DEVCD,YAWANT	
1855	3660	P352513120	08	3525	0 0	3120	1 0	0357	MC DEVCD,YAW1	
1860	3670	P352513140	08	3525	0 0	3140	1 0	0358	MC DEVCD,YAW2	
1865	3680	P352513190	08	3525	0 0	3190	1 0	0359	MC DEVCD,YAW3	
1870	3690	P352513200	08	3525	0 0	3200	1 0	0360	MC DEVCD,YAW4	
1875	3700	P352513210	08	3525	0 0	3210	1 0	0361	MC DEVCD,YAW41	
1880	3710	P352513220	08	3525	0 0	3220	1 0	0362	MC DEVCD,YAW42	
1885	3720	P352513240	08	3525	0 0	3240	1 0	0363	MC DEVCD,YAW5	
1890	3730	X34S000000	11	3730	8 0	0000	0 0	0364	SETWRT BC *(8)	RETURN
1895								0365	*	
1900								0366	*****	
1905								0367	*	
1910								0368	ROUTINE TO RETURN MODIFIED INSTRUCTIONS TO NORMAL	
1915								0369	*	
1920								0370	*****	
1925								0371	*	
1930	3740	R391002100	08	3910	2 0	2100	0 0	0372	NORML MC COMRS(20),COMTER	BEGIN RESETTING INSTRUCTIONS
1935	3750	P298915570	09	2939	0 0	5570	1 0	0373	MN FIVE,HLTSW	
1940	3760	P59V412710	09	5964	0 0	2710	1 0	0374	MN ZERO(1),FFSW	
1945	3770	P298914920	09	2939	0 0	4920	1 0	0375	MN FIVE,SPSW	
1950	3780	P59V415030	09	5964	0 0	5030	1 0	0376	MN ZERO(1),CRSW	
1955	3790	P298915640	09	2939	0 0	5640	1 0	0377	MN FIVE,HSGSW	
1960	3800	P298915360	09	2939	0 0	5360	1 0	0378	MN FIVE,CHSW	
1965	3810	P298914660	09	2939	0 0	4660	1 0	0379	MN FIVE,REPSW	RESET REPEAT SWITCH
1970	3820	P59V416270	09	5964	0 0	6270	1 0	0380	MN ZERO(1),REPSW1	
1975	3830	P69Y214830	09	6992	0 0	4830	1 0	0381	MN TWO,RPSW2	
1980	3840	P298912100	09	2939	0 0	2100	1 0	0382	MN FIVE,COMTER	ALLOW S/P FOR COMMAND ENTRY
1985	3850	P59V412610	09	5964	0 0	2610	1 0	0383	MN ZERO(1),STOPSW	
1990	3860	P59V412680	09	5964	0 0	2680	1 0	0384	MN ZERO(1),STAPSW	
1995	3870	P59V414750	09	5964	0 0	4750	1 0	0385	MN ZERO(1),QUITSW	
2000	3880	P59V414860	09	5964	0 0	4860	1 0	0386	MN ZERO(1),QUATSW	
2005	3890	Q2X3000330	08	2830	1 0	0330	0 0	0387	MC MURRY(10),330P	RETURN PO TO NORMAL
2010	3900	X3YP000000	11	3900	8 0	0000	0 0	0388	SETBK BC *(8)	RETURN
2015	3910	U0SX055720	11	0380	5 0	5720	5 0	0389	COMRS BC ENTER(5),LSTLNE(5)	NORMAL BRANCHES
2020	3920	U2JRC055720	11	2120	5 0	5720	5 0	0390	WKSTRS BC WKSTEN(5),LSTLNE(5)	NORMAL DEV 7 S/R BRANCH
2025								0391	*	
2030								0392	*****	
2035								0393	*	

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE
2040										0394	** SEARS CONSOLE CREDIT FILE UPDATE
2045										0395	*
2050										0396	* THIS ROUTINE WILL PERMIT OPERATOR CONSOLE ACCESS OF THE
2055										0397	* MDTs NEGATIVE CREDIT FILE FOR THE PURPOSE OF UPDATING
2060										0398	* THE FILE IN THE STORE.
2065										0399	*
2070										0400	* COMMUNICATIONS MAY BE FROM EITHER DEVICE 0, OR DEVICE 7.
2075										0401	*
2080										0402	* ERRORS AND OPERATOR MESSAGES WILL BE PRINTED ON THE 7102
2085										0403	* REGARDLESS OF THEIR ORIGIN, AS THE REGULAR MESSAGE LOOP
2090										0404	* PROVIDED BY THE MDTs SYSTEM IS THE REPORTING AGENT...
2095										0405	*
2100										0406	* SERVICE REQUEST WILL BE IGNORED AFTER THE ROUTINE IS
2105										0407	* IN OPERATION.
