```
  3 CT EJ    D       F1(D1A) IPLED
PROGRAM END
  2 CT EJ    D       F1(D1A) IPLED
PROGRAM END
  1 CT EJ    D       F1(D1A) IPLED
PROGRAM END

sim> at pch ccpint.ocl

// READER MFCU1
// LOG 1403
// LOG ON
// NOHALT
*
*** CLEAR AN 5444 SIMULATION AREA.
*
// LOAD $SCOPY,F1
// RUN
// CLEAR FROM-D2A,PACK-PID001,CLRNAME-F2F2F2,TYPE-FORCE
// END
```

```
  1 CT EJ    I               $SCOPY01
PROGRAM END
```

```
*
*** ALLOCATE LIBRARIES ON AN IBM 5444 PACK.
*
// LOAD $MAINT,F1
// RUN
// ALLOCATE TO-F2,OBJECT-200,SOURCE-50
// END
```

```
  1 CT EJ    I               $MAINT01
PROGRAM END

sim> at pch ccpgen1.ocl
```

```
*
// READER CONSOLE
// READER MFCU1
// LOG 1403
// LOG ON
// NOHALT
*************************************************************************
*             I N P U T   T O   C C P   G E N E R A T I O N             *
*************************************************************************
*                                                                       *
*                                                                       *
* THESE CARDS -- AFTER YOU HAVE MODIFIED THEM TO YOUR SPECIFICATIONS --  *
*   WILL BE THE INPUT TO THE FIRST PASS OF CCP GENERATION               *
*                                                                       *
*                                                                       *
* DISCARD THE LEADING CARDS OF THIS DECK, FROM THE // COPY CARD AT THE   *
*   BEGINNING THROUGH THE CARD THAT MARKS *** END OF INSTRUCTIONS ***   *
*                                                                       *
* DISCARD ALSO THE // CEND CARD -- THE LAST CARD OF THE DECK            *
*                                                                       *
*                                                                       *
* YOU MUST MAKE THREE KINDS OF MODIFICATIONS TO THE REMAINING CARDS --   *
*                                                                       *
*   1. IN THOSE CARDS THAT ARE MARKED  ++  IN COLUMNS 74-75, REPLACE    *
*      ANY  $$  OR  ##  IN THE CARD WITH THE IDENTIFICATION OF A DISK   *
*      UNIT --                                                          *
*                                                                       *
*      --  $$  WITH THE UNIT ON WHICH YOUR SYSTEM PACK IS LOCATED       *
*                                                                       *
*      --  ##  WITH THE UNIT ON WHICH THE CCP DISTRIBUTION PACK IS      *
*              LOCATED                                                  *
*                                                                       *
*   2. REPLACE CARD NUMBER 00299 WITH A CARD PUNCHED  /*  IN COLUMNS 1-2 *
*                                                                       *
*   3. MODIFY THE GENERATION CONTROL STATEMENTS -- THOSE CARDS          *
*      FOLLOWING CARD NUMBER 00206 -- TO SPECIFY THE REQUIREMENTS OF    *
*      THE CCP YOU WISH TO GENERATE                                     *
*                                                                       *
* IF YOU DO NOT WISH TO USE THE DISTRIBUTION PACK FOR THE REQUIRED       *
*   $SOURCE FILE, SPECIFY THE LOCATION OF THAT FILE BY CHANGING THE UNIT *
*   AND PACK PARAMETERS IN CARDS 00204 AND 00306                        *
*                                                                       *
*                                                                       *
* WHEN YOU HAVE MADE THESE CHANGES, PLACE THE MODIFIED DECK IN THE       *
*   HOPPER OF THE SYSTEM INPUT DEVICE AND BEGIN PASS 1 OF CCP GENERATION *
*                                                                       *
****** END OF INSTRUCTIONS ******************** END OF INSTRUCTIONS ******
*                                                                         00100
*                                                                         00200
***  PROCESS SPECIFICATIONS FOR THE CCP TO BE GENERATED                   00201
*                                                                         00202
// LOAD  $MPXDV,R1                                                      ++00203
// FILE  NAME-$SOURCE,RETAIN-T,UNIT-F2,PACK-F2F2F2,TRACKS-20,           ++00204
//       LOCATION-380,SHARE-NO                                             00205
// RUN                                                                     00206
```

```
  1 CT EJ    I               $MPXDV01
PROGRAM END
```

```
*                                                                       00300
***  PRINT RESULTS OF CCP GENERATION PASS 1                             00301
*                                                                       00302
***  IF NO ERRORS, PUNCH INPUT TO CCP GENERATION PASS 2                 00303
*                                                                       00304
// LOAD  $CC1PP,R1                                                     ++00305
// FILE NAME-$SOURCE,RETAIN-T,UNIT-F2,PACK-F2F2F2,SHARE-NO             ++00306
// RUN                                                                  00307
```

```
          ---------------  CCP GENERATION CONTROL STATEMENTS  ------------------

                $EFAC ESCAPE-NO,         -- 'CCCCCC' / X'XXXXXXXXXXXX' --       X00010000
                      PGMCNT-NO,         -- NO --                               X00020000
                      FORMAT-NO,         -- NO --                               X00030000
                      PRUF-NO,           -- YES --                              X00040000
                      ACCEPT-NO,         -- YES --                              X00050000
                      RESOPN-NO,         -- YES --                              X00060000
                      BSYPRT-NO,         -- YES --                              X00061000
                      MOVTNT-NO,         -- YES --                              X00062000
                      MOVDFF-NO,         -- YES --                              X00063000
                      RESREQ-NO,         -- YES --                              X00064000
                      SIOC-NO,           -- YES --                              X00065000
                      OPPRUF-NO,         -- YES --                              X00066000
                      CPUMSG-NO,         -- YES --                              X00067000
                      LOWCAS-NO,         -- PF1 - PF12 --                       X00068000
                      TTASK-NO           -- YES --                               00069000

                $EPLG LANG-ASSEM,        -- COBOL / RPGII / FORTRAN / ASSEM --  X00070000
                      PPUNIT-F1          -- R1 / F1 / R2 / F2 --                 00080000

                $EPLG LANG-RPGII,        -- COBOL / RPGII / FORTRAN / ASSEM --  X00090000
                      PPUNIT-F1          -- R1 / F1 / R2 / F2 --                 00100000

                $ESEC SECURE-CCP         -- CCP / USER --                        00110000

                $EFIL SETS-3,            -- 1 - 25 --                           X00120000
                      PROGS-15,          -- 1 - 999 --                          X00130000
                      DFILES-5,          -- 1 - 192 --                          X00140000
                      TERMS-5,           -- 2 - 254 --                          X00150000
                      DUMPS-2,           -- 2 - 99 --                           X00160000
                      CORE-256K,         -- 128K/160K/192K/224K/256K/384K/512K  X00170000
                      FLPACK-F2F2F2,     -- NAME OF PACK --                     X00180000
                      FLUNIT-F2,         -- R1 / F1 / R2 / F2 --                X00190000
                      DPTRAC-6           -- 0 - 1000 --                          00195000

              $EBSC BSCA-1,              -- 0 - 2 --                            X00200000
                    DA-YES,              -- YES --                              X00210000
                    DIAL-NO,             -- YES --                              X00220000
                    PP-NO,               -- YES --                              X00230000
                    MP-NO,               -- YES --                              X00240000
                    CS-YES,              -- NO --                               X00250000
                    GETMSG-NO,           -- NO --                               X00260000
                    ITB-NO,              -- YES --                              X00270000
                    RECSEP-1E,           -- TWO HEX DIGITS --                   X00280000
                    ASCII-NO,            -- YES --                              X00290000
                    EBCDIC-YES,          -- NO --                               X00300000
                    XPRNCY-NO,           -- YES --                              X00310000
                    RESPOL-NO,           -- YES --                              X00320000
                    INTPOL-YES,          -- NO --                               X00330000
                    AUTORS-NO,           -- YES --                              X00340000
                    PORT-NO              -- YES --                               00345000

              $EBSD TYPE-3277M1          -- SEE SYSTEM REFERENCE MANUAL --       00350000

              $EBSD TYPE-3277M2          -- SEE SYSTEM REFERENCE MANUAL --       00350000

              $ECSC BSCC-0,              -- 0 - 2 --                            X00360000
```

```
         ----------------  CCP GENERATION CONTROL STATEMENTS  -------------------

                     GETMSG-NO,         -- NO --                                X00370000
                     ITB-NO,            -- YES --                               X00380000
                     RECSEP-1E,         -- TWO HEX DIGITS --                    X00390000
                     ASCII-NO,          -- YES --                               X00400000
                     EBCDIC-YES,        -- NO --                                X00410000
                     XPRNCY-NO,         -- YES --                               X00420000
                     INTPOL-NO,         -- NO --                                X00430000
                     PORT-NO,           -- YES --                               X00432000
                     PP-NO,             -- YES --                               X00434000
                     CS-NO              -- NO --                                 00436000

                $EGEN DSUNIT-F1,        -- R1 / F1 --                           X00450000
                     CCUNIT-F2,         -- R1 / F1 / R2 / F2 --                 X00460000
                     WKUNIT-D1,         -- 'UNIT,UNIT,UNIT' __                  X00470000
                     WKPACK-PID001,     -- 'PACK,PACK,PACK' --                  X00480000
                     DIUNIT-R1,         -- R1 / F1 / R2 / F2 --       CCP-PID   X00490000
                     MINRES-NO,         -- YES --                               X00500000
                     CARD-NO,           -- YES --                               X00510000
                     DPPACK-PID001,     -- PACK NAME --                         X00510001
                     DPUNIT-D2          -- UNIT --                               00510002


 NO ERRORS DETECTED IN GENERATION CONTROL STATEMENTS

 INPUT TO PASS 2 OF GENERATION WILL BE PRINTED
```

```
         ---------------  INPUT TO CCP GENERATION PASS 2  ----------------------

         // COPY   NAME-$CC1FC,LIBRARY-P                                      CCP00000
         *     ---  PREPARE THE INITIAL CONTENTS OF $CCPFILE  ---              CCP00001
         *                                                                     CCP00002
         ***  FIRST, USE THE SCP GENERATOR TO CONVERT THE CONTENTS OF THE      CCP00003
         ***  CCP CONFIGURATION RECORD AND THE ASSIGNMENT DIRECTORY TO ENCODED  CCP00004
         ***  FORM -- SAVE THIS ENCODED INFORMATION AS A RELOCATABLE MODULE    CCP00005
         ***  NAMED $CC1FC -- THE INFORMATION WILL LATER BE WRITTEN TO THE     CCP00006
         ***  FIRST TWO SECTORS OF $CCPFILE AS THE CCP CONFIGURATION RECORD    CCP00007
         ***  AND THE ASSIGNMENT SET DIRECTORY                                 CCP00008
         *                                                                     CCP00009
         // NOHALT                                                            CCP00010
         // LOAD  $CGDRV,R1                                                   CCP00011
         // SWITCH 0XXXXXXX                                                   CCP00012
         // FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-10,RETAIN-S,        CCP00013
         //       SHARE-NO                                                    CCP00014
         // FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-5,RETAIN-S,           CCP00015
         //       SHARE-NO                                                    CCP00016
         // FILE  NAME-$WORK2,UNIT-D1,PACK-PID001,TRACKS-5,RETAIN-S,          CCP00017
         //       SHARE-NO                                                    CCP00018
         // COMPILE UNIT-R1,SOURCE-$CC1FC                                     CCP00019
         // RUN                                                               CCP00020
         // CEND                                                              CCP00021
         // COPY   NAME-$CC1FC,LIBRARY-S                                      CCP00022
         $CC1FC TITLE 'CCP CONFIGURATION RECORD AND DIRECTORY'                CCP00023
         $CC1FC START 0                          MODULE NAME                  CCP00024
               EXTRN $CC1BF                      REFERENCE TO MODULE WHICH INITS  CCP00025
               EJECT                                                          CCP00026
         ********************************************************************** CCP00027
         *        C  C  P    C O N F I G U R A T I O N   R E C O R D         * CCP00028
         ********************************************************************** CCP00029
               SPACE 2                                                        CCP00030
         * THIS SET OF 256 BYTES -- A SECTOR ON DISK -- INDICATES TO CCP THOSE  CCP00031
         *   DEVICES AND SYSTEM FACILITIES YOU SPECIFIED DURING CCP GENERATION  CCP00032
               SPACE 1                                                        CCP00033
         CFGVRF DC    XL2'EBD7'                TWO BYTES *ALWAYS* HEX 'EBD7'  CCP00034
               SPACE 1                                                        CCP00035
         CFGCA1 DC    BL1'00000000'            BSCC FACILITIES BYTE ONE       CCP00036
         CFGCA2 DC    BL1'00000000'            FACILITIES BYTE TWO            CCP00037
         CFGRSM DC    XL1'1E'                  RECORD SEPARATOR BYTE (BSCC)   CCP00038
         CFGYD1 DC    BL1'00000000'            BSCC DEVICES--BYTE 1           CCP00039
         CFGYD2 DC    BL1'00000000'            BSCC DEVICES--BYTE 2           CCP00040
         CFGTP1 DC    AL1(0)                   NUMBER OF BSCC LINES           CCP00041
               SPACE 1                                                        CCP00042
         CFGFA2 DC    BL1'00010000'            FACILITIES--BYTE 2             CCP00043
         CFGFLA DC    BL1'00000000'            CCP FLAG A                     CCP00044
         CFGDPQ DC    XL1'C8'                  Q-BYTE OF $CCPDUMP FILE        CCP00045
         CFGPLG DC    BL1'00110000'            PROGRAMMING LANGUAGES SUPPORTED  CCP00046
               SPACE 1                                                        CCP00047
         CFGCBO DC    XL2'00C7'                CONSOLE INTERRUPT BRANCH OFFSET  CCP00048
         CFGESC DC    CL6' '                   *NO* DATA MODE ESCAPE STRING   CCP00049
         CFGLUS DC    IL2'0'                   LENGTH OF USER SECURITY DATA   CCP00050
         CFGRV3 DC    4XL1'00'                 *RESERVED*                     CCP00051
               SPACE 1                                                        CCP00052
         CFGNS  DC    IL1'3'                   MAX NUMBER SETS                CCP00053
         CFGNPM DC    IL2'15'                  MAX NUMBER PROGRAMS            CCP00054
```

```
         ---------------  INPUT TO CCP GENERATION PASS 2  ----------------------

         CFGNDF DC    IL1'5'                    MAX NUMBER DISK FILES           CCP00055
         CFGNT  DC    IL1'5'                    MAX NUMBER TERMINALS            CCP00056
         CFGDMP DC    IL1'2'                    MAX NUMBER CORE DUMPS           CCP00057
         CFGSC  DC    IL2'1024'                 MEMORY # SECTORS (384-2048)     CCP00058
         CFGRV4 DC    3XL1'00'                  *RESERVED*                      CCP00059
                SPACE 1                                                        CCP00060
         CFGTP  DC    AL1(16*0+1)               NUMBER COMMUNICATIONS LINES     CCP00061
                SPACE 1                                                        CCP00062
         CFGMD1 DC    BL1'00000000'             MLTA DEVICES--BYTE 1            CCP00063
         CFGMD2 DC    BL1'00000000'             MLTA DEVICES--BYTE 2            CCP00064
         CFGMD3 DC    BL1'00000000'             MLTA DEVICES--BYTE 3            CCP00065
         CFGRV5 DC    2XL1'00'                  *RESERVED*                      CCP00066
         CFGMXC DC    BL1'00000000'             MLTA TRANSMISSION CODES         CCP00067
         CFGRV6 DC    2XL1'00'                  *RESERVED*                      CCP00068
                SPACE 1                                                        CCP00069
         CFGBLT DC    BL1'00100000'             BSC LINE TYPES SUPPORTED        CCP00070
         CFGBFA DC    BL1'00100100'             BSC FACILITIES                  CCP00071
         CFGBF1 DC    BL1'10000000'             BSC FACILITIES CONTINUED        CCP00072
         CFGRV7 DC    1XL1'00'                  *RESERVED*                      CCP00073
         CFGRSB DC    XL1'1E'                   RECORD SEPARATOR BYTE (BSCA)    CCP00074
         CFGBD1 DC    BL1'01000100'             BSCA DEVICES--BYTE 1            CCP00075
         CFGBD2 DC    BL1'00000000'             BSCA DEVICES--BYTE 2            CCP00076
                SPACE 1                                                        CCP00077
                SPACE 1                                                        CCP00078
                DC    203XL1'FF'               FILLED WITH HEX 'FF'            CCP00079
                EJECT                                                          CCP00080
         ***************************************************************       CCP00081
         *           $ C C P F I L E   D I R E C T O R Y               *       CCP00082
         ***************************************************************       CCP00083
                SPACE 2                                                        CCP00084
         * THIS SET OF 256 BYTES -- A SECOND SECTOR ON DISK -- SERVES AS A      CCP00085
         *   DIRECTORY TO THE CONTENTS OF THIS FILE FOR THE CCP ASSIGNMENT AND  CCP00086
         *   STARTUP PROGRAMS -- EACH FIELD IS INITIALLY ZERO                   CCP00087
                SPACE 1                                                        CCP00088
         DIRNSA DC    IL1'0'                  CURRENT NUMBER ASSIGNMENT SETS  CCP00089
         DIRRS1 DC    IL2'0'                  * RESERVED *                    CCP00090
         DIRDAT DC    XL3'000000'             DATE LAST MODIFIED              CCP00091
         DIRDID DC    XL1'00'                 EXECUTION DEFAULT SET           CCP00092
         DIRNFX DC    XL1'00'                 *** UNUSED ***                  CCP00093
         DIRRS2 DC    IL2'0'                  * RESERVED *                    CCP00094
         DIRRS3 DC    IL1'0'                  * RESERVED *                    CCP00095
         DIRBD@ DC    XL2'0000'               LOCATION BEGIN DUMP AREA        CCP00096
         DIRED@ DC    XL2'0000'               LOCATION END DUMP AREA          CCP00097
         DIRRS5 DC    XL2'0000'               * RESERVED *                    CCP00098
                SPACE 1                                                        CCP00099
         * ASSIGNMENT SET DIRECTORY ENTRIES START HERE                        CCP00100
                SPACE 1                                                        CCP00101
                DC    239XL1'FF'              INITIALLY UNUSED PORTION        CCP00102
                SPACE 5                                                        CCP00103
                END   $CC1FC                                                   CCP00104
         // CEND                                                              CCP00105
         // COPY   NAME-$CC1LC,LIBRARY-P                                      CCP00106
         ***  USE THE OVERLAY LINKAGE EDITOR TO JOIN THE ABOVE MODULE WITH     CCP00107
         ***  ANOTHER MODULE CAPABLE OF WRITING THE INFORMATION TO $CCPFILE --  CCP00108
         ***  SAVE THE RESULTING LOAD MODULE $CC1BF ON THE DISTRIBUTION PACK    CCP00109
```

```
         ----------------  INPUT TO CCP GENERATION PASS 2  ----------------------

         ***  FOR LATER INITIALIZATION OF $CCPFILE                              CCP00110
         *                                                                      CCP00111
         // LOAD  $OLINK,F1                                                     CCP00112
         // FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-10,RETAIN-S,          CCP00113
         //       SHARE-NO                                                     CCP00114
         // FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-10,RETAIN-S,            CCP00115
         //       SHARE-NO                                                     CCP00116
         // RUN                                                                 CCP00117
         // PHASE  NAME-$CC1BF,UNIT-R1,RETAIN-R,LINKADD-X'4000'                 CCP00118
         // OPTIONS  ENTRY-EXECBF,LEVEL-4                                       CCP00119
         // INCLUDE  NAME-'$CC1FC,$CC1BF',UNIT-R1                               CCP00120
         // END                                                                 CCP00121
         // CEND                                                                CCP00122
         // COPY   NAME-$CC1#1,LIBRARY-P                                        CCP00123
```

```
         ---------------  INPUT TO CCP GENERATION PASS 2  ----------------------

         *     ---  CREATE THE EXECUTION STAGE RESIDENT MODULES  ---             CCP00124
         *                                                                      CCP00125
         ***  USE THE MACRO PROCESSOR TO EXPAND SOURCE CODE OF THE FIRST        CCP00126
         ***  OF THE RESIDENT MODULES - $CC4#1                                  CCP00127
         *                                                                      CCP00128
         // LOAD  $MPXDV,R1                                                     CCP00129
         // FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-130,RETAIN-T,         CCP00130
         //       SHARE-NO                                                     CCP00131
         // COMPILE UNIT-R1,SOURCE-$CC1#1                                       CCP00132
         // RUN                                                                 CCP00133
         // CEND                                                                CCP00134
         // COPY   NAME-$CC1#1,LIBRARY-S                                        CCP00135
         $CC4#1 TITLE 'BEGIN CCP SYSTEM CONTROL MODULE'                         CCP00136
         $CC4#1 START X'4600'                  CCP SYSTEM CONTROL MODULE        CCP00137
                $E000 #M-0,#B-1,DF-0,DE-0,MS-0,RF-0,RS-0                        CCP00138
                $E001 PC-0,SO-10,RR-0,MVT-0,MOV-0                               CCP00139
                $E002 ML-00,MT-000,MF-0,MS-0                                    CCP00140
                $E003 BL-0010,BF-00100100,BT-0100010000000000,INP-1,BIA-1,BY-0  CCP00141
                $E004 CS#-0,CSI-0,CT-0000000000000000,CSF-00000000,SIOC-0       CCP00142
                $E005 AP-0,CP-0,TK-0,PP-0,CS-0                                  CCP00143
                TITLE 'EQUATES -- COMMON VALUES'                                CCP00144
                $EEQU                                                           CCP00145
                TITLE 'EQUATES -- CCP COMMUNICATIONS AREA'                      CCP00146
                $ECOM ID-0,DF-0                                                 CCP00147
                TITLE 'EQUATES -- TASK CONTROL BLOCK'                           CCP00148
                $ETCB                                                           CCP00149
                TITLE 'EQUATES -- FOR PROGRAM APPENDED STORAGE'                 CCP00150
                $EPAS                                                           CCP00151
                TITLE 'EQUATES -- FOR SYSLOG'                                   CCP00152
                $LOGD                                                           CCP00153
                TITLE 'EQUATES -- FOR SYSTEM COMM AREAS'                        CCP00154
                $EDSM RB-Y,SP-Y                                                 CCP00155
                TITLE 'EQUATES -- TASK COMPLETION CODES'                        CCP00156
                $ETCC DF-0                                                      CCP00157
                TITLE 'EQUATES -- COMMUNICATIONS PARAMETER LIST'                CCP00158
                $ECPL                                                           CCP00159
                TITLE 'EQUATES -- TERMINAL ATTRIBUTES SET'                      CCP00160
                $ETAS                                                           CCP00161
                TITLE 'EQUATES -- TERMINAL UNIT BLOCK'                          CCP00162
                $ETUB                                                           CCP00163
                TITLE 'EQUATES -- LINE CONTROL BLOCK'                           CCP00164
                $ELCB                                                           CCP00165
                TITLE 'EQUATES -- TERMINAL NAME TABLE'                          CCP00166
                $ETNT                                                           CCP00167
                TITLE 'EQUATES -- TRANSLATE/MOVE LIST'                          CCP00168
                $ETML                                                           CCP00169
                TITLE 'CCP COMMON AREA'                                         CCP00170
                $E030 ROC-0,ORF-0,PF-FF                                         CCP00171
                $E060                                                           CCP00172
                $E038 MXL-00000000000000,CON-1                                  CCP00173
                END   $CC4#1                                                    CCP00174
         // CEND                                                                CCP00175
         // COPY   NAME-$CC1#A,LIBRARY-P                                        CCP00176
         ***  USE THE SCP GENERATOR TO PROCESS THIS SOURCE CODE INTO A          CCP00177
         ***  RELOCATABLE MODULE                                                CCP00178
```

```
         ----------------  INPUT TO CCP GENERATION PASS 2  ----------------------

         *                                                                      CCP00179
         // LOAD  $CGDRV,R1                                                     CCP00180
         // SWITCH  1XXXXXXX                                                    CCP00181
         // FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,RETAIN-S,SHARE-NO            CCP00182
         // FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-040,RETAIN-S,           CCP00183
         //       SHARE-NO                                                      CCP00184
         // FILE  NAME-$WORK2,UNIT-D1,PACK-PID001,TRACKS-040,RETAIN-S,          CCP00185
         //       SHARE-NO                                                      CCP00186
         // RUN                                                                 CCP00187
         // CEND                                                                CCP00188
         // COPY   NAME-$CC1L1,LIBRARY-P                                        CCP00189
         ***  USE THE OVERLAY LINKAGE EDITOR TO FORM THE FIRST RESIDENT MODULE   CCP00190
         ***  AS A LOAD MODULE NAMED $CC4#1.                                    CCP00191
         *                                                                      CCP00192
         // LOAD  $OLINK,R1                                                     CCP00193
         // FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-100,RETAIN-S,         CCP00194
         //       SHARE-NO                                                      CCP00195
         // FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-040,RETAIN-S,           CCP00196
         //       SHARE-NO                                                      CCP00197
         // RUN                                                                 CCP00198
         // OPTIONS  ENTRY-$CC4II,MAP-XREF,LEVEL-4                             CCP00199
         // PHASE  NAME-$CC4#1,UNIT-F2,RETAIN-R,LINKADD-X'4600',RLD-NO          CCP00200
         // CATEGORY NAME-$CC4V1,VALUE-100                                      CCP00201
         // INCLUDE  NAME-'$CC4#1,$CC4MS,$CC4V1',UNIT-R1                        CCP00202
         // INCLUDE  NAME-$CC4MV,UNIT-R1                                        CCP00203
         // INCLUDE  NAME-$CC4TI,UNIT-R1                                        CCP00204
         // INCLUDE  NAME-$CC4OC,UNIT-R1                                        CCP00205
         // INCLUDE  NAME-$CC4CP,UNIT-R1                                        CCP00206
         // INCLUDE NAME-$CC4PI,UNIT-R1                                         CCP00207
         // END                                                                 CCP00208
         // CEND                                                                CCP00209
         // COPY   NAME-$CC1VT,LIBRARY-P                                        CCP00210
         ***  USE THE MACRO PROCESSOR TO EXPAND SOURCE CODE OF THE ADDRESS       CCP00211
         ***  VECTOR TABLE - $CC4VT                                             CCP00212
         *                                                                      CCP00213
         // LOAD  $MPXDV,R1                                                     CCP00214
         // FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-50,RETAIN-T,          CCP00215
         //       SHARE-NO                                                      CCP00216
         // COMPILE UNIT-R1,SOURCE-$CC1VT                                       CCP00217
         // RUN                                                                 CCP00218
         // CEND                                                                CCP00219
         // COPY   NAME-$CC1VT,LIBRARY-S                                        CCP00220
         $CC4VT TITLE 'ADDRESS -- VECTOR -- TABLE'                              CCP00221
         $CC4VT START 0                                                         CCP00222
                $E000 #M-0,#B-1,DF-0,DE-0,MS-0                                  CCP00223
                $E002 ML-00,MT-000,MF-0,MS-0                                    CCP00224
                $E003 BL-0010,BF-00100100,BT-0100010000000000,INP-1,BIA-1,BY-0  CCP00225
                $E005 AP-0,CP-0,TK-0,PP-0,CS-0                                  CCP00226
                $E033 MD1-00000000,MD2-00000000,MD3-0000,BF-00100100            CCP00227
                END   $CC4VT                                                    CCP00228
         // CEND                                                                CCP00229
         // COPY   NAME-$CC1VS,LIBRARY-P                                        CCP00230
         ***  USE THE SCP GENERATOR TO PROCESS THIS SOURCE CODE INTO A           CCP00231
         ***  RELOCATABLE MODULE - $CC4VT                                       CCP00232
         *                                                                      CCP00233
```

```
         ----------------  INPUT TO CCP GENERATION PASS 2  ----------------------

         // LOAD  $CGDRV,R1                                                    CCP00234
         // SWITCH  1XXXXXXX                                                   CCP00235
         // FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,RETAIN-S,                   CCP00236
         //       SHARE-NO                                                     CCP00237
         // FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-040,RETAIN-S,          CCP00238
         //       SHARE-NO                                                     CCP00239
         // FILE  NAME-$WORK2,UNIT-D1,PACK-PID001,TRACKS-040,RETAIN-S,         CCP00240
         //       SHARE-NO                                                     CCP00241
         // RUN                                                                CCP00242
         // CEND                                                               CCP00243
         // COPY   NAME-$CC1#2,LIBRARY-P                                       CCP00244
         ***  USE THE MACRO PROCESSOR TO EXPAND SOURCE CODE OF THE SECOND      CCP00245
         ***  RESIDENT MODULE - $CC4#2                                         CCP00246
         *                                                                     CCP00247
         // LOAD  $MPXDV,R1                                                    CCP00248
         // FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-180,RETAIN-T,        CCP00249
         //       SHARE-NO                                                     CCP00250
         // COMPILE UNIT-R1,SOURCE-$CC1#2                                      CCP00251
         // RUN                                                                CCP00252
         // CEND                                                               CCP00253
         // COPY   NAME-$CC1#2,LIBRARY-S                                       CCP00254
         $CC4#2 TITLE 'BEGIN CCP COMMUNICATIONS CONTROL MODULE'               CCP00255
         $CC4#2 START 0                        CCP COMMUNICATIONS CNTRL MODULE CCP00256
                $E000 #M-0,#B-1,DF-0,DE-0,MS-0,RF-0,RS-0                      CCP00257
                $E002 ML-00,MT-000,MF-0,MS-0                                  CCP00258
                $E003 BL-0010,BF-00100100,BT-0100010000000000,INP-1,BIA-1,BY-0 CCP00259
                $E004 CS#-0,CSI-0,CT-0000000000000000,CSF-00000000,SIOC-0     CCP00260
                $E005 AP-0,CP-0,TK-0,PP-0,CS-0                                CCP00261
                TITLE 'EQUATES -- COMMON VALUES'                              CCP00262
                $EEQU                                                         CCP00263
                TITLE 'EQUATES -- CCP COMMUNICATIONS AREA'                    CCP00264
                $ECOM ID-0,DF-0,CP-Y,AM-Y,TM-Y,CM-Y                           CCP00265
                TITLE 'EQUATES -- TASK CONTROL BLOCK'                         CCP00266
                $ETCB                                                         CCP00267
                TITLE 'EQUATES -- DSM TCB'                                    CCP00268
                $EDSM NP-Y,NC-Y,SP-N                                          CCP00269
                TITLE 'EQUATES -- COMMUNICATIONS PARAMETER LIST'              CCP00270
                $ECPL RTNCD-EXCP                                              CCP00271
                TITLE 'EQUATES -- TERMINAL ATTRIBUTES SET'                    CCP00272
                $ETAS                                                         CCP00273
                TITLE 'EQUATES -- TERMINAL UNIT BLOCK'                        CCP00274
                $ETUB                                                         CCP00275
                TITLE 'EQUATES -- LINE CONTROL BLOCK'                         CCP00276
                $ELCB MLTA-0,BSCA-1                                           CCP00277
                TITLE 'EQUATES -- TRANSLATE/MOVE LIST'                        CCP00278
                $ETML                                                         CCP00279
                TITLE 'EQUATES -- BSCA COMMON VALUES'                         CCP00280
                $EBEQ IOB-Y,WKA-Y,POL-Y,CKL-Y,CMD-CM,MIN-Y                    CCP00281
                TITLE 'EQUATES -- BSCA DTF'                                   CCP00282
                $DTOB                                                         CCP00283
                $E038 MXL-00000000000000                                      CCP00284
                $E070                                                         CCP00285
                $E072                                                         CCP00286
                $E080                                                         CCP00287
                $E085                                                         CCP00288
```

```
         ---------------  INPUT TO CCP GENERATION PASS 2  ----------------------

                $E090                                                          CCP00289
                $E092                                                          CCP00290
                $E093                                                          CCP00291
                $E095                                                          CCP00292
                END   $CC4#2                                                   CCP00293
         // CEND                                                               CCP00294
         // COPY   NAME-$CC1#B,LIBRARY-P                                       CCP00295
         ***  USE THE SCP GENERATOR TO PROCESS THIS SOURCE CODE INTO A          CCP00296
         ***  RELOCATABLE MODULE - $CC4#2                                       CCP00297
         *                                                                      CCP00298
         // LOAD  $CGDRV,R1                                                    CCP00299
         // SWITCH  1XXXXXXX                                                   CCP00300
         // FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,RETAIN-S,SHARE-NO           CCP00301
         // FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-050,RETAIN-S,          CCP00302
         //       SHARE-NO                                                     CCP00303
         // FILE  NAME-$WORK2,UNIT-D1,PACK-PID001,TRACKS-050,RETAIN-S,         CCP00304
         //       SHARE-NO                                                     CCP00305
         // RUN                                                                CCP00306
         // CEND                                                               CCP00307
         // COPY   NAME-$CC1LE,LIBRARY-P                                       CCP00308
         // LOAD  $OLINK,R1    LINKEDIT $CC4#2                                 CCP00309
         // FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-100,RETAIN-S,        CCP00310
         //       SHARE-NO                                                     CCP00311
         // FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-040,RETAIN-S,          CCP00312
         //       SHARE-NO                                                     CCP00313
         // RUN                                                                CCP00314
         // OPTIONS  ENTRY-$CC4CM,MAP-XREF,LEVEL-4                             CCP00315
         // PHASE  NAME-$CC4#2,UNIT-F2,RETAIN-R,LINKADD-X'0000'                CCP00316
         // CATEGORY NAME-$CC4V2,VALUE-100                                     CCP00317
         // INCLUDE  NAME-'$CC4VT,$CC4#2,$CC4V2',UNIT-R1                       CCP00318
         // INCLUDE  NAME-'$CC4IB,$CC4BT',UNIT-R1                              CCP00319
         // INCLUDE  NAME-$CC4M1,UNIT-R1                                       CCP00320
         // INCLUDE  NAME-$$BSLG,UNIT-F1                                       CCP00321
         // INCLUDE  NAME-$$BSID,UNIT-F1                                       CCP00322
         // END                                                                CCP00323
         // CEND                                                               CCP00324
         // COPY   NAME-$CC1BT,LIBRARY-P                                       CCP00325
         ***  USE THE OVERLAY LINKAGE EDITOR TO CREATE THE LOADABLE BSCA TRACE  CCP00326
         ***  SERVICE AID                                                       CCP00327
         *                                                                      CCP00328
         // LOAD  $OLINK,R1                                                    CCP00329
         // FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-100,RETAIN-S,        CCP00330
         //       SHARE-NO                                                     CCP00331
         // FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-40,RETAIN-S,           CCP00332
         //       SHARE-NO                                                     CCP00333
         // RUN                                                                CCP00334
         // PHASE  NAME-$CC$BS,UNIT-F2,RETAIN-R                                CCP00335
         // OPTIONS  LEVEL-4                                                   CCP00336
         // INCLUDE  NAME-$CC$BS,UNIT-R1                                       CCP00337
         // INCLUDE  NAME-$$BSTT,UNIT-F1                                       CCP00338
         // END                                                                CCP00339
         // CEND                                                               CCP00340
         // COPY   NAME-$CC1C1,LIBRARY-P                                       CCP00341
```

```
         ----------------  INPUT TO CCP GENERATION PASS 2  ----------------------

         *     ---  COPY REQUIRED LOAD MODULES FOR ALL STAGES OF CCP  ---        CCP00342
         *                                                                       CCP00343
         // LOAD  $MAINT,F1                                                      CCP00344
         // RUN                                                                  CCP00345
         // COPY  FROM-R1,TO-F2,LIBRARY-O,RETAIN-R,NAME-$CC1BF                   CCP00346
         // COPY  FROM-R1,TO-F2,LIBRARY-O,RETAIN-R,NAME-$CC1DP                   CCP00347
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCPAS                   CCP00348
         // COPY  FROM-R1,TO-F2,LIBRARY-O,RETAIN-R,NAME-$CCHRA,NEWNAME-$CCTRA    CCP00349
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCY.ALL,NEWNAME-$CC2    CCP00350
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCPAL                   CCP00351
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-CCPPGM                   CCP00352
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$HACCP                   CCP00353
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCUUN,NEWNAME-$CC4UN    CCP00354
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCP                     CCP00355
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CC3.ALL                 CCP00356
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CC4SU                   CCP00357
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CC4YA                   CCP00358
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCS.ALL,NEWNAME-$CC4    CCP00359
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCT.ALL,NEWNAME-$CC4    CCP00360
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCE.ALL,NEWNAME-$CC4    CCP00361
         // END                                                                  CCP00362
         // CEND                                                                 CCP00363
         // COPY   NAME-$CC1C3,LIBRARY-P                                         CCP00364
         // LOAD  $MAINT,F1                                                      CCP00365
         // RUN                                                                  CCP00366
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCC.ALL,NEWNAME-$CC4    CCP00367
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCB.ALL,NEWNAME-$CC4    CCP00368
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCI.ALL,NEWNAME-$CC4    CCP00369
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCG.ALL,NEWNAME-$CC4    CCP00370
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCR.ALL,NEWNAME-$CC4    CCP00371
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCA.ALL,NEWNAME-$CC4    CCP00372
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCO.ALL,NEWNAME-$CC4    CCP00373
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCL.ALL,NEWNAME-$CC4    CCP00374
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCX.ALL,NEWNAME-$CC4    CCP00375
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CC5SH                   CCP00376
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CC5CL                   CCP00377
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCPDD                   CCP00378
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-CCPIVP                   CCP00379
         // COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CC6.ALL,NEWNAME-$CCP    CCP00380
         // COPY  FROM-R1,TO-F2,LIBRARY-S,NAME-$CGSST,RETAIN-R                   CCP00381
         // END                                                                  CCP00382
         // CEND                                                                 CCP00383
         // COPY   NAME-$CC1AS,LIBRARY-P                                         CCP00384
         ***  COPY MACRO DEFINITIONS AND ANY REQUIRED SUBROUTINES FOR USE WITH   CCP00385
         ***  BASIC ASSEMBLER TO PROGRAM PREPARATION PACK                        CCP00386
         *                                                                       CCP00387
         // PAUSE  ASSURE BASIC ASSEMBLER PACK ON UNIT F1 -- THEN CONTINUE       CCP00388
         // LOAD  $MAINT,F1                                                      CCP00389
         // RUN                                                                  CCP00390
         // COPY  FROM-R1,TO-F1,RETAIN-R,LIBRARY-S,NAME-$N.ALL                   CCP00391
         // END                                                                  CCP00392
         // CEND                                                                 CCP00393
         // COPY   NAME-$CC1RG,LIBRARY-P                                         CCP00394
         ***  COPY SUBROUTINES FOR USE WITH RPG II TO PROGRAM PREPARATION PACK   CCP00395
         *                                                                       CCP00396
```

```
         ----------------  INPUT TO CCP GENERATION PASS 2  ----------------------

         // PAUSE  ASSURE RPG II PROGRAM PACK ON UNIT F1 -- THEN CONTINUE        CCP00397
         // LOAD  $MAINT,F1                                                     CCP00398
         // RUN                                                                 CCP00399
         // COPY  FROM-R1,TO-F1,RETAIN-R,LIBRARY-R,NAME-SUBR.ALL                CCP00400
         // END                                                                 CCP00401
```

```
         ----------------  INPUT TO CCP GENERATION PASS 2  ----------------------

         // CEND                                                                CCP00402
         // COPY   NAME-$CC1ND,LIBRARY-P                                        CCP00403
         *                                                                      CCP00404
         ***    PRINT SAMPLE ASSIGNMENT SET TO BE USED WITH INSTALLATION        CCP00405
         ***    VERIFICATION PROGRAM                                            CCP00406
         *                                                                      CCP00407
         // LOAD  $MAINT,F1                                                     CCP00408
         // RUN                                                                 CCP00409
         // COPY  FROM-R1,TO-PRINT,LIBRARY-S,NAME-$CGSST                        CCP00410
         // COPY  FROM-R1,TO-PRINT,LIBRARY-S,NAME-$CGCND                        CCP00411
         // END                                                                 CCP00412
         // CEND                                                                CCP00413
         // COPY   NAME-$CC1BF,LIBRARY-P                                        CCP00414
```

```
         ----------------  INPUT TO CCP GENERATION PASS 2  ----------------------

         *     ---  ALLOCATE $CCPFILE AND WRITE INITIAL CONTENTS  ---            CCP00415
         *                                                                      CCP00416
         ***  EXECUTE THE PREVIOUSLY CREATED LOAD MODULE $CC1BF TO WRITE THE    CCP00417
         ***  INITIAL CONTENTS OF $CCPFILE                                      CCP00418
         *                                                                      CCP00419
         // PAUSE  ASSURE UNIT F2 CONTAINS PACK F2F2F2 -- THEN CONTINUE         CCP00420
         // LOAD  $CC1BF,R1                                                     CCP00421
         // FILE  NAME-$CCPFILE,UNIT-F2,PACK-F2F2F2,TRACKS-2,RETAIN-P,          CCP00422
         //       SHARE-NO                                                      CCP00423
         // RUN                                                                 CCP00424
         // CEND                                                                CCP00425
         // COPY   NAME-$CC1DP,LIBRARY-P                                        CCP00426
```

```
         ----------------  INPUT TO CCP GENERATION PASS 2  ----------------------

         *     ---  ALLOCATE $CCPDUMP AND WRITE INITIAL CONTENTS  ---            CCP00427
         *                                                                      CCP00428
         ***  EXECUTE THE LOAD MODULE $CC1DP TO WRITE THE INTITIAL              CCP00429
         ***  CONTENTS OF $CCPDUMP                                              CCP00430
         *                                                                      CCP00431
         // PAUSE  ASSURE UNIT D2 CONTAINS PACK PID001 -- THEN CONTINUE         CCP00432
         *** IF CCP WILL BE EXECUTED ON A SYSTEM HAVING A DIFFERENT MAIN STORAGE CCP00433
         *** SIZE, $CCPDUMP MUST BE RECREATED ON THAT SYSTEM USING $CC1DP.     CCP00434
         // LOAD  $CC1DP,R1                                                     CCP00435
         // FILE NAME-$CCPDUMP,UNIT-D2,PACK-PID001,TRACKS-49,                   CCP00436
         //      SHARE-NO,RETAIN-P                                              CCP00437
         // RUN                                                                 CCP00438
         // TRACE TRACKS-6                                                      CCP00439
         // CEND                                                                CCP00440
```

```
         ----------------  INPUT TO CCP GENERATION PASS 2  ----------------------

         // COPY   NAME-$CCPSA,LIBRARY-P                                    CCP00441
         ***  PERFORM CCP GENERATION PASS 2  ***                             CCP00442
         *                                                                   CCP00443
         //   CALL  $CC1FC,R1          *** ASSEMBLE $CC1FC                  CCP00444
         //   CALL  $CC1LC,R1          *** CREATE R-MODULE $CC1FC           CCP00445
         //   CALL  $CC1#1,R1          *** EXPAND $CC4#1 MOCROS             CCP00446
         //   CALL  $CC1#A,R1          *** ASSEMBLE $CC4#1                  CCP00447
         //   CALL  $CC1L1,R1          *** CREATE $CC4#1                    CCP00448
         //   CALL  $CC1VT,R1          *** EXPAND $CC4VT MACROS             CCP00449
         //   CALL  $CC1VS,R1          *** ASSEMBLEC$CC4VT                  CCP00450
         //   CALL  $CC1#2,R1          *** EXPAND $CC4#2 MACROS             CCP00451
         //   CALL  $CC1#B,R1          *** ASSEMBLE $CC4#2                  CCP00452
         //   CALL  $CC1LE,R1          *** CREATE $CC4#2                    CCP00453
         //   CALL  $CC1BT,R1          *** CREATE BSCA TRACE MODULE         CCP00454
         //   CALL  $CC1C1,R1          *** COPY REQUIRED CCP MODULES        CCP00455
         //   CALL  $CC1C3,R1          *** COPY REQUIRED CCP MODULES        CCP00456
         //   CALL  $CC1AS,R1          *** COPY ASSEMBLER MODULES           CCP00457
         //   CALL  $CC1RG,R1          *** COPY RPGII MODULES               CCP00458
         //   CALL  $CC1ND,R1          *** COPY SAMPLE ASSIGNMENT           CCP00459
         //   CALL  $CC1BF,R1          *** CREATE $CCPFILE                  CCP00460
         //   CALL  $CC1DP,R1          *** CREATE $CCPDUMP FILE             CCP00461
         //   CEND                                                          CCP00462
         //   END                                                           CCP00463
```

---------- INPUT TO CCP GENERATION PASS 2 ----------

$MAINT WILL NOW BUILD SOURCE AND PROCEDURE MEMBERS FOR GENERATION PASS 2

```
  1 CT EJ    I               $CC1PP01
PROGRAM END
```

```
*                                                                       00308
***  CCP CARDLESS GENERATION PROCEDURE  ***                             05020
*                                                                       05030
***  IF NO ERRORS IN GENERATION SPECIFICATIONS, LOAD $MAINT TO CREATE    05040
***  SOURCE AND PROCEDURE MEMBERS THAT WILL COMPLETE THE CCP GENERATION  05050
*                                                                       05060
// LOAD $MAINT,F1                                                     ++05070
// FILE NAME-$SOURCE,UNIT-F2,PACK-F2F2F2,RETAIN-S,SHARE-NO           ##$$05080
// RUN                                                                 05090
// COPY FROM-DISK,TO-R1,RECL-96,RETAIN-R,FILE-$SOURCE                  05100
XX COPY   NAME-$CC1FC,LIBRARY-P                                     CCP00000
XX COPY   NAME-$CC1FC,LIBRARY-S                                     CCP00022
XX COPY   NAME-$CC1LC,LIBRARY-P                                     CCP00106
XX COPY   NAME-$CC1#1,LIBRARY-P                                     CCP00123
XX COPY   NAME-$CC1#1,LIBRARY-S                                     CCP00135
XX COPY   NAME-$CC1#A,LIBRARY-P                                     CCP00176
XX COPY   NAME-$CC1L1,LIBRARY-P                                     CCP00189
XX COPY   NAME-$CC1VT,LIBRARY-P                                     CCP00210
XX COPY   NAME-$CC1VT,LIBRARY-S                                     CCP00220
XX COPY   NAME-$CC1VS,LIBRARY-P                                     CCP00230
XX COPY   NAME-$CC1#2,LIBRARY-P                                     CCP00244
XX COPY   NAME-$CC1#2,LIBRARY-S                                     CCP00254
XX COPY   NAME-$CC1#B,LIBRARY-P                                     CCP00295
XX COPY   NAME-$CC1LE,LIBRARY-P                                     CCP00308
XX COPY   NAME-$CC1BT,LIBRARY-P                                     CCP00325
XX COPY   NAME-$CC1C1,LIBRARY-P                                     CCP00341
XX COPY   NAME-$CC1C3,LIBRARY-P                                     CCP00364
XX COPY   NAME-$CC1AS,LIBRARY-P                                     CCP00384
XX COPY   NAME-$CC1RG,LIBRARY-P                                     CCP00394
XX COPY   NAME-$CC1ND,LIBRARY-P                                     CCP00403
XX COPY   NAME-$CC1BF,LIBRARY-P                                     CCP00414
XX COPY   NAME-$CC1DP,LIBRARY-P                                     CCP00426
XX COPY   NAME-$CCPSA,LIBRARY-P                                     CCP00441
XX   END                                                            CCP00463
// END
```

```
  1 CT EJ    I               $MAINT01
PROGRAM END
```

```
*
// READER CONSOLE
// CALL $CCPSA,R1


***  PERFORM CCP GENERATION PASS 2  ***                                  CCP00442
*                                                                        CCP00443
XX   CALL  $CC1FC,R1          *** ASSEMBLE $CC1FC                        CCP00444
*     ---  PREPARE THE INITIAL CONTENTS OF $CCPFILE  ---                 CCP00001
*                                                                        CCP00002
***  FIRST, USE THE SCP GENERATOR TO CONVERT THE CONTENTS OF THE         CCP00003
***  CCP CONFIGURATION RECORD AND THE ASSIGNMENT DIRECTORY TO ENCODED    CCP00004
***  FORM -- SAVE THIS ENCODED INFORMATION AS A RELOCATABLE MODULE       CCP00005
***  NAMED $CC1FC -- THE INFORMATION WILL LATER BE WRITTEN TO THE        CCP00006
***  FIRST TWO SECTORS OF $CCPFILE AS THE CCP CONFIGURATION RECORD       CCP00007
***  AND THE ASSIGNMENT SET DIRECTORY                                    CCP00008
*                                                                        CCP00009
XX NOHALT                                                               CCP00010
XX LOAD  $CGDRV,R1                                                      CCP00011
XX SWITCH 0XXXXXXX                                                      CCP00012
XX FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-10,RETAIN-S,           CCP00013
XX       SHARE-NO                                                       CCP00014
XX FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-5,RETAIN-S,              CCP00015
XX       SHARE-NO                                                       CCP00016
XX FILE  NAME-$WORK2,UNIT-D1,PACK-PID001,TRACKS-5,RETAIN-S,             CCP00017
XX       SHARE-NO                                                       CCP00018
XX COMPILE UNIT-R1,SOURCE-$CC1FC                                        CCP00019
XX RUN                                                                  CCP00020
// RUN  $CCPSA,R1
```

```
$CC1FC                          EXTERNAL SYMBOL LIST

SYMBOL   TYPE                                          SCP GENERATOR  08/08/10  PAGE   1

$CC1FC   MODULE
$CC1BF   EXTRN
```

```
$CC1FC CCP CONFIGURATION RECORD AND DIRECTORY

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE   2

    0000                         2 $CC1FC START 0                        MODULE NAME                        CCP00024
                         0001    3        EXTRN $CC1BF                   REFERENCE TO MODULE WHICH INITS    CCP00025
```

```
ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE   3

                            5 ************************************************************** CCP00027
                            6 *        C  C  P   C O N F I G U R A T I O N   R E C O R D     * CCP00028
                            7 ************************************************************** CCP00029


                            9 * THIS SET OF 256 BYTES -- A SECTOR ON DISK -- INDICATES TO CCP THOSE   CCP00031
                           10 *   DEVICES AND SYSTEM FACILITIES YOU SPECIFIED DURING CCP GENERATION   CCP00032

    0000 EBD7              0001   12 CFGVRF DC    XL2'EBD7'                TWO BYTES *ALWAYS* HEX 'EBD7'    CCP00034

    0002 00                0002   14 CFGCA1 DC    BL1'00000000'            BSCC FACILITIES BYTE ONE         CCP00036
    0003 00                0003   15 CFGCA2 DC    BL1'00000000'            FACILITIES BYTE TWO              CCP00037
    0004 1E                0004   16 CFGRSM DC    XL1'1E'                  RECORD SEPARATOR BYTE (BSCC)     CCP00038
    0005 00                0005   17 CFGYD1 DC    BL1'00000000'            BSCC DEVICES--BYTE 1             CCP00039
    0006 00                0006   18 CFGYD2 DC    BL1'00000000'            BSCC DEVICES--BYTE 2             CCP00040
    0007 00                0007   19 CFGTP1 DC    AL1(0)                   NUMBER OF BSCC LINES             CCP00041

    0008 10                0008   21 CFGFA2 DC    BL1'00010000'            FACILITIES--BYTE 2               CCP00043
    0009 00                0009   22 CFGFLA DC    BL1'00000000'            CCP FLAG A                       CCP00044
    000A C8                000A   23 CFGDPQ DC    XL1'C8'                  Q-BYTE OF $CCPDUMP FILE          CCP00045
    000B 30                000B   24 CFGPLG DC    BL1'00110000'            PROGRAMMING LANGUAGES SUPPORTED  CCP00046

    000C 00C7              000D   26 CFGCBO DC    XL2'00C7'                CONSOLE INTERRUPT BRANCH OFFSET  CCP00048
    000E 404040404040      0013   27 CFGESC DC    CL6' '                   *NO* DATA MODE ESCAPE STRING     CCP00049
    0014 0000              0015   28 CFGLUS DC    IL2'0'                   LENGTH OF USER SECURITY DATA     CCP00050
    0016 00000000          0019   29 CFGRV3 DC    4XL1'00'                 *RESERVED*                       CCP00051

    001A 03                001A   31 CFGNS  DC    IL1'3'                   MAX NUMBER SETS                  CCP00053
    001B 000F              001C   32 CFGNPM DC    IL2'15'                  MAX NUMBER PROGRAMS              CCP00054
    001D 05                001D   33 CFGNDF DC    IL1'5'                   MAX NUMBER DISK FILES            CCP00055
    001E 05                001E   34 CFGNT  DC    IL1'5'                   MAX NUMBER TERMINALS             CCP00056
    001F 02                001F   35 CFGDMP DC    IL1'2'                   MAX NUMBER CORE DUMPS            CCP00057
    0020 0400              0021   36 CFGSC  DC    IL2'1024'                MEMORY # SECTORS (384-2048)      CCP00058
    0022 000000            0024   37 CFGRV4 DC    3XL1'00'                 *RESERVED*                       CCP00059

    0025 01                0025   39 CFGTP  DC    AL1(16*0+1)              NUMBER COMMUNICATIONS LINES      CCP00061

    0026 00                0026   41 CFGMD1 DC    BL1'00000000'            MLTA DEVICES--BYTE 1             CCP00063
    0027 00                0027   42 CFGMD2 DC    BL1'00000000'            MLTA DEVICES--BYTE 2             CCP00064
    0028 00                0028   43 CFGMD3 DC    BL1'00000000'            MLTA DEVICES--BYTE 3             CCP00065
    0029 0000              002A   44 CFGRV5 DC    2XL1'00'                 *RESERVED*                       CCP00066
    002B 00                002B   45 CFGMXC DC    BL1'00000000'            MLTA TRANSMISSION CODES          CCP00067
    002C 0000              002D   46 CFGRV6 DC    2XL1'00'                 *RESERVED*                       CCP00068

    002E 20                002E   48 CFGBLT DC    BL1'00100000'            BSC LINE TYPES SUPPORTED         CCP00070
    002F 24                002F   49 CFGBFA DC    BL1'00100100'            BSC FACILITIES                   CCP00071
    0030 80                0030   50 CFGBF1 DC    BL1'10000000'            BSC FACILITIES CONTINUED         CCP00072
    0031 00                0031   51 CFGRV7 DC    1XL1'00'                 *RESERVED*                       CCP00073
    0032 1E                0032   52 CFGRSB DC    XL1'1E'                  RECORD SEPARATOR BYTE (BSCA)     CCP00074
    0033 44                0033   53 CFGBD1 DC    BL1'01000100'            BSCA DEVICES--BYTE 1             CCP00075
    0034 00                0034   54 CFGBD2 DC    BL1'00000000'            BSCA DEVICES--BYTE 2             CCP00076


    0035 FFFFFFFFFFFFFFFF  00FF   57        DC    203XL1'FF'               FILLED WITH HEX 'FF'             CCP00079
    003D FFFFFFFFFFFFFFFF         57
    0045 FFFFFFFFFFFFFFFF         57
```

```
ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE   4

    004D FFFFFFFFFFFFFFFF        57
    0055 FFFFFFFFFFFFFFFF        57
    005D FFFFFFFFFFFFFFFF        57
    0065 FFFFFFFFFFFFFFFF        57
    006D FFFFFFFFFFFFFFFF        57
    0075 FFFFFFFFFFFFFFFF        57
    007D FFFFFFFFFFFFFFFF        57
    0085 FFFFFFFFFFFFFFFF        57
    008D FFFFFFFFFFFFFFFF        57
    0095 FFFFFFFFFFFFFFFF        57
    009D FFFFFFFFFFFFFFFF        57
    00A5 FFFFFFFFFFFFFFFF        57
    00AD FFFFFFFFFFFFFFFF        57
    00B5 FFFFFFFFFFFFFFFF        57
    00BD FFFFFFFFFFFFFFFF        57
    00C5 FFFFFFFFFFFFFFFF        57
    00CD FFFFFFFFFFFFFFFF        57
    00D5 FFFFFFFFFFFFFFFF        57
    00DD FFFFFFFFFFFFFFFF        57
    00E5 FFFFFFFFFFFFFFFF        57
    00ED FFFFFFFFFFFFFFFF        57
    00F5 FFFFFFFFFFFFFFFF        57
    00FD FFFFFF                  57
```

```
$CC1FC CCP CONFIGURATION RECORD AND DIRECTORY

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE   5

                                59 ************************************************************** CCP00081
                                60 *           $ C C P F I L E   D I R E C T O R Y              * CCP00082
                                61 ************************************************************** CCP00083



                                63 * THIS SET OF 256 BYTES -- A SECOND SECTOR ON DISK -- SERVES AS A       CCP00085
                                64 *   DIRECTORY TO THE CONTENTS OF THIS FILE FOR THE CCP ASSIGNMENT AND   CCP00086
                                65 *   STARTUP PROGRAMS -- EACH FIELD IS INITIALLY ZERO                    CCP00087

    0100 00               0100   67 DIRNSA DC    IL1'0'                  CURRENT NUMBER ASSIGNMENT SETS   CCP00089
    0101 0000             0102   68 DIRRS1 DC    IL2'0'                  * RESERVED *                     CCP00090
    0103 000000           0105   69 DIRDAT DC    XL3'000000'             DATE LAST MODIFIED               CCP00091
    0106 00               0106   70 DIRDID DC    XL1'00'                 EXECUTION DEFAULT SET            CCP00092
    0107 00               0107   71 DIRNFX DC    XL1'00'                 *** UNUSED ***                   CCP00093
    0108 0000             0109   72 DIRRS2 DC    IL2'0'                  * RESERVED *                     CCP00094
    010A 00               010A   73 DIRRS3 DC    IL1'0'                  * RESERVED *                     CCP00095
    010B 0000             010C   74 DIRBD@ DC    XL2'0000'               LOCATION BEGIN DUMP AREA         CCP00096
    010D 0000             010E   75 DIRED@ DC    XL2'0000'               LOCATION END DUMP AREA           CCP00097
    010F 0000             0110   76 DIRRS5 DC    XL2'0000'               * RESERVED *                     CCP00098

                                78 * ASSIGNMENT SET DIRECTORY ENTRIES START HERE                          CCP00100

    0111 FFFFFFFFFFFFFFFF 01FF   80        DC    239XL1'FF'              INITIALLY UNUSED PORTION         CCP00102
    0119 FFFFFFFFFFFFFFFF        80
    0121 FFFFFFFFFFFFFFFF        80
    0129 FFFFFFFFFFFFFFFF        80
    0131 FFFFFFFFFFFFFFFF        80
    0139 FFFFFFFFFFFFFFFF        80
    0141 FFFFFFFFFFFFFFFF        80
    0149 FFFFFFFFFFFFFFFF        80
    0151 FFFFFFFFFFFFFFFF        80
    0159 FFFFFFFFFFFFFFFF        80
    0161 FFFFFFFFFFFFFFFF        80
    0169 FFFFFFFFFFFFFFFF        80
    0171 FFFFFFFFFFFFFFFF        80
    0179 FFFFFFFFFFFFFFFF        80
    0181 FFFFFFFFFFFFFFFF        80
    0189 FFFFFFFFFFFFFFFF        80
    0191 FFFFFFFFFFFFFFFF        80
    0199 FFFFFFFFFFFFFFFF        80
    01A1 FFFFFFFFFFFFFFFF        80
    01A9 FFFFFFFFFFFFFFFF        80
    01B1 FFFFFFFFFFFFFFFF        80
    01B9 FFFFFFFFFFFFFFFF        80
    01C1 FFFFFFFFFFFFFFFF        80
    01C9 FFFFFFFFFFFFFFFF        80
    01D1 FFFFFFFFFFFFFFFF        80
    01D9 FFFFFFFFFFFFFFFF        80
    01E1 FFFFFFFFFFFFFFFF        80
    01E9 FFFFFFFFFFFFFFFF        80
    01F1 FFFFFFFFFFFFFFFF        80
    01F9 FFFFFFFFFFFFFF          80
```

$CC1FC CCP CONFIGURATION RECORD AND DIRECTORY

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT SCP GENERATOR 08/08/10 PAGE 6

0000 82 END $CC1FC CCP00104

```
$CC1FC                          CROSS REFERENCE

SYMBOL   LEN VALUE DEFN   REFERENCES                              SCP GENERATOR  08/08/10  PAGE   7

$CC1BF   001  0001 0003
$CC1FC   001  0000 0002   0082
CFGBD1   001  0033 0053
CFGBD2   001  0034 0054
CFGBFA   001  002F 0049
CFGBF1   001  0030 0050
CFGBLT   001  002E 0048
CFGCA1   001  0002 0014
CFGCA2   001  0003 0015
CFGCBO   002  000D 0026
CFGDMP   001  001F 0035
CFGDPQ   001  000A 0023
CFGESC   006  0013 0027
CFGFA2   001  0008 0021
CFGFLA   001  0009 0022
CFGLUS   002  0015 0028
CFGMD1   001  0026 0041
CFGMD2   001  0027 0042
CFGMD3   001  0028 0043
CFGMXC   001  002B 0045
CFGNDF   001  001D 0033
CFGNPM   002  001C 0032
CFGNS    001  001A 0031
CFGNT    001  001E 0034
CFGPLG   001  000B 0024
CFGRSB   001  0032 0052
CFGRSM   001  0004 0016
CFGRV3   001  0019 0029
CFGRV4   001  0024 0037
CFGRV5   001  002A 0044
CFGRV6   001  002D 0046
CFGRV7   001  0031 0051
CFGSC    002  0021 0036
CFGTP    001  0025 0039
CFGTP1   001  0007 0019
CFGVRF   002  0001 0012
CFGYD1   001  0005 0017
CFGYD2   001  0006 0018
DIRBD@   002  010C 0074
DIRDAT   003  0105 0069
DIRDID   001  0106 0070
DIRED@   002  010E 0075
DIRNFX   001  0107 0071
DIRNSA   001  0100 0067
DIRRS1   002  0102 0068
DIRRS2   002  0109 0072
DIRRS3   001  010A 0073
DIRRS5   002  0110 0076

TOTAL STATEMENTS IN ERROR IN THIS GENERATION--     0

OL103 I  TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS    3
         NAME-$CC1FC,PACK-R2R2R2,UNIT-R1,RETAIN-P,LIBRARY-R,CATEGORY-000
OL105 I  THE CODE LENGTH OF $CC1FC IS   512 DECIMAL.
```

```
  1 CT EJ    I               $CGDRV01
PROGRAM END
```

```
XX   CALL  $CC1LC,R1          *** CREATE R-MODULE $CC1FC                  CCP00445
***  USE THE OVERLAY LINKAGE EDITOR TO JOIN THE ABOVE MODULE WITH        CCP00107
***  ANOTHER MODULE CAPABLE OF WRITING THE INFORMATION TO $CCPFILE --    CCP00108
***  SAVE THE RESULTING LOAD MODULE $CC1BF ON THE DISTRIBUTION PACK      CCP00109
***  FOR LATER INITIALIZATION OF $CCPFILE                                CCP00110
*                                                                        CCP00111
XX LOAD  $OLINK,F1                                                       CCP00112
XX FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-10,RETAIN-S,            CCP00113
XX       SHARE-NO                                                        CCP00114
XX FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-10,RETAIN-S,              CCP00115
XX       SHARE-NO                                                        CCP00116
XX RUN                                                                   CCP00117
// PHASE  NAME-$CC1BF,UNIT-R1,RETAIN-R,LINKADD-X'4000'                   CCP00118
// OPTIONS  ENTRY-EXECBF,LEVEL-4                                         CCP00119
// INCLUDE  NAME-'$CC1FC,$CC1BF',UNIT-R1                                 CCP00120
// END                                                                   CCP00121
```

```
        OVERLAY LINKAGE EDITOR CORE USAGE MAP    08/08/10


 START    CATEGORY  NAME AND       CODE LENGTH
ADDRESS               ENTRY    HEXADECIMAL DECIMAL

 4000         0     $CC1FC          0200     512
 4200         0     $CC1BF          03DF     991
 4205                 EXECBF


OL100 I  THE TOTAL CORE USED BY $CC1BF IS  1503 DECIMAL.
OL107 I  THE PARTITION SIZE REQUIRED TO EXECUTE THIS PROGRAM IS  08K.
OL101 I  THE START CONTROL ADDRESS OF THIS MODULE IS 4205.
OL104 I  TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS    7
         NAME-$CC1BF,PACK-R2R2R2,UNIT-R1,RETAIN-P,LIBRARY-O
```

```
  1 CT EJ    I               $OLINK01
PROGRAM END
```

```
XX   CALL  $CC1#1,R1          *** EXPAND $CC4#1 MOCROS                  CCP00446
*     ---  CREATE THE EXECUTION STAGE RESIDENT MODULES  ---             CCP00124
*                                                                      CCP00125
***  USE THE MACRO PROCESSOR TO EXPAND SOURCE CODE OF THE FIRST        CCP00126
***  OF THE RESIDENT MODULES - $CC4#1                                  CCP00127
*                                                                      CCP00128
XX LOAD  $MPXDV,R1                                                     CCP00129
XX FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-130,RETAIN-T,         CCP00130
XX       SHARE-NO                                                      CCP00131
XX COMPILE UNIT-R1,SOURCE-$CC1#1                                       CCP00132
XX RUN                                                                 CCP00133
```

```
  1 CT EJ    I               $MPXDV01
PROGRAM END
```

```
XX   CALL  $CC1#A,R1          *** ASSEMBLE $CC4#1                          CCP00447
***  USE THE SCP GENERATOR TO PROCESS THIS SOURCE CODE INTO A             CCP00177
***  RELOCATABLE MODULE                                                   CCP00178
*                                                                         CCP00179
XX LOAD  $CGDRV,R1                                                       CCP00180
XX SWITCH  1XXXXXXX                                                      CCP00181
XX FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,RETAIN-S,SHARE-NO              CCP00182
XX FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-040,RETAIN-S,             CCP00183
XX       SHARE-NO                                                        CCP00184
XX FILE  NAME-$WORK2,UNIT-D1,PACK-PID001,TRACKS-040,RETAIN-S,            CCP00185
XX       SHARE-NO                                                        CCP00186
XX RUN                                                                   CCP00187
```

```
$CC4#1                          EXTERNAL SYMBOL LIST

SYMBOL   TYPE                                          SCP GENERATOR  08/08/10  PAGE   1

$CC4#1   MODULE
$CCCOM   ENTRY
$CC4II   ENTRY
IISTNT   ENTRY
IIBTCB   ENTRY
IIVLNN   ENTRY
IIVLNP   ENTRY
IIIOL    ENTRY
IIVLNI   ENTRY
IIINRT   ENTRY
IINDPD   ENTRY
IIIREQ   ENTRY
IIUPST   ENTRY
IIREND   ENTRY
IITEND   ENTRY
IINDFF   ENTRY
IIQSUB   ENTRY
$CC4IS   ENTRY
ISREQ1   ENTRY
IIVTBL   ENTRY
$CC4TR   EXTRN
$CC4TX   EXTRN
$CC4MS   EXTRN
$CC4GM   EXTRN
$CC4FM   EXTRN
$CC4MX   EXTRN
$CC4MV   EXTRN
$CC4SR   EXTRN
CC4TI2   EXTRN
$CC4CP   EXTRN
$CC4TM   EXTRN
$CCINT   EXTRN
$CCTI2   EXTRN
$CC4IG   EXTRN
XSNT1    EXTRN
XSNT2    EXTRN
XSNT3    EXTRN
$CC4TI   EXTRN
CC4TH    EXTRN
XSNTHT   EXTRN
$CC4PI   EXTRN
$CC4OC   EXTRN
ADDRS1   EXTRN
$CC4V1   EXTRN
```

```
$CC4#1 BEGIN CCP SYSTEM CONTROL MODULE

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE   2

    4600                         2 $CC4#1 START X'4600'                  CCP SYSTEM CONTROL MODULE        CCP00137
                                 3 *      $E000 #M-0,#B-1,DF-0,DE-0,MS-0,RF-0,RS-0                        CCP00138
                                 4 *      $E001 PC-0,SO-10,RR-0,MVT-0,MOV-0                               CCP00139
                                 5 *      $E002 ML-00,MT-000,MF-0,MS-0                                    CCP00140
                                 6 *      $E003 BL-0010,BF-00100100,BT-0100010000000000,INP-1,BIA-1,BY-0  CCP00141
                                 7 *      $E004 CS#-0,CSI-0,CT-0000000000000000,CSF-00000000,SIOC-0       CCP00142
                                 8 *      $E005 AP-0,CP-0,TK-0,PP-0,CS-0                                  CCP00143
```

```
                                10 *      $EEQU                                                          CCP00145
                                11+*********************************************************************
                                12+*                      C O M M O N   S Y M B O L S                  *
                                13+*********************************************************************



                                15+* EQUATES FOR BITS WITHIN A BYTE
                          0080  16+BIT0   EQU   X'80'                    BIT X... ....
                          0040  17+BIT1   EQU   X'40'                    BIT .X.. ....
                          0020  18+BIT2   EQU   X'20'                    BIT ..X. ....
                          0010  19+BIT3   EQU   X'10'                    BIT ...X ....
                          0008  20+BIT4   EQU   X'08'                    BIT .... X...
                          0004  21+BIT5   EQU   X'04'                    BIT .... .X..
                          0002  22+BIT6   EQU   X'02'                    BIT .... ..X.
                          0001  23+BIT7   EQU   X'01'                    BIT .... ...X

                          0000  25+NOBIT  EQU   X'00'                    *NO* BITS ON WITHIN BYTE
                          00FF  26+ALLBIT EQU   X'FF'                    *ALL* BITS WITHIN BYTE

                                28+* SYSTEM DETECTED ERROR CONDITIONS *
                          0000  29+TIFE   EQU   0                        FREEMAIN ERROR
                          0001  30+TIBC   EQU   TIFE+1                   BAD START CODE
                          0002  31+TIRC   EQU   TIBC+1                   BAD RETURN CODE
                          0003  32+TITR   EQU   TIRC+1                   TRANSLATE ERROR
                          0004  33+TIYA   EQU   TITR+1                   NO USER SECURITY
                          0005  34+TIAC   EQU   TIYA+1                   ADAPTER CHECK
                          0006  35+TISS   EQU   TIAC+1                   BAD SENSE STATUS
                          0007  36+TICS   EQU   TISS+1                   PERMANENT BSCC ERROR
                          0008  37+TICR   EQU   TICS+1                   INVALID BSCC RETURN CODE
                          0009  38+TINS   EQU   TICR+1                   STATUS NOT RECEIVED FROM 3270

                          0080  40+WAIT   EQU   BIT0                     WAIT BIT IN ECB
                          0040  41+POST   EQU   BIT1                     POST BIT IN ECB
                          0020  42+SKIP   EQU   BIT2                     SKIP BIT IN ECB



                                44+* REGISTER EQUATES
                          0001  45+XR1    EQU   1                        INDEX REGISTER ONE
                          0002  46+XR2    EQU   2                        INDEX REGISTER TWO
                          0004  47+PSR    EQU   4                        PROGRAM STATUS REGISTER
                          0008  48+ARR    EQU   8                        ADDRESS RECALL REGISTER
                          0010  49+IAR    EQU   16                       PROGRAM LEVEL IAR
                          0030  50+PMR    EQU   48                       PROGRAM MODE REGISTER
                          0040  51+LCPPMR EQU   64                       PROGRAM MODE REG FOR LCP INSTR.

                          0080  53+LVIIAR EQU   X'80'                    DPF INTERRUPT LEVEL IAR
                          0090  54+LVMIAR EQU   X'90'                    MLTA INTERRUPT LEVEL IAR
                          00A0  55+LVBIAR EQU   X'A0'                    BSCA INTERRUPT LEVEL IAR
                          00C0  56+LVCIAR EQU   X'C0'                    CONSOLE INTERRUPT LEVEL IAR



                                58+* Q-BYTE EQUATES FOR BRANCH/NOP
                          0007  59+NOP    EQU   X'07'                    NO-OP
                          0080  60+NOOP   EQU   X'80'                    NO-OP
                          00FF  61+UNCON  EQU   X'FF'                    ALWAYS BRANCH
                          0080  62+BRNOP  EQU   X'80'                    BRANCH NO-OP
```

```
                      0087   63+BR     EQU   X'87'                    ALWAYS BRANCH
                      0097   64+BR97   EQU   X'97'                    BRANCH AND RESET FALSE BIT

                             66+* EQUATES FOR MODIFIED FIELDS IN AN INSTRUCTION

                      0000   68+#      EQU   X'00'                    ANY FIELD
                      0000   69+##     EQU   X'00'                    SINGLE-BYTE FIELD
                      0000   70+###    EQU   X'00'                    ONE- OR TWO-BYTE FIELD
                      0000   71+####   EQU   X'0000'                  TWO-BYTE FIELD


                             73+* CONDITION CODE EQUATES
                      0080   74+ANY    EQU   X'80'                    IF *ANY* CONDITION HOLDS
                      0000   75+NONE   EQU   X'00'                    IF *NO* CONDITION HOLDS
                      0020   76+BOVFL  EQU   X'20'                    BINARY OVERFLOW
                      0010   77+FALSE  EQU   X'10'                    FALSE
                      0008   78+DOVFL  EQU   X'08'                    DECIMAL OVERFLOW
                      0004   79+HI     EQU   X'04'                    FIRST OPERAND HIGH
                      0002   80+LO     EQU   X'02'                    FIRST OPERAND LOW
                      0001   81+EQ     EQU   X'01'                    OPERANDS EQUAL
                      0070   82+PMRI12 EQU   112                      OP2,OP1,I-CYCLE TRANSLATE
                      0040   83+PMROP2 EQU   64                       OPERAND 2 E-CYCLES TRANSLATION
                      0020   84+PMROP1 EQU   32                       OPERAND 1 E-CYCLES TRANSLATION
                      0010   85+PMRINS EQU   16                       INSTRUCTION-CYCLES TRANSLATION
                      0008   86+PMRPRV EQU   8                        PRIVELEGED
                      0002   87+PMRPRT EQU   2                        STORAGE PROTECT
                      0001   88+PMRINT EQU   1                        MASK INTERRUPTS


                             90+* EQUATES FOR TYPES OF CCP TRACE ENTRIES
                      00E7   91+TTTRAN EQU   X'E7'                    TRACE ID FOR TRANSIENT CALLS
                      00E8   92+TTGETM EQU   X'E8'                    TRACE ID FOR GETMAIN
                      00E9   93+TTFREE EQU   X'E9'                    TRACE ID FOR FREEMAIN
                      00EA   94+TTMOPN EQU   X'EA'                    TRACE ID FOR TP CHECK ROUTINE
                      00EB   95+TTMSIO EQU   X'EB'                    TRACE ID FOR MLTA START IO
                      00FB   96+TTBSIO EQU   X'FB'                    TRACE ID FOR BSCA START IO
                      00EC   97+TTII   EQU   X'EC'                    TRACE ID FOR $CC4II
                      00ED   98+TTIS   EQU   X'ED'                    TRACE ID FOR $CC4IS
                      00EE   99+TTIIRT EQU   X'EE'                    RETURN FROM $CC4II TO USER
                      00FC  100+TTDFEN EQU   X'FC'                    TRACE ID FOR ENTRY TO DFF TASK
                      00FE  101+TTDFEX EQU   X'FE'                    TRACE ID FOR EXIT FROM DFF TASK
```

$CC4#1 EQUATES -- CCP COMMUNICATIONS AREA


```
                        103 *      $ECOM ID-0,DF-0                                                CCP00147
                        104+*****************************************************************
                        105+*     C O M M U N I C A T I O N S   C O N T R O L   P R O G R A M     *
                        106+*              C O M M O N   A R E A   O F F S E T S                  *
                        107+*****************************************************************
                  4000  108+TAONE  EQU   X'4000'                    LOCATION OF TRANSIENT AREA 1
                  4300  109+TATWO  EQU   TAONE+768                  LOCATION OF TRANSIENT AREA 2

                  4600  111+$COMON EQU   X'4600'                    ADDRESS OF CCP COMMON


                        113+*-----------ENTRY POINT ADDRESS DEFINITION--------------------------*
                  4601  114+@CC4TR EQU   $COMON-1+2                 TRANSIENT RETURN ADDRESS
                  4603  115+@CC4TX EQU   @CC4TR+2                   TRANSIENT TRANSFER CONTROL @
                  4605  116+@CC4PI EQU   @CC4TX+2                   1ST LEVEL TRANSIENT INVOCATION @
                  4605  117+@CC4TA EQU   @CC4TX+2                   1ST LEVEL TRANSIENT INVOCATION @
                  4607  118+@CC4IS EQU   @CC4TA+2                   COMMUNICATIONS I/O INTERFACE ADR
                  4609  119+@CC4GM EQU   @CC4IS+2                   GETMAIN ENTRY ADDRESS
                  460B  120+@CC4FM EQU   @CC4GM+2                   FREEMAIN ENTRY ADDRESS
                  460D  121+@MLTIO EQU   @CC4FM+2                   MLTA IOCS ENTRY POINT @.
                  460F  122+@MLTOP EQU   @MLTIO+2                   MLTA OPEN ENTRY POINT @.
                  4611  123+@USECW EQU   @MLTOP+2                   USER SECURITY DATA WORK AREA ADR
                  4613  124+@CC4MX EQU   @USECW+2                   MOVE FOREVER ROUTINE ADDRESS
                  4615  125+@C4TI2 EQU   @CC4MX+2                   PROGRAM TERMINATION INTERFACE @
                  4617  126+@CC4TI EQU   @C4TI2+2                   OTHER TASK TERMINATE ADDRESS
                  4619  127+@CC4SR EQU   @CC4TI+2                   ENTRY ADDRESS IN MOVE ROUTINE
                  461B  128+@CC4TH EQU   @CC4SR+2                   @ TERMINATION INTERFACE
                  461D  129+@BTRAC EQU   @CC4TH+2                   CCP BSCA TRACE ROUTINE
                  461F  130+@MTRAC EQU   @BTRAC+2                   CCP MLTA TRACE ROUTINE


                        132+*------------TRANSIENT COMMUNICATION AREA-----------------------------*
                  4621  133+SV1TAX EQU   @MTRAC+2                   TRANSIENT AREA 1 PARAMETER AREA
                  4623  134+SV2TAX EQU   SV1TAX+2                   TRANSIENT AREA 2 PARAMETER AREA


                        136+*----------- ADDRESSES OF SYSTEM TASK CONTROL BLOCKS -----------------*
                  4625  137+@CMTCB EQU   SV2TAX+2                   @ COMMUNICATIONS MANAGEMENT TCB
                  4627  138+@DFTCB EQU   @CMTCB+2                   @ OF DISPLAY FORMAT FACILITY TCB
                  4629  139+@TMTCB EQU   @DFTCB+2                   @ TERMINATION TCB
                  462B  140+@CPTCB EQU   @TMTCB+2                   @ COMMAND PROCESSOR TCB
                  462D  141+@AVTCB EQU   @CPTCB+2                   @ AVAILABLE TCB'S
```

```
                                143+*----------- SYSTEM LEVEL FLAGS ------------------------------------*
                           462E  144+$FLGA  EQU   @AVTCB+1                  FIRST SYSTEM LEVEL FLAG BYTE
                           0080  145+#DFFOK EQU   BIT0                      DFF IS SUPPORTED
                           0040  146+CPSOB1 EQU   BIT1                      SIGN ON PASSWORD REQUIRED
                           0020  147+CPSOB2 EQU   BIT2                      SIGN ON USER PASSWORD REQUIRED
                           0010  148+CPSHUT EQU   BIT3                      SHUTDOWN HAS BEEN REQUESTED
                           0008  149+CPSU   EQU   BIT4                      STARTUP IS IN PROCESS
                           0004  150+#EPL   EQU   BIT5                      EXT POINT LIST SUPPORTED
                           0002  151+CPSHD  EQU   BIT6                      SHUTDOWN IN PROCESS
                           0001  152+CPISNW EQU   BIT7                      $CC4IS IS NOT TO ISSUE WAIT
                                 153+*                                     AFTER POSTING $CC4CM


                           462F  155+$FLGB  EQU   $FLGA+1                  SECOND SYSTEM LEVEL FLAG BYTE
                           0080  156+#SUALL EQU   BIT0                      SUSPEND ALL IN EFFECT
                           0040  157+#SUINT EQU   BIT1                      SUSPEND INIT IN EFFECT
                           0020  158+#SUCMD EQU   BIT2                      SUSPEND COMMANDS IN EFFECT
                           0010  159+CPSHDP EQU   BIT3                      SHUTDOWN IS PENDING
                           0008  160+#FEHLT EQU   BIT4                      FEHALT IS RUNNING
                           0004  161+#RESPR EQU   BIT5                      RESIDENT PROGRAM REQUEST GEN'D
                           0002  162+#CPCAN EQU   BIT6                      CCP CANCEL RECEIVED
                           0001  163+#PUCNT EQU   BIT7                      PROGRAM USE COUNTING IS ON


                           4630  165+$FLGC  EQU   $FLGB+1                  THIRD SYSTEM LEVEL FLAG BYTE
                           0080  166+#MTRAC EQU   BIT0                      MLTA TRACE IS ON
                           0040  167+#BTRAC EQU   BIT1                      BSCA TRACE IS ON
                           0020  168+#NTRAC EQU   BIT2                      NO TRACE FOR CM (INT POLL)
                           0010  169+#PUTTP EQU   BIT3                      PUT ONLY TP GETMAIN REQUEST
                           0008  170+#INVPL EQU   BIT4                      INVITE PL GETMAIN REQUEST
                           0004  171+INTPNO EQU   BIT5                      1=NO INT POLL SUPPORT FOR BSCC
                           0002  172+INTNSP EQU   BIT6                      1=NO INT POLL SUPPORT FOR BSCA
                           0001  173+#NTRCS EQU   BIT7                      NO TRACE FOR CS (INT POLL)


                                 175+*----------- SYSTEM CONSTANTS ----------------------------------------*
                           4632  176+X$0000 EQU   $FLGC+2                   CONSTANT XL2'0000'
                           4633  177+X$0001 EQU   X$0000+1                  CONSTANT XL2'0001'
                           4635  178+X$0002 EQU   X$0001+2                  CONSTANT XL2'0002'
                           4637  179+X$0004 EQU   X$0002+2                  CONSTANT XL2'0004'
                           4639  180+X$FFFF EQU   X$0004+2                  CONSTANT XL2'FFFF'
```

