LENGTH OF DATA 02000
LENGTH OF PRG 00241

```
                                    1                IDENT     INSTALL
                                    2
                00001               3       X1       EQU       1
                00002               4       X2       EQU       2
                00003               5       X3       EQU       3
                                    6
                                    7
                00002               8       MSLLFBN  EQU       02B
                00006               9       MSLBLK   EQU       06B
                                   10
                00077              11       DEVMAX   EQU       77B
                                   12
                                   13
                01000              14       WPFB     EQU       1000B
                                   15
                04000              16       CORE     EQU       4000B
                10000              17       CORE2    EQU       10000B
                                   18
                00000              19       IMPURE   EQU       0
                                   20
                                   21
                00015              22       WC       EQU       15B          BOOT USES THE CONTENTS OF THIS
                                   23       *                               WORD FOR THE WORD COUNT IN AN
                                   24       *                               I/O TRANSFER
                                   25
                                   26                EXT       BOOT
                                   27
                                   28                EXT       TRANSFER
                                   29
                00131 P            30                ENTRY     BLOCKS
                00000 P            31                ENTRY     BOOTOVER
                00147 P            32                ENTRY     BOOTOUT
                                   33
00000  14000237 P                  34       BOOTOVER NOP       EXIT
00001  00700205 P                  35                RTJ       SHARE
00002  47200051 P                  36                STI       DEVPOINT,X2  SAVE THE TABLE ADDRESS
00003  00700163 P                  37                RTJ       BOOTSHR      GET THE DISK TO COPY FROM
00004  20000236 P                  38                LDA       ADDRESS
00005  14104000                    39                ENI       CORE,X1      ENTER THE CORE ADDRESS
00006  00700230 P                  40                RTJ       BOOTREAD     READ THE BLOCK IN
00007  14105000                    41                ENI       CORE+WPFB,X1 READ IN SECOND BLOCK
00010  20000236 P                  42                LDA       ADDRESS
00011  15600001                    43                INA       1
00012  00700230 P                  44                RTJ       BOOTREAD
00013  14300076                    45                ENI       DEVMAX-1,X3
00014  54200051 P                  46                LDI       DEVPOINT,X2  LOAD THE TABLE ADDRESS
                00015 P            47       LOOP     EQU       *
00015  04200000                    48       INPACK   ISE       IMPURE,X2    SKIP IF THE INPUT PACK
00016  01000020 P                  49                UJP       *+2
00017  01000033 P                  50                UJP       ENDLOOP      DONT REWRITE THE INPUT PACK
00020  25200000                    51                LDAQ      0,X2         IS A DISK THERE
00021  03200033 P                  52                AZJ,GE    ENDLOOP      JUMP IF NOT
00022  13000030                    53                SHAQ      24           LOW BLOCK NUMBER TO (A)
00023  30000005 D00                54                ADA       BOOTLOC+2
00024  40000236 P                  55                STA       ADDRESS
00025  14104000                    56                ENI       CORE,X1      ENTER THE CORE ADDRESS
00026  00700233 P                  57                RTJ       BOOTWRIT     WRITE THE BLOCK OUT
00027  14105000                    58                ENI       CORE+WPFB,X1 WRITE OUT SECOND BLOCK
00030  20000236 P                  59                LDA       ADDRESS
00031  15600001                    60                INA       1
00032  00700233 P                  61                RTJ       BOOTWRIT     WRITE OUT SECOND BLOCK
                00033 P            62       ENDLOOP  EQU       *
00033  15200002                    63                INI       2,X2         ADVANCE TO THE NEXT UNIT
00034  02700015 P                  64                IJD       LOOP,X3      LOOP THE PROPER NUMBER OF TIMES
                                   65
00035  20000027 D00                66                LDA       RQDVLIST+2   GET THE LOCATION OF THE RQDVLIST