2110										0408	*
2115										0409	* * * * *
2120										0410	*
2125	3930	PUS491437W	14	5349	0	0	4377C	1	0	0411	CIUPD C SPACE,PSFLAG TEST COMMUNICATIONS FLAG BUSY
2130	3940	R3YU054220	11	3950	2	0	4240	5	0	0412	BC **10(2),NOTAV(5)
2135	3950	PTP2X15964	14	4028C	0	0	5964	1	0	0413	C BLOKAC,ZERO TEST SYSTEM UP IF UP GO
2140	3960	R3YU054220	11	3970	2	0	4220	5	0	0414	BC **10(2),NOTUP(5) IF NOT REPORT IT
2145										0415	*
2150										0416	* ALL CONDITIONS GO
2155										0417	*
2160	3970	Q706000330	08	7060	1	0	0330	0	0	0418	MC BCUPDT(10),330P
2165	3980	R7070002100	08	7070	2	0	2100	0	0	0419	MC NOSR(20),COMTER
2170	3990	P200514540	09	2015	0	0	4540	1	0	0420	MN WHOM,I01 SET DEVICE IN IO INSTS
2175	4000	P200514550	09	2015	0	0	4550	1	0	0421	MN WHOM,I02
2180	4010	P200514580	09	2015	0	0	4580	1	0	0422	MN WHOM,I03
2185	4020	P200514590	09	2015	0	0	4590	1	0	0423	MN WHOM,I04
2190	4030	P200514610	09	2015	0	0	4610	1	0	0424	MN WHOM,I05
2195	4040	P200514620	09	2015	0	0	4620	1	0	0425	MN WHOM,I06
2200	4050	P59641402V	08	5964	0	0	4026C	1	0	0426	MC ZERO,EOTFL
2205	4060	P29391437W	08	2939	0	0	4377C	1	0	0427	MC FIVE,PSFLAG
2210	4070	P733640011	08	7336	0	0	0011	4	0	0428	MC ADPL,11P WRITE START MESSAGE ON CONSOLE
2215	4080	V40V154530	11	4561	6	0	4530	5	0	0429	BC MSGE+1(6),WRTR(5)
2220										0430	*
2225										0431	* BEGIN PHASE SELECTION LOGIC
2230										0432	*
2235	4090	P734040011	08	7340	0	0	0011	4	0	0433	CILOOP MC ADDIN,11P READ PHASE IDENTITY
2240	4100	V4VP154570	11	4601	6	0	4570	5	0	0434	BC ENTRY+1(6),RDER(5)
2245	4110	PWP903711R	14	7090	0	0	7118	3	0	0435	C ADD,DATIN+3 TEST PHASE AND TAKE PROPR
2250	4120	R4RV0000000	11	4260	2	0	0000	0	0	0436	BC ADDSME(2) PATH. SET PHASE IDENTIFIER
2255	4130	PWP936711R	14	7093	0	0	7118	6	0	0437	C DELETF,DATIN+3
2260	4140	R4RX0000000	11	4280	2	0	0000	0	0	0438	BC DELSME(2)
	4150	POPP0000000	11	0000	0	0	0000	0	0	0439	BC OP(0),OP(0) NO-UP BUT HOLD CORE POSITION
	4160	POPP0000000	11	0000	0	0	0000	0	0	0440	BC OP(0),OP(0) NO-UP BUT HOLD CORE POSITION
2275	4170	PW0053711R	14	7105	0	0	7118	3	0	0441	C EOJ,DATIN+3 TEST FOR END OF JOB
2280	4180	R4TX0084190	11	4480	2	0	4190	8	0	0442	BC FNLMSG(2),INVOL(8)
2285	4190	P732840011	08	7328	0	0	0011	4	0	0443	INVOL MC ADINV,11P
2290										0444	*
2295										0445	* INVALID ENTRY FROM CONSOLE
2300										0446	*
2305	4200	V40V154530	11	4561	6	0	4530	5	0	0447	BC MSGE+1(6),WRTR(5) PRINT INVALID MESSAGE
2310	4210	U4PY0000000	11	4090	5	0	0000	0	0	0448	BC CILOOP(5) ALLOW RE-ENTRY
2315										0449	*

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE
2320										0450	* SYSTEM NOT IN SYSUP CONDITION
2325										0451	*
2330	4220	P735240011	08	7352	0	0	0011	4	0	0452	NOTUP MC ADUP,11P
2335	4230	U4U00000000	11	4510	5	0	0000	0	0	0453	BC OUTY(5) REPORT CONDITION
2340										0454	*
2345										0455	* COMMUNICATIONS BUFFERS NOT AVAILABLE
2350										0456	*
2355	4240	P734840011	08	7348	0	0	0011	4	0	0457	NOTAV MC ADAV,11P
2360	4250	U4U00000000	11	4510	5	0	0000	0	0	0458	BC OUTY(5) REPORT CONDITION
2365										0459	*
2370										0460	* SET ACTION CODE FOR SELECTED PHASE
2375										0461	*
2380	4260	P293917113	08	2939	0	0	7113	1	0	0462	ADDSME MC FIVE,ACT SET ACTION CODE FOR ADDITION
2385	4270	U4SQ0000000	11	4310	5	0	0000	0	0	0463	BC UPDAT(5)
2390	4280	P699317113	08	6993	0	0	7113	1	0	0464	DELSME MC THREE,ACT SET ACTION CODE FOR DELETION
2395	4290	U4SQ0000000	11	4310	5	0	0000	0	0	0465	BC UPDAT(5)
	4300	POPP0000000	11	0000	0	0	0000	0	0	0466	BC OP(0),OP(0) NO-OP BUT HOLD CORE POSITION
2405										0467	*
2410										0468	* ENTRY FOR READING ACCOUNT NUMBERS LOOP
2415										0469	*
2420	4310	PUY441118P	14	5964	0	0	1180C	1	0	0470	UPDAT C ZERO,COMFLG TEST FOR COMMON BUFFER AVAILBLE
2425	4320	R4SS080300	11	4330	2	0	0300	8	0	0471	BC *+10(2),ROX(8)
2430	4330	P734040011	08	7340	0	0	0011	4	0	0472	MC ADDIN,11P READ ACCOUNT NUMBER
2435	4340	V4VP154570	11	4601	6	0	4570	5	0	0473	BC ENTRY+1(6),RDER(5)
2440	4350	PUR4537118	14	5245	0	0	7118	3	0	0474	C EOP,DATIN+3 TEST FOR END OF PHASE
2445	4360	R4TI0000000	11	4450	2	0	0000	0	0	0475	BC PHSEND(2)
2450	4370	PW00537118	14	7105	0	0	7118	3	0	0476	C EOJ,DATIN+3 TEST FOR END OF JOB
2455	4380	R4TX0000000	11	4480	2	0	0000	0	0	0477	BC FNLSG(2)
2460										0478	*
2465										0479	* ASSUME ACCOUNT NUMBER ENTERED AT THIS POINT
2470										0480	*
2475	4390	P713117130	08	7131	0	0	7130	1	0	0481	MC DATIN+16(1),DATIN+15 REPLACE CHECK WITH DISPLAY
2480	4400	P711327131	08	7113	0	0	7131	2	0	0482	MC ACT,DATIN+16 SET ACTION CODE
2485	4410	Q71185118X	08	7118	1	0	1188C	5	0	0483	MC DATIN+3(15),COMBUF MOVE DATA TO COMMON BUFFER
2490	4420	R120R7120S	08	1202C	2	0	1203C	7	0	0484	MC COMBUF+14(27),COMBUF+15 SET ASTERISK FILL ILLUSION
2495	4430	P35051118P	08	3505	0	0	1180C	1	0	0485	MC ONE,COMFLG FLAG THE COMMON BUFFER 'FULL'
2500	4440	XOSP0000000	11	0300	8	0	0000	0	0	0486	BC ROX(8) SWING AROUND
2505										0487	*
2510										0488	* END OF A PHASE ENTRY POINT
2515										0489	*
2520	4450	P733240011	08	7332	0	0	0011	4	0	0490	PHSEND MC ADTMPE,11P WRITE TEMPORARY MESSAGE
2525	4460	V4UV154530	11	4561	6	0	4530	5	0	0491	BC MSGE+1(6),WRTR(5)
2530	4470	X4PY0000000	11	4090	8	0	0000	0	0	0492	BC CIL00P(8) GO BACK FOR MORE
2535										0493	*
2540										0494	* END OF JOB ENTRY POINT
2545										0495	*
2550	4480	P35051402V	08	3505	0	0	4026C	1	0	0496	FNLSG MC ONE,EOTFL END OF UPDATE. REMODIFY THOSE
2555	4490	P734440011	08	7344	0	0	0011	4	0	0497	MC ENDADD,11P INSTRUCTIONS CHANGED UPON ENTRY
2560	4500	V3YP153740	11	3901	6	0	3740	5	0	0498	BC SFTBK+1(6),NORML(5) AND EXIT.