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                               182+*----------- QUEUE ADDRESS POINTERS ----------------------------------*
                          463B 183+@ALOCQ EQU   X$FFFF+2                 Q OF TASKS WAITING TO BE ALLOC'D
                          463D 184+@WATSK EQU   @ALOCQ+2                 ALLOCATE WAIT QUEUE
                          463F 185+@QTUBS EQU   @WATSK+2                 @ Q TUB'S WAITING FOR TCB/CORE
                          4641 186+@GMWTQ EQU   @QTUBS+2                 @ GETMAIN TCB QUEUE
                          4643 187+@DFFQ  EQU   @GMWTQ+2                 QUEUE FOR REQUESTS TO DFF TASK
                          4645 188+@PRLQ  EQU   @DFFQ+2                  @ OF PARAMETER LIST QUED FOR CM


                               190+*----------- LIST ADDRESS POINTERS -----------------------------------*
                          4647 191+@TALST EQU   @PRLQ+2                  @ PROGRAM LIST IN $CC4TA
                          4649 192+@TCORG EQU   @TALST+2                 @ OF THE TCB LIST
                          464B 193+@ROCAT EQU   @TCORG+2                 ATT @ OF RESIDENT OPEN/CLOSE
                          464D 194+@LCB#1 EQU   @ROCAT+2                 @ FIRST LCB IN SYSTEM
                          464F 195+@TUBQ  EQU   @LCB#1+2                 @ OF THE FIRST TUB IN THE SYSTEM
                          4651 196+@EPATR EQU   @TUBQ+2                  ATT @ OF EXTERNAL POINTER LIST
                          4651 197+@DFCT  EQU   @EPATR                   ADDRESS OF SHORT DTF @ LIST
                          4653 198+@TNT   EQU   @EPATR+2                 @ OF 1ST TERMINAL NAME TABLE ENT
                          4655 199+@XDT   EQU   @TNT+2                   @ 1ST SYMBOLIC DFCT NAME ENTRY


                               201+*----------- MAIN STORAGE CONTROL BLOCK(TPBUFF) ----------------------*
                          4656 202+@BUFA  EQU   @XDT-1+2                 @ OF FIRST FREE SEGMENT
                          4659 203+#NBND  EQU   @BUFA+1+2                RESERVED - MUST BE ZEROS
                          465B 204+@LOBND EQU   #NBND+2                  @ LO-BOUND GETMAIN AREA
                          465D 205+@HIBND EQU   @LOBND+2                 @ HI-BOUND GETMAIN AREA
                          465E 206+#GMS   EQU   @HIBND-1+2               SIZE OF LARGEST FREE SPACE


                          4661 208+#TPBUF EQU   #GMS+1+2                 ORIGINAL SIZE OF TPBUFF
                          4662 209+@UPA   EQU   #TPBUF+1                 USER PROGRAM AREA ATR
                          4663 210+#AVCOR EQU   @UPA+1                   # 2K BLOCKS NOT GIVEN TO NEP'S
                          4665 211+@PUCNT EQU   #AVCOR+2                 @ PROGRAM USE COUNT TABLE


                               213+*------------ GENERAL AREAS ------------------------------------------*
                          4667 214+@TUSTG EQU   @PUCNT+2                 @ OF TUB IN STAGING NOW(CP TASK)
                          4669 215+@KNTUB EQU   @TUSTG+2                 @ OF CONSOLE TUB
                          466B 216+@PTX   EQU   @KNTUB+2                 @ OF PCT MASTER INDEX
                          466D 217+@PTXCS EQU   @PTX+2                   C/S VALUE OF PCT DISK START
                          466E 218+#PCTLN EQU   @PTXCS+1                 LONGEST LEN PCT USED BY PGM RQST
                          466F 219+#DFCT  EQU   #PCTLN+1                 NO. ENTRIES IN SHORT DTF @ LIST
                          4670 220+#SETID EQU   #DFCT+1                  ID OF ASSIGNMENT SET IN USE
                          4671 221+#XDT   EQU   #SETID+1                 NUMBER OF SYMFILE STATEMENTS
                          4672 222+#RSVD1 EQU   #XDT+1                   RESERVED AREA - 1 BYTE
                          4673 223+@UALFA EQU   #RSVD1+1                 ATR - UNCHANGING START OF UPA
                          4675 224+@TKFSB EQU   @UALFA+2                 FSB AREA FOR TCB'S

                          4676 226+CPLPWD EQU   @TKFSB+1                 LENGTH OF SIGN ON PASSWORD
                          467C 227+CPPSWD EQU   CPLPWD+6                 CCP SIGN ON PASSWORD


                               229+*----- CCP DUMP AREA DISK ADDRESSES ---------------------------------*
                          467D 230+#DUMPQ EQU   CPPSWD+1                 Q-BYTE OF $CCPDUMP FILE UNIT
                          467F 231+@CPDMP EQU   #DUMPQ+2                 DISK ADDRESS OF $CCPDUMP FILE
                          4682 232+@NDUMP EQU   @CPDMP+3                 DISK ADDRESS OF NEXT DUMP
```

```
                      467E  233+@DSTRT EQU   CPPSWD+2              DUMP AREA START C/S
                      4680  234+@DEND  EQU   @DSTRT+2              DUMP AREA END C/S
                      4682  235+@DNEXT EQU   @DEND+2               DUMP AREA NEXT ENTRY C/S
                      4683  236+#CPFLQ EQU   @NDUMP+1              $CCPFILE DEVICE Q-BYTE
```

```
$CC4#1 EQUATES -- CCP COMMUNICATIONS AREA

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE   9

                            238+*----------- FIXED LOCATIONS OF RESIDENT CODE ------------------------*
                         4684  239+CC4TA  EQU   #CPFLQ+1                  LOAD IAR OF @CC4TA
                         4684  240+CC4PI  EQU   CC4TA                     LOAD IAR OF @CC4PI (@CC4TA)
                         4688  241+CC4IS  EQU   CC4TA+4                   LOAD IAR OF @CC4IS
                         468C  242+CC4GM  EQU   CC4IS+4                   LOAD IAR OF @CC4GM
                         4690  243+CC4FM  EQU   CC4GM+4                   LOAD IAR OF @CC4FM
                         4694  244+USECW  EQU   CC4FM+4                   LOAD IAR OF @USECW
                         4698  245+CC4MX  EQU   USECW+4                   LOAD IAR OF @CC4MX
                         469C  246+C4TI2  EQU   CC4MX+4                   LOAD IAR OF @C4TI2
                         46A0  247+CC4TI  EQU   C4TI2+4                   LOAD IAR OF @CC4TI
                         46A4  248+CC4TT  EQU   CC4TI+4                   LOAD IAR OF $TRACE(X'004C')
                         46A8  249+CC4SR  EQU   CC4TT+4                   LOAD IAR OF @CC4MV
                         46AC  250+CC4FR  EQU   CC4SR+4                   LOAD IAR OF @CC4FR
                         46B1  251+@CC4FR EQU   CC4FR+3+2                 @ OF $CC4FR IN CM
                         46B3  252+@CC4II EQU   @CC4FR+2                  @ OF $CC4II

                            254+*------------- MAINTENANCE SPACE ------------------   2 BYTES -------*

                         46B6  256+$END1  EQU   @CC4II+2+1                END OF MAINTENANCE SPACE


                            258+*------------WORK AREAS LENGTHS DEFINTIONS----------------------------*
                         000F  259+#LDFWK EQU   15                        LENGTH DFF WORK AREA
                         0032  260+#LCPWK EQU   50                        LENGTH COMND PROCESSOR WORK AREA
                         0009  261+#LAMWK EQU   9                         LENGTH ALLOCATION WORK AREA
                         0018  262+#LTMWK EQU   24                        LENGTH TERMINATION WORK AREA
                         002D  263+#LCMWK EQU   45                        LENGTH COMMO MGMT WORK AREA
                         008F  264+#LWKWK EQU   143                       LENGTH-SUM OF ALL WORK AREAS


                            266+*----------- CONSOLE TUB AND PARAMETER LIST --------------------------*
                         4745  267+KNTUB  EQU   $END1+#LWKWK              FIXED LOCATION OF CONSOLE TUB
                         476C  268+KNPL   EQU   KNTUB+39                  CONSOLE PARAMETER LIST


                            270+*----------- SHUTDOWN FIELDS ----------------------------------------*
                         477F  271+SHDECB EQU   KNPL+19                   SHUTDOWN'S ECB
                         4784  272+FEHLT@ EQU   SHDECB+2+3                ADDRESS OF FE HALT ROUTINE
                         478F  273+SHDSAV EQU   FEHLT@+11                 CM TCB FIELDS SAVE AREA

                            275+*----------- CM FIELDS AND MAINTENANCE SPACE -------------------------*
                         4790  276+#CMTRL EQU   SHDSAV-10+11               CM'S TRANSLATE PARAMETER LIST
                         4790  277+#CMMVL EQU   #CMTRL                     CM'S MOVE PARAMETER LIST

                         479E  279+PLTIME EQU   #CMMVL+10+4                POLL TIME FOR CM
                         47A1  280+WATIME EQU   PLTIME+3                  WAIT TIME FOR CM
                         47A2  281+SAVLOP EQU   WATIME+1                  SAVE AREA FOR POLL LOOP COUNT
                         47A4  282+@CCPTB EQU   SAVLOP+2                  ADDRESS OF CCP PARTITION TCB
                         47A6  283+#TPPUT EQU   @CCPTB+2                  LENGTH OF PUT AREA OF TPBUFFER
                         47A8  284+#TPANY EQU   #TPPUT+2                  LENGTH OF COMMON TPBUFFER AREA
                         47A9  285+#ANYS  EQU   #TPANY+1                  SIZE OF LARGEST COMMON AREA
                         47AB  286+CORCNT EQU   #ANYS+2                   NUMBER OF PL WAITING ON CORE
```

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                          4800  287+@TMIOB EQU   X'4800'                  LOCATION OF SHUTDOWN TIMER IOB
```

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                        289+************ COMMAND PROCESSOR WORK AREA           50 BYTES************
                   46C5 290+$CPWK  EQU   $END1+#LDFWK              START OF COMMAND
                   46C5 291+$CP    EQU   $CPWK                    PROCESSOR'S WORK AREA


                        293+*----------- COMMAND PROCESSOR ECB LIST ------------------------------*
                   46CA 294+$CPLST EQU   $CP+5                    ECB LIST.  DEFINED AS FOLLOWS:
                        295+*      DC    AL2(@TMECB)              SHUTDOWN TIMER ECB
                        296+*      DC    AL2($CPQ)                PROGRAM INITIATE-POSTED BY TERM
                        297+*      DC    AL2($CPPF9)              PF9 - PROGRAM REQUEST
                        298+*      DC    AL2($CPCM)               DATA IN TP BUFFER FOR CP
                        299+*      DC    AL2($CPOCC)              OCC
                        300+*      DC    AL2($CP1ST/$CPWTO/65535) STARTUP/WTOR/LIST DELIMITER
                        301+*      DC    XL2'FFFF'                LIST DELIMITER

                   0001 303+#CPTMR EQU   1                        OFFSET TO TIMER ECB @
                   0003 304+#CPCPQ EQU   3                        OFFSET TO PROG INIT ECB @
                   0005 305+#CPPF9 EQU   5                        OFFSET TO PF9 ECB @
                   0007 306+#CPCM  EQU   7                        OFFSET TO CM ECB @
                   0009 307+#CPOCC EQU   9                        OFFSET TO OCC ECB @
                   000B 308+#CP1ST EQU   11                       OFFSET TO 1ST ECB @
                   000B 309+#CPWTO EQU   11                       OFFSET TO WTO ECB @
                   000D 310+#CPEND EQU   13                       OFFSET TO END OF @ LIST


                        312+*----------- COMMAND PROCESSOR ECB'S ---------------------------------*
              4807 313+@TMECB EQU   @TMIOB+7                    TIMER ECB LOCATION IN IOB
                   46D8 314+$CPQ   EQU   $CP+19                   PROGRAM INITIATE-POSTED BY TERM
                   46DB 315+$CPPF9 EQU   $CP+22                   PF9 - PROGRAM REQUEST
                   46DE 316+$CPCM  EQU   $CP+25                   DATA IN TP BUFFER FOR CP
                   0048 317+$CPOCC EQU   X'0048'                  OCC - IN THE DSM NUCLEUS
                   46E1 318+$CP1ST EQU   $CP+28                   FIRST TIME SWITCH
                   0000 319+$CPWTO EQU   0                        WTO - GETMAINED FOR IN TPBUFF


                        321+*----------- COMMAND PROCESSOR FLAG BYTE -----------------------------*
                   46E2 322+$CPFLG EQU   $CP+29                   COMMAND PROCESSOR FLAG BYTE
                   0080 323+$CPFR  EQU   BIT0                     FREEMAIN TO BE DONE
                   0010 324+$CPCFR EQU   BIT3                     FREE NEEDED FOR CONSOLE OCC
                   0008 325+$CPDPG EQU   BIT4                     PAGE 1 OF DISPLAY DONE
                   0004 326+$CPD1S EQU   BIT5                     DO SECONDARY MENU
                   0002 327+$CPPAS EQU   BIT6                     ASSIGNMENT/SHUTDOWN INTERLOCK
                   0001 328+$CPFND EQU   BIT7                     ASSIGNMENT/CCPFMT/CCPPGM INTLK

                        330+*----------- COMMAND PROCESSOR TASK TRANSIENT COMMUNICATION AREA -----*
                   46E3 331+$CPPRQ EQU   $CP+30                   LABEL FOR PROGRAM REQUEST

                   46E3 333+$CPCOM EQU   $CP+30                   LABEL FOR COMMANDS
                   46E4 334+$CPRTC EQU   $CP+31                   SAVE AREA FOR PLRTC
                   46E6 335+$CPEFL EQU   $CP+33                   SAVE AREA FOR PLEFFL
                   46E8 336+$CPRCA EQU   $CP+35                   SAVE AREA FOR PLRECA

                        338+*----------- STARTUP VALUES - VALID ONLY DURING STARTUP --------------*
                   46E5 339+$CPMSG EQU   $CP+32                   ADDRSS OF $CC4IG
                   46E7 340+#LSTSZ EQU   $CPMSG+1+1               # ENTRIES IN FIRST LEVEL LIST
                   46E9 341+@XSNT1 EQU   #LSTSZ+2                 ENTRIES IN $CC4PI
```

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                          46EB  342+@XSNT2 EQU   @XSNT1+2                  FOR START-UP
                          46ED  343+@L1TCB EQU   @XSNT2+2                  SWITCHED LCB TCB @ FOR LINE 1
                          46EF  344+@L2TCB EQU   @L1TCB+2                  SWITCHED LCB TCB @ FOR LINE 2
```

```
                        346+************ ALLOCATION WORK AREA                  9 BYTES************
                        347+$AMWK  EQU   $END1+#LDFWK+#LCPWK      START OF ALLOCATION
                        348+$AM    EQU   $AMWK                    WORK AREA


                        350+$AMFLG EQU   $AM                      ALLOCATION FLAG BYTE
                        351+$AMBSY EQU   BIT0                     1--ALLOCATION BUSY
                        352+$APEND EQU   BIT1                     1--ALLOCATION TASK POST PENDING
                        353+$AMDFF EQU   BIT2                     NON-RESIDENT DFF ALOC IN PROCESS
                        354+$AMA1  EQU   BIT3                     U/R DEVICE ALLOCATION IN PROCESS
                        355+$AMA2  EQU   BIT4                     REJECT IN PROCESS
                        356+$AMPF9 EQU   BIT5                     CONSOLE TUB IN USE FOR PROGRAM
                        357+$AMERR EQU   BIT6                     ALLOCATION REJECT IN PROCESS

                        359+$AMUR  EQU   $AMFLG+1                 CCP LEVEL AND SPOOLING DEVICES.
                        360+A1SPLV EQU   BIT0                     1=CCP IS IN LEVEL 1.
                        361+*                                     0=CCP IS IN LEVEL 2.
                        362+A1PTRS EQU   BIT1                     PRINTER IS SPOOLED FOR CCP LVL.
                        363+*            BIT2                     MFCU/M SEC IS SPOOL RDR FOR CCP
                        364+*            BIT3                     MFCU/M SEC IS SPOOL PCH FOR CCP
                        365+A1741S EQU   BIT4                     3741 IS SPOOLED READER FOR CCP
                        366+A1501S EQU   BIT5                     2501 IS SPOOLED READER FOR CCP
                        367+*            BIT6                     MFCU/M PRI IS SPOOL RDR FOR CCP
                        368+*            BIT7                     MFCU/M PRI IS SPOOL PCH FOR CCP
                        369+$AMPA  EQU   $AMUR+1                  PERM ALLOC AND SPOOLED UR
                        370+*                                     DEVICES FOR CCP.
                        371+*PCTPRS      BIT0                     1=WILL SHARE PRINTER.
                        372+*PCT41I      BIT1                     1=3741 IS PERMANENTLY ALLOCATED
                        373+*PCT501      BIT2                     1=2501 IS PERM ALLOCATED.
                        374+*PCTPRT      BIT3                     1=PRINTER IS PERM ALLOCATED.
                        375+*PCT142      BIT4                     1=1442 IS PERM ALLOCATED.
                        376+*PCTMFU      BIT5                     1=MFCU/M IS PERM ALLOCATED.
                        377+*            BIT6                     1=1442 IS SPOOL READER FOR CCP
                        378+*            BIT7                     1=1442 IS SPOOL PUNCH FOR CCP

                        380+$AMSA  EQU   $AMPA+1                  IN USE DEVICES
                        381+AMSORT EQU   BIT6                     1 = $INDEX45 FILE IN USE
                        382+$AMSHR EQU   $AMSA+1                  COUNT OF PRESENT PRINT SHARERS
                        383+$AMID  EQU   $AMSHR+1                 TCB ID OF LEVEL CCP IS IN
                        384+$AMUSE EQU   $AMID+1                  COUNT OF ACTIVE USER TASKS
                        385+$AMWRK EQU   $AMUSE+2                 ALLOCATION WORK FIELD
```

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                                387+************ TERMINATOR WORK AREA                  24 BYTES************
                          4700  388+$TMWK  EQU   $END1+#LDFWK+#LCPWK+#LAMWK START OF TERMINATION'S
                          4700  389+$TM    EQU   $TMWK                       WORK AREA



                          4700  391+$TMFLG EQU   $TM                         TERMINATOR FLAG BYTE
                          0080  392+$TMSTK EQU   BIT0                       SYSTEM TASK FAILURE
                          0080  393+$TMBSY EQU   BIT0                       1--TERMINATION TASK IS ACTIVE
                                394+*                                       0--TERMINATION TASK NOT BUSY
                          0040  395+$TMDMP EQU   BIT1                       1--NO USER TASK ACTIVE FOR C CCP
                                396+*                                       0--USER TASK ACTIVE FOR C CCP
                          0020  397+$TMEJ  EQU   BIT2                       1--$CC4EJ (CCP END OF JOB)
                                398+*                                       HAS BEEN INVOKED BY $CC4TD
                                399+*                                       (TERMINATION CONTROL ROUTINE)
                          0010  400+$TMCLZ EQU   BIT3                       TERMINATION MUST CALL CLOSE
                          0008  401+$TMTWA EQU   BIT4                       $CC4TW ACTIVE IN XIENT AREA
                          0004  402+$TMDDR EQU   BIT5                       DISK DUMP REQUESTED (NOT 2A,2B)
                          0002  403+$TMDFL EQU   BIT6                       ON=NO MORE DUMP SPACE GUARANTEED
                          0001  404+$TMDER EQU   BIT7                       ON=PERMANENT DISK I/O ERROR
                                405+*                                       DURING TERMINATION DUMP

                          4702  407+$TMTCB EQU   $TMFLG+2                   @ OF TCB CURRENTLY BEING
                                408+*                                       PROCESSED BY TERMINATION TASK
                          4703  409+$TMECB EQU   $TMTCB+1                   TERMINATION'S ECB (3 BYTES)
                          4707  410+$TMDID EQU   $TMECB-1+3+2               DUMP ID DIGITS (2 BYTES)


                                412+*----------- $CC4TI-$CC4TM-CC4TH WORK AREAS--------------------------*
                          4709  413+TIWRK1 EQU   $TMDID+2                   RESIDENT WORK
                          470B  414+TIWRK2 EQU   TIWRK1+2                   AREAS
                          470D  415+TIWRK3 EQU   TIWRK2+2                   FOR INFORMATION
                          470F  416+TIWRK4 EQU   TIWRK3+2                   SAVE ON
                          4711  417+TIWRK5 EQU   TIWRK4+2                   SYSTEM DISASTER
                          4713  418+TIWRK6 EQU   TIWRK5+2                   CONDITIONS
                          4713  419+@XSNT3 EQU   TIWRK6                     ADDRESS OF TRANSIENT AREA 3 IOB
                          4715  420+@CSXPT EQU   TIWRK6+2                   C/S ADDRESS OF ORIGINAL PCT


                                422+*------------ PSEUDO OPEN/CLOSE SAVE AREA FOR ATTS --------------------
                          470B  423+OPSATT EQU   $TMDID+4                   FSA ATT SAVE AREA
                          470D  424+OPEATT EQU   OPSATT+2                   EXT BUF ATT SAVE AREA
                          470E  425+OPSEG# EQU   OPEATT+1                   SAVE AREA FOR SEGMENT NUMBER
```

```
                              427+************ COMMUNICATIONS MANAGEMENT WORK AREA   45 BYTES************
                        4718  428+$CMWK  EQU   $END1+#LDFWK+#LCPWK+#LAMWK+#LTMWK START OF COMMUNICATION
                        4718  429+$CM    EQU   $CMWK                        MANAGEMENT WORK AREA


                        4719  431+#CMDTF EQU   $CM+1                       SAVE AREA FOR DTF ADDRESS
                        471B  432+#CMPL  EQU   #CMDTF+2                     SAVE AREA FOR PARM LIST

                        471D  434+#CMTMA EQU   #CMPL+2                      SAVE AREA FOR TERMINAL ADDRESS
                        471D  435+#CMBK1 EQU   #CMTMA                       RETURN CODE FOR $CC4BL MESSAGE

                        471E  437+#CMTFT EQU   #CMTMA+1                     SAVE AREA FOR TERMINAL FEATURES
                        471E  438+#CMBK2 EQU   #CMTFT                       INTERNAL MSG TYPE FOR $CC4BL

                        4720  440+#CMPTR EQU   #CMTFT+2                     SAVE AREA FOR PREVIOUS POINTER
                        4722  441+#CMFPL EQU   #CMPTR+2                     SAVE AREA FOR FOUND PARM LIST
                        4724  442+#CMLSL EQU   #CMFPL+2                     LAST LCB CHECKED FOR PL NEEDING
                              443+*                                        * GETMAIN
                        4726  444+#CMTUB EQU   #CMLSL+2                     SAVE AREA FOR TUB ADDRESS
                        4728  445+#CMERP EQU   #CMTUB+2                     @ OF DTF TO BE RESCHEDULED AFTER
                              446+*                                        BEING IN CCP ERP
                        4729  447+#CMSWT EQU   #CMERP+1                     CONTROL SWITCH
                        0080  448+#CMARR EQU   BIT0                         1--OK TO MODIFY TCBARR
                        0040  449+#CMFMD EQU   BIT1                         1--CM FREEMAIN DONE SINCE LAST
                              450+*                                        *  CHECK.
                        0020  451+PRUFOF EQU   BIT2                         1--RESET PRUF MODE (PRUFOF)

                        472A  453+#OPEND EQU   #CMSWT+1                     T-P OP END COUNT
                        472C  454+#CCMCL EQU   #OPEND+2                     MAXIMUM COMMAND BUFFER LENGTH
                        472E  455+#RUFCL EQU   #CCMCL+2                     MAX READ UNDER FORMAT COM LEN
                        4730  456+@TAS   EQU   #RUFCL+2                     TERMINAL ATTRIBUTE SET ADDRESS
                        4731  457+#HITAS EQU   @TAS+1                       HIGHEST TAS INDEX IN SYSTEM

                        4733  459+@CSSTT EQU   #HITAS+2                     DISK C/S OF STT
                        4734  460+#HISTT EQU   @CSSTT+1                     NO ENTRIES IN STT(SW TERM TBL)

                        4736  462+@MLTAD EQU   #HISTT+2                     ADDRESS OF MLTA ADAPTER
                              463+*                                        0 INDICATES NO MLTA ADAPTER
                        4738  464+@CKLST EQU   @MLTAD+2                     ADDRESS OF CHECK LIST

                              466+*----------- COMMUNICATIONS MANAGEMENT ECB'S -------------------------*
                        4739  467+$CMECB EQU   @CKLST+1                     ECB FOR POST OF CM
                        473C  468+$CMFM  EQU   $CMECB+3                     FREEMAIN POST OF CM
                        4740  469+@ANYTP EQU   $CMFM+4                      ADDRESS OF COMMON TP FOR GETMAIN
                        4742  470+@INVPL EQU   @ANYTP+2                     ADDRESS OF INV PL TP FOR GETMAIN
                        4744  471+ERTIME EQU   @INVPL+2                     AUTO ERP RECOVERY TIME


                              473+*----------- COMMUNICATIONS MANAGEMENT RESERVED AREA -----------------*
                        4743  474+$CMRV2 EQU   @INVPL+1                     START OF 2 BYTE RESERVED AREA

                              476+* PROGRAM REQUEST/ALLOCATION DUMMY TUB CHAIN POINTER
                        47AD  477+@DTUBQ EQU   CORCNT+2                     START ADDRESS OF DUMMY TUB'S
                        47AF  478+#RUFAD EQU   @DTUBQ+2                     ADDITIONAL DATA FOR PRUF'S.
                        47B1  479+TNTATT EQU   #RUFAD+2                     ATT LOCATION FOR TNT MOVEOUT
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                          47B3  480+$RESER EQU   TNTATT+2                  RESERVE AREA.


                                482+*--------------   BSCC COMMUNICATIONS AREA   -------------------------*

                          47B4  484+$CSFM  EQU   $RESER+1                  FREEMIAN ECB
                          47B7  485+$CSECB EQU   $CSFM+3                   OP END AND NEW REQUEST ECB
                          47BA  486+#CSOND EQU   $CSECB+3                  OP END COUNT FOR LINES 3 AND 4
                          47BC  487+@CSNRQ EQU   #CSOND+2                  NEW REQUEST QUEUE
                          47BE  488+@CSTCB EQU   @CSNRQ+2                  ADDRESS OF BSCC TCB
                          47C0  489+#CSERP EQU   @CSTCB+2                  ADDRESS OF LCB IN ERROR RECOVERY
                          47C2  490+@CLB#1 EQU   #CSERP+2                  ADDRESS OF FIRST BSCC LCB
                          47C6  491+POLTIM EQU   @CLB#1+4                  POLL TIME FOR CS
                          47C7  492+SVLOOP EQU   POLTIM+1                  SAVE POLL LOOP COUNT FOR CS
                          47CA  493+WAITIM EQU   SVLOOP+3                  WAIT TIME FOR CS
                          47CB  494+#MATST EQU   WAITIM+1                  LOGICAL ATR START OF BSCC
                          47CC  495+#MATED EQU   #MATST+1                  LOGICAL ATR END OF BSCC
                          47CD  496+#MATX3 EQU   #MATED+1                  REAL ATR START OF XIENT AREA 3


                                498+*----------------   DIRECTORY ADDRESSES   ----------------------------*
                                499+*--INDIVIDUAL FIELDS ARE VALID ONLY IF A PROGRAM STATEMENT DESIGNATED-*
                                500+*--THAT UNIT AS ITS LOCATION, OTHERWISE THE FIELDS ARE LEFT AS ZEROES-*
                                501+*-------------------------------------------------------------------*

                          47CF  503+CSPKR1 EQU   #MATX3+2                  C/S OF DIRECTORY ON UNIT R1
                          47D1  504+CSPKF1 EQU   CSPKR1+2                  C/S OF DIRECTORY ON UNIT F1
                          47D3  505+CSPKR2 EQU   CSPKF1+2                  C/S OF DIRECTORY ON UNIT R2
                          47D5  506+CSPKF2 EQU   CSPKR2+2                  C/S OF DIRECTORY ON UNIT F2


                                508+*----------- SAVE AREAS FOR THE DISPLAY TRANSIENTS -------------------*
                          47D7  509+$CPIAR EQU   CSPKF2+2                  IAR
                          47D9  510+$CPXR1 EQU   $CPIAR+2                  TUB,TNT,OR FSB
                          47DB  511+$CPDTF EQU   $CPXR1+2                  DTF
                          47DC  512+$CPUSE EQU   $CPDTF+1                  PROGRAM USE COUNT SAVE FIELD


                                514+*------------CCP TRACE, AUTO ERP, TNT MOVEOUT-------------------------*


                          47DD  516+$FLGD  EQU   $CPUSE+1                  FOURTH SYSTEM LEVEL FLAG BYTE
                          0001  517+#BIT7  EQU   BIT7
                          0002  518+#DDRUN EQU   BIT6                     $CCPDD IS PRINTING TRACE
                          0004  519+#NOPST EQU   BIT5                     SKIP FREEMAIN POST OF CM TASK
                          0008  520+#CPALC EQU   BIT4                     $CCPDUMP FILE HAS BEEN ALLOCATED
                          0010  521+#PRQIP EQU   BIT3                     PROGRAM REQUEST Q IN PROCESS
                          0020  522+#AERPS EQU   BIT2                     AUTO ERP SUPPORTED
                          0040  523+#AERPA EQU   BIT1                     AUTO ERP ACTIVE
                          0080  524+TNTOUT EQU   BIT0                     1--TNT MOVE-OUT SUPPORTED
                          47DF  525+$CCTR@ EQU   $FLGD+2                   ADDRESS OF CCP TRACE INTERCEPT
                          47E0  526+$CCTR# EQU   $CCTR@+1                  2K BLOCKS IN TRACE REQUEST


                          47E2  528+@AERPQ EQU   $CCTR#+2                  Q OF TUBS FOR AUTO ERP
```

```
                          47E4  530+#DPEND EQU   @AERPQ+2                  CC/HH @ OF END OF $CCPDUMP


                                532+*                                                              *
                                533+* THIS AREA IS CS'S MOVE TRANSLATE AREA                       *
                                534+*                                                              *
                          47E6  535+CS#MVL EQU   #DPEND+2                  BSCC MOVE PARAMETER
                          4600  536+CS#TRL EQU   *                         BSCC TRANSLATE PARAMETER LIST

                          47FF  538+$CCEND EQU   X'47FF'                   END OF $CCCOM
```

```
                                540 *      $ETCB                                                          CCP00149
                                541+*************************************************************************
                                542+*      EQUATES FOR THE CCP TCB EXTENSION                           *
                                543+*************************************************************************
                          0000  544+TCBCAL EQU   0                        OCC CANCEL WHILE TCB IN ALLOC
                                545+*      CCP BIT INDICATORS APPEARING IN FIELDS IN THE STANDARD TCB.
                                546+*      BIT EQUATES FOR TCBID.
                          00FF  547+TCBWID EQU   B'11111111'              SYSTEM WAIT TASK ID

                                549+*      BIT EQUATES FOR TCBFG1.
                          0080  550+TCBUSR EQU   B'10000000'              CCP USER TASK
                          0004  551+TCBNCL EQU   B'00000100'              CANCEL NOT ALLOWED
                                552+**     TCBUSR+TCBNCL = CCP SYSTEM TASK

                                554+*      BIT EQUATES FOR TCBFG2.
                          0080  555+TCBTRC EQU   B'10000000'              TERMINATION CALL OF CLOSE

                                557+*      BIT EQUATES FOR TCBDS1.
                          0040  558+TCBSUS EQU   B'01000000'              WAIT INDICATOR FOR SUSPENDED TCB
                          0020  559+TCBTRM EQU   B'00100000'              TCB IS IN CCP TERMINATION


                                561+*      FIELDS OVERLAYING DSM TCB FIELDS.
                          002B  562+TCBCMP EQU   X'2B'                    TCBEJC - USER TERMINATION CODE

                          0064  564+TCB@AS EQU   X'64'                    NPNAME-4 PROG APPENDED STORAGE @
                          0065  565+TCBPAS EQU   TCB@AS+1                 SIZE (X256) OF PAS
                          0066  566+TCBFDT EQU   TCBPAS+1                 SIZE (X256) OF LARGEST FDT
                          0068  567+TCBINQ EQU   TCBFDT+2                 Q OF TUBS WITH DATA FOR ACCEPT

                          00A7  569+TCBIR  EQU   X'A7'                    NPSCH-1 XIENT AREA IAR SAVE FLD
                          00A9  570+TCBPR  EQU   TCBIR+2                  TRANSIENT AREA PMR SAVE FIELD
                          00AB  571+TCBX2  EQU   TCBPR+2                  TRANSIENT AREA REG 2 SAVE FIELD
                          00AD  572+TCBX1  EQU   TCBX2+2                  TRANSIENT AREA REG 1 SAVE FIELD

                          00AE  574+TCBDMG EQU   TCBX1+1                  CCP INTERNAL FLAGS
                          0080  575+TCBRUF EQU   B'10000000'              PRUF PROGRAM ACTIVE
                          0040  576+TCBKRQ EQU   B'01000000'              CONSOLE WAS PROGRAM REQUESTOR
                          0020  577+TCBALC EQU   B'00100000'              TASK IS IN ALLOCATE
                          0010  578+TCBNEP EQU   B'00010000'              TASK IS A NEVER-ENDING-PROGRAM
                          0008  579+TCBCM  EQU   B'00001000'              COMMUNICATIONS MANAGEMENT ID
                          0004  580+TCBMTS EQU   B'00000100'              TASK IS A MULTI-TERM-SERVICER
                          0002  581+TCBEMG EQU   B'00000010'              END MSG IS WANTED BY TERMINAL
                          0001  582+TCBSHQ EQU   B'00000001'              SHUTDOWN COMMAND HAS BEEN KEYED

                                584+*      END OF CCP PROGRAM LEVEL TCB(CM TASK).

                                586+*      BEGINNING OF CCP EXTENSION FOR TCB  (ALL CCP TASKS EXCEPT CM)
                                587+*                    CCP BITS WITHIN TCBECB
                          0001  588+TCBACW EQU   X'01'                    THIS TASK AT ACCEPT INPUT WAIT
                                589+*
                          00C4  590+TCBPL  EQU   X'C4'                    NPRCCP-39 TP PARAMETER LIST
                          00D6  591+TCBPLE EQU   TCBPL+18                 END OF PARM LIST
                          00D8  592+TCBXQ  EQU   TCBPLE+2                 CCP CHAIN OF WAITING TASKS
                          00D8  593+TCBWK  EQU   TCBXQ                    WORK FIELD
                          00DA  594+TCBTUB EQU   TCBXQ+2                  OWNED TUB CHAIN START POINT
```

```
                      00DB  595+TCBECB EQU   TCBTUB+1                 INTERNAL ECB FOR CCP - START
                      00DE  596+TCBIIC EQU   TCBECB+3                 INVITE INPUT COUNT FOR USERS
                      00DF  597+TCBMAX EQU   TCBIIC+1                 MAX NUMBER OF TERMINALS
                      00E0  598+TCBATR EQU   TCBMAX+1                 CURRENT TERMINAL COUNT

                      00E1  600+TCBURA EQU   TCBATR+1                 UNIT RECORD ALLOCATE MASK
                      0080  601+TCBPRS EQU   B'10000000'               PRINTER IS SHARED
                      0020  602+TCB501 EQU   B'00100000'               PROGRAM USES 2501
                      0010  603+TCBPRT EQU   B'00010000'               PROGRAM USES LINE PRINTER
                      0008  604+TCB142 EQU   B'00001000'               PROGRAM USES 1442
                      0004  605+TCBMFU EQU   B'00000100'               PROGRAM USES MFCU OR MFCM
                      0040  606+TCB741 EQU   B'01000000'               3741 USED AS UNIT RECORD DEVICE

                      00E3  608+TCBFBM EQU   TCBURA+2                 FILE BIT MASK, DISPLACEMENT
                      00E4  609+TCBUSE EQU   TCBFBM+1

                      00E5  611+TCBOFG EQU   TCBUSE+1                 CCP INTERNAL FLAGS
                      0080  612+TCBSRT EQU   B'10000000'               SORT PGM ACTIVE
                      0040  613+TCBCHN EQU   B'01000000'               TASK WAS REQUESTED VIA CHAIN OP
                      0020  614+TCBLOW EQU   B'00100000'               LOW PRIORITY TASK REQUEST
                            615+*      EQU   B'00010000'
                            616+*      EQU   B'00001000'
                            617+*      EQU   B'00000100'
                            618+*      EQU   B'00000010'
                            619+*      EQU   B'00000001'

                00E7  621+TCBPCB EQU   TCBOFG+2                 ADDR OF REQUIRED PORT.
                00E9  622+TCBXR@ EQU   TCBPCB+2                 ADDR OF CCP XIENT RIB BYTE.
                00EB  623+TCBRV  EQU   TCBPL+39                 RESERVED AREA FROM 'TCBXR@'

                      625+*************************************************************
                      626+*      RESIDENT OPEN CLOSE ATT SAVE AREA                    *
                      627+*************************************************************
                010D  628+TCBATS EQU   X'010D'                  START OF SAVE AREA
                010E  629+TCBEPL EQU   TCBATS+1                 E.P.L. ATTS
                0112  630+TCBROC EQU   TCBEPL+4                 RESIDENT OPEN/CLOSE ATTS
                0116  631+TCBFSA EQU   TCBROC+4                 F.S.A. ATTS

                      633+*************************************************************
                      634+*      THE FOLLOWING REDEFINES THE PARM-LIST AREA FOR THE   *
                      635+*      COMMUNICATIONS SCHEDULAR ($CC4CS).  DEFINES THE ATTS *
                      636+*      THAT MAPS THE SIOC DM/IOCS/IH.  (4K-MAX)             *
                      637+*************************************************************
                00C4  638+TCBSAD EQU   TCBPL                    DISPLACEMENT FOR SIOC DM ATR
                00C6  639+TCBSAT EQU   TCBSAD+2                 ATRS VALUES TO MAP SIOC DM.
                00C8  640+TCBSAS EQU   TCBSAT+2                 ATRS TO RESTORE $CC4#M ATRS.
                00CA  641+TCBSAV EQU   TCBSAS+2                 ATRS SAVE AREA FOR $@TRAP.

                      643+*************************************************************
                      644+*      THE FOLLOWING REDEFINES TCBIIC, TCBMAX, TCBATR, TCBURA,  *
                      645+*      TCBFBM, TCBUSE, AND TCBOFG FOR THE COMMAND PROCESSOR TCB *
                      646+*      ONLY (SUCH FIELDS ARE MEANINGFUL ONLY FOR USER TCB'S).   *
                      647+*      EACH OF THE FOLLOWING FOUR FIELDS IS 2 BYTES LONG.       *
                      648+*************************************************************
                00DF  649+#CPDAT EQU   TCBMAX                   TIMES CP TASK RECEIVED DATA
                00E1  650+#PGMLD EQU   TCBURA                   # OF USER PGM LOADS DONE
```

```
                          00E3  651+#MRTAT EQU   TCBFBM                   PGM REQS ATTACHED TO ACTIVE MRTS
                          00E5  652+#TCACC EQU   TCBOFG                   TASK CHAIN REQUESTS ACCEPTED
```

```
                                655 *      $EPAS                                                          CCP00151
                                656+* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
                                657+*                                                                     *
                                658+*      EQUATES TO OFFSETS IN THE 'PROGRAM APPENDED STORAGE' AREA.     *
                                659+*      01/08/74  MODEL 15                                             *
                                660+*                                                                     *
                                661+*                                                                     *
                                662+*      THE PAS IS DIVIDED UP INTO THREE MAIN STORAGE AREAS...         *
                                663+*           1. PAS CONSTANTS AND WORK AREAS.  THIS AREA CONTAINS      *
                                664+*              ALL THE INFORMATION PERTAENT TO A TASK.                *
                                665+*              THIS AREA STARTS ON A SECTOR BOUNDARY AND IS LESS      *
                                666+*              THAN A SECTOR IN LENGTH.                               *
                                667+*                                                                     *
                                668+*           2. FT AND TT ENTRIES.  THIS AREA IMMEDIATELY FOLLOWS      *
                                669+*              THE PAS CONSTANTS AND CONTAINS THE 'FORMAT TABLE'      *
                                670+*              AND 'TERMINAL TABLE' (TT AND FT) ENTRIES.   THIS AREA  *
                                671+*              WILL RUN UP TO THE FIRST BYTE OF THE NEXT AREA.        *
                                672+*                                                                     *
                                673+*           3. 'FIELD DESCRIPTOR AREA' (FDT).  THIS AREA WILL START   *
                                674+*              ON A SECTOR BOUNDARY AND ITS LENGTH WILL BE EVENLY     *
                                675+*              DIVISIBLE BY SECTORS.  THE 'FDT' OF A FORMAT WILL BE   *
                                676+*              READ INTO THIS AREA FROM THE OBJECT LIBRARY ON DISK.   *
                                677+*                                                                     *
                                678+* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *


                                680+* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
                                681+*      CONSTANT AND WORK AREA.                                        *
                                682+* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

0000  684+PAS    EQU   0                        START OF PROGRAM APPENDED STORAG
0001  685+PASITT EQU   PAS+1                    @ OF FIRST TERMINAL TABLE ENTRY.
      686+*                                 2    (TT ENTRY)

0003  688+PASNFT EQU   PASITT+2                 @ OF NEXT AVAILABLE TT OR FORMAT
      689+*                                 2    TABLE (FT) ENTRY.

0005  691+PASEFT EQU   PASNFT+2                 @ OF END OF AREA TO BUILD TT AND
      692+*                                 2    FT ENTRIES. (SHOULD BE END OF
      693+*                                       PAS AREA.

0007  695+PASFDT EQU   PASEFT+2                 @ OF FDT AREA
      696+*                                 2

0008  698+PASTID EQU   PASFDT+1                 TASK ID
      699+*                                 1

0009  701+PASFDL EQU   PASTID+1                 NUMBER OF 256 BYTE BLOCKS OF
      702+*                                 1    CORE NEEDED FOR LARGEST FDT.

000B  704+PASCT@ EQU   PASFDL+2                 @ OF TT ENTRY CURRENTLY PROCESS.
      705+*                                 2

0011  707+PASCTN EQU   PASCT@+6                 NAME OF TERMINAL CURRENTLY
      708+*                                 6    BEING PROCESSED.
```

```
                          0013  710+PASCF@ EQU   PASCTN+2                  @ OF FT FOR FDT CURRENTLY IN PAS
                                711+*                                 2
                          0015  713+PASFR@ EQU   PASCF@+2                  RETURN POINT FROM DFF000
                                714+*                                 2
                          0017  716+PASJR@ EQU   PASFR@+2                  RETURN POINT FROM DFJ000
                                717+*                                 2
                          0019  719+PASXR@ EQU   PASJR@+2                  COMMON SAVE AREA FOR RETURN
                                720+*                                 2 ADDRESS FOR MISC ROUTINES.
                          001B  722+PASRE@ EQU   PASXR@+2                  @ OF RETURN POINT TO OP CODE
                                723+*                                 2  LOGIC AFTER RETURN FROM $CC4CM.
                          001D  725+PASOH@ EQU   PASRE@+2                  @ OF OUTPUT HOLD AREA CURRENTLY
                                726+*                                 2  IN USE BY THIS TASK
                          001F  728+PASOHL EQU   PASOH@+2                  LENGTH OF OUTPUT HOLD AREA
                                729+*                                 2  CURRENTLY USING.
                          0021  731+PASOHE EQU   PASOHL+2                  END ADDR OF OHA
                                732+*                                 2
                          0022  734+PASCCC EQU   PASOHE+1                  COPY CONTROL CHARACTER
                                735+*                                 1
                          0024  737+PASTOD EQU   PASCCC+2                  'TO'DEVICE + CONTROL UNIT
                                738+*                                 2
                          0026  740+PASFRD EQU   PASTOD+2                  'FROM'DEVICE  ADDRESS FOR 'COPY'
                                741+*                                 2
                          0026  742+PASID@ EQU   PASFRD                    ADDRESS OF LINE ID IN CCCOM
                                743+*                                 2
                          0027  745+PASFLG EQU   PASFRD+1                  FLAG BYTE
                                746+*                                 1
                          0080  747+PASFRT EQU   BIT0                       1-'TO'TERMINAL
                                748+*                                       0-'FROM'TERMINAL
                          0020  749+PASRST EQU   BIT2                       1-RESET MDT SET IN USERS WCC
                          0010  750+PASBLK EQU   BIT3                       0-NO BLOCKING
                                751+*                                       1- BLOCKING
                          0008  752+PASFTS EQU   BIT4                       FIRST TIME SWITCH FOR BLOCKING
                                753+*                                       1- FIRST TIME THROUGH
                          0004  754+PASRUF EQU   BIT5                       READ UNDER FORMAT ACCEPT INPUT
                                755+*                                       1-ACCEPT INPUT AND TUBRUF ON


                                757+* * * * * * * DISK IOB FOR DISK READS.

                          0028  759+PASIOB EQU   PASFLG+1                  BEGINING OF IOB

                          0044  761+PASDBE EQU   PASIOB+28                 END OF IOB
```

```
                               764+* * * * * * * CCP PARAMETER LIST STORAGE AREA FROM USER PGM.

                          0046  766+PASPL@ EQU   PASDBE+2                  @ OF USER PARM LIST
                               767+*                                 2
                          0047  769+PASCPL EQU   PASPL@+1                 BEGIN OF PARM LIST

                          0052  771+PASCPE EQU   PASCPL+11                END OF PARM LIST(LAST 4 BYTES
                               772+*                                16  ARE NOT SAVED.


                          0054  774+PASIX1 EQU   PASCPE+2                 SAVE ARE FOR $CC4II XR1
                               775+*                                 2

                          0056  777+PASIAR EQU   PASIX1+2                 SAVE AREA FOR $CC4II RETURN @
                               778+*                                 2

                          0058  780+PASOF@ EQU   PASIAR+2                 @ IN FDT CURRENTLY WORKING AT
                               781+*                                 2 FOR OUTPUT BUILD

                          005A  783+PASHAP EQU   PASOF@+2                 POINTER TO AREA IN OUTPUT HOLD
                               784+*                                 2  AREA CURRENTLY WORKING AT.

                          005C  786+PASRAP EQU   PASHAP+2                 POINTER TO RECORD AREA CURRENTLY
                               787+*                                 2  WORKING AT.

                          005E  789+PASTTE EQU   PASRAP+2                 @ OF EMPTY TT ENTRY
                               790+*                                 2

                          0064  792+PASCFT EQU   PASTTE+6                 NAME OF FORMAT DESIRED FOR 'PUT'
                               793+*                                 6

                          0065  795+PASTC  EQU   PASCFT+1                 TERMINATION CODE
                               796+*                                 1

                          0067  798+PASTTS EQU   PASTC+2                  TOTAL TEXT SIZE FOR OUTPUT
                               799+*                                 2

                          0069  801+PASTTM EQU   PASTTS+2                 TOTAL TEXT MOVED SO FAR
                               802+*                                 2

                          006B  804+PASLTH EQU   PASTTM+2                 TOTAL END POSITION OF TEXT IN
                               805+*                                 2   OHA

                          006D  807+PASUDL EQU   PASLTH+2                 USER DEFINED DATA LNG FOR OUTPUT
                               808+*                                 2

                          006E  810+PASWCC EQU   PASUDL+1                 WCC AND CCC SAVE AREA
                               811+*                                 1

                          0070  813+PASTAR EQU   PASWCC+2                 SAVE AREA FOR ARR OF CALLER TO
                               814+*                                 2  A ROUTINE IN DFCR WHICH MIGHT
                               815+*                                   BE INTERRUPTED AND TASK SWITCHED

                          0072  817+PASWRK EQU   PASTAR+2                 WORK AREA
                               818+*                                 2
```

```
$CC4#1 EQUATES -- FOR PROGRAM APPENDED STORAGE

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT           SCP GENERATOR  08/08/10  PAGE  24

                          0074  820+PASWKZ EQU   PASWRK+2                  WORK AREA WITH HIGH-ORDER BYTE
                                821+*                                   2  ALWAYS CONTAINING ZERO
                          0078  822+PASRFN EQU   PASWKZ+4                  READ UNDER FORMAT NAME
                                823+*                                   6  FORMAT NAME FOR RUF


                          007B  825+PASEND EQU   PASRFN+3                  RESERVED AREA AND END OF 'PAS'.
                          007C  826+PASL   EQU   PASEND+1                  LENGTH OF PAS CONSTANTS
```

```
$CC4#1 EQUATES -- FOR PROGRAM APPENDED STORAGE
ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  25
```

```
                        829 *      $LOGD                                                    CCP00153
                        830+*                        *** S Y S L O G  O F F S E T S ***

                  0000  832+$LGFUN EQU   0                        FUNCTION CODE.
                  0001  833+$LGDS  EQU   1                        DEFAULT/SEVERITY.

                  0000  835+$LGSE1 EQU   X'00'                    SEVERITY  1
                  0001  836+$LGSE2 EQU   X'01'                    *         2
                  0002  837+$LGSE4 EQU   X'02'                    *         4
                  0003  838+$LGSE8 EQU   X'03'                    *         8

                  0003  840+$LGCC  EQU   3                        COMPONENT IDENTIFICATION.
                  0005  841+$LGHH  EQU   5                        MESSAGE IDENTIFICATION - PART 1.
                  0006  842+$LGDO  EQU   6                        RESPONSE + VALID OPTIONS

                  0080  844+$LGDE0 EQU   X'80'                    DEFAULT OPTION OR RESPONSE OF 0
                  0040  845+$LGDE1 EQU   X'40'                    *                             1
                  0020  846+$LGDE2 EQU   X'20'                    *                             2
                  0010  847+$LGDE3 EQU   X'10'                    *                             3
                  0008  848+$LGOP0 EQU   X'08'                    ALLOWABLE OPTION 0
                  0004  849+$LGOP1 EQU   X'04'                    *                1
                  0002  850+$LGOP2 EQU   X'02'                    *                2
                  0001  851+$LGOP3 EQU   X'01'                    *                3

                  0008  853+$LGII  EQU   8                        MESSAGE IDENTIFICATION - PART 2.
                  0007  854+$LGCL  EQU   7                        TEXT LENGTH  - FORMAT C
                  0009  855+$LGCAA EQU   9                        TEXT ADDRESS - FORMAT C
                  0009  856+$LGDL  EQU   9                        TEXT LENGTH  - FORMAT D
                  000B  857+$LGDAA EQU   11                       TEXT ADDRESS - FORMAT D
                  0006  858+$LGOTY EQU   6                        WTO(R) TYPE FUNCTION.
                  0009  859+$LGOL  EQU   9                        TEXT LENGTH  - WTO(R)
                  000B  860+$LGOAA EQU   11                       TEXT ADDRESS - WTO(R)
                        861+*                                     LEFTMOST BYTE DISPLACEMENT TO TH
                  000C  862+$LGOEC EQU   12                       ECB - WTO (1-CHAR RESP)
                  000D  863+$LGI1E EQU   13                       ADDRESS OF ECB (WTOW/WTOWH)
                  000F  864+$LGI2E EQU   15                       ADDRESS OF ECB (WTOW/WTOWH) / TC
                  0010  865+$LGJ1E EQU   16                       ADDRESS OF ECB (WTORW)
                  0012  866+$LGJ2E EQU   18                       ADDRESS OF ECB (WTORW) / TCB
                  000C  867+$LGON  EQU   12                       REPLY LENGTH  - WTOR
                  000E  868+$LGO@@ EQU   14                       REPLY ADDRESS - WTOR

                  0000  870+$LGFUT EQU   0                        OUTPUT ONLY FUNCTION CODE
                  0001  871+$LGPGE EQU   1                        *           PAGE CONTROL OPTION
                  0002  872+$LGLNG EQU   2                        *           BUFFER LENGTH
                  0004  873+$LGADR EQU   4                        *           BUFFER ADDRESS
                  0005  874+$LGCPL EQU   5                        *           CARRIAGE POSITION
                  0006  875+$LGCPR EQU   6                        *           RESERVED.
```

```
                        877 *      $EDSM RB-Y,SP-Y                                                CCP00155
                        878+*****************************************************************
                        879+*                                                               *
                        880+*  COMMUNICATIONS AREA FOR A PROGRAM LEVEL                      *
                        881+*                                                               *
                        882+*****************************************************************
                        883+*                      START OF TASK CONTROL BLOCK
                  0000  884+TCBB   EQU   0                        *
                  0001  885+TCBNXT EQU   TCBB+1                   2   @ OF NEXT TCB ON QUEUE
                  0002  886+TCBPRI EQU   TCBNXT+1                 1   TASK PRIORITY
                  0003  887+TCBID  EQU   TCBPRI+1                 1   TASK ID

                        889+*************************************************************
                        890+*                                                           *
                        891+*  NAME, PRIORITY AND ID OF THE SYSTEM TCBS:                *
                        892+*                                                           *
                        893+*  NAME.......                  PRIORITY...    ID.*..       *
                        894+*   CONSOLE MANAGEMENT TASK      F0             10          *
                        895+*   SYSTEM ERROR TASK            E0             20          *
                        896+*   SPOOL SUPPORT TASK           D0             30          *
                        897+*   SPOOL TASK                   CE             32          *
                        898+*   PROGRAM LEVEL 2 TASK         C0             40          *
                        899+*   PROGRAM LEVEL 1 TASK         60             A0          *
                        900+*   SYSTEM WAIT TASK             01             FF          *
                        901+*                                                           *
                        902+*   *-ID CHARACTERS 'A-Z' AND '0-9' ARE RESERVED FOR CCP TASKS *
                        903+*************************************************************

                  0004  905+TCBFG1 EQU   TCBID+1                 1   FLAG BITS
                        906+*                                     X'80'-CCP TASK
                        907+*                                     X'40'-NON-CANCELABLE SYSTEM TAS
                        908+*                                     X'08'-3 OPTION ONLY HALT PENDIN
                        909+*                                     X'04'-CANCEL NOT ALLOWED
                        910+*                                     X'02'-CANCEL DEFERRED
                        911+*                                     X'01'-EOJ IN PROCESS

                  0005  913+TCBFG2 EQU   TCBFG1+1                1   FLAG BITS
                        914+*                                     X'01'-ATT LOAD REQUESTED

                  0006  916+TCBDS1 EQU   TCBFG2+1                1   DISPATCHABILITY BITS
                        917+*                                     X'80'-NON-DISPATCHABLE
                        918+*                                     X'40'-SUSPENDED BY CCP
                        919+*                                     X'20'-CCP TERMINATE IN PROGRESS
                        920+*                                     X'02'-WAITING FOR RESOURCES
                        921+*                                     X'01'-WAITING FOR CORE

                  0007  923+TCBDS2 EQU   TCBDS1+1                1   DISPATCHABILITY BITS
```

```
                       925+******************** PROGRAM REQUEST BLOCK ************************
                  0009 926+TCBRBP EQU   TCBDS2+2                  2   @ OF ACTIVE REQUEST BLOCK
                  000B 927+TCBRBF EQU   TCBRBP+2                  2   REQUEST BLOCK FLAGS
                  000D 928+TCBTCB EQU   TCBRBF+2                  2   @ OF ASSOCIATED TCB
                  000F 929+TCBIAR EQU   TCBTCB+2                  2   PROGRAM LEVEL IAR
                  0011 930+TCBPMR EQU   TCBIAR+2                  2   PROGRAM LEVEL PMR
                  0013 931+TCBPSR EQU   TCBPMR+2                  2   PROGRAM LEVEL PSR
                  0015 932+TCBXR2 EQU   TCBPSR+2                  2   PROGRAM LEVEL XR2
                  0017 933+TCBXR1 EQU   TCBXR2+2                  2   PROGRAM LEVEL XR1
                  0019 934+TCBARR EQU   TCBXR1+2                  2   PROGRAM LEVEL ARR

                       936+*                    END OF WAIT TASK TCB

                  001C 938+TCBCSN EQU   TCBARR+3                  3   C/S/N FOR PROGRAM
                  001D 939+TCBRIB EQU   TCBCSN+1                  1   RIB VALUE
                  001E 940+TCBRSV EQU   TCBRIB+1                  1   RIB SAVE AREA
                  0024 941+TCBRS1 EQU   TCBRSV+6                  6   RESERVED
                       942+******************** END OF PROGRAM REQUEST BLOCK *****************

                  0026 944+TCBMAP EQU   TCBRS1+2                  2   @ OF CORE MAP FOR ASSIGN/FRE
                  0028 945+TCBTIM EQU   TCBMAP+2                  2   @ OF TIMER QUEUE ELEMENT
                  002A 946+TCBEJE EQU   TCBTIM+2                  2   EOJ EXIT @
                  002B 947+TCBEJC EQU   TCBEJE+1                  1   EOJ COMPLETION CODE
                       948+*                                       X'80'-DUMP REQUESTED
                       949+*                                  |---  X'40'-SECONDARY CODE SPECIFIED
                       950+*                USER CODES        |     X'20'-HALT/SYSLOG(2,3 OPTION)
                       951+*                                  |---  X'10'-OCC CANCEL
                       952+*
                       953+*                                  |---  X'08'-SECONDARY CODE SPECIFIED
                       954+*                SYSTEM CODES      |     X'04'-RESERVED
                       955+*                                  |     X'02'-INSUFFICIENT CORE STORAGE
                       956+*                                  |---  X'01'-PROGRAM CHECK
                       957+*                                       X'00'-NORMAL COMPLETION

              002C     959+TCBEJS EQU   TCBEJC+1                  1   EOJ SECONDARY COMPLETION COD
                       960+*                                          - SYSTEM SECONDARY CODES -
                       961+*                                       X'01'-INVALID ENQU SVC
                       962+*                                       X'02'-INVALID DEQU SVC
                       963+*                                       X'03'-I/O PROTECT VIOLATION
                       964+*                                       X'04'-LOADING BELOW NPBEG
                       965+*                                       X'05'-LOADING ABOVE NPEND
                       966+*                                       X'06'-INVALID SETON/SETOF SVC
                       967+*                                       X'07'-EXIO TO INVALID DEVICE

              002E     969+TCBRTC EQU   TCBEJS+2                  2   @ OF RELATED TCB FOR SPOOL
              004E     970+TCBATT EQU   TCBRTC+32                 32  ATT SAVE AREA
                       971+*      BYTES 25 THRU 32 OF THE ATT SAVE AREA ARE DEFINED AS FOLLOWS:
              0047     972+TCBHAV EQU   TCBATT-7                  1   RESOURCE(S) OWNED
                       973+*                                       X'01'-SCHEDULER INTERLOCK
                       974+*                                       X'02'-SPOOL FILE INTERLOCK
                       975+*                                       X'04'-SYSLOG BUFFER INTERLOCK

              004A     977+TCBRS3 EQU   TCBATT-4                  3   RESERVED
              004C     978+TCBPCA EQU   TCBATT-2                  2   PROG CHECK ADDRESS REG
              004E     979+TCBPCS EQU   TCBATT                    2   PROG CHECK STATUS REG
```

```
                                981+*                    START OF PROGRAM LEVEL COMM AREA
                           004F  982+NPPRTZ EQU   TCBATT+1                  1   PRINTER SIZE
                           0050  983+NPLPSZ EQU   NPPRTZ+1                  1   LEFT TRACTOR PAGE SIZE
                           0051  984+NPRPSZ EQU   NPLPSZ+1                  1   RIGHT TRACTOR PAGE SIZE
                           0052  985+NPHALT EQU   NPRPSZ+1                  1   HALT/SYSLOG
                                 986+*                                      X'08'-NO HALT DISPLAY
                                 987+*                                           OFF-YES
                                 988+*                                           ON-NO
                                 989+*                                      X'04'-DEFAULT MODE
                                 990+*                                      X'03'-
                                 991+*                                           00-0 OPTION => SEVERITY=1
                                 992+*                                           01-1 OPTION => SEVERITY=2
                                 993+*                                           10-2 OPTION => SEVERITY=4
                                 994+*                                           11-3 OPTION => SEVERITY=8

                           005A  996+NPJOB  EQU   NPHALT+8                  8   JOB NAME
                           0062  997+NPSTEP EQU   NPJOB+8                   8   STEP NAME
                           0068  998+NPNAME EQU   NPSTEP+6                  6   PROGRAM NAME
                           006A  999+NPSPCM EQU   NPNAME+2                  2   @ OF SPOOL COMM RELATED TO T
                           006B 1000+NPEOJ  EQU   NPSPCM+1                  1   END OF JOB BYTE
                                1001+*                                      X'80'-RJE ACTIVE/RETURN TO NPBE
                                1002+*                                      X'40'-NO IPL DISK ERRORS
                                1003+*                                      X'20'-LIB MAINT BIT
                                1004+*                                      X'10'-OCC DUMP TAKEN
                                1005+*                                      X'08'-QUIESCE IN PROCESS AT EJ
                                1006+*                                      X'01'-DO NOT CLOSE DTFS AT EOJ

                           002A 1008+NPEOJ@ EQU   TCBEJE                    END OF JOB RETURN @
                           006C 1009+NPSPOL EQU   NPEOJ+1                   1   RESERVED FOR SPOOL
                                1010+*                                      X'80'-TRAPPING I/O REQUEST
                                1011+*                                      X'40'-SPOOL SUPPORTED THIS LEVE
                                1012+*                                      X'20'-ON - END-OF-JOB
                                1013+*                                            OFF - END-OF-STEP
                                1014+*                                      X'10'-START SPOOL REQUESTED
                                1015+*                                      X'08'-STOP SPOOL REQUESTED

                           006E 1017+NPDTF@ EQU   NPSPOL+2                  2   @ OF LAST OPENED DTF
                           0071 1018+NPBEG  EQU   NPDTF@+3                  3   REAL PROGRAM BEGIN @
                           0074 1019+NPEND  EQU   NPBEG+3                   3   REAL PROGRAM END @
                           0076 1020+NPBEGL EQU   NPEND+2                   2   LOGICAL PROGRAM BEGIN @
                           0078 1021+NPRLF  EQU   NPBEGL+2                  2   PROGRAM RELOCATION FACTOR
                           007A 1022+NPCYL  EQU   NPRLF+2                   2   C/S OF FIRST LOAD (OVERLAYS)
                           007C 1023+NPOLIB EQU   NPCYL+2                   2   C/S OF PROG OBJ LIB
                           007E 1024+NPORLF EQU   NPOLIB+2                  2   OVERLAY RELOCATION FACTOR
                           0080 1025+NPTXT  EQU   NPORLF+2                  2   OVERLAY TEXT @
                                1026+*                   END OF SPOOL SUPPORT COMMON AREA
                                1027+*****************************************************************
                                1028+*                                                               *
                                1029+*     SYSTEM COMMUNICATIONS AREA                                *
                                1030+*                                                               *
                                1031+*****************************************************************


                           0000 1033+NCC    EQU   0                         *
                           0001 1034+NCPL1  EQU   NCC+1                     2   @ OF PROG LEVEL 1 COMM
                           0003 1035+NCPL2  EQU   NCPL1+2                   2   @ OF PROG LEVEL 2 COMM
```

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$CC4#1 EQUATES -- FOR SYSTEM COMM AREAS

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT           SCP GENERATOR  08/08/10  PAGE  30

                          0005 1036+NCTCB  EQU   NCPL2+2                  2   @ OF HIGHEST PRIORITY TCB
                          0007 1037+NCXTAB EQU   NCTCB+2                  2   @ OF XSNT SCHEDULER TABLE
                          0009 1038+NC@NEW EQU   NCXTAB+2                 2   @ OF NEW AND OLD
                               1039+*                                      OLD=@ OF ACTIVE TCB
                          000A 1040+NCDSP1 EQU   NC@NEW+1                 1  TRACE SUPERVISION BITS
                          0080 1041+NCTRCA EQU   X'80'                    X'80'-TRACE ACTIVE
                          0040 1042+NCTRCS EQU   X'40'                    X'40'-TRACE SUSPENDED
                          0020 1043+NCTCCP EQU   X'20'                    X'20'-CCPTRACE TYPE-CCP
                          0010 1044+NCTALL EQU   X'10'                    X'10'-CCPTRACE TYPE-ALL
                          0008 1045+NCTRDK EQU   X'08'                    X'08'-CCPTRACE TO DISK

                          000B 1047+NCDSP2 EQU   NCDSP1+1                 1   TASK SUPERVISION BITS
                               1048+*                                      X'08'-TASK(S) WAITING FOR
                               1049+*                                            RESOURCES
                               1050+*                                      X'04'-TRANSIENT AREA NOT
                               1051+*                                            REFRESHABLE
                               1052+*                                      X'02'-HIGHER PRIORITY TASKS ARE
                               1053+*                                            WAITING ON TRANSIENT AREA
                               1054+*                                      X'01'-TASK(S) WAITING FOR CORE

                          000C 1056+NCSGEN EQU   NCDSP2+1                 -   SYSTEM USAGE
                               1057+*                                      X'80'-DO NOT UPDATE SIO CTRS
                               1058+*                                      X'02'-SYSTEM MAINTENANCE
                               1059+*                                      X'01'-SYSTEM GENERATION

                          000D 1061+NCAFML EQU   NCSGEN+1                 1   ASIGN/FREE MASK LENGTH
                          0010 1062+NCSLOG EQU   NCAFML+3                 3   SYSLOG INDICATOR C/S/DEV INF
                               1063+*                                      X'00'-CONSOLE
                               1064+*                                      X'80'-3284
                               1065+*                                      X'40'-1403

                          0012 1067+NCSWRK EQU   NCSLOG+2                 2   C/S OF SWA
                          0013 1068+NCSYSQ EQU   NCSWRK+1                 1   Q OF SYSTEM PACK
                          0015 1069+NCOLIB EQU   NCSYSQ+2                 2   C/S OF SYSTEM OBJECT LIB
                          001B 1070+NCDATE EQU   NCOLIB+6                 6   SYSTEM DATE
                          001C 1071+NCSCH1 EQU   NCDATE+1                 1   SCHEDULER SWITCHES
                               1072+*                                      X'80'-LOG STATUS
                               1073+*                                            ON-LOG TO CRT
                               1074+*                                            OFF-LOG TO 1403 OR 3284
                               1075+*                                      X'40'-SYSTEM DATE RECEIVED
                               1076+*                                      X'10'-SKD INTERLOCK PL1
                               1077+*                                      X'08'-SKD INTERLOCK PL2
                               1078+*                                      X'04'-DATE FORMAT
                               1079+*                                            OFF-MMDDY DOMESTIC
                               1080+*                                            ON-DDMMYY WORLD TRADE
                               1081+*                                      X'03'-5444 CONFIG
                               1082+*                                            00-F1,R1
                               1083+*                                            01-F1,R1,R2
                               1084+*                                            11-F1,R1,R2,F2

                          001D 1086+NCSMV1 EQU   NCSCH1+1                 1   DM/SKD SWITCHES
                               1087+*                                      X'80'-IPL SUCCESSFUL
                               1088+*                                      X'40'-INPUT FOR I TYPE
                               1089+*                                      X'20'-SYSLOG INTERLOCK-P1
                               1090+*                                      X'10'-SYSLOG INTERLOCK-P2
                               1091+*                                    -  X'08'-OFFLINE MVF ON R1
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                          1092+*                                    -    X'04'-OFFLINE MVF ON R2
                          1093+*                              PL 1  -    X'02'-OTHER FILE ON R1
                          1094+*                                    -  X'01'-OTHER FILE ON R2

                     001E 1096+NCSMV2 EQU   NCSMV1+1                  1   DM/SKD SWITCHES
                          1097+*                                       X'80'-SPOOL IS ACTIVE
                          1098+*                                       X'40'-SYSTEM IPL MODE
                          1099+*                                       X'20'-SPOOL SUPPORTED
                          1100+*                                    -  X'08'-OFFLINE MVF ON R1
                          1101+*                               PL 2 -    X'04'-OFFLINE MVF ON R2
                          1102+*                                    -    X'02'-OTHER FILE ON R1
                          1103+*                                    -  X'01'-OTHER FILE ON R2

                     001F 1105+NCSCH  EQU   NCSMV2+1                  1   SKD BYTE
                          1106+*                                       X'80'-INQUIRY SUPPORTED
                          1107+*                                       X'40'-CCP SUPPORTED
                          1108+*                                       X'20'-TIMER SUPPORTED

                     0021 1110+NCDSKQ EQU   NCSCH+2                   2   @ OF 5444 QUEUE
                     0023 1111+NCDSK5 EQU   NCDSKQ+2                  2   @ OF 5445 QUEUE
                     0025 1112+NCTAPQ EQU   NCDSK5+2                  2   @ OF TAPE QUEUE
                     0027 1113+NCURQ  EQU   NCTAPQ+2                  2   @ OF FIRST UNIT RECORD QUEUE
                     0029 1114+NCETQ@ EQU   NCURQ+2                   2   @ OF SYSTEM ERROR TASK QUEUE
                     002B 1115+NCCMTQ EQU   NCETQ@+2                  2   @ OF CONSOLE MGT COMM AREA

                     002E 1117+NCRCSS EQU   NCCMTQ+3                  3   ROLL/OUT C/S/N
                     002F 1118+NCCONF EQU   NCRCSS+1                  1   5445 AND TAPE CONFIG
                          1119+*                                       X'80'-RESERVED
                          1120+*                                       X'40'-RESERVED
                          1121+*                                       X'38' - 100 - D1
                          1122+*                                              101 - D1,D2
                          1123+*                                              110 - D1,D2,D3
                          1124+*                                              111 - D1,D2,D3,D4
                          1125+*                                       X'07' - 100 - T1
                          1126+*                                              101 - T1,T2
                          1127+*                                              110 - T1,T2,T3
                          1128+*                                              111 - T1,T2,T3,T4

                     0030 1130+NCSCH3 EQU   NCCONF+1                  1   SCHEDULER BYTE
                     0031 1131+NCSCH4 EQU   NCSCH3+1                  1   SCHEDULER BYTE
                     0033 1132+NCRQE  EQU   NCSCH4+2                  2   @ OF RQE TABLE
                     0034 1133+NCEXTR EQU   NCRQE+1                   1   EXTRA BYTE
                     0035 1134+NCSMV3 EQU   NCEXTR+1                  1   5445 DM MVF INTERLOCK
                          1135+*                                       PGM LEVEL 1
                          1136+*                                       X'80'-MULTIVOLUME FILE ON D1
                          1137+*                                       X'40'-MULTIVOLUME FILE ON D2
                          1138+*                                       X'20'-MULTIVOLUME FILE ON D3
                          1139+*                                       X'10'-MULTIVOLUME FILE ON D4
                          1140+*                                       X'08'-OTHER TYPE FILE ON D1
                          1141+*                                       X'04'-OTHER TYPE FILE ON D2
                          1142+*                                       X'02'-OTHER TYPE FILE ON D3
                          1143+*                                       X'01'-OTHER TYPE FILE ON D4

                     0036 1145+NCSMV4 EQU   NCSMV3+1                  1   5445 DM MVF INTERLOCK
                          1146+*                                       PGM LEVEL 2
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                          1147+*                                X'80'-MULTIVOLUME FILE ON D1
                          1148+*                                X'40'-MULTIVOLUME FILE ON D2
                          1149+*                                X'20'-MULTIVOLUME FILE ON D3
                          1150+*                                X'10'-MULTIVOLUME FILE ON D4
                          1151+*                                X'08'-OTHER TYPE FILE ON D1
                          1152+*                                X'04'-OTHER TYPE FILE ON D2
                          1153+*                                X'02'-OTHER TYPE FILE ON D3
                          1154+*                                X'01'-OTHER TYPE FILE ON D4

                     0037 1156+NCMVT1 EQU   NCSMV4+1           4   TAPE MFV SUPPORT
                     003B 1157+NCMVT2 EQU   NCMVT1+4           4   TAPE MFV SUPPORT
                     003F 1158+NCMVT3 EQU   NCMVT2+4           4   TAPE MFV SUPPORT
                     0043 1159+NCMVT4 EQU   NCMVT3+4           4   TAPE MFV SUPPORT
                     0048 1160+NCPRTB EQU   NCMVT4+5           2   @ OF 133-BYTE SYSLOG BUFR
                     0049 1161+NCCNFG EQU   NCPRTB+1           17  START OF 17-BYTE UR CONFIG
                     005A 1162+NCUTL1 EQU   NCCNFG+17          1   RESERVED FOR SPOOL
                          1163+*                                X'80'-SPOOL USING D1
                          1164+*                                X'40'-SPOOL USING D2
                          1165+*                                X'20'-SPOOL USING D3
                          1166+*                                X'10'-SPOOL USING D4

                     005B 1168+NCSIPT EQU   NCUTL1+1           1   SPOOL INPUT DEVICE
                     005C 1169+NCSPRT EQU   NCSIPT+1           1   SPOOL PRINT DEVICE
                     005D 1170+NCSPCH EQU   NCSPRT+1           1   SPOOL PUNCH DEVICE
                     005F 1171+NCSPVN EQU   NCSPCH+2           2   SUPERVISOR END @
                     0061 1172+NCPFKT EQU   NCSPVN+2           2   @ OF PROG FUNCTION KEY TABLE
                     0062 1173+NCMPSZ EQU   NCPFKT+1           1   MATRIX PRINTER SIZE
                     0063 1174+NCMPLC EQU   NCMPSZ+1           1   MATRIX PRINTER LINE COUNT
                     0065 1175+NCTMRQ EQU   NCMPLC+2           2   @ OF TIMER QUEUE
                     0065 1176+NCAEND EQU   NCTMRQ             LAST BYTE OF SCA
```

```
                          1178+*********************************************************************
                          1179+*                                                                   *
                          1180+*     REQUEST BLOCK EQUATES                                         *
                          1181+*                                                                   *
                          1182+*********************************************************************

                    0000 1184+RBB    EQU   0                          *
                    0001 1185+RBRBP  EQU   RBB+1                      2   POINTER TO PREVIOUS RB
                    0002 1186+RBFLG1 EQU   RBRBP+1                    1   RB FLAG BITS
                         1187+*                                        X'80'-RB WAITING ON ECB

                    0003 1189+RBFLG2 EQU   RBFLG1+1                   1   RB TYPE
                         1190+*                                        X'80'-TA REQUIRED (TRB)
                         1191+*                                        X'40'-REFRESH (RRB)
                         1192+*                                        X'04'-CCP (CRB)
                         1193+*                                        X'02'-SUSPEND (SRB)
                         1194+*                                        X'01'-LOADER (LRB)

                    0005 1196+RBTCB  EQU   RBFLG2+2                   2   @ OF TCB
                    0007 1197+RBIAR  EQU   RBTCB+2                    2   PROGRAM LEVEL IAR
                    0009 1198+RBPMR  EQU   RBIAR+2                    2   PROGRAM LEVEL PMR
                    000B 1199+RBPSR  EQU   RBPMR+2                    2   PROGRAM LEVEL PSR
                    000D 1200+RBXR2  EQU   RBPSR+2                    2   PROGRAM LEVEL XR2
                    000F 1201+RBXR1  EQU   RBXR2+2                    2   PROGRAM LEVEL XR1
                    0011 1202+RBARR  EQU   RBXR1+2                    2   PROGRAM LEVEL ARR
                    0014 1203+RBCSN  EQU   RBARR+3                    3   PROGRAM LEVEL C/S/N
                    0015 1204+RBRIB  EQU   RBCSN+1                    1   PROGRAM LEVEL RIB
                    0016 1205+RBRSAV EQU   RBRIB+1                    1   RIB SAVE AREA
                    001C 1206+RBRES  EQU   RBRSAV+6                   6   RESERVED
                    001D 1207+RBWORK EQU   RBRES+1                    35  START OF WORK AREA-35 BYTES
```

```
                          1209+*****************************************************************
                          1210+*                                                               *
                          1211+*  COMMON EQUATES                                               *
                          1212+*                                                               *
                          1213+*****************************************************************
                     0004 1214+NCENTR EQU   4                          'BRANCH TO 4'
                     0011 1215+NCSYS@ EQU   X'0011'                    @ OF POINTER TO SYSTEM COMM
                     001A 1216+NCMSVA EQU   X'001A'                    @ OF MFCU PERM HISTORY TABLE
                     002A 1217+NCTRAC EQU   X'002A'                    @ OF POINTER TO TRACE TABLE
                     002E 1218+NCTCB@ EQU   X'002E'                    @ OF POINTER TO ACTIVE TCB (OLD)
                     0031 1219+NCTERM EQU   X'0031'                    @ OF POINTER TO ABTERM ROUTINE
                     0032 1220+NCSVCJ EQU   X'0032'                    @ OF AN SVC TO EOJ
                     0036 1221+NCSVCE EQU   X'0036'                    @ OF AN SVC EXIT
                     003B 1222+NCTRAP EQU   X'003B'                    @ OF POINTER TO TRAP TABLE
                     003F 1223+NCPENT EQU   X'003F'                    @ OF PONTER TO POST ENTRY RTN
                     0041 1224+NCDENT EQU   X'0041'                    @ OF POINTER TO DISP ENTRY RTN
                     0043 1225+NCCCP  EQU   X'0043'                    @ OF CCP SVC INTERCEPT ADDRESS
                     0045 1226+NCXTB@ EQU   X'0045'                    @ OF CCP TCB AREA START ADDRESS
                     0047 1227+NCXTE@ EQU   X'0047'                    @ OF CCP TCB AREA END ADDRESS
                     0048 1228+NCCECB EQU   X'0048'                    @ OF CCP COMMAND PROCESSOR ECB
                     0700 1229+NCHIMG EQU   X'0700'                    @ OF CHAIN IMAGE
                     077C 1230+NCSBUF EQU   X'077C'                    @ OF SYSLOG PRINT BUFFER.
                     0100 1231+NCPCHK EQU   X'0100'                    @ OF PROGRAM CHECK SAVE AREA
                     0800 1232+NCTA@  EQU   X'0800'                    @ OF TRANSIENT AREA
                     00C0 1233+NCL2PR EQU   X'C0'                      LEVEL 2 PRIORITY
```

```
                               1235 *      $ETCC DF-0                                                        CCP00157


                               1237+*************************************************************************
                               1238+*      T A S K   C O M P L E T I O N   C O D E   S Y M B O L S       *
                               1239+*************************************************************************


                               1241+* CODES FOR ERRORS DETECTED BY $CC4II -- COMMUNICATIONS INTERFACE

                          0001 1243+TCCIOP EQU   X'01'                    INVALID OP CODE/MODIFIERS
                          0002 1244+TCCIOK EQU   X'02'                    INVALID OP FOR 5471 CONSOLE
                          0003 1245+TCCNNF EQU   X'03'                    STN NOT DEFINED IN SYSTEM
                          0004 1246+TCCNAP EQU   X'04'                    TERMINAL NOT ALLOCATED TO PROGRA
                          0005 1247+TCCNAN EQU   X'05'                    ALLOC TERM REFERENCED BY OTHER
                               1248+*                                     THAN ALLOCATED NAME
                          0006 1249+TCCMBL EQU   X'06'                    BLANK STN FOR MRTS PROGRAM
                          0007 1250+TCCRBL EQU   X'07'                    BLANK STN AND REQUESTOR RELEASED
                          0008 1251+TCCIBL EQU   X'08'                    BLANK STN INVALID FOR THIS OP
                          0009 1252+TCCISN EQU   X'09'                    INVALID USE OF SUB-TERMINAL NAME
                          000A 1253+TCCNAT EQU   X'0A'                    STN NOT ASSIGNED TO TERMINAL
                          000B 1254+TCCITA EQU   X'0B'                    TERMINAL ATTRIBUTE SET INVALID
                               1255+*                                     FOR TERMINAL SPECIFIED
                          000C 1256+TCCIOC EQU   X'0C'                    TERMINAL DOES NOT HAVE I/O
                               1257+*                                     CAPABILITY SPECIFIED IN OPERATIN
                          000D 1258+TCCIOL EQU   X'0D'                    INVALID OUTPUT LENGTH
                          000E 1259+TCCIIL EQU   X'0E'                    INVALID INPUT LENGTH
                          000F 1260+TCCTPB EQU   X'0F'                    INPUT LENGTH GT TP BUFFER SIZE
                          0010 1261+TCCIMO EQU   X'10'                    INVALID OP WITH DATA FROM
                               1262+*                                     PROGRAM REQUEST OUTSTANDING
                          0011 1263+TCCIIO EQU   X'11'                    INVALID OP WITH INVITE INPUT
                               1264+*                                     OUTSTANDING TO THIS TERMINAL
                          0012 1265+TCCIAN EQU   X'12'                    ACCEPT INVALID WITH NO
                               1266+*                                     OUTSTANDING INVITES FOR NON-NEP
                          0013 1267+TCCIAC EQU   X'13'                    NO OUTSTANDING INVITES FOR NEP
                               1268+*                                     WITH ACTIVE TERMINAL COUNT NOT
                               1269+*                                     LESS THAN MAX TERMINAL COUNT
                          0014 1270+TCCNIO EQU   X'14'                    INVALID OP WITH NO INVITE
                               1271+*                                     OUTSTANDING FOR THIS TERMINAL
                          0015 1272+TCCIGB EQU   X'15'                    INPUT AREA NOT LARGE ENOUGH FOR
                               1273+*                                     BSCA GET BLOCK
                          0016 1274+TCCICA EQU   X'16'                    COPY TO TERMINAL WITHOUT MAPPING
                          0017 1275+TCCICN EQU   X'17'                    COPY TO TERMINAL NAME NOT FOUND
                          0018 1276+TCCICT EQU   X'18'                    COPY INVALID TO 3275
                          0019 1277+TCCIEA EQU   X'19'                    ERASE TO TERMINAL WITHOUT MAPPIG
                          001A 1278+TCCIPA EQU   X'1A'                    PUT OVERRIDE WITHOUT MAPPING
                          001B 1279+TCCIPM EQU   X'1B'                    INVALID PUT WITH MAPPING -NO EOT
                          001C 1280+TCCITB EQU   X'1C'                    RECORD AREA TOO SMALL FOR BSCA
                               1281+*                                     GET WITH ITB, OR OUTPUT
                               1282+*                                     LENGTH TOO SMALL FOR PUT - ITB
                          001D 1283+TCCIAI EQU   X'1D'                    ACCPET BUT IMPOSSIBLE TO RECEIVE
                               1284+*                                     DATA FROM ANY TERMINAL WITH
                               1285+*                                     INVITE CURRENTLY OUTSTANDING
                          001E 1286+TCCIKL EQU   X'1E'                    OUTPUT LENGTH TO CONSOLE
                               1287+*                                     GREATER THAN 80
                          001F 1288+TCCLRG EQU   X'1F'                    OUTPUT LENGTH LARGER THAN
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$CC4#1 EQUATES -- TASK COMPLETION CODES

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT           SCP GENERATOR  08/08/10  PAGE  36

                               1289+*                                        TP BUFFER SIZE
                               1291+* ERRORS DETECTED CONCERNING 'SUBR90' MOVE ROUTINE
                          0020 1293+TCCLRP EQU   X'20'                       LENGTH OF FIELDS TO BE MOVED
                               1294+*                                        IS GREATER  AS THE GIVEN BUFFER-
                               1295+*                                        LENGTH
                               1297+* ERRORS DETECTED CONCERNING AN 'ACQUIRE TERMINAL' OPERATION
                          0021 1299+TCCAST EQU   X'21'                       ACQ OF SUB-TERMINAL NAME
                          0022 1300+TCCAKN EQU   X'22'                       ACQUIRE CONSOLE
                          0023 1301+TCCAAS EQU   X'23'                       ATTEMPT TO ACQUIRE AN OWNED
                               1302+*                                        TERMINAL WHO IS NOT REQUESTOR,
                               1303+*                                        OR IS THE REQUESTOR BUT THIS IS
                               1304+*                                        NOT A SET ATTRIBUTES OPERATION
                          0024 1305+TCCADT EQU   X'24'                       SET ATTRIBUTES TO OWNED TERMINAL
                               1306+*                                        IN PROCESS OF BSCA DATA TRANSFER
                          0025 1307+TCCATS EQU   X'25'                       TERMINAL ATTRIBUTE SET ERROR
                               1309+* ERRORS DETECTED CONCERNING A 'RELEASE TERMINAL' OPERATION
                          0026 1311+TCCRST EQU   X'26'                       RELEASE SUB-TERMINAL NAME
                          0027 1312+TCCROW EQU   X'27'                       RELEASE OF BSCA TERMINAL WHICH
                               1313+*                                        CURRENTLY OWNS THE LINE
                               1315+* ERRORS DETECTED BY THE RPG COMMUNICATIONS SERVICE ROUTINE 'SUBR92'
                          0028 1317+TCCRPL EQU   X'28'                       LENGTH SPECIFIED FOR INPUT OR
                               1318+*                                        OUTPUT OPERATION IS GREATER THAN
                               1319+*                                        THE RECORD LENGTH IN THE DTF
                          0029 1320+TCCRCB EQU   X'29'                       PUT THEN GET OPERATION
                               1321+*                                        PUT PENDING AND NOT FOLLOWED BY
                               1322+*                                        A GET OF THE PUT THEN GET
                               1324+* CANCELLATION BY THE SYSTEM OPERATOR
                          002A 1326+TCCCCN EQU   X'2A'                       CONSOL CANCEL
                          002B 1327+TCCCCP EQU   X'2B'                       SYSTEM OPERATOR CANCELED CCP
                               1329+* ERRORS DETECTED UPON USER PROGRAM EXIT
                          002C 1331+TCCINV EQU   X'2C'                       TASK HAD INVITES  OUTSTANDING
                               1332+*                                        AT END-OF-JOB
                          002D 1333+TCCEOT EQU   X'2D'                       TASK HAS UNFINISHED BSCA EOT
                               1334+*                                        OPERATION AT END-OF-JOB
                               1336+* FILE OPERATION ERROR -- INVALID ADD TO SHARED FILE
                          002E 1338+TCCIVA EQU   X'2E'                       INVALID ADDER
                               1340+*      TERMINATION CODE FOR INVALID CHARACTER SENT TO THE 3270 SYSTEM.
                          002F 1342+TCCHAR EQU   X'2F'                       ILLEGAL CHARACTER OR ADDRESS
                               1343+*                                        SENT TO THE 3270 SYSTEM.
```