00036  14110000                    67                ENI       CORE2,X1     ENTER THE BUFFER ADDRESS
00037  00700230 P                  68                RTJ       BOOTREAD
00040  14200000                    69                ENI       0,X2         SET THE MESSAGE POINTER
00041  14300777                    70                ENI       WPFB-1,X3    LOCK AT THE WHOLE BLOCK
                00042 P            71       DEVLOOP  EQU       *
00042  20310000                    72                LDA       CORE2,X3
00043  03000064 P                  73                AZJ,EQ    DEVLOPND     JUMP IF NO DEVICE IS WANTED
00044  53500000                    74                IAI       X1           DEVICE NUMBER TO X1
00045  53540000                    75                IAI       X1           TWO TIMES DEVICE NUMBER
00046  05600100                    76                ASG       DEVMAX+1
00047  01000051 P                  77                UJP       *+2
```

```
00050  00000050 P                    78          HLT       *                        TRASH IN THE REQUIRED DEVICE LIST
00051  20100000                      79  DEVPOINT LDA       IMPURE,X1                IS THE DEVICE ON LINE
00052  03300064 P                    80           AZJ,LT    DEVLOPND                 JUMP IF IT IS
00053  20310000                      81           LDA       CORE2,X3                 GET THE DEVICE NUMBER AGAIN
00054  13077747                      82           SHAQ      -24
00055  51000240 P                    83           DVA       D10
00056  42400474 P    00117 0        84           SACH      WHERELUN,X2              SAVE THE 10S DIGIT
00057  13000030                      85           SHAQ      24
00060  42400475 P    00117 1        86           SACH      WHERELUN+1,X2            SAVE THE UNIT DIGIT
00061  14600060                      87           ENA       60B
00062  42400476 P    00117 2        88           SACH      WHERELUN+2,X2            SAVE A BLANK
00063  15200003                      89           INI       3,X2
00064  02700042 P                    90  DEVLOPND IJD       DEVLOOP,X3               LOOP THRU THE WHOLE BLOCK
00065  14601000                      91           ENA       WPF8
00066  40000015                      92           STA       WC                       RESTORE BOOTS WORD COUNT
                                     93
00067  05200001                      94           ISG       1,X2                     SKIP IF SOMETHING WAS MISSING
00070  01400000 P                    95           UJP,I     BOOTOVER
                                     96
                                     97
00071  14600077                      98           ENA       77B                      STORE SOME RETURNS
00072  42400474 P    00117 0        99           SACH      WHERELUN,X2
00073  42400475 P    00117 1       100           SACH      WHERELUN+1,X2
00074  42400476 P    00117 2       101           SACH      WHERELUN+2,X2
00075  77600400                     102           PAUS      0400B                    WAIT ON THE TYPE WRITER
00076  01000075 P                   103           UJP       *-1
00077  11000434 P    00107 0       104           ECHA      WHEREIS
00100  53420023                     105           TAM       23B                      SET THE FIRST CHARACTER ADDRESS
00101  11000474 P    00117 0       106           ECHA      WHERELUN
00102  53140000                     107           AIA       X1
00103  15600003                     108           INA       3
00104  53420033                     109           TAM       33B                      SET THE ENDING ADDRESS
00105  77760000                     110           CTO
00106  01400000 P                   111           UJP,I     BOOTOVER                 EXIT FROM THIS PART
                                    112
                                    113
00107  77663025                     114  WHEREIS  BCD,C     72,^WHERE ARE MASS STORAGE DEVICES
          00474 P                   115  WHERELUN EQU,C     WHEREIS+32
```

```
00131  14000237 P          117       BLOCKS   NOP      EXIT
00132  00700205 P          118                RTJ      SHARE
00133  20200001            119                LDA      1,X2          LOAD THE LOW FILE BLOCK NUMBER
00134  14104000            120                ENI      CORE,X1       ON MS00
00135  00700230 P          121                RTJ      BOOTREAD
00136  20004006            122                LDA      CORE+MSLBLK   LOAD THE RELATIVE LOCATION
00137  17677777            123                ANA      77777B        OF BLOCKS
00140  30004002            124                ADA      CORE+MSLLFBN  RELOCATE BLOCKS
00141  14100000 000        125                ENI      SYMBOLS,X1    ENTER THE FWA
00142  00700233 P          126                RTJ      BOOTWRIT
00143  20000051 000        126+001            LDA      COMMBLK+2