2565	4510	V4UV154530	11	4561	6	0	4530	5	0	0499	OUTY BC MSGE+1(6),WRTR(5) REPORT CONDITION
2570	4520	XOSP0000000	11	0300	8	0	0000	0	0	0500	BC ROX(8)
2575										0501	*
2580										0502	* GENERAL MESSAGE WRITER ROUTINE
2585										0503	*
2590	4530	SP0P0+P0P1	13	0000	3	1	0021	4	0	0504	WRTR FN OP(3,1),21P(4) REG 1 POINTS TO CHAR COUNT
2595	4540	051T030001	01	5140	0	0	0001	3	0	0505	I01 W CR(0),1(3)

SEQ.	LOCN	INSTR/DATA	OP	A/R	M	I	B/S	M	I	LINE	IMAGE	C
2880	4970	P29S915030	09	2939	0	0	5030	1	0	0562	MN FIVE,CRSW	YES TURN ON CARRIAGE RETURN SW
2885	4980	077Y55P000	01	7795	0	1	0000	5	0	0563	WCHR W LINE(0,1),0(5)	WRITE PORTION OF LINE
2890	4990			4987						0564	ORG *-3	
2895	4987	000		0001			0003			0565	CHCNT DM C'000'	CHARACTER COUNT IN WRITE INST.
2900	4990	R5PP0R4980	11	5000	2	0	4980	8	0	0566	BC **10(2),*-10(8)	
2905	5000	P00P140011	08	0021	0	0	0011	4	0	0567	MC R2,R1	MOVE CHARACTER POINTER TO NEXT FLD
2910	5010	P596434987	08	5964	0	0	4987	3	0	0568	MC ZEROS(3),CHCNT	RESET CHAR. COUNT
2915	5020	P29S915360	09	2939	0	0	5360	1	0	0569	MN FIVE(1),CHSW	RESET CHAR. SWITCH
2920	5030	P5PT055370	11	5040	0	0	5370	5	0	0570	CRSW BC CARRET(0),CNTSP(5)	TIME TO CARRIAGE RETURN ?
2925	5040	P59V415030	09	5964	0	0	5030	1	0	0571	CARRET MN ZEROS(1),CRSW	RESET CARRIAGE RETURN SW
2930	5050	P29S914920	09	2939	0	0	4920	1	0	0572	MN FIVE,SPSW	RESET SPACE SW
2935	5060	P596434906	08	5964	0	0	4906	3	0	0573	MC ZEROS(3),SPCNT	RESET SPACE COUNT
2940	5070	V5W4155740	11	5771	6	0	5740	5	0	0574	BC CROUT+1(6),CRIN(5)	
2945	5080	X54X000000	11	5780	8	0	0000	0	0	0575	BC RITN(8)	LEAVE ROUTINE
2960	5090	PT0632936	14	4906	0	0	2936	3	0	0576	TABSP C SPCNT(3),04FOUR	MORE THAN 4 SPACES
2965	5100	S500000000	11	5150	3	0	0000	0	0	0577	BC TAB(3)	NO HORIZONTAL TAB
2970	5110	3T90634987	04	4906	3	0	4987	3	0	0578	A SPCNT,CHCNT	ADD SPACE CNT TO CHARACTER CNT
2975	5120	P536434906	08	5964	0	0	4906	3	0	0579	MC ZEROS(3),SPCNT	CLEAR SPACE CNT
2980	5130	U4YS000000	11	4930	5	0	0000	0	0	0580	BC CNTCH(5)	GO TO COUNT CHARACTERS
2985	5140			5135						0581	ORG *-5	
2990	5135	RRRFP		0001			0005			0582	RRREP DM C'RRREP'	
2995	5140	M		0001			0001			0583	CR DM C'M'	CARRIAGE RETURN CONSTANT
3000	5150	PT0615964	14	4906	0	0	5964	1	0	0584	TAB C SPCNT(1),ZEROS	HOR. TAB MORE THAN 100
3005	5160	R5RX000000	11	5280	2	0	0000	0	0	0585	BC TAB1(2)	NO GO DO TAB
3010	5170	PT0625545	14	4906	0	0	5545	2	0	0586	C SPCNT(2),HTK	CHECK FOR 100 AND 110
3015	5180	Q5R0025230	11	5210	1	0	5230	2	0	0587	BC TAB10(1),TAB11(2)	
3020	5190	PT0625546	14	4906	0	0	5546	2	0	0588	C SPCNT(2),HTK+1	CHECK FOR 120 AND 130
3025	5200	R5R0055270	11	5250	2	0	5270	5	0	0589	BC TAB12(2),TAB13(5)	
3030	5210	P609614907	08	6096	0	0	4907	1	0	0590	TAB10 MC HTC(1),SPCNT+1	INSERT CHAR FOR 100
3035	5220	U5RX000000	11	5280	5	0	0000	0	0	0591	BC TAB1(5)	
3050	5230	P609714907	08	6097	0	0	4907	1	0	0592	TAB11 MC HTC+1(1),SPCNT+1	INSERT CHAR FOR 110
3055	5240	U5RX000000	11	5280	5	0	0000	0	0	0593	BC TAB1(5)	
3060	5250			5245						0594	ORG *-5	
3065	5245	ENP		0001			0003			0595	ENP DM C'EOP'	END OF PAGE FLAG
3070	5248	/*		0001			0002			0596	SLASH DM C'/*'	
3075	5250	P609814907	08	6098	0	0	4907	1	0	0597	TAB12 MC HTC+2(1),SPCNT+1	INSERT CHAR FOR 120
3080	5260	U5RX000000	11	5280	5	0	0000	0	0	0598	BC TAB1(5)	
3085	5270			5265						0599	ORG *-5	
3090	5265	/66		0001			0003			0600	VT CNT DM C'/66'	VERTICAL TAB REGISTER LOAD
3095	5268	K		0001			0001			0601	VT CTL DM C'K'	VERTICAL TAB CONTROL
3100	5269			0001			0001			0602	CT1 DM C1	
3105	5270	P609914907	08	6099	0	0	4907	1	0	0603	TAB13 MC HTC+3(1),SPCNT+1	INSERT CHAR FOR 130
3110	5280	P490725346	08	4907	0	0	5346	2	0	0604	TAB1 MC SPCNT+1(2),HT+1	MOVE SPACE COUNT TO TAB INST.