$CC4#1 EQUATES -- TASK COMPLETION CODES


```
                          1345+*  RPG TERMINATION CODE
                     0030 1346+TCCRIS EQU   X'30'                    PGM USED SUBR91 WITH 'SPECIAL'
                          1347+*                                     FILES, OR SUBR92 WITH 'EXIT/
                          1348+*                                     RLABL OPERATION.

                     0031 1350+TCCNEJ EQU   X'31'                    NEP EOJ BEFORE SHUTDOWN

                     0032 1352+TCCSQB EQU   X'32'                    NO AVAILABLE SECTOR QUEUE BLOCK
                          1353+*                                     FOR SHARED FILE I/O REQUEST
                          1354+* UNCONDITIONAL HALT ISSUED FROM USER PROGRAM

                          1356+* RPG II CODES FROM SUBR92

                     0033 1358+TCC33  EQU   X'33'                    INDICATOR 91 NOT RESET FOR MORE
                          1359+*                                     THAN TWO OPERATIONS.

                     0034 1361+TCC34  EQU   X'34'                    SPECIAL FILE USES SUBR92 BUT AN
                          1362+*                                     ARRAY IS NOT ASSOCIATED WITH
                          1363+*                                     THE FILE.

                          1365+*   ADDITIONAL TERMINATION CODES FROM $CC4II - COMMUNITCATIONS INTER.

                     0035 1367+TCCNDF EQU   X'35'                    DFF TERMINAL REFERENCED BY
                          1368+*                                     A NON-DFF TASK
                     0036 1369+TCCWAT EQU   X'36'                    WAIT OPERATION DATA AREA WAS
                          1370+*                                     NOT 10 BYTES (24 FOR RPG)
                     0037 1371+TCCNRP EQU   X'37'                    REQUIRED PORT NOT DEFINED AT
                          1372+*                                     ASSIGNMENT OR IT WAS RELEASED
                     0038 1373+TCCPNC EQU   X'38'                    PORT COMMAND REQUEST NOT
                          1374+*                                     ISSUED TO AN AQUIRABLE PORT
                     0039 1375+TCCRTC EQU   X'39'                    ERROR DETECTED USING RTC OPCOD
                          1376+*
                     003A 1377+TCCDCN EQU   X'3A'                    TASK CANCEL WITH DUMP

                     003B 1379+TCCDCP EQU   X'3B'                    CCP CANCEL WITH DUMP

                     003C 1381+TCCAQG EQU   X'3C'                    GENERIC KEY GIVEN FOR A GENERIC
                          1382+*                                     AQUIRE OPERATION DOES NOT SELECT
                          1383+*                                     ANY TNT TO TEST IF ACQUIRABLE
                     003D 1384+TCCAQP EQU   X'3D'                    ATTEMPT TO SET ATTRIBUTES
                          1385+*                                     ON A PORT TERMINAL
                     003E 1386+TCCAQN EQU   X'3E'                    ATTEMPT TO AQUIRE A
                          1387+*                                     NON AQUIRABLE PORT
                     003F 1388+TCCTCH EQU   X'3F'                    TASK CHAIN NOT SUPPORTED

                          1390+*      3741 TERMINATION CODE
                     0040 1391+TCCST1 EQU   X'40'                    3741 HAS INDICATED THAT
                          1392+*                                     STATUS WILL BE SENT BUT SENT
                          1393+*                                     DATA INSTEAD.

                          1395+*     SPOOL FILE UTILITY TERMINATION CODE
                     0041 1396+TCCSFU EQU   X'41'                    SPOOL FILE UTILITY PGM WAS
                          1397+*                                     REQUESTED VIA TASK CHAINING
                          1398+*                                     OR PRUF
                     0048 1399+TCCNMM EQU   X'48'                    ONLY MSG MODE PUTS ARE VALID
                          1400+*                                     TO NON-SIOC PORTS
```

```
                               1402+*      CCP TERMINATION CODES FOR PROGRAM CHECK TERMINATION.
                          0050 1403+TCCPRT EQU   X'50'                    STORAGE PROTECT VIOLATION
                          0051 1404+TCCQCD EQU   X'51'                    INVALID Q-CODE
                          0052 1405+TCCOPC EQU   X'52'                    INVALID OPCODE
                          0053 1406+TCCADR EQU   X'53'                    INVALID ADDRESS
                          0054 1407+TCCPRV EQU   X'54'                    PRIVELEGED OPERATION
                               1408+*      EQU   X'55'                    RESERVED FOR PROGRAM CHECK
                               1409+*      EQU   X'56'                    RESERVED FOR PROGRAM CHECK

                               1411+*      ERRORS DETECTED FOR BSCC SIOC TERMINATION CODES.
                          0070 1412+TCCLDT EQU   X'70'                    SIOC. LOST DATA.
                          0071 1413+TCCCLS EQU   X'71'                    SIOC. OTHER CPU CLOCK STOPPED
                          0072 1414+TCCPRM EQU   X'72'                    SIOC. PERM ERROR IN OTHER CPU
                          0073 1415+TCCABT EQU   X'73'                    SIOC. ABORT FROM OTHER CPU REC

                          007F 1417+TCCHLT EQU   X'7F'                    UNCONDITIONAL HALT FROM USER TSK

                               1419+* ERROR DETECTED BY GENERAL ENTRY INTERCEPT -- INVALID SUB-RIB

                          0080 1421+TCCRIB EQU   X'80'                    INVALID SUB-RIB TO GENERAL ENTRY

                               1423+*-------------------------------------------------------------------*
                               1424+*      PSEUDO OPEN/CLOSE/ALLOCATE TASK COMPLETION CODES              *
                               1425+*-------------------------------------------------------------------*

                          0082 1427+TCCOPN EQU   X'82'                    PSUEDO-OPEN ERROR--INVALID DTF

                               1429+*      CODE 82 TERMINATION SUBHALTS

                          0001 1431+TCC#01 EQU   X'01'                    FILE NOT ALLOCATED
                          0002 1432+TCC#02 EQU   X'02'                    FILE NAME NOT RECOGIZED
                          0003 1433+TCC#03 EQU   X'03'                    FILE NOT ALLOCATED TO TASK
                          0004 1434+TCC#04 EQU   X'04'                    LINES TO SKIP > MAX ALLOWED TO S
                          0005 1435+TCC#05 EQU   X'05'                    BUFFER NOT ON 7C BOUNDARY
                          0006 1436+TCC#06 EQU   X'06'                    CARD BUFFER NOT ALLIGNED
                          0007 1437+TCC#07 EQU   X'07'                    NOT A VALID ACCESS
                          0008 1438+TCC#08 EQU   X'08'                    ACCESS NOT ALLOWED FOR THIS ORGA
                          0009 1439+TCC#09 EQU   X'09'                    ADD ACCESS,BUT SDTF NOT ADD TYPE
                          0010 1440+TCC#10 EQU   X'10'                    LOAD ACCESS/ORGANIZATION CONFLIC
                          0011 1441+TCC#11 EQU   X'11'                    NOT USED
                          0012 1442+TCC#12 EQU   X'12'                    ISA/ISUA ACCESS BUT PREVIOUS ADD
                          0013 1443+TCC#13 EQU   X'13'                    Q BYTES NOT COMPATIBLE
                          0014 1444+TCC#14 EQU   X'14'                    RECORD OR KEY LENGTH,OR KEY DISP
                          0015 1445+TCC#15 EQU   X'15'                    DEADLY EMBRACE
                          0016 1446+TCC#16 EQU   X'16'                    NOT USED
                          0017 1447+TCC#17 EQU   X'17'                    NOT USED
                          0018 1448+TCC#18 EQU   X'18'                    ATTEMPT TO OPEN AS CA OR IR WHIL
                          0019 1449+TCC#19 EQU   X'19'                    NOT RECOMPILED FOR RELEASE 3
                          0020 1450+TCC#20 EQU   X'20'                    NOT A RANDOM ACCESS
                          0021 1451+TCC#21 EQU   X'21'                    OPEN AS MVF BUT NOT FIRST VOLUME
                          0022 1452+TCC#22 EQU   X'22'                    MORE THAN 4 VOLUMES
                          0023 1453+TCC#23 EQU   X'23'                    NOT INDEXED OR DIRECT
                          0024 1454+TCC#24 EQU   X'24'                    NOT ENOUGH SDTF'S CHAINED (INDEX
                          0025 1455+TCC#25 EQU   X'25'                    NO SHARE FILE WANTED BUT IN USE
                          0026 1456+TCC#26 EQU   X'26'                    UNORDERED LOAD ACCESS IN DTF;NOT
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$CC4#1 EQUATES -- TASK COMPLETION CODES

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT           SCP GENERATOR  08/08/10  PAGE  39

                          0027 1457+TCC#27 EQU   X'27'                    FILE SHARE CONFLICT(NO FSQE'S OR
                               1458+*                        ACCESS BUT OPEN AS SHARE)

                          0083 1460+TCCFSA EQU   X'83'                    DTF OR IOB EXTENDS INTO FSA

                          0084 1462+TCCDER EQU   X'84'                    I/O ERROR WHILE PRIMING OR
                               1463+*                                     PURGING BUFFERS DURING OPEN/CLS

                          008B 1465+TCCALC EQU   X'8B'                    PSEUDO-ALLOCATE UNOWNED DEVICE
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                          1469 *      $ECPL                                                          CCP00159
                          1470+*************************************************************************
                          1471+*      C O M M U N I C A T I O N S   P A R A M E T E R   L I S T      *
                          1472+*************************************************************************

                     0000 1474+CCPPL  EQU   0                        BEGINNING OF PARAMETER LIST.

                     0001 1476+PLRTC  EQU   CCPPL+2-1                REQUESTERS RETURN CODE.
                     0001 1477+PLCHN  EQU   PLRTC                    PARM LIST CHAIN PTR. * CM ONLY *

                     0002 1479+PLOPM  EQU   PLRTC+1                  REQUESTERS OP CODE MODIFIERS.
                     0003 1480+PLOPC  EQU   PLOPM+1                  REQUESTERS OP CODE.

                     0005 1482+PLOUTL EQU   PLOPC+2                  OUTPUT LENGTH.
                     0005 1483+PLEFFL EQU   PLOUTL                   EFFECTIVE INPUT LENGTH.
                     0005 1484+PLASID EQU   PLOUTL                   TERMINAL ATTRIBUTE SET ID.

                     0007 1486+PLINL  EQU   PLOUTL+2                 MAXIMUM INPUT LENGTH.

                     0009 1488+PLRECA EQU   PLINL+2                  RECORD AREA ADDRESS.

                     000B 1490+PLTUBA EQU   PLRECA+2                 TUB ADDRESS.  ** CM ONLY **

                     000C 1492+PL$OPM EQU   PLTUBA+1                 INTERNAL OPERATION CODE.

                     000D 1494+PL$OPC EQU   PL$OPM+1                 SAVED INTERNAL OP.*CM BSCA ONLY*
                     000D 1495+PL$MCT EQU   PL$OPC                   MCT INDICES.      *CM MLTA ONLY*

                     000F 1497+PL$RTC EQU   PL$OPC+2                 INTERNAL RETURN CODE. ** CM **
                     000F 1498+PL$TNT EQU   PL$RTC                   ADDRESS OF TNT ENTRY  ** II **

                     000F 1500+PLENDS EQU   PL$TNT                   END OF PARAMETER LIST

                     0010 1502+PLECB  EQU   PL$RTC+1                 PARAMETER LIST'S ECB.

                     0010 1504+PLLNG  EQU   PLECB-CCPPL              PARAMETER LIST LENGTH

                     0013 1506+PLLEN  EQU   PLECB-CCPPL+3            LENGTH OF TP REQUEST PARM LIST.


                          1508+*-------------------------------------------------------------------*
                          1509+*               PLOPM-OP CODE MODIFIER                              *
                     0080 1510+OPREQR EQU   BIT0                     ON-SYSTEM REQUEST.            *
                          1511+*                                     OFF-USER REQUEST.             *
                     0080 1512+OP$SYS EQU   OPREQR                   SYSTEM IS REQUESTER.          *
                     0040 1513+OPOLT  EQU   BIT1                     PROGRAM INITIATED ONLINE TEST. *
                     0020 1514+OPDISC EQU   BIT2                     DISCONNECT THE LINE.          *
                     0010 1515+OPPRT  EQU   BIT3                     3270 PRINT OPERATION.         *
                     0008 1516+OPLIST EQU   BIT4                     3270 MAPPING SPECIAL LIST.    *
                     0004 1517+OPSTOP EQU   BIT5                     STOP OPERATION.               *
                     0002 1518+OPSOL  EQU   BIT6                     1-SUPPRESS START NEW LINE.    *
                          1519+*                                     0-ASSURE TYPEWRITER BEGINS AT  *
                          1520+*                                     THE START OF A LINE.          *
                     0001 1521+OPEOL  EQU   BIT7                     1-SUPPRESS END NEW LINE.      *
                          1522+*                                     0-ASSURE TYPEWRITER ENDS AT THE*
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                          1523+*                                  START OF A LINE.                *
                     0001 1524+OPDLY  EQU   BIT7                  SHUTDOWN DELAY MODIFIER         *
                          1525+*-----------------------------------------------------------------*

                          1527+*-----------------------------------------------------------------*
                          1528+*                PLOPC-OPERATION CODE                             *
                          1529+*                 NUMERIC VALUES (BITS 0-3)                       *
                     0000 1530+OPSTD  EQU   X'00'                 STANDARD UNIT OF DATA.(RECORD) *
                     0010 1531+OPOPTN EQU   X'10'                 SPECIAL OPERATION OPTION       *
                     0010 1532+OPKPL  EQU   X'10'                 ON RELEASE OP -- KEEP THE LINE.*
                     0010 1533+OPSTA  EQU   X'10'                 ON ACQUIRE OP -- SET ATTRIBUTES*
                     0010 1534+OPRVI  EQU   X'10'                 GET DATA -- SEND RVI RESPONSE. *
                     0010 1535+OPLINE EQU   X'10'                 LINE OPERATION- LIKE PURGE LINE*
                     0020 1536+OPBLK  EQU   X'20'                 UNIT OF DATA = BLOCK.          *
                     0030 1537+OPMSG  EQU   X'30'                 UNIT OF DATA = MESSAGE.        *
                     0040 1538+OPCOPY EQU   X'40'                 3270 COPY OPERATION.           *
                     0050 1539+OPEAU  EQU   X'50'                 3270 ERASE-ALL-UNPROTECTED FLDS*
                     0070 1540+OPRUF  EQU   X'70'                 3270 READ UNDER FORMAT CONTROL *
                     00F0 1541+OPORDR EQU   X'F0'                 MASK FOR ORDER HALF BYTE.      *
                          1542+*                 BINARY VALUES (BITS 4-7)                        *
                     0008 1543+OPSTAT EQU   BIT4                  STATUS OPERATION.              *
                     0004 1544+OPNOW  EQU   BIT5                  NO-WAIT OPERATION.             *
                     0002 1545+OPPUT  EQU   BIT6                  OUTPUT OPERATION.              *
                     0001 1546+OPGET  EQU   BIT7                  INPUT OPERATION.               *
                          1547+*                   EFFECTIVE OP CODES                            *
                     0000 1548+OPSHQ  EQU   0                     SHUTDOWN INQUIRY.              *
                     0003 1549+OPPTG  EQU   OPPUT+OPGET           PUT-THEN-GET.                  *
                     0013 1550+OPPURG EQU   OPPUT+OPGET+OPLINE    PURGE REQUEST                  *
                     0004 1551+OPACI  EQU   BIT5                  ACCEPT INPUT.  (WAIT)          *
                     0044 1552+OPANW  EQU   OPACI+BIT1            ACCEPT-NO-WAIT INPUT.          *
                     0014 1553+OPWAIT EQU   OPACI+OPOPTN          WAIT OPERATION.                *
                     0005 1554+OPINV  EQU   OPGET+OPNOW           INVITE INPUT.                  *
                     0006 1555+OPPNW  EQU   OPPUT+OPNOW           PUT NO WAIT.                   *
                     0008 1556+OPGTA  EQU   OPSTAT                GET TERMINAL ATTRIBUTES.       *
                     0009 1557+OPACQ  EQU   OPSTAT+OPGET          ACQUIRE TERMINAL.              *
                     0029 1558+OPCMDT EQU   OPSTAT+OPGET+BIT2     AQUIRE COMMAND TERM. NON-PRUF  *
                     0069 1559+OPAQG  EQU   OPSTAT+OPGET+BIT2+BIT1 GENERIC ACQUIRE PORT TERM.    *
                     000A 1560+OPREL  EQU   OPSTAT+OPPUT          RELEASE TERMINAL.              *
                     004A 1561+OPRTC  EQU   OPSTAT+OPPUT+BIT1     RELEASE AND TASK CHAIN.        *
                     002A 1562+OPTCHN EQU   OPSTAT+OPPUT+BIT2     TASK CHAIN REQUEST OPCODE      *
                     003A 1563+OPPCR  EQU   OPSTAT+OPPUT+OPMSG    PORT COMMAND REQUEST OPCODE    *
                     003D 1564+OPDMY  EQU   OPSTAT+OPNOW+OPGET+OPMSG DUMMY PORT INPUT PARM LIST.  *
                     0080 1565+OPJRSH EQU   BIT0                  RESCHEDULE ONLY REQUEST        *
                          1566+*-----------------------------------------------------------------*

                          1568+*-----------------------------------------------------------------*
                          1569+*            PLOPC / PLOPM OPERATION CODE COMBINATIONS             *
                          1570+*                                                                  *
                          1571+*                     USER-ISSUED OPERATION CODES                  *
                          1572+*                                                                  *
                          1573+* X'0000'                          SHUTDOWN INQUIRY              *
                          1574+* X'0001'                          GET RECORD                    *
                          1575+* X'0002'                          PUT RECORD                    *
                          1576+* X'0003'                          PUT THEN GET                  *
                          1577+* X'0004'                          ACCEPT INPUT                  *
                          1578+* X'0005'                          INVITE INPUT                  *
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                          1579+* X'0006'                          PUT-NO-WAIT RECORD          *
                          1580+* X'0008'                          GET TERMINAL ATTRIBUTES     *
                          1581+* X'0009'                          ACQUIRE TERMINAL            *
                          1582+* X'000A'                          RELEASE TERMINAL (DROP)     *
                          1583+* X'0011'                          GET - RVI RESPONSE          *
                          1584+* X'0014'                          WAIT OPERATION              *
                          1585+* X'0019'                          ACQUIRE AND SET ATTRIBUTES  *
                          1586+* X'001A'                          RELEASE TERMINAL (KEEP)     *
                          1587+* X'0021'                          GET BLOCK                   *
                          1588+* X'0022'                          PUT BLOCK                   *
                          1589+* X'0023'                          PUT-THEN-GET BLOCK          *
                          1590+* X'0026'                          PUT-NO-WAIT BLOCK           *
                          1591+* X'0029'                          AQUIRE NON-PRUF COMMAND TERM*
                          1592+* X'002A'                          TASK CHAIN REQUEST(OLE)     *
                          1593+* X'0031'                          GET MESSAGE                 *
                          1594+* X'0032'                          PUT MESSAGE                 *
                          1595+* X'0033'                          PUT-THEN-GET MESSAGE        *
                          1596+* X'0042'                          DFF COPY OPERATION          *
                          1597+* X'0044'                          ACCEPT-NO-WAIT INPUT        *
                          1598+* X'004A'                          RELEASE AND TASK CHAIN      *
                          1599+* X'0052'                          DFF ERASE OPERATION         *
                          1600+* X'0072'                          RUF PUT MESSAGE             *
                          1601+* X'0401'                          STOP INVITE INPUT           *
                          1602+*                                                              *
                          1603+*                    SYSTEM-ISSUED OPERATION CODES             *
                          1604+*                                                              *
                          1605+* X'8002'                              SYSTEM PUT              *
                          1606+* X'8005'                              SYSTEM INVITE INPUT     *
                          1607+* X'8006'                              SYSTEM PUT-NO-WAIT      *
                          1608+* X'8007'                              SYSTEM PUT-NO-WAIT INVITE*
                          1609+* X'8401'                              SYSTEM STOP INVITE      *
                          1610+* X'8403'                              SYSTEM PURGE OF TERMINAL*
                          1611+* X'8413'                              SYSTEM PURGE OF WHOLE LINE*
                          1612+* X'A006'                              SYSTEM PUT DISCONNECT   *
                          1613+* X'A413'                              SYSTEM PURGE AND PUT DISCONNECT*
                          1614+*                                                              *
                          1615+*--------------------------------------------------------------*

                          1617+*--------------------------------------------------------------*
                          1618+*                PL$OPM-INTERNAL OP CODE                       *
                0080      1619+OPGETM EQU   BIT0                  1-NEED TO GETMAIN STORAGE FOR  *
                          1620+*                                  * THIS TP REQUEST.          *
                0040      1621+OPGETQ EQU   BIT1                  1-NEED GETMAIN TO FINISH    *
                          1622+*                                  * QUEUEING THIS REQUEST.    *
                0020      1623+OPNPST EQU   BIT2                  DON'T POST PURGED PUT.MLTA ONLY*
                0010      1624+OPBNOP EQU   BIT3                  DON'T POST ERP OP END.BSCA ONLY*
                          1625+*                                                              *
                          1626+*  BITS 4-7 ARE THE SAME AS FOR PLOPC.                         *
                          1627+*--------------------------------------------------------------*

                          1629+*--------------------------------------------------------------*
                          1630+*                PL$OPC-SAVED INTERNAL OP ** BSCA ONLY **      *
                0080      1631+OPRFSH EQU   BIT0                  SEND REFRESH MSG TO 3270.   *
                0040      1632+OPLSNS EQU   BIT1                  POLL FOR TERMINAL STATUS.   *
                0020      1633+OPUSER EQU   BIT2                  FUNCTION, 1-SYSTEM, 0-USER. *
                0010      1634+OPSTCM EQU   BIT3                  STOP INVITE PARM LIST HANDLED. *
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```
                               1635+*                                                                *
                               1636+*  BITS 4-7 ARE THE SAME AS FOR PLOPC.                           *
                               1637+*--------------------------------------------------------------------*



                               1639+*--------------------------------------------------------------------*
                               1640+*                PL$RTC-INTERNAL RETURN CODE                     *
                               1641+*                                                                *
                               1642+*                 SUCCESSFUL OP CODE                             *
                               1643+*                   PL$RTC=00XX, FOR XX AS FOLLOWS:              *
                          0000 1644+RCOK   EQU   X'00'                    SUCCESSFUL OPERATION. (00)  *
                          000E 1645+RCOKTC EQU   X'0E'                    TC ACCEPT INPUT OKAY. (14)  *
                               1646+*                                                                *
                               1647+*                  EXCEPTION RETURN CODES                        *
                               1648+*                   PL$RTC=00XX, FOR XX AS FOLLOWS:              *
                          0001 1649+RCXDTR EQU   X'01'                    DATA TRUNCATED.             *
                          0002 1650+RCXEOT EQU   X'02'                    EOT RECEIVED.               *
                          0003 1651+RCXEDT EQU   X'03'                    EOT RECEIVED AND DATA TRUNCATED*
                               1652+*     DATA TRANSFER IS VALID ONLY FOR OPERATIONS WHICH YIELD RETURN  *
                               1653+*          CODES OF 0, +1, +2, +3, OR +6.                        *
                          0004 1654+RCXSHD EQU   X'04'                    SHUTDOWN REQUESTED.         *
                          0005 1655+RCXDPD EQU   X'05'                    DATA PENDING ON BSCA LINE.  *
                          0006 1656+RCXRVI EQU   X'06'                    RVI/TERMINAL INTERRUPT RECEIVED*
                          0007 1657+RCXCLR EQU   X'07'                    3270 CLEAR KEY RECEIVED.    *
                          0008 1658+RCXNAV EQU   X'08'                    TERMINAL NO LONGER AVAILABLE.  *
                          0009 1659+RCXOFF EQU   X'09'                    TERMINAL OFFLINE.           *
                          000A 1660+RCXSPI EQU   X'0A'                    STOP INVITE INPUT SUCCESSFUL.  *
                          000B 1661+RCXNAQ EQU   X'0B'                    ACQUIRE TERMINAL FAILED.    *
                          000C 1662+RCXNTC EQU   X'0C'                    NO TASK CHAIN TUBS AVALABLE.   *
                          000D 1663+RCXNTP EQU   X'0D'                    TPBUFFER SPACE NOT AVALABLE.   *
                          000F 1664+RCXNTR EQU   X'0F'                    TC ACCEPT WITH DATA TRUNCATED. *
                          0010 1665+RCXNAC EQU   X'10'                    ACC-NO-WAIT RETURNED NO DATA.  *
                          0011 1666+RCXSHP EQU   X'11'                    SHUTDOWN PENDING RETURN CODE.  *
                          007E 1667+RCXNIQ EQU   X'7E'                    SPI FAILED-NO INVITE IN Q.  *
                          007F 1668+RCXSPF EQU   X'7F'                    STOP INVITE INPUT FAILED.   *
                               1669+*                                                                *
                               1670+*                PORT TERMINATION CODES.                         *
                               1671+*                PL$RTC=40XX, TERMINATE TASK WITH XX.            *
                          0040 1672+RCRTRM EQU   X'40'                    PORT TERMINATION CODE FOLLOWS  *
                               1673+*                                                                *
                               1674+*                I/O ERROR RETURN CODES                          *
                               1675+*                PL$RTC=FFXX, FOR XX AS FOLLOWS:                 *
                          00FF 1676+RCRDCK EQU   X'FF'                    DATA CHECK.                 *
                          00FE 1677+RCRTRN EQU   X'FE'                    TRANSLATION ERROR.          *
                          00FD 1678+RCRLST EQU   X'FD'                    LOST DATA.                  *
                          00FC 1679+RCRPBS EQU   X'FC'                    PERMANENT BI-SYNC ERROR.    *
                          00FB 1680+RCRABN EQU   X'FB'                    ABNORMAL RESPONSE.          *
                          00FA 1681+RCRXRA EQU   X'FA'                    TRANSMIT/RECEIVE ABORT.     *
                          00F9 1682+RCRATO EQU   X'F9'                    ADDRESSING TIMEOUT.         *
                          00F8 1683+RCRTTO EQU   X'F8'                    TEXT TIMEOUT.               *
                          00F7 1684+RCRWTO EQU   X'F7'                    WACK/TTD EXPIRATION.        *
                          00F6 1685+RCRNOC EQU   X'F6'                    NO CONNECTION.              *
                          00F5 1686+RCRIID EQU   X'F5'                    INVALID ID.                 *
                          00F4 1687+RCRABD EQU   X'F4'                    ABORT, DISCONNECT.          *
                          00F3 1688+RCRADC EQU   X'F3'                    ADAPTER CHECK.              *
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                      00F2 1689+RCRNAK EQU   X'F2'                    NEGATIVE RESPONSE TO ADDRESSING*
                           1690+*                                                                    *
                           1691+*                 3270 I/O ERROR RETURN CODES                        *
                           1692+*                  PL$RTC=FFXX, FOR XX AS FOLLOWS:                   *
                      00EC 1693+RCR2DU EQU   X'EC'                    DEVICE UNAVAIL OR NOT READY.   *
                      00EA 1694+RCR2ED EQU   X'EA'                    EQUIPMENT CHECK, DEVICE END.   *
                      00E9 1695+RCR2TE EQU   X'E9'                    TCU DETECTION OF BSCA ERROR.   *
                      00E8 1696+RCR2CD EQU   X'E8'                    CTL CHECK, DATA CHK, DEV BUSY. *
                      00E7 1697+RCR2PD EQU   X'E7'                    DATA CHECK ON COPY COMMAND.    *
                      00E6 1698+RCR2PO EQU   X'E6'                    OPERATION CHECK ON COPY COMMAND*
                      00E5 1699+RCR2PB EQU   X'E5'                    DEVICE BUSY ON COPY COMMAND.   *
                      00E4 1700+RCR2PC EQU   X'E4'                    CTL CHK/OP CHK/DATA CHK ON COPY*
                      00E3 1701+RCRIDR EQU   X'E3'                    INVALID DATA RECEIVED FROM A   *
                           1702+*                                     3270 USING DFF SUPPORT.        *
                           1703+*                                                                    *
                           1704+*                 3735 I/O ERROR RETURN CODES                        *
                           1705+*                  PL$RTC=FFXX, FOR XX AS FOLLOWS:                   *
                      00D8 1706+RCR5SR EQU   X'D8'                    ATTEMPTED SEND BEFORE RECEIVE. *
                      00D7 1707+RCR5IC EQU   X'D7'                    ILLEGAL CHARACTER.             *
                      00D6 1708+RCR5OF EQU   X'D6'                    BUFFER OVERFLOW.               *
                      00D5 1709+RCR5DF EQU   X'D5'                    DISK FULL.                     *
                      00D4 1710+RCR5RF EQU   X'D4'                    DIRECTORY FULL.                *
                      00D3 1711+RCR5UH EQU   X'D3'                    UNDEFINED HEADER.              *
                      00D2 1712+RCR5DE EQU   X'D2'                    3735 DISK ERROR.               *
                      0100 1713+RCR7ZR EQU   256                      BASE FOR NEGATIVE NUMBERS      *
                      00CE 1714+RCR7TE EQU   RCR7ZR-50                TRANSPERANCY ERROR OCCURED     *
                      00CD 1715+RCR7NA EQU   RCR7ZR-51                NO ACTIVITY ON THE LINE        *
                      00CC 1716+RCR7DC EQU   RCR7ZR-52                DATA CHECK                     *
                      00CB 1717+RCR7LB EQU   RCR7ZR-53                RECEIVED LINE BID ERROR        *
                      00CA 1718+RCR7WL EQU   RCR7ZR-54                WRONG LENGTH ERROR             *
                      00C9 1719+RCR7RP EQU   RCR7ZR-55                RESET PRESSED ON 3741          *
                      00C8 1720+RCR7SC EQU   RCR7ZR-56                SECURITY CHECK                 *
                      00C7 1721+RCR7DO EQU   RCR7ZR-57                DISK OVERFLOW                  *
                      00C6 1722+RCR7BE EQU   RCR7ZR-58                BAD EXTENT ERROR               *
                      00C5 1723+RCR7BT EQU   RCR7ZR-59                BOTH STATIONS TRANSMIT.        *
                      00C4 1724+RCR7LE EQU   RCR7ZR-60                LENGTH ERROR                   *
                      00C3 1725+RCR7NF EQU   RCR7ZR-61                NO RECORD FOUND                *
                      00C2 1726+RCR7SE EQU   RCR7ZR-62                SEEK ERROR                     *
                      00C1 1727+RCR7RE EQU   RCR7ZR-63                READ ERROR                     *
                      00C0 1728+RCR7WE EQU   RCR7ZR-64                WRITE ERROR                    *
                      00BF 1729+RCR7NR EQU   RCR7ZR-65                3741 NOT READY                 *
                      00BE 1730+RCR7WP EQU   RCR7ZR-66                DISKETTE IS WRITE PROTECTED.   *
                           1731+*-------------------------------------------------------------------*
```

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                      1734 *      $ETAS                                                    CCP00161
                      1735+*****************************************************************
                      1736+*           T E R M I N A L   A T T R I B U T E S   S E T       *
                      1737+*****************************************************************


                 0000 1739+TASCCP EQU   0                        BEGINNING OF TAS ENTRY

                      1741+* ATTRIBUTES BYTE 1

                 0000 1743+TASAT1 EQU   TASCCP-1+1               ATTRIBUTE BYTE 1

                 0080 1745+TASTRN EQU   BIT0                     0-TRANSLATE
                      1746+*                                     1-DON'T TRANSLATE
                 0040 1747+TASCAS EQU   BIT1                     0-FORCE UPPER CASE TRANSLATE
                      1748+*                                     1-DO NOT FORCE UPPER CASE
                 0020 1749+TASCNC EQU   BIT2                     0-ON SWITCHED LINE, ANSWER
                      1750+*                                     1-ON SWITCHED LINE, CALL OUT
                 0010 1751+TASAUT EQU   BIT3                     0-ON SW LINE, MANUAL CONNECT
                      1752+*                                     1-ON SW LINE, AUTO CONNECT
                 0008 1753+TASINX EQU   BIT4                     0-TUBBKF IS BLOCKING FACTOR
                      1754+*                                     1-TUBBKF IS INDEX TO CURRENT TAS
                 0006 1755+TASRSV EQU   BIT5+BIT6                RESERVED BITS
                 0001 1756+TASDFF EQU   BIT7                     0-DO NOT USE DFF
                      1757+*                                     1-USE DISPLAY FORMAT FACILITY

                      1759+* ATTRIBUTES BYTE 2

                 0001 1761+TASAT2 EQU   TASAT1+1                 ATTRIBUTE BYTE 2

                 0080 1763+TASREC EQU   BIT0                     0-DATA FORMAT IS NOT RECORD MODE
                      1764+*                                     1-DATA FORMAT IS RECORD MODE
                 0040 1765+TASBLK EQU   BIT1                     0-DATA FORMAT NOT BLOCK MODE
                      1766+*                                     1-DATA FORMAT IS BLOCK MODE
                 0020 1767+TASMSG EQU   BIT2                     0-DATA FORMAT NOT MESSAGE MODE
                      1768+*                                     1-DATA FORMAT IS MESSAGE MODE
                 0010 1769+TASITB EQU   BIT3                     0-NO ITB SUPPORT
                      1770+*                                     1-ITB SUPPORT
                 0008 1771+TASTSP EQU   BIT4                     0-NON-TRANSPARENCY MODE
                      1772+*                                     1-TRANSPARENCY MODE
                 0004 1773+TASVFY EQU   BIT5                     0-VERIFY EXCHANGE ID
                      1774+*                                     1-NO EXCHANGE ID VERIFICATION
                 0002 1775+TASPAN EQU   BIT6                     0-NO SPANNED RECORD SUPPORT
                      1776+*                                     1-SUPPORT SPANNED RECORDS
                 0001 1777+TASVRL EQU   BIT7                     0-NO VARIABLE LENGTH SUPPORT
                      1778+*                                     1-SUPPORT VARIABLE LENGTH RECORD

                      1780+* RECORD AND BLOCK LENGTHS

                 0003 1782+TASRCL EQU   TASAT2+2                 RECORD LENGTH

                 0004 1784+TASBKF EQU   TASRCL+1                 BLOCKING FACTOR

                 0005 1786+TASLN  EQU   TASBKF-TASCCP+1          LENGTH OF TERMINAL ATTRIBUTE SET
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                      1789 *      $ETUB                                                          CCP00163
                      1790+*************************************************************
                      1791+*               T E R M I N A L   U N I T   B L O C K               *
                      1792+*************************************************************
                 0000 1793+TUBCCP EQU   0                        BEGINNING OF TUB
                 0001 1794+TUBID  EQU   TUBCCP+1                 TERMINAL PHYSICAL ID (2 BYTES)

                 0003 1796+TUBPL@ EQU   TUBID+2                  LAST PARAMETER LIST FOR TUB
                 0005 1797+TUBER@ EQU   TUBPL@+2                 PARAMETER LIST IN ERP
                 0007 1798+TUBDM@ EQU   TUBER@+2                 PARAMETER LIST AT TIME OF DME

                 0008 1800+TUBSID EQU   TUBDM@+1                 INTERNAL TERMINAL ID (BSCA ONLY)

                 0009 1802+TUBSCS EQU   TUBSID+1                 BSCA STATUS BYTES    (BSCA ONLY)
                 0080 1803+TUBCLR EQU   BIT0                     * 1-3270 CLEAR KEY DEPRESSED
                 0040 1804+TUBDME EQU   BIT1                     * 1-DME CHECK SUCCESSFUL
                 0020 1805+TUBDMF EQU   BIT2                     * 1-DME CHECK FAILED
                 0010 1806+TUBSWA EQU   BIT3                     * 1-SWITCHED LINE DEVICE HANDLED
                      1807+*                                     *    DURING PREVIOUS SYS PURGE.
                 0008 1808+TUBSSP EQU   BIT4                     * 1-STOP STATUS POLLING
                 0004 1809+TUBRUF EQU   BIT5                     * 1-RUF DATA ON SCREEN(3270 DFF)
                 0002 1810+TUBPRG EQU   BIT6                     * 1-PORT TUB IN PURG MODE.
                 0001 1811+TUBBPT EQU   BIT7                     * 1-BUSY PRINT ALLOWED

                 0009 1813+TUBTMA EQU   TUBSCS                   2 BYTE TERMINAL ADDR (MLTA ONLY)
                      1814+*                                     OVERLAYS TUBSID AND TUBSCS

                      1816+* ATTRIBUTES AND STATUS BYTES
                 000A 1817+TUBCHR EQU   TUBTMA+1                 TERMINAL CHARACTERISTICS
                 0080 1818+TUBLNE EQU   BIT0                     1-BSCA LINE
                 0040 1819+TUB@SL EQU   BIT1                     1-TYPWTR DEVICE AT START OF LINE
                 0020 1820+TUBTYP EQU   BIT2                     1-MLTA TYPEWRITER DEVICE
                 0010 1821+TUBNID EQU   BIT3                     1-NEED IDLES AT BEGIN OF LINE
                 0008 1822+TUBCMN EQU   BIT4                     1-COMMAND (CAPABLE) TERMINAL
                 0004 1823+TUBMCT EQU   BIT5                     1-MULTI-COMPONENT TERMINAL
                 0002 1824+TUBOUT EQU   BIT6                     1-TERMINAL CAPABLE OF OUTPUT
                 0001 1825+TUBINP EQU   BIT7                     1-TERMINAL CAPABLE OF INPUT

                 000B 1827+TUBAT1 EQU   TUBCHR+1                 TERMINAL ATTRIBUTES BYTE 1
                 0080 1828+TUBKNM EQU   BIT0                     1-THIS TUB IS FOR CONSOLE
                 0040 1829+TUBDPY EQU   BIT1                     1-IN USE BY DISPLAY
                 0020 1830+TUBONL EQU   BIT2                     1-TERMINAL IS ONLINE
                 0010 1831+TUBSGN EQU   BIT3                     1-COMMAND TERMINAL IS SIGNED ON
                 0008 1832+TUBQUE EQU   BIT4                     1-COMMAND TERMINAL IN /Q STATUS
                 0004 1833+TUBREQ EQU   BIT5                     1-TERMINAL IS REQUESTER OF PGM
                 0002 1834+TUBSWC EQU   BIT6                     1-TERMINAL ON SWITCHED LINE
                 0001 1835+TUBOFF EQU   BIT7                     1-CMD TERM SIGNOFF DEFAULT=HOLD

                 000C 1837+TUBAT2 EQU   TUBAT1+1                 TERMINAL ATTR BYTE 2
                 0080 1838+TUBDTA EQU   BIT0                     1-TERMINAL IN DATA MODE
                 0040 1839+TUBCMD EQU   BIT1                     1-TERMINAL IN COMMAND MODE
                      1840+*                                     * DTA/CMD/TERMINAL MODE
                      1841+*                                     *  0   0   INITIAL
                      1842+*                                     *  0   1   COMMAND
                      1843+*                                     *  1   0   DATA
                      1844+*                                     *  1   1   COMMAND INTERRUPT
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                      0020 1845+TUBIMI EQU   BIT2                    1-OUTSTANDING DATA FROM PGM RQST
                      0010 1846+TUBIIS EQU   BIT3                    1-INVITE OR GET SCHEDULED
                      0008 1847+TUBIIQ EQU   BIT4                    1-INVITE COMPLETE -- ON TCBINQ
                           1848+*                                    0-NO OUTSTANDING COMPLETE INVITE
                      0004 1849+TUBOLT EQU   BIT5                    1-CURRENTLY RUNNING ONLINE TEST
                      0002 1850+TUBAPP EQU   BIT6                    1-ALLOCATION PENDING ON THIS TUB
                      0001 1851+TUBOWN EQU   BIT7                    1-TERMINAL NOW COMMUNICATING ON
                           1852+*                                    * BSCA LINE--EOT NOT SENT/RECD

                      000D 1854+TUBAT3 EQU   TUBAT2+1                TERMINAL ATTRIBUTE BYTE 3
                      0080 1855+TUBRTY EQU   BIT0                    TUB HAS BEEN RETRIED THIS TIME
                      0040 1856+TUBSPF EQU   BIT1                    1-STOP POLLING FAILED
                      0020 1857+TUBCNC EQU   BIT2                    1-/RELEASE BY TERMINAL OPERATOR
                      0010 1858+TUBERP EQU   BIT3                    1-TERMINAL ERROR -- AWAITING ERP
                      0008 1859+TUBALC EQU   BIT4                    1-PHYSICALLY ALLOCATED
                           1860+*                                    BUT NOT LOGICALLY
                           1861+*                                    ALLOCATED,(NO I/O POSSIBLE)
                           1862+*                                    0-IS ALLOCATED TO THE
                           1863+*                                    TCB POINTED TO BY  TUBTCB
                      0004 1864+TUBVFP EQU   BIT5                    1-VARY OFFLINE PENDING
                      0002 1865+TUBSPP EQU   BIT6                    1-STOP POLLING PENDING TO TERM'L
                           1866+*                                    * IN COMMAND INTERRUPT MODE
                      0001 1867+TUBSWL EQU   BIT7                    1-DISCARD ABORTED INPUT DATA

                      000E 1869+TUBAT4 EQU   TUBAT3+1                TERMINAL ATTRIBUTES BYTE 1
                      0080 1870+TUBCHN EQU   BIT0                    1-DUMMY TUB FOR TASK CHAINING
                      0040 1871+TUBTRM EQU   BIT1                    1-TUB IN PROCESS OF SYS INVITE
                      0020 1872+TUBYUK EQU   BIT2                    1-YUKON BSCA LINES 3 OR 4
                      0010 1873+TUBAER EQU   BIT3                    1-AUTO ERROR RECOVERY SPECIFIED
                      0008 1874+TUBEMS EQU   BIT4                    1-ERP MESSAGE SENT TO CONSOLE
                      0004 1875+TUBPCB EQU   BIT5                    1-PORT CONTROL BLOCK (TUB)
                      0002 1876+TUBBSY EQU   BIT6                    1-TUB TO BE CHECKED FOR BUSY
                      0001 1877+TUBWAT EQU   BIT7                    1-WAIT FOR RESPONCE TO BUSY

                           1879+* QUEUE CHAIN FIELDS
                      0010 1880+TUBINQ EQU   TUBAT4+2                GET INVITE  INPUT QUEUE
                           1881+*                                    POINTS TO NEXT TUB IN CHAIN
                      0012 1882+TUBTCB EQU   TUBINQ+2                @ OF TCB
                      0014 1883+TUBTUB EQU   TUBTCB+2                NEXT TUB ADDR BY TCBTUB
                      0014 1884+TUBPST EQU   TUBTUB                  NEXT TUB ON ALLOCATION QUEUE
                      0016 1885+TUBLCB EQU   TUBTUB+2                ADDR OF LINE DTF (LCB)
                      0016 1886+TUBDTF EQU   TUBLCB
                      0018 1887+TUBTNT EQU   TUBLCB+2                ADDR OF TNT ENTRY
                      001A 1888+TUBFSB EQU   TUBTNT+2                ADDR OF 1ST ENTRY FOR THIS
                           1889+*                                    TERMINAL IN FILE SPEC BLOCK

                           1891+* TASK CHAINING TUB EQUATES
                      001A 1892+TUBPNM EQU   TUBTUB+6                NAME FIELD
                      001B 1893+TUBDPL EQU   TUBPNM+1                DISP TO PL IN TASK CHAIN TUB
                      002E 1894+TUBDLN EQU   TUBDPL+19               LEN OF TASK CHAIN TUB
                           1895+* END OF TASK CHAIN TUB

                           1897+* ONLINE TEST FIELDS
                      001B 1898+TUBOTC EQU   TUBFSB+1                TERMINAL ONLINE TEST CONTROL BYT
                           1899+*                                     M L T A SPECS                 *
                      0080 1900+TUBLOP EQU   BIT0                    * 1-LOOPING TEST SPECIFIED
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                      0040 1901+TUBALL EQU   BIT1                      * 1-MULTIPLE TESTS SPECIFIED
                      000F 1902+TUBTNR EQU   BIT4+BIT5+BIT6+BIT7       BINARY NUMBER OF SINGLE TEST
                           1903+*                                      THIS BYTE - X'FF' SPECIFIES STOP

                      001C 1905+TUBCMA EQU   TUBOTC+1                 MCT COMPONENT INDEX FOR OLT

                           1907+* TERMINAL ATTRIBUTE SET FIELDS
                      001D 1908+TUBTAS EQU   TUBCMA+1                 INDEX OF STANDARD ATTRIBUTE SET

                      001E 1910+TUBTA1 EQU   TUBTAS+1                 1ST BYTE OF TERMINAL ATTRIBUTES
                      001F 1911+TUBTA2 EQU   TUBTA1+1                 2ND BYTE OF TERMINAL ATTRIBUTES
                      0021 1912+TUBRCL EQU   TUBTA2+2                 BSCA RECORD LENGTH
                      0021 1913+TUBVCS EQU   TUBRCL                   1-BYTE SAVE AREA FOR I/O
                           1914+*                                      COMPONENTS FOR MLTA MCT
                      0022 1915+TUBBKF EQU   TUBRCL+1                 BSCA BLOCKING FACTOR

                      0022 1917+TUBCAS EQU   TUBTAS+5                 DEFINES ALL 5 PRECEDING BYTES

                           1919+* TERMINAL TYPE FIELD
                      0023 1920+TUBPHY EQU   TUBCAS+1                 PHYSICAL TERMINAL TYPE--VALUES:
                      0000 1921+TUBCON EQU   0                        .0 - CONSOLE
                      0001 1922+TUBMLT EQU   1                        .1 - MLTA NON-1050
                      0002 1923+TUB105 EQU   2                        .2 - MLTA 1050
                      0003 1924+TUB7M1 EQU   3                        .3 - 3277/84/86 MODEL 1 (480)
                      0004 1925+TUB7M2 EQU   4                        .4 - 3277/84/86 MODEL 2 (1920)
                      0005 1926+TUB5M1 EQU   5                        .5 - 3275 MODEL 1 (480)
                      0006 1927+TUB5M2 EQU   6                        .6 - 3275 MODEL 2 (1920)
                      0007 1928+TUB375 EQU   7                        .7 - 3735
                      0008 1929+TUBCPU EQU   8                        .8 - CPU
                      0009 1930+TUB374 EQU   9                        .9 - 3741
                      000A 1931+TUBAPT EQU   10                       10 - AQG PORT.
                      000B 1932+TUBNPT EQU   11                       11 - NON-AQG PORT.

                           1934+* MULTI-COMPONENT TERMINAL PRINCIPAL COMPONENT INDEXES
                      0024 1935+TUBPCS EQU   TUBPHY+1                 PRINCIPAL COMPONENTS FOR 1050
                      0025 1936+TUBVHR EQU   TUBPCS+1                 SAVE AREA FOR TUBCHR FOR MLTA
                      0026 1937+TUBPIL EQU   TUBPCS+2                 PRUF INPUT LENGTH  (TUBVHR)
                      0026 1938+TUBDCH EQU   TUBPIL                   REDEFINES TUBPIL FOR PORTS.

                      0027 1940+TUBLN  EQU   TUBPIL+1                 LENGTH OF DATA MODE TUB

                           1942+*  END OF TUB FOR DATA MODE TERMINAL

                      0027 1944+TUBPL  EQU   TUBPIL+1                 PARAMETER LIST FOR SYSTEM INVITE
                           1945+*                                      * OR PUT-NO-WAIT INVITE
                           1946+*                                      * 19 BYTES

                      003A 1948+TUBLNC EQU   TUBLN+19                 LENGTH OF TUB FOR COMMAND MODE
                           1949+*                                      * TERMINAL

                           1951+*  END OF TUB FOR COMMAND MODE TERMINAL

                      00FF 1953+TUBSTP EQU   X'FF'                    TUB STOPPER BYTE
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                          1956 *      $ELCB                                                          CCP00165
                          1957+*************************************************************************
                          1958+*      L I N E   C O N T R O L   B L O C K                              *
                          1959+*************************************************************************



                          1961+*-----------------  FIRST BSCA-ONLY SEGMENT  ------------------------*

                     004C 1963+LCBSCA EQU   76                        LCB BEGIN FOR BSCA.
                     004D 1964+LCBPOL EQU   LCBSCA+1                  ADDRESS OF POLLING LIST.
                     004F 1965+LCBSEL EQU   LCBPOL+2                  ADDRESS OF SELECTION LIST.
                     004F 1966+LCBNO# EQU   LCBSEL                    @ IN SW ID LIST OF NO VERIFY ID.
                     0050 1967+LCBID# EQU   LCBSEL+1                  ID LAST POLL/SELECTED TERM.
                     0052 1968+LCBPL@ EQU   LCBID#+2                  SAVE FOR CURRENT PARM LIST @.
                     0054 1969+LCBWRK EQU   LCBPL@+2                  WORK AREA FOR SUBRTNS.

                          1971+*   LCBAT1 AND LCBAT2 ARE BOTH ZEROED WHEN AN EOT IS HANDLED.

                     0055 1973+LCBAT1 EQU   LCBWRK+1                  ATTRIBUTE BYTE 1.
                     0080 1974+LCBCRI EQU   X'80'                     CANCEL RCVI, STOP POLLING.
                     0040 1975+LCBPRI EQU   X'40'                     CANCEL RCVI, HANDLE PRIORITY PUT
                     0010 1976+LCBINT EQU   X'10'                     INTERRUPT WITH NO PARM LIST QUED
                     0008 1977+LCBNTQ EQU   X'08'                     ACTIVE PARM LIST REMOVED FR QUE.
                     0004 1978+LCBDEQ EQU   X'04'                     DEQUE WHEN EOT IS FOUND.
                     0002 1979+LCBEOT EQU   X'02'                     SEARCH EOT. READ LINE FOR EOT.
                     0001 1980+LCBSIN EQU   X'01'                     POLL FOR STATUS, NO STATUS RCVD

                     0056 1982+LCBAT2 EQU   LCBAT1+1                  ATTRIBUTE BYTE 2.
                     0080 1983+LCBTRC EQU   X'80'                     TRUNCATE BLOCK, BUMP BKX TO END.
                     0040 1984+LCBSET EQU   X'40'                     SEND EOT ON THE LINE.
                     0020 1985+LCBACT EQU   X'20'                     LINE ACTIVE WITH WORK.
                     0010 1986+LCBRFT EQU   X'10'                     REQUEST FOR TEST STARTED.
                     0008 1987+LCBABT EQU   X'08'                     ABORT THE LINE CONNECTION.
                     0004 1988+LCBSEC EQU   X'04'                     SCOND BLOCK INDICATOR.
                     0002 1989+LCBPUT EQU   X'02'                     PUT PENDING ON LINE.
                     0001 1990+LCBRCI EQU   X'01'                     RECEIVE INIT ON LINE.

                     0058 1992+LCBADJ EQU   LCBAT2+2                  ADJUSTED OUTPUT LENGTH.
                     005A 1993+LCBATL EQU   LCBADJ+2                  @ OF ASCII TRANSLATE BUFFER.
                     005C 1994+LCBOWN EQU   LCBATL+2                  TCB ADDR OF OWNING TASK.
                     005E 1995+LCB$L0 EQU   LCBOWN+2                  C/S OF LINE INIT. TRANSIENT.
                     0060 1996+LCBSRT EQU   LCB$L0+2                  @ OF START OF LINE BUFFER AREA.
                     0062 1997+LCBBND EQU   LCBSRT+2                  @ OF END OF LINE BUFFER AREA.
                     0064 1998+LCBKLC EQU   LCBBND+2                  BLOCK LENGTH CURRENT INPUT OP.

                          2000+*----------------  SEGMENT COMMON TO MLTA AND BSCA  ------------------*

                     0065 2002+LCBCCP EQU   X'65'                     BEGINNING OF LCB
                     0066 2003+LCBPLQ EQU   LCBCCP+2-1                ADDR OF 1ST PARM LIST IN LINE QU
                     0068 2004+LCBCHN EQU   LCBPLQ+2                  CHAIN OF ALL LCB'S IN CCP SYSTEM
                     0069 2005+LCBATA EQU   LCBCHN+1                  LCB ATTRIBUTE BYTE A.
                     0080 2006+LCBIGN EQU   X'80'                     1-IGNORE OP END.  REOPENING LINE
                     0002 2007+LCBDFF EQU   X'02'                     DFF BUFFER SUPPORTED
                     0001 2008+LCBDFB EQU   X'01'                     DFF BUFFER BUSY
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                      006A 2010+LCBELC EQU   LCBATA+1                 ID XLATE XIENT EBCDIC -> LINE.
                      006B 2011+LCBDTR EQU   LCBELC+1                 DFF BUFFER ATR VALUE

                           2013+*------------------  MLTA / BSCA MULTIPLIED DEFINED BYTE -------------*

                      006C 2015+LCBLCE EQU   LCBDTR+1                 ID XLATE XIENT LINE -> TO UPPER
                           2016+*                                     *        CASE EBCDIC *MLTA ONLY*
                      006C 2017+LCBOPE EQU   LCBLCE                   OP END COUNT ON LINE *BSCA ONLY*

                      006D 2019+LCBLID EQU   LCBLCE+1                 SAVED ID OF LAST TERM POLLED
                      006E 2020+LCBLLE EQU   LCBLID+1                 ID XLATE XIENT LINE -> TO
                           2021+*                                     *        LOWER CASE EBCDIC.

                           2023+*------------------- MLTA / BSCA MULTIPLIED DEFINED BYTE -------------*

                      006F 2025+LCBOLT EQU   LCBLLE+1                 POLT COUNT (RUNNING AND PENDING)
                           2026+*                                     ON THIS TP LINE      *MLTA ONLY*
                      006F 2027+LCBAT3 EQU   LCBOLT                   LCB ATTRIBUTE BYTE 3 *BSCA ONLY*
                      0080 2028+LCBITB EQU   BIT0                     1-ITB SUPPORTED FOR THIS DTF
                      0040 2029+LCBTSP EQU   BIT1                     1-TRANSPARENCY SUPPORTED
                      0020 2030+LCBENB EQU   BIT2                     1-BSCA LINE ENABLED
                      0010 2031+LCBATO EQU   BIT3                     AUTO CALL HARDWARE SUPPORTED.
                      0008 2032+LCBBYP EQU   BIT4                     POLLING A BUSY PRINTER.
                      0004 2033+LCBSTS EQU   BIT5                     POLL FOR STATUS IN OPERATION.
                      0002 2034+LCBREP EQU   BIT6                     RE-POLL TERMINALS FOR BUSY PRINT
                      0001 2035+LCBPOR EQU   BIT7                     THIS LCB IS FOR PORTLINE TUBS

                      0070 2037+LCBATR EQU   LCBOLT+1                 LCB ATTRIBUTE BYTE

                      0080 2039+LCBNIT EQU   BIT0                     * HAD SUCCESSFUL INITIAL
                           2040+*                                     * OPERATION ON THIS LINE
                      0040 2041+LCBOLR EQU   BIT1                     * 1-POLT CURRENTLY RUNNING
                      0020 2042+LCBGMN EQU   BIT2                     * 1-GETMAIN NEEDED FOR LINE QUEU
                      0010 2043+LCBSTP EQU   BIT3                     1-ABORT ISSUED TO STOP READ
                      0008 2044+LCBSWL EQU   BIT4                     1-SWALLOW INPUT FROM NEXT READ
                           2045+*                                     OP END
                      0004 2046+LCB1PL EQU   BIT5                     1-INDICATES NEXT PARM LIST
                           2047+*                                     ISSUED TO THIS LINE IS TO BE PUT
                           2048+*                                     AT THE TOP OF LINE QUEUE
                      0002 2049+LCBTBK EQU   BIT6                     1-BIT BUCKET DATA FROM READ OP
                           2050+*                                     SET FOR 2741 TO DO READ INITIAL
                           2051+*                                     WHEN WRITE IS 1ST OP TO TERMINAL
                      0001 2052+LCBTIM EQU   BIT7                     RESCHEDULE PENDING ON LINE

                      0072 2054+LCBBFL EQU   LCBATR+2                 LENGTH OF DATA AREA IN LINE BUFR
                      0074 2055+LCBRS3 EQU   LCBBFL+2                 RESERVED BYTES.(NOT USED)
                      0076 2056+LCBIBL EQU   LCBRS3+2                 LENGTH OF CURRENT INVITE INPUT
                           2057+*                                     BUFFER FOR THIS LINE
                      0078 2058+LCBIBA EQU   LCBIBL+2                 ADDRESS OF INVITE INPUT BUFFER
                      007A 2059+LCBTCB EQU   LCBIBA+2                 ADDR OF TCB WHICHS OWNS SWITCHED
                           2060+*                                     TP LINE
                      007B 2061+LCBATC EQU   LCBTCB+1                 COUNT OF ALLOCATED TUBS ON
                           2062+*                                     SWITCHED LINE
                      007C 2063+LCBNW# EQU   LCBATC+1                 # NEW REQUESTS FOR CM - FROM II
```

```
                              2065+*----------------------  MLTA-ONLY SEGMENT  ------------------------*

                         007D 2067+LCBWTC EQU   LCBNW#+1                  WORLD TRADE TERMAINL TYPE BYTE
                         0000 2068+MLNWTC EQU   X'00'                     NOT A WORLD TRADE TERMINAL
                         0001 2069+ML2970 EQU   X'01'                     2970 WORLD TRADE TERMINAL
                         0002 2070+ML5930 EQU   X'02'                     5930 WORLD TRADE TERMINAL

                         007E 2072+LCBMLN EQU   LCBWTC+1                  LENGTH OF MLTA LCB

                              2074+*      SPECIAL MLTA DTF EQUATES IN $MDTTP
                         0003 2075+ML2741 EQU   X'03'                     2741

                              2077+*      SPECIAL MLTA EQUATES IN IOCS FLAG NUMBER 2
                         0039 2078+TDFFL2 EQU   57                        IOCS FLAG BYTE 2
                         0020 2079+FL2OLP EQU   X'20'                     PROGRAM REQUESTED ONLINE TEST
                         0008 2080+FL2OLT EQU   X'08'                     ONLINE TEST IN PROGRESS

                              2082+*      MLTA DTF EQUATE FOR TDFEPC - INTERNAL EVENT COMPLETION CODE
                         0045 2083+TDFEPC EQU   69                        INTERNAL EVENT COMPLETION CODE.

                              2085+*      SPECIAL MLTA DTF EQUATES IN $MDOLT
                         0050 2086+TDFERP EQU   80                        ERROR RECOVERY STAUTS SWITCHES
                         0080 2087+ERPCAL EQU   X'80'                     ERP HAS BEEN CALLED

                         0053 2089+$MDPE8 EQU   83                        HDB BYTE 7

                              2091+*      SPECIAL MLTA DTF EQUATES IN $MDPE7
                         0080 2092+MLDISC EQU   X'80'                     1-MLTA SW LINE IS DISCONNECTED

                              2094+*      2740M2 BUFFERED-RECEIVE STATUS BYTES IN $MDRSP-1
                         0004 2095+MLBID  EQU   X'04'                     2740M2 IN BID STATUS
                         0002 2096+MLENTR EQU   X'02'                     2740M2 IN ENTER STATUS
                         0008 2097+MLWBYP EQU   X'08'                     2740M2 BUSY WITH WRITE (PTTC)
                         0010 2098+MLWBYC EQU   X'10'                     2740M2 BUSY WITH WRITE (CORR)

                              2100+*      SPECIAL MLTA DTF EQUATES IN $MDTCT
                         0001 2101+MLPTTC EQU   X'01'                     PTTC TRANSMISSION CODE
                         0002 2102+MLCORR EQU   X'02'                     CORRESPONDENCE TRANSMISSION CODE


                              2105+*------------------  SECOND BSCA-ONLY SEGMENT  ----------------------*

                         007D 2107+LCBOPC EQU   LCBNW#+1                  LAST OP CODE ON BSCA.
                         0080 2108+LCBMVD EQU   X'80'                     DATA MOVED INDICATOR ON.
                         0040 2109+LCBERP EQU   X'40'                     LINE IN ERP MODE.(IGNORE DATA).
                         0020 2110+LCBRVI EQU   X'20'                     RVI IND - SEND/RECEIVE RVI.
                              2111+*            X'08'                     * SAVE
                              2112+*            X'04'                     *      AREA
                              2113+*            X'02'                     *           FOR CCP
                              2114+*            X'01'                     *                OP CODE.

                              2116+*      THE FOLLOW EQUATES ARE FOR OUTPUT (SELECTION) ONLY.

                         007E 2118+LCBADL EQU   LCBOPC+1                  START OF LINE SELECTION LIST.
                         0088 2119+LCBADN EQU   LCBADL+10                 END OF SELECTION LIST.
```

```
                              2121+*      THE FOLLOWING EQUATES ARE FOR INPUT (POLLING) ONLY.

                         007F 2123+LCBMRL EQU   LCBOPC+2                  INCREMENT AREA FOR MSG LENGTH.
                         0081 2124+LCBMIL EQU   LCBMRL+2                  ORIGINAL MESSAGE INPUT LENGTH
                              2125+*                                      USED VIA LCBMR@ LABEL.
                         0083 2126+LCBMR@ EQU   LCBMIL+2                  ORIGINAL MESSAGE RECORD ADDR.

                         0089 2128+LCBBLN EQU   LCBADN+1                  LENGTH OF BSCA LCB

                              2130+*      THE FOLLOWING EQUATES ARE FOR BSCA SWITCHED AUTO CALL DTF ONLY.

                         007E 2132+LCBTEL EQU   LCBOPC+1                  BEGINING OF AURO DIAL #.
                         008C 2133+LCBTL@ EQU   LCBTEL+14                 END OF AUTO DIAL AREA.
                         008D 2134+LCBSWN EQU   LCBTL@+1                  LENGTH OF BSCA AUTO DIAL DTF.
```

```
$CC4#1 EQUATES -- TERMINAL NAME TABLE

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                               2137 *      $ETNT                                                    CCP00167
                               2138+*************************************************************
                               2139+*            T E R M I N A L   N A M E   T A B L E          *
                               2140+*************************************************************
                          0000 2141+TNTCCP EQU   0                        BEGINNING OF TNT
                          0005 2142+TNTNAM EQU   TNTCCP-1+6               SYMBOLIC TERMINAL NAME FIELD
                          0007 2143+TNTTUB EQU   TNTNAM+2                 ADDRESS OF ASSOCIATED TUB
                               2144+*                                     * IF LEFT BYTE ZERO, UNASSIGNED
                          0007 2145+TNTTNT EQU   TNTTUB                   @ MASTER TNT - FOR SUB-TERMINAL

                               2147+*---------- REDEFINITION OF TNTTUB FOR DISK VERSION OF TNT ----------*
                          0006 2148+TNTIID EQU   TNTTUB-2+1               TUTIID IF ASSIGNED, 0=UNASSIGNED
                          0007 2149+TNTMNO EQU   TNTIID+1                 0=UNIQUE TERMINAL NAME
                               2150+*                                     N=REL TNT NO. OF MASTER NAME
                               2151+*-------------------------------------------------------------*

                          0008 2153+TNTFLG EQU   TNTTUB+1                 TNT FLAG BYTE
                          0080 2154+TNTPRI EQU   BIT0                     1-PRIMARY NAME FOR THIS TERMINAL
                          0040 2155+TNTBLK EQU   BIT1                     1-ENTRY IS 'BLANK' TERMINAL NAME
                          0020 2156+TNTKNS EQU   BIT2                     1-ENTRY IS 'CONSOL' TERM'L NAME
                          0010 2157+TNTR5  EQU   BIT3                     1--TNT USED BY CURRENT PGM REQ
                          0008 2158+TNTAM  EQU   BIT4                     1--STOP POLLING SUCCESSFUL.
                          0004 2159+TNTRPT EQU   BIT5                     1--RESERVED PORT PREFIX NAME.

                          0009 2161+TNTMCT EQU   TNTFLG+1                 INDEXES FOR MULTI-CMPNT TERMINAL
                               2162+*                                     BITS 0-3: INDEX OF INPUT CMPNT
                               2163+*                                     BITS 4-7: INDEX OF OUTPUT CMPNT
                          000A 2164+TNTSTT EQU   TNTMCT+1                 INDEX TO SWITCHED TERMINAL TABLE
                          000B 2165+TNTLN  EQU   TNTSTT+1-TNTCCP          LENGTH OF TNT ENTRY
                          0000 2166+TNTSTP EQU   X'00'                    TNT STOPPER BYTE IN CORE
```

```
                              2168 *      $ETML                                                          CCP00169
                              2169+*****************************************************************
                              2170+*            T R A N S L A T E / M O V E   L I S T S             *
                              2171+*****************************************************************


                              2173+* TRANSLATE PARAMETER LIST

                         0000 2175+TLCCP  EQU   0                        BEGINNING OF TRANSLATE LIST
                         0001 2176+TLTOL  EQU   TLCCP-1+2                LENGTH OF  TO  FIELD
                         0003 2177+TLTOA  EQU   TLTOL+2                  ADDRESS OF THE  TO  FIELD
                         0005 2178+TLFRMA EQU   TLTOA+2                  ADDRESS OF THE   FROM  FIELD
                         0007 2179+TLFRML EQU   TLFRMA+2                 LENGTH OF THE   FROM  FIELD
                         0008 2180+TLRTC  EQU   TLFRML+1                 TRANSLATE RETURN CODE


                              2182+* MOVE PARAMETER LIST

                         0000 2184+MVLCCP EQU   0                        BEGINNING OF MOVE LIST
                         0001 2185+MVLTOL EQU   MVLCCP+2-1               LENGTH OF THE  TO  FIELD
                         0003 2186+MVLTOA EQU   MVLTOL+2                 ADDRESS OF THE  TO  FIELD
                         0005 2187+MVLFRA EQU   MVLTOA+2                 ADDR OF THE  FROM  FIELD
                         0007 2188+MVLFRL EQU   MVLFRA+2                 LENGTH OF THE  FROM  FIELD
                         0008 2189+MVLTYP EQU   MVLFRL+1                 TYPE OF MOVE REQUEST
                              2190+*                                     * X'00' - NO ATR SWAP NECESSARY
                              2191+*                                     *       (NEITHER FIELD IN UPA)
                              2192+*                                     * X'01' - FROM FIELD IN UPA
                              2193+*                                     * X'02' - TO FIELD IN UPA
                              2194+*                                     * X'03' - BOTH FIELDS IN UPA
                              2195+*                                     *       (SWAP ATRS).
                         000A 2196+MVLTCB EQU   MVLTYP+2                 ADDRESS OF TCB FOR USER TASK
                              2197+*                                     * IF EITHER TO OR FROM FIELD
                              2198+*                                     *   IS IN A USER PROGRAM.
                              2199+*                                     * FIELD NOT NEEDED IF MVLTYP
                              2200+*                                     *   IS X'00'.
```

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                               2203 *      $E030 ROC-0,ORF-0,PF-FF                                  CCP00171
```

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                            2205+*************************************************************
                            2206+*    C O M M U N I C A T I O N S  C O N T R O L  P R O G R A M    *
                            2207+*              C O M M O N  A R E A                            *
                            2208+*************************************************************


                            2210+***** NOTE - DO NOT CHANGE ORDER OF THESE EXTRNS WITHOUT CHANGING ****
                            2211+*****        MODULE $CC4V1.                                      ****

                       0001 2213+       EXTRN $CC4TR(3)
                       0002 2214+       EXTRN $CC4TX(3)
                       0003 2215+       EXTRN $CC4MS(3)
                       0004 2216+       EXTRN $CC4GM(3)
                       0005 2217+       EXTRN $CC4FM(3)
                       0006 2218+       EXTRN $CC4MX(3)
                       0007 2219+       EXTRN $CC4MV(3)
                       0008 2220+       EXTRN $CC4SR(3)
                       0009 2221+       EXTRN CC4TI2(3)
                       000A 2222+       EXTRN $CC4CP(3)
                       000B 2223+       EXTRN $CC4TM(3)
                       000C 2224+       EXTRN $CCINT(3)
                       000D 2225+       EXTRN $CCTI2(3)
                       000E 2226+       EXTRN $CC4IG(3)
                       000F 2227+       EXTRN XSNT1(3)
                       0010 2228+       EXTRN XSNT2(3)
                       0011 2229+       EXTRN XSNT3(3)
                       0012 2230+       EXTRN $CC4TI(3)
                       0013 2231+       EXTRN CC4TH(3)
                       0014 2232+       EXTRN XSNTHT(3)
                       0015 2233+       EXTRN $CC4PI(3)
                       0016 2234+       EXTRN $CC4OC(3)
                       0017 2235+       EXTRN ADDRS1(3)
                       0018 2236+       EXTRN $CC4V1(3)
                       4600 2237+       ENTRY $CCCOM
```

```
                      4600 2239+$CCCOM EQU   $CC4#1                    CCP COMMON


                           2241+*------------ENTRY POINT ADDRESS DEFINITION--------------------------*
                           2242+*@CC4TR                                *
    4600 0001         4601 2243+       DC    AL2($CC4TR)               TRANSIENT RETURN ADDRESS

                           2245+*@CC4TX                                *
    4602 0002         4603 2246+       DC    AL2($CC4TX)               TRANSIENT TRANSFER CONTROL @

                           2248+*@CC4PI                                *
                           2249+*@CC4TA                                *
    4604 0015         4605 2250+       DC    AL2($CC4PI)               1ST LEVEL TRANSIENT INVOCATION @

                           2252+*@CC4IS                                *
    4606 4D4C         4607 2253+       DC    AL2($CC4IS)               COMMUNICATIONS I/O INTERFACE @

                           2255+*@CC4GM                                *
    4608 0004         4609 2256+       DC    AL2($CC4GM)               GETMAIN ENTRY ADDRESS

                           2258+*@CC4FM                                *
    460A 0005         460B 2259+       DC    AL2($CC4FM)               FREEMAIN ENTRY ADDRESS

                           2261+*@MLTIO                                *
    460C 0017         460D 2262+       DC    AL2(ADDRS1)               MLTA IOCS ENTRY POINT @.
                           2263+*                                      FILLED BY STARTUP AT EXECUTION
                           2264+*                                      ADDRESS OF MAINTENANCE ADDRESS
                           2265+*                                      TABLE AT PRE-START UP

                           2267+*@MLTOP                                *
    460E 0000         460F 2268+       DC    AL2(0)                    MLTA OPEN ENTRY POINT @.
                           2269+*                                      FILLED BY STARTUP

                           2271+*@USECW                                *
    4610 0000         4611 2272+       DC    AL2(0)                    USER SECURITY DATA WORK AREA @
                           2273+*                                      FILLED BY STARTUP

                           2275+*@CC4MX                                *
    4612 0006         4613 2276+       DC    AL2($CC4MX)               MOVE FOREVER ROUTINE ADDRESS

                           2278+*@C4TI2                                *
    4614 0009         4615 2279+       DC    AL2(CC4TI2)               PROGRAM TERMINATION INTERFACE @

                           2281+*@CC4TI                                *
    4616 0012         4617 2282+       DC    AL2($CC4TI)               OTHER TASK TERMINATE ADDRESS

                           2284+*@CC4SR                                *
    4618 0008         4619 2285+       DC    AL2($CC4SR)               ENTRY ADDRESS IN MOVE ROUTINE

                           2287+*@CC4TH                                *
    461A 0013         461B 2288+       DC    AL2(CC4TH)                @ TERMINATION INTERFACE

                           2290+*@BTRAC                                *
    461C 0000         461D 2291+       DC    AL2(0)                    CCP BSCA TRACE ROUTINE
                           2292+*                                      ADDRESS FILLED BY STARTUP
                           2293+*                                      IF TRACEMLMP SPECIFIED
```

```
                                2295+*@MTRAC                                *
    461E 0000                   461F 2296+       DC    AL2(0)               CCP MLTA TRACE ROUTINE
                                2297+*                                      ADDRESS FILLED BY STARTUP
                                2298+*                                      IF TRACEMLTA SPECIFIED
```

```
                              2300+*------------TRANSIENT COMMUNICATION AREA-----------------------------*
                              2301+*SV1TAX                                          *
    4620 000A                 4621 2302+       DC    AL2($CC4CP)                    ATR SAVE AREA FOR OPEN

                              2304+*SV2TAX                                          *
    4622 000B                 4623 2305+       DC    AL2($CC4TM)                    ATR SAVE AREA FOR OPEN




                              2307+*----------- ADDRESSES OF SYSTEM TASK CONTROL BLOCKS -----------------*
                              2308+* THESE ADDRESSES ARE FILLED IN BY STARTUP.