00144  14101000 000        126+002            ENI      COMMANDS,X1
00145  00700233 P          126+003            RTJ      BOOTWRIT      WRITE OUT COMMAND BLOCK
00146  01400131 P          127                UJP,I    BLOCKS        EXIT FROM THIS PART
```

```
00147  14000237 P        129  BOOTOUT  NOP       EXIT
00150  00700205 P        130           RTJ       SHARE          SET UP
00151  00700163 P        131           RTJ       BOOTSHR        GET THE OUTPUT UNIT
00152  14177777 X        132           ENI       BOOT,X1        ENTER THE FWA
00153  20000236 P        133           LDA       ADDRESS        LOAD THE DISK ADDRESS
00154  00700233 P        134           RTJ       BOOTWRIT       WRITE OUT THE FIRST BLOCK
00155  14100152 X        135           ENI       BOOT,X1
00156  15101000          136           INI       WPFB,X1        WRITE OUT THE SECOND BLOCK
00157  20000236 P        137           LDA       ADDRESS
00160  15600001          138           INA       1
00161  00700233 P        139           RTJ       BOOTWRIT
00162  01400147 P        140           UJP,I     BOOTOUT        EXIT
```

```
00163  01000000          142      BOOTSHR  UJP     IMPURE
00164  20200000          143               LDA     0,X2          LOAD MS00 CONNECT CODE
00165  17677077          144               ANA     77077B        SAVE JUST CONNECT CODE
00166  77700000          145               SLS                   WAIT FOR CHANGES
00167  17677077          146               ANA     77077B
00170  14777077          147               ENQ     77077B
00171  14100176          148               ENI     2*DEVMAX,X1
00172  47200173  P       149               STI     *+1,X2        STORE TABLE ADDRESS
00173  06200000          150               MEQ     IMPURE,2
00174  00000174  P       151               HLT     *             DEVICE NOT ON LINE
00175  53100000          152               TIA     X1            TABLE POSITION TO A
00176  53640000          153               IAI     X2            ABSOLUTE ADDRESS TO X2
00177  47200015  P       154               STI     INPACK,X2     REMEMBER THE INPUT PACK
00200  20200001          155               LDA     1,X2          LOAD LOW FILE BLOCK NUMBER
00201  30000005  000     156               ADA     BOOTLOC+2     RELOCATE TO BOOT
00202  40000236  P       157               STA     ADDRESS
00203  01000163  P       158               UJP     BOOTSHR       EXIT
```

```
00204  14200000          160       SHAREX2  ENI      IMPURE,X2          RESTORE X2
00205  01000000          161       SHARE    UJP      IMPURE
00206  04000000          162       SHAREFLG ISE      IMPURE,0           SKIP IF THE FIRST TIME
00207  01000204  P       163                UJP      SHAREX2            RESTORE X2 AND EXIT
00210  47200204  P       164                STI      SHAREX2,X2         SAVE INDEX TWO
00211  13077763          165                SHAQ     -12
00212  17607777          166                ANA      7777B
00213  44000231  P       167                SWA      ZREAD              SAVE THE READ ADDRESS
00214  13000014          168                SHAQ     12
00215  17607777          169                ANA      7777B
00216  44000234  P       170                SWA      ZWRITE
00217  20200001          171                LDA      1,X2               LOAD THE ADDRESS OF THE LABEL BLO
00220  14100043          172                ENI      NUMRELOC,X1
00221  34100011  D00     173                RAD      RELOC,X1           RELOCATE AT THE RELOCATABLE BLOCK
00222  02500223  P       174                IJD      *+1,X1
00223  10500000          175                ISD      0,X1
00224  02500221  P       176                IJD      *-3,X1
00225  14600001          177                ENA      1                  SET THE FLAG
00226  44000206  P       178                SWA      SHAREFLG
00227  01000205  P       179                UJP      SHARE              EXIT
                         180
                         181
00230  01000000          182       BOOTREAD UJP      IMPURE
00231  00700000          183       ZREAD    RTJ      IMPURE
00232  01000230  P       184                UJP      BOOTREAD
                         185
                         186
00233  01000000          187       BOOTWRIT UJP      IMPURE
00234  00700000          188       ZWRITE   RTJ      IMPURE
00235  01000233  P       189                UJP      BOOTWRIT
                         190
                         191
00236  00000000          192       ADDRESS  VFD      A24/IMPURE
                         193
                         194
00237  00003700          195       EXIT     HLT      3700B
                         196
00240  00000012          197       D10      DEC      10
```

```
                00000 000                199          DATA.