3115	5290	753T5300004	01	5345	7	0	0004	3	0	0605	TAB2 W HT(7),*(3)	DO HORIZONTAL TAB
3120	5300	R550085290	11	5310	2	0	5290	8	0	0606	BC **10(2),*-10(8)	
3125	5310	P536434906	08	5964	0	0	4906	3	0	0607	MC ZEROS(3),SPCNT	CLEAR SPACE COUNT AFTER TAB
3130	5320	P00P140011	08	0021	0	0	0011	4	0	0608	MC R2,R1	MOVE CHAR POINTER TO NEXT FIELD
3135	5330	P29S914920	09	2939	0	0	4920	1	0	0609	MN FIVE,SPSW	SET SPACE SW ON
3140	5340	U4YS000000	11	4930	5	0	0000	0	0	0610	BC CNTCH(5)	GO TO COUNT CHARACTERS
3145	5350			5345						0611	ORG *-5	
3150	5345	-001		0001			0004			0612	HT DM C'-001'	HORIZONTAL TAB REG LOAD AND CNTL
3155	5349			0001			0001			0613	SPACE DM C' '	CONSTANT BLANK
3160	5350	1U35034906	04	5350	1	0	4906	3	0	0614	SPC A *(1),SPCNT	COUNT BLANK
3165	5360	U5SW054980	11	5370	5	0	4980	5	0	0615	CHSW BC CNTSP(5),WCHR(5)	CHARACTER SWITCH
3170	5370	P59V414920	09	5964	0	0	4920	1	0	0616	CNTSP MN ZEROS(1),SPSW	SET SPACE SWITCH ON
3175	5380	1U38040021	04	5380	1	0	0021	4	0	0617	A *(1),R2	CHAR POINTER TO NEXT CHAR

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	B/S	M I	LINE	IMAGE	
3460	5810	V6PS155970	11	6031	6 0	5970	5 0	0674	RETRY BC SADDLE+1(6),BOOTS(5)	RETRIEVE DMF BOOTSTRAPS
3465	5820	Q5R4000000	08	5840	1 0	0000	0 0	0675	MC ERXBR(10),OP	SET POSITION 0 FOR EXIT
3470	5830	P704660025	08	7046	0 0	0025	6 0	0676	MC BOSS,25P	SET CONTROLLER TO LOADER
3475	5840	U0PV055850	11	0060	5 0	5850	5 0	0677	ERXBR BC 60P(5),ERXIT(5)	LOADER EXIT
3480	5850	051T030001	01	5140	0 0	0001	3 0	0678	ERXIT W CR(0),1(3)	CARRIAGE RETURN
3485	5860	P002567606	08	0025	0 0	7606	6 0	0679	MC 25P(6),PROC3B+1	MOVE MODULE NAME TO MESSAGE
3490	5870	075U650084	01	7556	0 0	0084	5 0	0680	W PROC3A(0),84(5)	PRINT ERROR MESSAGE
3495	5880	R5XY055870	11	5890	2 0	5870	5 0	0681	BC **10(2),*-10(5)	
3500	5890	1089017010	04	5890	1 0	7010	1 0	0682	A *,CNT	INCR RETRY COUNT
3505	5900	T5YQ055810	11	5910	4 0	5810	5 0	0683	BC **10(4),RETRY(5)	AFTER 10 UNSUCCESSFUL ATTEMPTS TO
3510	5910	051T030001	01	5140	0 0	0001	3 0	0684	W CR(0),1(3)	LOAD THE DESIRED MODULE, EXECUTE
3515	5920	P002567647	08	0025	0 0	7647	6 0	0685	MC 25P(6),PROC4A+7	MOVE MODULE NAME TO MESSAGE
3520	5930	076T050077	01	7640	0 0	0077	5 0	0686	W PROC4A(0),77(5)	A CARRIAGE RETURN & PRINT ERROR
3525	5940	R5YU055930	11	5950	2 0	5930	5 0	0687	BC **10(2),*-10(5)	
3530	5950	P705267046	08	7052	0 0	7046	6 0	0688	MC MDT5GR,BOSS	DEFAULT TO MDT5 PROGRAM
3535	5960	U5X0000000	11	5810	5 0	0000	0 0	0689	BC RETRY(5)	TRY TO LOAD AGAIN
3540	5970			5964				0690	ORG **6	
3545	5964			0000		0001		0691	DM OC1	
3550	5964	000000		0001		0006		0692	ZEROS DM C'000000'	
3555								0693	*	
3560								0694	*****	
3565								0695	*	
3570								0696	* BOOTSN/SADDLE	LOAD LOW CORE BOOTSTRAPS FROM DISC
3575								0697	*	
3580								0698	*****	
3585								0699	*	
3590	5970	0000006044	00	0000	0 0	6044	0 0	0700	BOOTSN R OP(0),SEC3(0)	READ FIRST HALF OF LOW CORE
3595	5980	R6PR015970	11	6020	2 0	5970	1 0	0701	BC NXBT(2),BOOTS(1)	FAULT OR PARITY, RETRY
3600	5990	051T030001	01	5140	0 0	0001	3 0	0702	BOOTER W CR(0),1(3)	FLAGGED SECTOR, YOU'RE SOL
3605	6000	0770750044	01	7717	0 0	0044	5 0	0703	W BOOTAB(0),44(5)	WRITE ABORT MESSAGE
3610	6010	U6P0000000	11	6010	5 0	0000	0 0	0704	BC *(5)	WAIT FOR OPERATOR INTERVENTION
3615	6020			6014				0705	ORG **6	
3620	6014	000004		0001		0006		0706	SEC4 DM C'000004'	
3625	6020	0010006014	00	0100	0 0	6014	0 0	0707	NXBT R 100P(0),SEC4(0)	READ SECOND HALF
3630	6030	R6PS016020	11	6030	2 0	6020	1 0	0708	SADDLE BC *(2),NXBT(1)	GOOD; RETURN; FAULT/PARITY; PTRY
3635	6040	U5YY000000	11	5990	5 0	0000	0 0	0709	BC BOOTER(5)	FLAGGED SECTOR, YOU'RE SOL
3640	6050			6044				0710	ORG **6	
3645	6044	000003		0001		0006		0711	SEC3 DM C'000003'	
3650								0712	*	
3655								0713	*****	
3660								0714	*	
3665								0715	* READ ONE SECTOR FROM THE DISC.	