                              2310+*@CMTCB                                          *
    4624 0000                 4625 2311+       DC    AL2(0)                         @ COMMUNICATIONS MANAGEMENT TCB

    4626 0000                 4627 2313+       DC    XL2'0000'

                              2315+*@TMTCB                                          *
    4628 0000                 4629 2316+       DC    AL2(0)                         @ TERMINATION TCB

                              2318+*@CPTCB                                          *
    462A 0000                 462B 2319+       DC    AL2(0)                         @ COMMAND PROCESSOR TCB

                              2321+*@AVTCB                                          *
    462C 0000                 462D 2322+       DC    AL2(0)                         @ AVAILABLE TCB'S
```

```
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                               2324+*----------- SYSTEM LEVEL FLAGS -------------------------------------*


                               2326+*$FLGA                                  *
    462E 00                    462E 2327+       DC    AL1(0*128)            FIRST SYSTEM LEVEL FLAG BYTE
                               2328+* BITS IN $FLGA ARE SET BY STARTUP
                               2329+*#DFFOK     BIT0                        DFF IS SUPPORTED
                               2330+*CPSOB1     BIT1                        SIGN ON PASSWORD REQUIRED
                               2331+*CPSOB2     BIT2                        SIGN ON USER PASSWORD REQUIRED
                               2332+*CPSHUT     BIT3                        SHUTDOWN HAS BEEN REQUESTED
                               2333+*CPSU       BIT4                        STARTUP IS IN PROCESS
                               2334+*#EPL       BIT5                        EXT POINTER LIST IS SUPPORTED
                               2335+*CPISNW     BIT7                        $CC4IS IS NOT TO ISSUE WAIT
                               2336+*                                       AFTER POSTING $CC4CM


                               2338+*$FLGB                                  *
    462F 00                    462F 2339+       DC    AL1(0)                SECOND SYSTEM LEVEL FLAG BYTE
                               2340+* BITS IN $FLGB ARE SET BY STARTUP
                               2341+*#SUALL     BIT0                        SUSPEND ALL IN EFFECT
                               2342+*#SUINT     BIT1                        SUSPEND INIT IN EFFECT
                               2343+*#SUCMD     BIT2                        SUSPEND COMMANDS IN EFFECT
                               2344+*CPSHDP     BIT3                        SHUTDOWN IS PENDING
                               2345+*#FEHLT     BIT4                        FEHALT IS RUNNING
                               2346+*#TDERR     BIT5                        * 1-PERMANENT DISK I/O ERROR
                               2347+*                                       * TRACING TO DISK HAS BEEN STOPP
                               2348+*#CPCAN     BIT6                        CCP CANCEL RECEIVED
                               2349+*#PUCNT     BIT7                        PROGRAM USE COUNTING IS ON


                               2351+*$FLGC                                  *
    4630 04                    4630 2352+       DC    AL1(1*4+0*2)          THIRD SYSTEM LEVEL FLAG BYTE
                               2353+*#MTRAC     BIT0                        MLTA TRACE IS ON
                               2354+*#BTRAC     BIT1                        BSCA TRACE IS ON
                               2355+*#CTRAC     BIT2                        CCP TRACE IS ON
                               2356+*#PUTTP     BIT3                        PUT ONLY TPBUFF FOR GETMAIN
                               2357+*#INVPL     BIT4                        INVITE PL GETMAIN AREA OF TPBUFF
                               2358+*INTPNO     BIT5                        INT POLL NOT SUPPORTED FOR BSCC
                               2359+*INTNSP     BIT6                        INT POLL NOT SUPPORTED FOR BSCA
                               2360+*           BIT7                        RESERVED
```

```
                                2362+*----------- SYSTEM CONSTANTS ----------------------------------------*
                                2363+*X$0000                                    *
    4631 0000                   4632 2364+       DC    XL2'0000'                CONSTANT XL2'0000'

                                2366+*X$0001                                    *
    4633 01                     4633 2367+       DC    XL1'01'                  CONSTANT XL2'0001' ALONG WITH
                                2368+*                                          CONSTANT X$0000

                                2370+*X$0002                                    *
    4634 0002                   4635 2371+       DC    XL2'0002'                CONSTANT XL2'0002'

                                2373+*X$0004                                    *
    4636 0004                   4637 2374+       DC    XL2'0004'                CONSTANT XL2'0004'

                                2376+*X$FFFF                                    *
    4638 FFFF                   4639 2377+       DC    XL2'FFFF'                CONSTANT XL2'FFFF'
```

```
                              2379+*----------- QUEUE ADDRESS POINTERS ---------------------------------*
                              2380+*@ALOCQ                                                            *
    463A 0000                 463B 2381+       DC    AL2(0)                    Q OF TASKS WAITING TO BE ALLOC'D

                              2383+*@WATSK                                                            *
    463C 0000                 463D 2384+       DC    AL2(0)                    ALLOCATE WAIT QUEUE

                              2386+*@QTUBS                                                            *
    463E 0000                 463F 2387+       DC    AL2(0)                    @ Q TUB'S WAITING FOR TCB/CORE

                              2389+*@GMWTQ                                                            *
    4640 0000                 4641 2390+       DC    AL2(0)                    @ GETMAIN TCB QUEUE

                              2392+*@DFFQ                                                             *
    4642 0000                 4643 2393+       DC    AL2(0)                    QUEUE FOR REQUESTS TO DFF TASK

                              2395+*@PRLQ                                                             *
    4644 0000                 4645 2396+       DC    AL2(0)                    @ OF PARAMETER LIST QUED FOR CM
```

```
                              2398+*----------- LIST ADDRESS POINTERS ----------------------------------*
                              2399+*@TALST                                    *
    4646 4E59                 4647 2400+       DC    AL2(TA@PGM-10)           @ PROGRAM LIST IN $CC4TA

                              2402+*@TCORG                                    *
    4648 0000                 4649 2403+       DC    AL2(0)                   @ OF THE TCB LIST

                              2405+*@ROCAT                                    *
    464A 0000                 464B 2406+       DC    AL2(0)                   ATT @ OF RESIDENT OPEN/CLOSE
                              2407+*                                          FILLED BY STARTUP

                              2409+*@LCB#1                                    *
    464C 0000                 464D 2410+       DC    AL2(0)                   @ FIRST LCB IN SYSTEM
                              2411+*                                          FILLED BY STARTUP

                              2413+*@TUBQ                                     *
    464E 0000                 464F 2414+       DC    AL2(0)                   @ OF THE FIRST TUB IN THE SYSTEM
                              2415+*                                          FILLED BY STARTUP

                              2417+*@EPATR                                    ATR VALUE OF EPL IF SUPPORTED
                              2418+*@DFCT                                   OR,
    4650 0000                 4651 2419+       DC    AL2(0)                   @ OF THE SHORT DTF ADDRESS LIST
                              2420+*                                          EITHER FILLED BY STARTUP

                              2422+*@TNT                                      *
    4652 0000                 4653 2423+       DC    AL2(0)                   @ OF 1ST TERMINAL NAME TABLE ENT
                              2424+*                                          FILLED BY STARTUP

                              2426+*@XDT                                      *
    4654 0000                 4655 2427+       DC    AL2(0)                   @ 1ST SYMBOLIC DFCT NAME ENTRY
                              2428+*                                          FILLED BY STARTUP
```

```
                              2430+*----------- MAIN STORAGE CONTROL BLOCK ( TPBUFF AND UPA )------------*
                              2431+* ALL FIELDS FILLED BY STARTUP

                              2433+*@BUFA                                    *
    4656 0000                 4657 2434+       DC    AL2(0)                  @ OF FIRST FREE SEGMENT
                              2436+*#NBND                                    *
    4658 0000                 4659 2437+       DC    AL2(0)                  RESERVED - MUST BE ZEROS
                              2439+*@LOBND                                   *
    465A 0000                 465B 2440+       DC    AL2(0)                  @ LO-BOUND GETMAIN AREA
                              2442+*@HIBND                                   *
    465C 0000                 465D 2443+       DC    AL2(0)                  @ HI-BOUND GETMAIN AREA
                              2445+*#GMS                                     *
    465E 0000                 465F 2446+       DC    AL2(0)                  SIZE OF LARGEST FREE SPACE
                              2448+*#TPBUF                                   *
    4660 0000                 4661 2449+       DC    AL2(0)                  ORIGINAL SIZE OF TPBUFF
                              2451+*@UPA                                     *
    4662 00                   4662 2452+       DC    AL1(0)                  USER PROGRAM AREA ATR
                              2454+*#AVCOR                                   *
    4663 00                   4663 2455+       DC    AL1(0)                  # 2K BLOCKS NOT GIVEN TO NEP'S
```

```
                              2457+*------------ GENERAL AREAS ----------------------------------------*
                              2458+*@PUCNT                                 *
    4664 0000                 4665 2459+       DC    AL2(0)                @ PROGRAM USE COUNT TABLE
                              2460+*                                       FILLED BY STARTUP
                                   
                              2462+*@TUSTG                                 *
    4666 0000                 4667 2463+       DC    AL2(0)                @ OF TUB IN STAGING NOW(CP TASK)
                                   
                              2465+*@KNTUB                                 *
    4668 4745                 4669 2466+       DC    AL2(KNTUB)            @ OF CONSOLE TUB
                                   
                              2468+*@PTX                                   *
    466A 0000                 466B 2469+       DC    AL2(0)                @ OF PCT MASTER INDEX
                              2470+*                                       FILLED BY STARTUP
                                   
                              2472+*@PTXCS                                 *
    466C 0000                 466D 2473+       DC    AL2(0)                C/S VALUE OF PCT DISK START
                              2474+*                                       FILLED BY STARTUP
                                   
                              2476+*#PCTLN                                 *
    466E 00                   466E 2477+       DC    AL1(0)                LONGEST LEN PCT USED BY PGM RQST
                              2478+*                                       FILLED BY STARTUP
                                   
                              2480+*#DFCT                                  *
    466F 00                   466F 2481+       DC    AL1(0)                NO. ENTRIES IN SHORT DTF @ LIST
                              2482+*                                       FILLED BY STARTUP
                                   
                              2484+*#SETID                                 *
    4670 00                   4670 2485+       DC    AL1(0)                ID OF ASSIGNMENT SET IN USE
                              2486+*                                       FILLED BY STARTUP
                                   
                              2488+*#XDT                                   *
    4671 00                   4671 2489+       DC    AL1(0)                NUMBER OF SYMFILE STATEMENTS
                              2490+*                                       FILLED BY STARTUP
                                   
                              2492+*@UALFA                                 *
    4672 0000                 4673 2493+       DC    AL2(0)                UNCHANGING START OF UPA
                              2494+*                                       FILLED BY STARTUP
                                   
                              2496+*@TKFSB                                 *
    4674 0000                 4675 2497+       DC    AL2(0)                FSB AREA FOR TCB'S
                              2498+*                                       FILLED BY STARTUP
                                   
                              2500+*CPLPWD                                 *
    4676 00                   4676 2501+       DC    AL1(0)                LENGTH OF SIGN ON PASSWORD
                              2502+*                                       FILLED BY STARTUP
                                   
                              2504+*CPPSWD                                 *
    4677 404040404040         467C 2505+       DC    CL6'      '           CCP SIGN ON PASSWORD
                              2506+*                                       FILLED BY STARTUP
```

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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  66

                               2508+*----- CCP DUMP AREA DISK ADDRESSES ---------------------------------*
                               2509+* FIELDS FILLED BY STARTUP OR BY $CC1DP
                               2510+*#DUMPQ
    467D 00                467D 2511+       DC    XL1'0'                  Q-BYTE OF $CCPDUMP FILE UNIT

                               2513+*@CPDMP
    467E 0000              467F 2514+       DC    XL2'0'                  DISK ADDRESS OF $CCPDUMP

                               2516+*@NDUMP
    4680 000000            4682 2517+       DC    XL3'0'                  DISK ADDRESS OF NEXT DUMP

                               2519+*#CPFLQ                              *
    4683 00                4683 2520+       DC    AL1(0)                  $CCPFILE DEVICE Q-BYTE
```

```
                                2522+*----------- FIXED LOCATIONS OF RESIDENT CODE ------------------------*
                                2523+*CC4TA                                        *
                                2524+*CC4PI                                        *
    4684 35 10 4605             2525+       L     @CC4TA,IAR                   LOAD IAR OF $CC4TA

                                2527+*CC4IS                                        *
    4688 35 10 4607             2528+       L     @CC4IS,IAR                   LOAD IAR OF @CC4IS

                                2530+*CC4GM                                        *
    468C 35 10 4609             2531+       L     @CC4GM,IAR                   LOAD IAR OF @CC4GM

                                2533+*CC4FM                                        *
    4690 35 10 460B             2534+       L     @CC4FM,IAR                   LOAD IAR OF @CC4FM

                                2536+*USECW                                        *
    4694 35 10 4611             2537+       L     @USECW,IAR                   LOAD IAR OF @USECW

                                2539+*CC4MX                                        *
    4698 35 10 4613             2540+       L     @CC4MX,IAR                   LOAD IAR OF @CC4MX

                                2542+*C4TI2                                        *
    469C 35 10 4615             2543+       L     @C4TI2,IAR                   LOAD IAR OF @C4TI2

                                2545+*CC4TI                                        *
    46A0 35 10 4617             2546+       L     @CC4TI,IAR                   LOAD IAR OF @CC4TI

                                2548+*CC4TT                                        *
    46A4 35 10 004C             2549+       L     X'004C',IAR                  LOAD IAR OF @CTRAC

                                2551+*CC4SR                                        *
    46A8 35 10 4619             2552+       L     @CC4SR,IAR                   LOAD IAR OF @CC4SR

                                2554+*CC4FR                                        *
    46AC 35 10 46B1             2555+       L     @CC4FR,IAR                   LOAD IAR OF @CC4FR


                                2557+*------------ADDITIONAL ENTRY POINT ADDRESS DEFINITION ---------------*
                                2558+*@CC4FR                                       *
    46B0 0000             46B1  2559+       DC    AL2(0)                       SET BY STARTUP

                                2561+*@CC4II                                       *
    46B2 480A             46B3  2562+       DC    AL2($CC4II)                  $CC4II ENTRY POINT - NEEDED BY
                                2563+*                                             *  SHUTDOWN FOR BUFFER.



                                2565+*------------- MAINTENANCE SPACE ------------------   2 BYTES -------*

    46B4 0000             46B5  2567+       DC    2XL1'00'                     MAINTENANCE SPACE

                                2569+*$END1
```

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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  68

                               2571+************ DFF WORK AREA                        15 BYTES************
                               2572+*$DFWK
                               2573+*@DFFIX                                  *
    46B6 0000                  46B7 2574+       DC    AL2(0)                 C/S OF DFF FORMATS INDEX
                               2575+*                                        FILLED BY STARTUP

                               2577+*#DFQ                                    *
    46B8 00                    46B8 2578+       DC    AL1(0)                 FDT DEVICE Q-BYTE
                               2579+*                                        FILLED BY STARTUP

                               2581+*#DF1ID                                  ID OF TASK 'OWNING' SPACE IN
                               2582+*                                        DFF COMM. AREA FOR LINE 1
    46B9 00                    46B9 2583+       DC    AL1(0)                 TASK ID

                               2585+*#DF2ID                                  ID OF TASK 'OWNING' SPACE IN
                               2586+*                                        DFF COMM. AREA FOR LINE 2
    46BA 00                    46BA 2587+       DC    AL1(0)                 TASK ID

                               2589+*$DFECB                                  *
    46BB 000000                46BD 2590+       DC    XL3'000000'            ECB FOR DFF TASK

                               2592+*$DFFLG                                  *
    46BE 00                    46BE 2593+       DC    AL1(0*128)             DFF FLAG BYTE

                               2595+*LCPFK                                   *
    46BF FF                    46BF 2596+       DC    XL1'FF'                PF KEY FOR LOWER CASE INPUT

    46C0 0000000000            46C4 2598+       DC    5XL1'00'               ************************
```

```
                              2600+************ COMMAND PROCESSOR WORK AREA           50 BYTES************

                              2602+*$CPWK
    46C5 0000000000       46C9 2603+       DC    XL5'0'                    RESERVED


                              2605+*----------- COMMAND PROCESSOR ECB LIST ------------------------------*
                              2606+*$CPLST                                  ECB LIST.
    46CA 4807             46CB 2607+       DC    AL2(@TMECB)               SHUTDOWN TIMER ECB
    46CC 46D8             46CD 2608+       DC    AL2($CPQ)                 PROGRAM INITIATE-POSTED BY TERM
    46CE 46DB             46CF 2609+       DC    AL2($CPPF9)               PF9 - PROGRAM REQUEST
    46D0 46DE             46D1 2610+       DC    AL2($CPCM)                DATA IN TP BUFFER FOR CP
    46D2 0048             46D3 2611+       DC    AL2(X'0048')              OCC
    46D4 46E1             46D5 2612+       DC    AL2($CP1ST)               STARTUP/WTOR/LIST DELIMITER
    46D6 FFFF             46D7 2613+       DC    XL2'FFFF'                 LIST DELIMITER


                              2615+*----------- COMMAND PROCESSOR ECB'S ---------------------------------*
                              2616+*@TMECB                                  LOCATION OF ECB IN IOB X'4807'
                              2617+*$CPQ                                    *
    46D8 000000           46DA 2618+       DC    3XL1'00'                  PROGRAM INITIATE-POSTED BY TERM

                              2620+*$CPPF9                                  *
    46DB 000000           46DD 2621+       DC    3XL1'00'                  PF9 - PROGRAM REQUEST

                              2623+*$CPCM                                   *
    46DE 000000           46E0 2624+       DC    3XL1'00'                  DATA IN TP BUFFER FOR CP

                              2626+*$CPOCC                                  OCC - IN THE DSM NUCLEUS
                              2627+*
                              2628+*$CP1ST                                  *
    46E1 400000           46E3 2629+       DC    XL3'400000'               FIRST TIME SWITCH

                              2631+*$CPFLG      SECOND BYTE OF $CP1ST       COMMAND PROCESSOR FLAG BYTE
                              2632+*$CPFR       BIT0                        FREEMAIN TO BE DONE
                              2633+*$CPCFR      BIT3                        FREE NEEDED FOR CONSOLE OCC
                              2634+*$CPDPG      BIT4                        PAGE 1 OF DISPLAY DONE
                              2635+*$CPD1S      BIT5                        DO SECONDARY MENU

                              2637+*$CPWTO                                  WTO - GETMAINED FOR IN TPBUFF
                              2638+*-------------------------------------------------------------------*


                              2640+*$CPPRQ      $CP+30                      START OF 20 BYTE PRGM REQ AREA

                              2642+*$CPCOM      $CP+30                      START OF COMMANDS COMMO AREA
                              2643+*$CPRTC      $CP+31                      SAVE AREA FOR PLRTC
                              2644+*$CPEFL      $CP+33                      SAVE AREA FOR PLEFFL
                              2645+*$CPRCA      $CP+35                      SAVE AREA FOR PLRECA

                              2647+*$CPLMG                                  2 BYTE MESSAGE LENGTH
    46E4 00               46E4 2648+       DC    XL1'00'                   ALONG WITH LAST BYTE OF $CP1ST

                              2650+*$CPMSG      $CP+32                      *
    46E5 000E             46E6 2651+       DC    AL2($CC4IG)               MSG AREA:  MSG #(NN), THEN TEXT
```

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                                2653+*#LSTSZ      $CPMSG+2                  *
    46E7 16                46E7 2654+       DC    AL1(LSTSIZ)               # ENTRIES IN FIRST LEVEL LIST

                                2656+*@XSNT1      #LSTSZ+2                  *
    46E8 000F              46E9 2657+       DC    AL2(XSNT1)                ADDRESS OF TRANSIENT AREA 1

                                2659+*@XSNT2      @XSNT1+2                  *
    46EA 0010              46EB 2660+       DC    AL2(XSNT2)                ADDRESS OF TRANSIENT AREA 2

    46EC 0000000000000000 46F6 2662+       DC    11XL1'00'                 (UNUSED)
    46F4 000000                2662+
```

```
                                2664+************ ALLOCATION WORK AREA                  9 BYTES************
                                2665+*$AMWK
                                2666+*$AM
    46F7 0000000000000000 46FF  2667+       DC    9XL1'00'                ALLOCATION WORK AREA
    46FF 00                     2667+

                                2669+*$AMFLG      $AM                     ALLOCATION FLAG BYTE
                                2670+*$AMBSY      BIT0                    1--ALLOCATION BUSY
                                2671+*$APEND      BIT1                    1--ALLOCATION TASK POST PENDING
                                2672+*$AMDFF      BIT2                    NON-RESIDENT DFF ALOC IN PROCESS
                                2673+*$AMA1       BIT3                    U/R DEVICE ALLOCATION IN PROCESS
                                2674+*$AMA2       BIT4                    REJECT IN PROCESS
                                2675+*$AMPF9      BIT5                    CONSOLE TUB IN USE FOR PROGRAM

                                2677+*$AMUR       $AMFLG+1                CCP LEVEL AND SPOOLING DEVICES.
                                2678+*A1SPLV      BIT0                    1=CCP IS IN LEVEL 1.
                                2679+*                                    0=CCP IS IN LEVEL 2.
                                2680+*            BIT2                    MFCU/M SEC IS SPOOL RDR FOR CCP
                                2681+*            BIT3                    MFCU/M SEC IS SPOOL PCH FOR CCP
                                2682+*A1741S      BIT4                    3741 IS SPOOLED READER FOR CCP
                                2683+*            BIT6                    MFCU/M PRI IS SPOOL RDR FOR CCP
                                2684+*            BIT7                    MFCU/M PRI IS SPOOL PCH FOR CCP
                                2685+*$AMPA       $AMUR+1                 PERM ALLOC AND SPOOLED UR
                                2686+*                                    DEVICES FOR CCP.
                                2687+*PCTPRS      BIT0                    1=WILL SHARE PRINTER.
                                2688+*PCT41I      BIT1                    1=3741 IS PERM ALLOCATED
                                2689+*PCT501      BIT2                    1=2501 IS PERM ALLOCATED.
                                2690+*PCTPRT      BIT3                    1=PRINTER IS PERM ALLOCATED.
                                2691+*PCT142      BIT4                    1=1442 IS PERM ALLOCATED.
                                2692+*PCTMFU      BIT5                    1=MFCU/M IS PERM ALLOCATED.
                                2693+*            BIT6                    1=1442 IS SPOOL READER FOR CCP
                                2694+*            BIT7                    1=1442 IS SPOOL PUNCH FOR CCP

                                2696+*$AMSA       $AMPA+1                 IN USE DEVICES
                                2697+*$AMSHR      $AMSA+1                 COUNT OF PRESENT PRINT SHARERS
```

```
                                2699+************ TERMINATOR WORK AREA                 24 BYTES************
                                2700+*$TMWK                                 START OF TERMINATION WORK AREA
                                2701+*$TM                                   BEGINNING OF WORK AREA
    4700 0000000000000000 4711  2702+       DC    18XL1'00'               TERMINATOR WORK AREA
    4708 0000000000000000       2702+
    4710 0000                   2702+
    4712 0011             4713  2703+       DC    AL2(XSNT3)              ADDRESS TRANSIENT 3 IOB
    4714 00000000         4717  2704+       DC    4XL1'00'                TERMINATOR WORK AREA

                                2706+*$TMFLG      $TM                       TERMINATOR FLAG BYTE
                                2707+*$TMSTK      BIT0                      SYSTEM TASK FAILURE
                                2708+*$TMBSY      BIT0                      1--TERMINATION TASK IS ACTIVE
                                2709+*                                      0--TERMINATION TASK NOT BUSY
                                2710+*$TMDMP      BIT1                      1--DUMP HAS BEEN TAKEN
                                2711+*                                      0--DUMP NOT TAKEN
                                2712+*$TMEJ       BIT2                      1--$CC4EJ (CCP END OF JOB)
                                2713+*                                      HAS BEEN INVOKED BY $CC4TD
                                2714+*                                      (TERMINATION CONTROL ROUTINE)
                                2715+*$TMCLZ      BIT3                      TERMINATION MUST CALL CLOSE
                                2716+*$TMCM       BIT4                      RESERVED
                                2717+*$TMCP       BIT5                      RESERVED
                                2718+*$TMDFL      BIT6                      ON=NO MORE DUMP SPACE GUARANTEED
                                2719+*$TMDER      BIT7                      ON=PERMANENT DISK I/O ERROR
                                2720+*                                      DURING TERMINATION DUMP

                                2722+*$TMTCB      $TMFLG+2                  @ OF TCB CURRENTLY BEING
                                2723+*                                      PROCESSED BY TERMINATION TASK
                                2724+*$TMECB      $TMTCB+1                  TERMINATION'S ECB (3 BYTES)
                                2725+*$TMDID      $TMECB-1+3+2              DUMP ID DIGITS (2 BYTES)


                                2727+*----------- TD WORK AREAS ----------------------------------------*
                                2728+*TIWRK1      $TMDID+2                  SAVE AREA
                                2729+*TIWRK2      TIWRK1+2                  INFORMATION
                                2730+*TIWRK3      TIWRK2+2                  WHEN CCP
                                2731+*TIWRK4      TIWRK3+2                  HAS A
                                2732+*TIWRK5      TIWRK4+2                  CCP SYSTEM TASK
                                2733+*TIWRK6      TIWRK5+2                  ERROR TO PROCESS
```

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                                2735+************ COMMUNICATIONS MANAGEMENT WORK AREA   45 BYTES************
                                2736+*$CMWK                                START OF 'CM' WORK AREA
                                2737+*$CM                                  START OF 'CM' WORK AREA
    4718 0000000000000000 4729  2738+       DC    18XL1'00'              COMMUNICATION TASK WORK AREA
    4720 0000000000000000       2738+
    4728 0000                   2738+


                                2740+*#CMDTF      $CM+1                    SAVE AREA FOR DTF ADDRESS
                                2741+*#CMPL       #CMDTF+2                 SAVE AREA FOR PARM LIST

                                2743+*#CMTMA      #CMPL+2                  SAVE AREA FOR TERMINAL ADDRESS
                                2744+*#CMBK1      #CMTMA                   RETURN CODE FOR $CC4BL MESSAGE

                                2746+*#CMTFT      #CMTMA+1                 SAVE AREA FOR TERMINAL FEATURES
                                2747+*#CMBK2      #CMTFT                   INTERNAL MSG TYPE FOR $CC4BL

                                2749+*#CMPTR      #CMTFT+2                 SAVE AREA FOR PREVIOUS POINTER
                                2750+*#CMFPL      #CMPTR+2                 SAVE AREA FOR FOUND PARM LIST
                                2751+*#CMPTX      #CMFPL+2                 SPECIAL SAVE AREA FOR PREV PTR
                                2752+*#CMTUB      #CMPTX+2                 SAVE AREA FOR TUB ADDRESS
                                2753+*#CMERP      #CMTUB+2                 @ OF DTF TO BE RESCHEDULED AFTER
                                2754+*                                     BEING IN CCP ERP
                                2755+*#CMSWT      #CMERP+1                 CONTROL SWITCH
                                2756+*#CMARR      BIT0                     1--OK TO MODIFY TCBARR


                                2758+*#OPEND      #CMSWT+1                 *
    472A 00                 472A 2759+       DC    XL1'00'                T-P OP END COUNT

                                2761+*#CCMCL      #OPEND+2                 *
    472B 0000               472C 2762+       DC    XL2'0000'              MAXIMUM COMMAND BUFFER LENGTH

                                2764+*#RUFCL      #CCMCL+2                 RUF COMMAND LENGTH
    472D 0000               472E 2765+       DC    AL2(0)                 FILLED BY STARTUP

                                2767+*@TAS        #RUFCL+2                 TERMINAL ATTRIBUTE SET ADDRESS
    472F 0000               4730 2768+       DC    AL2(0)                 FILLED BY STARTUP

                                2770+*#HITAS      @TAS+1                   HIGHEST TAS INDEX IN SYSTEM
    4731 00                 4731 2771+       DC    AL1(0)                 FILLED BY STARTUP

                                2773+*@CSSTT      #HITAS+2                 DISK C/S OF STT
    4732 0000               4733 2774+       DC    AL2(0)                 FILLED BY STARTUP

                                2776+*#HISTT      @CSSTT+1                 NO ENTRIES IN STT(SW TERM TBL)
    4734 00                 4734 2777+       DC    AL1(0)                 FILLED BY STARTUP

                                2779+*@MLTAD      #HISTT+2                 ADDRESS OF MLTA ADAPTER
    4735 0000               4736 2780+       DC    AL2(0)                 0 INDICATES NO MLTA ADAPTER
                                2781+*                                     FILLED BY STARTUP

                                2783+*@CKLST      @MLTAD+2                 ADDRESS OF CHECK LIST
    4737 0000               4738 2784+       DC    AL2(0)                 FILLED BY STARTUP

                                2786+*---------- COMMUNICATIONS MANAGEMENT ECB'S -------------------------*
```

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                                2787+*$CMECB      @CKLST+1                  *
    4739 000000           473B 2788+       DC     XL3'000000'               GENERAL POST ECB FOR CM

                                2790+*$CMFM       $CMECB+3                  *
    473C 200000           473E 2791+       DC     XL3'200000'               FREEMAIN'S POST OF CM
                                2792+*@ANYTP      $CMFM+4                   ADDRESS OF COMMON TP BUFFER AREA
    473F 0000             4740 2793+       DC     AL2(0)                    * FILLED BY STARTUP
                                2794+*@INVPL      @ANYTP+2                  ADDRESS OF INVITE PL AREA
    4741 0000             4742 2795+       DC     AL2(0)                    * FILLED BY STARTUP

                                2797+*ERTIME      @INVPL+2                  AUTO ERP RECOVERY TIME
    4743 0000             4744 2798+       DC     AL2(0)                    * FILLED BY STARTUP
```

```
                           2800+*----------- CONSOLE TUB AND PARAMETER LIST -------------------------*
                           2801+*KNTUB       $END1+#LWKWK              FIXED LOCATION OF CONSOLE TUB
    4745 D2D5              4746 2802+        DC    CL2'KN'             CONSTANT
    4747 476C              4748 2803+        DC    AL2(KNPL)           PARM LIST ADDRESS
    4749 00000000000000    474F 2804+        DC    XL7'00000000000000' UNUSED BYTES IN TUB
    4750 80                4750 2805+        DC    XL1'80'             SIGNIFIES CONSOLE TUB
    4751 0000000000000000  476B 2806+        DC    27XL1'00'           MORE UNINITIALIZED BYTES
    4759 0000000000000000       2806+
    4761 0000000000000000       2806+
    4769 000000                 2806+
                           2807+*KNPL        KNTUB+39                  CONSOLE PARAMETER LIST
    476C 0000              476D 2808+        DC    XL2'0000'           PLRTC FILED OF KN PL
    476E 8007              476F 2809+        DC    XL2'8007'           SYS REQUEST SO NOT FREEMAINED
    4770 0000000000000000  477E 2810+        DC    15XL1'00'           REST OF PARM LIST
    4778 00000000000000         2810+
```

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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  76

                               2812+*----------- SHUTDOWN FIELDS ----------------------------------------*
                               2813+*SHDECB      KNPL+19                   SHUTDOWN'S ECB
    477F 000000           4781 2814+       DC    XL3'000000'               SHUTDOWN'S ECB

    4782 00               4782 2816+       DC    XL1'00'                   RESERVED
                               2817+*FEHLT@      SHDECB+2+3
    4783 0014             4784 2818+       DC    AL2(XSNTHT)               ADDRESS OF FE HALT ROUTINE

    4785 0000000000000000 478F 2820+       DC    11XL1'00'                 SAVE AREA
    478D 000000                2820+
                               2821+*SHDSAV      FEHLT@+11                 CM TCB FIELDS SAVE AREA


                               2823+*---------   EXTENSION TO $CC4CM WORK AREA -------------------------*
                               2824+*#CMTRL      SHDSAV-10+11              *
                               2825+*#CMMVL      #CMTRL                    MOVE LIST FOR $CC4CM
    4790 0000000000000000 479A 2826+       DC    11XL1'00'                 TRANSLATE LIST FOR $CC4CM
    4798 000000                2826+
                               2827+*PLTIME      #CMMVL+10+4               POLL TIME FOR CM
    479B 00000000         479E 2828+       DC    XL4'00'
                               2829+*WATIME      PLTIME+3                  WAIT TIME FOR CM
    479F 000000           47A1 2830+       DC    XL3'00'
                               2831+*SAVLOP      WATIME+1                  SAVE AREA FOR POLL LOOP COUNT
    47A2 00               47A2 2832+       DC    XL1'00'
                               2833+*@CCPTB      SAVLOP+2                  CCP PARTITION TCB ADDRESS
    47A3 0000             47A4 2834+       DC    AL2(0)                    ADDRESS IS FILLED BY START-UP
                               2835+*#TPPUT      @CCPTB+2                  LENGTH OF PUT AREA IN TPBUFFER
    47A5 0000             47A6 2836+       DC    AL2(0)                    ADDRESS IS FILLED BY START-UP
                               2837+*#TPANY      #TPPUT+2                  LENGTH OF MIDDLE AREA IN TPBUFF
    47A7 0000             47A8 2838+       DC    AL2(0)                    LENGTH FILLED BY START-UP
                               2839+*#ANYS       #TPANY+1                  LENGTH OF LARGEST COMMON AREA
    47A9 0000             47AA 2840+       DC    AL2(0)                    INIT. LENGTH FILLED BY START-UP
                               2841+*CORCNT      #ANYS+2                   COUNT OF NO. PARMLISTS WAITING
                               2842+*                                      ON CORE FROM TPBUFFER
    47AB 00               47AB 2843+       DC    XL1'00'                   INITIALIZED TO ZERO
                               2844+*@DTUBQ      CORCNT+2+1                DUMMY TUB QUE FOR TASK CHAIN
    47AC 0000             47AD 2845+       DC    AL2(0)                    USED BY II

                               2847+*#RUFAD      @DTUBQ+2                  ADDITIONAL DATA NEEDED FOR
    47AE 0000             47AF 2848+       DC    XL2'00'                   PROGRAM REQUEST UNDER FORMAT.

                               2850+*TNTATT      #RUFAD+2                  SAVE AREA TO HOLD ATT FOR
    47B0 0000             47B1 2851+       DC    XL2'00'                   THE LOCATION OF TNT MOVEOUT.

                               2853+*$RESER                                RESERVE AREA.
    47B2 0000             47B3 2854+       DC    XL2'00'                   RESERVE AREA.


                               2856+*-------------   BSCC COMMUNICATIONS AREA   --------------------------*

                               2858+*$CSFM
    47B4 000000           47B6 2859+       DC    XL3'00'                   FREEMAIN ECB

                               2861+*$CSECB
    47B7 000000           47B9 2862+       DC    XL3'00'                   OP END AND NEW REQUEST ECB
```

```
                                2864+*#CSOND
    47BA 00              47BA 2865+       DC    AL1(0)                    OP END COUNT FOR LINES 3 AND 4
                                2867+*@CSNRQ
    47BB 0000            47BC 2868+       DC    AL2(0)                    NEW REQUEST QUE
                                2870+*@CSTCB
    47BD 0000            47BE 2871+       DC    AL2(0)                    ADDRESS OF BSCC TCB
                                2873+*#CSERP
    47BF 0000            47C0 2874+       DC    AL2(0)                    ADDRESS OF LCB IN ERROR RECOVERY
                                2876+*@CLB#1
    47C1 0000            47C2 2877+       DC    AL2(0)                    ADDRESS OF FIRST BSCC LCB
                                2879+*POLTIM
    47C3 00000000        47C6 2880+       DC    XL4'00'                   POLL TIME FOR BM
                                2882+*SVLOOP
    47C7 00              47C7 2883+       DC    XL1'00'                   SAVE POLL LOOP COUNT FOR BSCC
                                2885+*WAITIM
    47C8 000000          47CA 2886+       DC    XL3'00'                   WAIT TIME FOR BM
                                2888+*#MATST
    47CB 00              47CB 2889+       DC    XL1'00'                   LOGICAL ATR START OF BSCC
                                2891+*#MATED
    47CC 00              47CC 2892+       DC    XL1'00'                   LOGICAL ATR END OF BSCC
                                2894+*#MATX3
    47CD 00              47CD 2895+       DC    XL1'00'                   REAL ATR START OF XIENT AREA 3
                                2897+*--------------   DIRECTORY INFORMATION   ----------------------------*
                                2899+*CSPKR1
    47CE 0000            47CF 2900+       DC    AL2(0)                    C/S DIRECTORY ON UNIT R1
                                2902+*CSPKF1
    47D0 0000            47D1 2903+       DC    AL2(0)                    C/S DIRECTORY ON UNIT F1
                                2905+*CSPKR2
    47D2 0000            47D3 2906+       DC    AL2(0)                    C/S DIRECTORY ON UNIT R2
                                2908+*CSPKF2
    47D4 0000            47D5 2909+       DC    AL2(0)                    C/S DIRECTORY ON UNIT F2
                                2911+*----------- REGISTER SAVE AREAS FOR THE DISPLAY TRANSIENT -----------*
                                2912+*$CPIAR                             *
    47D6 0000            47D7 2913+       DC    AL2(0)                    IAR
                                2915+*$CPXR1                             *
    47D8 0000            47D9 2916+       DC    AL2(0)                    TUB,TNT,OR FSB
                                2918+*$CPDTF                             *
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    47DA 0000             47DB 2919+       DC    AL2(0)                   DTF
                               2921+*$CPUSE                                *
    47DC 00               47DC 2922+       DC    AL1(0)                   PROGRAM USE COUNT SAVE FIELD
                               2924+*$FLGD
    47DD 00               47DD 2925+       DC    XL1'0'                   FOURTH SYSTEM LEVEL FLAG BYTE
                               2927+*$CCTR@
    47DE 000C             47DF 2928+       DC    AL2($CCINT)              ADDRESS OF CCP TRACE INTERCEPT
                               2930+*$CCTR#
    47E0 00               47E0 2931+       DC    XL1'0'                   NUMBER OF BLOCKS IN TABLE
                               2933+*@AERPQ
    47E1 0000             47E2 2934+       DC    XL2'0'                   Q OF TUBS FOR AUTO ERP
    4800                       2936+       ORG   X'4800'                  TO ALIGN TIMER IOB
                               2937+*@TMIOB                               TIMER IOB FOR SHUTDOWN
    4800 00               4800 2938+       DC    XL1'0'                   FLAG BYTE
    4801 000000000000     4806 2939+       DC    XL6'0'                   TIME HHMMSS
    4807 000000           4809 2940+       DC    XL3'0'                   ECB
```

$CC4#1 WORK AREAS


```
                              2942 *      $E060                                                          CCP00172
```

```
                          2944+*****************************************************************
                          2945+*                                                               *
                          2946+*  TITLE:  '$CC4II' - I/O INTERFACE ROUTINE.                    *
                          2947+*                                                               *
                          2948+*  FUNCTION/OPERATION:  THE FUNCTION OF THIS RESIDENT ROUTINE IS TO   *
                          2949+*   PROCESS BOTH USER AND SYSTEM I/O REQUESTS.  EXTENSIVE DIAGNOSTICS *
                          2950+*   ARE PERFORMED ON EACH REQUEST PRIOR TO SCHEDULING THE REQUEST.    *
                          2951+*   USER REQUESTS ARE PROCESSED IN THE FOLLOWING MANNER:             *
                          2952+*                                                               *
                          2953+*      1. GET/PUT/PUT-NO-WAIT/INVITE/STOP INVITE - FOLLOWING THE      *
                          2954+*         DIAGNOSTICS, AN INPUT OPERATION CAUSES THE RECORD AREA TO BE*
                          2955+*         BLANKED, AND TUBIIS IS SET ON FOR 'CM'.  THE USER'S PARAME- *
                          2956+*         TER LIST IS MOVED TO THE TCB FOR ADDRESSABILITY BY 'CM'.    *
                          2957+*         THE PARAMETER LIST IS QUEUED ON @PRLQ, AND 'CM' IS POSTED   *
                          2958+*         WITH WORK TO DO AND A WAIT ON THE ECB OCCURS.  WHEN CONTROL *
                          2959+*         RETURNS, THE COPY OF THE PARAMETER LIST IS MOVED BACK TO THE*
                          2960+*         USER'S PARAMETER LIST AREA.  CONTROL NOW RETURNS TO THE USER*
                          2961+*         VIA THE DSM DISPATCHER.  NOTE: IF THE PARAMETER LIST OPER-@21
                          2962+*         ATION IS TO A BSCC LINE TUB THEN THE LIST IS QUEUED ON      *
                          2963+*         @CSNRQ AND $CC4#M IS GIVEN CONTROL INSTEAD OF $CC4CM.       *
                          2964+*                                                               *
                          2965+*         IF BUSY PRINTER SUPPORTED THEN BEFORE AN OPERATION IS GIVEN *
                          2966+*         TO CM OR CS A TEST IS MADE FOR A POSSIBLE BUSY PRINTER.  IF *
                          2967+*         TUBBSY IS NOT ON THEN THE OPERATION IS EXECUTED.  IF TUBBSY *
                          2968+*         IS ON THEN AN INVITE WITH TUBWAT ON IS ISSUED TO ASK IF     *
                          2969+*         DEVICE IS STILL BUSY.  IF IT IS THEN $CC4II LOOP IN THE     *
                          2970+*         USERS TASK UNTILL THE DEVICE BECOMES NOT BUSY BEFORE        *
                          2971+*         GIVING THE USERS OPERATION TO CM OR CS.                     *
                          2972+*                                                               *
                          2973+*      2. ACCEPT INPUT - WHEN AN ACCEPT INPUT REQUEST IS ISSUED, TRAN-*
                          2974+*         SIENT $CC4AB IS CALLED TO FIND A COMPLETED INVITE INPUT FOR *
                          2975+*         THIS TASK.  IF NO COMPLETED INVITES ARE FOUND ON THE TCBINQ *
                          2976+*         CHAIN, CONTROL RETURNS TO $CC4II TO ISSUE A WAIT FOR AN IN- *
                          2977+*         VITE TO COMPLETE OR SHUTDOWN TO BE REQUESTED BY THE SYSTEM  *
                          2978+*         OPERATOR. IF CONTROL RETURNS DUE TO A SHUTDOWN REQUEST, THE *
                          2979+*         RETURN CODE OF THE ACCEPT PARAMETER LIST IS SET TO REFLECT  *
                          2980+*         THIS.  IF CONTROL RETURNS BECAUSE OF THE COMPLETION OF AN   *
                          2981+*         INVITE INPUT, $CC4AB IS AGAIN INVOKED TO FIND THE COMPLETED *
                          2982+*         INVITE REQUEST ON THE 'TCBINQ' CHAIN.  WHEN $CC4AB RETURNS  *
                          2983+*         TO THE RESIDENT CODE, THE TUB IS DEQUEUED FROM THE        @21
                          2984+*         TCBINQ CHAIN, AND 'CM/CS' IS POSTED TO MOVE               @21
                          2985+*         THE DATA TO THE USER'S RECORD AREA AND FREEMAIN THE INVITE  *
                          2986+*         INPUT HOLD BUFFER AND THE INVITE PARAMETER LIST COPY.       *
                          2987+*                                                               *
                          2988+*      3. STATUS REQUESTS (ACQUIRE TERMINAL, RELEASE TERMINAL, OR GET *
                          2989+*         TERMINAL ATTRIBUTES) - AFTER THESE REQUESTS ARE DIAGNOSED,  *
                          2990+*         TRANSIENT $CC4GA IS INVOKED TO EITHER PROCESS THE REQUEST   *
                          2991+*         (GET ATTRIBUTES) OR TO ROUTE THE REQUEST TO THE APPROPRIATE *
                          2992+*         ACQUIRE OR RELEASE TRANSIENT ($CC4AQ OR $CC4RL).            *
                          2993+*                                                               *
                          2994+*      4. CONSOLE REQUESTS - FOR USER REQUESTS TO THE CONSOLE, A GET- *
                          2995+*         MAIN IS DONE FOR A CONSOLE WRITE TO OPERATOR (WTO) OR WRITE *
                          2996+*         TO OPERATOR WITH REPLY (WTOR) REQUEST.  THE PARAMETER LIST  *
                          2997+*         IS BUILT IN THE GETMAINED AREA FROM THE USER'S PARAMETER    *
                          2998+*         LIST AND THE REQUEST IS ISSUED VIA CONSOLE DATA MANAGEMENT  *
                          2999+*         CONTROL RETURNS TO $CC4II AFTER THE OPERATION IS COMPLETED,  *
```

```
                          3000+*         AND A FREEMAIN OCCURS TO FREE THE PARAMETER LIST AREA AND   *
                          3001+*         CONTROL RETURNS TO THE USER PROGRAM.                        *
                          3002+*                                                                     *
                          3003+*      5. DFF REQUESTS - IF THE REQUEST IS FOR A DFF TERMINAL, THE    *
                          3004+*         FOLLOWING ACTION TAKES PLACE:                               *
                          3005+*                                                                     *
                          3006+*              - RELEASE TERMINAL - DFF PROCESSING OCCURS FOLLOWING   *
                          3007+*                THE RETURN FROM THE RELEASE TRANSIENTS.              *
                          3008+*                                                                     *
                          3009+*              - GET ATTRIBUTES/ACQUIRE TERMINAL - DFF IS NOT INVOLVED*
                          3010+*                                                                     *
                          3011+*              - ACCEPT INPUT - THE DFF TASK IS INVOKED BY 'CM/CS'  @21
                          3012+*                                                                     *
                          3013+*              - OTHERS - DFF PROCESSING OCCURS IMMEDIATELY PRIOR TO  *
                          3014+*                POSTING 'CM' THAT HE HAS WORK TO DO.  THE DFF TASK IS*
                          3015+*                THEN INVOKED BY COMMUNICATIONS MANAGEMENT DURING HIS *
                          3016+*                PROCESSING.                                          *
                          3017+*                                                                     *
                          3018+*      6. SYSTEM REQUESTS ($CC4IS) - FOR SYSTEM TP REQUESTS, THE RE-  *
                          3019+*         QUEST IS MERELY PASSED ON TO $CC4CM OR $CC4#M, IF BSCC, BY   *
                          3020+*         MEANS OF QUEUING IT ON ITS PARM CHAIN AND POSTING HIM. IF    *
                          3021+*         THE OPERATION IS AN INVITE INPUT, THE PARMETER LIST IS       *
                          3022+*         MOVED TO THE TUB.                                           *
                          3023+*                                                                     *
                          3024+*  INPUT:  INPUT TO $CC4II IS A PARAMETER LIST POINTED TO BY XR2.     *
                          3025+*                                                                     *
                          3026+*  OUTPUT:  OUTPUT FROM $CC4II WILL BE A SCHEDULED PUT OPERATION,     *
                          3027+*   DATA ON AN INPUT OPERATION, OR TERMINATION DUE TO ERROR WITH ONE   *
                          3028+*   OF THE FOLLOWING TERMINATION CODES:                               *
                          3029+*             01 - INVALID OP CODE/MODIFIERS                          *
                          3030+*             02 - INVALID OPERATION FOR CONSOLE                      *
                          3031+*             03 - UNDEFINED SYMBOLIC TERMINAL NAME                   *
                          3032+*             04 - TERMINAL NOT ALLOCATED TO PROGRAM                  *
                          3033+*             05 - TERMINAL REFERENCED BY OTHER THAN ALLOCATED NAME    *
                          3034+*             06 - BLANK TERMINAL NAME FOR MRTS PROGRAM               *
                          3035+*             07 - BLANK STN AND REQUESTOR RELEASED                   *
                          3036+*             08 - BLANK STN INVALID FOR THIS OPERATION               *
                          3037+*             0A - STN NOT ASSIGNED TO TERMINAL                       *
                          3038+*             0C - TERMINAL I/O CAPABILITY DOES NOT MATCH OPERATION    *
                          3039+*             0D - INVALID OUTPUT LENGTH                              *
                          3040+*             0E - INVALID INPUT LENGTH                               *
                          3041+*             0F - INPUT LENGTH GREATER THAN TP BUFFER LIZE            *
                          3042+*             10 - INVALID OP WITH DATA FROM PROG. REQ. OUTSTANDING    *
                          3043+*             11 - INVALID OP WITH INVITE INPUT OUTSTANDING            *
                          3044+*             12 - ACCEPT WITH NO OUTSTANDING INVITES                @21
                          3045+*             13 - ACCEPT BY NEP WITH MAX # OF TERMS AND NO INVITES  @21
                          3046+*             14 - INVALID OP WITH NO INVITES OUTSTANDING              *
                          3047+*             16 - COPY REQUESTED TO TERMINAL WITHOUT MAPPING          *
                          3048+*             17 - COPY TO TERMINAL NAME NOT FOUND                     *
                          3049+*             18 - COPY INVALID WITH 3275                              *
                          3050+*             19 - ERASE REQUESTED TO TERMINAL WITHOUT MAPPING         *
                          3051+*             1A - PUT OVERRIDE TO TERMINAL WITHOUT MAPPING            *
                          3052+*             1B - INVALID PUT WITH MAPPING - NO EOT                   *
                          3053+*             1C - RECORD AREA TOO SMALL FOR BSCA GET WITH ITB         *
                          3054+*             1D - ACCEPT WHILE WAITING ON EOT                       @21
                          3055+*             1E - OUTPUT LENGTH TO CONSOLE TOO LARGE                  *
```

```
                          3056+*            1F - OUTPUT LENGTH GREATER THAN TP BUFFER LENGTH          *
                          3057+*            35 - DFF TERMINAL REFERENCED BY NON-DFF TASK              *
                          3058+*            36 - WRONG DATA LENGTH FOR WAIT OPERATION                @21
                          3059+*            37 - REQUIRED PORT NOT DEFINED TO THE CALLING TASK.       *
                          3060+*            38 - INVALID USE OF PORT COMMAND REQUEST OPCODE.           *
                          3061+*            48 - NON-MSG MODE PUT TO BSCA, BSCC, OR TTASK PORT       @21
                          3062+*                                                                       *
                          3063+*  ENTRY POINTS:                                                        *
                          3064+*            $CC4II - ENTRY FOR USER REQUESTS                           *
                          3065+*            $CC4IS - ENTRY POINT FOR SYSTEM REQUESTS                   *
                          3066+*                                                                       *
                          3067+*  EXTERNAL REFERENCES:                                                 *
                          3068+*            $CC4TT - TRACE ENTRY                                       *
                          3069+*            $CC4PI - TRANSIENT INTERFACE TO CALL $CC4NC AND $CC4AB     *
                          3070+*            $CC4NC - CANCEL TRANSIENT                                  *
                          3071+*            $CC4AB - TRANSIENT TO CHECK ACCEPT INPUT POSSIBILITIES     *
                          3072+*            $CC4GA - GET TERMINAL ATTRIBUTES TRANSIENT                 *
                          3073+*            CC4TI2 - TERMINATION ENTRY WITH TCB COMPLETION CODE        *
                          3074+*                                                                       *
                          3075+*  EXITS-NORMAL:  A NORMAL EXIT BACK TO THE USER PROGRAM VIA THE DIS-   *
                          3076+*                 PATCHER TAKES PLACE IF NO ERRORS OCCUR.               *
                          3077+*       -ERROR:  AN ERROR EXIT TO TERMINATION WITH THE APPROPRIATE      *
                          3078+*                TCB COMPLETION CODE OCCURS IN CASE OF ERROR.           *
                          3079+*                                                                       *
                          3080+*  TABLES/WORK AREAS:  A TABLE OF OPERATION CODES IS USED TO CHECK      *
                          3081+*   VALIDITY OF OP CODES.                                               *
                          3082+*                                                                       *
                          3083+*  NOTES: RESIDENT CODE, REENTRANT.                                     *
                          3084+*                                                                       *
                          3085+*  CHANGE ACTIVITY - $CC4II                                             *
                          3086+*     @01/INCR/OS.0211  - ACCEPT-NO-WAIT INPUT OPCODE.                  *
                          3087+*     @02/APAR/S309335  - INCORRECT MOVE OF PARM-LIST ON RESCHEDUAL.    *
                          3088+*     @03/APAR/S309195  - SUPPRESS 'S' MESSAGE TO CPU FREEMAIN.         *
                          3089+*     @04/APAR/S309336  - SHUTDOWN AND SYSTEM INVITE OPCODE.            *
                          3090+*     @05/APAR/S30X999  - DISABLE INTERUPT AFTER $CC4IS WAIT.           *
                          3091+*     @06/INCR/OS.0206  - BSCA VS BSCC LOGIC.                           *
                          3092+*     @07/INCR/OS.X299  - VAR. INVITE LENGTH ON PRUF SCREENS.           *
                          3093+*     @08/INCR/OS.0321  - SUPPORT SIOC PRPQ OPTION.                     *
                          3094+*     @09/APAR/S311109  - TUBPIL LENGTH FOR NON-DFF PRUF PUT.           *
                          3095+*     @10/INCR/OS.0309  - BUSY PRINTER SUPPORT.                         *
                          3096+*     @11/INCR/OS.0315  - TNT MOVEOUT SUPPORT.                          *
                          3097+*     @12/APAR/S312039  - INVALID RECA RETURNED AFTER WAIT OP.          *
                          3098+*     @13/INCR/OS.0347  - SUPPORT FOR COMMAND RELEASE OPCODE            *
                          3099+*     @14/APAR/S312209  - INCLUDE CODE FOR BSCC CHECKING.               *
                          3100+*     @15/APAR/S312155  - VALIDATE GET LENGTH FOR WROR ON CONSOLE       *
                          3101+*     @16/INCR/OS-0361  - RETURN SHUTDOWN PINDING RETURN CODE           *
                          3102+*     @17/APAR/S311871  - CODE MISSING ON BSCC ONLY GEN (NO BSCA)       *
                          3103+*     @18/INCR/OS-0367  - ALLOW CPU MESSAGES (S TYPE)                   *
                          3104+*     RELEASE 04                                                      @19
                          3105+*     @19/APAR-S313287 - LOOP POSSIBLE IF PUT WITH LARGE RECORD LEN   @19
                          3106+*     @20/APAR-S314559 - CHECK FOR TUB ADDR IS ERRONEOUS              @20
                          3107+*     @21/INCR-OS4101 - BSC MULTIPORT                                 @21
                          3108+*     RELEASE 05                                                        *
                          3109+*     @22/APAR/S315752 - NON PUT OPERATIONS CHANGED TO SYS INVITES.   @22
                          3110+*                                                                       *
                          3111+***************************************************************************
```

```
                                3114+*****************************************************************
                                3115+* ENTRY POINT FOR I/O INTERFACE FOR USER REUESTS                *
                                3116+* UPON ENTRY FROM USER RELOCATABLE MODULE - XR2 POINTS AT PARM LIST   *
                                3117+*****************************************************************

                           480A 3119+       ENTRY $CC4II
                           480A 3120+$CC4II EQU   *

    480A F4 30 79               3122+       CCP   DISABL,PMRQ              DISABLE ALL INTERRUPTS
    480D 34 02 4E3A             3123+       ST    II@PRL,XR2               SAVE PARAMETER LIST ADDRESS

                                3125+*****************************************************************
                                3126+* VALIDATE THE OPERATION CODE PASSED BY THE USER                *
                                3127+* OBTAIN VALIDITY BYTE FROM OP CODE VALIDTY TABLE               *
                                3128+*****************************************************************

    4811 C2 01 4E52             3130+       LA    IIVTBL,XR1               POINT TO OPCODE VALIDITY TABLE
    4815 28 03 481E 03          3131+       MNN   IIMVBY+4,PLOPC(,XR2)     MOVE OP CODE TO DISPLACMENT
    481A 1C 00 4E62 00          3132+IIMVBY MVC   IIVBYT(1),*-*(,XR1)      GET VALIDITY BYTE FROM TABLE

    481F BD 79 03               3134+       CLI   PLOPC(,XR2),OPAQG+OPSTA  IS THE OP IN THE VALID RANGE @08
    4822 F2 84 07               3135+       JH    IIIVLD                   BRANCH TO TERMINATE IF NOT
    4825 3D 00 4E62             3136+       CLI   IIVBYT,IIZERO            IS VALIDITY BYTE ZERO
    4829 F2 01 05               3137+       JNE   IIVLD                    JUMP IF NOT

                                3139+* VALIDITY BYTE ZERO SO OPERATION IS INVALID
    482C C0 87 469C             3140+IIIVLD B     C4TI2                    BRANCH TO TERMINATION
    4830 01                4830 3141+       DC    AL1(TCCIOP)              INVALID OP COMPLETION CODE

                           4831 3143+IIVLD  EQU   *                        OP CODE IS ONE OF CCP VALID OPS
    4831 AF 01 01 01            3144+       SLC   PLCHN(2,XR2),PLCHN(,XR2) CLEAR CHAIN/RETURN CODE IN PL.
    4835 AF 03 0F 0F            3145+       SLC   PL$RTC(4,XR2),PL$RTC(,XR2) CLEAR INTERNAL RETURN CODE
                                3146+*                                       AND INTERNAL OP CODE.

    4839 BD 2A 03               3148+       CLI   PLOPC(,XR2),OPTCHN       THIS A CHAIN TASK REQUEST?
    483C C0 81 494D             3149+       BE    IICTSK                   YES, GO EXIT TO TRANSIENT

    4840 B8 69 03               3151+       TBN   PLOPC(,XR2),OPAQG        TEST IF GENERIC ACQ OPCODE.  @08
    4843 C0 10 493F             3152+       BT    IIGTA                    YES, GO CALL TRANSCIENT.     @08

    4847 BD 14 03               3154+       CLI   PLOPC(,XR2),OPWAIT       IS OP WAIT REQUEST
    484A F2 81 5C               3155+       JE    IIFOND                   JUMP TO ISSUE WAIT

                                3157+*      SHUTDOWN INQURITY OP CODE                                  @01
    484D BD 00 03               3158+       CLI   PLOPC(,XR2),OPSHQ        IS OP SHUTDOWN INQUIRY       @01
    4850 F2 01 1A               3159+       JNE   IICKAI                   JUMP IF NOT SHUTDOWN INQUIRY @01
    4853 38 10 462E             3160+       TBN   $FLGA,CPSHUT             HAS SHUTDOWN BEEN REQUESTED  @01
    4857 C0 10 4C3D             3161+       BT    IIPGSH                   YES THEN SET RETURN CODE.    @01
    485B B8 01 02               3162+       TBN   PLOPM(,XR2),OPDLY        TEST IF INQ SHUTDOWN DELAY   @16
    485E 38 10 462F             3163+       TBN   $FLGB,CPSHDP             AND SHUTDOWN DELAY ENTERED?  @16
    4862 C0 90 4C40             3164+       BF    IINTSH                   NO, THEN JUST RETURN INV CNT @16
    4866 BC 11 01               3165+       MVI   PLRTC(,XR2),RCXSHP       YES, INDICATE SHUTDOWN PEND. @16
    4869 C0 87 4C40             3166+       B     IINTSH                   THEN SET INVITE CNT IN EFFL. @16

                                3168+*      CHECK OP CODE TO SEE IF IT'S AN ACCEPT INPUT
```

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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT           SCP GENERATOR  08/08/10  PAGE  84

                          486D 3169+IICKAI EQU   *                          CHECK FOR ACCEPT INPUT
    486D B8 04 03              3170+       TBN   PLOPC(,XR2),OPACI          IS THIS AN ACCEPT INPUT
    4870 B9 0B 03              3171+       TBF   PLOPC(,XR2),BIT4+BIT6+BIT7 AND ONLY ACCEPT INPUT?
    4873 C0 10 4BE1            3172+       BT    IIACI                      .BRANCH IF ACCEPT INPUT

                               3174+*      NOT ACCEPT INPUT SO MUST VALIDATE THE SYMBOLIC TERMINAL NAME
                               3175+*      PROVIDED BY USER ALONG WITH THE OPERATION                  @21
```

```
                              3177+*****************************************************************
                              3178+* LOCATE SYMBOLIC TERMINAL NAME IN THE TERMINAL NAME TABLE      *
                              3179+*****************************************************************

                              3181+* CHECK FOR END OF TNT
                              3182+* XR1 POINTS AT TNT

    4877 35 01 4653           3184+       L     @TNT,XR1                POINT XR1 AT FIRST TNT ENTRY
    487B B5 02 09             3185+       L     PLRECA(,XR2),XR2        POINT XR2 AT RECORD AREA

    487E 7D 00 00             3187+IITNTN CLI   TNTCCP(,XR1),TNTSTP     ARE WE AT END OF TNT?
    4881 F2 81 0A             3188+       JE    IINFND                  JUMP IF AT END TO NOT FOUND

                              3190+* CHECK THIS ENTRY IN THE TNT
    4884 9D 05 05 05          3191+       CLC   IISTNL-1(IISTNL,XR2),TNTNAM(,XR1) COMPARE TNT STN.     @11
    4888 F2 84 17             3192+       JH    IILOOK                  JUMP HIGH TO LOOK AGAIN
    488B F2 81 1B             3193+       JE    IIFOND                  JUMP IF FOUND IN TNT.         @08

                              3195+* NOT FOUND - HAVE PROGRAM ERROR
                         488E 3196+IINFND EQU   *                       STN NOT FOUND IN TNT
    488E 35 02 4E3A           3197+       L     II@PRL,XR2              POINT TO PARAMETER LIST
    4892 AF 01 0B 0B          3198+       SLC   PLTUBA(2,XR2),PLTUBA(,XR2) CLEAR TUB POINTER TO ZEROS
    4896 BD 08 03             3199+       CLI   PLOPC(,XR2),OPGTA       WAS THIS A GET ATTRIBUTES OP?
    4899 C0 81 493F           3200+       BE    IIGTA                   SKIP TERMINATION IF YES
    489D C0 87 469C           3201+       B     C4TI2                   BRANCH TO TERMINATION
    48A1 03              48A1 3202+       DC    AL1(TCCNNF)             TERMINAL NAME NOT FOUND

                              3204+* SCAN UNTIL A MATCH IS FOUND IF POSSIBLE.
                              3205+* DETERMINE HOW MUCH TO BUMP TNT REGITER POINTER.
                         48A2 3206+IILOOK EQU   *                       LOOK AT ANOTHER ENTRY
    48A2 D2 01 0B             3207+IIBUMP LA    TNTLN(,XR1),XR1         BUMP POINTER BY TNT FIXED SIZE
    48A5 C0 87 487E           3208+       B     IITNTN                  BRANCH TO COMPARE AGAIN
```

```
                                3210+*****************************************************************
                                3211+* A WAIT OPERATION WAS ISSUED OR A                                @21
                                3212+* SYMBOLIC TERMINAL NAME WAS FOUND IN TNT.  DETERMINE IF          *
                                3213+* OPERATION IS VALID FOR THE TYPE TNT ENTRY FOUND.                *
                                3214+* XR1 POINTS AT PROPER TNT ENTRY                                  *
                                3215+*****************************************************************

                           48A9 3217+IIFOND EQU   *                    STN FOUND IN TNT
    48A9 35 02 4E3A             3218+       L     II@PRL,XR2           RESTORE PARM LIST POINTER
    48AD C0 87 46A4             3219+       B     CC4TT                BRANCH TO TRACE ROUTINE
    48B1 EC                48B1 3220+       DC    AL1(TTII)            TRACE FOR $CC4II

    48B2 BD 14 03               3222+       CLI   PLOPC(,XR2),OPWAIT   IS OP WAIT REQUEST
    48B5 F2 01 24               3223+       JNE   IICKNM               JUMP IF NOT WAIT REQUEST

                                3225+*****************************************************************
                                3226+*      HAVE WAIT OPERATION.                                       *
                                3227+*      WAIT DATA AREA MUST BE AT LEAST 10 BYTES LONG.             *
                                3228+*      BUILD WAIT IOB IN USERS RECORD AREA THEN ISSUE SVC.        *
                                3229+*****************************************************************

    48B8 8D 01 05 4E3E          3231+       CLC   PLOUTL(2,XR2),IILN10 WAIT DATA AREA 10 BYTES LONG
    48BD F2 02 05               3232+       JNL   IIWAT1               JUMP TO ISSUE WAIT
                                3233+*      ERROR - WAIT OPERATION DATA LENGTH IS TOO SHORT
    48C0 C0 87 469C             3234+       B     C4TI2                BRANCH TO TERMINATION
    48C4 36                48C4 3235+       DC    AL1(TCCWAT)          INVALID WAIT DATA LENGTH

                           48C5 3237+IIWAT1 EQU   *
    48C5 B5 02 09               3238+       L     PLRECA(,XR2),XR2     LOAD WAIT DATA AREA POINTER  @12
    48C8 E2 02 06               3239+       LA    IISTNL(,XR2),XR2     BUMP POINTER TO TIMER IOB.   @12
    48CB BC 10 00               3240+       MVI   IIZERO(,XR2),IITIMR+IITMWT SET TIMER IOB TO WAIT ON HHMMSS
    48CE BC 00 07               3241+       MVI   IIWFLG(,XR2),IIZERO  INITIALIZE THE WAIT FLAG
    48D1 F4 30 78               3242+       CCP   ENABLE,PMRQ          ENABLE ALL INTERRUPTS
    48D4 F4 10 00               3243+       SVC   0                    SUPERVISOR CALL
    48D7 15                48D7 3244+       DC    XL1'15'              RIB FOR TIMER WAIT
    48D8 C0 87 4BD5             3245+       B     IITEND               BR TO RETURN TO USER



                                3247+*****************************************************************
                                3248+*      SYMBOLIC TERMINAL NAME FOUND. TEST IF BLANK STN.           *
                                3249+*****************************************************************

                           48DC 3251+IICKNM EQU   *
    48DC B5 02 09               3252+       L     PLRECA(,XR2),XR2     RESTORE RECORD AREA POINTER
    48DF 78 40 08               3253+       TBN   TNTFLG(,XR1),TNTBLK  IS STN ALL BLANKS?
    48E2 F2 90 43               3254+       JF    IINBLK               JUMP IF NOT.
```

```
                                3257+*****************************************************************
                                3258+*      HAVE SYMBOLIC TERMINAL NAME OF ALL BLANKS.               *
                                3259+*      THUS THE TERMINAL TO WHICH THE OPERATION IS DIRECTED IS   *
                                3260+*      THE ONE AND ONLY REQUESTOR OF A SINGLE REQUESTOR PROGRAM. *
                                3261+*      DETERMINE IF OPERATION IS VALID FOR STN OF ALL BLANKS.    *
                                3262+*****************************************************************

                           48E5 3264+IIBLK  EQU   *                        BLANK TERMINAL NAME GIVEN.
    48E5 38 02 4E62             3265+       TBN   IIVBYT,IIVBLK            IS IT VALID OP FOR STN-BLANKS
    48E9 F2 10 05               3266+       JT    IICKBK                   JUMP IF VALID OP

                                3268+* HAVE ERROR** INVALID OPERATION FOR STN OF BLANKS
    48EC C0 87 469C             3269+       B     C4TI2                    BRANCH TO TERMINATION
    48F0 08                48F0 3270+       DC    AL1(TCCIBL)              INVALID BLANK NAME

                                3272+*      FIRST CHECK TO SEE IF PROGRAM IS NON-MRTS PROGRAM
                           48F1 3273+IICKBK EQU   *                        CHECK VALIDITY OF BLANK NAME
    48F1 35 01 002E             3274+       L     NCTCB@,XR1               POINT TO USER'S TCB
    48F5 79 04 AE               3275+       TBF   TCBDMG(,XR1),TCBMTS      IS IT NON-MRTS PROGRAM?
    48F8 F2 10 05               3276+       JT    IISR                     JUMP IF NON-MRTS PROGRAM

                                3278+*      HAVE USE OF BLANK NAME FOR MRTS PROGRAM
    48FB C0 87 469C             3279+       B     C4TI2                    BRANCH TO TERMINATION
    48FF 06                48FF 3280+       DC    AL1(TCCMBL)              BLANK NAME FOR MRTS PROGRAM

                           4900 3282+IISR   EQU   *
    4900 78 40 AE               3283+       TBN   TCBDMG(,XR1),TCBKRQ      IS THIS A CONSOLE REQUESTOR TASK
    4903 F2 90 07               3284+       JF    IINKRQ                   BRANCH IF NOT
    4906 35 01 4669             3285+       L     @KNTUB,XR1               LOAD POINTER TO CONSOLE TUB
    490A F2 87 0C               3286+       J     IIKRQ                    BRANCH TO MOVE IN NAME

                           490D 3288+IINKRQ EQU   *
    490D 7D 00 D9               3289+       CLI   TCBTUB-1(,XR1),NOBIT     IS TUB POINTER NULL
    4910 75 01 DA               3290+       L     TCBTUB(,XR1),XR1         POINT XR1 AT REQUESTOR TUB
    4913 78 04 0B               3291+       TBN   TUBAT1(,XR1),TUBREQ      IS TUB REQUESTING TERMINAL
    4916 F2 91 0A               3292+       JC    IIRBL,ANY+FALSE+EQ       JUMP IF NULL TUB POINTER OR
                                3293+*                                     TUB IS NOT REQUESTING
                                3294+*      BLANK NAME COMPLETELY VALID
                           4919 3295+IIKRQ  EQU   *
    4919 75 01 18               3296+       L     TUBTNT(,XR1),XR1         POINT XR1 AT THIS TUBS TNT ENTRY
    491C 9C 05 05 05            3297+       MVC   IISTNL-1(IISTNL,XR2),TNTNAM(,XR1) MOVE STN TO RECORD AREA
    4920 F2 87 05               3298+       J     IINBLK                   JUMP TO HANDLE FURTHER

                                3300+*      ERROR  - BLANK NAME TO NON-MRTS WITH REQUESTOR RELEASED ALREADY
                           4923 3301+IIRBL  EQU   *
    4923 C0 87 469C             3302+       B     C4TI2                    BRANCH TO TERMINATION
    4927 07                4927 3303+       DC    AL1(TCCRBL)              BLANK NAME WITH REQUESTOR REL.
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                                3305+*****************************************************************
                                3306+* HAVE REQUEST TO A SPECIFIC TUB AT THIS POINT.                 *
                                3307+* ASSURE THAT THIS TNT HAS BEEN ASSIGNED TO A TUB.              *
                                3308+* REGISTER XR1 POINTS TO TNT ENTRY.                             *
                                3309+*****************************************************************

                           4928 3311+IINBLK EQU   *                        HAVE TERMINAL REQUEWT TO HANDLE
    4928 7D 00 06               3312+       CLI   TNTTUB-1(,XR1),NOBIT    IS TNTTUB POINTER NULL
    492B F2 01 05               3313+       JNE   IINNUL                  JUMP IF POINTER NOT NULL

                                3315+* ERROR - TNT NOT ASSIGNED TO A TUB.
    492E C0 87 469C             3316+       B     C4TI2                   BRANCH TO TERMINATION
    4932 0A                4932 3317+       DC    AL1(TCCNAT)             TNT NOT ASSIGNED TO TUB

                           4933 3319+IINNUL EQU   *                        HAVE VALID TNT TUB POINTER
    4933 35 02 4E3A             3320+       L     II@PRL,XR2              POINT XR2 AT PARM LIST

                           4937 3322+       ENTRY IISTNT
                           4937 3323+IISTNT EQU   *                        SAVE TNT ADDR
    4937 34 01 4E32             3324+       ST    IIVTNT,XR1              SAVE TNT ENTRY ADDRESS
    493B 9C 01 0B 07            3325+       MVC   PLTUBA(2,XR2),TNTTUB(,XR1) .MOVE TUB @ TO PARM LIST    @11

                                3327+*****************************************************************
                                3328+* CHECK REQUEST TYPE - DETERMINE IF IT IS STATUS REQUEST.       *
                                3329+* STATUS OPERATION.... RELEASE, ACQUIRE, GET TERMINAL           *
                                3330+*                      ATTRIBUTES OR TASK CHAINING.             *
                                3331+*****************************************************************

                           493F 3333+IIGTA  EQU   *                        ADD STN LENGTH TO BUMP RECORD
    493F 8E 01 09 4E34          3334+       ALC   PLRECA(2,XR2),CC0006    ADDRESS TO DATA ADDRESS.
    4944 B8 08 03               3335+       TBN   PLOPC(,XR2),OPSTAT      IS IT STATUS OPERATION
    4947 F2 90 2D               3336+       JF    IITKNS                  JUMP IF NOT NOT STATUS OPERATION

    494A B4 01 0F               3338+       ST    PL$TNT(,XR2),XR1        PLUG TNT ADDR INTO PARM LIST

                           494D 3340+IICTSK EQU   *                        .                          @11
    494D C0 87 4684             3341+       B     CC4PI                   BRANCH TO BRING IN TRANSIENT @11
    4951 12                4951 3342+       DC    AL1(CC4GA)              GET ATTRIBUTES TRANSIENT ID

    4952 F4 30 79               3344+       CCP   DISABL,PMRQ             STOP INTERRUPTS



                                3346+*****************************************************************
                                3347+* BAD TCB COMPLETION CODE                                       *
                                3348+*****************************************************************

    4955 35 01 002E             3350+       L     NCTCB@,XR1              POINT XR1 AT CURRENT TCB
    4959 7D 00 2B               3351+       CLI   TCBCMP(,XR1),NOBIT      IS TCB COMPLETION CODE ZERO
    495C F2 81 0A               3352+       JZ    IINCMP                  JUMP IF ZERO (OKAY)          @08

                           495F 3354+       ENTRY IIBTCB                  *                            @08
                           495F 3355+IIBTCB EQU   *                        MOVE TCB COMP CODE SUCH      @08
    495F 1C 00 4968 2B          3356+       MVC   IITCMP(1),TCBCMP(,XR1)  THAT THE ARR POINTS TO IT.   @08
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    4964 C0 87 469C            3357+       B     C4TI2                    BRANCH TO TERMINATE THIS TASK@08
    4968                  4968 3358+IITCMP DS    CL1                      TCB COMPLETION CODE          @08
                          4969 3359+IINCMP EQU   *                        *                            @08



                               3361+*************************************************************************
                               3362+*  IF CHAIN TASK REQUEST GO STRAIGHT TO EXIT                            *
                               3363+*************************************************************************

    4969 B5 01 0B              3365+       L     PLTUBA(,XR2),XR1         POINT TO POSSIBLE DUMMY TUB. @08
    496C BD 2A 03              3366+       CLI   PLOPC(,XR2),OPTCHN       THIS A CHAIN TASK REQUEST?   @08
    496F C0 81 4BD5            3367+       BE    IITEND                   YES SKIP SET-UP AND EXIT.    @08
    4973 C0 87 4BD0            3368+       B     IISEND
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                                3371+************************************************************************
                                3372+* DETERMINE IF THIS TUB IS THE CONSOLE                                  *
                                3373+************************************************************************

                           4977 3375+IITKNS EQU   *                          TEST FOR CONSOLE TUB
    4977 78 20 08               3376+       TBN   TNTFLG(,XR1),TNTKNS       TEST IS THIS THE CONSOLE TNT?@11
    497A 75 01 07               3377+       L     TNTTUB(,XR1),XR1          ADDRESS THE TEMINALS TUB.    @11
    497D F2 10 6B               3378+       JT    IIKNSL                    JUMP IF CONSOLE.

                                3380+************************************************************************
                                3381+* HAVE REQUEST TO TERMINAL - VALIDATE IT                               *
                                3382+* PREPARE FOR PHYSICAL TP IO - MUST VALIDATE REQUEST FIRST             *
                                3383+* VALIDATE THAT THIS TUB BEONGS TO TCB REQUESTING IT                   *
                                3384+************************************************************************

    4980 4D 01 12 002E          3386+       CLC   TUBTCB(2,XR1),NCTCB@      DOES CURRENT TCB = TUBTCB?
    4985 79 08 0D               3387+       TBF   TUBAT3(,XR1),TUBALC       IS TUB PHYSICALLY ALLOCATED ?
    4988 F2 16 05               3388+       JC    IIPHYS,NONE+FALSE+HI+LO   JUMP IF OKAY

                                3390+* CURRRENT TCB DOES NOT MATCH TUB TCB SO PROGRAM ERROR
                                3391+* TERMINAL NOT ALLOCATED TO THIS PROGRAM
    498B C0 87 469C             3392+       B     C4TI2                     BRANCH TO TERMINATION
    498F 04                498F 3393+       DC    AL1(TCCNAP)               TERMINAL NOT ALLOCATED TO PROG

                           4990 3395+IIPHYS EQU   *
    4990 78 20 0B               3396+       TBN   TUBAT1(,XR1),TUBONL       IS TUB ONLINE?
    4993 F2 10 07               3397+       JT    IITCBK                    BRANCH IF YES
    4996 BC 09 01               3398+       MVI   PLRTC(,XR2),RCXOFF        SET COMPLETION CODE TO OFFLINE
    4999 C0 87 4BBB             3399+       B     IIREND                    BRANCH TO RETURN

                           499D 3401+IITCBK EQU   *                          CHECK THAT TUB POINTS TO
    499D 4D 01 18 4E32          3402+       CLC   TUBTNT(2,XR1),IIVTNT      CORRECT TNT ENTRY?
    49A2 F2 81 05               3403+       JE    IITNTK                    JUMP IF YES

                                3405+* ERROR TNT POINTS TO TUB BUT TUB DOES NOT POINT TO TNT
                                3406+* TERMIANL NOT REFERECNED BY NAME BY WHICH IT WAS ALLOCATED
    49A5 C0 87 469C             3407+       B     C4TI2                     BRANCH TO TERMINATION
    49A9 05                49A9 3408+       DC    AL1(TCCNAN)               NOT ALLOCATED BY THIS NAME
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                              3411+*****************************************************************
                              3412+* ASSURE TERMINAL DOES NOT HAVE OUTSTANDING IMPLICIT INVITE INPUT     *
                              3413+* ONLY ACCEPT INPUT CAN BE ISSUED TO TERMINAL WITH IMPLICIT INVITE    *
                              3414+* INPUT WHICH HAS NOT BEEN SATISFIED.                                *
                              3415+*****************************************************************

                         49AA 3417+IITNTK EQU   *
    49AA 78 20 0C             3418+       TBN   TUBAT2(,XR1),TUBIMI       IS IMPLICIT INVITE UNSATISFIED
    49AD F2 90 05             3419+       JF    IICKIS                    JUMP IF NO IMPLICIT INVITE INPUT

                              3421+* ERROR - HAVE NON ACCEPT INPUT REQUEST TO TUB WITH IMPLICIT INVITE
                              3422+* INPUT UNSATISFIED.  DATA FROM PROGRAM REQUEST OUTSTANDING.
    49B0 C0 87 469C           3423+       B     C4TI2                     BRANCH TO TERMINATION
    49B4 10                   3424+       DC    AL1(TCCIMO)               IMPLICIT INVITE OUTSTANDING

                              3426+* DETERMINE IF INVITE INPUT IS OUTSTANIDNG TO THIS TERMINAL
                              3427+* ERROR IF SO UNLESS THIS IS STOP INVITE INPUT

                         49B5 3429+IICKIS EQU   *                         CHECK FOR OUTSTANDING INVITES.
    49B5 78 C0 0C             3430+       TBN   TUBAT2(,XR1),TUBDTA+TUBCMD IS TUB IN COMMAND INTERRUPT
    49B8 F2 10 06             3431+       JT    IIVSCH                    MODE? JUMP INVITE SCHEDULED.
    49BB 78 10 0C             3432+       TBN   TUBAT2(,XR1),TUBIIS       IS INVITE INPUT SCHEDULED ON
    49BE F2 90 0B             3433+       JF    IINIIS                    TUB? NO THEN SKIP BELOW.

                              3435+*      HAVE INVITE INPUT SCHEDULED - THIS OP IS VALID
                              3436+*      ONLY IF IT IS A STOP INVITE INPUT.
                         49C1 3437+IIVSCH EQU   *                         INVITE INPUT SCHEDULED
    49C1 B8 04 02             3438+       TBN   PLOPM(,XR2),OPSTOP        IS THIS STOP INVITE INPUT
    49C4 F2 10 10             3439+       JT    IIIOCP                    JUMP IF STOP SINCE OPERATION OK

                              3441+* ERROR - INVALID OPERATION WITH INVITE INPUT OUTSTANDING.
    49C7 C0 87 469C           3442+       B     C4TI2                     BRANCH TO TERMINATION
    49CB 11                   3443+       DC    AL1(TCCIIO)               INVITE INPUT OUTSTANDING

                              3445+*      NO INVITE SCHEDULED SO THIS MUST NOT BE A STOP INVITE INPUT
                         49CC 3446+IINIIS EQU   *                         NO INVITE SCHEDULED
    49CC B8 04 02             3447+       TBN   PLOPM(,XR2),OPSTOP        IS THIS STOP INVITE INPUT
    49CF F2 90 05             3448+       JF    IIIOCP                    JUMP IF NOT STOP INVITE

                              3450+* ERROR  - HAVE STOP INVITE WITH NO INVITE OUTSTANDING.
    49D2 C0 87 469C           3451+       B     C4TI2                     BRANCH TO TERMINATION
    49D6 14                   3452+       DC    AL1(TCCNIO)               NO INVITES OUTSTANDING
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                              3455+*********************************************************************
                              3456+*      TEST TERMINAL CHARACTERISTICS VS REQUESTED IO.                *
                              3457+*********************************************************************

                         49D7 3459+IIIOCP EQU   *                          CHECK FOR PROPER IO CAPABILITY
    49D7 28 03 49E1 03        3460+       MNN   IIIOTS+1,PLOPC(,XR2)       MOVE RIGHTMOST 4 BITS OF OP CODE
    49DC 3B FC 49E1           3461+       SBF   IIIOTS+1,X'FC'             SET OFF ALL BUT RIGHTMOST 2 BITS

    49E0 78 00 0A             3463+IIIOTS TBN   TUBCHR(,XR1),*-*           TEST TUB FOR PROPER I/O.
    49E3 F2 10 32             3464+       JT    IIRQTY                     JUMP IF I/O OKAY

                              3466+*I/O CAPABILTY DOES NOT MATCH REQUEST
    49E6 C0 87 469C           3467+       B     C4TI2                      BRANCH TO TERMINATION
    49EA 0C                   49EA 3468+  DC    AL1(TCCIOC)                I/O CAPABILITY DOES NOT MATCH



                              3470+*********************************************************************
                              3471+* CONSOLE IS USED AS THE TERMINAL.                                  *
                              3472+* CHECK THAT OP CODE IS VALID FOR CONSOLE AS TERMINAL NAME          *
                              3473+* DETERMINE REQUEST TYPE.  VALIDATE OP CODE AND MODIFIER TO EXTENT  *
                              3474+* THAT THOSE BITS MUST BE OFF FOR A USER REQUEST ARE OFF.           *
                              3475+*********************************************************************

                         49EB 3477+IIKNSL EQU   *                          CONSOLE REQUEST HANDLER
    49EB 38 04 4E62           3478+       TBN   IIVBYT,IIVKNS              IS OP VALID FOR CONSOLE
    49EF BD 72 03             3479+       CLI   PLOPC(,XR2),OPPUT+OPRUF    AND NOT A RUF PUT MESSAGE ?
    49F2 F2 11 05             3480+       JC    IIKLEN,TANDNE              JUMP IF VALID

                              3482+* ERROR - HAVE OP CODE WHICH IS VALID OP BUT NOT FOR CONSOLE
    49F5 C0 87 469C           3483+       B     C4TI2                      BRANCH TO TERMINATION
    49F9 02                   49F9 3484+  DC    AL1(TCCIOK)                INVALID OP FOR CONSOLE

                              3486+*    CHECK FOR OUTPUT LENGTH TO CONSOLE TOO LARGE
                         49FA 3487+IIKLEN EQU   *                          TEST CONSOLE LENGTH FOR > 71/107
    49FA B8 02 03             3488+       TBN   PLOPC(,XR2),OPPUT          IS THIS AN OUTPUT OPERATION?
    49FD 8D 01 05 4E36        3489+       CLC   PLOUTL(2,XR2),IIMAXK       LENGTH GREATER THAN 71?
    4A02 F2 93 13             3490+       JC    IIRQTY,ANY+FALSE+NHIGH     BRANCH IF NOT
    4A05 B8 01 03             3491+       TBN   PLOPC(,XR2),OPGET          IS THIS A WTOR?
    4A08 F2 10 08             3492+       JT    IITOLG                     BRANCH TO ERROR IF YES
    4A0B 8D 01 05 4E38        3493+       CLC   PLOUTL(2,XR2),IIMAXC       IS LENGTH GREATER THAN 107?
    4A10 F2 04 05             3494+       JNH   IIRQTY                     BRANCH OUT IF NOT

                         4A13 3496+IITOLG EQU   *
                              3497+*  ERROR - OUTPUT LENGTH TO CONSOLE GREATER THAN 71 FOR
                              3498+*  WTOR OR IS GREATER THAN 117 FOR WTO.
    4A13 C0 87 469C           3499+       B     C4TI2                      BRANCH TO TERMINATION
    4A17 1E                   4A17 3500+  DC    AL1(TCCIKL)                INVALID CONSOLE LENGTH
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                                3502+*****************************************************************
                                3503+*      CONTINUE TO VALIDATE PARM LIST.                          *
                                3504+*****************************************************************

                           4A18 3506+IIRQTY EQU   *                        CHECK OP MOD BITS TO ASSURE
    4A18 B9 E0 02               3507+       TBF   PLOPM(,XR2),OP$SYS+OPOLT+OPDISC VALIDITY SET.   @21
    4A1B F2 10 05               3508+       JT    IIVLNO                    JUMP IF OKAY

                                3510+* ERROR - OP MODIFER HAS INVALID BITS FOR USER REQUEST
    4A1E C0 87 469C             3511+       B     C4TI2                     BRANCH TO TERMINATION
    4A22 01                4A22 3512+       DC    AL1(TCCIOP)               INVALID OP OR MODIFIER

                                3514+*      VALIDATE RECORD LENGTHS PASSED IN THE PARM LIST FROM THE USER
                           4A23 3515+IIVLNO EQU   *                        VALIDATE OUTPUT LENGTH
                           4A23 3516+IIVLNN EQU   *
                           4A23 3517+       ENTRY IIVLNN
    4A23 B8 02 03               3518+       TBN   PLOPC(,XR2),OPPUT         DOES OP INVOLVE OUTPUT
    4A26 F2 90 58               3519+       JF    IIVLNI                    JUMP IF NO OUTPUT

                                3521+* CHECK OUTPUT LENGTH FOR GREATER THAN ZERO
    4A29 8D 01 05 4632          3522+       CLC   PLOUTL(2,XR2),X$0000      COMPARE LENGTH VS ZERO
    4A2E F2 84 14               3523+       JH    IIFUTH                    JUMP IF GREATER THAN ZERO
    4A31 78 80 0B               3524+       TBN   TUBAT1(,XR1),TUBKNM       IS THIS THE CONSOLE?
    4A34 F2 10 09               3525+       JT    IIIOL                     YES. THEN ERROR.

                                3527+*   ZERO LENGTH IS OK IF THIS IS PUT-EOT/EOB AND HE OWNS THE BSCA LINE
                           4A37 3528+IIVLNP EQU   *
                           4A37 3529+       ENTRY IIVLNP
    4A37 B8 20 03               3530+       TBN   PLOPC(,XR2),OPBLK         IS THIS PUT EOT/EOB?
    4A3A 78 01 0C               3531+       TBN   TUBAT2(,XR1),TUBOWN       DOES HE OWN THE BSCA LINE?
    4A3D F2 10 41               3532+       JT    IIVLNI                    BRANCH PAST ERROR IF YES

                                3534+* ERROR HAVE OUTPUT LENGTH NOT GREATER THAN ZERO
                           4A40 3535+IIIOL  EQU   *
                           4A40 3536+       ENTRY IIIOL
    4A40 C0 87 469C             3537+       B     C4TI2                     BRANCH TO TERMINATION
    4A44 0D                4A44 3538+       DC    AL1(TCCIOL)               INVALID OUTPUT LENGTH
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                                3541+*********************************************************************
                                3542+*   CHECK FOR OUTPUT LENGTH GREATER THAN TP BUFFER LENGTH            *
                                3543+*********************************************************************

                           4A45 3545+IIFUTH EQU   *
    4A45 78 10 1F               3546+       TBN   TUBTA2(,XR1),TASITB       IS THIS PUT WITH ITB?
    4A48 9D 01 05 21            3547+       CLC   PLOUTL(2,XR2),TUBRCL(,XR1) OUTPUT LENGTH < RECORD LENGTH?
    4A4C F2 95 05               3548+       JC    IINITB,ANY+FALSE+NLOW     BRANCH PAST TERMINATION IF NOT

                                3550+* ERROR - OUTPUT LENGTH LESS THAT RECORD LENGTH FOR PUT ITB
    4A4F C0 87 469C             3551+       B     C4TI2                     BRANCH TO TERMINATION
    4A53 1C                4A53 3552+       DC    AL1(TCCITB)

                           4A54 3554+IINITB EQU   *
    4A54 79 01 1E               3555+       TBF   TUBTA1(,XR1),TASDFF       AND NOT MAPPING?
    4A57 78 80 0A               3556+       TBN   TUBCHR(,XR1),TUBLNE       BSCA?
    4A5A F2 90 24               3557+       JF    IIVLNI                    BRANCH OUT IF NOT ALL
                                3558+* BSC, NON DFF, AND NOT A PORT                                    @21
    4A5D 4C 01 26 472E          3559+       MVC   TUBPIL(2,XR1),#RUFCL      MOVE NON-DFF PRUF INPUT LNG. @09
    4A62 2C 01 4E4F 05          3560+       MVC   IIWORK,PLOUTL(2,XR2)      MOVE LENGTH TO WORK AREA
    4A67 B8 04 03               3561+       TBN   PLOPC(,XR2),OPNOW         IS THIS A PUT-NO-WAIT?
    4A6A F2 90 06               3562+       JF    IILTER                    BRANCH OUT IF NOT
    4A6D 0E 01 4E4F 4E51        3563+       ALC   IIWORK(2),II19            ADD LENGTH OF PARAMETER LIST
                           4A73 3564+IILTER EQU   *
    4A73 0D 01 4E4F 47A6        3565+       CLC   IIWORK(2),#TPPUT          IS OUTPUT LENGTH GREATER?
    4A79 F2 04 05               3566+       JNH   IIVLNI                    BRANCH PAST TERMINATION IF NOT

                                3568+* ERROR - OUTPUT LENGTH IS GREATER THAN TP BUFFER LENGTH
    4A7C C0 87 469C             3569+       B     C4TI2                     BRNACH TO TERMINATION
    4A80 1F                4A80 3570+       DC    AL1(TCCLRG)
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                              3573+*****************************************************************
                              3574+* CHECK INPUT LENGTH FOR GREATER THAN ZERO IF APPROPRIATE       *
                              3575+*****************************************************************

                         4A81 3577+IIVLNI EQU   *
                         4A81 3578+       ENTRY IIVLNI                    CHECK INPUT LENGTH IF NECESSARY
    4A81 B8 01 03             3579+       TBN   PLOPC(,XR2),OPGET         DOES OP INVOLVE GET
    4A84 F2 90 5A             3580+       JF    IIIREQ                    JUMP IF NOT

                         4A87 3582+IISETS EQU   *                         CHECK INPUT LENGTH
    4A87 8D 01 07 4632        3583+       CLC   PLINL(2,XR2),X$0000       COMPARE INPUT LENGTH VS ZERO
    4A8C F2 84 05             3584+       JH    II#TPB                    JUMP IF GREATER THAN ZERO

                              3586+*ERROR  - INPUT LENGTH NOT GREATER THAN ZERO
    4A8F C0 87 469C           3587+       B     C4TI2                     BRANCH TO TERMINATION
    4A93 0E              4A93 3588+       DC    AL1(TCCIIL)               INVALID INPUT LENGTH
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                          4A94 3590+II#TPB EQU   *                          IF INVITE-CHECK INPUT LENGTH VS
                               3591+*************************************************************
                               3592+*   IF BSCA TERMINAL - CHECK IF RECORD AREA LARGE ENOUGN IF ITB       *
                               3593+*************************************************************

    4A94 78 80 0A              3595+       TBN   TUBCHR(,XR1),TUBLNE       IS THIS A BSCA LINE?
    4A97 78 10 1F              3596+       TBN   TUBTA2(,XR1),TASITB       IS ITB SPECIFIED?
    4A9A 9D 01 07 21           3597+       CLC   PLINL(2,XR2),TUBRCL(,XR1) IS RECORD AREA LARGE ENOUGH?
    4A9E F2 95 05              3598+       JC    IIINRT,ANY+FALSE+NLOW     BRANCH OUT IF YES

                               3600+* ERROR - RECORD AREA NOT LARGE ENOUGH FOR BSCA ITB
    4AA1 C0 87 469C            3601+       B     C4TI2                     BRANCH TO TERMINATION
    4AA5 1C                4AA5 3602+       DC    AL1(TCCITB)               RECORD AREA TOO SMALL FOR ITB

                               3604+*   CHECK FOR DATA PENDING ON A BSCA LINE

                          4AA6 3606+       ENTRY IIINRT
                          4AA6 3607+IIINRT EQU   *
    4AA6 B8 05 03              3608+       TBN   PLOPC(,XR2),OPINV         DOES OP INVOLVE INVITE INPUT
    4AA9 F2 90 35              3609+       JF    IIOUTR                    JUMP IF NOT INVITE INPUT

                               3611+*    CHECK FOR DATA PENDING ON THE BSCA LINE

    4AAC 78 01 0C              3613+       TBN   TUBAT2(,XR1),TUBOWN       DOES HE OWN A BSCA LINE?
    4AAF 75 01 16              3614+       L     TUBLCB(,XR1),XR1          POINT TO HIS DTF
    4AB2 78 40 0F              3615+       TBN   IIBOPC(,XR1),IIBPUT       WAS LAST OPERATION A PUT?    @14
    4AB5 78 08 55              3616+       TBN   LCBAT1(,XR1),LCBNTQ       WAS LAST OPERATION PUT-MESSAGE?
    4AB8 F2 90 07              3617+       JF    IINDPD                    BRANCH IF NEITHER - INVITE OK
    4ABB BC 05 01              3618+       MVI   PLRTC(,XR2),RCXDPD        SET DATA PENDING RETURN CODE
    4ABE C0 87 4BBB            3619+       B     IIREND                    GO RETURN TO USER
                          4AC2 3620+       ENTRY IINDPD
                          4AC2 3621+IINDPD EQU   *

                               3623+*      HAVE INVITE INPUT SO INPUT LENGTH MUST NOT BE LARGER THAN THE
                               3624+*      SIZE FOR THE ENTIRE TP BUFFER

    4AC2 35 01 002E            3626+       L     NCTCB@,XR1                POINT XR1 AT CURRENT TCB
    4AC6 4E 00 DE 4633         3627+       ALC   TCBIIC(1,XR1),X$0001      ADD 1 TO TCB INVITE INPUT COUNT
    4ACB B5 01 0B              3628+       L     PLTUBA(,XR2),XR1          --> TUB                      @19
    4ACE 78 01 1E              3629+       TBN   TUBTA1(,XR1),TASDFF       TUB SUPPORT DFF?             @19
    4AD1 F2 10 0D              3630+       JT    IIIREQ                    YES-SKIP LENGTH CHECK        @19
    4AD4 8D 01 07 47A8         3631+       CLC   PLINL(2,XR2),#TPANY       COMPARE INPUT LENGTH VS TP BUFF
    4AD9 F2 04 05              3632+       JNH   IIIREQ                    JUMP IF INPUT LENGTH NOT HIGH

                               3634+*      ERROR - FOR INVITE INPUT - THE INPUT LENGTH IS GT TP BUFFER SIZE
    4ADC C0 87 469C            3635+       B     C4TI2                     BRANCH TO TERMINATION
    4AE0 0F                4AE0 3636+       DC    AL1(TCCTPB)               TP BUFFER LENGTH PROBLEM
```

```
                         4AE1 3639+IIOUTR EQU   *
                              3641+*****************************************************************
                              3642+* DETERMINE WHETHER TUB IS CONSOLE OR NOT.  IF NOT, POST CM/CS AND  @21
                              3643+* ISSUE WAIT.  FOR CONSOLE REQUEST, ISSUE WTO/WTOR.                @21
                              3644+*****************************************************************

                         4AE1 3646+       ENTRY IIIREQ
                         4AE1 3647+IIIREQ EQU   *                          I/O INTERFACE REQUEST
                              3648+* DETERMINE IF REQUEST IS FOR CONSOLE OR $CC4CM
    4AE1 B5 01 0B             3649+       L     PLTUBA(,XR2),XR1           POINT XR1 AT TUB
    4AE4 79 80 0B             3650+       TBF   TUBAT1(,XR1),TUBKNM        IS THIS CONSOLE TUB?
    4AE7 F2 10 7B             3651+       JT    IIUPST                     NOT CONSOLE, GO TO POST
```

```
                              3654+************************************************************************
                              3655+***  HAVE A CONSOLE REQUEST - ISSUE THE WTO OR WTOR AS APPROPRIATE  ***
                              3656+************************************************************************


                              3658+*   FIRST MUST BUILD A CONSOLE PARAMETER LIST IN THE TCB

    4AEA 35 02 002E           3660+       L     NCTCB@,XR2                POINT TO THE TCB
    4AEE E2 02 C4             3661+       LA    TCBPL(,XR2),XR2           POINT XR2 AT PARM LIST AREA
    4AF1 8C 0E 0E 4E4D        3662+       MVC   $LGO@@(15,XR2),IICNPM     MOVE PARM LIST TO THE ECB
    4AF6 35 01 4E3A           3663+       L     II@PRL,XR1                POINT XR1 AT PARAMETER LIST

                              3665+*    NOW FILL IN THE NECESSARY LENGTHS AND ADDRESSES IN PARM LIST

    4AFA 78 01 03             3667+       TBN   PLOPC(,XR1),OPGET         IS THIS A WTOR?              @15
    4AFD F2 90 17             3668+       JF    IINWTR                    SKIP IF NOT.                 @15
    4B00 BC 20 06             3669+       MVI   $LGOTY(,XR2),IIWTOR       INDICATE WTOR MODE.          @15
    4B03 7D 24 05             3670+       CLI   PLOUTL(,XR1),36           IF THE PUT LENGTH IS LESS    @15
    4B06 F2 82 03             3671+       JL    IIMX80                    THAN 36 THEN MAX INPUT 80,   @15
    4B09 BC 28 0C             3672+IIMX40 MVI   $LGON(,XR2),40            ELSE THE MAX INPUT IS 40.    @15
    4B0C 9D 01 0C 07          3673+IIMX80 CLC   $LGON(,XR2),PLINL(2,XR1)  TEST IF PLINL LESS THAN      @15
    4B10 F2 04 04             3674+       JNH   IINWTR                    MAX INPUT? IF IT IT THE      @15
    4B13 9C 00 0C 07          3675+       MVC   $LGON(,XR2),PLINL(1,XR1)  SET INPUT ON WTOR TO PLINL.  @15

    4B17 9C 00 09 05          3677+IINWTR MVC   $LGOL(1,XR2),PLOUTL(,XR1) .MOVE IN OUTPUT LENGTH       @15
    4B1B 9C 01 0B 09          3678+       MVC   $LGOAA(2,XR2),PLRECA(,XR1) MOVE IN RECORD AREA ADDRESS
    4B1F 9C 01 0E 09          3679+       MVC   $LGO@@(2,XR2),PLRECA(,XR1) MOVE IN RECORD AREA ADDRESS

                              3681+*   PARAMETER LIST IS NOW BUILT - ISSUE SVC TO DO WTO OR WTOR

                         4B23 3683+IIDOIT EQU   *
    4B23 F4 30 78             3684+       CCP   ENABLE,PMRQ               ENABLE ALL INTERRUPTS
    4B26 F4 10 00             3685+       SVC   0                         ISSUE THE SVC
    4B29 85                  4B29 3686+       DC    XL1'85'                 RIB FOR LOG

                              3688+*   MESSAGE IS SENT OUT - RETURN TO THE USER

    4B2A F4 30 79             3690+       CCP   DISABL,PMRQ               DISABLE ALL INTERRUPTS
    4B2D 34 01 4E3A           3691+       ST    II@PRL,XR1                RESTORE PARAMETER LIST POINTER
    4B31 78 01 03             3692+       TBN   PLOPC(,XR1),OPGET         WAS THIS A PUT-THEN-GET OP   @15
    4B34 F2 90 27             3693+       JF    IICDNE                    NO THEN PARM-LIST IS ALL SET @15
    4B37 5F 01 05 05          3694+       SLC   PLEFFL(2,XR1),PLEFFL(,XR1) ZERO THE EFFL IN PARM-LIST  @15
    4B3B BD 20 00             3695+       CLI   0(,XR2),IINODA            WAS ANY DATA ENTERED? (X20)  @15
    4B3E F2 81 1D             3696+       JE    IICDNE                    BRANCH OUT IF YES, EFFL=0    @15
    4B41 6C 00 05 0C          3697+       MVC   PLEFFL(1,XR1),$LGON(,XR2) SAVE MAXIMUM INPUT LENGTH    @15
    4B45 75 02 09             3698+       L     PLRECA(,XR1),XR2          POINT TO THE RECORD AREA     @15
    4B48 76 02 05             3699+       A     PLEFFL(,XR1),XR2          POINT TO THE END-OF-DATA     @15
    4B4B 36 02 4639           3700+IICLOP A     X$FFFF,XR2                DECREMENT DATA POINTER.      @21
    4B4F BD 40 00             3701+       CLI   0(,XR2),IIBLNK            IS THE CHARACTER A BLANK?
    4B52 F2 01 09             3702+       JNE   IICDNE                    BRANCH OUT IF NOT A BLANK    @15
    4B55 4F 01 05 4633        3703+       SLC   PLEFFL(2,XR1),X$0001      DECREMENT EFFL BY ONE
    4B5A C0 84 4B4B           3704+       BH    IICLOP                    LOOP TO KEEP TESTING
    4B5E D2 02 00             3705+IICDNE LA    0(,XR1),XR2               RESTORE PARAMETER LIST POINTER
```