                00000 000                200  SYMBOLS EQU     *
    00000   21515121                     201          VFD       H48/ARRAY,A24/4
    00003   22464663                     202  BOOTLOC VFD       H48/BOOT,A24/1
    00006   22212463                     203          VFD       H48/BADTRAX,A24/3
                                         204
                                         205
                00011 000                206  RELOC   EQU     *                    THE FOLLOWING BLOCKS NEED TO HAVE
                                         207  *                                    BASE ADDED TO THEM
    00011   21232322                     208          VFD       H48/ACCBLOCK,A24/IMPURE+10
    00014   22212342                     209          VFD       H48/BACKLOG,A24/IMPURE+13
    00017   31442127                     210          VFD       H48/IMAGEBLK,A24/IMPURE+14
    00022   44676222                     211          VFD       H48/MXSBLOCK,A24/IMPURE+7
    00025   51502465                     212  RQDVLIST VFD      H48/RQDVLIST,A24/IMPURE+6
    00030   62216525                     213          VFD       H48/SAVEBBLK,A24/IMPURE+12
    00033   62216525                     214          VFD       H48/SAVEDBLK,A24/IMPURE+15
    00036   62252364                     215          VFD       H48/SECURITY,A24/IMPURE+11
    00041   25452422                     216          VFD       H48/ENDBLOCK,A24/IMPURE+16
    00044   44622622                     217          VFD       H48/MSFBLOCK,A24/IMPURE+20
    00047   23464444                     217+001 COMMBLK VFD       H48/COMMANDS,A24/IMPURE+25
                                         ***************************************************************************
                                         217+003 **  THE HOUR ORD CONTAINS A POINTER TO A BLOCK CONTAINING THE SHIFT      *
                                         217+004 **  SCHEDULE, RATE SCHEDULE, AND THE NUMBER OF SHIFTS.  THE FORMAT       *
                                         217+005 **  OF THIS BLOCK IS                                                    *
                                         217+006 **                                                                      *
                                         217+007 *(     WORDS 0-6  THE SCHEDULE FOR EACH DAY OF THE WEEKK BEGINNING      *
                                         217+008 **                SUNDAY.  EACH CHARACTER GIVES THE LOWEST HOUR MINUS   *
                                         217+009 **                ONE FOR THE SHIFT E.G.  07142130  WOULD DEFINE THE F  *
                                         217+010 **                FOLLOWING SHIFTS  0) 0800 - 1200, 1) 1300 - 1700,  2) *
                                         217+011 **                1800 - 2400,  3) 0000 - 0700                          *
                                         217+012 **                                                                      *
                                         217+013 **     WORDS 7 - 10  THE FACTORS TO BE APPLIED FOR EACH SHIFT.  THESE    *
                                         217+014 **                INTERPETED AS X/8.  THE CONSTANT IN WORD 7 IS THE X FOR*
                                         217+015 **                FOR SHIFT 0 ETC.                                      *
                                         217+016 **                                                                      *
                                         217+017 **     WORD  11  THE NUMBER OF SHIFTS - ONE I.E. THE LARGEST VALUE THAT  *
                                         217+018 **                MAY BE SPECIFIED IS 3 (N CHECK IS MADE IN INITIAL)    *
                                         217+019 **                THE NUMBER OF SHIFTS MAY BE LESS THAN 4, HIS A MAXIMUM.*
                                         217+020 **                                                                      *
                                         ***************************************************************************
    00052   30466451                     217+022          VFD       H48/HOUR,A24/IMPURE+24
                00043                    218  NUMRELOC EQU       *-RELOC-1            END OF THE RELOCATED BLOCKS
                                         219
                                         220
    00055   21232346                     221          VFD       H48/ACCOUNT,A24/673043  SYSTEM JOB NUMBER
    00060   64622551                     222          VFD       H48/USER,H24/OS3     SYSTEM USER CODE
    00063   23516060                     223          VFD       H48/CR,A9/1,O15/33000