3670								0716	*	
3675								0717	*****	
3680								0718	*	
3685	6050	P596415269	08	5964	0 0	5269	1 0	0719	DSC MC ZEROS(1),CT1	SET RETRY COUNTER
3690	6060	0779502994	00	7795	0 0	2994	0 0	0720	READ1 R VOIDBF(0),ADR(0)	= READ A SECTOR
3695	6070	R6QSO16100	11	6130	2 0	6100	1 0	0721	BC OKG(2),PSPR(1)	TEST STATUS
3700	6080	V6SV156320	11	6361	6 0	6320	5 0	0722	BLIMP BC INK+1(6),ADRS(5)	INCREMENT WITH WRAPAROUND
3705	6090	U6PV000000	11	6060	5 0	0000	0 0	0723	BC READ1(5)	READ THE NEXT
3710	6100			6096				0724	ORG **4	
3715	6096	;;<=		0001		0004		0725	HTC DM C';;<='	HORIZONTAL TAB CHARACTER
3720	6100	T6PV000000	11	6060	4 0	0000	0 0	0726	PSPR BC READ1(4)	RETURN ON FAULT
3725	6110			6106				0727	ORG **4	
3730	6106	0132		0001		0004		0728	LNND DM C'0132'	CONSTANT FOR END OF LINE
3735	6110	1V11015269	04	6110	1 0	5269	1 0	0729	A *,CT1	COUNT PARITY

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	B/S	M I	LINE	IMAGE
3740	6120	T6PX0560A0	11	6080	4 0	6060	5 0	0730	BC BLIMP(4),READ1(5) RETRY 10 TIMES
3745	6130	V6SV156320	11	6361	6 0	6320	5 0	0731	OKG BC INK+1(6),ADRS(5) INCREMENT WITH WRAPAROUND
3750	6140	U6JY000000	11	6140	5 0	0000	0 0	0732	RED1 BC *(5) RETURN TO CALLER
3755	6150			6145				0733	ORG **5
3760	6145	RRPRN		0001		0005		0734	RRPRN DM C'RRPRN'
3765								0735	*
3770								0736	* PROVIDE LINKAGE TO OTHER PRINT FILES
3775								0737	*
3780	6150	P299466XY2	08	2994	0 0	6892	6 3	0738	PRFLE MC ADR,D4(,3) INSURE EQUAL ADDRESSES
3785	6160	P299466WY2	08	2994	0 0	6792	6 3	0739	MC ADR,D3(,3) SET THIS ADDRESS FOR NEXT REPORT
3790	6170	PPP314699A	14	0031	0 0	6996	4 0	0740	PRNTFL C R3,LSTFLE IS THIS THE LAST REPORT
3795	6180	T6R0000000	11	6250	4 0	0000	0 0	0741	BC LETSGO(4) OUT IF YES (CC 4 MEANS = OR >)
3800	6190	1V99540031	04	6995	1 0	0031	4 0	0742	A SIX,R3 BUMP TO NEXT FILE
3805	6200	P6792VR994	08	6792	0 3	2994	6 0	0743	MC D3(6,3),ADR SET TO NEW FILE START
3810	6210	P630146236	09	6311	0 0	6236	4 0	0744	MN LINK+1(4),**26 GET RETURN ADDRESS
3815	6220	1R93946236	04	2939	1 0	6236	4 0	0745	A FIVE,**16(4) BUMP TO SECOND PART OF SWITCH
3820	6230	P295914755	09	2939	0 0	4755	1 0	0746	MN FIVE,QUITSW+5 TURN SECOND PART ON
3825	6240	U630000000	11	6310	5 0	0000	0 0	0747	BC LINK(5) RETURN
3830	6250	P630146266	09	6311	0 0	6266	4 0	0748	LETSGO MN LINK+1(4),**16 GET RETURN ADDRESS
3835	6260	P295914750	09	2939	0 0	4750	1 0	0749	MN FIVE,QUITSW TURN FIRST PART OF SWITCH ON
3840	6270	P630000000	11	6310	0 0	0000	0 0	0750	REPSWI BC LINK(0) GO AROUND IF REPRINT
	6280	V6JT156510	11	6541	6 0	6510	5 0	0751	BC POSTN+1(6),HEAD(5)
	6290	Q656006390	08	6560	1 0	6390	0 0	0752	MC RELPUT(10),PUTTR
3845	6300	V6TT156370	11	6441	6 0	6370	5 0	0753	BC PUTOUT+1(6),STATAB(5) WRITE STATUS TABLE
3850	6310	U630000000	11	6310	5 0	0000	0 0	0754	LINK BC *(5) RETURN
3855								0755	*
3860								0756	* INCREMENT CURRENT PRINT FILE ADDRESS WITH WRAPAROUND
3865								0757	*
3870	6320	1V32062994	04	6320	1 0	2994	6 0	0758	ADRS A *,ADR BUMP ADDRESS
3875	6330	PRY9466VY2	14	2994	0 0	6692	6 3	0759	C ADR,D2(,3) AT PHYSICAL END
3880	6340	S690056360	11	6350	3 0	6360	5 0	0760	BC **10(3),INK(5) OUT IF NOT
3885	6350	P6592VR994	08	6592	0 3	2994	6 0	0761	MC D1(6,3),ADR RESET TO BEGINNING IF YES