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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  99
    4B61 C0 87 4BCA             3706+       B     IIFINI                  GO TO EXIT TO USER
```

```
                         4B65 3709+       ENTRY IIUPST
                         4B65 3710+IIUPST EQU   *                          PERFORM POST FOR USER TCB
    4B65 B8 01 03             3711+       TBN   PLOPC(,XR2),OPGET          DID OP INVOLVE A GET OPERATION?
    4B68 F2 90 0D             3712+       JF    IINOI1                     BRANCH OUT IF NOT
    4B6B 7A 10 0C             3713+       SBN   TUBAT2(,XR1),TUBIIS        SET ON READ BIT SCHEDULED
    4B6E B8 02 03             3714+       TBN   PLOPC(,XR2),OPPUT          DOES OPERATION INVOLVE PUT?
    4B71 F2 10 04             3715+       JT    IINOI1                     BRANCH IF YES
    4B74 AF 01 05 05          3716+       SLC   PLEFFL(2,XR2),PLEFFL(,XR2) CLEAR INPUT LENGTH FIELD
                         4B78 3717+IINOI1 EQU   *
```

```
                          3720+*****************************************************************
                          3721+*    NOW MOVE THE PARAMETER LIST TO THE TCB FOR CM TO REFERENCE  *
                          3722+*****************************************************************

    4B78 35 01 002E       3724+       L     NCTCB@,XR1                POINT TO THE TCB
    4B7C 6C 0F D3 0F      3725+       MVC   TCBPL+PL$RTC(16,XR1),PL$RTC(,XR2) MOVE THE PARM LIST IN
    4B80 5F 02 D6 D6      3726+       SLC   TCBPL+PLECB+2(3,XR1),TCBPL+PLECB+2(,XR1) CLEAR THE ECB
    4B84 6C 01 D8 09      3727+       MVC   TCBWK(2,XR1),PLRECA(,XR2) SAVE RECORD AREA ADDRESS IN TCB
    4B88 5F 01 CD CD      3728+       SLC   TCBPL+PLRECA(2,XR1),TCBPL+PLRECA(,XR1) CLEAR RECA POINTER
    4B8C D2 02 C4         3729+       LA    TCBPL(,XR1),XR2           POINT XR2 AT PARAMETER LIST

                          3731+*****************************************************************
                          3732+*  QUEUE THE REQUEST ON CM'S OR CS'S QUEUE WHICHEVER IS APPROPRIATE.@21
                          3733+*  THEN POST $CC4CM OR $CC4CS THAT HE HAS WORK TO DO.           *
                          3734+*****************************************************************

                     4B8F 3736+IIPRBQ EQU   *                        XR2 POINTS TO PARM-LIST
    4B8F C0 87 4D14       3737+       B     IIQSUB                    GO QUEUE THE LIST.(XR1=ECB)
    4B93 35 02 4E3A       3738+       L     II@PRL,XR2                POINT TO PARM LIST TO SAVE IT
    4B97 3B 20 4630       3739+       SBF   $FLGC,#NTRAC              ENABLE TRACE BEFORE CM POST
    4B9B F4 30 78         3740+       CCP   ENABLE,PMRQ               REENABLE INTERRUPTS

    4B9E F4 10 00         3742+       SVC   0                         SUPERVISOR CALL
    4BA1 05               4BA1 3743+  DC    XL1'05'                   POST

                          3745+*    NOW ISSUE A WAIT FOR COMPLETION OF THE TP REQUEST

    4BA2 35 01 002E       3747+       L     NCTCB@,XR1                POINT TO THE TCB
    4BA6 D2 01 D4         3748+       LA    TCBPL+PLECB(,XR1),XR1     LOAD POINTER TO THE ECB
    4BA9 F4 10 00         3749+       SVC   0                         SUPERVISOR CALL
    4BAC 03               4BAC 3750+  DC    XL1'03'                   WAIT FOR CM'S POST

    4BAD F4 30 79         3752+       CCP   DISABL,PMRQ               DISABLE ALL INTERRUPTS
    4BB0 34 02 4E3A       3753+       ST    II@PRL,XR2                RESTORE PARAMETER LIST POINTER
    4BB4 35 02 002E       3754+       L     NCTCB@,XR2                POINT TO THE TCB
    4BB8 E2 02 C4         3755+       LA    TCBPL(,XR2),XR2           POINT TO THE PARAMETER LIST
```

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                              3759+************************************************************************
                              3760+*       REENTER $CC4II AT THIS POINT AFTER USER REQUEST SCHEDULED       *
                              3761+*       NOW MOVE THE PARAMETER LIST BACK TO USER PROGRAM AREA           *
                              3762+************************************************************************

                         4BBB 3764+       ENTRY IIREND
                         4BBB 3765+IIREND EQU   *                          RETURN TO USER PROGRAM
    4BBB 35 01 4E3A           3766+       L     II@PRL,XR1                 POINT TO USER'S PARAMETER LIST
    4BBF 6C 05 0F 0F          3767+       MVC   PL$RTC(6,XR1),PL$RTC(,XR2) MOVE THE PARAMETER LIST
    4BC3 6C 07 07 07          3768+       MVC   PLINL(8,XR1),PLINL(,XR2)   BACK TO THE USER PROGRAM
    4BC7 D2 02 00             3769+       LA    0(,XR1),XR2                RESTORE PARM LIST IN XR2

    4BCA B5 01 0B             3771+IIFINI L     PLTUBA(,XR2),XR1           POINT XR1 AT TUB
    4BCD 7B 41 0D             3772+       SBF   TUBAT3(,XR1),TUBSPF+TUBSWL ASSURE STOP FAILED AND SWALLOW
                              3773+*                                       BITS IN TUB ARE OFF

                              3775+************************************************************************
                              3776+*       PREPARE TO EXIT $CC4II TO USER.                                *
                              3777+************************************************************************

                         4BD0 3779+IISEND EQU   *                          RETURN
    4BD0 8F 01 09 4E34        3780+       SLC   PLRECA(2,XR2),CC0006       RESTORE CORRECT PLRECA

                         4BD5 3782+IIAEND EQU   *


                         4BD5 3784+       ENTRY IITEND
                         4BD5 3785+IITEND EQU   *                          LEAVING SOON
    4BD5 C0 87 46A4           3786+       B     CC4TT                      BRANCH TO TRACE RETURN TO USER
    4BD9 EE              4BD9 3787+       DC    AL1(TTIIRT)                TRACE ID - 'EE'
    4BDA F4 30 78             3788+       CCP   ENABLE,PMRQ                REENABLE ALL INTERRUPTS

                              3790+*   NOW RETURN TO THE USER PROGRAM VIA A SUPERVISOR EXIT

    4BDD F4 10 00             3792+       SVC   0                          SUPERVISOR CALL
    4BE0 08              4BE0 3793+       DC    XL1'08'                    RIB TO EXIT
```

```
                                3796+*************************************************************
                                3797+*      HAVE ACCEPT INPUT REQUEST                            *
                                3798+*************************************************************

                           4BE1 3800+IIACI  EQU   *                       HAVE ACCEPT INPUT
    4BE1 C0 87 46A4             3801+       B     CC4TT                    BRANCH TO TRACE THE ACCEPT INPUT
    4BE5 EC                4BE5 3802+       DC    AL1(TTII)                'EC' TRACE ID                @21

    4BE6 BC 00 0D               3804+       MVI   PL$OPC(,XR2),NOBIT       SETP OP TO SHOW INITIAL REQUEST

                                3806+*************************************************************
                                3807+*   CALL ACCEPT TRANSIENT - RETURN IS TO ANY (RETURN) BELOW   *
                                3808+*************************************************************
                           4BE9 3809+IICALL EQU   *
    4BE9 C0 87 4684             3810+       B     CC4PI                    BRANCH TO TRANSIENT HANDLER
    4BED 0C                4BED 3811+       DC    AL1(CC4AB)               ID FOR ACCEPT TRANSIENT
    4BEE C0 87 469C             3812+       B     C4TI2                    +0 (RETURN) BRANCH TO TERMINATIO
    4BF2 00                4BF2 3813+       DC    AL1(*-*)                 ACCEPT IMPOSSIBLE TO SATISFY
    4BF3 C0 87 4C40             3814+       B     IINTSH                   +5 (RETURN) ACCEPT-NO-WAIT NOT S
    4BF7 F2 87 55               3815+       J     IIGGSF                   +9 (RETURN) JUMP IF ACCEPT SATIS
                                3816+*                          +12 (RETURN) CONTINUE IF TO PREFORM WAIT
```

```
                          3820+*****************************************************************
                          3821+*                  ---  CHECK FOR SHUTDOWN ---                  *
                          3822+*   DETERMINE NOW WHETHER USER SHOULD BE TOLD ABOUT SHUTDOWN REQUEST  *
                          3823+*****************************************************************

                          3825+*      DETERMINE IF SYSTEM OPERATOR REQUESTED SHUTDOWN AND
                          3826+*      ALSO WHETHER USER HAS BEEN TOLD YET WITH NON-SHUTDOWN INQUIRY OP

    4BFA 38 10 462E       3828+       TBN   $FLGA,CPSHUT              HAS SHUTDOWN BEEN REQUESTED
    4BFE F2 90 0D         3829+       JF    IIAIWT                    JUMP IF NOT

                          3831+*      SHUTDOWN HAS BEEN REQUESTED - DETERMINE IF USER TOLD ALREADY
    4C01 35 01 002E       3832+IITELL L     NCTCB@,XR1                POINT XR1 AT CURRENT TCB
    4C05 78 01 AE         3833+       TBN   TCBDMG(,XR1),TCBSHQ       HAS USER BEEN TOLD
    4C08 7A 01 AE         3834+       SBN   TCBDMG(,XR1),TCBSHQ       SET BIT THAT USER TOLD
    4C0B F2 90 2F         3835+       JF    IIPGSH                    JUMP IF SHUTDOWN REQUESTED
```

```
                              3838+*************************************************************************
                              3839+*       WAIT FOR AN INVITE COMPLETION OR A SHUTDOWN REQUEST             *
                              3840+*************************************************************************



                         4C0E 3842+IIAIWT EQU   *                          ISSUE WAIT
    4C0E F4 30 79             3843+       CCP   DISABL,PMRQ               DISABLE ALL INTERRUPTS
    4C11 E2 01 00             3844+       LA    0(,XR2),XR1               POINT XR1 AT PARMLIST

                              3846+*    MUST DO A WAIT FOR AN INVITE OR A SHUTDOWN REQUEST

    4C14 D2 02 00             3848+IINODG LA    0(,XR1),XR2               POINT XR2 AT PARM LIST
    4C17 35 01 002E           3849+       L     NCTCB@,XR1                POINT TO THE TCB
    4C1B D2 01 DB             3850+       LA    TCBECB(,XR1),XR1          POINT TO THE ECB

    4C1E F4 30 78             3852+       CCP   ENABLE,PMRQ               REENABLE ALL INTERRUPTS
    4C21 F4 10 00             3853+       SVC   0                         ISSUE WAIT FOR INVITE COMPLETE
                              3854+*                                      OR SHUTDOWN REQUEST
    4C24 03                   4C24 3855+  DC    XL1'03'                   RIB TO WAIT ON ECB LIST

                              3857+*    WAIT HAS COMPLETED - TEST IF SHUTDOWN OR INVITE COMPLETE

    4C25 F4 30 79             3859+       CCP   DISABL,PMRQ               DISABLE INTERRUPTS
    4C28 34 02 4E3A           3860+       ST    II@PRL,XR2                SAVE PARAMETER LIST  POINTER
```

```
                           3863+*********************************************************************
                           3864+* RETURN AFTER BEING POSTED THAT A TUB HAS BEEN PUT IN THE TCB INVITE *
                           3865+*  INPUT TUB QUEUE OR SHUTDOWN HAS BEEN REQUESTED BY SYSTEM OPERATOR  *
                           3866+*********************************************************************


                           3868+*      DETERMINE IF POST WAS FOR INVITE INPUT COMPLETE
                           3869+*      IF NOT MUST HAVE BEEN SHUTDOWN REQUESTED
                           3870+*      XR1 POINT TO TCBECB.

    4C2C 7B 01 00          3872+       SBF   0(,XR1),TCBACW           RESET ACCEPT WAIT BIT
    4C2F 7D 40 02          3873+       CLI   2(,XR1),IIPOST           WAS POST FOR INVITE COMPLETE?
    4C32 C0 01 4C01        3874+       BNE   IITELL                   JUMP IF NOT INVITE POST

                           3876+*      HAD POST OF INVITE INPUT COMPLETE
    4C36 BC FF 0D          3877+       MVI   PL$OPC(,XR2),ALLBIT      SET OP TO SHOW SECONDARY ENTRY
    4C39 C0 87 4BE9        3878+       B     IICALL                   BRANCH TO RECALL TRANSIENT


                           3880+*********************************************************************
                           3881+*      TELL USER ABOUT SHUTDOWN REQUEST AND                         *
                           3882+*      SET PLEFFL IN PARMATER LIST TO OUTSTANDING INVITES.          *
                           3883+*********************************************************************

                     4C3D  3885+IIPGSH EQU   *                        TELL USER ABOUT SHUTDOWN.    @01
    4C3D BC 04 01          3886+       MVI   PLRTC(,XR2),RCXSHD       PLUG SHUTDOWN RETURN CODE.   @01

                     4C40  3888+IINTSH EQU   *                        SET PLEFFL TO OUTSTANDING    @01
    4C40 35 01 002E        3889+       L     NCTCB@,XR1               INVITES. XR1 POINTS TO TCB.  @01
    4C44 BC 00 04          3890+       MVI   PLEFFL-1(,XR2),NOBIT     HIGH ORDER BYTE IS ZERO AND  @01
    4C47 9C 00 05 DE       3891+       MVC   PLEFFL-0(,XR2),TCBIIC(1,XR1) MOVE OUTSTANDING INVITES. @01
    4C4B C0 87 4BD5        3892+       B     IITEND                   BRANCH TO RETURN TO USER. @01
```

```
                              3895+*************************************************************
                              3896+*            ACCEPT INPUT SATISFIED                         *
                              3897+*************************************************************

                         4C4F 3899+IIGGSF EQU   *                        GET GENERAL SATIFIED
    4C4F F4 30 79             3900+       CCP   DISABL,PMRQ             DISABLE ALL INTERRUPTS
    4C52 34 02 4E3A           3901+       ST    II@PRL,XR2              STORE PARAMETER LIST ADDRESS
    4C56 B5 02 0B             3902+       L     PLTUBA(,XR2),XR2        POINT AT TUB
    4C59 35 01 002E           3903+       L     NCTCB@,XR1              POINT XR1 AT CURRENT TCB
    4C5D 4F 00 DE 4633        3904+       SLC   TCBIIC(1,XR1),X$0001    SUBTRACT 1 FROM INVITE COUNT
    4C62 BB 18 0C             3905+       SBF   TUBAT2(,XR2),TUBIIS+TUBIIQ SET OFF TUB INVITE STATUS BITS

                              3907+*  DEQUEUE THE TUB FROM INVITE INPUTE TUB QUEUE
    4C65 35 01 4E3A           3908+       L     II@PRL,XR1              POINT TO PARAMETER LIST
    4C69 75 01 0F             3909+       L     PL$RTC(,XR1),XR1        POINT TO PREVIOUS TUB
    4C6C 6C 01 00 10          3910+       MVC   0(2,XR1),TUBINQ(,XR2)   DEQUEUE THE TUB

    4C70 35 01 002E           3912+       L     NCTCB@,XR1              POINT TO THE TCB
    4C74 78 40 E5             3913+       TBN   TCBOFG(,XR1),TCBCHN     TASK CHAIN REQUEST?
    4C77 F2 10 07             3914+       JT    IIYTC                   YES, DONT CHANGE THE NAME
    4C7A B5 02 18             3915+       L     TUBTNT(,XR2),XR2          . POINT TO THE TUB'S TNT
    4C7D 6C 05 58 05          3916+       MVC   NPJOB-2(6,XR1),TNTNAM(,XR2) MOVE TERM NAME TO TCB
```

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                                3919+*************************************************************************
                                3920+* NOW POST CM  TASK TO PROCESS THE ACCEPT INPUT DATA                    *
                                3921+*************************************************************************

                                3923+*  MOVE THE PARAMETER LIST TO THE TCB
    4C81 35 02 4E3A             3925+IIYTC  L     II@PRL,XR2                 POINT XR2 AT PARAMETER LIST
    4C85 6C 01 D8 09            3926+       MVC   TCBWK(2,XR1),PLRECA(,XR2) SAVE PLRECA IN TCBWK THEN
    4C89 D2 01 C4               3927+       LA    TCBPL(,XR1),XR1           POINT TO PARM LIST AREA IN TCB
    4C8C 6C 0F 0F 0F            3928+       MVC   PL$RTC(16,XR1),PL$RTC(,XR2) MOVE THE PARM LIST TO THE TCB
    4C90 7B 40 03               3929+       SBF   PLOPC(,XR1),BIT1          . CHANCE ANW TO ACI OPCODE.  @01
    4C93 75 02 0B               3930+       L     PLTUBA(,XR1),XR2          . POINT TO THE TUB SELECTED.
    4C96 75 01 09               3931+       L     PLRECA(,XR1),XR1          . POINT TO THE USER'S REC. AREA
    4C99 B8 80 0E               3932+       TBN   TUBAT4(,XR2),TUBCHN       . CHAIN TASK TUB ON ACCEPT?
    4C9C F2 90 07               3933+       JF    IINTCH                    . NO, GO INSERT SYMB TERM NAME.
    4C9F 6C 05 05 1A            3934+       MVC   5(6,XR1),TUBPNM(,XR2)     . MOVE NAME OF REQUESTING TASK
    4CA3 F2 87 07               3935+       J     IITCHH                    . SKIP TNT NAME INSERT.

                           4CA6 3937+IINTCH EQU   *
    4CA6 B5 02 18               3938+       L     TUBTNT(,XR2),XR2          POINT TO THE TNT ENTRY
    4CA9 6C 05 05 05            3939+       MVC   IISTNL-1(IISTNL,XR1),TNTNAM(,XR2) MOVE STN TO RECORD AREA

                           4CAD 3941+IITCHH EQU   *
    4CAD 35 02 4E3A             3942+       L     II@PRL,XR2                RESTORE PARAMETER LIST POINTER

                           4CB1 3944+       ENTRY IINDFF
                           4CB1 3945+IINDFF EQU   *
    4CB1 35 02 002E             3946+       L     NCTCB@,XR2                POINT TO THE TCB
    4CB5 AF 02 D6 D6            3947+       SLC   TCBPL+PLECB+2(3,XR2),TCBPL+PLECB+2(,XR2) CLEAR THE ECB
    4CB9 E2 02 C4               3948+       LA    TCBPL(,XR2),XR2           POINT TO THE PARAMETER LIST
    4CBC AF 01 09 09            3949+       SLC   PLRECA(2,XR2),PLRECA(,XR2) CLEAR PLRECA

                                3951+*    QUEUE THE ACCEPT INPUT REQUEST ON CM'S REQUEST QUEUE

    4CC0 C0 87 4D14             3953+       B     IIQSUB                    GO QUEUE THE REQUEST.
    4CC4 35 02 4E3A             3954+       L     II@PRL,XR2                RESTORE PARAMETER LIST POINTER
    4CC8 3B 20 4630             3955+       SBF   $FLGC,#NTRAC              REENABLE TRACE BEFORE CM POST

                                3957+*   NOW POST THE CM WITH A REQUEST TO PROCESS
                                3958+*   XR1 SET TO CM'S ECB IN IIQSUB ABOVE.                              @06

    4CCC F4 30 78               3960+       CCP   ENABLE,PMRQ               REENABLE ALL INTERRUPTS
    4CCF F4 10 00               3961+       SVC   0                         POST DFF WITH THE REQUEST
    4CD2 05                4CD2 3962+       DC    XL1'05'                   RIB FOR POST

                                3964+*     CM IS NOW POSTED - WAIT ON COMPLETION OF THE ACCEPT INPUT

    4CD3 35 01 002E             3966+       L     NCTCB@,XR1                POINT TO THE TCB
    4CD7 D2 01 D4               3967+       LA    TCBPL+PLECB(,XR1),XR1     POINT AT THE ECB IN THE TCB PL
    4CDA F4 10 00               3968+       SVC   0                         NOW WAIT ON THE POST OF THE ECB
    4CDD 03                4CDD 3969+       DC    XL1'03'                   RIB FOR EXPLICIT WAIT
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                              3972+*    WE ARE POSTED COMPLETE - MOVE THE PARM LIST BACK AND RETURN


    4CDE F4 30 79             3974+       CCP   DISABL,PMRQ               DISABLE INTERRUPTS
    4CE1 35 01 002E           3975+       L     NCTCB@,XR1                 POINT XR1 AT THE TCB
    4CE5 9C 05 0F D3          3976+       MVC   PL$RTC(6,XR2),TCBPL+PL$RTC(,XR1) MOVE THE PARM LIST
    4CE9 9C 07 07 CB          3977+       MVC   PLINL(8,XR2),TCBPL+PLINL(,XR1) BACK TO THE UPA

    4CED B5 01 0B             3979+       L     PLTUBA(,XR2),XR1           LOCATE TUB AGAIN
    4CF0 78 80 0E             3980+       TBN   TUBAT4(,XR1),TUBCHN        THIS A CHAIN REQUEST TUB?
    4CF3 F2 90 1A             3981+       JF    IINTCN                     NO, SKIP DEQUEUEING IT
    4CF6 8D 01 01 4633        3982+       CLC   PLRTC(2,XR2),X$0001        RETURN CODE=00 OR 01?
    4CFB F2 84 03             3983+       JH    IITCNG                     NO,DONT SET CHAIN RETURN CODE
    4CFE BA 0E 01             3984+       SBN   PLRTC(,XR2),X'0E'          INDICATE CHAIN REQUEST

                         4D01 3986+IITCNG EQU   *
    4D01 4C 01 14 47AD        3987+       MVC   TUBTUB(2,XR1),@DTUBQ       INSERT THIS TUB INTO DUMMY
    4D06 34 01 47AD           3988+       ST    @DTUBQ,XR1                 TUB FREE CHAIN.
    4D0A 7B A0 0C             3989+       SBF   TUBAT2(,XR1),TUBIMI+TUBDTA RESET FOR NEXT CHAIN REQUEST
    4D0D 7A 40 0C             3990+       SBN   TUBAT2(,XR1),TUBCMD        RESET FOR NEXT CHAIN REQUEST
                         4D10 3991+IINTCN EQU   *
    4D10 C0 87 4BD5           3992+       B     IIAEND                     BRANCH TO RETURN TO REQUESTOR
```

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                              3995+*************************************************************************
                              3996+*        QUEUE THE REQUEST ON THE @PRLQ OR @CSNRQ IN CCP COMMON         *
                              3997+*        AREA WHICHEVER OWNS THE TUB.  POINT XR1 TO CM'S OR CS'S        *
                              3998+*        ECB BEFORE RETURNING TO CALLER.                                *
                              3999+*************************************************************************


                         4D14 4001+       ENTRY IIQSUB
    4D14 34 08 4D4B           4002+IIQSUB ST    IIQRET+3,ARR              SAVE RETURN ADDRESS
    4D18 B5 01 0B             4003+       L     PLTUBA(,XR2),XR1          POINT TO THE TUB
    4D1B 79 80 0B             4004+       TBF   TUBAT1(,XR1),TUBKNM       THIS THE CONSOLE TUB OR
    4D1E 79 80 0E             4005+       TBF   TUBAT4(,XR1),TUBCHN       * A DUMMY TASKCHAIN TUB ?
    4D21 F2 90 08             4006+       JF    IIQBSC                    SKIP UPDATING REQUEST COUNTER

    4D24 75 01 16             4008+IIQNRC L     TUBLCB(,XR1),XR1          POINT TO THE LCB
    4D27 4E 00 7C 4633        4009+       ALC   LCBNW#(1,XR1),X$0001      UPDATE THE NEW REQUEST COUNTER

    4D2C C2 01 4644           4011+IIQBSC LA    @PRLQ-PLCHN,XR1           POINT $CC4CM'S QUEUE FIELD.
    4D30 7D 00 00             4012+IIQLOP CLI   PLCHN-1(,XR1),NOBIT      IS THIS THE END OF THE CHAIN?
    4D33 F2 81 07             4013+       JE    IIQIT                     BRANCH TO QUEUE IF YES
    4D36 75 01 01             4014+       L     PLCHN(,XR1),XR1           POINT TO THE NEXT LIST IN CHAIN
    4D39 C0 87 4D30           4015+       B     IIQLOP                    LOOP TO LOOK FOR LAST ONE

                              4017+*   HAVE FOUND THE END OF THE CHAIN - QUEUE THIS REQUEST ON THE END

    4D3D 74 02 01             4019+IIQIT  ST    PLCHN(,XR1),XR2           ADD THE REQUEST ON THE END
    4D40 AF 01 01 01          4020+       SLC   PLCHN(2,XR2),PLCHN(,XR2)  CLEAR THE CHAIN POINTER
    4D44 C2 01 4739           4021+       LA    $CMECB,XR1                POINT TO $CC4CM'S ECB.

    4D48 C0 87 0000           4023+IIQRET B     *-*                       RETURN
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                                4026+*********************************************************************
                                4027+*      ENTRY POINT FOR I/O INTERFACE FOR THE SYSTEM                 *
                                4028+*********************************************************************

                           4D4C 4030+       ENTRY $CC4IS
                           4D4C 4031+$CC4IS EQU   *                        I/O INTERFACE FOR SYSTEM
    4D4C F4 30 79               4032+       CCP   DISABL,PMRQ              DISABLE ALL INTERRUPTS
    4D4F 36 08 4633             4033+       A     X$0001,ARR               POINT TO RIGHT END OF PARM LIST@
    4D53 34 08 4D60             4034+       ST    MOVE+5,ARR               STORE ADDR OF PARM LIST ADDR
    4D57 36 08 4633             4035+       A     X$0001,ARR               BUMP ARR TO NSI

                                4037+* MOVE PARM LIST ADDR TO II@PRL
    4D5B 0C 01 4E3A 0000        4038+MOVE   MVC   II@PRL(2),*-*              MOVE PARM LIST ADDR TO II@PRL

                                4040+*      SAVE THE REGISTERS
    4D61 34 02 4E3C             4041+       ST    IICARR,XR2               SAVE XR2
    4D65 35 02 002E             4042+       L     NCTCB@,XR2               POINT TO THE TCB
    4D69 B4 01 C7               4043+       ST    IIIX1(,XR2),XR1          SAVE XR1 IN THE TCB.
    4D6C B4 08 C5               4044+       ST    IIIIR(,XR2),ARR          SAVE ARR IN THE TCB.
    4D6F 8C 01 C9 4E3C          4045+       MVC   IIIX2(2,XR2),IICARR      SAVE XR2 THERE ALSO.

                                4047+*********************************************************************
                                4048+* POST CM/CS WITH TP IO REQUEST                                    @21
                                4049+* WAIT ON RESPONSE FROM CM/CS                                      @21
                                4050+* RETURN TO INVOKER                                                *
                                4051+*********************************************************************


    4D74 35 02 4E3A             4053+       L     II@PRL,XR2               POINT XR2 AT PARM LIST
    4D78 AF 01 01 01            4054+       SLC   PLCHN(2,XR2),PLCHN(,XR2) CLEAR CHAIN POINTER IN PARM LIST
    4D7C AF 03 0F 0F            4055+       SLC   PL$RTC(4,XR2),PL$RTC(,XR2) ZERO INTERNAL RETURN CODE
                                4056+*                                     .AND INTERNAL OP-CODE
    4D80 B8 02 03               4057+       TBN   PLOPC(,XR2),OPPUT        .OPERATION INVOLVE PUT ?     @08
    4D83 F2 10 03               4058+       JT    IS0010                   .YES, BRANCH                 @08
    4D86 BC 00 08               4059+       MVI   PLRECA-1(,XR2),NOBIT     .ZERO OUT RECORD ADDRESS

                                4061+*      TAKE A TRACE AT THIS POINT
                           4D89 4062+IS0010 EQU   *
    4D89 B5 01 0B               4063+       L     PLTUBA(,XR2),XR1         POINT XR1 AT TUB
    4D8C C0 87 46A4             4064+       B     CC4TT                    BRANCH TO TRACE ROUTINE
    4D90 ED                4D90 4065+       DC    AL1(TTIS)                TRACE FOR $CC4IS
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                              4068+*********************************************************************
                              4069+* HAVE TPIO REQUEST FOR A TERMINAL                                  *
                              4070+* POST CM/CS  AND ISSUE WAIT                                      @21
                              4071+*********************************************************************

                              4073+*POST CM FOR TP REQUEST
                            4D91 4074+ISREQ  EQU   *                        HAVE TP REQUEST FOR $CC4CM

                              4076+*    IF THIS IS AN INVITE OPERATION, MOVE PARM LIST TO THE TUB
    4D91 B8 80 02             4077+       TBN   PLOPM(,XR2),OP$SYS          IS THIS A SYSTEM REQUEST, AND
    4D94 B8 05 03             4078+       TBN   PLOPC(,XR2),OPINV           IS THIS AN INVITE OPERATION?
    4D97 B9 80 03             4079+       TBF   PLOPC(,XR2),OPJRSH          AND NOT JUST RESCHEDULED?    @02
    4D9A F2 90 1D             4080+       JF    ISWTOP                      BRANCH IF NOT ALL TRUE.      @02

    4D9D 79 80 0C             4082+       TBF   TUBAT2(,XR1),TUBDTA         TERMINAL IN DME?
    4DA0 38 10 462E           4083+       TBN   $FLGA,CPSHUT                AND IS SHUTDOWN PENDING?
    4DA4 F2 90 0C             4084+       JF    ISNDQI                      IF BOTH ARN'T TRUE SKIP RESET
    4DA7 BB 05 03             4085+       SBF   PLOPC(,XR2),OPINV           DESCHEDULE THE SYSTEM INVITE
    4DAA B9 02 03             4086+       TBF   PLOPC(,XR2),OPPUT           TEST IF NOT A SYSTEM PUT     @04
    4DAD F2 10 66             4087+       JT    ISREGS                      EGNORE REQUEST ALL TOGETHER. @04
    4DB0 F2 87 07             4088+       J     ISWTOP                      GO RESTORE TUB  POINTER

    4DB3 6C 0F 36 0F          4090+ISNDQI MVC   TUBPL+PL$RTC(16,XR1),PL$RTC(,XR2) MOVE PARM LIST TO TUB
    4DB7 D2 02 27             4091+       LA    TUBPL(,XR1),XR2             POINT XR2 AT TUB PARM LIST

    4DBA B5 01 0B             4093+ISWTOP L     PLTUBA(,XR2),XR1            RESTORE TUB POINTER IN XR1

                            4DBD 4095+       ENTRY ISREQ1
                            4DBD 4096+ISREQ1 EQU   *
    4DBD B9 80 03             4097+       TBF   PLOPC(,XR2),OPJRSH          RESCHEDULE ONLY REQUEST AND
    4DC0 B8 01 03             4098+       TBN   PLOPC(,XR2),OPGET           DOES OP INVOLVE GET
    4DC3 B9 04 02             4099+       TBF   PLOPM(,XR2),OPSTOP          BUT NOT STOP OP
    4DC6 F2 90 03             4100+       JF    ISMVPS                      JUMP IF GET NOT INVOLVED

                              4102+*      OPERATION TO TERMINAL INVOLVES GET SO SET ON TUBIIS BIT

    4DC9 7A 10 0C             4104+       SBN   TUBAT2(,XR1),TUBIIS         SET ON READ SCHEDULED BIT

                            4DCC 4106+ISMVPS EQU   *                        SET UP POST FIELD
    4DCC B9 24 02             4107+       TBF   PLOPM(,XR2),OPSTOP+OPDISC   STOP INVITE OR DISCONNECT?   @08
    4DCF B8 02 03             4108+       TBN   PLOPC(,XR2),OPPUT           OR NOT A PUT OPERATION.      @08
    4DD2 F2 90 1B             4109+       JF    ISPOST                      JUMP IF EITHER.              @08
    4DD5 7D 08 23             4110+       CLI   TUBPHY(,XR1),TUBCPU         IS THE IO TO A CPU?
    4DD8 F2 01 15             4111+       JNE   ISPOST                      GO TO POST CM IF NOT
    4DDB B5 01 09             4112+       L     PLRECA(,XR2),XR1            POINT TO RECORD AREA
    4DDE 7D E2 00             4113+       CLI   0(,XR1),SMESG               IS THIS AN 'S' MESSAGE TO A CPU?
    4DE1 F2 01 0C             4114+       JNE   ISPOST                      BRANCH TO POST IF NOT
    4DE4 BC 00 08             4115+ISCNPT MVI   PLRECA-1(,XR2),NOBIT        ZERO RECORD ADDRESS          @08
    4DE7 BB 02 03             4116+       SBF   PLOPC(,XR2),OPPUT           SET TO IGNORE THE PUT
    4DEA B8 01 03             4117+       TBN   PLOPC(,XR2),OPGET           IS A GET TO BE DONE?
    4DED F2 90 26             4118+       JF    ISREGS                      SKIP POST AND WAIT IF YES
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                                4121+*************************************************************************
                                4122+*   QUEUE THE PARAMETER LIST ON THE APPROPRIATE LCB CHAIN               *
                                4123+*************************************************************************

                          4DF0  4125+ISPOST EQU   *
    4DF0 C0 87 4D14             4126+       B     IIQSUB                    BRANCH TO QUEUE THE LCB
                                4127+*                                      XR1 POINTS TO CM OR CS ECB.

                                4129+*************************************************************************
                                4130+*  BRANCH TO POST ROUTINE                                             *
                                4131+*************************************************************************

    4DF4 BC 00 10               4133+       MVI   PLECB(,XR2),NOBIT         CLEAR ECB FLAG BYTE
    4DF7 F4 30 78               4134+       CCP   ENABLE,PMRQ               REENABLE INTERRUPTS
    4DFA 3B 20 4630             4135+       SBF   $FLGC,#NTRAC              ALLOW TRACE
    4DFE F4 10 00               4136+       SVC   0                         SUPERVISOR CALL
    4E01 05                   4E01 4137+       DC    XL1'05'                RIB FOR POST

                                4139+*************************************************************************
                                4140+*           W A I T                                                     *
                                4141+*************************************************************************

    4E02 B8 80 02               4143+       TBN   PLOPM(,XR2),OP$SYS        IS THIS REQUST TO BE WAITED ON?
    4E05 F2 90 0E               4144+       JF    ISREGS                    BRANCH IF NOT
    4E08 E2 01 10               4145+       LA    PLECB(,XR2),XR1           POINT TO THE ECB
    4E0B F4 10 00               4146+ISWAIT SVC   0                         SUPERVISOR CALL
    4E0E 03                   4E0E 4147+       DC    XL1'03'                RIB FOR WAIT
    4E0F 78 40 00               4148+       TBN   0(,XR1),IIPOST            WAS MY ECB POSTED?
    4E12 C0 90 4E0B             4149+       BF    ISWAIT                    LOOP BACK TO WAIT IF NOT

                                4151+*************************************************************************
                                4152+* RETURN HERE AFTER WAIT SATISFIED WITH POST                           *
                                4153+*************************************************************************

                          4E16  4155+ISREGS EQU   *                         RESTORE THE REGISTERS
    4E16 C0 87 46A4             4156+       B     CC4TT                     BRANCH TO TRACE
    4E1A EE                   4E1A 4157+       DC    AL1(TTIIRT)            TRACE ID
    4E1B 35 01 002E             4158+       L     NCTCB@,XR1                POINT TO THE TCB
    4E1F F4 30 79               4159+       CCP   DISABL,PMRQ               DISABLE ALL INTERUPTS.       @05
    4E22 1C 01 4E3C C5          4160+       MVC   IICARR,IIIIR(2,XR1)       SAVE THE RETURN ADDRESS
    4E27 75 02 C9               4161+       L     IIIX2(,XR1),XR2           RESTORE XR2
    4E2A 75 01 C7               4162+       L     IIIX1(,XR1),XR1           RESTORE XR1
    4E2D 35 10 4E3C             4163+       L     IICARR,IAR                RETURN TO CALLER
```

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                      4165+*************************************************************
                      4166+*                    CONSTANTS AND WORK AREAS                 *
                      4167+*************************************************************

    4E31              4E32 4169+IIVTNT DS    AL2                  SAVE AREA FOR TNT ENTRY ADDRESS
                      00E2 4170+SMESG  EQU   C'S'                 IDENTIFIER FOR AN 'S' MESSAGE
                      0006 4171+IISTNL EQU   6                    LENGHT OF SYMBOLIC TERMINAL NAME
    4E33 0006         4E34 4172+CC0006 DC    IL2'6'               2-BYTE BINARY 6
                      0000 4173+IIZERO EQU   0
                      00F0 4174+MCTIN  EQU   X'F0'                INPUT COMPONENT BITS
                      000F 4175+MCTOUT EQU   X'0F'                OUTPUT COMPONENT BITS
    4E35 0047         4E36 4176+IIMAXK DC    AL2(0071)            MAX OUTPUT LENGTH FOR CONSOLE
    4E37 006B         4E38 4177+IIMAXC DC    AL2(0107)            MAX LENGTH FOR WTO
                      0078 4178+ENABLE EQU   X'78'                INTERRUPTS ENABLED
                      0079 4179+DISABL EQU   X'79'                INTERRUPTS DISABLED
                      0030 4180+PMRQ   EQU   X'30'                Q-CODE TO LOAD PMR
                      0010 4181+IIWTO  EQU   X'10'                FUNCTION CODE FOR WTO
                      0020 4182+IIWTOR EQU   X'20'                FUNCTION CODE FOR WTOR
    4E39 0000         4E3A 4183+II@PRL DC    XL2'00'              SAVE AREA FOR PARAMETER LIST @
                      0040 4184+IIPOST EQU   X'40'                ECB POST BIT
                      0080 4185+IIWAIT EQU   X'80'                ECB WAIT BIT
                      0020 4186+IISKIP EQU   X'20'                ECB SKIP BIT
    4E3B 0000         4E3C 4187+IICARR DC    XL2'00'              ARR SAVE AREA
                      00C5 4188+IIIIR  EQU   TCBPL+1              ARR SAVE AREA IN TCB
                      00C7 4189+IIIX1  EQU   TCBPL+3              XR1 SAVE AREA IN TCB
                      00C9 4190+IIIX2  EQU   TCBPL+5              XR2 SAVE AREA IN TCB
                      0020 4191+IINODA EQU   X'20'                CHARACTER FOR ZERO DATA - WTOR
                      0040 4192+IIBLNK EQU   X'40'                CHARACTER BLANK
                      002F 4193+DSFLAG EQU   X'002F'              FLAG BYTE FOR ENVIRONMENT INDS.
                      0080 4194+ENVSAV EQU   X'80'                SAVE ENVIRONMENT.
                      0015 4195+N2G0   EQU   X'0015'              DISPATCHER ADDRESS.
                      0000 4196+IITIMR EQU   X'00'                TIMER HOURS/MINUTES/SECONDS
                      0010 4197+IITMWT EQU   X'10'                TIMER WAIT FLAG
                      0007 4198+IIWFLG EQU   X'07'                WAIT FLAG DISPLACEMENT
   4E3D 000A          4E3E 4199+IILN10 DC    XL2'000A'            WAIT DATA AREA LENGTH

                      0003 4201+NHIGH  EQU   LO+EQ                NOT HIGH TEST                @10
                      0005 4202+NLOW   EQU   HI+EQ                NOT LOW TEST                 @10
                      0006 4203+NEQ    EQU   HI+LO                NOT EQUAL TEST.              @10
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```
                                4205+*   WTO OR WTOR PARAMETER LIST

    4E3F FF                4E3F 4207+       DC    XL1'FF'                   TYPE AND FORMAT OF WTO
    4E40 00                4E40 4208+       DC    AL1(X'00')                SYSTEM OPTIONS
    4E41 C3D7              4E42 4209+       DC    CL2'CP'                   COMPONENT IDENTIFICATION (CCP)
    4E43 E460              4E44 4210+       DC    CL2'U-'                   MESSAGE ID - PART 1
    4E45 10                4E45 4211+       DC    AL1(IIWTO)                FUNCTION AND OPTIONS         @15
    4E46 4040              4E47 4212+       DC    CL2'  '                   MESSAGE ID - PART 2
    4E48 00                4E48 4213+       DC    AL1(00)                   TEXT LENGTH                  @15
    4E49 0000              4E4A 4214+       DC    AL2(##)                   TEXT ADDRESS                 @15
    4E4B 50                4E4B 4215+       DC    AL1(80)                   REPLY LENGTH                 @15
    4E4C 0000              4E4D 4216+IICNPM DC    AL2(##)                   REPLY ADDRESS                @15

                           000F 4218+IIBOPC EQU   X'0F'                     DISPLACEMENT TO DTFOPC       @14
                           0040 4219+IIBPUT EQU   X'40'                     DTFOPC BYTE FOR A PUT        @14
    4E4E 0000              4E4F 4220+IIWORK DC    XL2'00'                   WORK AREA FOR BLOCK LENGTH
    4E50 0013              4E51 4221+II19   DC    IL2'19'                   ADD LENGTH OF PARM LIST GETMAIN
```

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                          4223+*************************************************************
                          4224+*  OP CODE VALIDITY TABLE                                   *
                          4225+*************************************************************

                     0000 4227+IIINVD EQU   0                        INVALID OPERATION
                     0004 4228+IIVKNS EQU   BIT5                     BIT IN VALIDITY BYTE FOR VALID
                          4229+*                                     OPERATION WITH CONSOLE
                     0002 4230+IIVBLK EQU   BIT6                     BIT IN VALIDITY BYTE FOR VALID
                          4231+*                                     OPERATION WITH BLANK STN
                     0001 4232+IIVSTN EQU   BIT7                     BIT IN VALIDITY BYTE FOR VALID
                          4233+*                                     OPERATION WITH STN
                     0011 4234+TANDNE EQU   X'11'                    TRUE AND NOT EQUAL CONDITION



                          4236+* OP CODE VALIDITY TABLE

                     4E52 4238+       ENTRY IIVTBL
                     4E52 4239+IIVTBL EQU   *                        USER OP  STN   BLANKS  CONSOLE
    4E52 07          4E52 4240+       DC    AL1(IIVSTN+IIVBLK+IIVKNS) 00        X       X       X
    4E53 03          4E53 4241+       DC    AL1(IIVSTN+IIVBLK)        01        X       X
    4E54 07          4E54 4242+       DC    AL1(IIVSTN+IIVBLK+IIVKNS) 02        X       X       X
    4E55 07          4E55 4243+       DC    AL1(IIVSTN+IIVBLK+IIVKNS) 03        X       X       X
    4E56 07          4E56 4244+       DC    AL1(IIVSTN+IIVBLK+IIVKNS) 04        X       X       X
    4E57 03          4E57 4245+       DC    AL1(IIVSTN+IIVBLK)        05        X       X
    4E58 07          4E58 4246+       DC    AL1(IIVSTN+IIVBLK+IIVKNS) 06        X       X       X
    4E59 00          4E59 4247+       DC    AL1(IIINVD)               07
    4E5A 07          4E5A 4248+       DC    AL1(IIVSTN+IIVBLK+IIVKNS) 08        X       X       X
    4E5B 01          4E5B 4249+       DC    AL1(IIVSTN)               09        X
    4E5C 03          4E5C 4250+       DC    AL1(IIVSTN+IIVBLK)        10        X       X
    4E5D 00          4E5D 4251+       DC    AL1(IIINVD)               11
    4E5E 00          4E5E 4252+       DC    AL1(IIINVD)               12
    4E5F 00          4E5F 4253+       DC    AL1(IIINVD)               13
    4E60 00          4E60 4254+       DC    AL1(IIINVD)               14
    4E61 00          4E61 4255+       DC    AL1(IIINVD)               15

                          4257+*                                     BIT 5 ON - VALID OP FOR CONSOLE
                          4258+*                                     BIT 6 ON - VALID OP FOR BLANKS
                          4259+*                                     BIT 7 ON - VALID OP FOR SYMBOLIC
                          4260+*                                       TERMINAL NAME



    4E62                  4E62 4262+IIVBYT DS    CL1                 VALIDITY BYTE - BIT SIGNIFICANT
                          4263+*                                     *** END OF MACRO '$E060 ********
                          4264 *      $E038 MXL-00000000000000,CON-1                                 CCP00173
                          4265+*                                     BEGIN MACRO '$E038' 1/16/79  @01
                     4E63 4266+TA@PGM EQU   *                        START OF PGM LIST

                          4268+*------------FIXED PORTION OF TRANSIENT LIST-------------------------*



                     000C 4270+CC4AB  EQU   12                       ACCEPT INPUT POST PRE-PROCESSOR
    4E63 00          4E63 4271+       DC    XL1'00'
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    4E64 C1C2             4E65 4272+       DC    CL2'AB'                   ACCEPT INPUT POST PRE-PROCESSOR
                          000F 4273+CC4A2  EQU   15                        ALLOCATION CONTROL
    4E66 00               4E66 4274+       DC    XL1'00'
    4E67 C1F2             4E68 4275+       DC    CL2'A2'                   ALLOCATION CONTROL
                          0012 4276+CC4GA  EQU   18                        GET ATTRIBUTES
    4E69 00               4E69 4277+       DC    XL1'00'
    4E6A C7C1             4E6B 4278+       DC    CL2'GA'                   GET ATTRIBUTES
                          0015 4279+CC4OP  EQU   21                        USER FILE OPEN
    4E6C 00               4E6C 4280+       DC    XL1'00'
    4E6D D6D7             4E6E 4281+       DC    CL2'OP'                   USER FILE OPEN
                          0018 4282+CC4R1  EQU   24                        COMMAND PROCESSOR CONTROL
    4E6F 00               4E6F 4283+       DC    XL1'00'
    4E70 D9F1             4E71 4284+       DC    CL2'R1'                   COMMAND PROCESSOR CONTROL
                          001B 4285+CC4PR  EQU   27                        COMMAND PROCESSOR RETURN
    4E72 00               4E72 4286+       DC    XL1'00'
    4E73 D7D9             4E74 4287+       DC    CL2'PR'                   COMMAND PROCESSOR RETURN
                          001E 4288+CC4TD  EQU   30                        TERMINATION CONTROL ROUTINE
    4E75 00               4E75 4289+       DC    XL1'00'
    4E76 E3C4             4E77 4290+       DC    CL2'TD'                   TERMINATION CONTROL ROUTINE
                          0021 4291+CC4WC  EQU   33                        USER T-P SWITCHED LINE CONNECT
    4E78 00               4E78 4292+       DC    XL1'00'
    4E79 E6C3             4E7A 4293+       DC    CL2'WC'                   USER T-P SWITCHED LINE CONNECT
                          0024 4294+CC4WR  EQU   36                        T-P TRANSLATION ERROR
    4E7B 00               4E7B 4295+       DC    XL1'00'
    4E7C E6D9             4E7D 4296+       DC    CL2'WR'                   T-P TRANSLATION ERROR
                          0027 4297+CC4MP  EQU   39                        IGNORE PUT TO ERP T-P DEVICE
    4E7E 00               4E7E 4298+       DC    XL1'00'
    4E7F D4D7             4E80 4299+       DC    CL2'MP'                   IGNORE PUT TO ERP T-P DEVICE
                          002A 4300+CC4UN  EQU   42                        BSCC POINT-TO-POINT LINE INIT@02
    4E81 00               4E81 4301+       DC    XL1'00'                   @02
    4E82 E4D5             4E83 4302+       DC    CL2'UN'                   BSCC POINT-TO-POINT LINE INIT@02
                               4303+*------------GETMAIN RECOVERY TRANSIENT PORTION OF PGM LIST---------@02
                          002D 4304+CC4GR  EQU   45                        GETMAIN RECOVERY TRANSIENT
    4E84 00               4E84 4305+       DC    XL1'00'
    4E85 C7D9             4E86 4306+       DC    CL2'GR'                   GETMAIN RECOVERY TRANSIENT

                               4308+*------------BSCA PORTION OF PROGRAM LIST----------------------------*


                          0030 4310+CC4BA  EQU   48                        3270 SAVE STATUS
    4E87 00               4E87 4311+       DC    XL1'00'
    4E88 C2C1             4E89 4312+       DC    CL2'BA'                   3270 SAVE STATUS
                          0033 4313+CC4BB  EQU   51                        BSCA OUTPUT RECORD FORMATTING
    4E8A 00               4E8A 4314+       DC    XL1'00'
    4E8B C2C2             4E8C 4315+       DC    CL2'BB'                   BSCA OUTPUT RECORD FORMATTING
                          0036 4316+CC4BC  EQU   54                        BSCA STOP POLLING
    4E8D 00               4E8D 4317+       DC    XL1'00'
    4E8E C2C3             4E8F 4318+       DC    CL2'BC'                   BSCA STOP POLLING
                          0039 4319+CC4BE  EQU   57                        BSCA ERROR RECOVERY
    4E90 00               4E90 4320+       DC    XL1'00'
    4E91 C2C5             4E92 4321+       DC    CL2'BE'                   BSCA ERROR RECOVERY
                          003C 4322+CC4BP  EQU   60                        BSCA PURGE
    4E93 00               4E93 4323+       DC    XL1'00'
    4E94 C2D7             4E95 4324+       DC    CL2'BP'                   BSCA PURGE
                          003F 4325+CC4BQ  EQU   63                        BSCA STOP POLLING QUEUE
    4E96 00               4E96 4326+       DC    XL1'00'
    4E97 C2D8             4E98 4327+       DC    CL2'BQ'                   BSCA STOP POLLING QUEUE
```

```
                          0042 4328+CC4BR  EQU   66                        BSCA USER T-P REQ VALIDATION
    4E99 00               4E99 4329+       DC    XL1'00'
    4E9A C2D9             4E9B 4330+       DC    CL2'BR'                   BSCA USER T-P REQ VALIDATION
                          0045 4331+CC4B5  EQU   69                        BSCA 3735 SENSE STATUS
    4E9C 00               4E9C 4332+       DC    XL1'00'
    4E9D C2F5             4E9E 4333+       DC    CL2'B5'                   BSCA 3735 SENSE STATUS
                          0048 4334+CC4B0  EQU   72                        BSCA 3270 COMMAND FORMATTING
    4E9F 00               4E9F 4335+       DC    XL1'00'
    4EA0 C2F0             4EA1 4336+       DC    CL2'B0'                   BSCA 3270 COMMAND FORMATTING
                          004B 4337+CC4S0  EQU   75                        BSCA 3275 COMMAND FORMATTING
    4EA2 00               4EA2 4338+       DC    XL1'00'
    4EA3 E2F0             4EA4 4339+       DC    CL2'S0'                   BSCA 3275 COMMAND FORMATTING

                               4341+*------------DEFINE THE EQUATE FOR THE # OF ENTRIES IN THE LIST-------*

                          0016 4343+LSTSIZ EQU   22                        # OF ENTRIES IN TRANSIENT LIST
                               4344+*                                      END MACRO '$E038'
                          4600 4345        END   $CC4#1                                                  CCP00174
```

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$AM     001  46F7 0348   0350
$AMA1   001  0010 0354
$AMA2   001  0008 0355
$AMBSY  001  0080 0351
$AMDFF  001  0020 0353
$AMERR  001  0002 0357
$AMFLG  001  46F7 0350   0359
$AMID   001  46FC 0383   0384
$AMPA   001  46F9 0369   0380
$AMPF9  001  0004 0356
$AMSA   001  46FA 0380   0382
$AMSHR  001  46FB 0382   0383
$AMUR   001  46F8 0359   0369
$AMUSE  001  46FD 0384   0385
$AMWK   001  46F7 0347   0348
$AMWRK  001  46FF 0385
$APEND  001  0040 0352
$CCCOM  001  4600 2239   2237
$CCEND  001  47FF 0538
$CCINT  001  000C 2224   2928
$CCTI2  001  000D 2225
$CCTR#  001  47E0 0526   0528
$CCTR@  001  47DF 0525   0526
$CC4#1  001  4600 0002   2239  4345
$CC4CP  001  000A 2222   2302
$CC4FM  001  0005 2217   2259
$CC4GM  001  0004 2216   2256
$CC4IG  001  000E 2226   2651
$CC4II  001  480A 3120   2562  3119
$CC4IS  001  4D4C 4031   2253  4030
$CC4MS  001  0003 2215
$CC4MV  001  0007 2219
$CC4MX  001  0006 2218   2276
$CC4OC  001  0016 2234
$CC4PI  001  0015 2233   2250
$CC4SR  001  0008 2220   2285
$CC4TI  001  0012 2230   2282
$CC4TM  001  000B 2223   2305
$CC4TR  001  0001 2213   2243
$CC4TX  001  0002 2214   2246
$CC4V1  001  0018 2236
$CM     001  4718 0429   0431
$CMECB  001  4739 0467   0468  4021
$CMFM   001  473C 0468   0469
$CMRV2  001  4743 0474
$CMWK   001  4718 0428   0429
$COMON  001  4600 0111   0114
$CP     001  46C5 0291   0294  0314  0315  0316  0318  0322  0331  0333  0334  0335  0336  0339
$CPCFR  001  0010 0324
$CPCM   001  46DE 0316   2610
$CPCOM  001  46E3 0333
$CPDPG  001  0008 0325
$CPDTF  001  47DB 0511   0512
$CPD1S  001  0004 0326
$CPEFL  001  46E6 0335
$CPFLG  001  46E2 0322
```

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SYMBOL   LEN VALUE DEFN   REFERENCES
$CPFND   001  0001 0328
$CPFR    001  0080 0323
$CPIAR   001  47D7 0509   0510
$CPLST   001  46CA 0294
$CPMSG   001  46E5 0339   0340
$CPOCC   001  0048 0317
$CPPAS   001  0002 0327
$CPPF9   001  46DB 0315   2609
$CPPRQ   001  46E3 0331
$CPQ     001  46D8 0314   2608
$CPRCA   001  46E8 0336
$CPRTC   001  46E4 0334
$CPUSE   001  47DC 0512   0516
$CPWK    001  46C5 0290   0291
$CPWTO   001  0000 0319
$CPXR1   001  47D9 0510   0511
$CP1ST   001  46E1 0318   2612
$CSECB   001  47B7 0485   0486
$CSFM    001  47B4 0484   0485
$END1    001  46B6 0256   0267  0290  0347  0388  0428
$FLGA    001  462E 0144   0155  3160  3828  4083
$FLGB    001  462F 0155   0165  3163
$FLGC    001  4630 0165   0176  3739* 3955* 4135*
$FLGD    001  47DD 0516   0525
$LGADR   001  0004 0873
$LGCAA   001  0009 0855
$LGCC    001  0003 0840
$LGCL    001  0007 0854
$LGCPL   001  0005 0874
$LGCPR   001  0006 0875
$LGDAA   001  000B 0857
$LGDE0   001  0080 0844
$LGDE1   001  0040 0845
$LGDE2   001  0020 0846
$LGDE3   001  0010 0847
$LGDL    001  0009 0856
$LGDO    001  0006 0842
$LGDS    001  0001 0833
$LGFUN   001  0000 0832
$LGFUT   001  0000 0870
$LGHH    001  0005 0841
$LGII    001  0008 0853
$LGI1E   001  000D 0863
$LGI2E   001  000F 0864
$LGJ1E   001  0010 0865
$LGJ2E   001  0012 0866
$LGLNG   001  0002 0872
$LGO@@   001  000E 0868   3662* 3679*
$LGOAA   001  000B 0860   3678*
$LGOEC   001  000C 0862
$LGOL    001  0009 0859   3677*
$LGON    001  000C 0867   3672* 3673  3675* 3697
$LGOP0   001  0008 0848
$LGOP1   001  0004 0849
$LGOP2   001  0002 0850
$LGOP3   001  0001 0851
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SYMBOL	LEN	VALUE	DEFN	REFERENCES		
$LGOTY	001	0006	0858	3669*		
$LGPGE	001	0001	0871			
$LGSE1	001	0000	0835			
$LGSE2	001	0001	0836			
$LGSE4	001	0002	0837			
$LGSE8	001	0003	0838			
$MDPE8	001	0053	2089			
$RESER	001	47B3	0480	0484		
$TM	001	4700	0389	0391		
$TMBSY	001	0080	0393			
$TMCLZ	001	0010	0400			
$TMDDR	001	0004	0402			
$TMDER	001	0001	0404			
$TMDFL	001	0002	0403			
$TMDID	001	4707	0410	0413	0423	
$TMDMP	001	0040	0395			
$TMECB	001	4703	0409	0410		
$TMEJ	001	0020	0397			
$TMFLG	001	4700	0391	0407		
$TMSTK	001	0080	0392			
$TMTCB	001	4702	0407	0409		
$TMTWA	001	0008	0401			
$TMWK	001	4700	0388	0389		
#	001	0000	0068			
##	001	0000	0069	4214	4216	
###	001	0000	0070			
####	001	0000	0071			
#AERPA	001	0040	0523			
#AERPS	001	0020	0522			
#ANYS	001	47A9	0285	0286		
#AVCOR	001	4663	0210	0211		
#BIT7	001	0001	0517			
#BTRAC	001	0040	0167			
#CCMCL	001	472C	0454	0455		
#CMARR	001	0080	0448			
#CMBK1	001	471D	0435			
#CMBK2	001	471E	0438			
#CMDTF	001	4719	0431	0432		
#CMERP	001	4728	0445	0447		
#CMFMD	001	0040	0449			
#CMFPL	001	4722	0441	0442		
#CMLSL	001	4724	0442	0444		
#CMMVL	001	4790	0277	0279		
#CMPL	001	471B	0432	0434		
#CMPTR	001	4720	0440	0441		
#CMSWT	001	4729	0447	0453		
#CMTFT	001	471E	0437	0438	0440	
#CMTMA	001	471D	0434	0435	0437	
#CMTRL	001	4790	0276	0277		
#CMTUB	001	4726	0444	0445		
#CPALC	001	0008	0520			
#CPCAN	001	0002	0162			
#CPCM	001	0007	0306			
#CPCPQ	001	0003	0304			
#CPDAT	001	00DF	0649			
#CPEND	001	000D	0310			

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#CPFLQ  001  4683 0236   0239
#CPOCC  001  0009 0307
#CPPF9  001  0005 0305
#CPTMR  001  0001 0303
#CPWTO  001  000B 0309
#CP1ST  001  000B 0308
#CSERP  001  47C0 0489   0490
#CSOND  001  47BA 0486   0487
#DDRUN  001  0002 0518
#DFCT   001  466F 0219   0220
#DFFOK  001  0080 0145
#DPEND  001  47E4 0530   0535
#DUMPQ  001  467D 0230   0231
#EPL    001  0004 0150
#FEHLT  001  0008 0160
#GMS    001  465E 0206   0208
#HISTT  001  4734 0460   0462
#HITAS  001  4731 0457   0459
#INVPL  001  0008 0170
#LAMWK  001  0009 0261   0388  0428
#LCMWK  001  002D 0263
#LCPWK  001  0032 0260   0347  0388  0428
#LDFWK  001  000F 0259   0290  0347  0388  0428
#LSTSZ  001  46E7 0340   0341
#LTMWK  001  0018 0262   0428
#LWKWK  001  008F 0264   0267
#MATED  001  47CC 0495   0496
#MATST  001  47CB 0494   0495
#MATX3  001  47CD 0496   0503
#MRTAT  001  00E3 0651
#MTRAC  001  0080 0166
#NBND   001  4659 0203   0204
#NOPST  001  0004 0519
#NTRAC  001  0020 0168   3739  3955  4135
#NTRCS  001  0001 0173
#OPEND  001  472A 0453   0454
#PCTLN  001  466E 0218   0219
#PGMLD  001  00E1 0650
#PRQIP  001  0010 0521
#PUCNT  001  0001 0163
#PUTTP  001  0010 0169
#RESPR  001  0004 0161
#RSVD1  001  4672 0222   0223
#RUFAD  001  47AF 0478   0479
#RUFCL  001  472E 0455   0456  3559
#SETID  001  4670 0220   0221
#SUALL  001  0080 0156
#SUCMD  001  0020 0158
#SUINT  001  0040 0157
#TCACC  001  00E5 0652
#TPANY  001  47A8 0284   0285  3631
#TPBUF  001  4661 0208   0209
#TPPUT  001  47A6 0283   0284  3565
#XDT    001  4671 0221   0222
@AERPQ  001  47E2 0528   0530
@ALOCQ  001  463B 0183   0184
```

@ANYTP	001	4740	0469	0470		
@AVTCB	001	462D	0141	0144		
@BTRAC	001	461D	0129	0130		
@BUFA	001	4656	0202	0203		
@CCPTB	001	47A4	0282	0283		
@CC4FM	001	460B	0120	0121	2534	
@CC4FR	001	46B1	0251	0252	2555	
@CC4GM	001	4609	0119	0120	2531	
@CC4II	001	46B3	0252	0256		
@CC4IS	001	4607	0118	0119	2528	
@CC4MX	001	4613	0124	0125	2540	
@CC4PI	001	4605	0116			
@CC4SR	001	4619	0127	0128	2552	
@CC4TA	001	4605	0117	0118	2525	
@CC4TH	001	461B	0128	0129		
@CC4TI	001	4617	0126	0127	2546	
@CC4TR	001	4601	0114	0115		
@CC4TX	001	4603	0115	0116	0117	
@CKLST	001	4738	0464	0467		
@CLB#1	001	47C2	0490	0491		
@CMTCB	001	4625	0137	0138		
@CPDMP	001	467F	0231	0232		
@CPTCB	001	462B	0140	0141		
@CSNRQ	001	47BC	0487	0488		
@CSSTT	001	4733	0459	0460		
@CSTCB	001	47BE	0488	0489		
@CSXPT	001	4715	0420			
@C4TI2	001	4615	0125	0126	2543	
@DEND	001	4680	0234	0235		
@DFCT	001	4651	0197			
@DFFQ	001	4643	0187	0188		
@DFTCB	001	4627	0138	0139		
@DNEXT	001	4682	0235			
@DSTRT	001	467E	0233	0234		
@DTUBQ	001	47AD	0477	0478	3987	3988*
@EPATR	001	4651	0196	0197	0198	
@GMWTQ	001	4641	0186	0187		
@HIBND	001	465D	0205	0206		
@INVPL	001	4742	0470	0471	0474	
@KNTUB	001	4669	0215	0216	3285	
@LCB#1	001	464D	0194	0195		
@LOBND	001	465B	0204	0205		
@L1TCB	001	46ED	0343	0344		
@L2TCB	001	46EF	0344			
@MLTAD	001	4736	0462	0464		
@MLTIO	001	460D	0121	0122		
@MLTOP	001	460F	0122	0123		
@MTRAC	001	461F	0130	0133		
@NDUMP	001	4682	0232	0236		
@PRLQ	001	4645	0188	0191	4011	
@PTX	001	466B	0216	0217		
@PTXCS	001	466D	0217	0218		
@PUCNT	001	4665	0211	0214		
@QTUBS	001	463F	0185	0186		
@ROCAT	001	464B	0193	0194		
@TALST	001	4647	0191	0192		