    00066   24316242                     224          VFD       H48/DISK,O9/000,O15/01000
    00071   24316242                     225          VFD       H48/DISK,O9/000,O15/40000
    00074   43476060                     226          VFD       H48/LP,O9/200,O15/36000
    00077   44636060                     227          VFD       H48/MT,A9/4,O15/10000
    00102   47244710                     228          VFD       H48/PDP8,O24/54000
    00105   47434663                     229          VFD       H48/PLOT,O24/27000
    00110   47644560                     230          VFD       H48/PUN,O24/34000
    00113   63656060                     231          VFD       H48/TV,A6/12,A3/0,O15/15000
    00116   63656060                     231+001          VFD       H48/TV,A6/06,A3/0,O15/16000
                                         233
                                         234
                                         235          *         THE FOLLOWING ARE USED IN BUILDING THE TABLES FOR CONTROLLING
                                         236          *         THE EXCHANGE OF DATA BETWEEN THE 3300 AND THE PDP8
                                         237
                                         238
                                         239                    MACRO     ,,P
                                         240
                                         241          P1        BCD IDENT
                                         242          P2        MULTI PROGRAMMING FACTOR
                                         243          P3        OUTPUT LABEL
                                         244          P4        INPUT LABEL
                                         245          P5        CONTROL BYTE
                                         246          P6        PDP8 MUX CHANNEL
                                         247
                                         248                    NAME      JUNK
                                         249                    VFD    H48/$P(1),03/$P(2),05/$P(3),05/$P(4),05/$P(5),06/$P(6)
                                         250                    EXIT
                                         251
                                         252          P1        BCD IDENT
                                         253          P2        1 IF LAST, 0 IF NOT LAST
                                         254          P3        TERMINAL ASSOCIATED WITH DEVICE
                                         255          P4        INPUT LABEL
```

```
                                256       P5        CONTROL BYTE
                                257       P6        PDP3 MUX CHANNEL
                                258
                                259                 NAME      INPUT
                                260                 VFD       H48/$P(1)
                                261                 VFD       01/$P(2),07/$P(3),05/$P(4),05/$P(5),06/$P(6)
                                262                 EXIT
                                263                 END
 00121  47634760                264                 JUNK      PTP,0,3,0,0,1
 00124  30623160                265                 INPUT     HSI,0,60,4,1,2        RADIATION CENTER
 00127  30623160                266                 INPUT     HSI,0,170,3,0,1       PAPER TAPE READER
 00132  30623160                267                 INPUT     HSI,0,57,7,6,14       PHA 01
 00135  30623160                268                 INPUT     HSI,0,56,10,7,15      PHA 02
 00140  30623160                269                 INPUT     HSI,1,170,11,10,0     TEST CHANNEL 01
 00143  30626363                270                 JUNK      HSTT,0,0,0,0,0,20     VARIABLE SPEED
 00146  30626363                271                 JUNK      HSTT,0,0,0,0,0,21     PRINT SHOP
 00151  30626363                272                 JUNK      HSTT,0,0,0,0,0,22     754-3537  300 BAUD
 00154  30626363                273                 JUNK      HSTT,0,0,0,0,0,23     PHYSICAL PLANT
 00157  30626363                274                 JUNK      HSTT,0,0,0,0,0,24     CC 211
 00162  30626363                275                 JUNK      HSTT,0,0,0,0,0,25     754-3538  300 BAUD
 00165  63254260                276                 JUNK      TEK,0,0,0,0,3
 00170  63254260                277                 JUNK      TEK,0,0,0,0,4
 00173  63254260                278                 JUNK      TEK,0,0,0,0,5
 00176  63254260                279                 JUNK      TEK,0,0,0,0,6
 00201  63254260                280                 JUNK      TEK,0,0,0,0,7
 00204  63254260                281                 JUNK      TEK,0,0,0,0,10