3890	6360	U630000000	11	6360	5 0	0000	0 0	0762	INK BC *(5) RETURN
3895								0763	*
3900								0764	* THIS ROUTINE WRITES THE STATUS TABLE ON THE HOME TRACK
3905								0765	*
3910	6370	QU9V440011	13	5964	1 0	0011	4 0	0766	STATAB FN ZERO(1),11P(4) POINT REGISTER TO FIRST OF TABLE
3915	6380	P658466580	08	6586	0 0	6580	6 0	0767	MC HOMADE,WHERE INITIALIZE DISC ADDRESS
3920	6390	065Y20V580	01	6592	0 1	6580	0 0	0768	PUTTR W GRSYS(10,1),WHERE(0)
3925	6400	R6TS016390	11	6430	2 0	6390	1 0	0769	BC WHONXT(2),PUTTR(1) RETRY PARITY OR FAULT
3930	6410	1V41066580	04	6410	1 0	6580	6 0	0770	BMPR A *,WHERE BUMP TO NEXT SECTOR
3935	6420	U630000000	11	6390	5 0	0000	0 0	0771	BC PUTTR(5) TRY IT
3940	6430	PPP1216465	14	0012	0 0	6465	1 0	0772	WHONXT C 12P(1),HOWMNY TEST FOR ALL
3945	6440	T6TT000000	11	6440	4 0	0000	0 0	0773	PUTOUT BC *(4) RETURN IF ALL, NEXT IF NOT
3950	6450	1V45020011	04	6450	1 0	0011	2 0	0774	A *,11P(2) BUMP POINTER TO NEXT PART
3955	6460	U6T0000000	11	6410	5 0	0000	0 0	0775	BC BMPR(5) GO BUMP ADDRESS
3960	6470			6465				0776	ORG **5
3965	6465	3		0001		0001		0777	HOWMNY DM C'3'
3970								0778	*
3975								0779	* THIS ROUTINE READS THE STATUS TABLE
3980								0780	*
3985	6470	Q655006390	08	6550	1 0	6390	0 0	0781	STATBL MC GETTR(10),PUTTR MAKE PUT ROUTINE A GET
3990	6480	V6TT156370	11	6441	6 0	6370	5 0	0782	BC PUTOUT+1(6),STATAB(5)
3995	6490	Q656006390	08	6560	1 0	6390	0 0	0783	MC RELPUT(10),PUTTR PUT PUTTR BACK TO NORMAL
4000	6500	U6U0000000	11	6500	5 0	0000	0 0	0784	GETIN BC *(5)
								0785	*



SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	B/S	M I	LINE	IMAGE	
								0786	* THIS ROUTINE POSITIONS THE DISC HEAD ON TRACK 200 PRIOR TO	
								0787	* WRITING THE STATUS SECTORS	
								0788	*	
6510	P646510004	08	6465	0	0	0004	1	0789	HEAD MC HOWMNY,4P SET LIMIT FOR ONE READ	
6520	Q657006390	08	6570	1	0	6390	0	0790	MC TRACKR(10),PUTTR MODIFY I/O ROUTINE	
6530	V677156390	11	6441	6	0	6390	5	0791	BC PUTOUT+1(6),PUTTR(5) DO ONE DISC READ	
6540	U6UT000000	11	6540	5	0	0000	0	0792	POSTN BC *(5) RETURN	
6550			6545					0793	ORG *=5	
								0794	*	
								0795	* REPLACEMENT INSTRUCTIONS FOR STATUS TABLE DISC I/O ROUTINE	
								0796	*	
4005	6550	065920V580	00	6592	0	1	6580	0	0797	GETTR R GRSYS1(0,1),WHERE(0)
4010	6560	065920V580	01	6592	0	1	6580	0	0798	RELPUT W GRSYS1(0,1),WHERE(0)
	6570	0020006586	00	0200	0	0	6586	0	0799	TRACKR R 200P(0),HOMADE(0)
4015	6580			0001			0006		0800	WHERE DM C6
4020	6586	000200		0001			0006		0801	HOMADE DM C'000200' HOME TRACK FOR ARP PROGRAMS
4025									0802	* * * * *
4030									0803	*
4035									0804	* A U D I T R E P O R T S T A T U S T A B L E
4040									0805	*
4045									0806	* THE FOLLOWING TABLE CONTAINS UPPER AND LOWER LIMITS FOR THE
4050									0807	* DISC FILES. EACH MODULE LABELS ITS OWN LIMITS AND LEAVES
4055									0808	* THE OTHER FIELDS UNLABELED. NO MODULE MAY DEFINE A CONSTANT
4060									0809	* IN THIS TABLE. THIS TABLE IS RETRIEVED FROM DISC BY THE
4065									0810	* CONTROLLER AT THE BEGINNING OF A REPORT RUN, UPDATED
4070									0811	* BY EACH MODULE DURING ITS RUN AS NECESSARY AND WRITTEN TO
4075									0812	* THE DISC BY THE CONTROLLER AT THE END OF EACH MODULE.