SYMBOL	LEN	VALUE	DEFN	REFERENCES
@TAS	001	4730	0456	0457
@TCORG	001	4649	0192	0193
@TKFSB	001	4675	0224	0226
@TMECB	001	4807	0313	2607
@TMIOB	001	4800	0287	0313
@TMTCB	001	4629	0139	0140
@TNT	001	4653	0198	0199 3184
@TUBQ	001	464F	0195	0196
@TUSTG	001	4667	0214	0215
@UALFA	001	4673	0223	0224
@UPA	001	4662	0209	0210
@USECW	001	4611	0123	0124 2537
@WATSK	001	463D	0184	0185
@XDT	001	4655	0199	0202
@XSNT1	001	46E9	0341	0342
@XSNT2	001	46EB	0342	0343
@XSNT3	001	4713	0419	
ADDRS1	001	0017	2235	2262
ALLBIT	001	00FF	0026	3877
AMSORT	001	0002	0381	
ANY	001	0080	0074	3292 3490 3548 3598
ARR	001	0008	0048	4002 4033* 4034 4035* 4044
A1PTRS	001	0040	0362	
A1SPLV	001	0080	0360	
A1501S	001	0004	0366	
A1741S	001	0008	0365	
BIT0	001	0080	0016	0040 0145 0156 0166 0323 0351 0360 0392 0393 0448 0524 0747 1510 1565 1619 1631 1745 1763 1803 1818 1828 1838 1855 1870 1900 2028 2039 2154
BIT1	001	0040	0017	0041 0146 0157 0167 0352 0362 0395 0449 0523 1513 1552 1559 1561 1621 1632 1747 1765 1804 1819 1829 1839 1856 1871 1901 2029 2041 2155 3929
BIT2	001	0020	0018	0042 0147 0158 0168 0353 0397 0451 0522 0749 1514 1558 1559 1562 1623 1633 1749 1767 1805 1820 1830 1845 1857 1872 2030 2042 2156
BIT3	001	0010	0019	0148 0159 0169 0324 0354 0400 0521 0750 1515 1624 1634 1751 1769 1806 1821 1831 1846 1858 1873 2031 2043 2157
BIT4	001	0008	0020	0149 0160 0170 0325 0355 0365 0401 0520 0752 1516 1543 1753 1771 1808 1822 1832 1847 1859 1874 1902 2032 2044 2158 3171
BIT5	001	0004	0021	0150 0161 0171 0326 0356 0366 0402 0519 0754 1517 1544 1551 1755 1773 1809 1823 1833 1849 1864 1875 1902 2033 2046 2159 4228
BIT6	001	0002	0022	0151 0162 0172 0327 0357 0381 0403 0518 1518 1545 1755 1775 1810 1824 1834 1850 1865 1876 1902 2034 2049 3171 4230
BIT7	001	0001	0023	0152 0163 0173 0328 0404 0517 1521 1524 1546 1756 1777 1811 1825 1835 1851 1867 1877 1902 2035 2052 3171 4232
BOVFL	001	0020	0076	
BR	001	0087	0063	
BRNOP	001	0080	0062	
BR97	001	0097	0064	
CCPPL	001	0000	1474	1476 1504 1506
CC0006	002	4E34	4172	3334 3780
CC4AB	001	000C	4270	3811
CC4A2	001	000F	4273	
CC4BA	001	0030	4310	
CC4BB	001	0033	4313	

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CC4BC   001  0036 4316
CC4BE   001  0039 4319
CC4BP   001  003C 4322
CC4BQ   001  003F 4325
CC4BR   001  0042 4328
CC4B0   001  0048 4334
CC4B5   001  0045 4331
CC4FM   001  4690 0243   0244
CC4FR   001  46AC 0250   0251
CC4GA   001  0012 4276   3342
CC4GM   001  468C 0242   0243
CC4GR   001  002D 4304
CC4IS   001  4688 0241   0242
CC4MP   001  0027 4297
CC4MX   001  4698 0245   0246
CC4OP   001  0015 4279
CC4PI   001  4684 0240   3341  3810
CC4PR   001  001B 4285
CC4R1   001  0018 4282
CC4SR   001  46A8 0249   0250
CC4S0   001  004B 4337
CC4TA   001  4684 0239   0240  0241
CC4TD   001  001E 4288
CC4TH   001  0013 2231   2288
CC4TI   001  46A0 0247   0248
CC4TI2  001  0009 2221   2279
CC4TT   001  46A4 0248   0249  3219  3786  3801  4064  4156
CC4UN   001  002A 4300
CC4WC   001  0021 4291
CC4WR   001  0024 4294
CORCNT  001  47AB 0286   0477
CPISNW  001  0001 0152
CPLPWD  001  4676 0226   0227
CPPSWD  001  467C 0227   0230  0233
CPSHD   001  0002 0151
CPSHDP  001  0010 0159   3163
CPSHUT  001  0010 0148   3160  3828  4083
CPSOB1  001  0040 0146
CPSOB2  001  0020 0147
CPSU    001  0008 0149
CS#MVL  001  47E6 0535
CS#TRL  001  4600 0536
CSPKF1  001  47D1 0504   0505
CSPKF2  001  47D5 0506   0509
CSPKR1  001  47CF 0503   0504
CSPKR2  001  47D3 0505   0506
C4TI2   001  469C 0246   0247  3140  3201  3234  3269  3279  3302  3316  3357  3392  3407  3423
                         3442  3451  3467  3483  3499  3511  3537  3551  3569  3587  3601  3635
                         3812
DISABL  001  0079 4179   3122  3344  3690  3752  3843  3859  3900  3974  4032  4159
DOVFL   001  0008 0078
DSFLAG  001  002F 4193
ENABLE  001  0078 4178   3242  3684  3740  3788  3852  3960  4134
ENVSAV  001  0080 4194
EQ      001  0001 0081   3292  4201  4202
ERPCAL  001  0080 2087
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ERTIME  001  4744 0471
FALSE   001  0010 0077   3292  3388  3490  3548  3598
FEHLT@  001  4784 0272   0273
FL2OLP  001  0020 2079
FL2OLT  001  0008 2080
HI      001  0004 0079   3388  4202  4203
IAR     001  0010 0049   2525* 2528* 2531* 2534* 2537* 2540* 2543* 2546* 2549* 2552* 2555* 4163*
II#TPB  001  4A94 3590   3584
II@PRL  002  4E3A 4183   3123* 3197  3218  3320  3663  3691* 3738  3753* 3766  3860* 3901* 3908
                         3925  3942  3954  4038* 4053
IIACI   001  4BE1 3800   3172
IIAEND  001  4BD5 3782   3992
IIAIWT  001  4C0E 3842   3829
IIBLK   001  48E5 3264
IIBLNK  001  0040 4192   3701
IIBOPC  001  000F 4218   3615
IIBPUT  001  0040 4219   3615
IIBTCB  001  495F 3355   3354
IIBUMP  003  48A2 3207
IICALL  001  4BE9 3809   3878
IICARR  002  4E3C 4187   4041* 4045  4160* 4163
IICDNE  003  4B5E 3705   3693  3696  3702
IICKAI  001  486D 3169   3159
IICKBK  001  48F1 3273   3266
IICKIS  001  49B5 3429   3419
IICKNM  001  48DC 3251   3223
IICLOP  004  4B4B 3700   3704
IICNPM  002  4E4D 4216   3662
IICTSK  001  494D 3340   3149
IIDOIT  001  4B23 3683
IIFINI  003  4BCA 3771   3706
IIFOND  001  48A9 3217   3155  3193
IIFUTH  001  4A45 3545   3523
IIGGSF  001  4C4F 3899   3815
IIGTA   001  493F 3333   3152  3200
IIIIR   001  00C5 4188   4044* 4160
IIINRT  001  4AA6 3607   3598  3606
IIINVD  001  0000 4227   4247  4251  4252  4253  4254  4255
IIIOCP  001  49D7 3459   3439  3448
IIIOL   001  4A40 3535   3525  3536
IIIOTS  003  49E0 3463   3460* 3461*
IIIREQ  001  4AE1 3647   3580  3630  3632  3646
IIIVLD  004  482C 3140   3135
IIIX1   001  00C7 4189   4043* 4162
IIIX2   001  00C9 4190   4045* 4161
IIKLEN  001  49FA 3487   3480
IIKNSL  001  49EB 3477   3378
IIKRQ   001  4919 3295   3286
IILN10  002  4E3E 4199   3231
IILOOK  001  48A2 3206   3192
IILTER  001  4A73 3564   3562
IIMAXC  002  4E38 4177   3493
IIMAXK  002  4E36 4176   3489
IIMVBY  005  481A 3132   3131*
IIMX40  003  4B09 3672
IIMX80  004  4B0C 3673   3671
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IINBLK  001  4928 3311   3254  3298
IINCMP  001  4969 3359   3352
IINDFF  001  4CB1 3945   3944
IINDPD  001  4AC2 3621   3617  3620
IINFND  001  488E 3196   3188
IINIIS  001  49CC 3446   3433
IINITB  001  4A54 3554   3548
IINKRQ  001  490D 3288   3284
IINNUL  001  4933 3319   3313
IINODA  001  0020 4191   3695
IINODG  003  4C14 3848
IINOI1  001  4B78 3717   3712  3715
IINTCH  001  4CA6 3937   3933
IINTCN  001  4D10 3991   3981
IINTSH  001  4C40 3888   3164  3166  3814
IINWTR  004  4B17 3677   3668  3674
IIOUTR  001  4AE1 3639   3609
IIPGSH  001  4C3D 3885   3161  3835
IIPHYS  001  4990 3395   3388
IIPOST  001  0040 4184   3873  4148
IIPRBQ  001  4B8F 3736
IIQBSC  004  4D2C 4011   4006
IIQIT   003  4D3D 4019   4013
IIQLOP  003  4D30 4012   4015
IIQNRC  003  4D24 4008
IIQRET  004  4D48 4023   4002*
IIQSUB  004  4D14 4002   3737  3953  4001  4126
IIRBL   001  4923 3301   3292
IIREND  001  4BBB 3765   3399  3619  3764
IIRQTY  001  4A18 3506   3464  3490  3494
IISEND  001  4BD0 3779   3368
IISETS  001  4A87 3582
IISKIP  001  0020 4186
IISR    001  4900 3282   3276
IISTNL  001  0006 4171   3191  3191  3239  3297  3297* 3939  3939*
IISTNT  001  4937 3323   3322
IITCBK  001  499D 3401   3397
IITCHH  001  4CAD 3941   3935
IITCMP  001  4968 3358   3356*
IITCNG  001  4D01 3986   3983
IITELL  004  4C01 3832   3874
IITEND  001  4BD5 3785   3245  3367  3784  3892
IITIMR  001  0000 4196   3240
IITKNS  001  4977 3375   3336
IITMWT  001  0010 4197   3240
IITNTK  001  49AA 3417   3403
IITNTN  003  487E 3187   3208
IITOLG  001  4A13 3496   3492
IIUPST  001  4B65 3710   3651  3709
IIVBLK  001  0002 4230   3265  4240  4241  4242  4243  4244  4245  4246  4248  4250
IIVBYT  001  4E62 4262   3132* 3136  3265  3478
IIVKNS  001  0004 4228   3478  4240  4242  4243  4244  4246  4248
IIVLD   001  4831 3143   3137
IIVLNI  001  4A81 3577   3519  3532  3557  3566  3578
IIVLNN  001  4A23 3516   3517
IIVLNO  001  4A23 3515   3508
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SYMBOL	LEN	VALUE	DEFN	REFERENCES
IIVLNP	001	4A37	3528	3529
IIVSCH	001	49C1	3437	3431
IIVSTN	001	0001	4232	4240 4241 4242 4243 4244 4245 4246 4248 4249 4250
IIVTBL	001	4E52	4239	3130 4238
IIVTNT	002	4E32	4169	3324* 3402
IIWAIT	001	0080	4185	
IIWAT1	001	48C5	3237	3232
IIWFLG	001	0007	4198	3241*
IIWORK	002	4E4F	4220	3560* 3563* 3565
IIWTO	001	0010	4181	4211
IIWTOR	001	0020	4182	3669
IIYTC	004	4C81	3925	3914
IIZERO	001	0000	4173	3136 3240* 3241
II19	002	4E51	4221	3563
INTNSP	001	0002	0172	
INTPNO	001	0004	0171	
ISCNPT	003	4DE4	4115	
ISMVPS	001	4DCC	4106	4100
ISNDQI	004	4DB3	4090	4084
ISPOST	001	4DF0	4125	4109 4111 4114
ISREGS	001	4E16	4155	4087 4118 4144
ISREQ	001	4D91	4074	
ISREQ1	001	4DBD	4096	4095
ISWAIT	003	4E0B	4146	4149
ISWTOP	003	4DBA	4093	4080 4088
IS0010	001	4D89	4062	4058
KNPL	001	476C	0268	0271 2803
KNTUB	001	4745	0267	0268 2466
LCB$L0	001	005E	1995	1996
LCBABT	001	0008	1987	
LCBACT	001	0020	1985	
LCBADJ	001	0058	1992	1993
LCBADL	001	007E	2118	2119
LCBADN	001	0088	2119	2128
LCBATA	001	0069	2005	2010
LCBATC	001	007B	2061	2063
LCBATL	001	005A	1993	1994
LCBATO	001	0010	2031	
LCBATR	001	0070	2037	2054
LCBAT1	001	0055	1973	1982 3616
LCBAT2	001	0056	1982	1992
LCBAT3	001	006F	2027	
LCBBFL	001	0072	2054	2055
LCBBLN	001	0089	2128	
LCBBND	001	0062	1997	1998
LCBBYP	001	0008	2032	
LCBCCP	001	0065	2002	2003
LCBCHN	001	0068	2004	2005
LCBCRI	001	0080	1974	
LCBDEQ	001	0004	1978	
LCBDFB	001	0001	2008	
LCBDFF	001	0002	2007	
LCBDTR	001	006B	2011	2015
LCBELC	001	006A	2010	2011
LCBENB	001	0020	2030	
LCBEOT	001	0002	1979	

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LCBERP  001  0040 2109
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LCBIBA  001  0078 2058   2059
LCBIBL  001  0076 2056   2058
LCBID#  001  0050 1967   1968
LCBIGN  001  0080 2006
LCBINT  001  0010 1976
LCBITB  001  0080 2028
LCBKLC  001  0064 1998
LCBLCE  001  006C 2015   2017  2019
LCBLID  001  006D 2019   2020
LCBLLE  001  006E 2020   2025
LCBMIL  001  0081 2124   2126
LCBMLN  001  007E 2072
LCBMR@  001  0083 2126
LCBMRL  001  007F 2123   2124
LCBMVD  001  0080 2108
LCBNIT  001  0080 2039
LCBNO#  001  004F 1966
LCBNTQ  001  0008 1977   3616
LCBNW#  001  007C 2063   2067  2107  4009*
LCBOLR  001  0040 2041
LCBOLT  001  006F 2025   2027  2037
LCBOPC  001  007D 2107   2118  2123  2132
LCBOPE  001  006C 2017
LCBOWN  001  005C 1994   1995
LCBPL@  001  0052 1968   1969
LCBPLQ  001  0066 2003   2004
LCBPOL  001  004D 1964   1965
LCBPOR  001  0001 2035
LCBPRI  001  0040 1975
LCBPUT  001  0002 1989
LCBRCI  001  0001 1990
LCBREP  001  0002 2034
LCBRFT  001  0010 1986
LCBRS3  001  0074 2055   2056
LCBRVI  001  0020 2110
LCBSCA  001  004C 1963   1964
LCBSEC  001  0004 1988
LCBSEL  001  004F 1965   1966  1967
LCBSET  001  0040 1984
LCBSIN  001  0001 1980
LCBSRT  001  0060 1996   1997
LCBSTP  001  0010 2043
LCBSTS  001  0004 2033
LCBSWL  001  0008 2044
LCBSWN  001  008D 2134
LCBTBK  001  0002 2049
LCBTCB  001  007A 2059   2061
LCBTEL  001  007E 2132   2133
LCBTIM  001  0001 2052
LCBTL@  001  008C 2133   2134
LCBTRC  001  0080 1983
LCBTSP  001  0040 2029
LCBWRK  001  0054 1969   1973
LCBWTC  001  007D 2067   2072
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LCB1PL  001  0004 2046
LCPPMR  001  0040 0051
LO      001  0002 0080   3388  4201  4203
LSTSIZ  001  0016 4343   2654
LVBIAR  001  00A0 0055
LVCIAR  001  00C0 0056
LVIIAR  001  0080 0053
LVMIAR  001  0090 0054
MCTIN   001  00F0 4174
MCTOUT  001  000F 4175
MLBID   001  0004 2095
MLCORR  001  0002 2102
MLDISC  001  0080 2092
MLENTR  001  0002 2096
MLNWTC  001  0000 2068
MLPTTC  001  0001 2101
MLWBYC  001  0010 2098
MLWBYP  001  0008 2097
ML2741  001  0003 2075
ML2970  001  0001 2069
ML5930  001  0002 2070
MOVE    006  4D5B 4038   4034*
MVLCCP  001  0000 2184   2185
MVLFRA  001  0005 2187   2188
MVLFRL  001  0007 2188   2189
MVLTCB  001  000A 2196
MVLTOA  001  0003 2186   2187
MVLTOL  001  0001 2185   2186
MVLTYP  001  0008 2189   2196
NC@NEW  001  0009 1038   1040
NCAEND  001  0065 1176
NCAFML  001  000D 1061   1062
NCC     001  0000 1033   1034
NCCCP   001  0043 1225
NCCECB  001  0048 1228
NCCMTQ  001  002B 1115   1117
NCCNFG  001  0049 1161   1162
NCCONF  001  002F 1118   1130
NCDATE  001  001B 1070   1071
NCDENT  001  0041 1224
NCDSKQ  001  0021 1110   1111
NCDSK5  001  0023 1111   1112
NCDSP1  001  000A 1040   1047
NCDSP2  001  000B 1047   1056
NCENTR  001  0004 1214
NCETQ@  001  0029 1114   1115
NCEXTR  001  0034 1133   1134
NCHIMG  001  0700 1229
NCL2PR  001  00C0 1233
NCMPLC  001  0063 1174   1175
NCMPSZ  001  0062 1173   1174
NCMSVA  001  001A 1216
NCMVT1  001  0037 1156   1157
NCMVT2  001  003B 1157   1158
NCMVT3  001  003F 1158   1159
NCMVT4  001  0043 1159   1160
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SYMBOL	LEN	VALUE	DEFN	REFERENCES
NCOLIB	001	0015	1069	1070
NCPCHK	001	0100	1231	
NCPENT	001	003F	1223	
NCPFKT	001	0061	1172	1173
NCPL1	001	0001	1034	1035
NCPL2	001	0003	1035	1036
NCPRTB	001	0048	1160	1161
NCRCSS	001	002E	1117	1118
NCRQE	001	0033	1132	1133
NCSBUF	001	077C	1230	
NCSCH	001	001F	1105	1110
NCSCH1	001	001C	1071	1086
NCSCH3	001	0030	1130	1131
NCSCH4	001	0031	1131	1132
NCSGEN	001	000C	1056	1061
NCSIPT	001	005B	1168	1169
NCSLOG	001	0010	1062	1067
NCSMV1	001	001D	1086	1096
NCSMV2	001	001E	1096	1105
NCSMV3	001	0035	1134	1145
NCSMV4	001	0036	1145	1156
NCSPCH	001	005D	1170	1171
NCSPRT	001	005C	1169	1170
NCSPVN	001	005F	1171	1172
NCSVCE	001	0036	1221	
NCSVCJ	001	0032	1220	
NCSWRK	001	0012	1067	1068
NCSYS@	001	0011	1215	
NCSYSQ	001	0013	1068	1069
NCTA@	001	0800	1232	
NCTALL	001	0010	1044	
NCTAPQ	001	0025	1112	1113
NCTCB	001	0005	1036	1037
NCTCB@	001	002E	1218	3274 3350 3386 3626 3660 3724 3747 3754 3832 3849 3889 3903 3912 3946 3966 3975 4042 4158
NCTCCP	001	0020	1043	
NCTERM	001	0031	1219	
NCTMRQ	001	0065	1175	1176
NCTRAC	001	002A	1217	
NCTRAP	001	003B	1222	
NCTRCA	001	0080	1041	
NCTRCS	001	0040	1042	
NCTRDK	001	0008	1045	
NCURQ	001	0027	1113	1114
NCUTL1	001	005A	1162	1168
NCXTAB	001	0007	1037	1038
NCXTB@	001	0045	1226	
NCXTE@	001	0047	1227	
NEQ	001	0006	4203	
NHIGH	001	0003	4201	3490
NLOW	001	0005	4202	3548 3598
NOBIT	001	0000	0025	3289 3312 3351 3804 3890 4012 4059 4115 4133
NONE	001	0000	0075	3388
NOOP	001	0080	0060	
NOP	001	0007	0059	
NPBEG	001	0071	1018	1019

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NPBEGL  001  0076 1020   1021
NPCYL   001  007A 1022   1023
NPDTF@  001  006E 1017   1018
NPEND   001  0074 1019   1020
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NPEOJ@  001  002A 1008
NPHALT  001  0052 0985   0996
NPJOB   001  005A 0996   0997  3916*
NPLPSZ  001  0050 0983   0984
NPNAME  001  0068 0998   0999
NPOLIB  001  007C 1023   1024
NPORLF  001  007E 1024   1025
NPPRTZ  001  004F 0982   0983
NPRLF   001  0078 1021   1022
NPRPSZ  001  0051 0984   0985
NPSPCM  001  006A 0999   1000
NPSPOL  001  006C 1009   1017
NPSTEP  001  0062 0997   0998
NPTXT   001  0080 1025
N2G0    001  0015 4195
OP$SYS  001  0080 1512   3507  4077  4143
OPACI   001  0004 1551   1552  1553  3170
OPACQ   001  0009 1557
OPANW   001  0044 1552
OPAQG   001  0069 1559   3134  3151
OPBLK   001  0020 1536   3530
OPBNOP  001  0010 1624
OPCMDT  001  0029 1558
OPCOPY  001  0040 1538
OPDISC  001  0020 1514   3507  4107
OPDLY   001  0001 1524   3162
OPDMY   001  003D 1564
OPEATT  001  470D 0424   0425
OPEAU   001  0050 1539
OPEOL   001  0001 1521
OPGET   001  0001 1546   1549  1550  1554  1557  1558  1559  1564  3491  3579  3667  3692  3711
                         4098  4117
OPGETM  001  0080 1619
OPGETQ  001  0040 1621
OPGTA   001  0008 1556   3199
OPINV   001  0005 1554   3608  4078  4085
OPJRSH  001  0080 1565   4079  4097
OPKPL   001  0010 1532
OPLINE  001  0010 1535   1550
OPLIST  001  0008 1516
OPLSNS  001  0040 1632
OPMSG   001  0030 1537   1563  1564
OPNOW   001  0004 1544   1554  1555  1564  3561
OPNPST  001  0020 1623
OPOLT   001  0040 1513   3507
OPOPTN  001  0010 1531   1553
OPORDR  001  00F0 1541
OPPCR   001  003A 1563
OPPNW   001  0006 1555
OPPRT   001  0010 1515
OPPTG   001  0003 1549
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OPPURG  001  0013 1550
OPPUT   001  0002 1545   1549  1550  1555  1560  1561  1562  1563  3479  3488  3518  3714  4057
                         4086  4108  4116
OPREL   001  000A 1560
OPREQR  001  0080 1510   1512
OPRFSH  001  0080 1631
OPRTC   001  004A 1561
OPRUF   001  0070 1540   3479
OPRVI   001  0010 1534
OPSATT  001  470B 0423   0424
OPSEG#  001  470E 0425
OPSHQ   001  0000 1548   3158
OPSOL   001  0002 1518
OPSTA   001  0010 1533   3134
OPSTAT  001  0008 1543   1556  1557  1558  1559  1560  1561  1562  1563  1564  3335
OPSTCM  001  0010 1634
OPSTD   001  0000 1530
OPSTOP  001  0004 1517   3438  3447  4099  4107
OPTCHN  001  002A 1562   3148  3366
OPUSER  001  0020 1633
OPWAIT  001  0014 1553   3154  3222
PAS     001  0000 0684   0685
PASBLK  001  0010 0750
PASCCC  001  0022 0734   0737
PASCF@  001  0013 0710   0713
PASCFT  001  0064 0792   0795
PASCPE  001  0052 0771   0774
PASCPL  001  0047 0769   0771
PASCT@  001  000B 0704   0707
PASCTN  001  0011 0707   0710
PASDBE  001  0044 0761   0766
PASEFT  001  0005 0691   0695
PASEND  001  007B 0825   0826
PASFDL  001  0009 0701   0704
PASFDT  001  0007 0695   0698
PASFLG  001  0027 0745   0759
PASFR@  001  0015 0713   0716
PASFRD  001  0026 0740   0742  0745
PASFRT  001  0080 0747
PASFTS  001  0008 0752
PASHAP  001  005A 0783   0786
PASIAR  001  0056 0777   0780
PASID@  001  0026 0742
PASIOB  001  0028 0759   0761
PASITT  001  0001 0685   0688
PASIX1  001  0054 0774   0777
PASJR@  001  0017 0716   0719
PASL    001  007C 0826
PASLTH  001  006B 0804   0807
PASNFT  001  0003 0688   0691
PASOF@  001  0058 0780   0783
PASOH@  001  001D 0725   0728
PASOHE  001  0021 0731   0734
PASOHL  001  001F 0728   0731
PASPL@  001  0046 0766   0769
PASRAP  001  005C 0786   0789
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SYMBOL  LEN VALUE DEFN   REFERENCES
PASRE@  001  001B 0722   0725
PASRFN  001  0078 0822   0825
PASRST  001  0020 0749
PASRUF  001  0004 0754
PASTAR  001  0070 0813   0817
PASTC   001  0065 0795   0798
PASTID  001  0008 0698   0701
PASTOD  001  0024 0737   0740
PASTTE  001  005E 0789   0792
PASTTM  001  0069 0801   0804
PASTTS  001  0067 0798   0801
PASUDL  001  006D 0807   0810
PASWCC  001  006E 0810   0813
PASWKZ  001  0074 0820   0822
PASWRK  001  0072 0817   0820
PASXR@  001  0019 0719   0722
PL$MCT  001  000D 1495
PL$OPC  001  000D 1494   1495  1497  3804* 3877*
PL$OPM  001  000C 1492   1494
PL$RTC  001  000F 1497   1498  1502  3145  3145* 3725  3725* 3767  3767* 3909  3928  3928* 3976
                         3976* 4055  4055* 4090  4090*
PL$TNT  001  000F 1498   1500  3338*
PLASID  001  0005 1484
PLCHN   001  0001 1477   3144  3144* 4011  4012  4014  4019* 4020  4020* 4054  4054*
PLECB   001  0010 1502   1504  1506  3726  3726* 3748  3947  3947* 3967  4133* 4145
PLEFFL  001  0005 1483   3694  3694* 3697* 3699  3703* 3716  3716* 3890* 3891*
PLENDS  001  000F 1500
PLINL   001  0007 1486   1488  3583  3597  3631  3673  3675  3768  3768* 3977  3977*
PLLEN   001  0013 1506
PLLNG   001  0010 1504
PLOPC   001  0003 1480   1482  3131  3134  3148  3151  3154  3158  3170  3171  3199  3222  3335
                         3366  3460  3479  3488  3491  3518  3530  3561  3579  3608  3667  3692
                         3711  3714  3929* 4057  4078  4079  4085* 4086  4097  4098  4108  4116*
                         4117
PLOPM   001  0002 1479   1480  3162  3438  3447  3507  4077  4099  4107  4143
PLOUTL  001  0005 1482   1483  1484  1486  3231  3489  3493  3522  3547  3560  3670  3677
PLRECA  001  0009 1488   1490  3185  3238  3252  3334* 3678  3679  3698  3727  3728  3728* 3780*
                         3926  3931  3949  3949* 4059* 4112  4115*
PLRTC   001  0001 1476   1477  1479  3165* 3398* 3618* 3886* 3982  3984*
PLTIME  001  479E 0279   0280
PLTUBA  001  000B 1490   1492  3198  3198* 3325* 3365  3628  3649  3771  3902  3930  3979  4003
                         4063  4093
PMR     001  0030 0050
PMRINS  001  0010 0085
PMRINT  001  0001 0088
PMRI12  001  0070 0082
PMROP1  001  0020 0084
PMROP2  001  0040 0083
PMRPRT  001  0002 0087
PMRPRV  001  0008 0086
PMRQ    001  0030 4180   3122  3242  3344  3684  3690  3740  3752  3788  3843  3852  3859  3900
                         3960  3974  4032  4134  4159
POLTIM  001  47C6 0491   0492
POST    001  0040 0041
PRUFOF  001  0020 0451
PSR     001  0004 0047
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SYMBOL	LEN	VALUE	DEFN	REFERENCES
RBARR	001	0011	1202	1203
RBB	001	0000	1184	1185
RBCSN	001	0014	1203	1204
RBFLG1	001	0002	1186	1189
RBFLG2	001	0003	1189	1196
RBIAR	001	0007	1197	1198
RBPMR	001	0009	1198	1199
RBPSR	001	000B	1199	1200
RBRBP	001	0001	1185	1186
RBRES	001	001C	1206	1207
RBRIB	001	0015	1204	1205
RBRSAV	001	0016	1205	1206
RBTCB	001	0005	1196	1197
RBWORK	001	001D	1207	
RBXR1	001	000F	1201	1202
RBXR2	001	000D	1200	1201
RCOK	001	0000	1644	
RCOKTC	001	000E	1645	
RCRABD	001	00F4	1687	
RCRABN	001	00FB	1680	
RCRADC	001	00F3	1688	
RCRATO	001	00F9	1682	
RCRDCK	001	00FF	1676	
RCRIDR	001	00E3	1701	
RCRIID	001	00F5	1686	
RCRLST	001	00FD	1678	
RCRNAK	001	00F2	1689	
RCRNOC	001	00F6	1685	
RCRPBS	001	00FC	1679	
RCRTRM	001	0040	1672	
RCRTRN	001	00FE	1677	
RCRTTO	001	00F8	1683	
RCRWTO	001	00F7	1684	
RCRXRA	001	00FA	1681	
RCR2CD	001	00E8	1696	
RCR2DU	001	00EC	1693	
RCR2ED	001	00EA	1694	
RCR2PB	001	00E5	1699	
RCR2PC	001	00E4	1700	
RCR2PD	001	00E7	1697	
RCR2PO	001	00E6	1698	
RCR2TE	001	00E9	1695	
RCR5DE	001	00D2	1712	
RCR5DF	001	00D5	1709	
RCR5IC	001	00D7	1707	
RCR5OF	001	00D6	1708	
RCR5RF	001	00D4	1710	
RCR5SR	001	00D8	1706	
RCR5UH	001	00D3	1711	
RCR7BE	001	00C6	1722	
RCR7BT	001	00C5	1723	
RCR7DC	001	00CC	1716	
RCR7DO	001	00C7	1721	
RCR7LB	001	00CB	1717	
RCR7LE	001	00C4	1724	
RCR7NA	001	00CD	1715	

```
RCR7NF  001  00C3 1725
RCR7NR  001  00BF 1729
RCR7RE  001  00C1 1727
RCR7RP  001  00C9 1719
RCR7SC  001  00C8 1720
RCR7SE  001  00C2 1726
RCR7TE  001  00CE 1714
RCR7WE  001  00C0 1728
RCR7WL  001  00CA 1718
RCR7WP  001  00BE 1730
RCR7ZR  001  0100 1713   1714  1715  1716  1717  1718  1719  1720  1721  1722  1723  1724  1725
                         1726  1727  1728  1729  1730
RCXCLR  001  0007 1657
RCXDPD  001  0005 1655   3618
RCXDTR  001  0001 1649
RCXEDT  001  0003 1651
RCXEOT  001  0002 1650
RCXNAC  001  0010 1665
RCXNAQ  001  000B 1661
RCXNAV  001  0008 1658
RCXNIQ  001  007E 1667
RCXNTC  001  000C 1662
RCXNTP  001  000D 1663
RCXNTR  001  000F 1664
RCXOFF  001  0009 1659   3398
RCXRVI  001  0006 1656
RCXSHD  001  0004 1654   3886
RCXSHP  001  0011 1666   3165
RCXSPF  001  007F 1668
RCXSPI  001  000A 1660
SAVLOP  001  47A2 0281   0282
SHDECB  001  477F 0271   0272
SHDSAV  001  478F 0273   0276
SKIP    001  0020 0042
SMESG   001  00E2 4170   4113
SVLOOP  001  47C7 0492   0493
SV1TAX  001  4621 0133   0134
SV2TAX  001  4623 0134   0137
TA@PGM  001  4E63 4266   2400
TANDNE  001  0011 4234   3480
TAONE   001  4000 0108   0109
TASAT1  001  0000 1743   1761
TASAT2  001  0001 1761   1782
TASAUT  001  0010 1751
TASBKF  001  0004 1784   1786
TASBLK  001  0040 1765
TASCAS  001  0040 1747
TASCCP  001  0000 1739   1743  1786
TASCNC  001  0020 1749
TASDFF  001  0001 1756   3555  3629
TASINX  001  0008 1753
TASITB  001  0010 1769   3546  3596
TASLN   001  0005 1786
TASMSG  001  0020 1767
TASPAN  001  0002 1775
TASRCL  001  0003 1782   1784
```

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TASREC  001  0080 1763
TASRSV  001  0006 1755
TASTRN  001  0080 1745
TASTSP  001  0008 1771
TASVFY  001  0004 1773
TASVRL  001  0001 1777
TATWO   001  4300 0109
TCB@AS  001  0064 0564   0565
TCBACW  001  0001 0588   3872
TCBALC  001  0020 0577
TCBARR  001  0019 0934   0938
TCBATR  001  00E0 0598   0600
TCBATS  001  010D 0628   0629
TCBATT  001  004E 0970   0972  0977  0978  0979  0982
TCBB    001  0000 0884   0885
TCBCAL  001  0000 0544
TCBCHN  001  0040 0613   3913
TCBCM   001  0008 0579
TCBCMP  001  002B 0562   3351  3356
TCBCSN  001  001C 0938   0939
TCBDMG  001  00AE 0574   3275  3283  3833  3834*
TCBDS1  001  0006 0916   0923
TCBDS2  001  0007 0923   0926
TCBECB  001  00DB 0595   0596  3850
TCBEJC  001  002B 0947   0959
TCBEJE  001  002A 0946   0947  1008
TCBEJS  001  002C 0959   0969
TCBEMG  001  0002 0581
TCBEPL  001  010E 0629   0630
TCBFBM  001  00E3 0608   0609  0651
TCBFDT  001  0066 0566   0567
TCBFG1  001  0004 0905   0913
TCBFG2  001  0005 0913   0916
TCBFSA  001  0116 0631
TCBHAV  001  0047 0972
TCBIAR  001  000F 0929   0930
TCBID   001  0003 0887   0905
TCBIIC  001  00DE 0596   0597  3627* 3891  3904*
TCBINQ  001  0068 0567
TCBIR   001  00A7 0569   0570
TCBKRQ  001  0040 0576   3283
TCBLOW  001  0020 0614
TCBMAP  001  0026 0944   0945
TCBMAX  001  00DF 0597   0598  0649
TCBMFU  001  0004 0605
TCBMTS  001  0004 0580   3275
TCBNCL  001  0004 0551
TCBNEP  001  0010 0578
TCBNXT  001  0001 0885   0886
TCBOFG  001  00E5 0611   0621  0652  3913
TCBPAS  001  0065 0565   0566
TCBPCA  001  004C 0978
TCBPCB  001  00E7 0621   0622
TCBPCS  001  004E 0979
TCBPL   001  00C4 0590   0591  0623  0638  3661  3725* 3726  3726* 3728  3728* 3729  3748  3755
                         3927  3947  3947* 3948  3967  3976  3977  4188  4189  4190
```

```
TCBPLE  001  00D6 0591   0592
TCBPMR  001  0011 0930   0931
TCBPR   001  00A9 0570   0571
TCBPRI  001  0002 0886   0887
TCBPRS  001  0080 0601
TCBPRT  001  0010 0603
TCBPSR  001  0013 0931   0932
TCBRBF  001  000B 0927   0928
TCBRBP  001  0009 0926   0927
TCBRIB  001  001D 0939   0940
TCBROC  001  0112 0630   0631
TCBRSV  001  001E 0940   0941
TCBRS1  001  0024 0941   0944
TCBRS3  001  004A 0977
TCBRTC  001  002E 0969   0970
TCBRUF  001  0080 0575
TCBRV   001  00EB 0623
TCBSAD  001  00C4 0638   0639
TCBSAS  001  00C8 0640   0641
TCBSAT  001  00C6 0639   0640
TCBSAV  001  00CA 0641
TCBSHQ  001  0001 0582   3833  3834
TCBSRT  001  0080 0612
TCBSUS  001  0040 0558
TCBTCB  001  000D 0928   0929
TCBTIM  001  0028 0945   0946
TCBTRC  001  0080 0555
TCBTRM  001  0020 0559
TCBTUB  001  00DA 0594   0595  3289  3290
TCBURA  001  00E1 0600   0608  0650
TCBUSE  001  00E4 0609   0611
TCBUSR  001  0080 0550
TCBWID  001  00FF 0547
TCBWK   001  00D8 0593   3727* 3926*
TCBXQ   001  00D8 0592   0593  0594
TCBXR@  001  00E9 0622
TCBXR1  001  0017 0933   0934
TCBXR2  001  0015 0932   0933
TCBX1   001  00AD 0572   0574
TCBX2   001  00AB 0571   0572
TCB142  001  0008 0604
TCB501  001  0020 0602
TCB741  001  0040 0606
TCC#01  001  0001 1431
TCC#02  001  0002 1432
TCC#03  001  0003 1433
TCC#04  001  0004 1434
TCC#05  001  0005 1435
TCC#06  001  0006 1436
TCC#07  001  0007 1437
TCC#08  001  0008 1438
TCC#09  001  0009 1439
TCC#10  001  0010 1440
TCC#11  001  0011 1441
TCC#12  001  0012 1442
TCC#13  001  0013 1443
```

```
TCC#14  001  0014 1444
TCC#15  001  0015 1445
TCC#16  001  0016 1446
TCC#17  001  0017 1447
TCC#18  001  0018 1448
TCC#19  001  0019 1449
TCC#20  001  0020 1450
TCC#21  001  0021 1451
TCC#22  001  0022 1452
TCC#23  001  0023 1453
TCC#24  001  0024 1454
TCC#25  001  0025 1455
TCC#26  001  0026 1456
TCC#27  001  0027 1457
TCCAAS  001  0023 1301
TCCABT  001  0073 1415
TCCADR  001  0053 1406
TCCADT  001  0024 1305
TCCAKN  001  0022 1300
TCCALC  001  008B 1465
TCCAQG  001  003C 1381
TCCAQN  001  003E 1386
TCCAQP  001  003D 1384
TCCAST  001  0021 1299
TCCATS  001  0025 1307
TCCCCN  001  002A 1326
TCCCCP  001  002B 1327
TCCCLS  001  0071 1413
TCCDCN  001  003A 1377
TCCDCP  001  003B 1379
TCCDER  001  0084 1462
TCCEOT  001  002D 1333
TCCFSA  001  0083 1460
TCCHAR  001  002F 1342
TCCHLT  001  007F 1417
TCCIAC  001  0013 1267
TCCIAI  001  001D 1283
TCCIAN  001  0012 1265
TCCIBL  001  0008 1251   3270
TCCICA  001  0016 1274
TCCICN  001  0017 1275
TCCICT  001  0018 1276
TCCIEA  001  0019 1277
TCCIGB  001  0015 1272
TCCIIL  001  000E 1259   3588
TCCIIO  001  0011 1263   3443
TCCIKL  001  001E 1286   3500
TCCIMO  001  0010 1261   3424
TCCINV  001  002C 1331
TCCIOC  001  000C 1256   3468
TCCIOK  001  0002 1244   3484
TCCIOL  001  000D 1258   3538
TCCIOP  001  0001 1243   3141  3512
TCCIPA  001  001A 1278
TCCIPM  001  001B 1279
TCCISN  001  0009 1252
```

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TCCITA  001  000B 1254
TCCITB  001  001C 1280   3552  3602
TCCIVA  001  002E 1338
TCCLDT  001  0070 1412
TCCLRG  001  001F 1288   3570
TCCLRP  001  0020 1293
TCCMBL  001  0006 1249   3280
TCCNAN  001  0005 1247   3408
TCCNAP  001  0004 1246   3393
TCCNAT  001  000A 1253   3317
TCCNDF  001  0035 1367
TCCNEJ  001  0031 1350
TCCNIO  001  0014 1270   3452
TCCNMM  001  0048 1399
TCCNNF  001  0003 1245   3202
TCCNRP  001  0037 1371
TCCOPC  001  0052 1405
TCCOPN  001  0082 1427
TCCPNC  001  0038 1373
TCCPRM  001  0072 1414
TCCPRT  001  0050 1403
TCCPRV  001  0054 1407
TCCQCD  001  0051 1404
TCCRBL  001  0007 1250   3303
TCCRCB  001  0029 1320
TCCRIB  001  0080 1421
TCCRIS  001  0030 1346
TCCROW  001  0027 1312
TCCRPL  001  0028 1317
TCCRST  001  0026 1311
TCCRTC  001  0039 1375
TCCSFU  001  0041 1396
TCCSQB  001  0032 1352
TCCST1  001  0040 1391
TCCTCH  001  003F 1388
TCCTPB  001  000F 1260   3636
TCCWAT  001  0036 1369   3235
TCC33   001  0033 1358
TCC34   001  0034 1361
TDFEPC  001  0045 2083
TDFERP  001  0050 2086
TDFFL2  001  0039 2078
TIAC    001  0005 0034   0035
TIBC    001  0001 0030   0031
TICR    001  0008 0037   0038
TICS    001  0007 0036   0037
TIFE    001  0000 0029   0030
TINS    001  0009 0038
TIRC    001  0002 0031   0032
TISS    001  0006 0035   0036
TITR    001  0003 0032   0033
TIWRK1  001  4709 0413   0414
TIWRK2  001  470B 0414   0415
TIWRK3  001  470D 0415   0416
TIWRK4  001  470F 0416   0417
TIWRK5  001  4711 0417   0418
```

SYMBOL	LEN	VALUE	DEFN	REFERENCES
TIWRK6	001	4713	0418	0419 0420
TIYA	001	0004	0033	0034
TLCCP	001	0000	2175	2176
TLFRMA	001	0005	2178	2179
TLFRML	001	0007	2179	2180
TLRTC	001	0008	2180	
TLTOA	001	0003	2177	2178
TLTOL	001	0001	2176	2177
TNTAM	001	0008	2158	
TNTATT	001	47B1	0479	0480
TNTBLK	001	0040	2155	3253
TNTCCP	001	0000	2141	2142 2165 3187
TNTFLG	001	0008	2153	2161 3253 3376
TNTIID	001	0006	2148	2149
TNTKNS	001	0020	2156	3376
TNTLN	001	000B	2165	3207
TNTMCT	001	0009	2161	2164
TNTMNO	001	0007	2149	
TNTNAM	001	0005	2142	2143 3191 3297 3916 3939
TNTOUT	001	0080	0524	
TNTPRI	001	0080	2154	
TNTRPT	001	0004	2159	
TNTR5	001	0010	2157	
TNTSTP	001	0000	2166	3187
TNTSTT	001	000A	2164	2165
TNTTNT	001	0007	2145	
TNTTUB	001	0007	2143	2145 2148 2153 3312 3325 3377
TTBSIO	001	00FB	0096	
TTDFEN	001	00FC	0100	
TTDFEX	001	00FE	0101	
TTFREE	001	00E9	0093	
TTGETM	001	00E8	0092	
TTII	001	00EC	0097	3220 3802
TTIIRT	001	00EE	0099	3787 4157
TTIS	001	00ED	0098	4065
TTMOPN	001	00EA	0094	
TTMSIO	001	00EB	0095	
TTTRAN	001	00E7	0091	
TUB@SL	001	0040	1819	
TUBAER	001	0010	1873	
TUBALC	001	0008	1859	3387
TUBALL	001	0040	1901	
TUBAPP	001	0002	1850	
TUBAPT	001	000A	1931	
TUBAT1	001	000B	1827	1837 3291 3396 3524 3650 4004
TUBAT2	001	000C	1837	1854 3418 3430 3432 3531 3613 3713* 3905* 3989* 3990* 4082 4104*
TUBAT3	001	000D	1854	1869 3387 3772*
TUBAT4	001	000E	1869	1880 3932 3980 4005
TUBBKF	001	0022	1915	
TUBBPT	001	0001	1811	
TUBBSY	001	0002	1876	
TUBCAS	001	0022	1917	1920
TUBCCP	001	0000	1793	1794
TUBCHN	001	0080	1870	3932 3980 4005
TUBCHR	001	000A	1817	1827 3463 3556 3595
TUBCLR	001	0080	1803	

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TUBCMA  001  001C 1905   1908
TUBCMD  001  0040 1839   3430  3990
TUBCMN  001  0008 1822
TUBCNC  001  0020 1857
TUBCON  001  0000 1921
TUBCPU  001  0008 1929   4110
TUBDCH  001  0026 1938
TUBDLN  001  002E 1894
TUBDM@  001  0007 1798   1800
TUBDME  001  0040 1804
TUBDMF  001  0020 1805
TUBDPL  001  001B 1893   1894
TUBDPY  001  0040 1829
TUBDTA  001  0080 1838   3430  3989  4082
TUBDTF  001  0016 1886
TUBEMS  001  0008 1874
TUBER@  001  0005 1797   1798
TUBERP  001  0010 1858
TUBFSB  001  001A 1888   1898
TUBID   001  0001 1794   1796
TUBIIQ  001  0008 1847   3905
TUBIIS  001  0010 1846   3432  3713  3905  4104
TUBIMI  001  0020 1845   3418  3989
TUBINP  001  0001 1825
TUBINQ  001  0010 1880   1882  3910
TUBKNM  001  0080 1828   3524  3650  4004
TUBLCB  001  0016 1885   1886  1887  3614  4008
TUBLN   001  0027 1940   1948
TUBLNC  001  003A 1948
TUBLNE  001  0080 1818   3556  3595
TUBLOP  001  0080 1900
TUBMCT  001  0004 1823
TUBMLT  001  0001 1922
TUBNID  001  0010 1821
TUBNPT  001  000B 1932
TUBOFF  001  0001 1835
TUBOLT  001  0004 1849
TUBONL  001  0020 1830   3396
TUBOTC  001  001B 1898   1905
TUBOUT  001  0002 1824
TUBOWN  001  0001 1851   3531  3613
TUBPCB  001  0004 1875
TUBPCS  001  0024 1935   1936  1937
TUBPHY  001  0023 1920   1935  4110
TUBPIL  001  0026 1937   1938  1940  1944  3559*
TUBPL   001  0027 1944   4090* 4091
TUBPL@  001  0003 1796   1797
TUBPNM  001  001A 1892   1893  3934
TUBPRG  001  0002 1810
TUBPST  001  0014 1884
TUBQUE  001  0008 1832
TUBRCL  001  0021 1912   1913  1915  3547  3597
TUBREQ  001  0004 1833   3291
TUBRTY  001  0080 1855
TUBRUF  001  0004 1809
TUBSCS  001  0009 1802   1813
```

```
SYMBOL  LEN VALUE DEFN   REFERENCES
TUBSGN  001  0010 1831
TUBSID  001  0008 1800   1802
TUBSPF  001  0040 1856   3772
TUBSPP  001  0002 1865
TUBSSP  001  0008 1808
TUBSTP  001  00FF 1953
TUBSWA  001  0010 1806
TUBSWC  001  0002 1834
TUBSWL  001  0001 1867   3772
TUBTAS  001  001D 1908   1910  1917
TUBTA1  001  001E 1910   1911  3555  3629
TUBTA2  001  001F 1911   1912  3546  3596
TUBTCB  001  0012 1882   1883  3386
TUBTMA  001  0009 1813   1817
TUBTNR  001  000F 1902
TUBTNT  001  0018 1887   1888  3296  3402  3915  3938
TUBTRM  001  0040 1871
TUBTUB  001  0014 1883   1884  1885  1892  3987*
TUBTYP  001  0020 1820
TUBVCS  001  0021 1913
TUBVFP  001  0004 1864
TUBVHR  001  0025 1936
TUBWAT  001  0001 1877
TUBYUK  001  0020 1872
TUB105  001  0002 1923
TUB374  001  0009 1930
TUB375  001  0007 1928
TUB5M1  001  0005 1926
TUB5M2  001  0006 1927
TUB7M1  001  0003 1924
TUB7M2  001  0004 1925
UNCON   001  00FF 0061
USECW   001  4694 0244   0245
WAIT    001  0080 0040
WAITIM  001  47CA 0493   0494
WATIME  001  47A1 0280   0281
X$FFFF  001  4639 0180   0183  3700
X$0000  001  4632 0176   0177  3522  3583
X$0001  001  4633 0177   0178  3627  3703  3904  3982  4009  4033  4035
X$0002  001  4635 0178   0179
X$0004  001  4637 0179   0180
XR1     001  0001 0045   3130* 3132  3184* 3187  3191  3207  3207* 3253  3274* 3275  3283  3285*
                        3289  3290  3290* 3291  3296  3296* 3297  3312  3324  3325  3338  3350*
                        3351  3356  3365* 3376  3377  3377* 3386  3387  3396  3402  3418  3430
                        3432  3463  3524  3531  3546  3547  3555  3556  3559  3595  3596  3597
                        3613  3614  3614* 3615  3616  3626* 3627  3628* 3629  3649* 3650  3663*
                        3667  3670  3673  3675  3677  3678  3679  3691  3692  3694  3694  3697
                        3698  3699  3703  3705  3713  3724* 3725  3726  3726  3727  3728  3728
                        3729  3747* 3748  3748* 3766* 3767  3768  3769  3771* 3772  3832* 3833
                        3834  3844* 3848  3849* 3850  3850* 3872  3873  3889* 3891  3903* 3904
                        3908* 3909  3909* 3910  3912* 3913  3916  3926  3927  3927* 3928  3929
                        3930  3931  3931* 3934  3939  3966* 3967  3967* 3975* 3976  3977  3979*
                        3980  3987  3988  3989  3990  4003* 4004  4005  4008  4008* 4009  4011*
                        4012  4014  4014* 4019  4021* 4043  4063* 4082  4090  4091  4093* 4104
                        4110  4112* 4113  4145* 4148  4158* 4160  4161  4162  4162*
XR2     001  0002 0046   3123  3131  3134  3144  3144  3145  3145  3148  3151  3154  3158  3162
```

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                         3165  3170  3171  3185  3185* 3191  3197* 3198  3198  3199  3218* 3222
                         3231  3238  3238* 3239  3239* 3240  3241  3252  3252* 3297  3320* 3325
                         3334  3335  3338  3365  3366  3398  3438  3447  3460  3479  3488  3489
                         3491  3493  3507  3518  3522  3530  3547  3560  3561  3579  3583  3597
                         3608  3618  3628  3631  3649  3660* 3661  3661* 3662  3669  3672  3673
                         3675  3677  3678  3679  3695  3697  3698* 3699* 3700* 3701  3705* 3711
                         3714  3716  3716  3725  3727  3729* 3738* 3753  3754* 3755  3755* 3767
                         3768  3769* 3771  3780  3804  3844  3848* 3860  3877  3886  3890  3891
                         3901  3902  3902* 3905  3910  3915  3915* 3916  3925* 3926  3928  3930*
                         3932  3934  3938  3938* 3939  3942* 3946* 3947  3947  3948  3948* 3949
                         3949  3954* 3976  3977  3979  3982  3984  4003  4019  4020  4020  4041
                         4042* 4043  4044  4045  4053* 4054  4054  4055  4055  4057  4059  4063
                         4077  4078  4079  4085  4086  4090  4091* 4093  4097  4098  4099  4107
                         4108  4112  4115  4116  4117  4133  4143  4145  4161*
XSNTHT   001  0014 2232  2818
XSNT1    001  000F 2227  2657
XSNT2    001  0010 2228  2660
XSNT3    001  0011 2229  2703

TOTAL STATEMENTS IN ERROR IN THIS GENERATION--     0

OL103 I  TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS   13
         NAME-$CC4#1,PACK-R2R2R2,UNIT-R1,RETAIN-P,LIBRARY-R,CATEGORY-000
OL105 I  THE CODE LENGTH OF $CC4#1 IS  2213 DECIMAL.
```

```
  1 CT EJ    I               $CGDRV01
PROGRAM END
```

```
XX   CALL  $CC1L1,R1          *** CREATE $CC4#1                                CCP00448
***  USE THE OVERLAY LINKAGE EDITOR TO FORM THE FIRST RESIDENT MODULE         CCP00190
***  AS A LOAD MODULE NAMED $CC4#1.                                           CCP00191
*                                                                             CCP00192
XX LOAD  $OLINK,R1                                                           CCP00193
XX FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-100,RETAIN-S,               CCP00194
XX       SHARE-NO                                                            CCP00195
XX FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-040,RETAIN-S,                 CCP00196
XX       SHARE-NO                                                            CCP00197
XX RUN                                                                       CCP00198
// OPTIONS  ENTRY-$CC4II,MAP-XREF,LEVEL-4                                    CCP00199
// PHASE  NAME-$CC4#1,UNIT-F2,RETAIN-R,LINKADD-X'4600',RLD-NO                CCP00200
// CATEGORY NAME-$CC4V1,VALUE-100                                            CCP00201
// INCLUDE  NAME-'$CC4#1,$CC4MS,$CC4V1',UNIT-R1                              CCP00202
// INCLUDE  NAME-$CC4MV,UNIT-R1                                              CCP00203
// INCLUDE  NAME-$CC4TI,UNIT-R1                                              CCP00204
// INCLUDE  NAME-$CC4OC,UNIT-R1                                              CCP00205
// INCLUDE  NAME-$CC4CP,UNIT-R1                                              CCP00206
// INCLUDE NAME-$CC4PI,UNIT-R1                                               CCP00207
// END                                                                       CCP00208
```

OVERLAY LINKAGE EDITOR CORE USAGE MAP AND CROSS REFERENCE LIST 08/08/10

START ADDRESS	CATEGORY	NAME AND ENTRY	CODE LENGTH HEXADECIMAL	DECIMAL	REFERENCED BY
4600	0	$CC4#1	08A5	2213	
4600		$CCCOM			$CC4V1
480A		$CC4II			$CC4PI $CC4V1
4937		IISTNT			$CC4V1
495F		IIBTCB			$CC4V1
4A23		IIVLNN			$CC4V1
4A37		IIVLNP			$CC4V1
4A40		IIIOL			$CC4V1
4A81		IIVLNI			$CC4V1
4AA6		IIINRT			$CC4V1
4AC2		IINDPD			$CC4V1
4AE1		IIIREQ			$CC4V1
4B65		IIUPST			$CC4V1
4BBB		IIREND			$CC4V1
4BD5		IITEND			$CC4V1
4CB1		IINDFF			$CC4V1
4D14		IIQSUB			$CC4V1
4D4C		$CC4IS			$CC4V1
4DBD		ISREQ1			$CC4V1
4E52		IIVTBL			$CC4V1
4EA5	0	$CC4MS	029C	668	$CC4#1 $CC4V1
4EA5		$CC4GM			$CC4#1 $CC4PI
4F93		$CC4FM			$CC4#1 $CC4PI
5141	0	$CC4MV	011F	287	$CC4#1
5141		$CC4MX			$CC4V1 $CC4#1 $CC4PI
5260	0	$CC4CP	0016	22	$CC4V1 $CC4#1
5276	0	$CC4TI	0246	582	$CC4V1 $CC4#1
52E8		CC4TI1			$CC4PI
5344		CC4TI2			$CC4#1 $CC4OC
53F8		$CC4TM			$CC4#1
5416		CC4TH			$CC4MS $CC4#1
54BC	0	$CC4PI	02F2	754	$CC4CP $CC4OC $CC4V1 $CC4#1
54BC		$CC4TA			$CC4CP $CC4OC $CC4TI
54FC		$CC4TX			$CC4#1
55E7		$CC4TR			$CC4#1
562B		XSNT1			$CC4TI $CC4#1
564A		XSNT2			$CC4#1
566A		XSNT3			$CC4#1
5647		XSNTTI			$CC4TI
55E1		XSNTHT			$CC4#1
5649		XSNTCP			$CC4TI
577B		$CCINT			$CC4#1
56B3		$CC4IG			$CC4#1
57AE	0	$CC4OC	0012	18	$CC4V1 $CC4#1 $CC4PI
57C0	0,100	$CC4V1	0070	112	$CC4#1
57C0		MAINT1			
57F2		ADDRS1			$CC4#1

OL100 I THE TOTAL CORE USED BY $CC4#1 IS 4656 DECIMAL.
OL107 I THE PARTITION SIZE REQUIRED TO EXECUTE THIS PROGRAM IS 08K.
OL101 I THE START CONTROL ADDRESS OF THIS MODULE IS 480A.
OL104 I TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS   19
         NAME-$CC4#1,PACK-F2F2F2,UNIT-F2,RETAIN-P,LIBRARY-O

```
  1 CT EJ    I               $OLINK01
PROGRAM END
```

```
XX   CALL  $CC1VT,R1          *** EXPAND $CC4VT MACROS                    CCP00449
***  USE THE MACRO PROCESSOR TO EXPAND SOURCE CODE OF THE ADDRESS        CCP00211
***  VECTOR TABLE - $CC4VT                                               CCP00212
*                                                                        CCP00213
XX LOAD  $MPXDV,R1                                                       CCP00214
XX FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-50,RETAIN-T,            CCP00215
XX       SHARE-NO                                                        CCP00216
XX COMPILE UNIT-R1,SOURCE-$CC1VT                                         CCP00217
XX RUN                                                                   CCP00218
```

```
  1 CT EJ    I               $MPXDV01
PROGRAM END
```

```
XX   CALL  $CC1VS,R1          *** ASSEMBLEC$CC4VT                          CCP00450
***  USE THE SCP GENERATOR TO PROCESS THIS SOURCE CODE INTO A             CCP00231
***  RELOCATABLE MODULE - $CC4VT                                          CCP00232
*                                                                         CCP00233
XX LOAD  $CGDRV,R1                                                        CCP00234
XX SWITCH  1XXXXXXX                                                       CCP00235
XX FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,RETAIN-S,                       CCP00236
XX       SHARE-NO                                                         CCP00237
XX FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-040,RETAIN-S,              CCP00238
XX       SHARE-NO                                                         CCP00239
XX FILE  NAME-$WORK2,UNIT-D1,PACK-PID001,TRACKS-040,RETAIN-S,             CCP00240
XX       SHARE-NO                                                         CCP00241
XX RUN                                                                    CCP00242
```

```
$CC4VT                          EXTERNAL SYMBOL LIST

SYMBOL   TYPE                                          SCP GENERATOR  08/08/10  PAGE   1

$CC4VT   MODULE
$CC4DF   EXTRN
$CC4#2   EXTRN
$CC4FR   EXTRN
ADDRS2   EXTRN
$CC4IB   EXTRN
$CC4BT   EXTRN
$$BSMS   EXTRN
$CC4M1   EXTRN
$$BSAT   EXTRN
$$BSMA   EXTRN
$$BSMB   EXTRN
$$BSMC   EXTRN
$$BSMD   EXTRN
$$BSMF   EXTRN
$$BSLG   EXTRN
CMCLOZ   EXTRN
MSBSSA   EXTRN
$CC4IM   EXTRN
$$MLRR   EXTRN
$$MLDI   EXTRN
$$MLIA   EXTRN
$$MLIB   EXTRN
$$MLIC   EXTRN
$$MLID   EXTRN
$$MLIF   EXTRN
$$MLIG   EXTRN
MLTOP1   EXTRN
MLTSP0   EXTRN
MLTIO1   EXTRN
$$MLTB   EXTRN
$$MLTC   EXTRN
$$MLTD   EXTRN
$$MLTF   EXTRN
$$MLTG   EXTRN
$$MLTH   EXTRN
$$MLTI   EXTRN
$$MLTL   EXTRN
$$MLTM   EXTRN
$$MLTO   EXTRN
$$MLTP   EXTRN
$CC4V2   EXTRN
```

```
$CC4VT ADDRESS -- VECTOR -- TABLE

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE   2

    0000                          2 $CC4VT START 0                                                    CCP00222
                                  3 *      $E000 #M-0,#B-1,DF-0,DE-0,MS-0                             CCP00223
                                  4 *      $E002 ML-00,MT-000,MF-0,MS-0                               CCP00224
                                  5 *      $E003 BL-0010,BF-00100100,BT-0100010000000000,INP-1,BIA-1,BY-0   CCP00225
                                  6 *      $E005 AP-0,CP-0,TK-0,PP-0,CS-0                             CCP00226
                                  7 *      $E033 MD1-00000000,MD2-00000000,MD3-0000,BF-00100100       CCP00227
```

```
                                 9+*****************************************************************
                                10+*           C O M M U N I C A T I O N S   P O I N T E R S       *
                                11+*****************************************************************


                                13+* THE FOLLOWING TABLE CONTAINS ADDRESSES WHICH MUST BE SET INTO
                                14+*   DTF'S DURING STARTUP.  THE TABLE CONTAINS NON-ZERO VALUES IF:
                                15+*
                                16+*    . DFF IS SUPPORTED

                                18+*    . MLTA IS SUPPORTED

                                20+*    . BSCA IS SUPPORTED WITH RESIDENT POLLING
                                21+*    . BSCA IS SUPPORTED WITH AUTO-RESPONSE

                                23+***** NOTE - DO NOT CHANGE ORDER OF THESE EXTRNS WITHOUT CHANGING *****
                                24+*****        MODULE $CC4V2.                                      *****

                         0001   26+       EXTRN $CC4DF(3)               DFF-YES
                         0002   27+       EXTRN $CC4#2(3)               COMMUNICATIONS MANAGEMENT
                         0003   28+       EXTRN $CC4FR(3)               TP REQUEST PARM LIST FREEMAIN
                         0004   29+       EXTRN ADDRS2(3)               MAINTENANCE AREA TABLE ADDRESS
                         0005   30+       EXTRN $CC4IB(3)               BSCA INTERRUPT HANDLER EXIT
                         0006   31+       EXTRN $CC4BT(3)               BSCA
                         0007   32+       EXTRN $$BSMS(3)               BSCA
                         0008   33+       EXTRN $CC4M1(3)               BSCA - 3270 ONLY VERSION
                         0009   34+       EXTRN $$BSAT(3)               TWO BSCA LINES
                         000A   35+       EXTRN $$BSMA(3)               RESPOL-YES
                         000B   36+       EXTRN $$BSMB(3)               RESPOL-YES
                         000C   37+       EXTRN $$BSMC(3)               RESPOL-YES
                         000D   38+       EXTRN $$BSMD(3)               AUTORS-YES
                         000E   39+       EXTRN $$BSMF(3)               RESPOL-YES
                         000F   40+       EXTRN $$BSLG(3)               RESPOL-YES
                         0010   41+       EXTRN CMCLOZ(3)               ADDR FOR C/S OF CLOSE,OPEN
                         0011   42+       EXTRN MSBSSA(3)               ADDR OF ENTRY POINT FOR TRACE
                         0012   43+       EXTRN $CC4IM(3)               MLTA INTERRUPT HANDLER EXIT
                         0013   44+       EXTRN $$MLRR(3)               MLTA-YES
                         0014   45+       EXTRN $$MLDI(3)               MLTA-YES
                         0015   46+       EXTRN $$MLIA(3)               MLTA-YES
                         0016   47+       EXTRN $$MLIB(3)               CS-YES
                         0017   48+       EXTRN $$MLIC(3)               CS-YES
                         0018   49+       EXTRN $$MLID(3)               CHECKING TERMINALS
                         0019   50+       EXTRN $$MLIF(3)               SW TERMINALS
                         001A   51+       EXTRN $$MLIG(3)               CHECKING TERMINALS
                         001B   52+       EXTRN MLTOP1(3)               MLTA OPEN
                         001C   53+       EXTRN MLTSP0(3)               MLTA COMMON
                         001D   54+       EXTRN MLTIO1(3)               MLTA IOCS
                         001E   55+       EXTRN $$MLTB(3)               1050D
                         001F   56+       EXTRN $$MLTC(3)               2740/2740S/2740M2S(B)
                         0020   57+       EXTRN $$MLTD(3)               2740
                         0021   58+       EXTRN $$MLTF(3)               2740D
                         0022   59+       EXTRN $$MLTG(3)               2740C/SYS7C
                         0023   60+       EXTRN $$MLTH(3)               2740DC/SYS7DC
                         0024   61+       EXTRN $$MLTI(3)               2740DT
                         0025   62+       EXTRN $$MLTL(3)               2740DTC
                         0026   63+       EXTRN $$MLTM(3)               2740(M2)SC(B)/SYS7SC
```

```
                          0027   64+       EXTRN $$MLTO(3)                2741
                          0028   65+       EXTRN $$MLTP(3)                2741D/CMSTD
                          0029   66+       EXTRN $CC4V2(3)                MAINTENANCE AREA MODULE
```

```
$CC4VT COMMUNICATIONS INITIALIZATION POINTERS

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE   5

    0000 0000             0001   68+       DC    XL2'00'                  NO DFF SUPPORT.
                                 69+*      BSCA ENTRY POINTS

    0002 0005             0003   71+       DC    AL2($CC4IB)              ADDRESS OF $CC4IB IN LOAD MOD

    0004 0000             0005   73+       DC    XL2'00'                  IF NO AUTORS
    0006 00000000         0009   74+       DC    XL4'00'                  IF NO RESPOL

    000A 0010             000B   76+       DC    AL2(CMCLOZ)              ADDRESS OF WHERE STARTUP MUST
                                 77+*                                     PUT C/S FOR OPEN/CLOSE XIENTS

    000C 0011             000D   79+       DC    AL2(MSBSSA)              ADDRESS OF BSCA TRACE EXTRN

    000E 0003             000F   81+       DC    AL2($CC4FR)

    0010 0004             0011   83+       DC    AL2(ADDRS2)              ADDRESS OF PTF TABLE FOR #2
    0012 0002             0013   84+       DC    AL2($CC4#2)              END ADDRESS OF DFF CODE

    0014 00               0014   86+       DC    XL1'00'                  *** TABLE STOPPER ***

                          0000   88        END   $CC4VT                                                CCP00228
```

```
$CC4VT                          CROSS REFERENCE

SYMBOL   LEN VALUE DEFN   REFERENCES                              SCP GENERATOR  08/08/10  PAGE   6

$$BSAT   001  0009 0034
$$BSLG   001  000F 0040
$$BSMA   001  000A 0035
$$BSMB   001  000B 0036
$$BSMC   001  000C 0037
$$BSMD   001  000D 0038
$$BSMF   001  000E 0039
$$BSMS   001  0007 0032
$$MLDI   001  0014 0045
$$MLIA   001  0015 0046
$$MLIB   001  0016 0047
$$MLIC   001  0017 0048
$$MLID   001  0018 0049
$$MLIF   001  0019 0050
$$MLIG   001  001A 0051
$$MLRR   001  0013 0044
$$MLTB   001  001E 0055
$$MLTC   001  001F 0056
$$MLTD   001  0020 0057
$$MLTF   001  0021 0058
$$MLTG   001  0022 0059
$$MLTH   001  0023 0060
$$MLTI   001  0024 0061
$$MLTL   001  0025 0062
$$MLTM   001  0026 0063
$$MLTO   001  0027 0064
$$MLTP   001  0028 0065
$CC4#2   001  0002 0027   0084
$CC4BT   001  0006 0031
$CC4DF   001  0001 0026
$CC4FR   001  0003 0028   0081
$CC4IB   001  0005 0030   0071
$CC4IM   001  0012 0043
$CC4M1   001  0008 0033
$CC4VT   001  0000 0002   0088
$CC4V2   001  0029 0066
ADDRS2   001  0004 0029   0083
CMCLOZ   001  0010 0041   0076
MLTIO1   001  001D 0054
MLTOP1   001  001B 0052
MLTSP0   001  001C 0053
MSBSSA   001  0011 0042   0079

TOTAL STATEMENTS IN ERROR IN THIS GENERATION--     0

OL103 I  TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS    3
         NAME-$CC4VT,PACK-R2R2R2,UNIT-R1,RETAIN-P,LIBRARY-R,CATEGORY-000
OL105 I  THE CODE LENGTH OF $CC4VT IS    21 DECIMAL.
```

```
  1 CT EJ    I               $CGDRV01
PROGRAM END
```

```
XX   CALL  $CC1#2,R1          *** EXPAND $CC4#2 MACROS                    CCP00451
***  USE THE MACRO PROCESSOR TO EXPAND SOURCE CODE OF THE SECOND         CCP00245
***  RESIDENT MODULE - $CC4#2                                            CCP00246
*                                                                        CCP00247
XX LOAD  $MPXDV,R1                                                       CCP00248
XX FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-180,RETAIN-T,           CCP00249
XX       SHARE-NO                                                        CCP00250
XX COMPILE UNIT-R1,SOURCE-$CC1#2                                         CCP00251
XX RUN                                                                   CCP00252
```

```
  1 CT EJ    I               $MPXDV01
PROGRAM END
```

```
XX   CALL  $CC1#B,R1          *** ASSEMBLE $CC4#2                          CCP00452
***  USE THE SCP GENERATOR TO PROCESS THIS SOURCE CODE INTO A             CCP00296
***  RELOCATABLE MODULE - $CC4#2                                          CCP00297
*                                                                         CCP00298
XX LOAD  $CGDRV,R1                                                        CCP00299
XX SWITCH  1XXXXXXX                                                       CCP00300
XX FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,RETAIN-S,SHARE-NO               CCP00301
XX FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-050,RETAIN-S,              CCP00302
XX       SHARE-NO                                                         CCP00303
XX FILE  NAME-$WORK2,UNIT-D1,PACK-PID001,TRACKS-050,RETAIN-S,             CCP00304
XX       SHARE-NO                                                         CCP00305
XX RUN                                                                    CCP00306
```

$CC4#2	MODULE
CMBEG	ENTRY
$CC4CM	ENTRY
$CC4FR	ENTRY
$$BMCH	ENTRY
CHBMHL	ENTRY
CHBMBS	ENTRY
SAVCAT	ENTRY
$$BSMS	EXTRN
$CC4BT	EXTRN
$CC4M1	EXTRN
$CC4M2	EXTRN

```
$CC4#2 BEGIN CCP COMMUNICATIONS CONTROL MODULE

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE   2

    0000                          2 $CC4#2 START 0                          CCP COMMUNICATIONS CNTRL MODULE  CCP00256
                                  3 *      $E000 #M-0,#B-1,DF-0,DE-0,MS-0,RF-0,RS-0                          CCP00257
                                  4 *      $E002 ML-00,MT-000,MF-0,MS-0                                      CCP00258
                                  5 *      $E003 BL-0010,BF-00100100,BT-0100010000000000,INP-1,BIA-1,BY-0    CCP00259
                                  6 *      $E004 CS#-0,CSI-0,CT-0000000000000000,CSF-00000000,SIOC-0         CCP00260
                                  7 *      $E005 AP-0,CP-0,TK-0,PP-0,CS-0                                    CCP00261
```

```
                                9 *      $EEQU                                                          CCP00263
                               10+*************************************************************************
                               11+*                        C O M M O N   S Y M B O L S                  *
                               12+*************************************************************************



                               14+* EQUATES FOR BITS WITHIN A BYTE
                         0080  15+BIT0   EQU   X'80'                      BIT X... ....
                         0040  16+BIT1   EQU   X'40'                      BIT .X.. ....
                         0020  17+BIT2   EQU   X'20'                      BIT ..X. ....
                         0010  18+BIT3   EQU   X'10'                      BIT ...X ....
                         0008  19+BIT4   EQU   X'08'                      BIT .... X...
                         0004  20+BIT5   EQU   X'04'                      BIT .... .X..
                         0002  21+BIT6   EQU   X'02'                      BIT .... ..X.
                         0001  22+BIT7   EQU   X'01'                      BIT .... ...X

                         0000  24+NOBIT  EQU   X'00'                      *NO* BITS ON WITHIN BYTE
                         00FF  25+ALLBIT EQU   X'FF'                      *ALL* BITS WITHIN BYTE

                               27+* SYSTEM DETECTED ERROR CONDITIONS *
                         0000  28+TIFE   EQU   0                          FREEMAIN ERROR
                         0001  29+TIBC   EQU   TIFE+1                     BAD START CODE
                         0002  30+TIRC   EQU   TIBC+1                     BAD RETURN CODE
                         0003  31+TITR   EQU   TIRC+1                     TRANSLATE ERROR
                         0004  32+TIYA   EQU   TITR+1                     NO USER SECURITY
                         0005  33+TIAC   EQU   TIYA+1                     ADAPTER CHECK
                         0006  34+TISS   EQU   TIAC+1                     BAD SENSE STATUS
                         0007  35+TICS   EQU   TISS+1                     PERMANENT BSCC ERROR
                         0008  36+TICR   EQU   TICS+1                     INVALID BSCC RETURN CODE
                         0009  37+TINS   EQU   TICR+1                     STATUS NOT RECEIVED FROM 3270

                         0080  39+WAIT   EQU   BIT0                       WAIT BIT IN ECB
                         0040  40+POST   EQU   BIT1                       POST BIT IN ECB
                         0020  41+SKIP   EQU   BIT2                       SKIP BIT IN ECB



                               43+* REGISTER EQUATES
                         0001  44+XR1    EQU   1                          INDEX REGISTER ONE
                         0002  45+XR2    EQU   2                          INDEX REGISTER TWO
                         0004  46+PSR    EQU   4                          PROGRAM STATUS REGISTER
                         0008  47+ARR    EQU   8                          ADDRESS RECALL REGISTER
                         0010  48+IAR    EQU   16                         PROGRAM LEVEL IAR
                         0030  49+PMR    EQU   48                         PROGRAM MODE REGISTER
                         0040  50+LCPPMR EQU   64                         PROGRAM MODE REG FOR LCP INSTR.

                         0080  52+LVIIAR EQU   X'80'                      DPF INTERRUPT LEVEL IAR
                         0090  53+LVMIAR EQU   X'90'                      MLTA INTERRUPT LEVEL IAR
                         00A0  54+LVBIAR EQU   X'A0'                      BSCA INTERRUPT LEVEL IAR
                         00C0  55+LVCIAR EQU   X'C0'                      CONSOLE INTERRUPT LEVEL IAR



                               57+* Q-BYTE EQUATES FOR BRANCH/NOP
                         0007  58+NOP    EQU   X'07'                      NO-OP
                         0080  59+NOOP   EQU   X'80'                      NO-OP
                         00FF  60+UNCON  EQU   X'FF'                      ALWAYS BRANCH
                         0080  61+BRNOP  EQU   X'80'                      BRANCH NO-OP
```

```
                      0087   62+BR     EQU   X'87'                    ALWAYS BRANCH
                      0097   63+BR97   EQU   X'97'                    BRANCH AND RESET FALSE BIT

                             65+* EQUATES FOR MODIFIED FIELDS IN AN INSTRUCTION

                      0000   67+#      EQU   X'00'                    ANY FIELD
                      0000   68+##     EQU   X'00'                    SINGLE-BYTE FIELD
                      0000   69+###    EQU   X'00'                    ONE- OR TWO-BYTE FIELD
                      0000   70+####   EQU   X'0000'                  TWO-BYTE FIELD


                             72+* CONDITION CODE EQUATES
                      0080   73+ANY    EQU   X'80'                    IF *ANY* CONDITION HOLDS
                      0000   74+NONE   EQU   X'00'                    IF *NO* CONDITION HOLDS
                      0020   75+BOVFL  EQU   X'20'                    BINARY OVERFLOW
                      0010   76+FALSE  EQU   X'10'                    FALSE
                      0008   77+DOVFL  EQU   X'08'                    DECIMAL OVERFLOW
                      0004   78+HI     EQU   X'04'                    FIRST OPERAND HIGH
                      0002   79+LO     EQU   X'02'                    FIRST OPERAND LOW
                      0001   80+EQ     EQU   X'01'                    OPERANDS EQUAL
                      0070   81+PMRI12 EQU   112                      OP2,OP1,I-CYCLE TRANSLATE
                      0040   82+PMROP2 EQU   64                       OPERAND 2 E-CYCLES TRANSLATION
                      0020   83+PMROP1 EQU   32                       OPERAND 1 E-CYCLES TRANSLATION
                      0010   84+PMRINS EQU   16                       INSTRUCTION-CYCLES TRANSLATION
                      0008   85+PMRPRV EQU   8                        PRIVELEGED
                      0002   86+PMRPRT EQU   2                        STORAGE PROTECT
                      0001   87+PMRINT EQU   1                        MASK INTERRUPTS


                             89+* EQUATES FOR TYPES OF CCP TRACE ENTRIES
                      00E7   90+TTTRAN EQU   X'E7'                    TRACE ID FOR TRANSIENT CALLS
                      00E8   91+TTGETM EQU   X'E8'                    TRACE ID FOR GETMAIN
                      00E9   92+TTFREE EQU   X'E9'                    TRACE ID FOR FREEMAIN
                      00EA   93+TTMOPN EQU   X'EA'                    TRACE ID FOR TP CHECK ROUTINE
                      00EB   94+TTMSIO EQU   X'EB'                    TRACE ID FOR MLTA START IO
                      00FB   95+TTBSIO EQU   X'FB'                    TRACE ID FOR BSCA START IO
                      00EC   96+TTII   EQU   X'EC'                    TRACE ID FOR $CC4II
                      00ED   97+TTIS   EQU   X'ED'                    TRACE ID FOR $CC4IS
                      00EE   98+TTIIRT EQU   X'EE'                    RETURN FROM $CC4II TO USER
                      00FC   99+TTDFEN EQU   X'FC'                    TRACE ID FOR ENTRY TO DFF TASK
                      00FE  100+TTDFEX EQU   X'FE'                    TRACE ID FOR EXIT FROM DFF TASK
```

```
                                102 *      $ECOM ID-0,DF-0,CP-Y,AM-Y,TM-Y,CM-Y                                  CCP00265
                                103+*****************************************************************
                                104+*     C O M M U N I C A T I O N S   C O N T R O L   P R O G R A M     *
                                105+*               C O M M O N   A R E A   O F F S E T S                 *
                                106+*****************************************************************
                           4000 107+TAONE  EQU   X'4000'                    LOCATION OF TRANSIENT AREA 1
                           4300 108+TATWO  EQU   TAONE+768                  LOCATION OF TRANSIENT AREA 2

                           4600 110+$COMON EQU   X'4600'                    ADDRESS OF CCP COMMON


                                112+*-----------ENTRY POINT ADDRESS DEFINITION--------------------------*
                           4601 113+@CC4TR EQU   $COMON-1+2                 TRANSIENT RETURN ADDRESS
                           4603 114+@CC4TX EQU   @CC4TR+2                   TRANSIENT TRANSFER CONTROL @
                           4605 115+@CC4PI EQU   @CC4TX+2                   1ST LEVEL TRANSIENT INVOCATION @
                           4605 116+@CC4TA EQU   @CC4TX+2                   1ST LEVEL TRANSIENT INVOCATION @
                           4607 117+@CC4IS EQU   @CC4TA+2                   COMMUNICATIONS I/O INTERFACE ADR
                           4609 118+@CC4GM EQU   @CC4IS+2                   GETMAIN ENTRY ADDRESS
                           460B 119+@CC4FM EQU   @CC4GM+2                   FREEMAIN ENTRY ADDRESS
                           460D 120+@MLTIO EQU   @CC4FM+2                   MLTA IOCS ENTRY POINT @.
                           460F 121+@MLTOP EQU   @MLTIO+2                   MLTA OPEN ENTRY POINT @.
                           4611 122+@USECW EQU   @MLTOP+2                   USER SECURITY DATA WORK AREA ADR
                           4613 123+@CC4MX EQU   @USECW+2                   MOVE FOREVER ROUTINE ADDRESS
                           4615 124+@C4TI2 EQU   @CC4MX+2                   PROGRAM TERMINATION INTERFACE @
                           4617 125+@CC4TI EQU   @C4TI2+2                   OTHER TASK TERMINATE ADDRESS
                           4619 126+@CC4SR EQU   @CC4TI+2                   ENTRY ADDRESS IN MOVE ROUTINE
                           461B 127+@CC4TH EQU   @CC4SR+2                   @ TERMINATION INTERFACE
                           461D 128+@BTRAC EQU   @CC4TH+2                   CCP BSCA TRACE ROUTINE
                           461F 129+@MTRAC EQU   @BTRAC+2                   CCP MLTA TRACE ROUTINE


                                131+*------------TRANSIENT COMMUNICATION AREA-----------------------------*
                           4621 132+SV1TAX EQU   @MTRAC+2                   TRANSIENT AREA 1 PARAMETER AREA
                           4623 133+SV2TAX EQU   SV1TAX+2                   TRANSIENT AREA 2 PARAMETER AREA


                                135+*----------- ADDRESSES OF SYSTEM TASK CONTROL BLOCKS -----------------*
                           4625 136+@CMTCB EQU   SV2TAX+2                   @ COMMUNICATIONS MANAGEMENT TCB
                           4627 137+@DFTCB EQU   @CMTCB+2                   @ OF DISPLAY FORMAT FACILITY TCB
                           4629 138+@TMTCB EQU   @DFTCB+2                   @ TERMINATION TCB
                           462B 139+@CPTCB EQU   @TMTCB+2                   @ COMMAND PROCESSOR TCB
                           462D 140+@AVTCB EQU   @CPTCB+2                   @ AVAILABLE TCB'S
```