 00207  63254260                282                 JUNK      TEK,0,0,0,0,11
 00212  64636060                283                 JUNK      UT,1,13,5,2,12
 00215  64636060                284                 JUNK      UT,1,14,6,4,13
                                285
                                286
                                287       *         ≠SLSBITS≠ IS THE VALUE THAT IS IN A WHEN INITIAL EXECUTES
                                288       *         A SLS INSTRUCTION.  SEE INITIAL FOR THE MEANING OF EACH BIT
                                289
 00220  62436222                290                 VFD       H48/SLSBITS,A24/-0
```

```
                                293      *****************************************************************************
                                294      *                                                                           *
                                295      *       LOW RATES ARE IN EFFECT FROM THE FIRST HOUR TO THE                  *
                                296      *       SECOND HOUR.  BY CHANGING THE FIRST HOUR TO 25 AND THE              *
                                297      *       SECOND HOUR TO ZERO, LOW RATES CAN BE ELIMINATED.                   *
                                297+001  **                                                                          *
                                297+002  **      LOWER RATES ARE CURRENTLY FROM 1800 TO 0800                         *
                                299      *       NOTE THAT IS ONLY FOR SYSTEMS BEFORE 1/12/74                        *
                                301      *                                                                           *
                                301      *****************************************************************************
                                301+001
00223  30466451                 303              VFD       H48/HOURS,O12/0000,A6/18,A6/08
                                304
                                305      *       ≠BATCH≠ CONTROLS THE MAXIMUM NUMBER OF BATCH JOBS
                                306      *       THAT CAN BE RUNNING AT THE SAME TIME
                                307
00226  22216323                 308              VFD       H48/BATCH,O9/000,A15/10
                                309
                                310
                                311      *       ≠TTY≠ IS THE VALUE OF THE HIGHEST TTY TERMINAL NUMBER
                                312
00231  63637060                 313              VFD       H48/TTY,O9/000,O15/170
                                314
                                315
                                316      *       IF THE VALUE OF ≠BDP≠ IS ≠ON≠ THE SYSTEM WILL REQUIRE THE
                                317      *       BDP TO BE ON.  ANY OTHER VALUE WILL REQUIRE IT TO BE
                                318      *       OFF BEFORE THE SYSTEM WILL START
                                319
00234  22244760                 320              VFD       H48/BDP,H24/ON
                                321
                                322
                                323      *       ≠PAGECORE≠ IS THE AMOUNT OF CORE THE SYSTEM SHOULD HAVE.  IF
                                324      *       INITIAL DISCOVERS A DIFFERENT AMOUNT A MESSAGE WILL BE
                                325      *       PRINTED OUT ON THE CONSOLE
                                326
00237  47212725                 327              VFD       H48/PAGECORE,A24/48   48 PAGES OF CORE (98K)
                                328
                                329
     01000 000                  330              ORGR      SYMBOLS+WPFB
                                331
```

```
01000  77777777                331+002  COMMANDS VFD      A24/-0,A24/-0
                               331+003           MACRO    ,,P
                               331+004           NAME     CMD
                               331+005           LIST     MACROS
                               331+006           BCD      2,$P(1)
                               331+007           BCD      2,$P(2)
                               331+008           VFD      09/0,015/$P(3)
                               331+009           EXIT
                               331+010           NAME     SPEC
                               331+011           LOCAL    COUNT,BITS
                               331+012  COUNT    EQU      0
                               331+013  BITS     EQU      0
                               331+014  .ONE
                               331+015  COUNT    REEQU    COUNT+1