4080									0813	*
4085									0814	* * * * *
4090									0815	*
4095	6592			0000			0100		0816	GRSYS1 DM OC100' ' FIRST SECTOR OF THE TABLE
4100	6592			0001			0006		0817	D1 DM C6 102 DAILY PRINT IMAGE BEGINNING ADDRESS
4105	6598			0001			0006		0818	W1 DM C6 103 WEEKLY PRINT IMAGE BEGINNING ADDRESS
4110	6604			0001			0006		0819	M1 DM C6 104 MONTHLY PRINT IMAGE BEGINNING ADDRESS
4115	6610			0001			0006		0820	DM C6 105 WORK FILE BEGIN ADDRESS
4120	6616			0001			0006		0821	DM C6 106 ERROR FILE BEGIN ADDRESS
4125	6622			0001			0006		0822	DM C6 107 YESTERDAY'S ENDING TRANSACTION FILE BEGIN
4130	6628			0001			0006		0823	DM C6 108 REGISTER REPORT TOTAL FILE BEGIN ADDRESS
4135	6634			0001			0006		0824	DM C6 109 COMMON WORK FILE START ADDRESS
4140	6640			0001			0006		0825	DM C6 110 DAILY DIVISION TABLE START ADDRESS
4145	6646			0001			0006		0826	DM C6 111 DAILY ACCOUNT TABLE START ADDRESS
4150	6652			0001			0006		0827	DM C6 112 MONTHLY DIVISION TABLE START ADDRESS
4155	6658			0001			0006		0828	DM C6 113 MONTHLY ACCOUNT TABLE START ADDRESS
4160	6664			0001			0006		0829	BATCHS DM C6 114 BATCH TOTALS FILE BEGIN ADDRESS
4165	6670			0001			0006		0830	DM C6 115 EMPLOYE SALES HEADER ADDRESS
4170	6676			0001			0006		0831	DM C6 116 CASHIER REPORT FILE START ADDRESS
4175	6682			0001			0002		0832	DM C2 117 SECTOR COUNT OF ACCOUNT NUMBERS
4180	6684			0001			0001		0833	DM C1 118 STORE TYPE FLAG(1=FULL,0=PART)
4185	6685			0001			0001		0834	RPTFLG DM C1 119 WEEK END EMPLOYE SALE PRINT FLAG
4190	6686			0001			0001		0835	DM C1 120 MONTH END SALES PRINT FLAG
4195	6687			0001			0005		0836	DM C5
4200	6692			0000			0100		0837	GRSYS2 DM OC100' ' SECOND SECTOR OF THE TABLE
4205	6692			0001			0006		0838	D2 DM C6 202 DAILY PRINT IMAGE END ADDRESS
4210	6698			0001			0006		0839	W2 DM C6 203 WEEKLY PRINT IMAGE END ADDRESS
4215	6704			0001			0006		0840	M2 DM C6 204 MONTHLY PRINT IMAGE END ADDRESS
4220	6710			0001			0006		0841	DM C6 205 WORK FILE END ADDRESS

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	B/S	M I	LINE	IMAGE	C
4225	6716			0001		0006		0842	DM C6 206	ERROR FILE END ADDRESS
4230	6722			0001		0006		0843	DM C6 207	YESTERDAY'S ENDING TRANSACTION FILE LIMIT
4235	6728			0001		0006		0844	DM C6 208	REGISTER REPORT TOTAL FILE END ADDRESS
4240	6734			0001		0006		0845	DM C6 209	COMMON WORK FILE END ADDRESS
4245	6740			0001		0006		0846	DM C6 210	DAILY DIVISION TABLE END ADDRESS
4250	6746			0001		0006		0847	DM C6 211	DAILY ACCOUNT TABLE END ADDRESS
4255	6752			0001		0006		0848	DM C6 212	MONTHLY DIVISION TABLE END ADDRESS
4260	6758			0001		0006		0849	DM C6 213	MONTHLY ACCOUNT TABLE END ADDRESS
4265	6764			0001		0006		0850	BATCHE DM C6 214	BATCH TOTALS FILE END ADDRESS
4270	6770			0001		0006		0851	DM C6 215	DIVISION TABLE ADDRESS
4275	6776			0001		0006		0852	DM C6 216	ACCOUNT TABLE ADDRESS
4280	6782			0001		0002		0853	DM C2 217	ACCOUNT NUMBER AREA CODE
4285	6788			0001		0008		0854	DATE DM CR 218	DATE
4290	6792			0000		0100		0855	GRSYS3 DM 0C100' 1	THIRD SECTOR OF THE TABLE
4295	6792			0001		0006		0856	D3 DM C6 302	BEGIN ADDRESS FOR CURRENT DAILY REPORT
4300	6798			0001		0006		0857	W3 DM C6 303	BEGIN ADDRESS FOR CURRENT WEEKLY REPORT
4305	6804			0001		0006		0858	M3 DM C6 304	BEGIN ADDRESS FOR CURRENT MONTHLY REPORT
4310	6810			0001		0006		0859	DM C6 305	NEXT WORK FILE ADDRESS
4315	6816			0001		0006		0860	DM C6 306	NEXT ERROR FILE ADDRESS
4320	6822			0001		0006		0861	DM C6 307	NEXT YESTERDAY'S ENDING ADDRESS
4325	6828			0001		0006		0862	DM C6 308	REGISTER REPORT TOTAL FILE NEXT ADDRESS
4330	6834			0001		0006		0863	DM C6 309	COMMON WORK FILE NEXT ADDRESS
4335	6840			0001		0006		0864	DM C6 310	AUDIT REGISTER TOTAL FILE START ADDRESS
4340	6846			0001		0006		0865	DM C6 312	
4345	6852			0001		0006		0866	DM C6 311	AUDIT REGISTER TOTAL FILE END ADDRESS
4350	6858			0001		0006		0867	DM C6 313	
4355	6864			0001		0006		0868	DM C6 314	
4360	6870			0001		0006		0869	DM C6 315	
4365	6876			0001		0006		0870	DM C6 316	
4370	6882			0001		0010		0871	DM C10 317	
4375	6892			0000		0100		0872	GRSYS4 DM 0C100' 1	FOURTH SECTOR OF THE TABLE
4380	6892			0001		0006		0873	D4 DM C6 402	NEXT DAILY PRINT IMAGE ADDRESS
4385	6898			0001		0006		0874	W4 DM C6 403	NEXT WEEKLY PRINT IMAGE ADDRESS