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                          142+*----------- SYSTEM LEVEL FLAGS ---------------------------------------*
                    462E  143+$FLGA  EQU   @AVTCB+1                 FIRST SYSTEM LEVEL FLAG BYTE
                    0080  144+#DFFOK EQU   BIT0                     DFF IS SUPPORTED
                    0040  145+CPSOB1 EQU   BIT1                     SIGN ON PASSWORD REQUIRED
                    0020  146+CPSOB2 EQU   BIT2                     SIGN ON USER PASSWORD REQUIRED
                    0010  147+CPSHUT EQU   BIT3                     SHUTDOWN HAS BEEN REQUESTED
                    0008  148+CPSU   EQU   BIT4                     STARTUP IS IN PROCESS
                    0004  149+#EPL   EQU   BIT5                     EXT POINT LIST SUPPORTED
                    0002  150+CPSHD  EQU   BIT6                     SHUTDOWN IN PROCESS
                    0001  151+CPISNW EQU   BIT7                     $CC4IS IS NOT TO ISSUE WAIT
                          152+*                                     AFTER POSTING $CC4CM


                    462F  154+$FLGB  EQU   $FLGA+1                  SECOND SYSTEM LEVEL FLAG BYTE
                    0080  155+#SUALL EQU   BIT0                     SUSPEND ALL IN EFFECT
                    0040  156+#SUINT EQU   BIT1                     SUSPEND INIT IN EFFECT
                    0020  157+#SUCMD EQU   BIT2                     SUSPEND COMMANDS IN EFFECT
                    0010  158+CPSHDP EQU   BIT3                     SHUTDOWN IS PENDING
                    0008  159+#FEHLT EQU   BIT4                     FEHALT IS RUNNING
                    0004  160+#RESPR EQU   BIT5                     RESIDENT PROGRAM REQUEST GEN'D
                    0002  161+#CPCAN EQU   BIT6                     CCP CANCEL RECEIVED
                    0001  162+#PUCNT EQU   BIT7                     PROGRAM USE COUNTING IS ON


                    4630  164+$FLGC  EQU   $FLGB+1                  THIRD SYSTEM LEVEL FLAG BYTE
                    0080  165+#MTRAC EQU   BIT0                     MLTA TRACE IS ON
                    0040  166+#BTRAC EQU   BIT1                     BSCA TRACE IS ON
                    0020  167+#NTRAC EQU   BIT2                     NO TRACE FOR CM (INT POLL)
                    0010  168+#PUTTP EQU   BIT3                     PUT ONLY TP GETMAIN REQUEST
                    0008  169+#INVPL EQU   BIT4                     INVITE PL GETMAIN REQUEST
                    0004  170+INTPNO EQU   BIT5                     1=NO INT POLL SUPPORT FOR BSCC
                    0002  171+INTNSP EQU   BIT6                     1=NO INT POLL SUPPORT FOR BSCA
                    0001  172+#NTRCS EQU   BIT7                     NO TRACE FOR CS (INT POLL)


                          174+*----------- SYSTEM CONSTANTS ----------------------------------------*
                    4632  175+X$0000 EQU   $FLGC+2                  CONSTANT XL2'0000'
                    4633  176+X$0001 EQU   X$0000+1                 CONSTANT XL2'0001'
                    4635  177+X$0002 EQU   X$0001+2                 CONSTANT XL2'0002'
                    4637  178+X$0004 EQU   X$0002+2                 CONSTANT XL2'0004'
                    4639  179+X$FFFF EQU   X$0004+2                 CONSTANT XL2'FFFF'
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                               181+*----------- QUEUE ADDRESS POINTERS ----------------------------------*
                          463B 182+@ALOCQ EQU   X$FFFF+2                 Q OF TASKS WAITING TO BE ALLOC'D
                          463D 183+@WATSK EQU   @ALOCQ+2                 ALLOCATE WAIT QUEUE
                          463F 184+@QTUBS EQU   @WATSK+2                 @ Q TUB'S WAITING FOR TCB/CORE
                          4641 185+@GMWTQ EQU   @QTUBS+2                 @ GETMAIN TCB QUEUE
                          4643 186+@DFFQ  EQU   @GMWTQ+2                 QUEUE FOR REQUESTS TO DFF TASK
                          4645 187+@PRLQ  EQU   @DFFQ+2                  @ OF PARAMETER LIST QUED FOR CM


                               189+*----------- LIST ADDRESS POINTERS -----------------------------------*
                          4647 190+@TALST EQU   @PRLQ+2                  @ PROGRAM LIST IN $CC4TA
                          4649 191+@TCORG EQU   @TALST+2                 @ OF THE TCB LIST
                          464B 192+@ROCAT EQU   @TCORG+2                 ATT @ OF RESIDENT OPEN/CLOSE
                          464D 193+@LCB#1 EQU   @ROCAT+2                 @ FIRST LCB IN SYSTEM
                          464F 194+@TUBQ  EQU   @LCB#1+2                 @ OF THE FIRST TUB IN THE SYSTEM
                          4651 195+@EPATR EQU   @TUBQ+2                  ATT @ OF EXTERNAL POINTER LIST
                          4651 196+@DFCT  EQU   @EPATR                   ADDRESS OF SHORT DTF @ LIST
                          4653 197+@TNT   EQU   @EPATR+2                 @ OF 1ST TERMINAL NAME TABLE ENT
                          4655 198+@XDT   EQU   @TNT+2                   @ 1ST SYMBOLIC DFCT NAME ENTRY


                               200+*----------- MAIN STORAGE CONTROL BLOCK(TPBUFF) ----------------------*
                          4656 201+@BUFA  EQU   @XDT-1+2                 @ OF FIRST FREE SEGMENT
                          4659 202+#NBND  EQU   @BUFA+1+2                RESERVED - MUST BE ZEROS
                          465B 203+@LOBND EQU   #NBND+2                  @ LO-BOUND GETMAIN AREA
                          465D 204+@HIBND EQU   @LOBND+2                 @ HI-BOUND GETMAIN AREA
                          465E 205+#GMS   EQU   @HIBND-1+2               SIZE OF LARGEST FREE SPACE


                          4661 207+#TPBUF EQU   #GMS+1+2                 ORIGINAL SIZE OF TPBUFF
                          4662 208+@UPA   EQU   #TPBUF+1                 USER PROGRAM AREA ATR
                          4663 209+#AVCOR EQU   @UPA+1                   # 2K BLOCKS NOT GIVEN TO NEP'S
                          4665 210+@PUCNT EQU   #AVCOR+2                 @ PROGRAM USE COUNT TABLE


                               212+*------------ GENERAL AREAS ------------------------------------------*
                          4667 213+@TUSTG EQU   @PUCNT+2                 @ OF TUB IN STAGING NOW(CP TASK)
                          4669 214+@KNTUB EQU   @TUSTG+2                 @ OF CONSOLE TUB
                          466B 215+@PTX   EQU   @KNTUB+2                 @ OF PCT MASTER INDEX
                          466D 216+@PTXCS EQU   @PTX+2                   C/S VALUE OF PCT DISK START
                          466E 217+#PCTLN EQU   @PTXCS+1                 LONGEST LEN PCT USED BY PGM RQST
                          466F 218+#DFCT  EQU   #PCTLN+1                 NO. ENTRIES IN SHORT DTF @ LIST
                          4670 219+#SETID EQU   #DFCT+1                  ID OF ASSIGNMENT SET IN USE
                          4671 220+#XDT   EQU   #SETID+1                 NUMBER OF SYMFILE STATEMENTS
                          4672 221+#RSVD1 EQU   #XDT+1                   RESERVED AREA - 1 BYTE
                          4673 222+@UALFA EQU   #RSVD1+1                 ATR - UNCHANGING START OF UPA
                          4675 223+@TKFSB EQU   @UALFA+2                 FSB AREA FOR TCB'S

                          4676 225+CPLPWD EQU   @TKFSB+1                 LENGTH OF SIGN ON PASSWORD
                          467C 226+CPPSWD EQU   CPLPWD+6                 CCP SIGN ON PASSWORD


                               228+*----- CCP DUMP AREA DISK ADDRESSES ---------------------------------*
                          467D 229+#DUMPQ EQU   CPPSWD+1                 Q-BYTE OF $CCPDUMP FILE UNIT
                          467F 230+@CPDMP EQU   #DUMPQ+2                 DISK ADDRESS OF $CCPDUMP FILE
                          4682 231+@NDUMP EQU   @CPDMP+3                 DISK ADDRESS OF NEXT DUMP
```

```
$CC4#2 EQUATES -- CCP COMMUNICATIONS AREA

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE   8

                          467E  232+@DSTRT EQU   CPPSWD+2                  DUMP AREA START C/S
                          4680  233+@DEND  EQU   @DSTRT+2                  DUMP AREA END C/S
                          4682  234+@DNEXT EQU   @DEND+2                   DUMP AREA NEXT ENTRY C/S
                          4683  235+#CPFLQ EQU   @NDUMP+1                  $CCPFILE DEVICE Q-BYTE
```

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                        237+*----------- FIXED LOCATIONS OF RESIDENT CODE ------------------------*
                  4684  238+CC4TA  EQU   #CPFLQ+1                  LOAD IAR OF @CC4TA
                  4684  239+CC4PI  EQU   CC4TA                     LOAD IAR OF @CC4PI (@CC4TA)
                  4688  240+CC4IS  EQU   CC4TA+4                   LOAD IAR OF @CC4IS
                  468C  241+CC4GM  EQU   CC4IS+4                   LOAD IAR OF @CC4GM
                  4690  242+CC4FM  EQU   CC4GM+4                   LOAD IAR OF @CC4FM
                  4694  243+USECW  EQU   CC4FM+4                   LOAD IAR OF @USECW
                  4698  244+CC4MX  EQU   USECW+4                   LOAD IAR OF @CC4MX
                  469C  245+C4TI2  EQU   CC4MX+4                   LOAD IAR OF @C4TI2
                  46A0  246+CC4TI  EQU   C4TI2+4                   LOAD IAR OF @CC4TI
                  46A4  247+CC4TT  EQU   CC4TI+4                   LOAD IAR OF $TRACE(X'004C')
                  46A8  248+CC4SR  EQU   CC4TT+4                   LOAD IAR OF @CC4MV
                  46AC  249+CC4FR  EQU   CC4SR+4                   LOAD IAR OF @CC4FR
                  46B1  250+@CC4FR EQU   CC4FR+3+2                 @ OF $CC4FR IN CM
                  46B3  251+@CC4II EQU   @CC4FR+2                  @ OF $CC4II

                        253+*------------- MAINTENANCE SPACE ------------------   2 BYTES -------*

                  46B6  255+$END1  EQU   @CC4II+2+1                END OF MAINTENANCE SPACE


                        257+*------------WORK AREAS LENGTHS DEFINTIONS----------------------------*
                  000F  258+#LDFWK EQU   15                        LENGTH DFF WORK AREA
                  0032  259+#LCPWK EQU   50                        LENGTH COMND PROCESSOR WORK AREA
                  0009  260+#LAMWK EQU   9                         LENGTH ALLOCATION WORK AREA
                  0018  261+#LTMWK EQU   24                        LENGTH TERMINATION WORK AREA
                  002D  262+#LCMWK EQU   45                        LENGTH COMMO MGMT WORK AREA
                  008F  263+#LWKWK EQU   143                       LENGTH-SUM OF ALL WORK AREAS


                        265+*----------- CONSOLE TUB AND PARAMETER LIST --------------------------*
                  4745  266+KNTUB  EQU   $END1+#LWKWK              FIXED LOCATION OF CONSOLE TUB
                  476C  267+KNPL   EQU   KNTUB+39                  CONSOLE PARAMETER LIST


                        269+*----------- SHUTDOWN FIELDS ----------------------------------------*
                  477F  270+SHDECB EQU   KNPL+19                   SHUTDOWN'S ECB
                  4784  271+FEHLT@ EQU   SHDECB+2+3                ADDRESS OF FE HALT ROUTINE
                  478F  272+SHDSAV EQU   FEHLT@+11                 CM TCB FIELDS SAVE AREA


                        274+*----------- CM FIELDS AND MAINTENANCE SPACE -------------------------*
                  4790  275+#CMTRL EQU   SHDSAV-10+11              CM'S TRANSLATE PARAMETER LIST
                  4790  276+#CMMVL EQU   #CMTRL                    CM'S MOVE PARAMETER LIST

                  479E  278+PLTIME EQU   #CMMVL+10+4               POLL TIME FOR CM
                  47A1  279+WATIME EQU   PLTIME+3                  WAIT TIME FOR CM
                  47A2  280+SAVLOP EQU   WATIME+1                  SAVE AREA FOR POLL LOOP COUNT
                  47A4  281+@CCPTB EQU   SAVLOP+2                  ADDRESS OF CCP PARTITION TCB
                  47A6  282+#TPPUT EQU   @CCPTB+2                  LENGTH OF PUT AREA OF TPBUFFER
                  47A8  283+#TPANY EQU   #TPPUT+2                  LENGTH OF COMMON TPBUFFER AREA
                  47A9  284+#ANYS  EQU   #TPANY+1                  SIZE OF LARGEST COMMON AREA
                  47AB  285+CORCNT EQU   #ANYS+2                   NUMBER OF PL WAITING ON CORE
```

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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  10
                          4800  286+@TMIOB EQU   X'4800'                  LOCATION OF SHUTDOWN TIMER IOB
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                        288+************ COMMAND PROCESSOR WORK AREA           50 BYTES************
                   46C5 289+$CPWK  EQU   $END1+#LDFWK              START OF COMMAND
                   46C5 290+$CP    EQU   $CPWK                    PROCESSOR'S WORK AREA


                        292+*----------- COMMAND PROCESSOR ECB LIST ------------------------------*
                   46CA 293+$CPLST EQU   $CP+5                    ECB LIST.  DEFINED AS FOLLOWS:
                        294+*      DC    AL2(@TMECB)              SHUTDOWN TIMER ECB
                        295+*      DC    AL2($CPQ)                PROGRAM INITIATE-POSTED BY TERM
                        296+*      DC    AL2($CPPF9)              PF9 - PROGRAM REQUEST
                        297+*      DC    AL2($CPCM)               DATA IN TP BUFFER FOR CP
                        298+*      DC    AL2($CPOCC)              OCC
                        299+*      DC    AL2($CP1ST/$CPWTO/65535) STARTUP/WTOR/LIST DELIMITER
                        300+*      DC    XL2'FFFF'                LIST DELIMITER

                   0001 302+#CPTMR EQU   1                        OFFSET TO TIMER ECB @
                   0003 303+#CPCPQ EQU   3                        OFFSET TO PROG INIT ECB @
                   0005 304+#CPPF9 EQU   5                        OFFSET TO PF9 ECB @
                   0007 305+#CPCM  EQU   7                        OFFSET TO CM ECB @
                   0009 306+#CPOCC EQU   9                        OFFSET TO OCC ECB @
                   000B 307+#CP1ST EQU   11                       OFFSET TO 1ST ECB @
                   000B 308+#CPWTO EQU   11                       OFFSET TO WTO ECB @
                   000D 309+#CPEND EQU   13                       OFFSET TO END OF @ LIST


                        311+*----------- COMMAND PROCESSOR ECB'S ---------------------------------*
              4807 312+@TMECB EQU   @TMIOB+7                    TIMER ECB LOCATION IN IOB
                   46D8 313+$CPQ   EQU   $CP+19                   PROGRAM INITIATE-POSTED BY TERM
                   46DB 314+$CPPF9 EQU   $CP+22                   PF9 - PROGRAM REQUEST
                   46DE 315+$CPCM  EQU   $CP+25                   DATA IN TP BUFFER FOR CP
                   0048 316+$CPOCC EQU   X'0048'                  OCC - IN THE DSM NUCLEUS
                   46E1 317+$CP1ST EQU   $CP+28                   FIRST TIME SWITCH
                   0000 318+$CPWTO EQU   0                        WTO - GETMAINED FOR IN TPBUFF


                        320+*----------- COMMAND PROCESSOR FLAG BYTE ------------------------------*
                   46E2 321+$CPFLG EQU   $CP+29                   COMMAND PROCESSOR FLAG BYTE
                   0080 322+$CPFR  EQU   BIT0                     FREEMAIN TO BE DONE
                   0010 323+$CPCFR EQU   BIT3                     FREE NEEDED FOR CONSOLE OCC
                   0008 324+$CPDPG EQU   BIT4                     PAGE 1 OF DISPLAY DONE
                   0004 325+$CPD1S EQU   BIT5                     DO SECONDARY MENU
                   0002 326+$CPPAS EQU   BIT6                     ASSIGNMENT/SHUTDOWN INTERLOCK
                   0001 327+$CPFND EQU   BIT7                     ASSIGNMENT/CCPFMT/CCPPGM INTLK

                        329+*----------- COMMAND PROCESSOR TASK TRANSIENT COMMUNICATION AREA -----*
                   46E3 330+$CPPRQ EQU   $CP+30                   LABEL FOR PROGRAM REQUEST

                   46E3 332+$CPCOM EQU   $CP+30                   LABEL FOR COMMANDS
                   46E4 333+$CPRTC EQU   $CP+31                   SAVE AREA FOR PLRTC
                   46E6 334+$CPEFL EQU   $CP+33                   SAVE AREA FOR PLEFFL
                   46E8 335+$CPRCA EQU   $CP+35                   SAVE AREA FOR PLRECA

                        337+*----------- STARTUP VALUES - VALID ONLY DURING STARTUP --------------*
                   46E5 338+$CPMSG EQU   $CP+32                   ADDRSS OF $CC4IG
                   46E7 339+#LSTSZ EQU   $CPMSG+1+1               # ENTRIES IN FIRST LEVEL LIST
                   46E9 340+@XSNT1 EQU   #LSTSZ+2                 ENTRIES IN $CC4PI
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                      46EB  341+@XSNT2 EQU   @XSNT1+2                FOR START-UP
                      46ED  342+@L1TCB EQU   @XSNT2+2                SWITCHED LCB TCB @ FOR LINE 1
                      46EF  343+@L2TCB EQU   @L1TCB+2                SWITCHED LCB TCB @ FOR LINE 2
```

```
                        345+************ ALLOCATION WORK AREA                  9 BYTES************
                        346+$AMWK  EQU   $END1+#LDFWK+#LCPWK      START OF ALLOCATION
                        347+$AM    EQU   $AMWK                    WORK AREA


                        349+$AMFLG EQU   $AM                      ALLOCATION FLAG BYTE
                        350+$AMBSY EQU   BIT0                     1--ALLOCATION BUSY
                        351+$APEND EQU   BIT1                     1--ALLOCATION TASK POST PENDING
                        352+$AMDFF EQU   BIT2                     NON-RESIDENT DFF ALOC IN PROCESS
                        353+$AMA1  EQU   BIT3                     U/R DEVICE ALLOCATION IN PROCESS
                        354+$AMA2  EQU   BIT4                     REJECT IN PROCESS
                        355+$AMPF9 EQU   BIT5                     CONSOLE TUB IN USE FOR PROGRAM
                        356+$AMERR EQU   BIT6                     ALLOCATION REJECT IN PROCESS

                        358+$AMUR  EQU   $AMFLG+1                 CCP LEVEL AND SPOOLING DEVICES.
                        359+A1SPLV EQU   BIT0                     1=CCP IS IN LEVEL 1.
                        360+*                                     0=CCP IS IN LEVEL 2.
                        361+A1PTRS EQU   BIT1                     PRINTER IS SPOOLED FOR CCP LVL.
                        362+*            BIT2                     MFCU/M SEC IS SPOOL RDR FOR CCP
                        363+*            BIT3                     MFCU/M SEC IS SPOOL PCH FOR CCP
                        364+A1741S EQU   BIT4                     3741 IS SPOOLED READER FOR CCP
                        365+A1501S EQU   BIT5                     2501 IS SPOOLED READER FOR CCP
                        366+*            BIT6                     MFCU/M PRI IS SPOOL RDR FOR CCP
                        367+*            BIT7                     MFCU/M PRI IS SPOOL PCH FOR CCP
                        368+$AMPA  EQU   $AMUR+1                  PERM ALLOC AND SPOOLED UR
                        369+*                                     DEVICES FOR CCP.
                        370+*PCTPRS      BIT0                     1=WILL SHARE PRINTER.
                        371+*PCT41I      BIT1                     1=3741 IS PERMANENTLY ALLOCATED
                        372+*PCT501      BIT2                     1=2501 IS PERM ALLOCATED.
                        373+*PCTPRT      BIT3                     1=PRINTER IS PERM ALLOCATED.
                        374+*PCT142      BIT4                     1=1442 IS PERM ALLOCATED.
                        375+*PCTMFU      BIT5                     1=MFCU/M IS PERM ALLOCATED.
                        376+*            BIT6                     1=1442 IS SPOOL READER FOR CCP
                        377+*            BIT7                     1=1442 IS SPOOL PUNCH FOR CCP

                        379+$AMSA  EQU   $AMPA+1                  IN USE DEVICES
                        380+AMSORT EQU   BIT6                     1 = $INDEX45 FILE IN USE
                        381+$AMSHR EQU   $AMSA+1                  COUNT OF PRESENT PRINT SHARERS
                        382+$AMID  EQU   $AMSHR+1                 TCB ID OF LEVEL CCP IS IN
                        383+$AMUSE EQU   $AMID+1                  COUNT OF ACTIVE USER TASKS
                        384+$AMWRK EQU   $AMUSE+2                 ALLOCATION WORK FIELD
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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  14

                                386+************ TERMINATOR WORK AREA                  24 BYTES************
                          4700  387+$TMWK  EQU   $END1+#LDFWK+#LCPWK+#LAMWK START OF TERMINATION'S
                          4700  388+$TM    EQU   $TMWK                       WORK AREA



                          4700  390+$TMFLG EQU   $TM                         TERMINATOR FLAG BYTE
                          0080  391+$TMSTK EQU   BIT0                       SYSTEM TASK FAILURE
                          0080  392+$TMBSY EQU   BIT0                       1--TERMINATION TASK IS ACTIVE
                                393+*                                       0--TERMINATION TASK NOT BUSY
                          0040  394+$TMDMP EQU   BIT1                       1--NO USER TASK ACTIVE FOR C CCP
                                395+*                                       0--USER TASK ACTIVE FOR C CCP
                          0020  396+$TMEJ  EQU   BIT2                       1--$CC4EJ (CCP END OF JOB)
                                397+*                                       HAS BEEN INVOKED BY $CC4TD
                                398+*                                       (TERMINATION CONTROL ROUTINE)
                          0010  399+$TMCLZ EQU   BIT3                       TERMINATION MUST CALL CLOSE
                          0008  400+$TMTWA EQU   BIT4                       $CC4TW ACTIVE IN XIENT AREA
                          0004  401+$TMDDR EQU   BIT5                       DISK DUMP REQUESTED (NOT 2A,2B)
                          0002  402+$TMDFL EQU   BIT6                       ON=NO MORE DUMP SPACE GUARANTEED
                          0001  403+$TMDER EQU   BIT7                       ON=PERMANENT DISK I/O ERROR
                                404+*                                       DURING TERMINATION DUMP

                          4702  406+$TMTCB EQU   $TMFLG+2                   @ OF TCB CURRENTLY BEING
                                407+*                                       PROCESSED BY TERMINATION TASK
                          4703  408+$TMECB EQU   $TMTCB+1                   TERMINATION'S ECB (3 BYTES)
                          4707  409+$TMDID EQU   $TMECB-1+3+2               DUMP ID DIGITS (2 BYTES)



                                411+*----------- $CC4TI-$CC4TM-CC4TH WORK AREAS--------------------------*
                          4709  412+TIWRK1 EQU   $TMDID+2                   RESIDENT WORK
                          470B  413+TIWRK2 EQU   TIWRK1+2                   AREAS
                          470D  414+TIWRK3 EQU   TIWRK2+2                   FOR INFORMATION
                          470F  415+TIWRK4 EQU   TIWRK3+2                   SAVE ON
                          4711  416+TIWRK5 EQU   TIWRK4+2                   SYSTEM DISASTER
                          4713  417+TIWRK6 EQU   TIWRK5+2                   CONDITIONS
                          4713  418+@XSNT3 EQU   TIWRK6                     ADDRESS OF TRANSIENT AREA 3 IOB
                          4715  419+@CSXPT EQU   TIWRK6+2                   C/S ADDRESS OF ORIGINAL PCT



                                421+*------------ PSEUDO OPEN/CLOSE SAVE AREA FOR ATTS --------------------
                          470B  422+OPSATT EQU   $TMDID+4                   FSA ATT SAVE AREA
                          470D  423+OPEATT EQU   OPSATT+2                   EXT BUF ATT SAVE AREA
                          470E  424+OPSEG# EQU   OPEATT+1                   SAVE AREA FOR SEGMENT NUMBER
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                        426+************ COMMUNICATIONS MANAGEMENT WORK AREA   45 BYTES************
                  4718  427+$CMWK  EQU   $END1+#LDFWK+#LCPWK+#LAMWK+#LTMWK START OF COMMUNICATION
                  4718  428+$CM    EQU   $CMWK                        MANAGEMENT WORK AREA


                  4719  430+#CMDTF EQU   $CM+1                       SAVE AREA FOR DTF ADDRESS
                  471B  431+#CMPL  EQU   #CMDTF+2                     SAVE AREA FOR PARM LIST

                  471D  433+#CMTMA EQU   #CMPL+2                      SAVE AREA FOR TERMINAL ADDRESS
                  471D  434+#CMBK1 EQU   #CMTMA                       RETURN CODE FOR $CC4BL MESSAGE

                  471E  436+#CMTFT EQU   #CMTMA+1                     SAVE AREA FOR TERMINAL FEATURES
                  471E  437+#CMBK2 EQU   #CMTFT                       INTERNAL MSG TYPE FOR $CC4BL

                  4720  439+#CMPTR EQU   #CMTFT+2                     SAVE AREA FOR PREVIOUS POINTER
                  4722  440+#CMFPL EQU   #CMPTR+2                     SAVE AREA FOR FOUND PARM LIST
                  4724  441+#CMLSL EQU   #CMFPL+2                     LAST LCB CHECKED FOR PL NEEDING
                        442+*                                         * GETMAIN
                  4726  443+#CMTUB EQU   #CMLSL+2                     SAVE AREA FOR TUB ADDRESS
                  4728  444+#CMERP EQU   #CMTUB+2                     @ OF DTF TO BE RESCHEDULED AFTER
                        445+*                                         BEING IN CCP ERP
                  4729  446+#CMSWT EQU   #CMERP+1                     CONTROL SWITCH
                  0080  447+#CMARR EQU   BIT0                         1--OK TO MODIFY TCBARR
                  0040  448+#CMFMD EQU   BIT1                         1--CM FREEMAIN DONE SINCE LAST
                        449+*                                         *  CHECK.
                  0020  450+PRUFOF EQU   BIT2                         1--RESET PRUF MODE (PRUFOF)

                  472A  452+#OPEND EQU   #CMSWT+1                     T-P OP END COUNT
                  472C  453+#CCMCL EQU   #OPEND+2                     MAXIMUM COMMAND BUFFER LENGTH
                  472E  454+#RUFCL EQU   #CCMCL+2                     MAX READ UNDER FORMAT COM LEN
                  4730  455+@TAS   EQU   #RUFCL+2                     TERMINAL ATTRIBUTE SET ADDRESS
                  4731  456+#HITAS EQU   @TAS+1                       HIGHEST TAS INDEX IN SYSTEM

                  4733  458+@CSSTT EQU   #HITAS+2                     DISK C/S OF STT
                  4734  459+#HISTT EQU   @CSSTT+1                     NO ENTRIES IN STT(SW TERM TBL)

                  4736  461+@MLTAD EQU   #HISTT+2                     ADDRESS OF MLTA ADAPTER
                        462+*                                         0 INDICATES NO MLTA ADAPTER
                  4738  463+@CKLST EQU   @MLTAD+2                     ADDRESS OF CHECK LIST

                        465+*----------- COMMUNICATIONS MANAGEMENT ECB'S -------------------------*
                  4739  466+$CMECB EQU   @CKLST+1                     ECB FOR POST OF CM
                  473C  467+$CMFM  EQU   $CMECB+3                     FREEMAIN POST OF CM
                  4740  468+@ANYTP EQU   $CMFM+4                      ADDRESS OF COMMON TP FOR GETMAIN
                  4742  469+@INVPL EQU   @ANYTP+2                     ADDRESS OF INV PL TP FOR GETMAIN
                  4744  470+ERTIME EQU   @INVPL+2                     AUTO ERP RECOVERY TIME


                        472+*----------- COMMUNICATIONS MANAGEMENT RESERVED AREA -----------------*
                  4743  473+$CMRV2 EQU   @INVPL+1                     START OF 2 BYTE RESERVED AREA

                        475+* PROGRAM REQUEST/ALLOCATION DUMMY TUB CHAIN POINTER
                  47AD  476+@DTUBQ EQU   CORCNT+2                     START ADDRESS OF DUMMY TUB'S
                  47AF  477+#RUFAD EQU   @DTUBQ+2                     ADDITIONAL DATA FOR PRUF'S.
                  47B1  478+TNTATT EQU   #RUFAD+2                     ATT LOCATION FOR TNT MOVEOUT
```

```
ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  16

                          47B3  479+$RESER EQU   TNTATT+2                  RESERVE AREA.


                                481+*--------------   BSCC COMMUNICATIONS AREA   -------------------------*

                          47B4  483+$CSFM  EQU   $RESER+1                  FREEMIAN ECB
                          47B7  484+$CSECB EQU   $CSFM+3                   OP END AND NEW REQUEST ECB
                          47BA  485+#CSOND EQU   $CSECB+3                  OP END COUNT FOR LINES 3 AND 4
                          47BC  486+@CSNRQ EQU   #CSOND+2                  NEW REQUEST QUEUE
                          47BE  487+@CSTCB EQU   @CSNRQ+2                  ADDRESS OF BSCC TCB
                          47C0  488+#CSERP EQU   @CSTCB+2                  ADDRESS OF LCB IN ERROR RECOVERY
                          47C2  489+@CLB#1 EQU   #CSERP+2                  ADDRESS OF FIRST BSCC LCB
                          47C6  490+POLTIM EQU   @CLB#1+4                  POLL TIME FOR CS
                          47C7  491+SVLOOP EQU   POLTIM+1                  SAVE POLL LOOP COUNT FOR CS
                          47CA  492+WAITIM EQU   SVLOOP+3                  WAIT TIME FOR CS
                          47CB  493+#MATST EQU   WAITIM+1                  LOGICAL ATR START OF BSCC
                          47CC  494+#MATED EQU   #MATST+1                  LOGICAL ATR END OF BSCC
                          47CD  495+#MATX3 EQU   #MATED+1                  REAL ATR START OF XIENT AREA 3


                                497+*----------------   DIRECTORY ADDRESSES   ----------------------------*
                                498+*--INDIVIDUAL FIELDS ARE VALID ONLY IF A PROGRAM STATEMENT DESIGNATED-*
                                499+*--THAT UNIT AS ITS LOCATION, OTHERWISE THE FIELDS ARE LEFT AS ZEROES-*
                                500+*-------------------------------------------------------------------*

                          47CF  502+CSPKR1 EQU   #MATX3+2                  C/S OF DIRECTORY ON UNIT R1
                          47D1  503+CSPKF1 EQU   CSPKR1+2                  C/S OF DIRECTORY ON UNIT F1
                          47D3  504+CSPKR2 EQU   CSPKF1+2                  C/S OF DIRECTORY ON UNIT R2
                          47D5  505+CSPKF2 EQU   CSPKR2+2                  C/S OF DIRECTORY ON UNIT F2


                                507+*----------- SAVE AREAS FOR THE DISPLAY TRANSIENTS -------------------*
                          47D7  508+$CPIAR EQU   CSPKF2+2                  IAR
                          47D9  509+$CPXR1 EQU   $CPIAR+2                  TUB,TNT,OR FSB
                          47DB  510+$CPDTF EQU   $CPXR1+2                  DTF
                          47DC  511+$CPUSE EQU   $CPDTF+1                  PROGRAM USE COUNT SAVE FIELD


                                513+*------------CCP TRACE, AUTO ERP, TNT MOVEOUT-------------------------*


                          47DD  515+$FLGD  EQU   $CPUSE+1                  FOURTH SYSTEM LEVEL FLAG BYTE
                          0001  516+#BIT7  EQU   BIT7
                          0002  517+#DDRUN EQU   BIT6                       $CCPDD IS PRINTING TRACE
                          0004  518+#NOPST EQU   BIT5                       SKIP FREEMAIN POST OF CM TASK
                          0008  519+#CPALC EQU   BIT4                       $CCPDUMP FILE HAS BEEN ALLOCATED
                          0010  520+#PRQIP EQU   BIT3                       PROGRAM REQUEST Q IN PROCESS
                          0020  521+#AERPS EQU   BIT2                       AUTO ERP SUPPORTED
                          0040  522+#AERPA EQU   BIT1                       AUTO ERP ACTIVE
                          0080  523+TNTOUT EQU   BIT0                       1--TNT MOVE-OUT SUPPORTED
                          47DF  524+$CCTR@ EQU   $FLGD+2                   ADDRESS OF CCP TRACE INTERCEPT
                          47E0  525+$CCTR# EQU   $CCTR@+1                  2K BLOCKS IN TRACE REQUEST


                          47E2  527+@AERPQ EQU   $CCTR#+2                  Q OF TUBS FOR AUTO ERP
```

```
                          47E4  529+#DPEND EQU   @AERPQ+2                  CC/HH @ OF END OF $CCPDUMP


                                531+*                                                                 *
                                532+* THIS AREA IS CS'S MOVE TRANSLATE AREA                          *
                                533+*                                                                 *
                          47E6  534+CS#MVL EQU   #DPEND+2                  BSCC MOVE PARAMETER
                          0000  535+CS#TRL EQU   *                         BSCC TRANSLATE PARAMETER LIST

                          47FF  537+$CCEND EQU   X'47FF'                   END OF $CCCOM
```

```
                                539 *      $ETCB                                                          CCP00267
                                540+*************************************************************************
                                541+*      EQUATES FOR THE CCP TCB EXTENSION                           *
                                542+*************************************************************************
                          0000  543+TCBCAL EQU   0                        OCC CANCEL WHILE TCB IN ALLOC
                                544+*      CCP BIT INDICATORS APPEARING IN FIELDS IN THE STANDARD TCB.
                                545+*      BIT EQUATES FOR TCBID.
                          00FF  546+TCBWID EQU   B'11111111'              SYSTEM WAIT TASK ID

                                548+*      BIT EQUATES FOR TCBFG1.
                          0080  549+TCBUSR EQU   B'10000000'              CCP USER TASK
                          0004  550+TCBNCL EQU   B'00000100'              CANCEL NOT ALLOWED
                                551+**     TCBUSR+TCBNCL = CCP SYSTEM TASK

                                553+*      BIT EQUATES FOR TCBFG2.
                          0080  554+TCBTRC EQU   B'10000000'              TERMINATION CALL OF CLOSE

                                556+*      BIT EQUATES FOR TCBDS1.
                          0040  557+TCBSUS EQU   B'01000000'              WAIT INDICATOR FOR SUSPENDED TCB
                          0020  558+TCBTRM EQU   B'00100000'              TCB IS IN CCP TERMINATION


                                560+*      FIELDS OVERLAYING DSM TCB FIELDS.
                          002B  561+TCBCMP EQU   X'2B'                    TCBEJC - USER TERMINATION CODE

                          0064  563+TCB@AS EQU   X'64'                    NPNAME-4 PROG APPENDED STORAGE @
                          0065  564+TCBPAS EQU   TCB@AS+1                 SIZE (X256) OF PAS
                          0066  565+TCBFDT EQU   TCBPAS+1                 SIZE (X256) OF LARGEST FDT
                          0068  566+TCBINQ EQU   TCBFDT+2                 Q OF TUBS WITH DATA FOR ACCEPT

                          00A7  568+TCBIR  EQU   X'A7'                    NPSCH-1 XIENT AREA IAR SAVE FLD
                          00A9  569+TCBPR  EQU   TCBIR+2                  TRANSIENT AREA PMR SAVE FIELD
                          00AB  570+TCBX2  EQU   TCBPR+2                  TRANSIENT AREA REG 2 SAVE FIELD
                          00AD  571+TCBX1  EQU   TCBX2+2                  TRANSIENT AREA REG 1 SAVE FIELD

                          00AE  573+TCBDMG EQU   TCBX1+1                  CCP INTERNAL FLAGS
                          0080  574+TCBRUF EQU   B'10000000'              PRUF PROGRAM ACTIVE
                          0040  575+TCBKRQ EQU   B'01000000'              CONSOLE WAS PROGRAM REQUESTOR
                          0020  576+TCBALC EQU   B'00100000'              TASK IS IN ALLOCATE
                          0010  577+TCBNEP EQU   B'00010000'              TASK IS A NEVER-ENDING-PROGRAM
                          0008  578+TCBCM  EQU   B'00001000'              COMMUNICATIONS MANAGEMENT ID
                          0004  579+TCBMTS EQU   B'00000100'              TASK IS A MULTI-TERM-SERVICER
                          0002  580+TCBEMG EQU   B'00000010'              END MSG IS WANTED BY TERMINAL
                          0001  581+TCBSHQ EQU   B'00000001'              SHUTDOWN COMMAND HAS BEEN KEYED

                                583+*      END OF CCP PROGRAM LEVEL TCB(CM TASK).

                                585+*      BEGINNING OF CCP EXTENSION FOR TCB  (ALL CCP TASKS EXCEPT CM)
                                586+*                    CCP BITS WITHIN TCBECB
                          0001  587+TCBACW EQU   X'01'                    THIS TASK AT ACCEPT INPUT WAIT
                                588+*
                          00C4  589+TCBPL  EQU   X'C4'                    NPRCCP-39 TP PARAMETER LIST
                          00D6  590+TCBPLE EQU   TCBPL+18                 END OF PARM LIST
                          00D8  591+TCBXQ  EQU   TCBPLE+2                 CCP CHAIN OF WAITING TASKS
                          00D8  592+TCBWK  EQU   TCBXQ                    WORK FIELD
                          00DA  593+TCBTUB EQU   TCBXQ+2                  OWNED TUB CHAIN START POINT
```

```
                      00DB  594+TCBECB EQU   TCBTUB+1                 INTERNAL ECB FOR CCP - START
                      00DE  595+TCBIIC EQU   TCBECB+3                 INVITE INPUT COUNT FOR USERS
                      00DF  596+TCBMAX EQU   TCBIIC+1                 MAX NUMBER OF TERMINALS
                      00E0  597+TCBATR EQU   TCBMAX+1                 CURRENT TERMINAL COUNT

                      00E1  599+TCBURA EQU   TCBATR+1                 UNIT RECORD ALLOCATE MASK
                      0080  600+TCBPRS EQU   B'10000000'               PRINTER IS SHARED
                      0020  601+TCB501 EQU   B'00100000'               PROGRAM USES 2501
                      0010  602+TCBPRT EQU   B'00010000'               PROGRAM USES LINE PRINTER
                      0008  603+TCB142 EQU   B'00001000'               PROGRAM USES 1442
                      0004  604+TCBMFU EQU   B'00000100'               PROGRAM USES MFCU OR MFCM
                      0040  605+TCB741 EQU   B'01000000'               3741 USED AS UNIT RECORD DEVICE

                      00E3  607+TCBFBM EQU   TCBURA+2                 FILE BIT MASK, DISPLACEMENT
                      00E4  608+TCBUSE EQU   TCBFBM+1

                      00E5  610+TCBOFG EQU   TCBUSE+1                 CCP INTERNAL FLAGS
                      0080  611+TCBSRT EQU   B'10000000'               SORT PGM ACTIVE
                      0040  612+TCBCHN EQU   B'01000000'               TASK WAS REQUESTED VIA CHAIN OP
                      0020  613+TCBLOW EQU   B'00100000'               LOW PRIORITY TASK REQUEST
                            614+*      EQU   B'00010000'
                            615+*      EQU   B'00001000'
                            616+*      EQU   B'00000100'
                            617+*      EQU   B'00000010'
                            618+*      EQU   B'00000001'

                00E7  620+TCBPCB EQU   TCBOFG+2                 ADDR OF REQUIRED PORT.
                00E9  621+TCBXR@ EQU   TCBPCB+2                 ADDR OF CCP XIENT RIB BYTE.
                00EB  622+TCBRV  EQU   TCBPL+39                 RESERVED AREA FROM 'TCBXR@'

                      624+*************************************************************
                      625+*      RESIDENT OPEN CLOSE ATT SAVE AREA                    *
                      626+*************************************************************
                010D  627+TCBATS EQU   X'010D'                  START OF SAVE AREA
                010E  628+TCBEPL EQU   TCBATS+1                 E.P.L. ATTS
                0112  629+TCBROC EQU   TCBEPL+4                 RESIDENT OPEN/CLOSE ATTS
                0116  630+TCBFSA EQU   TCBROC+4                 F.S.A. ATTS

                      632+*************************************************************
                      633+*      THE FOLLOWING REDEFINES THE PARM-LIST AREA FOR THE   *
                      634+*      COMMUNICATIONS SCHEDULAR ($CC4CS).  DEFINES THE ATTS *
                      635+*      THAT MAPS THE SIOC DM/IOCS/IH.  (4K-MAX)             *
                      636+*************************************************************
                00C4  637+TCBSAD EQU   TCBPL                    DISPLACEMENT FOR SIOC DM ATR
                00C6  638+TCBSAT EQU   TCBSAD+2                 ATRS VALUES TO MAP SIOC DM.
                00C8  639+TCBSAS EQU   TCBSAT+2                 ATRS TO RESTORE $CC4#M ATRS.
                00CA  640+TCBSAV EQU   TCBSAS+2                 ATRS SAVE AREA FOR $@TRAP.

                      642+*************************************************************
                      643+*      THE FOLLOWING REDEFINES TCBIIC, TCBMAX, TCBATR, TCBURA,  *
                      644+*      TCBFBM, TCBUSE, AND TCBOFG FOR THE COMMAND PROCESSOR TCB *
                      645+*      ONLY (SUCH FIELDS ARE MEANINGFUL ONLY FOR USER TCB'S).   *
                      646+*      EACH OF THE FOLLOWING FOUR FIELDS IS 2 BYTES LONG.       *
                      647+*************************************************************
                00DF  648+#CPDAT EQU   TCBMAX                   TIMES CP TASK RECEIVED DATA
                00E1  649+#PGMLD EQU   TCBURA                   # OF USER PGM LOADS DONE
```

```
                          00E3  650+#MRTAT EQU   TCBFBM                   PGM REQS ATTACHED TO ACTIVE MRTS
                          00E5  651+#TCACC EQU   TCBOFG                   TASK CHAIN REQUESTS ACCEPTED
```

```
                        654 *      $EDSM NP-Y,NC-Y,SP-N                                    CCP00269
                        655+*************************************************************
                        656+*                                                           *
                        657+*  COMMUNICATIONS AREA FOR A PROGRAM LEVEL                  *
                        658+*                                                           *
                        659+*************************************************************
                        660+*                      START OF TASK CONTROL BLOCK
                  0000  661+TCBB   EQU   0                        *
                  0001  662+TCBNXT EQU   TCBB+1                   2   @ OF NEXT TCB ON QUEUE
                  0002  663+TCBPRI EQU   TCBNXT+1                 1   TASK PRIORITY
                  0003  664+TCBID  EQU   TCBPRI+1                 1   TASK ID

                        666+*************************************************************
                        667+*                                                          *
                        668+*  NAME, PRIORITY AND ID OF THE SYSTEM TCBS:               *
                        669+*                                                          *
                        670+*  NAME.....                  PRIORITY...    ID.*..        *
                        671+*   CONSOLE MANAGEMENT TASK     F0            10          *
                        672+*   SYSTEM ERROR TASK           E0            20          *
                        673+*   SPOOL SUPPORT TASK          D0            30          *
                        674+*   SPOOL TASK                  CE            32          *
                        675+*   PROGRAM LEVEL 2 TASK        C0            40          *
                        676+*   PROGRAM LEVEL 1 TASK        60            A0          *
                        677+*   SYSTEM WAIT TASK            01            FF          *
                        678+*                                                          *
                        679+*   *-ID CHARACTERS 'A-Z' AND '0-9' ARE RESERVED FOR CCP TASKS *
                        680+*************************************************************

                  0004  682+TCBFG1 EQU   TCBID+1                  1   FLAG BITS
                        683+*                                       X'80'-CCP TASK
                        684+*                                       X'40'-NON-CANCELABLE SYSTEM TAS
                        685+*                                       X'08'-3 OPTION ONLY HALT PENDIN
                        686+*                                       X'04'-CANCEL NOT ALLOWED
                        687+*                                       X'02'-CANCEL DEFERRED
                        688+*                                       X'01'-EOJ IN PROCESS

                  0005  690+TCBFG2 EQU   TCBFG1+1                  1   FLAG BITS
                        691+*                                       X'01'-ATT LOAD REQUESTED

                  0006  693+TCBDS1 EQU   TCBFG2+1                  1   DISPATCHABILITY BITS
                        694+*                                       X'80'-NON-DISPATCHABLE
                        695+*                                       X'40'-SUSPENDED BY CCP
                        696+*                                       X'20'-CCP TERMINATE IN PROGRESS
                        697+*                                       X'02'-WAITING FOR RESOURCES
                        698+*                                       X'01'-WAITING FOR CORE

                  0007  700+TCBDS2 EQU   TCBDS1+1                  1   DISPATCHABILITY BITS
```

```
                        702+******************** PROGRAM REQUEST BLOCK ************************
                  0009  703+TCBRBP EQU   TCBDS2+2                    2   @ OF ACTIVE REQUEST BLOCK
                  000B  704+TCBRBF EQU   TCBRBP+2                    2   REQUEST BLOCK FLAGS
                  000D  705+TCBTCB EQU   TCBRBF+2                    2   @ OF ASSOCIATED TCB
                  000F  706+TCBIAR EQU   TCBTCB+2                    2   PROGRAM LEVEL IAR
                  0011  707+TCBPMR EQU   TCBIAR+2                    2   PROGRAM LEVEL PMR
                  0013  708+TCBPSR EQU   TCBPMR+2                    2   PROGRAM LEVEL PSR
                  0015  709+TCBXR2 EQU   TCBPSR+2                    2   PROGRAM LEVEL XR2
                  0017  710+TCBXR1 EQU   TCBXR2+2                    2   PROGRAM LEVEL XR1
                  0019  711+TCBARR EQU   TCBXR1+2                    2   PROGRAM LEVEL ARR

                        713+*                    END OF WAIT TASK TCB

                  001C  715+TCBCSN EQU   TCBARR+3                    3   C/S/N FOR PROGRAM
                  001D  716+TCBRIB EQU   TCBCSN+1                    1   RIB VALUE
                  001E  717+TCBRSV EQU   TCBRIB+1                    1   RIB SAVE AREA
                  0024  718+TCBRS1 EQU   TCBRSV+6                    6   RESERVED
                        719+******************** END OF PROGRAM REQUEST BLOCK *****************

                  0026  721+TCBMAP EQU   TCBRS1+2                    2   @ OF CORE MAP FOR ASSIGN/FRE
                  0028  722+TCBTIM EQU   TCBMAP+2                    2   @ OF TIMER QUEUE ELEMENT
                  002A  723+TCBEJE EQU   TCBTIM+2                    2   EOJ EXIT @
                  002B  724+TCBEJC EQU   TCBEJE+1                    1   EOJ COMPLETION CODE
                        725+*                                         X'80'-DUMP REQUESTED
                        726+*                                    |---  X'40'-SECONDARY CODE SPECIFIED
                        727+*                    USER CODES      |     X'20'-HALT/SYSLOG(2,3 OPTION)
                        728+*                                    |---  X'10'-OCC CANCEL
                        729+*
                        730+*                                    |---  X'08'-SECONDARY CODE SPECIFIED
                        731+*                    SYSTEM CODES    |     X'04'-RESERVED
                        732+*                                    |     X'02'-INSUFFICIENT CORE STORAGE
                        733+*                                    |---  X'01'-PROGRAM CHECK
                        734+*                                          X'00'-NORMAL COMPLETION

                  002C  736+TCBEJS EQU   TCBEJC+1                    1   EOJ SECONDARY COMPLETION COD
                        737+*                                             - SYSTEM SECONDARY CODES -
                        738+*                                          X'01'-INVALID ENQU SVC
                        739+*                                          X'02'-INVALID DEQU SVC
                        740+*                                          X'03'-I/O PROTECT VIOLATION
                        741+*                                          X'04'-LOADING BELOW NPBEG
                        742+*                                          X'05'-LOADING ABOVE NPEND
                        743+*                                          X'06'-INVALID SETON/SETOF SVC
                        744+*                                          X'07'-EXIO TO INVALID DEVICE

                  002E  746+TCBRTC EQU   TCBEJS+2                    2   @ OF RELATED TCB FOR SPOOL
                  004E  747+TCBATT EQU   TCBRTC+32                   32  ATT SAVE AREA
                        748+*      BYTES 25 THRU 32 OF THE ATT SAVE AREA ARE DEFINED AS FOLLOWS:
                  0047  749+TCBHAV EQU   TCBATT-7                    1   RESOURCE(S) OWNED
                        750+*                                          X'01'-SCHEDULER INTERLOCK
                        751+*                                          X'02'-SPOOL FILE INTERLOCK
                        752+*                                          X'04'-SYSLOG BUFFER INTERLOCK

                  004A  754+TCBRS3 EQU   TCBATT-4                    3   RESERVED
                  004C  755+TCBPCA EQU   TCBATT-2                    2   PROG CHECK ADDRESS REG
                  004E  756+TCBPCS EQU   TCBATT                      2   PROG CHECK STATUS REG
```

```
                                758+*                    START OF PROGRAM LEVEL COMM AREA
                           004F 759+NPPRTZ EQU   TCBATT+1                 1   PRINTER SIZE
                           0050 760+NPLPSZ EQU   NPPRTZ+1                 1   LEFT TRACTOR PAGE SIZE
                           0051 761+NPRPSZ EQU   NPLPSZ+1                 1   RIGHT TRACTOR PAGE SIZE
                           0052 762+NPHALT EQU   NPRPSZ+1                 1   HALT/SYSLOG
                                763+*                                      X'08'-NO HALT DISPLAY
                                764+*                                           OFF-YES
                                765+*                                           ON-NO
                                766+*                                      X'04'-DEFAULT MODE
                                767+*                                      X'03'-
                                768+*                                           00-0 OPTION => SEVERITY=1
                                769+*                                           01-1 OPTION => SEVERITY=2
                                770+*                                           10-2 OPTION => SEVERITY=4
                                771+*                                           11-3 OPTION => SEVERITY=8

                           005A 773+NPJOB  EQU   NPHALT+8                 8   JOB NAME
                           0062 774+NPSTEP EQU   NPJOB+8                  8   STEP NAME
                           0068 775+NPNAME EQU   NPSTEP+6                 6   PROGRAM NAME
                           006A 776+NPSPCM EQU   NPNAME+2                 2   @ OF SPOOL COMM RELATED TO T
                           006B 777+NPEOJ  EQU   NPSPCM+1                 1   END OF JOB BYTE
                                778+*                                      X'80'-RJE ACTIVE/RETURN TO NPBE
                                779+*                                      X'40'-NO IPL DISK ERRORS
                                780+*                                      X'20'-LIB MAINT BIT
                                781+*                                      X'10'-OCC DUMP TAKEN
                                782+*                                      X'08'-QUIESCE IN PROCESS AT EJ
                                783+*                                      X'01'-DO NOT CLOSE DTFS AT EOJ

                           002A 785+NPEOJ@ EQU   TCBEJE                   END OF JOB RETURN @
                           006C 786+NPSPOL EQU   NPEOJ+1                  1   RESERVED FOR SPOOL
                                787+*                                      X'80'-TRAPPING I/O REQUEST
                                788+*                                      X'40'-SPOOL SUPPORTED THIS LEVE
                                789+*                                      X'20'-ON - END-OF-JOB
                                790+*                                            OFF - END-OF-STEP
                                791+*                                      X'10'-START SPOOL REQUESTED
                                792+*                                      X'08'-STOP SPOOL REQUESTED

                           006E 794+NPDTF@ EQU   NPSPOL+2                 2   @ OF LAST OPENED DTF
                           0071 795+NPBEG  EQU   NPDTF@+3                 3   REAL PROGRAM BEGIN @
                           0074 796+NPEND  EQU   NPBEG+3                  3   REAL PROGRAM END @
                           0076 797+NPBEGL EQU   NPEND+2                  2   LOGICAL PROGRAM BEGIN @
                           0078 798+NPRLF  EQU   NPBEGL+2                 2   PROGRAM RELOCATION FACTOR
                           007A 799+NPCYL  EQU   NPRLF+2                  2   C/S OF FIRST LOAD (OVERLAYS)
                           007C 800+NPOLIB EQU   NPCYL+2                  2   C/S OF PROG OBJ LIB
                           007E 801+NPORLF EQU   NPOLIB+2                 2   OVERLAY RELOCATION FACTOR
                           0080 802+NPTXT  EQU   NPORLF+2                 2   OVERLAY TEXT @
                                803+*                  END OF SPOOL SUPPORT COMMON AREA
                           0081 804+NPQ    EQU   NPTXT+1                  1   PROGRAM Q BYTE
                           0082 805+NPUPSI EQU   NPQ+1                    1   UPSI SWITCH
                           0083 806+NPATTR EQU   NPUPSI+1                 1   PROGRAM ATTRIBUTE BYTES
                                807+*                                      X'80'-DEDICATED PROGRAM RUNNING
                           0089 808+NPDATE EQU   NPATTR+6                 6   PROGRAM DATE
                           008A 809+NPSTP# EQU   NPDATE+1                 1   STEPNAME COUNTER
                           008D 810+NPSYSI EQU   NPSTP#+3                 3   SYSIN INDICATOR
                                811+*                                      C/S/DEVICE INFO
                                812+*                                      X'01'-MFCU1
                                813+*                                      X'02'-MFCU2
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                            814+*                                X'83'-MFCM1  -
                            815+*                                X'84'-MFCM2   -   8X-80 COL
                            816+*                                X'85'-1442    -         DEVICES
                            817+*                                X'86'-2501   -
                            818+*                                X'10'-CONSOLE/KYBD
                            819+*                                X'20'-RESERVED
                            820+*                                X'21'-RESERVED

                       008E 822+NPSCH1 EQU   NPSYSI+1           1   READER/INTERPRETER SWITCHES
                            823+*                                X'80'-// DATE RECEIVED(INTRA)
                            824+*                                X'40'-// COMPILE RECEIVED
                            825+*                                X'20'-// SWITCH RECEIVED
                            826+*                                X'10'-PROCEDURE
                            827+*                                X'08'-OVERRIDE
                            828+*                                X'04'-INTRA STEP MODE
                            829+*                                X'02'-INTER STEP MODE
                            830+*                                X'01'-IPL MODE

                       008F 832+NPSCH2 EQU   NPSCH1+1           1   SCHEDULER SWITCHES
                            833+*                                X'80'-CONTINUATION
                            834+*                                X'40'-UTIL CTL CARDS IN JSWA
                            835+*                                X'20'-SLASH AMPERSAND READ
                            836+*                                X'10'-FILE STMT RECEIVED
                            837+*                                X'08'-EOS HALT INDICATOR
                            838+*                                     ON-ISSUE EOS MESSAGE
                            839+*                                     OFF-DON'T ISSUE EOS MSG
                            840+*                                X'04'-FLUSH
                            841+*                                X'02'-IMMEDIATE CANCEL
                            842+*                                X'01'-CONTROLLED CANCEL

                       0090 844+NPSCH3 EQU   NPSCH2+1           1   SCHEDULER SWITCHES
                            845+*                                X'80'-TAG SORT REQUIRED(5444)
                            846+*                                X'40'-AVAILABLE
                            847+*                                X'20'-SOURCE REQUIRED
                            848+*                                X'10'-LOG STATUS
                            849+*                                     ON-LOG TO CRT
                            850+*                                     OFF-LOG TO 3284 OR 1403
                            851+*                                X'08'-MVF FILE ALLOCATED
                            852+*                                X'04'-ADDITIONAL PROC STMT
                            853+*                                X'02'-1ST 'LOAD/RUN'JOB READ
                            854+*                                X'01'-PGM LEVEL
                            855+*                                     OFF-LEVEL 1
                            856+*                                     ON-LEVEL 2

                       0090 858+NPLEVL EQU   NPSCH3
                       0091 859+NPOBJQ EQU   NPSCH3+1           1   OBJECT DECK OUTPUT Q
                       0092 860+NPBPSD EQU   NPOBJQ+1           1   AVAIL STATUS OF SYSIN DEVICE
                            861+*                                X'80'-MFCU
                            862+*                                X'40'-MFCM
                            863+*                                X'20'-1442
                            864+*                                X'10'-2501
                            865+*                                X'08'-CRT
                            866+*                                X'04'-RESERVED
                            867+*                                X'02'-RESERVED
                            868+*                                X'01'-NESTED PROCEDURE
```

```
                      0093  870+NPSCH4 EQU   NPBPSD+1                  1   SCHEDULER SWITCHES
                            871+*                                      X'80'-OPERATION BIT
                            872+*                                      X'40'-// IMAGE RECEIVED
                            873+*                                      X'20'-// PRINTER RECEIVED
                            874+*                                      X'10'-F1 NEEDED FOR ALLOC
                            875+*                                      X'08'-R1 NEEDED FOR ALLOC
                            876+*                                      X'04'-F2 NEEDED FOR ALLOC
                            877+*                                      X'02'-R2 NEEDED FOR ALLOC
                            878+*                                           -TAPE DTFS ENCOUNTERED IN
                            879+*                                            RESOURCE ALLOCATE
                            880+*                                      X'01'-EOJ SCHED BIT

                      0094  882+NPSCH5 EQU   NPSCH4+1                  1   SCHED SWITCHES
                            883+*                                      X'80'-ROLL-IN PENDING
                            884+*                                      X'40'-ROLL-OUT REQUESTED
                            885+*                                      X'20'-ROLL-OUT HANDLED
                            886+*                                      X'10'-I-TYPE PROGRAM EXECUTING
                            887+*                                      X'08'-RESERVED FOR CCP
                            888+*                                      X'04'-TAPE FILE CARD REC'D
                            889+*                                      X'02'-CORE ROLLED OUT
                            890+*                                      X'01'-UNIT RECORD INDICATOR FOR
                            891+*                                            INQUIRY

                      0095  893+NPSCH6 EQU   NPSCH5+1                  1   SCHEDULER SWITCHES
                            894+*                                      X'80'-LOAD * RUNNING THIS LEVEL
                            895+*                                      X'40'-TEMP END-OF-STEP HALT
                            896+*                                            ON-ISSUE EOS MESSAGE
                            897+*                                            OFF-DON'T ISSUE EOS MSG
                            898+*                                      X'20'-CHANGE LINE 1 TO 2
                            899+*                                      X'10'-CHANGE LINE 2 TO 1
                            900+*                                      X'08'-MFCU FILE PREV OPENED
                            901+*                                      X'04'-/. READ
                            902+*                                      X'02'-PROCESSING MODE
                            903+*                                            ON-JOB MODE
                            904+*                                            OFF-STEP MODE
                            905+*                                      X'01'-MFCU FILE PREV OPENED

                0096  907+NPSCH7 EQU   NPSCH6+1                  1   SCHED SWITCHES
                      908+*                                      X'80'-JOB CARD REC'D
                      909+*                                      X'40'-RUN CARD REC'D
                      910+*                                      X'20'-READ-AHEAD DONE
                      911+*                                      X'10'-EJ TO BE HANDLED
                      912+*                                      X'08'-FLUSH IS COMPLETE
                      913+*                                      X'04'-DO NOT HALT IF ERROR
                      914+*                                      X'02'-FLUSH FROM 3 OPTION
                      915+*                                      X'01'-FLUSH FROM 2 OPTION

                0097  917+NPSCH8 EQU   NPSCH7+1                  1   SCHED SWITCHES
                      918+*                                      X'80'-TAG SORT FOR 5445
                      919+*                                      X'40'-CONSOLE IN USE BY DM
                      920+*                                      X'20'-VALID FILES CARDS REC'D
                      921+*                                      X'10'-SHARED I/O PROGRAM
                      922+*                                      X'08'-I OR B TYPE PROGRAM
                      923+*                                      X'04'-ALLOCATE UNSUCCESSFUL
                      924+*                                      X'02'-MAXIMUM REQUEST MET
                      925+*                                      X'01'-MINIMUM REQUEST MET
```

```
                      0098  927+NPSCH9 EQU   NPSCH8+1                1   DISK LOG UNIT ID FOR EOJ/
                            928+*                                       DEALLOCATE
                      0099  929+NPSCHA EQU   NPSCH9+1                1   SCHEDULER SWITCHES
                            930+*                                      X'80'-INAT TO INDS F1 SORT CON
                            931+*                                      X'40'-SPLIT CYLINDER SUB ALLOC
                            932+*                                      X'20'-CALL TAPE DLOG AT EJ
                            933+*                                      X'10'-RESERVED
                            934+*                                      X'08'-ACTIVE FILE ON T1
                            935+*                                      X'04'-ACTIVE FILE ON T2
                            936+*                                      X'02'-ACTIVE FILE ON T3
                            937+*                                      X'01'-ACTIVE FILE ON T4

                      009A  939+NPSCHB EQU   NPSCHA+1                1   SCHEDULER BYTE
                            940+*                                      X'80'-CHECKPOINT PGM EXECUTING
                            941+*                                      X'40'-5445 FILE CARD PRESENT
                            942+*                                      X'20'-DEFERRED ALLOCATE REQUEST
                            943+*                                      X'10'-DISK DTFS ENCOUNTERED IN
                            944+*                                            RESOURCE ALLOCATE
                            945+*                                      X'08'-NEW FILE ALLOCATED ON D1
                            946+*                                      X'04'-NEW FILE ALLOCATED ON D2
                            947+*                                      X'02'-NEW FILE ALLOCATED ON D3
                            948+*                                      X'01'-NEW FILE ALLOCATED ON D4

                      009B  950+NPMANT EQU   NPSCHB+1                1   LIBRARY MAINTENANCE
                            951+*                                      X'80'-SYSPUNCH INDICATOR
                            952+*                                      X'40'-RUN $$OXRF ON R1
                            953+*                                      X'20'-RUN $$OXRF ON F1
                            954+*                                      X'10'-RUN $$OXRF ON R2
                            955+*                                      X'08'-RUN $$OXRF ON F2
                            956+*                                      X'04'-CONTROL CARD FOUND
                            957+*                                      X'02'-UNUSED
                            958+*                                      X'01'-PICKEREL RUNNING THIS LVL

                009D  960+NPSRAA EQU   NPMANT+2                2   @ OF SCHED READ-AHEAD AREA
                009E  961+NPMPFL EQU   NPSRAA+1                1   MATRIX PRINTER FORMS LENGTH
                009F  962+NPLNK@ EQU   NPMPFL+1                1   LEFT BYTE OF LKED START @

                00A0  964+NPUNCH EQU   NPLNK@+1                1   SYSPUNCH ID
                            965+*                                      X'01'-MFCU1
                            966+*                                      X'02'-MFCU2
                            967+*                                      X'81'-1442
                            968+*                                      X'82'-MFCM1    8X-80 COL DEVICE
                            969+*                                      X'84'-MFCM2

                00A1  971+NPSYSP EQU   NPUNCH+1                1 SYSPRINT ID
                            972+*                                      X'01'-1403
                            973+*                                      X'02'-3284

                00A2  975+NPUTIL EQU   NPSYSP+1                1   UTILITY INTERLOCK
                            976+*                                      X'80'-X'08'-F2  . ALLOCATED
                            977+*                                      X'40'-X'04'-R2   .    OR
                            978+*                                      X'20'-X'02'-F1   .    IN
                            979+*                                      X'10',X'01'-R1  .    USE

                00A3  981+NPUTL1 EQU   NPUTIL+1                1   TAPE INTERLOCK
                            982+*                                      X'80'-T1 IN USE
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                                983+*                                    X'40'-T2 IN USE
                                984+*                                    X'20'-T3 IN USE
                                985+*                                    X'10'-T4 IN USE
                                986+*                                    X'08'-LIBRARY USAGE INTERLOCK
                                987+*                                    X'04'-OPEN/CLOSE/EOV HAS SCHED
                                988+*                                          INTERLOCK
                                989+*                                    X'02'-ALLOCATE HAS SCHED INTERL

                          00A4  991+NPUTL2 EQU   NPUTL1+1                1   5445 INTERLOCK
                                992+*                                    X'80'-X'08'-D4   .  ALLOCATED
                                993+*                                    X'40'-X'04'-D3   .    OR
                                994+*                                    X'20'-X'02'-D2   .     IN
                                995+*                                    X'10'-X'01'-D1   .    USE

                          00A6  997+NPSCHC EQU   NPUTL2+2                2   @ OF START OF TAPE F1S (SD)
                          00A8  998+NPSCHD EQU   NPSCHC+2                2   @ OF START OF 5444 F1S (SD)
                          00AA  999+NPSCHE EQU   NPSCHD+2                2   @ OF START OF 5445 F1S (SD)
                          00AC 1000+NPSCHF EQU   NPSCHE+2                2   @ OF START OF UNIT RECORD F1
                          00AE 1001+NPSCHG EQU   NPSCHF+2                2   @ OF NEXT AVAIL F1 (SD)
                          00B0 1002+NPOCAF EQU   NPSCHG+2                2   @ OF DM A/F SPACE
                          00B1 1003+NPSPLZ EQU   NPOCAF+1                1   SYSPRINT LINE SIZE
                          00B2 1004+NPSPFL EQU   NPSPLZ+1                1   SYSPRINT FORMS LENGTH
                          00B2 1005+NPECOM EQU   NPSPFL                  -   END OF PROG LEVEL COMM AREA
```

```
                          1007+*************************************************************************
                          1008+*                                                                       *
                          1009+*     SYSTEM COMMUNICATIONS AREA                                        *
                          1010+*                                                                       *
                          1011+*************************************************************************


                     0000 1013+NCC    EQU   0                        *
                     0001 1014+NCPL1  EQU   NCC+1                    2   @ OF PROG LEVEL 1 COMM
                     0003 1015+NCPL2  EQU   NCPL1+2                  2   @ OF PROG LEVEL 2 COMM
                     0005 1016+NCTCB  EQU   NCPL2+2                  2   @ OF HIGHEST PRIORITY TCB
                     0007 1017+NCXTAB EQU   NCTCB+2                  2   @ OF XSNT SCHEDULER TABLE
                     0009 1018+NC@NEW EQU   NCXTAB+2                 2   @ OF NEW AND OLD
                          1019+*                                      OLD=@ OF ACTIVE TCB
                     000A 1020+NCDSP1 EQU   NC@NEW+1                 1  TRACE SUPERVISION BITS
                     0080 1021+NCTRCA EQU   X'80'                    X'80'-TRACE ACTIVE
                     0040 1022+NCTRCS EQU   X'40'                    X'40'-TRACE SUSPENDED
                     0020 1023+NCTCCP EQU   X'20'                    X'20'-CCPTRACE TYPE-CCP
                     0010 1024+NCTALL EQU   X'10'                    X'10'-CCPTRACE TYPE-ALL
                     0008 1025+NCTRDK EQU   X'08'                    X'08'-CCPTRACE TO DISK

                     000B 1027+NCDSP2 EQU   NCDSP1+1                 1   TASK SUPERVISION BITS
                          1028+*                                      X'08'-TASK(S) WAITING FOR
                          1029+*                                            RESOURCES
                          1030+*                                      X'04'-TRANSIENT AREA NOT
                          1031+*                                            REFRESHABLE
                          1032+*                                      X'02'-HIGHER PRIORITY TASKS ARE
                          1033+*                                            WAITING ON TRANSIENT AREA
                          1034+*                                      X'01'-TASK(S) WAITING FOR CORE

                     000C 1036+NCSGEN EQU   NCDSP2+1                 -   SYSTEM USAGE
                          1037+*                                      X'80'-DO NOT UPDATE SIO CTRS
                          1038+*                                      X'02'-SYSTEM MAINTENANCE
                          1039+*                                      X'01'-SYSTEM GENERATION

                     000D 1041+NCAFML EQU   NCSGEN+1                 1   ASIGN/FREE MASK LENGTH
                     0010 1042+NCSLOG EQU   NCAFML+3                 3   SYSLOG INDICATOR C/S/DEV INF
                          1043+*                                      X'00'-CONSOLE
                          1044+*                                      X'80'-3284
                          1045+*                                      X'40'-1403

                     0012 1047+NCSWRK EQU   NCSLOG+2                 2   C/S OF SWA
                     0013 1048+NCSYSQ EQU   NCSWRK+1                 1   Q OF SYSTEM PACK
                     0015 1049+NCOLIB EQU   NCSYSQ+2                 2   C/S OF SYSTEM OBJECT LIB
                     001B 1050+NCDATE EQU   NCOLIB+6                 6   SYSTEM DATE
                     001C 1051+NCSCH1 EQU   NCDATE+1                 1   SCHEDULER SWITCHES
                          1052+*                                      X'80'-LOG STATUS
                          1053+*                                            ON-LOG TO CRT
                          1054+*                                            OFF-LOG TO 1403 OR 3284
                          1055+*                                      X'40'-SYSTEM DATE RECEIVED
                          1056+*                                      X'10'-SKD INTERLOCK PL1
                          1057+*                                      X'08'-SKD INTERLOCK PL2
                          1058+*                                      X'04'-DATE FORMAT
                          1059+*                                            OFF-MMDDY DOMESTIC
                          1060+*                                            ON-DDMMYY WORLD TRADE
                          1061+*                                      X'03'-5444 CONFIG
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                               1062+*                                    00-F1,R1
                               1063+*                                    01-F1,R1,R2
                               1064+*                                    11-F1,R1,R2,F2

                          001D 1066+NCSMV1 EQU   NCSCH1+1                  1   DM/SKD SWITCHES
                               1067+*                                     X'80'-IPL SUCCESSFUL
                               1068+*                                     X'40'-INPUT FOR I TYPE
                               1069+*                                     X'20'-SYSLOG INTERLOCK-P1
                               1070+*                                     X'10'-SYSLOG INTERLOCK-P2
                               1071+*                                   -  X'08'-OFFLINE MVF ON R1
                               1072+*                                -     X'04'-OFFLINE MVF ON R2
                               1073+*                          PL 1  -     X'02'-OTHER FILE ON R1
                               1074+*                                   -  X'01'-OTHER FILE ON R2

                          001E 1076+NCSMV2 EQU   NCSMV1+1                  1   DM/SKD SWITCHES
                               1077+*                                     X'80'-SPOOL IS ACTIVE
                               1078+*                                     X'40'-SYSTEM IPL MODE
                               1079+*                                     X'20'-SPOOL SUPPORTED
                               1080+*                                   -  X'08'-OFFLINE MVF ON R1
                               1081+*                           PL 2 -     X'04'-OFFLINE MVF ON R2
                               1082+*                                -     X'02'-OTHER FILE ON R1
                               1083+*                                   -  X'01'-OTHER FILE ON R2

                          001F 1085+NCSCH  EQU   NCSMV2+1                  1   SKD BYTE
                               1086+*                                     X'80'-INQUIRY SUPPORTED
                               1087+*                                     X'40'-CCP SUPPORTED
                               1088+*                                     X'20'-TIMER SUPPORTED


                     0021 1090+NCDSKQ EQU   NCSCH+2                   2   @ OF 5444 QUEUE
                     0023 1091+NCDSK5 EQU   NCDSKQ+2                  2   @ OF 5445 QUEUE
                     0025 1092+NCTAPQ EQU   NCDSK5+2                  2   @ OF TAPE QUEUE
                     0027 1093+NCURQ  EQU   NCTAPQ+2                  2   @ OF FIRST UNIT RECORD QUEUE
                     0029 1094+NCETQ@ EQU   NCURQ+2                   2   @ OF SYSTEM ERROR TASK QUEUE
                     002B 1095+NCCMTQ EQU   NCETQ@+2                  2   @ OF CONSOLE MGT COMM AREA

                     002E 1097+NCRCSS EQU   NCCMTQ+3                  3   ROLL/OUT C/S/N
                     002F 1098+NCCONF EQU   NCRCSS+1                  1   5445 AND TAPE CONFIG
                               1099+*                                     X'80'-RESERVED
                               1100+*                                     X'40'-RESERVED
                               1101+*                                     X'38' - 100 - D1
                               1102+*                                             101 - D1,D2
                               1103+*                                             110 - D1,D2,D3
                               1104+*                                             111 - D1,D2,D3,D4
                               1105+*                                     X'07' - 100 - T1
                               1106+*                                             101 - T1,T2
                               1107+*                                             110 - T1,T2,T3
                               1108+*                                             111 - T1,T2,T3,T4

                     0030 1110+NCSCH3 EQU   NCCONF+1                   1   SCHEDULER BYTE
                     0031 1111+NCSCH4 EQU   NCSCH3+1                   1   SCHEDULER BYTE
                     0033 1112+NCRQE  EQU   NCSCH4+2                   2   @ OF RQE TABLE
                     0034 1113+NCEXTR EQU   NCRQE+1                    1   EXTRA BYTE
                     0035 1114+NCSMV3 EQU   NCEXTR+1                   1   5445 DM MVF INTERLOCK
                               1115+*                                     PGM LEVEL 1
                               1116+*                                     X'80'-MULTIVOLUME FILE ON D1
```

```
                      1117+*                                  X'40'-MULTIVOLUME FILE ON D2
                      1118+*                                  X'20'-MULTIVOLUME FILE ON D3
                      1119+*                                  X'10'-MULTIVOLUME FILE ON D4
                      1120+*                                  X'08'-OTHER TYPE FILE ON D1
                      1121+*                                  X'04'-OTHER TYPE FILE ON D2
                      1122+*                                  X'02'-OTHER TYPE FILE ON D3
                      1123+*                                  X'01'-OTHER TYPE FILE ON D4

                0036  1125+NCSMV4 EQU   NCSMV3+1             1   5445 DM MVF INTERLOCK
                      1126+*                                   PGM LEVEL 2
                      1127+*                                  X'80'-MULTIVOLUME FILE ON D1
                      1128+*                                  X'40'-MULTIVOLUME FILE ON D2
                      1129+*                                  X'20'-MULTIVOLUME FILE ON D3
                      1130+*                                  X'10'-MULTIVOLUME FILE ON D4
                      1131+*                                  X'08'-OTHER TYPE FILE ON D1
                      1132+*                                  X'04'-OTHER TYPE FILE ON D2
                      1133+*                                  X'02'-OTHER TYPE FILE ON D3
                      1134+*                                  X'01'-OTHER TYPE FILE ON D4

                0037  1136+NCMVT1 EQU   NCSMV4+1             4   TAPE MFV SUPPORT
                003B  1137+NCMVT2 EQU   NCMVT1+4             4   TAPE MFV SUPPORT
                003F  1138+NCMVT3 EQU   NCMVT2+4             4   TAPE MFV SUPPORT
                0043  1139+NCMVT4 EQU   NCMVT3+4             4   TAPE MFV SUPPORT
                0048  1140+NCPRTB EQU   NCMVT4+5             2   @ OF 133-BYTE SYSLOG BUFR
                0049  1141+NCCNFG EQU   NCPRTB+1             17  START OF 17-BYTE UR CONFIG
                005A  1142+NCUTL1 EQU   NCCNFG+17            1   RESERVED FOR SPOOL
                      1143+*                                   X'80'-SPOOL USING D1
                      1144+*                                   X'40'-SPOOL USING D2
                      1145+*                                   X'20'-SPOOL USING D3
                      1146+*                                   X'10'-SPOOL USING D4

                005B  1148+NCSIPT EQU   NCUTL1+1             1   SPOOL INPUT DEVICE
                005C  1149+NCSPRT EQU   NCSIPT+1             1   SPOOL PRINT DEVICE
                005D  1150+NCSPCH EQU   NCSPRT+1             1   SPOOL PUNCH DEVICE
                005F  1151+NCSPVN EQU   NCSPCH+2             2   SUPERVISOR END @
                0061  1152+NCPFKT EQU   NCSPVN+2             2   @ OF PROG FUNCTION KEY TABLE
                0062  1153+NCMPSZ EQU   NCPFKT+1             1   MATRIX PRINTER SIZE
                0063  1154+NCMPLC EQU   NCMPSZ+1             1   MATRIX PRINTER LINE COUNT
                0065  1155+NCTMRQ EQU   NCMPLC+2             2   @ OF TIMER QUEUE
                0065  1156+NCAEND EQU   NCTMRQ               LAST BYTE OF SCA
```

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                          1158+*************************************************************************
                          1159+*                                                                       *
                          1160+*  COMMON EQUATES                                                       *
                          1161+*                                                                       *
                          1162+*************************************************************************
                     0004 1163+NCENTR EQU   4                          'BRANCH TO 4'
                     0011 1164+NCSYS@ EQU   X'0011'                    @ OF POINTER TO SYSTEM COMM
                     001A 1165+NCMSVA EQU   X'001A'                    @ OF MFCU PERM HISTORY TABLE
                     002A 1166+NCTRAC EQU   X'002A'                    @ OF POINTER TO TRACE TABLE
                     002E 1167+NCTCB@ EQU   X'002E'                    @ OF POINTER TO ACTIVE TCB (OLD)
                     0031 1168+NCTERM EQU   X'0031'                    @ OF POINTER TO ABTERM ROUTINE
                     0032 1169+NCSVCJ EQU   X'0032'                    @ OF AN SVC TO EOJ
                     0036 1170+NCSVCE EQU   X'0036'                    @ OF AN SVC EXIT
                     003B 1171+NCTRAP EQU   X'003B'                    @ OF POINTER TO TRAP TABLE
                     003F 1172+NCPENT EQU   X'003F'                    @ OF PONTER TO POST ENTRY RTN
                     0041 1173+NCDENT EQU   X'0041'                    @ OF POINTER TO DISP ENTRY RTN
                     0043 1174+NCCCP  EQU   X'0043'                    @ OF CCP SVC INTERCEPT ADDRESS
                     0045 1175+NCXTB@ EQU   X'0045'                    @ OF CCP TCB AREA START ADDRESS
                     0047 1176+NCXTE@ EQU   X'0047'                    @ OF CCP TCB AREA END ADDRESS
                     0048 1177+NCCECB EQU   X'0048'                    @ OF CCP COMMAND PROCESSOR ECB
                     0700 1178+NCHIMG EQU   X'0700'                    @ OF CHAIN IMAGE
                     077C 1179+NCSBUF EQU   X'077C'                    @ OF SYSLOG PRINT BUFFER.
                     0100 1180+NCPCHK EQU   X'0100'                    @ OF PROGRAM CHECK SAVE AREA
                     0800 1181+NCTA@  EQU   X'0800'                    @ OF TRANSIENT AREA
                     00C0 1182+NCL2PR EQU   X'C0'                      LEVEL 2 PRIORITY
```

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                          1184 *      $ECPL RTNCD-EXCP                                                    CCP00271
                          1185+*****************************************************************
                          1186+*      C O M M U N I C A T I O N S   P A R A M E T E R   L I S T     *
                          1187+*****************************************************************

                     0000 1189+CCPPL  EQU   0                         BEGINNING OF PARAMETER LIST.

                     0001 1191+PLRTC  EQU   CCPPL+2-1                 REQUESTERS RETURN CODE.
                     0001 1192+PLCHN  EQU   PLRTC                     PARM LIST CHAIN PTR. * CM ONLY *

                     0002 1194+PLOPM  EQU   PLRTC+1                   REQUESTERS OP CODE MODIFIERS.
                     0003 1195+PLOPC  EQU   PLOPM+1                   REQUESTERS OP CODE.

                     0005 1197+PLOUTL EQU   PLOPC+2                   OUTPUT LENGTH.
                     0005 1198+PLEFFL EQU   PLOUTL                    EFFECTIVE INPUT LENGTH.
                     0005 1199+PLASID EQU   PLOUTL                    TERMINAL ATTRIBUTE SET ID.

                     0007 1201+PLINL  EQU   PLOUTL+2                  MAXIMUM INPUT LENGTH.

                     0009 1203+PLRECA EQU   PLINL+2                   RECORD AREA ADDRESS.

                     000B 1205+PLTUBA EQU   PLRECA+2                  TUB ADDRESS.  ** CM ONLY **

                     000C 1207+PL$OPM EQU   PLTUBA+1                  INTERNAL OPERATION CODE.