                               331+016           IF       COUNT+3 GT N≠P, GOTO  TWO
                               331+017  BITS     REEQU    BITS+2↑(15-$P(3+COUNT))
                               331+018           GOTO     ONE
                               331+019  .TWO
                               331+020           LIST     MACROS
                               331+021           BCD      2,$P(1)
                               331+022           VFD      024/$P(2)
                               331+023           VFD      A24/BITS
                               331+024            VFD     09/0,015/$P(3)
                               331+025           END
                               331+026
                               331+027
                               331+028
                               331+029           CMD      ACCOUMP,BACKUP,70001
01002  21232324                331+006           BCD      2,ACCOUMP
01004  22212342                331+007           BCD      2,BACKUP
01006  00070001                331+008           VFD      09/0,015/70001
                               331+030
                               331+031           CMD      JBACKUP,BACKUP,70002
01007  41222123                331+006           BCD      2,JBACKUP
01011  22212342                331+007           BCD      2,BACKUP
01013  00070002                331+008           VFD      09/0,015/70002
                               331+032
                               331+033           CMD      LBACKUP,BACKUP,70003
01014  43222123                331+006           BCD      2,LBACKUP
01016  22212342                331+007           BCD      2,BACKUP
01020  00070003                331+008           VFD      09/0,015/70003
                               331+034
                               331+035           CMD      PBACKUP,BACKUP,70004
01021  47222123                331+006           BCD      2,PBACKUP
01023  22212342                331+007           BCD      2,BACKUP
01025  00070004                331+008           VFD      09/0,015/70004
                               331+036
                               331+037           CMD      PM,BACKUP,70005
01026  47446060                331+006           BCD      2,PM
01030  22212342                331+007           BCD      2,BACKUP
01032  00070005                331+008           VFD      09/0,015/70005
                               331+038
                               331+039           CMD      SBACKUP,BACKUP,70006
01033  62222123                331+006           BCD      2,SBACKUP
01035  22212342                331+007           BCD      2,BACKUP
01037  00070006                331+008           VFD      09/0,015/70006
                               331+040
                               331+041           SPEC     SMR,224,64000,13,14,15
01040  62445160                331+021           BCD      2,SMR
01042  00000224                331+022           VFD      024/224
01043  00000007                331+023           VFD      A24/BITS
01044  00064000                331+024            VFD     09/0,015/64000
                               331+042
                               331+043           SPEC     RECREATE,214,74000,15
01045  51252351                331+021           BCD      2,RECREATE
01047  00000214                331+022           VFD      024/214
01050  00000001                331+023           VFD      A24/BITS
01051  00074000                331+024            VFD     09/0,015/74000
                               331+044
                               331+045           SPEC     BKTUD,210,74000,15
01052  22426364                331+021           BCD      2,BKTUD
01054  00000210                331+022           VFD      024/210
01055  00000001                331+023           VFD      A24/BITS
01056  00074000                331+024            VFD     09/0,015/74000
                               331+046
                               331+047           SPEC     BKTFD,210,74001,15
01057  22426326                331+021           BCD      2,BKTFD
01061  00000210                331+022           VFD      024/210
01062  00000001                331+023           VFD      A24/BITS
```

```
    01063  00074001                  331+024                VFD       09/0,015/74001
                                     331+048
                                     331+049
           02000 000                 331+050                ORGR      COMMANDS+MPFB
                                     332                    END       TRANSFER
```

NO LINES WITH ERRORS

```
   ADDRESS          00236P      192       38 00004P       42 00010P       55 00024P       59 00030P      133 00153P      137 00157P