4390	6904			0001		0006		0875	M4 DM C6 404	NEXT MONTHLY PRINT IMAGE ADDRESS
4395	6910			0001		0006		0876	DM C6 405	
4400	6916			0001		0006		0877	DM C6 406	
4405	6922			0001		0006		0878	DM C6 407	
4410	6928			0001		0006		0879	DM C6 408	
4415	6934			0001		0006		0880	DM C6 409	
4420	6940			0001		0006		0881	DM C6 410	
4425	6946			0001		0006		0882	DM C6 411	
4430	6952			0001		0006		0883	DM C6 412	
4435	6958			0001		0006		0884	DM C6 413	
4440	6964			0001		0006		0885	DM C6 414	
4445	6970			0001		0006		0886	DM C6 415	
4450	6976			0001		0006		0887	DM C6 416	
4455	6982			0001		0006		0888	DM C6 417	
4460	6988			0001		0004		0889	DM C4 418	
4465								0890	*	
4470								0891	* * * * *	
4475								0892	*	
4480								0893	*	CONSTANTS, WORK AREAS, I/O BUFFERS, MESSAGES AND TABLES
4485								0894	*	
4490								0895	* * * * *	
4495								0896	*	
4500	6992	2		0001		0001		0897	TWO DM C12'	

SEQ.	LOCN	INSTR/DATA	OP	A/R	M I	B/S	M I	LINE	IMAGE	C
4560	6993	3		0001		0001		0898	THREE DM C'1'3'	
4565	6994	4		0001		0001		0899	FOUR DM C'1'4'	
4505	6995	6		0001		0001		0900	SIX DM C'6'	
4575	6996	0012		0001		0004		0901	LSTFLE DM C'0012'	
4580	7000	000000		0001		0006		0902	ADRA DM C'000000'	
4585	7006	7795		0001		0004		0903	LINEAD DM A'LINE'	
4590	7010	0		0001		0001		0904	CNT DM C'0'	RETRY COUNTER
4595	7011			0001		0020		0905	COMMD DM C20	
4600	7031			0001		0015		0906	STRSTP DM C15	
4605	7046	NFR010		0001		0006		0907	BOSS DM C'NFR010'	CONTROLLER PROGRAM NAME
4610	7052	MDTSGR		0001		0006		0908	MDTSGR DM C'MDTSGR'	MDTS PGM NAME
4615	7060	U4SQ000000	11	4310	5 0	0000	0 0	0909	BCUPDT BC UPDAT(5)	REPLACE 330P
4620	7070	U2P0000000	11	2010	5 0	0000	0 0	0910	MDSR BC SRVCE(5)	1/2 IGNORE SERVICE REQUEST
4625	7080	U2P0000000	11	2010	5 0	0000	0 0	0911	BC SRVCE(5)	2/2 IGNORE SERVICE REQUEST
4630	7090	ADD		0001		0003		0912	ADD DM C'ADD'	
4635	7093	DELETF		0001		0006		0913	DELETE DM C'DELETE'	
4640	7099	CHANGE		0001		0006		0914	CHANGE DM C'CHANGE'	
4645	7105	EOJ		0001		0003		0915	EOJ DM C'EOJ'	
4650	7108	NAFUD		0001		0005		0916	NAFUD DM C'NAFUD'	
4655	7113	*		0001		0002		0917	ACT DM C' *'	
4660	7115	015		0001		0018		0918	DATIN DM C'015	
4665	7133	024INVALID		0001		0027		0919	INVAL DM C'024INVALID ENTRY. RE-ENTER.'	
4670	7160	013END OF		0001		0016		0920	TMPEND DM C'013END OF PHASE.'	
4675	7176	048START C		0001		0051		0921	PRLMSG DM C'048START CREDIT FILE UPDATE INTERFACE - ENTER PHASE'	
4680	7227	035END CRF		0001		0038		0922	ENDMSG DM C'035END CREDIT FILE UPDATE FROM CONSOLE'	
4685	7265	027COMMUNIT		0001		0030		0923	NOAVL DM C'027COMMUNICATIONS IN PROGRESS.'	
4690	7295	030SYSTEM		0001		0033		0924	NOUP DM C'030SYSTEM NOT IN SYSUP CONDITION.'	
4695	7328	7133		0001		0004		0925	ADINV DM A'INVAL'	
4700	7332	7160		0001		0004		0926	ACTMPE DM A'TMPEND'	
4705	7336	7176		0001		0004		0927	ADPL DM A'PRLMSG'	
4710	7340	7115		0001		0004		0928	ADDTIN DM A'DATIN'	
4715	7344	7227		0001		0004		0929	ENDADD DM A'ENDMSG'	
4720	7348	7265		0001		0004		0930	ADAV DM A'NOAVL'	
4725	7352	7295		0001		0004		0931	ADUP DM A'NOUP'	
4730	7356	ALIGN FORM		0001		0053		0932	ALMSG DM C'ALIGN FORMS, HIT SERVICE REQUEST ON THIS DEVICE ONLY.'	
4735	7409	ENTER FIRS		0001		0035		0933	REPMS DM C'ENTER FIRST PAGE RESTART CODE	
4740	7444	ENTER LAST		0001		0027		0934	MSREP DM C'ENTER LAST PAGE INFORMATION'	
4745	7471	SEE OPERAT		0001		0035		0935	MSREP DM C'SFE OPERATOR'S MANUAL IF NECESSARY'	
4750	7506	HALT PRINT		0001		0020		0936	HLTMSG DM C'HALT PRINT'	
4755	7526	RETURN TO		0001		0030		0937	DM C'RETURN TO NORMAL MDT5 ROUTINES'	
4775	7556	MSG 3 - DT		0001		0049		0938	PROC3A DM C'MSG 3 - DIFFICULTY ENCOUNTERED IN ATTEMPT TO LOAD'	
4780	7605	. S		0001		0035		0939	PROC3B DM C' . SYSTEM WILL RETRY 10 TIMES'	
4785	7640	MSG 4 -		0001		0047		0940	PROC4A DM C'MSG 4 - FAILED TO LOAD. SYSTEM DEFAULTS'	
4790	7687	TO MDT5. S		0001		0030		0941	DM C'TO MDT5. SEE OPERATOR'S MANUAL'	
4800	7717	UNARIF TO		0001		0046		0942	BOOTAB DM C'UNABLE TO LOAD DMF BOOTSTRAP AT SECTORS 3 & 4'	
4805	7763	S/R FROM D		0001		0032		0943	NN00 DM C'S/R FROM DEVICE NOT ALLOWABLE.'	
4810	7795			0000		0001		0944	VOIDBF DM OC1	
4815	7795			0180		0001		0945	LINE DM 180C1	
4820	7975			0060		0027		0946	MSGTAB DM 60C27	
4825								0947	*	
4830	9595			0300				0948	EXEC ROX	
4835	9595							0949	END	