                                          157 00202P
   BLOCKS    E      00131P      117       30 00000P      127 00146P
   BOOT         X                26      132 00152P      135 00155P
   BOOTLOC          00003000    202       54 00023P      156 00201P
   BOOTOUT   E      00147P      129       32 00000P      140 00162P
   BOOTOVER  E      00000P       34       31 00000P       95 00070P      111 00106P
   BOOTREAD         00230P      182       40 00006P       44 00012P       68 00037P      121 00135P      184 00232P
   BOOTSHR          00163P      142       37 00003P      131 00151P      158 00203P
   BOOTWRIT         00233P      187       57 00026P       61 00032P      126 00142P   126+3 00145P      134 00154P      139 00161P
                                          189 00235P
   COMMANDS         01000000  331+2    331+50 01064000  126+2 00144P
   COMMBLK          00047000  217+1     126+1 00143P
   CORE             04000       16       39 00005P       41 00007P       56 00025P       58 00027P      120 00134P      122 00136P
                                          124 00140P
   CORE2            10000       17       67 00036P       72 00042P       81 00053P
   D10              00240P      197       83 00055P
   DEVLOOP          00042P       71       90 00064P
   DEVLOPND         00064P       90       73 00043P       80 00052P
   DEVMAX           00077        11       45 00013P       76 00046P      148 00171P
   DEVPOINT         00051P       79       36 00002P       46 00014P
   ENDLOOP          00033P       62       50 00017P       52 00021P
   EXIT             00237P      195       34 00000P      117 00131P      129 00147P
   IMPURE           00000        19       48 00015P       79 00051P      142 00163P      150 00173P      160 00204P      161 00205P
                                          162 00206P      182 00230P      183 00231P      187 00233P      188 00234P      192 00236P
                                          208 00013D00    209 00016D00    210 00021D00    211 00024D00    212 00027D00    213 00032D00
                                          214 00035D00    215 00040D00    216 00043D00    217 00046D00  217+1 00051D00  217+22 00054D00
   INPACK           00015P       48      154 00177P
   LOOP             00015P       47       64 00034P
   MSLBLK           00006         9      122 00136P
   MSLLFBN          00002         8      124 00140P
   NUMRELOC         00043       218      172 00220P
   RELOC            00011000    206      218 00055D00    173 00221P
   RQDVLIST         00025D00    212       66 00035P
   SHARE            00205P      161       35 00001P      118 00132P      130 00150P      179 00227P
   SHAREFLG         00206P      162      178 00226P
   SHAREX2          00204P      160      163 00207P      164 00210P
   SYMBOLS          00000000    200      330 00242D00    125 00141P
*  TRANSFER     X                28
   WC               00015        22       92 00066P
   WHEREIS          00107P      114      115 00131P      104 00077P
   WHERELUN         00117P      115       84 00056P       86 00060P       88 00062P       99 00072P      100 00073P      101 00074P
                                          106 00101P
   WPFB             01000        14      330 00242D00  331+50 01064000    41 00007P       58 00027P       70 00041P       91 00065P
                                          136 00156P
   X1               00001         3       39 00005P       41 00007P       56 00025P       58 00027P       67 00036P       74 00044P
                                           75 00045P       79 00051P      107 00102P      120 00134P      125 00141P    126+2 00144P
                                          132 00152P      135 00155P      136 00156P      148 00171P      152 00175P      172 00220P
                                          173 00221P      174 00222P      175 00223P      176 00224P
   X2               00002         4       36 00002P       46 00014P       48 00015P       51 00020P       63 00033P       69 00040P
                                           84 00056P       86 00060P       88 00062P       89 00063P       94 00067P       99 00072P
                                          100 00073P      101 00074P      119 00133P      143 00164P      149 00172P      153 00176P
                                          154 00177P      155 00200P      160 00204P      164 00210P      171 00217P
   X3               00003         5       45 00013P       64 00034P       70 00041P       72 00042P       81 00053P       90 00064P
   ZREAD            00231P      183      167 00213P
   ZWRITE           00234P      188      170 00216P
```