                     000D 1209+PL$OPC EQU   PL$OPM+1                  SAVED INTERNAL OP.*CM BSCA ONLY*
                     000D 1210+PL$MCT EQU   PL$OPC                    MCT INDICES.      *CM MLTA ONLY*

                     000F 1212+PL$RTC EQU   PL$OPC+2                  INTERNAL RETURN CODE. ** CM **
                     000F 1213+PL$TNT EQU   PL$RTC                    ADDRESS OF TNT ENTRY  ** II **

                     000F 1215+PLENDS EQU   PL$TNT                    END OF PARAMETER LIST

                     0010 1217+PLECB  EQU   PL$RTC+1                  PARAMETER LIST'S ECB.

                     0010 1219+PLLNG  EQU   PLECB-CCPPL               PARAMETER LIST LENGTH

                     0013 1221+PLLEN  EQU   PLECB-CCPPL+3             LENGTH OF TP REQUEST PARM LIST.


                          1223+*-------------------------------------------------------------------*
                          1224+*               PLOPM-OP CODE MODIFIER                              *
                     0080 1225+OPREQR EQU   BIT0                      ON-SYSTEM REQUEST.           *
                          1226+*                                      OFF-USER REQUEST.            *
                     0080 1227+OP$SYS EQU   OPREQR                    SYSTEM IS REQUESTER.         *
                     0040 1228+OPOLT  EQU   BIT1                      PROGRAM INITIATED ONLINE TEST. *
                     0020 1229+OPDISC EQU   BIT2                      DISCONNECT THE LINE.         *
                     0010 1230+OPPRT  EQU   BIT3                      3270 PRINT OPERATION.        *
                     0008 1231+OPLIST EQU   BIT4                      3270 MAPPING SPECIAL LIST.   *
                     0004 1232+OPSTOP EQU   BIT5                      STOP OPERATION.              *
                     0002 1233+OPSOL  EQU   BIT6                      1-SUPPRESS START NEW LINE.   *
                          1234+*                                      0-ASSURE TYPEWRITER BEGINS AT  *
                          1235+*                                      THE START OF A LINE.         *
                     0001 1236+OPEOL  EQU   BIT7                      1-SUPPRESS END NEW LINE.     *
                          1237+*                                      0-ASSURE TYPEWRITER ENDS AT THE*
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                          1238+*                                    START OF A LINE.                *
                          1239+OPDLY  EQU   BIT7                    SHUTDOWN DELAY MODIFIER         *
                          1240+*-------------------------------------------------------------------*

                          1242+*-------------------------------------------------------------------*
                          1243+*                 PLOPC-OPERATION CODE                              *
                          1244+*                  NUMERIC VALUES (BITS 0-3)                        *
                          1245+OPSTD  EQU   X'00'                   STANDARD UNIT OF DATA.(RECORD)  *
                          1246+OPOPTN EQU   X'10'                   SPECIAL OPERATION OPTION        *
                          1247+OPKPL  EQU   X'10'                   ON RELEASE OP -- KEEP THE LINE. *
                          1248+OPSTA  EQU   X'10'                   ON ACQUIRE OP -- SET ATTRIBUTES *
                          1249+OPRVI  EQU   X'10'                   GET DATA -- SEND RVI RESPONSE.  *
                          1250+OPLINE EQU   X'10'                   LINE OPERATION- LIKE PURGE LINE *
                          1251+OPBLK  EQU   X'20'                   UNIT OF DATA = BLOCK.           *
                          1252+OPMSG  EQU   X'30'                   UNIT OF DATA = MESSAGE.         *
                          1253+OPCOPY EQU   X'40'                   3270 COPY OPERATION.            *
                          1254+OPEAU  EQU   X'50'                   3270 ERASE-ALL-UNPROTECTED FLDS *
                          1255+OPRUF  EQU   X'70'                   3270 READ UNDER FORMAT CONTROL  *
                          1256+OPORDR EQU   X'F0'                   MASK FOR ORDER HALF BYTE.       *
                          1257+*                  BINARY VALUES (BITS 4-7)                         *
                          1258+OPSTAT EQU   BIT4                    STATUS OPERATION.               *
                          1259+OPNOW  EQU   BIT5                    NO-WAIT OPERATION.              *
                          1260+OPPUT  EQU   BIT6                    OUTPUT OPERATION.               *
                          1261+OPGET  EQU   BIT7                    INPUT OPERATION.                *
                          1262+*                  EFFECTIVE OP CODES                                *
                          1263+OPSHQ  EQU   0                       SHUTDOWN INQUIRY.               *
                          1264+OPPTG  EQU   OPPUT+OPGET             PUT-THEN-GET.                   *
                          1265+OPPURG EQU   OPPUT+OPGET+OPLINE      PURGE REQUEST                   *
                          1266+OPACI  EQU   BIT5                    ACCEPT INPUT.  (WAIT)           *
                          1267+OPANW  EQU   OPACI+BIT1              ACCEPT-NO-WAIT INPUT.           *
                          1268+OPWAIT EQU   OPACI+OPOPTN            WAIT OPERATION.                 *
                          1269+OPINV  EQU   OPGET+OPNOW             INVITE INPUT.                   *
                          1270+OPPNW  EQU   OPPUT+OPNOW             PUT NO WAIT.                    *
                          1271+OPGTA  EQU   OPSTAT                  GET TERMINAL ATTRIBUTES.        *
                          1272+OPACQ  EQU   OPSTAT+OPGET            ACQUIRE TERMINAL.               *
                          1273+OPCMDT EQU   OPSTAT+OPGET+BIT2       AQUIRE COMMAND TERM. NON-PRUF   *
                          1274+OPAQG  EQU   OPSTAT+OPGET+BIT2+BIT1  GENERIC ACQUIRE PORT TERM.      *
                          1275+OPREL  EQU   OPSTAT+OPPUT            RELEASE TERMINAL.               *
                          1276+OPRTC  EQU   OPSTAT+OPPUT+BIT1       RELEASE AND TASK CHAIN.         *
                          1277+OPTCHN EQU   OPSTAT+OPPUT+BIT2       TASK CHAIN REQUEST OPCODE       *
                          1278+OPPCR  EQU   OPSTAT+OPPUT+OPMSG      PORT COMMAND REQUEST OPCODE     *
                          1279+OPDMY  EQU   OPSTAT+OPNOW+OPGET+OPMSG DUMMY PORT INPUT PARM LIST.     *
                          1280+OPJRSH EQU   BIT0                    RESCHEDULE ONLY REQUEST         *
                          1281+*-------------------------------------------------------------------*

                          1283+*-------------------------------------------------------------------*
                          1284+*            PLOPC / PLOPM OPERATION CODE COMBINATIONS               *
                          1285+*                                                                    *
                          1286+*                     USER-ISSUED OPERATION CODES                    *
                          1287+*                                                                    *
                          1288+* X'0000'                          SHUTDOWN INQUIRY               *
                          1289+* X'0001'                          GET RECORD                     *
                          1290+* X'0002'                          PUT RECORD                     *
                          1291+* X'0003'                          PUT THEN GET                   *
                          1292+* X'0004'                          ACCEPT INPUT                   *
                          1293+* X'0005'                          INVITE INPUT                   *
```

```
                          1294+* X'0006'                          PUT-NO-WAIT RECORD          *
                          1295+* X'0008'                          GET TERMINAL ATTRIBUTES     *
                          1296+* X'0009'                          ACQUIRE TERMINAL            *
                          1297+* X'000A'                          RELEASE TERMINAL (DROP)     *
                          1298+* X'0011'                          GET - RVI RESPONSE          *
                          1299+* X'0014'                          WAIT OPERATION              *
                          1300+* X'0019'                          ACQUIRE AND SET ATTRIBUTES  *
                          1301+* X'001A'                          RELEASE TERMINAL (KEEP)     *
                          1302+* X'0021'                          GET BLOCK                   *
                          1303+* X'0022'                          PUT BLOCK                   *
                          1304+* X'0023'                          PUT-THEN-GET BLOCK          *
                          1305+* X'0026'                          PUT-NO-WAIT BLOCK           *
                          1306+* X'0029'                          AQUIRE NON-PRUF COMMAND TERM*
                          1307+* X'002A'                          TASK CHAIN REQUEST(OLE)     *
                          1308+* X'0031'                          GET MESSAGE                 *
                          1309+* X'0032'                          PUT MESSAGE                 *
                          1310+* X'0033'                          PUT-THEN-GET MESSAGE        *
                          1311+* X'0042'                          DFF COPY OPERATION          *
                          1312+* X'0044'                          ACCEPT-NO-WAIT INPUT        *
                          1313+* X'004A'                          RELEASE AND TASK CHAIN      *
                          1314+* X'0052'                          DFF ERASE OPERATION         *
                          1315+* X'0072'                          RUF PUT MESSAGE             *
                          1316+* X'0401'                          STOP INVITE INPUT           *
                          1317+*                                                              *
                          1318+*                    SYSTEM-ISSUED OPERATION CODES             *
                          1319+*                                                              *
                          1320+* X'8002'                              SYSTEM PUT              *
                          1321+* X'8005'                              SYSTEM INVITE INPUT     *
                          1322+* X'8006'                              SYSTEM PUT-NO-WAIT      *
                          1323+* X'8007'                              SYSTEM PUT-NO-WAIT INVITE*
                          1324+* X'8401'                              SYSTEM STOP INVITE      *
                          1325+* X'8403'                              SYSTEM PURGE OF TERMINAL*
                          1326+* X'8413'                              SYSTEM PURGE OF WHOLE LINE*
                          1327+* X'A006'                              SYSTEM PUT DISCONNECT   *
                          1328+* X'A413'                              SYSTEM PURGE AND PUT DISCONNECT*
                          1329+*                                                              *
                          1330+*--------------------------------------------------------------*

                          1332+*--------------------------------------------------------------*
                          1333+*                PL$OPM-INTERNAL OP CODE                       *
                0080      1334+OPGETM EQU   BIT0                    1-NEED TO GETMAIN STORAGE FOR  *
                          1335+*                                    * THIS TP REQUEST.          *
                0040      1336+OPGETQ EQU   BIT1                    1-NEED GETMAIN TO FINISH    *
                          1337+*                                    * QUEUEING THIS REQUEST.    *
                0020      1338+OPNPST EQU   BIT2                    DON'T POST PURGED PUT.MLTA ONLY*
                0010      1339+OPBNOP EQU   BIT3                    DON'T POST ERP OP END.BSCA ONLY*
                          1340+*                                                              *
                          1341+*  BITS 4-7 ARE THE SAME AS FOR PLOPC.                         *
                          1342+*--------------------------------------------------------------*

                          1344+*--------------------------------------------------------------*
                          1345+*                PL$OPC-SAVED INTERNAL OP ** BSCA ONLY **      *
                0080      1346+OPRFSH EQU   BIT0                    SEND REFRESH MSG TO 3270.   *
                0040      1347+OPLSNS EQU   BIT1                    POLL FOR TERMINAL STATUS.   *
                0020      1348+OPUSER EQU   BIT2                    FUNCTION, 1-SYSTEM, 0-USER. *
                0010      1349+OPSTCM EQU   BIT3                    STOP INVITE PARM LIST HANDLED. *
```

```
                                1350+*                                                                *
                                1351+*  BITS 4-7 ARE THE SAME AS FOR PLOPC.                           *
                                1352+*--------------------------------------------------------------------*
                                1354+*--------------------------------------------------------------------*
                                1355+*                PL$RTC-INTERNAL RETURN CODE                     *
                                1356+*                                                                *
                                1357+*                 SUCCESSFUL OP CODE                             *
                                1358+*                   PL$RTC=00XX, FOR XX AS FOLLOWS:              *
                           0000 1359+RCOK   EQU   X'00'                    SUCCESSFUL OPERATION. (00)  *
                           000E 1360+RCOKTC EQU   X'0E'                    TC ACCEPT INPUT OKAY. (14)  *
                                1361+*                                                                *
                                1362+*                  EXCEPTION RETURN CODES                        *
                                1363+*                   PL$RTC=00XX, FOR XX AS FOLLOWS:              *
                           0001 1364+RCXDTR EQU   X'01'                    DATA TRUNCATED.            *
                           0002 1365+RCXEOT EQU   X'02'                    EOT RECEIVED.              *
                           0003 1366+RCXEDT EQU   X'03'                    EOT RECEIVED AND DATA TRUNCATED*
                                1367+*     DATA TRANSFER IS VALID ONLY FOR OPERATIONS WHICH YIELD RETURN  *
                                1368+*          CODES OF 0, +1, +2, +3, OR +6.                        *
                           0004 1369+RCXSHD EQU   X'04'                    SHUTDOWN REQUESTED.        *
                           0005 1370+RCXDPD EQU   X'05'                    DATA PENDING ON BSCA LINE. *
                           0006 1371+RCXRVI EQU   X'06'                    RVI/TERMINAL INTERRUPT RECEIVED*
                           0007 1372+RCXCLR EQU   X'07'                    3270 CLEAR KEY RECEIVED.   *
                           0008 1373+RCXNAV EQU   X'08'                    TERMINAL NO LONGER AVAILABLE.  *
                           0009 1374+RCXOFF EQU   X'09'                    TERMINAL OFFLINE.          *
                           000A 1375+RCXSPI EQU   X'0A'                    STOP INVITE INPUT SUCCESSFUL.  *
                           000B 1376+RCXNAQ EQU   X'0B'                    ACQUIRE TERMINAL FAILED.   *
                           000C 1377+RCXNTC EQU   X'0C'                    NO TASK CHAIN TUBS AVALABLE.   *
                           000D 1378+RCXNTP EQU   X'0D'                    TPBUFFER SPACE NOT AVALABLE.   *
                           000F 1379+RCXNTR EQU   X'0F'                    TC ACCEPT WITH DATA TRUNCATED. *
                           0010 1380+RCXNAC EQU   X'10'                    ACC-NO-WAIT RETURNED NO DATA.  *
                           0011 1381+RCXSHP EQU   X'11'                    SHUTDOWN PENDING RETURN CODE.  *
                           007E 1382+RCXNIQ EQU   X'7E'                    SPI FAILED-NO INVITE IN Q.     *
                           007F 1383+RCXSPF EQU   X'7F'                    STOP INVITE INPUT FAILED.      *
                                1384+*                                                                *
                                1385+*                  PORT TERMINATION CODES.                       *
                                1386+*                  PL$RTC=40XX, TERMINATE TASK WITH XX.          *
                           0040 1387+RCRTRM EQU   X'40'                    PORT TERMINATION CODE FOLLOWS  *
                                1388+*--------------------------------------------------------------------*
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                           1391 *      $ETAS                                                          CCP00273
                           1392+*************************************************************************
                           1393+*            T E R M I N A L   A T T R I B U T E S   S E T            *
                           1394+*************************************************************************


                      0000 1396+TASCCP EQU   0                          BEGINNING OF TAS ENTRY

                           1398+* ATTRIBUTES BYTE 1

                      0000 1400+TASAT1 EQU   TASCCP-1+1                 ATTRIBUTE BYTE 1

                      0080 1402+TASTRN EQU   BIT0                       0-TRANSLATE
                           1403+*                                       1-DON'T TRANSLATE
                      0040 1404+TASCAS EQU   BIT1                       0-FORCE UPPER CASE TRANSLATE
                           1405+*                                       1-DO NOT FORCE UPPER CASE
                      0020 1406+TASCNC EQU   BIT2                       0-ON SWITCHED LINE, ANSWER
                           1407+*                                       1-ON SWITCHED LINE, CALL OUT
                      0010 1408+TASAUT EQU   BIT3                       0-ON SW LINE, MANUAL CONNECT
                           1409+*                                       1-ON SW LINE, AUTO CONNECT
                      0008 1410+TASINX EQU   BIT4                       0-TUBBKF IS BLOCKING FACTOR
                           1411+*                                       1-TUBBKF IS INDEX TO CURRENT TAS
                      0006 1412+TASRSV EQU   BIT5+BIT6                  RESERVED BITS
                      0001 1413+TASDFF EQU   BIT7                       0-DO NOT USE DFF
                           1414+*                                       1-USE DISPLAY FORMAT FACILITY

                           1416+* ATTRIBUTES BYTE 2

                      0001 1418+TASAT2 EQU   TASAT1+1                   ATTRIBUTE BYTE 2

                      0080 1420+TASREC EQU   BIT0                       0-DATA FORMAT IS NOT RECORD MODE
                           1421+*                                       1-DATA FORMAT IS RECORD MODE
                      0040 1422+TASBLK EQU   BIT1                       0-DATA FORMAT NOT BLOCK MODE
                           1423+*                                       1-DATA FORMAT IS BLOCK MODE
                      0020 1424+TASMSG EQU   BIT2                       0-DATA FORMAT NOT MESSAGE MODE
                           1425+*                                       1-DATA FORMAT IS MESSAGE MODE
                      0010 1426+TASITB EQU   BIT3                       0-NO ITB SUPPORT
                           1427+*                                       1-ITB SUPPORT
                      0008 1428+TASTSP EQU   BIT4                       0-NON-TRANSPARENCY MODE
                           1429+*                                       1-TRANSPARENCY MODE
                      0004 1430+TASVFY EQU   BIT5                       0-VERIFY EXCHANGE ID
                           1431+*                                       1-NO EXCHANGE ID VERIFICATION
                      0002 1432+TASPAN EQU   BIT6                       0-NO SPANNED RECORD SUPPORT
                           1433+*                                       1-SUPPORT SPANNED RECORDS
                      0001 1434+TASVRL EQU   BIT7                       0-NO VARIABLE LENGTH SUPPORT
                           1435+*                                       1-SUPPORT VARIABLE LENGTH RECORD

                           1437+* RECORD AND BLOCK LENGTHS

                      0003 1439+TASRCL EQU   TASAT2+2                   RECORD LENGTH

                      0004 1441+TASBKF EQU   TASRCL+1                   BLOCKING FACTOR

                      0005 1443+TASLN  EQU   TASBKF-TASCCP+1            LENGTH OF TERMINAL ATTRIBUTE SET
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                      1446 *      $ETUB                                                          CCP00275
                      1447+*************************************************************************
                      1448+*               T E R M I N A L   U N I T   B L O C K                   *
                      1449+*************************************************************************
                0000  1450+TUBCCP EQU   0                        BEGINNING OF TUB
                0001  1451+TUBID  EQU   TUBCCP+1                 TERMINAL PHYSICAL ID (2 BYTES)

                0003  1453+TUBPL@ EQU   TUBID+2                  LAST PARAMETER LIST FOR TUB
                0005  1454+TUBER@ EQU   TUBPL@+2                 PARAMETER LIST IN ERP
                0007  1455+TUBDM@ EQU   TUBER@+2                 PARAMETER LIST AT TIME OF DME

                0008  1457+TUBSID EQU   TUBDM@+1                 INTERNAL TERMINAL ID (BSCA ONLY)

                0009  1459+TUBSCS EQU   TUBSID+1                 BSCA STATUS BYTES    (BSCA ONLY)
                0080  1460+TUBCLR EQU   BIT0                      * 1-3270 CLEAR KEY DEPRESSED
                0040  1461+TUBDME EQU   BIT1                      * 1-DME CHECK SUCCESSFUL
                0020  1462+TUBDMF EQU   BIT2                      * 1-DME CHECK FAILED
                0010  1463+TUBSWA EQU   BIT3                      * 1-SWITCHED LINE DEVICE HANDLED
                      1464+*                                     *    DURING PREVIOUS SYS PURGE.
                0008  1465+TUBSSP EQU   BIT4                      * 1-STOP STATUS POLLING
                0004  1466+TUBRUF EQU   BIT5                      * 1-RUF DATA ON SCREEN(3270 DFF)
                0002  1467+TUBPRG EQU   BIT6                      * 1-PORT TUB IN PURG MODE.
                0001  1468+TUBBPT EQU   BIT7                      * 1-BUSY PRINT ALLOWED

                0009  1470+TUBTMA EQU   TUBSCS                    2 BYTE TERMINAL ADDR (MLTA ONLY)
                      1471+*                                     OVERLAYS TUBSID AND TUBSCS

                      1473+* ATTRIBUTES AND STATUS BYTES
                000A  1474+TUBCHR EQU   TUBTMA+1                 TERMINAL CHARACTERISTICS
                0080  1475+TUBLNE EQU   BIT0                      1-BSCA LINE
                0040  1476+TUB@SL EQU   BIT1                      1-TYPWTR DEVICE AT START OF LINE
                0020  1477+TUBTYP EQU   BIT2                      1-MLTA TYPEWRITER DEVICE
                0010  1478+TUBNID EQU   BIT3                      1-NEED IDLES AT BEGIN OF LINE
                0008  1479+TUBCMN EQU   BIT4                      1-COMMAND (CAPABLE) TERMINAL
                0004  1480+TUBMCT EQU   BIT5                      1-MULTI-COMPONENT TERMINAL
                0002  1481+TUBOUT EQU   BIT6                      1-TERMINAL CAPABLE OF OUTPUT
                0001  1482+TUBINP EQU   BIT7                      1-TERMINAL CAPABLE OF INPUT

                000B  1484+TUBAT1 EQU   TUBCHR+1                 TERMINAL ATTRIBUTES BYTE 1
                0080  1485+TUBKNM EQU   BIT0                      1-THIS TUB IS FOR CONSOLE
                0040  1486+TUBDPY EQU   BIT1                      1-IN USE BY DISPLAY
                0020  1487+TUBONL EQU   BIT2                      1-TERMINAL IS ONLINE
                0010  1488+TUBSGN EQU   BIT3                      1-COMMAND TERMINAL IS SIGNED ON
                0008  1489+TUBQUE EQU   BIT4                      1-COMMAND TERMINAL IN /Q STATUS
                0004  1490+TUBREQ EQU   BIT5                      1-TERMINAL IS REQUESTER OF PGM
                0002  1491+TUBSWC EQU   BIT6                      1-TERMINAL ON SWITCHED LINE
                0001  1492+TUBOFF EQU   BIT7                      1-CMD TERM SIGNOFF DEFAULT=HOLD

                000C  1494+TUBAT2 EQU   TUBAT1+1                 TERMINAL ATTR BYTE 2
                0080  1495+TUBDTA EQU   BIT0                      1-TERMINAL IN DATA MODE
                0040  1496+TUBCMD EQU   BIT1                      1-TERMINAL IN COMMAND MODE
                      1497+*                                     * DTA/CMD/TERMINAL MODE
                      1498+*                                     *  0   0   INITIAL
                      1499+*                                     *  0   1   COMMAND
                      1500+*                                     *  1   0   DATA
                      1501+*                                     *  1   1   COMMAND INTERRUPT
```

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                      0020 1502+TUBIMI EQU   BIT2                    1-OUTSTANDING DATA FROM PGM RQST
                      0010 1503+TUBIIS EQU   BIT3                    1-INVITE OR GET SCHEDULED
                      0008 1504+TUBIIQ EQU   BIT4                    1-INVITE COMPLETE -- ON TCBINQ
                           1505+*                                    0-NO OUTSTANDING COMPLETE INVITE
                      0004 1506+TUBOLT EQU   BIT5                    1-CURRENTLY RUNNING ONLINE TEST
                      0002 1507+TUBAPP EQU   BIT6                    1-ALLOCATION PENDING ON THIS TUB
                      0001 1508+TUBOWN EQU   BIT7                    1-TERMINAL NOW COMMUNICATING ON
                           1509+*                                    * BSCA LINE--EOT NOT SENT/RECD

                      000D 1511+TUBAT3 EQU   TUBAT2+1                TERMINAL ATTRIBUTE BYTE 3
                      0080 1512+TUBRTY EQU   BIT0                    TUB HAS BEEN RETRIED THIS TIME
                      0040 1513+TUBSPF EQU   BIT1                    1-STOP POLLING FAILED
                      0020 1514+TUBCNC EQU   BIT2                    1-/RELEASE BY TERMINAL OPERATOR
                      0010 1515+TUBERP EQU   BIT3                    1-TERMINAL ERROR -- AWAITING ERP
                      0008 1516+TUBALC EQU   BIT4                    1-PHYSICALLY ALLOCATED
                           1517+*                                    BUT NOT LOGICALLY
                           1518+*                                    ALLOCATED,(NO I/O POSSIBLE)
                           1519+*                                    0-IS ALLOCATED TO THE
                           1520+*                                    TCB POINTED TO BY  TUBTCB
                      0004 1521+TUBVFP EQU   BIT5                    1-VARY OFFLINE PENDING
                      0002 1522+TUBSPP EQU   BIT6                    1-STOP POLLING PENDING TO TERM'L
                           1523+*                                    * IN COMMAND INTERRUPT MODE
                      0001 1524+TUBSWL EQU   BIT7                    1-DISCARD ABORTED INPUT DATA

                      000E 1526+TUBAT4 EQU   TUBAT3+1                TERMINAL ATTRIBUTES BYTE 1
                      0080 1527+TUBCHN EQU   BIT0                    1-DUMMY TUB FOR TASK CHAINING
                      0040 1528+TUBTRM EQU   BIT1                    1-TUB IN PROCESS OF SYS INVITE
                      0020 1529+TUBYUK EQU   BIT2                    1-YUKON BSCA LINES 3 OR 4
                      0010 1530+TUBAER EQU   BIT3                    1-AUTO ERROR RECOVERY SPECIFIED
                      0008 1531+TUBEMS EQU   BIT4                    1-ERP MESSAGE SENT TO CONSOLE
                      0004 1532+TUBPCB EQU   BIT5                    1-PORT CONTROL BLOCK (TUB)
                      0002 1533+TUBBSY EQU   BIT6                    1-TUB TO BE CHECKED FOR BUSY
                      0001 1534+TUBWAT EQU   BIT7                    1-WAIT FOR RESPONCE TO BUSY

                           1536+* QUEUE CHAIN FIELDS
                      0010 1537+TUBINQ EQU   TUBAT4+2                GET INVITE  INPUT QUEUE
                           1538+*                                    POINTS TO NEXT TUB IN CHAIN
                      0012 1539+TUBTCB EQU   TUBINQ+2                @ OF TCB
                      0014 1540+TUBTUB EQU   TUBTCB+2                NEXT TUB ADDR BY TCBTUB
                      0014 1541+TUBPST EQU   TUBTUB                  NEXT TUB ON ALLOCATION QUEUE
                      0016 1542+TUBLCB EQU   TUBTUB+2                ADDR OF LINE DTF (LCB)
                      0016 1543+TUBDTF EQU   TUBLCB
                      0018 1544+TUBTNT EQU   TUBLCB+2                ADDR OF TNT ENTRY
                      001A 1545+TUBFSB EQU   TUBTNT+2                ADDR OF 1ST ENTRY FOR THIS
                           1546+*                                    TERMINAL IN FILE SPEC BLOCK

                           1548+* TASK CHAINING TUB EQUATES
                      001A 1549+TUBPNM EQU   TUBTUB+6                NAME FIELD
                      001B 1550+TUBDPL EQU   TUBPNM+1                DISP TO PL IN TASK CHAIN TUB
                      002E 1551+TUBDLN EQU   TUBDPL+19               LEN OF TASK CHAIN TUB
                           1552+* END OF TASK CHAIN TUB

                           1554+* ONLINE TEST FIELDS
                      001B 1555+TUBOTC EQU   TUBFSB+1                TERMINAL ONLINE TEST CONTROL BYT
                           1556+*                                     M L T A SPECS                *
                      0080 1557+TUBLOP EQU   BIT0                    * 1-LOOPING TEST SPECIFIED
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                      0040 1558+TUBALL EQU   BIT1                      * 1-MULTIPLE TESTS SPECIFIED
                      000F 1559+TUBTNR EQU   BIT4+BIT5+BIT6+BIT7       BINARY NUMBER OF SINGLE TEST
                           1560+*                                      THIS BYTE - X'FF' SPECIFIES STOP

                      001C 1562+TUBCMA EQU   TUBOTC+1                 MCT COMPONENT INDEX FOR OLT

                           1564+* TERMINAL ATTRIBUTE SET FIELDS
                      001D 1565+TUBTAS EQU   TUBCMA+1                 INDEX OF STANDARD ATTRIBUTE SET

                      001E 1567+TUBTA1 EQU   TUBTAS+1                 1ST BYTE OF TERMINAL ATTRIBUTES
                      001F 1568+TUBTA2 EQU   TUBTA1+1                 2ND BYTE OF TERMINAL ATTRIBUTES
                      0021 1569+TUBRCL EQU   TUBTA2+2                 BSCA RECORD LENGTH
                      0021 1570+TUBVCS EQU   TUBRCL                   1-BYTE SAVE AREA FOR I/O
                           1571+*                                      COMPONENTS FOR MLTA MCT
                      0022 1572+TUBBKF EQU   TUBRCL+1                 BSCA BLOCKING FACTOR

                      0022 1574+TUBCAS EQU   TUBTAS+5                 DEFINES ALL 5 PRECEDING BYTES

                           1576+* TERMINAL TYPE FIELD
                      0023 1577+TUBPHY EQU   TUBCAS+1                 PHYSICAL TERMINAL TYPE--VALUES:
                      0000 1578+TUBCON EQU   0                        .0 - CONSOLE
                      0001 1579+TUBMLT EQU   1                        .1 - MLTA NON-1050
                      0002 1580+TUB105 EQU   2                        .2 - MLTA 1050
                      0003 1581+TUB7M1 EQU   3                        .3 - 3277/84/86 MODEL 1 (480)
                      0004 1582+TUB7M2 EQU   4                        .4 - 3277/84/86 MODEL 2 (1920)
                      0005 1583+TUB5M1 EQU   5                        .5 - 3275 MODEL 1 (480)
                      0006 1584+TUB5M2 EQU   6                        .6 - 3275 MODEL 2 (1920)
                      0007 1585+TUB375 EQU   7                        .7 - 3735
                      0008 1586+TUBCPU EQU   8                        .8 - CPU
                      0009 1587+TUB374 EQU   9                        .9 - 3741
                      000A 1588+TUBAPT EQU   10                       10 - AQG PORT.
                      000B 1589+TUBNPT EQU   11                       11 - NON-AQG PORT.

                           1591+* MULTI-COMPONENT TERMINAL PRINCIPAL COMPONENT INDEXES
                      0024 1592+TUBPCS EQU   TUBPHY+1                 PRINCIPAL COMPONENTS FOR 1050
                      0025 1593+TUBVHR EQU   TUBPCS+1                 SAVE AREA FOR TUBCHR FOR MLTA
                      0026 1594+TUBPIL EQU   TUBPCS+2                 PRUF INPUT LENGTH  (TUBVHR)
                      0026 1595+TUBDCH EQU   TUBPIL                   REDEFINES TUBPIL FOR PORTS.

                      0027 1597+TUBLN  EQU   TUBPIL+1                 LENGTH OF DATA MODE TUB

                           1599+*  END OF TUB FOR DATA MODE TERMINAL

                      0027 1601+TUBPL  EQU   TUBPIL+1                 PARAMETER LIST FOR SYSTEM INVITE
                           1602+*                                      * OR PUT-NO-WAIT INVITE
                           1603+*                                      * 19 BYTES

                      003A 1605+TUBLNC EQU   TUBLN+19                 LENGTH OF TUB FOR COMMAND MODE
                           1606+*                                      * TERMINAL

                           1608+*  END OF TUB FOR COMMAND MODE TERMINAL

                      00FF 1610+TUBSTP EQU   X'FF'                    TUB STOPPER BYTE
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                          1613 *      $ELCB MLTA-0,BSCA-1                                                  CCP00277
                          1614+*****************************************************************
                          1615+*      L I N E   C O N T R O L   B L O C K                       *
                          1616+*****************************************************************



                          1618+*-----------------  FIRST BSCA-ONLY SEGMENT  ------------------------*

                     004C 1620+LCBSCA EQU   76                        LCB BEGIN FOR BSCA.
                     004D 1621+LCBPOL EQU   LCBSCA+1                  ADDRESS OF POLLING LIST.
                     004F 1622+LCBSEL EQU   LCBPOL+2                  ADDRESS OF SELECTION LIST.
                     004F 1623+LCBNO# EQU   LCBSEL                    @ IN SW ID LIST OF NO VERIFY ID.
                     0050 1624+LCBID# EQU   LCBSEL+1                  ID LAST POLL/SELECTED TERM.
                     0052 1625+LCBPL@ EQU   LCBID#+2                  SAVE FOR CURRENT PARM LIST @.
                     0054 1626+LCBWRK EQU   LCBPL@+2                  WORK AREA FOR SUBRTNS.

                          1628+*   LCBAT1 AND LCBAT2 ARE BOTH ZEROED WHEN AN EOT IS HANDLED.

                     0055 1630+LCBAT1 EQU   LCBWRK+1                  ATTRIBUTE BYTE 1.
                     0080 1631+LCBCRI EQU   X'80'                     CANCEL RCVI, STOP POLLING.
                     0040 1632+LCBPRI EQU   X'40'                     CANCEL RCVI, HANDLE PRIORITY PUT
                     0010 1633+LCBINT EQU   X'10'                     INTERRUPT WITH NO PARM LIST QUED
                     0008 1634+LCBNTQ EQU   X'08'                     ACTIVE PARM LIST REMOVED FR QUE.
                     0004 1635+LCBDEQ EQU   X'04'                     DEQUE WHEN EOT IS FOUND.
                     0002 1636+LCBEOT EQU   X'02'                     SEARCH EOT. READ LINE FOR EOT.
                     0001 1637+LCBSIN EQU   X'01'                     POLL FOR STATUS, NO STATUS RCVD

                     0056 1639+LCBAT2 EQU   LCBAT1+1                  ATTRIBUTE BYTE 2.
                     0080 1640+LCBTRC EQU   X'80'                     TRUNCATE BLOCK, BUMP BKX TO END.
                     0040 1641+LCBSET EQU   X'40'                     SEND EOT ON THE LINE.
                     0020 1642+LCBACT EQU   X'20'                     LINE ACTIVE WITH WORK.
                     0010 1643+LCBRFT EQU   X'10'                     REQUEST FOR TEST STARTED.
                     0008 1644+LCBABT EQU   X'08'                     ABORT THE LINE CONNECTION.
                     0004 1645+LCBSEC EQU   X'04'                     SCOND BLOCK INDICATOR.
                     0002 1646+LCBPUT EQU   X'02'                     PUT PENDING ON LINE.
                     0001 1647+LCBRCI EQU   X'01'                     RECEIVE INIT ON LINE.

                     0058 1649+LCBADJ EQU   LCBAT2+2                  ADJUSTED OUTPUT LENGTH.
                     005A 1650+LCBATL EQU   LCBADJ+2                  @ OF ASCII TRANSLATE BUFFER.
                     005C 1651+LCBOWN EQU   LCBATL+2                  TCB ADDR OF OWNING TASK.
                     005E 1652+LCB$L0 EQU   LCBOWN+2                  C/S OF LINE INIT. TRANSIENT.
                     0060 1653+LCBSRT EQU   LCB$L0+2                  @ OF START OF LINE BUFFER AREA.
                     0062 1654+LCBBND EQU   LCBSRT+2                  @ OF END OF LINE BUFFER AREA.
                     0064 1655+LCBKLC EQU   LCBBND+2                  BLOCK LENGTH CURRENT INPUT OP.

                          1657+*----------------  SEGMENT COMMON TO MLTA AND BSCA  ------------------*

                     0065 1659+LCBCCP EQU   X'65'                     BEGINNING OF LCB
                     0066 1660+LCBPLQ EQU   LCBCCP+2-1                ADDR OF 1ST PARM LIST IN LINE QU
                     0068 1661+LCBCHN EQU   LCBPLQ+2                  CHAIN OF ALL LCB'S IN CCP SYSTEM
                     0069 1662+LCBATA EQU   LCBCHN+1                  LCB ATTRIBUTE BYTE A.
                     0080 1663+LCBIGN EQU   X'80'                     1-IGNORE OP END.  REOPENING LINE
                     0002 1664+LCBDFF EQU   X'02'                     DFF BUFFER SUPPORTED
                     0001 1665+LCBDFB EQU   X'01'                     DFF BUFFER BUSY
```

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                      006A 1667+LCBELC EQU   LCBATA+1                ID XLATE XIENT EBCDIC -> LINE.
                      006B 1668+LCBDTR EQU   LCBELC+1                DFF BUFFER ATR VALUE

                           1670+*------------------  MLTA / BSCA MULTIPLIED DEFINED BYTE -------------*

                      006C 1672+LCBLCE EQU   LCBDTR+1                ID XLATE XIENT LINE -> TO UPPER
                           1673+*                                    *        CASE EBCDIC *MLTA ONLY*
                      006C 1674+LCBOPE EQU   LCBLCE                  OP END COUNT ON LINE *BSCA ONLY*

                      006D 1676+LCBLID EQU   LCBLCE+1                SAVED ID OF LAST TERM POLLED
                      006E 1677+LCBLLE EQU   LCBLID+1                ID XLATE XIENT LINE -> TO
                           1678+*                                    *        LOWER CASE EBCDIC.

                           1680+*------------------- MLTA / BSCA MULTIPLIED DEFINED BYTE -------------*

                      006F 1682+LCBOLT EQU   LCBLLE+1                POLT COUNT (RUNNING AND PENDING)
                           1683+*                                    ON THIS TP LINE      *MLTA ONLY*
                      006F 1684+LCBAT3 EQU   LCBOLT                  LCB ATTRIBUTE BYTE 3 *BSCA ONLY*
                      0080 1685+LCBITB EQU   BIT0                    1-ITB SUPPORTED FOR THIS DTF
                      0040 1686+LCBTSP EQU   BIT1                    1-TRANSPARENCY SUPPORTED
                      0020 1687+LCBENB EQU   BIT2                    1-BSCA LINE ENABLED
                      0010 1688+LCBATO EQU   BIT3                    AUTO CALL HARDWARE SUPPORTED.
                      0008 1689+LCBBYP EQU   BIT4                    POLLING A BUSY PRINTER.
                      0004 1690+LCBSTS EQU   BIT5                    POLL FOR STATUS IN OPERATION.
                      0002 1691+LCBREP EQU   BIT6                    RE-POLL TERMINALS FOR BUSY PRINT
                      0001 1692+LCBPOR EQU   BIT7                    THIS LCB IS FOR PORTLINE TUBS

                      0070 1694+LCBATR EQU   LCBOLT+1                LCB ATTRIBUTE BYTE

                      0080 1696+LCBNIT EQU   BIT0                    * HAD SUCCESSFUL INITIAL
                           1697+*                                    * OPERATION ON THIS LINE
                      0040 1698+LCBOLR EQU   BIT1                    * 1-POLT CURRENTLY RUNNING
                      0020 1699+LCBGMN EQU   BIT2                    * 1-GETMAIN NEEDED FOR LINE QUEU
                      0010 1700+LCBSTP EQU   BIT3                    1-ABORT ISSUED TO STOP READ
                      0008 1701+LCBSWL EQU   BIT4                    1-SWALLOW INPUT FROM NEXT READ
                           1702+*                                    OP END
                      0004 1703+LCB1PL EQU   BIT5                    1-INDICATES NEXT PARM LIST
                           1704+*                                    ISSUED TO THIS LINE IS TO BE PUT
                           1705+*                                    AT THE TOP OF LINE QUEUE
                      0002 1706+LCBTBK EQU   BIT6                    1-BIT BUCKET DATA FROM READ OP
                           1707+*                                    SET FOR 2741 TO DO READ INITIAL
                           1708+*                                    WHEN WRITE IS 1ST OP TO TERMINAL
                      0001 1709+LCBTIM EQU   BIT7                    RESCHEDULE PENDING ON LINE

                      0072 1711+LCBBFL EQU   LCBATR+2                LENGTH OF DATA AREA IN LINE BUFR
                      0074 1712+LCBRS3 EQU   LCBBFL+2                RESERVED BYTES.(NOT USED)
                      0076 1713+LCBIBL EQU   LCBRS3+2                LENGTH OF CURRENT INVITE INPUT
                           1714+*                                    BUFFER FOR THIS LINE
                      0078 1715+LCBIBA EQU   LCBIBL+2                ADDRESS OF INVITE INPUT BUFFER
                      007A 1716+LCBTCB EQU   LCBIBA+2                ADDR OF TCB WHICHS OWNS SWITCHED
                           1717+*                                    TP LINE
                      007B 1718+LCBATC EQU   LCBTCB+1                COUNT OF ALLOCATED TUBS ON
                           1719+*                                    SWITCHED LINE
                      007C 1720+LCBNW# EQU   LCBATC+1                # NEW REQUESTS FOR CM - FROM II
```

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                              1722+*-----------------  SECOND BSCA-ONLY SEGMENT  ----------------------*

                         007D 1724+LCBOPC EQU   LCBNW#+1                  LAST OP CODE ON BSCA.
                         0080 1725+LCBMVD EQU   X'80'                     DATA MOVED INDICATOR ON.
                         0040 1726+LCBERP EQU   X'40'                     LINE IN ERP MODE.(IGNORE DATA).
                         0020 1727+LCBRVI EQU   X'20'                     RVI IND - SEND/RECEIVE RVI.
                              1728+*            X'08'                     * SAVE
                              1729+*            X'04'                     *      AREA
                              1730+*            X'02'                     *           FOR CCP
                              1731+*            X'01'                     *                OP CODE.

                              1733+*      THE FOLLOW EQUATES ARE FOR OUTPUT (SELECTION) ONLY.

                         007E 1735+LCBADL EQU   LCBOPC+1                  START OF LINE SELECTION LIST.
                         0088 1736+LCBADN EQU   LCBADL+10                 END OF SELECTION LIST.

                              1738+*      THE FOLLOWING EQUATES ARE FOR INPUT (POLLING) ONLY.

                         007F 1740+LCBMRL EQU   LCBOPC+2                  INCREMENT AREA FOR MSG LENGTH.
                         0081 1741+LCBMIL EQU   LCBMRL+2                  ORIGINAL MESSAGE INPUT LENGTH
                              1742+*                                      USED VIA LCBMR@ LABEL.
                         0083 1743+LCBMR@ EQU   LCBMIL+2                  ORIGINAL MESSAGE RECORD ADDR.

                         0089 1745+LCBBLN EQU   LCBADN+1                  LENGTH OF BSCA LCB

                              1747+*      THE FOLLOWING EQUATES ARE FOR BSCA SWITCHED AUTO CALL DTF ONLY.

                         007E 1749+LCBTEL EQU   LCBOPC+1                  BEGINING OF AURO DIAL #.
                         008C 1750+LCBTL@ EQU   LCBTEL+14                 END OF AUTO DIAL AREA.
                         008D 1751+LCBSWN EQU   LCBTL@+1                  LENGTH OF BSCA AUTO DIAL DTF.
```

```
                               1754 *      $ETML                                                          CCP00279
                               1755+*************************************************************************
                               1756+*           T R A N S L A T E / M O V E   L I S T S                     *
                               1757+*************************************************************************


                               1759+* TRANSLATE PARAMETER LIST

                          0000 1761+TLCCP  EQU   0                        BEGINNING OF TRANSLATE LIST
                          0001 1762+TLTOL  EQU   TLCCP-1+2                LENGTH OF  TO  FIELD
                          0003 1763+TLTOA  EQU   TLTOL+2                  ADDRESS OF THE  TO  FIELD
                          0005 1764+TLFRMA EQU   TLTOA+2                  ADDRESS OF THE   FROM  FIELD
                          0007 1765+TLFRML EQU   TLFRMA+2                 LENGTH OF THE   FROM  FIELD
                          0008 1766+TLRTC  EQU   TLFRML+1                 TRANSLATE RETURN CODE


                               1768+* MOVE PARAMETER LIST

                          0000 1770+MVLCCP EQU   0                        BEGINNING OF MOVE LIST
                          0001 1771+MVLTOL EQU   MVLCCP+2-1               LENGTH OF THE  TO  FIELD
                          0003 1772+MVLTOA EQU   MVLTOL+2                 ADDRESS OF THE  TO  FIELD
                          0005 1773+MVLFRA EQU   MVLTOA+2                 ADDR OF THE  FROM  FIELD
                          0007 1774+MVLFRL EQU   MVLFRA+2                 LENGTH OF THE  FROM  FIELD
                          0008 1775+MVLTYP EQU   MVLFRL+1                 TYPE OF MOVE REQUEST
                               1776+*                                     * X'00' - NO ATR SWAP NECESSARY
                               1777+*                                     *        (NEITHER FIELD IN UPA)
                               1778+*                                     * X'01' - FROM FIELD IN UPA
                               1779+*                                     * X'02' - TO FIELD IN UPA
                               1780+*                                     * X'03' - BOTH FIELDS IN UPA
                               1781+*                                     *         (SWAP ATRS).
                          000A 1782+MVLTCB EQU   MVLTYP+2                 ADDRESS OF TCB FOR USER TASK
                               1783+*                                     * IF EITHER TO OR FROM FIELD
                               1784+*                                     *   IS IN A USER PROGRAM.
                               1785+*                                     * FIELD NOT NEEDED IF MVLTYP
                               1786+*                                     *   IS X'00'.
```

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                          1789 *      $EBEQ IOB-Y,WKA-Y,POL-Y,CKL-Y,CMD-CM,MIN-Y                      CCP00281
                          1790+*-------------------------------------------------------------------*
                          1791+*            BSCA IOB EQUATES(FROM BSEQU MACROS OF MLMP).            *
                          1792+*-------------------------------------------------------------------*

                     0001 1794+IOBNXT EQU   1                        @ NEXT IOB.
                     0002 1795+IOBQ   EQU   IOBNXT+1                 DEVICE ADDRESS.
                     0004 1796+IOBDBL EQU   IOBQ+2                   BUFFER LENGTH.
                     0005 1797+IOBFLA EQU   IOBDBL+1                 IOB FLAG A.
                     0020 1798+TDLAY  EQU   X'20'                    TWO SEC. TIME OUT STARTED.
                     0004 1799+FIRST  EQU   X'04'                    FIRST TIME. LINE INIT NOT DONE.
                     0002 1800+DELAY  EQU   X'02'                    DELAY IOB-WAIT SEQUENCE GOING.
                     0006 1801+IOBFLG EQU   IOBFLA+1                 IOB FLAG B.
                     0007 1802+IOBCMP EQU   IOBFLG+1                 IOB COMPLETION CODE.
                     0080 1803+PROCES EQU   X'80'                    IOB CMP, IOB IN PROCESS.       B
                     0009 1804+IOBDAT EQU   IOBCMP+2                 @ DATA BUFFER.
                     000B 1805+IOBSNS EQU   IOBDAT+2                 SENSE AREA.
                     000C 1806+IOBERR EQU   IOBSNS+1                 ERROR COUNT.
                     000E 1807+IOBCAR EQU   IOBERR+2                 CURRENT ADDRESS.
                     0010 1808+IOBTAR EQU   IOBCAR+2                 TRANSITION ADDRESS.
                     0012 1809+IOBSAR EQU   IOBTAR+2                 STOP ADDRESS.
                     0014 1810+IOBDTF EQU   IOBSAR+2                 @ DTF.
                     0016 1811+IOBMSG EQU   IOBDTF+2                 DELAY MESSAGE OFFSET.
                     0016 1812+IOBNEX EQU   IOBDTF+2                 AREA FOR CALC @ NEXT IOB.
                     0018 1813+IOBDBN EQU   IOBNEX+2                 AREA FOR CALL @ 2ND NEXT BUFFER.
                     001A 1814+IOB2NX EQU   IOBDBN+2                 AREA FOR CALC @ 2ND NEXT IOB.
                     0015 1815+IOBL   EQU   IOBDTF+1                 LENGTH OF THE OPERATIONAL IOB.
                          1816+*-------------------------------------------------------------------*
                          1817+*            BSCA WORK AREA EQUATES(FROM BSEQU MACRO OF MLMP).        *
                          1818+*-------------------------------------------------------------------*

                     0040 1820+PL1EOT EQU   X'40'                    RECORD TRUNCATE IND. (IN $BPOLD)
                     0014 1821+WKDTFD EQU   20                       DTF ADDRESS
                     0016 1822+BSRJ2D EQU   22                       WORK AREA INDICATORS
                     0020 1823+JF2SAR EQU   X'20'                    STOP AUTO RESPONSE.  (IN BSRJ2D)
                     001C 1824+WKIOBD EQU   28                       ADDRESS OF LAST IOB.
                     001A 1825+WKERRD EQU   X'1A'                    ERROR RETRY COUNT
                     007B 1826+DCOUNT EQU   X'7B'                    DELAY COUNT
                     0001 1827+F3AUTO EQU   X'01'                    AUTO RESPONSE ACTIVE.(IN $BWFG3)
                     0004 1828+F3MOVE EQU   X'04'                    RECORD MOVE INDICATOR(IN $BWFG3)
                     0020 1829+INTIOB EQU   32                       ADDR OF LAST IOB TO INTERRUPT.
                     0023 1830+BSFLGD EQU   35                       WORK AREA FLAGS.
                     0010 1831+ACTIVE EQU   X'10'                    BSCA ENABLED.        (IN BSFLGD)
                     0004 1832+FWDABT EQU   X'04'                    FORWARD ABORT IND.   (IN BSFLGD)
                     0024 1833+ACKSD  EQU   36                       ACK NUMBER AND OTHER STATUS.
                     0004 1834+AKERR  EQU   X'04'                    ERROR, LINE DISABLED.(IN ACKSD)
                     0084 1835+WKDELL EQU   132                      WORK AREA ERROR LOG LIST.
                     0082 1836+BSFL4D EQU   X'82'                    FLAG BYTE # 4.
                     0001 1837+ETBRCV EQU   X'01'                    LAST BLOCK ENDED IN ETB.
                     0010 1838+JF2SR2 EQU   X'10'                    INTERNAL STOP AUTO RESPONSE.
                     0020 1839+UNREC  EQU   X'20'                    U-NS ERROR RECOVERY BIT
                          1840+*-------------------------------------------------------------------*
                          1841+*            BSCA POLL / SELECT LIST EQUATES.                       *
                          1842+*-------------------------------------------------------------------*

                     0000 1844+POLID  EQU   0                        ENTRY ID IN LIST.
```

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                      0001 1845+POLCNT EQU   1                       NUMBER OF TERM CHARS IN ENTRY.
                      0002 1846+POLCH1 EQU   2                       1ST TERM CHAR.
                      0003 1847+POLCH2 EQU   3                       2ND TERM CHAR.
                      0003 1848+POLNXT EQU   3                       # CONSTANT BYTES IN EVERY ENTRY.
                      00FF 1849+WRAP   EQU   X'FF'                   END OF WRAP LIST INDICATOR.
                      00FE 1850+ONETIM EQU   X'FE'                   END OF OPEN LIST INDICATOR.
                      00F0 1851+POLEND EQU   X'F0'                   CODES RESV. FOR SYST. F0-FF.
                      00F1 1852+POLACT EQU   X'F1'                   USE ONLY ACTIVE ENTRIES.
                           1853+*-------------------------------------------------------------------*
                           1854+*           BSCA CHECK LIST EQUATES.                                *
                           1855+*-------------------------------------------------------------------*

                      0000 1857+CKLSTS EQU   0                       CHECK LIST STATUS BYTE.        B
                      0002 1858+CKLDTF EQU   2                       CHECK DTF @.                   B
                      0003 1859+CKLEN  EQU   3                       CHECK LIST ENTRY LENGTH.       B
                      0080 1860+CKLSKP EQU   X'80'                   CHECK LIST: SKIP ENTRY BIT.    B
                      0020 1861+CKLAST EQU   X'20'                   CHECK LIST: LAST ENTRY INDICATOR
                           1862+*-------------------------------------------------------------------*
                           1863+*           ID'S FOR TRANSIENT FORM OF RESIDENT FUNCTION.           *
                           1864+*-------------------------------------------------------------------*

                      0001 1866+CTTASV EQU   1                       TRANSIENT FORM OF 'CMTASV'.
                      0003 1867+CTREJC EQU   3                       TRANSIENT FORM OF 'CMREJC'.
                      0004 1868+CTSTOR EQU   4                       TRANSIENT FORM OF 'CMSTOR'.
                      0005 1869+CTBTAS EQU   5                       TRANSIENT FORM OF 'CMBTAS'.
                      0006 1870+CTFORB EQU   6                       TRANSIENT FORM OF 'CMFORB
                      0007 1871+CTRLB  EQU   7                       TRANSIENT FORM OF 'CMFIGL'
                           1872+*********************************************************************
                           1873+*           TERMINAL DEPENDENT EQUATES.                             *
                           1874+*********************************************************************

                           1876+*-------------------------------------------------------------------*
                           1877+*           3270 COMMANDS.                                          *
                           1878+*-------------------------------------------------------------------*

                      0027 1880+ESC    EQU   X'27'                   ESCAPE IDENTIFICATION.
                      00F7 1881+COPY   EQU   X'F7'                   COPY COMMAND.
                      00F1 1882+WRITE  EQU   X'F1'                   WRITE COMMAND.
                      006F 1883+ERSUPT EQU   X'6F'                   ERASE UNPROTECTED COMMAND.
                      00F5 1884+ERSWRT EQU   X'F5'                   ERASE/WRITE COMMAND.

                           1886+*-------------------------------------------------------------------*
                           1887+*           3270 ORDERS.                                            *
                           1888+*-------------------------------------------------------------------*

                      0013 1890+IC     EQU   X'13'                   INSERT CURSOR.
                      001C 1891+DUP    EQU   X'1C'                   DUP CHAR. (KEYBOARD ONLY).
                      0012 1892+EUA    EQU   X'12'                   ERASE UNPROTESTED TO ADDRESS.
                      001E 1893+FM     EQU   X'1E'                   FIELD MARK (KEYBOARD ONLY).
                      0005 1894+PT     EQU   X'05'                   PROGRAM TAB.
                      003C 1895+RA     EQU   X'3C'                   REPEAT TO ADDRESS.
                      0011 1896+SBA    EQU   X'11'                   SET BUFFER ADDRESS.
                      001D 1897+SF     EQU   X'1D'                   START OF FIELD.

                           1899+*-------------------------------------------------------------------*
                           1900+*           3270 BUFFER OFFSETS.                                    *
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                              1901+*-------------------------------------------------------------------*

                         0000 1903+CU     EQU   0                          CONTROL UNIT IDENTIFICATION.
                         0001 1904+DA     EQU   1                          DEVICE ADDRESS.

                         0000 1906+AID    EQU   0                          AID CHARACTER POSITION.
                         0000 1907+SWAID  EQU   0                          AID CHAR POSITION FOR SWITCHED.

                              1909+*   EBCDIC AID VALUES.

                         006D 1911+AIDCLR EQU   X'6D'                      AID FOR CLEAR KEY.
                         007D 1912+AIDENT EQU   X'7D'                      AID FOR ENTER KEY.
                         00E6 1913+AIDCRD EQU   X'E6'                      AID FOR CARD READER DATA.
                         00F0 1914+AIDTST EQU   X'F0'                      AID FOR RFT KEY.
                         00F1 1915+AIDPF1 EQU   X'F1'                      AID FOR PF1 KEY.

                              1917+*   ASCII AID VALUES.

                         005F 1919+ASCCLR EQU   X'5F'                      AID FOR CLEAR KEY.
                         0027 1920+ASCENT EQU   X'27'                      AID FOR ENTER KEY.

                         0004 1922+CURSOR EQU   4                          CURSOR POSITION.
                         0005 1923+TEXT   EQU   5                          FIRST TEXT POSITION.
                         0003 1924+SWTEXT EQU   3                          FIRST TEXT POS. SWITCHED LINE.


                              1926+*      OR

                         0001 1928+SNSTAS EQU   1                          SENSE/STATUS MESSAGE ID.
                         6CD9 1929+SSID   EQU   C'%R'                      SENSE/STATUS CHARACTERS.
                         0002 1930+SSTX   EQU   2                          STX IN STATUS MESSAGE.
                         0003 1931+SSCU   EQU   3                          CONTROL UNIT ID.
                         0004 1932+SSDA   EQU   4                          DEVICE ADDRESS.
                         0005 1933+SSBYT1 EQU   5                          BYTE 1 SENSE BYTE.
                         0006 1934+SSBYT2 EQU   6                          BYTE 2 STATUS BYTE.
                         0007 1935+SSETX  EQU   7                          ETX IN STATUS MESSAGE.

                              1937+*-------------------------------------------------------------------*
                              1938+*            3735 BUFFER OFFSTES.                                   *
                              1939+*-------------------------------------------------------------------*
                         0001 1940+S375ID EQU   1                          MESSAGE IDENTIFIER.
                         0002 1941+S375NL EQU   2                          -NUL- FOLLOWING IDENTIFIER.
                         0003 1942+S375B1 EQU   3                          STATUS BYTE ONE.
                         0004 1943+S375B2 EQU   4                          STATUS BYTE TWO.
                              1944+*******************************************************************
                              1945+*                                                                 *
                              1946+*   3741  BUFFER OFFSETS                                          *
                              1947+*                                                                 *
                              1948+*******************************************************************
                         0001 1949+S374ST EQU   1                          STATUS MESSAGE IDENTIFIER


                              1951+*-------------------------------------------------------------------*
                              1952+*            EQUATE FOR NUMBER OF CCP FORMAT CONTROL CHAR TO 3270.  *
                              1953+*-------------------------------------------------------------------*
```

```
ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT           SCP GENERATOR  08/08/10  PAGE  47
                          0016 1954+FORMTL EQU   22                        # OF FORMAT CONTROL CHARS.
```

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                          1956 *      $DTOB                                                          CCP00283
                          1957+*      BSCA EQUATES.                  RELEASE-4

                          1959+*      EQUATES IN IOB
                     0005 1960+$BIFLA EQU   5                         FLAG A.
                     0004 1961+$BIFST EQU   X'04'                     FIRST IN FLAG A.
                     0002 1962+$BIOBQ EQU   X'02'                     OFFSET TO IOB OPERATION.
                     0083 1963+$BIRVI EQU   X'83'                     RCVI OPERATION.
                     0007 1964+$BICMP EQU   X'07'                     OFFSET TO IOB COMPLETION.

                          1966+*      EQUATES FOR WORK AREA.
                     0001 1967+$BWK   EQU   1                         WORK AREA REG.
                     001D 1968+$BWFG3 EQU   29                        FLAG 3.
                     0023 1969+$BWLGD EQU   35                        FLAG BYTE
                     0010 1970+$BPATV EQU   X'10'                     LINE ACTIVE INDICATOR
                     0008 1971+$BWRFT EQU   X'08'                     RFT IND. IN FLAG 3.
                     0017 1972+$BPOLD EQU   X'17'                     OFFSET TO POLL INDICS IN WKA.
                     0004 1973+$BPCNC EQU   X'04'                     CANCEL POST INDIC.
                     0010 1974+$BPRES EQU   X'10'                     RESET POLL INDIC.
                     0059 1975+$BWKMC EQU   X'59'                     OFFSET FOR IDA INDICS IN WKA.
                     00B6 1976+$BWSCT EQU   X'B6'                     TEXT SENT COUNTER FOR CCP.
                     00BA 1977+$BWRCT EQU   X'BA'                     TEXT RECEIVED COUNTER FOR CCP.

                          1979+*      EQUATES FOR $BCPL AND $BCSW MACROS.
                     0000 1980+$BPATR EQU   0                         CHANGE LIST ATTRIBUTE OFFSET.
                     0080 1981+$BPACT EQU   X'80'                     OFF-ACTIVATE;ON-DEACTIVATE.
                     0040 1982+$BPEXT EQU   X'40'                     OFF-EXACT,ON-FIRST N CHARS.
                     0002 1983+$BPDTF EQU   2                         CHANGE LIST DTF ADDR OFFSET.
                     0003 1984+$BPNUM EQU   3                         CHANGE LIST OFFSET TO LENGTH.
                     00FE 1985+$BPEND EQU   X'FE'                     END OF POLL/ADDR OR SW ID LIST.
                     0000 1986+$BPNOP EQU   X'00'                     NO-OP JUMP INSTR.
                     0080 1987+$BPENA EQU   X'80'                     ON-ACTIVE;OFF-INACT. LIST ATTR.
                     0001 1988+$BPRM1 EQU   1                         REG EQU FOR MACRO PARM LIST.
                     0002 1989+$BLST2 EQU   2                         REG EQU FOR POLL OR ID LIST- XR2
                     0002 1990+$BLIST EQU   2                         REG EQU FOR PTR TO LIST IN XR2.

                          1992+*      EQUATES FOR $RFT MACRO
                     0003 1993+$BRCNT EQU   3                         COUNT OF NUMBER OF TRANSMISSIONS
                     000F 1994+$BHX0F EQU   X'0F'                     MASK TO CHECK FOR DECIMAL NUMBER

                          1996+*      GENERAL EQUATES.
                     0080 1997+$BDISA EQU   X'80'                     ENABLE BSCA.
                     00C0 1998+$BENAB EQU   X'C0'                     DISABLE BSCA.
                     00FF 1999+$BFOX  EQU   X'FF'                     EQUATE FOR 'FF'.
                     0001 2000+$BBAC1 EQU   1                         USER REGISTER SAVE (REG 1).
                     0002 2001+$BPRS2 EQU   2                         PARAMETER REGISTER SAVE (REG 2).
                     0006 2002+$B2SEC EQU   X'06'                     TWO SEC TIME FOR IDA.


                          2004+*      EQUATES FOR $CANB MACRO
                     0008 2005+$BLIN2 EQU   X'08'                     LINE-2
                     0016 2006+$BTREQ EQU   X'16'                     TRUE AND EQUAL
                     0001 2007+$BDAON EQU   X'01'                     D.A. SUPPORTED.
                     0088 2008+$BTOSC EQU   X'88'                     TWO SEC TIME OUT.
                     0011 2009+$BTRNQ EQU   X'11'                     TRUE AND NOT EQUAL
```

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                          0002 2010+$BDTF  EQU   2                        DTF REG.
                          0001 2011+$BIOB  EQU   1                        IOB REG.
                          0001 2012+$BONE  EQU   1                        CONSTANT ONE
                          0003 2013+$BTRE  EQU   3                        CONSTANT THREE



                               2015+*            OFFSETS FOR BSCA DTF.
                          0000 2016+$BDDEV EQU   0                        DEVICE ID.
                          0001 2017+$BDUPS EQU   1                        UPSI.
                          0002 2018+$BDATT EQU   2                        ATTRIBUTE BYTE 1.
                          0080 2019+$BCINP EQU   X'80'                    INPUT FILE.
                          0040 2020+$BCOUT EQU   X'40'                    OUPUT FILE.
                          00C0 2021+$BCCNV EQU   X'C0'                    CONVERSATIONAL FILE.
                          0020 2022+$BCITB EQU   X'20'                    ITB MODE.
                          0010 2023+$BCRAN EQU   X'10'                    TRANSPARENCY.
                          0008 2024+$BCGET EQU   X'08'                    GET FILE.
                          0004 2025+$BCASK EQU   X'04'                    ON-ASCII; OFF-EBCDIC.
                          0001 2026+$BCASM EQU   X'01'                    ASSEM DTF.
                          0003 2027+$BDATR EQU   3                        ATTRIBUTE BYTE 2.
                          0088 2028+$BCMCN EQU   X'88'                    MULTIPOINT CONTROL STATION.
                          0080 2029+$BCMPT EQU   X'80'                    MULTIPOINT TRIBUTARY.
                          0020 2030+$BCMAN EQU   X'20'                    MANUAL LINE.
                          0010 2031+$BCANS EQU   X'10'                    ANSWER LINE.
                          0008 2032+$BCSWI EQU   X'08'                    SWITCHED LINE.
                          0004 2033+$BCUSD EQU   X'04'                    FILE USED.
                          0002 2034+$BCACT EQU   X'02'                    FILE ACTIVE.
                          0001 2035+$BCOPN EQU   X'01'                    FILE OPENED.
                          0005 2036+$BDCHN EQU   5                        POST OPEN DTF CHAINING PTR.
                          0007 2037+$BDNXT EQU   7                        DTF CHAINING POINTER.
                          0009 2038+$BDWK1 EQU   9                        WORK AREA.
                          000B 2039+$BDWK2 EQU   11                       WORK AREA.
                          000D 2040+$BDWKB EQU   13                       ADDRESS OF USER'S LOGICAL BUFF.
                          000E 2041+$BDCMP EQU   14                       COMPLETION CODE.
                          0000 2042+$BCREQ EQU   X'00'                    REQUEST ACCEPTED.
                          0040 2043+$BCDNE EQU   X'40'                    NORMAL COMPLETION.
                          0041 2044+$BCUER EQU   X'41'                    USER ERROR.
                          0042 2045+$BCEOT EQU   X'42'                    END OF FILE.
                          0043 2046+$BCBID EQU   X'43'                    INVALID ID.
                          0044 2047+$BCNEG EQU   X'44'                    NEGATIVE RESPONSE TO POLL/ADDR.
                          0045 2048+$BCNON EQU   X'45'                    NO RESPONSE TO POLL/ADDR.
                          0046 2049+$BCCRP EQU   X'46'                    CONV REPLY PENDING.
                          0047 2050+$BCNDT EQU   X'47'                    NO DATA FOR CONV GET.
                          0048 2051+$BCOLT EQU   X'48'                    INVALID RFT REQUEST.
                          0049 2052+$BCNAC EQU   X'49'                    NO ACT ENTRY IN POLL LIST.
                          004A 2053+$BCIGN EQU   X'4A'                    REQUEST IGNORED.
                          004B 2054+$BCASC EQU   X'4B'                    INVALID ASCII CHARACTER.
                          004C 2055+$BCNCN EQU   X'4C'                    NO-CONNECTION.
                          004D 2056+$BCCAL EQU   X'4D'                    INVALID REQUEST.
                          004E 2057+$BCLST EQU   X'4E'                    DELAY COUNT EXCEEDED.
                          004F 2058+$BCERR EQU   X'4F'                    PERM ERROR.
                          0050 2059+$BCTIM EQU   X'50'                    NO RESP FROM REMOTE DEV.
                          0051 2060+$BCDAT EQU   X'51'                    DATA CHECK.
                          0052 2061+$BCLOS EQU   X'52'                    LOST DATA.
                          0053 2062+$BCCON EQU   X'53'                    LOST CONNECTION.
                          0054 2063+$BCRSP EQU   X'54'                    INVALID RESP FROM REMOTE DEV.
```

```
                      0055 2064+$BCADP EQU   X'55'                    ADAPTER CHECK.
                      0056 2065+$BCCMP EQU   X'56'                    NO COMPLETIONS IN CHECK LIST.
                      0057 2066+$BCACD EQU   X'57'                    NO ACTIVE DTFS IN CHECK LIST.
                      0058 2067+$BCRLE EQU   X'58'                    MAXIMUM RECORD LENGTH EXCEEDED.
                      000F 2068+$BDOPC EQU   15                       OPERATION CODE.
                      0080 2069+$BOGET EQU   X'80'                    GET.
                      0081 2070+$BOGBK EQU   X'81'                    GET-BLOCK.
                      0040 2071+$BOPUT EQU   X'40'                    PUT.
                      0041 2072+$BOPEB EQU   X'41'                    PUT END OF BLOCK.
                      0042 2073+$BOPEF EQU   X'42'                    PUT END OF FILE.
                      0044 2074+$BOPEW EQU   X'44'                    PUT EOT TO WACK RESPONSE.
                      0011 2075+$BDMRL EQU   17                       MAXIMUM RECORD LENGTH.
                      0012 2076+$BDADD EQU   18                       SPECIAL USE INDICATORS
                      0001 2077+$BCAA1 EQU   X'01'                    ADD ON AREA ON DTF
                      0002 2078+$BCPOL EQU   X'02'                    POLLING MODULES RESIDENT
                      0004 2079+$BCOFL EQU   X'04'                    TRUNCATE RECORD INDICATOR.
                      0008 2080+$BCRCL EQU   X'08'                    SPAN INDICATOR FOR RECORD LENGTH
                      0010 2081+$BCTWO EQU   X'10'                    END OF BLOCK INDICATOR.
                      0080 2082+$BCSWD EQU   X'80'                    ID LIST FOR SWICHED LINE
                      0014 2083+$BDDCH EQU   20                       *ADDRESS OF DIAL NUMBER OR
                      0014 2084+$BDPSC EQU   20                       *POLL/ADDR CHARACTERS OR
                      0014 2085+$BDLST EQU   20                       *ADDRESS OF POLL/ADDR LIST.
                      0015 2086+$BDDCC EQU   21                       *LENGTH OF DIAL NUMBER OR
                      0015 2087+$BDIND EQU   21                       *POLLING/OR ADDRESSING ID.
                      0017 2088+$BDRID EQU   23                       *ADDR OF RCV ID OR ID LIST OR
                      0017 2089+$BDCNT EQU   23                       *LIST COUNT.
                      0018 2090+$BDRLN EQU   24                       LEN OF RCV ID OR ENTRY SELECTOR.
                      0018 2091+$BDLID EQU   24                       LAST ID OR POLL/ADDR FUNCTION.
                      001A 2092+$BDSID EQU   26                       ADDRESS OF SEND ID.
                      001B 2093+$BDSLN EQU   27                       LENGTH OF SEND ID.
                      001D 2094+$BDDLY EQU   29                       DELAY COUNT.
                      001F 2095+$BDREL EQU   31                       RECORD LENGTH.
                      0021 2096+$BDBKL EQU   33                       BLOCK LENGTH.
                      0023 2097+$BDIOB EQU   35                       ADDRESS OF IOB IN PROCESS.
                      0025 2098+$BDBKX EQU   37                       POINT TO DATA IN BSCA BUFFER.
                      0027 2099+$BDITB EQU   39                       ITB CHARACTER COUNT.
                      002A 2100+$BDPRM EQU   42                       RESERVED.
                      002D 2101+$BDRVI EQU   45                       RVI MASK AND DISPLACEMENT.
                      002E 2102+$BDNDX EQU   46                       INDEX FOR LINE INITIALIZATION.
                      0030 2103+$BDWKA EQU   48                       ADDRESS OF BSCA WORK AREA.
                      0032 2104+$BDINT EQU   50                       DISK ADDR OF LINE INIT MODULE.
                      0033 2105+$BDDED EQU   51                       WORK AREA.
                      0034 2106+$BDAT1 EQU   52                       ATTRIBUTE BYTE FOR TERMINALS.
                      0001 2107+$BCSEP EQU   X'01'                    RECORD SEPARATOR.
                      0002 2108+$BCSPN EQU   X'02'                    SPANNING RECORD.
                      0004 2109+$BCNOW EQU   X'04'                    SPAN IN PROCESS.
                      0008 2110+$BCPUT EQU   X'08'                    PUT SPAN FILE.
                      0010 2111+$BCRES EQU   X'10'                    SPAN RESTORE NECESSARY.
                      0040 2112+$BCPLR EQU   X'40'                    POLLING RESIDENT.
                      0035 2113+$BDSEP EQU   53                       RECORD SEPARATOR.
                      0037 2114+$BDSBF EQU   55                       SAVE AREA FOR USER BUFFER ADDR.
                      0039 2115+$BDSRL EQU   57                       SAVE AREA FOR RECORD LENGTH.
                      003B 2116+$BDRFT EQU   59                       SAVE AREA FOR OLT PARM.
                      003D 2117+$BDTSA EQU   61                       ADDR OF TERM LOG AREA.
                           2118+*            ADD ON AREA OF DTF
                      003F 2119+$BDRL0 EQU   63                       ADDR OF RESIDENT L0.
```

```
                      0041 2120+$BDRCL EQU   65                      ADDR OF RESIDENT CLOSE.
                      0043 2121+$BDARA EQU   67                      AUTO RESPONSE MODULE.
                      0044 2122+$BDERR EQU   68                      RETRY COUNT.
                      0046 2123+$BDT1A EQU   70                      SAVE ADDRESS OF OLT CS.
                      0048 2124+$BDEX@ EQU   72                      CCP USER EXIT ADDRESS.
                      0049 2125+$BD375 EQU   73                      EOT SENT TO PERM ERROR
                           2126 *      $E038 MXL-00000000000000                                    CCP00284
                           2127+*                                    BEGIN MACRO '$E038' 1/16/79  @01
                           2128+*------------FIXED PORTION OF TRANSIENT LIST--------------------------*


                      000C 2130+CC4AB  EQU   12                      ACCEPT INPUT POST PRE-PROCESSOR
                      000F 2131+CC4A2  EQU   15                      ALLOCATION CONTROL
                      0012 2132+CC4GA  EQU   18                      GET ATTRIBUTES
                      0015 2133+CC4OP  EQU   21                      USER FILE OPEN
                      0018 2134+CC4R1  EQU   24                      COMMAND PROCESSOR CONTROL
                      001B 2135+CC4PR  EQU   27                      COMMAND PROCESSOR RETURN
                      001E 2136+CC4TD  EQU   30                      TERMINATION CONTROL ROUTINE
                      0021 2137+CC4WC  EQU   33                      USER T-P SWITCHED LINE CONNECT
                      0024 2138+CC4WR  EQU   36                      T-P TRANSLATION ERROR
                      0027 2139+CC4MP  EQU   39                      IGNORE PUT TO ERP T-P DEVICE
                      002A 2140+CC4UN  EQU   42                      BSCC POINT-TO-POINT LINE INIT@02
                           2141+*------------GETMAIN RECOVERY TRANSIENT PORTION OF PGM LIST---------@02
                      002D 2142+CC4GR  EQU   45                      GETMAIN RECOVERY TRANSIENT

                           2144+*------------BSCA PORTION OF PROGRAM LIST-----------------------------*

                      0030 2146+CC4BA  EQU   48                      3270 SAVE STATUS
                      0033 2147+CC4BB  EQU   51                      BSCA OUTPUT RECORD FORMATTING
                      0036 2148+CC4BC  EQU   54                      BSCA STOP POLLING
                      0039 2149+CC4BE  EQU   57                      BSCA ERROR RECOVERY
                      003C 2150+CC4BP  EQU   60                      BSCA PURGE
                      003F 2151+CC4BQ  EQU   63                      BSCA STOP POLLING QUEUE
                      0042 2152+CC4BR  EQU   66                      BSCA USER T-P REQ VALIDATION
                      0045 2153+CC4B5  EQU   69                      BSCA 3735 SENSE STATUS
                      0048 2154+CC4B0  EQU   72                      BSCA 3270 COMMAND FORMATTING
                      004B 2155+CC4S0  EQU   75                      BSCA 3275 COMMAND FORMATTING

                           2157+*------------DEFINE THE EQUATE FOR THE # OF ENTRIES IN THE LIST-------*

                      0016 2159+LSTSIZ EQU   22                      # OF ENTRIES IN TRANSIENT LIST
                           2160+*                                    END MACRO '$E038'
                           2161 *      $E070                                                       CCP00285
                           2162+* R-04,C-00 CHANGE LEVEL
                      0000 2163+CMBEG  EQU   *
                      0000 2164+       ENTRY CMBEG
 0000 5BC3D4          0002 2165+CMEYE  DC    CL3'$CM'                EYE CATCHER
 0003 F0F5            0004 2166+       DC    CL2'05'                 MOD LEVEL


                      0005 2168+       ENTRY $CC4CM                   ENTRY POINT FOR CM
                      0F66 2169+       ENTRY $CC4FR                   COMMON PL/RECA FREEMAIN ENTRY
                           2170+*                                     * POINT FOR TRANSIENT AND CM.

                           2172+*  ENTRY POINTS IN CCP $$BMCH USED FOR INITIALIZATION BY MLTA AND MLMP
```

```
                          124B 2174+       ENTRY $$BMCH                    ENTRY FOR CCP VERSION OF COMMON
                               2175+*                                      * MLMP/MLTA CHECK ROUTINE.
                          15E2 2176+       ENTRY CHBMHL                    LOCATION FOR MLMP/MLTA STORE
                               2177+*                                      * BRACKET HALT (NOT ISSUED)
                          1283 2178+       ENTRY CHBMBS                    ENTRY WHERE MLMP STORES ADDR   B
                          15D1 2179+       ENTRY SAVCAT                    SAVE AREA FOR CAR AND TAR
                               2180+*                                      * OF BSCA WAIT ROUTINE.        B


                               2183+*  BSCA ONLY EXTRNS:
                          0001 2184+       EXTRN $$BSMS                    SIO ENTRY FOR MLMP             B
                          0002 2185+       EXTRN $CC4BT(3)                 EXTRN SO ENTRY TO TRACE WILL   B
                          0003 2186+       EXTRN $CC4M1(3)                 EXTRN FOR MINI-MLMP
                          0004 2187+       EXTRN $CC4M2(3)                 EXTRN FOR PRIVILEGED MINI-MLMP B
                               2188+*                                      * NOT CAUSE LKED HALT          B
```

```
                          2190+************************************************************************
                          2191+*      C O M M U N I C A T I O N S   M A N A G E R                     *
                          2192+************************************************************************


                          2194+************************************************************************
                          2195+*                                                                      *
                          2196+*  MODULE  - $CC4CM                                                    *
                          2197+*                                                                      *
                          2198+*  FUNCTION - SCHEDULE AND CONTROL ALL TELEPROCESSING COMMUNICATION    *
                          2199+*         TO AND FROM MLTA AND BSCA TERMINALS ATTACHED TO CCP.         *
                          2200+*         SCHEDULE AND CONTROL ALL I/O TO THE SYSTEM CONSOLE.          *
                          2201+*                                                                      *
                          2202+*  ENTRY POINTS :                                                      *
                          2203+*         $CC4CM - MAIN ENTRY POINT.                                   *
                          2204+*                  DISPATCHED BY STARTUP AT THIS POINT.  AFTER INITIAL*
                          2205+*                  DISPATCH $CC4CM WILL WAIT FOR MORE WORK JUST        *
                          2206+*                  FOLLOWING THIS POINT AND WILL RECEIVE CONTROL       *
                          2207+*                  AT THIS WAIT POINT AFTER OP END OR NEW REQUEST      *
                          2208+*                  CAUSES $CMECB TO BE POSTED.                         *
                          2209+*                                                                      *
                          2210+*         $CC4FR - FREEMAIN PL AND HOLD BUFFER ENTRY POINT.            *
                          2211+*                  BRANCHED TO BY $CC4CM AND CM TRANSIENTS.            *
                          2212+*                                                                      *
                          2213+*  GENERATION - THIS MODULE IS ASSEMBLED AT CCP GENERATION.            *
                          2214+*         $CC4CM IS CREATED BY MACROS WHICH ARE NAMED $E0NN WHERE       *
                          2215+*         NN IS A NUMERIC IDENTIFIER OF THE MACRO.                     *
                          2216+*                                                                      *
                          2217+*         CODE IN EACH MACRO IS EITHER INCLUDED OR EXCLUDED BASED      *
                          2218+*         ON THE GLOBALS SET BY THE FIRST PASS OF GENERATION. THE      *
                          2219+*         CODE IS IDENTIFIED IN COLUMNS 69-71 BY ALPHABETICS WHICH     *
                          2220+*         IDENTIFIES THE GENERATION OPTION THAT CAUSES ITS INCLUSION   *
                          2221+*                                                                      *
                          2222+*      THE ALPHABETIC IDENTIFIERS ARE AS FOLLOWS:                      *
                          2223+*                                                                      *
                          2224+*         COLUMN 71 :                                                  *
                          2225+*           B - BSCA                                                   *
                          2226+*           M - MLTA                                                   *
                          2227+*           2 - TEST FOR MLTA OR BSCA                                  *
                          2228+*                                                                      *
                          2229+*         COLUMN 68-70 MAY INCLUDE IN ANY ORDER OR COMBINATION:        *
                          2230+*           C - BSCA OR MLTA CONTROL STATION OR STATION CONTROL         *
                          2231+*           D - BSCA OR MLTA DATA MODE ESCAPE                           *
                          2232+*           L - CODE NECESSARY FOR COMBINATION OF LINE TYPES            *
                          2233+*           MIN - CODE PRESENT ON MINRES SYSTEM ONLY.                   *
                          2234+*           R - RESIDENT CODE MADE TRANSIENT FOR  MINRES-YES.           *
                          2235+*           S - BSCA OR MLTA SWITCHED LINE SUPPORT.                     *
                          2236+*           Y - CODE TO HANDLE MULTIPLE DTFS. EXCLUDED IN 1 LINE SYS.   *
                          2237+*           / - OR   (FOR COMBINATION OF 2 OTHER IDENTIFIERS            *
                          2238+*                                                                      *
                          2239+*           A - BSCA ASCII SUPPORT                                     *
                          2240+*           F - BSCA 3270 DFF SUPPORT                                  *
                          2241+*           G - BSCA GET MESSAGE SUPPORT                               *
                          2242+*           I - BSCA ITB (INTERMEDIATE TEXT BLOCK) SUPPORT             *
                          2243+*           N - BSCA INTERVAL POLLING                                  *
                          2244+*           P - BSCA POINT TO POINT SUPPORT                            *
```

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                          2245+*           T - BSCA MULTI POINT TRIBUTARY SUPPORT                    *
                          2246+*           U - BSCA CPU TO CPU SUPPORT                               *
                          2247+*           W - BSCA 3270 PROGRAM REQUEST UNDER FORMAT (PRUF)         *
                          2248+*           X - BSCA TRANSPARENCY SUPPORT                             *
                          2249+*           0 - BSCA 3270 SUPPORT                                     *
                          2250+*           5 - BSCA 3735 SUPPORT                                     *
                          2251+*           7 - BSCA 3741 SUPPORT                                     *
                          2252+*                                                                     *
                          2253+*           B - MLTA BUFFERED RECEIVE SUPPORT                         *
                          2254+*           V - MLTA MOVE SUPPORT (NO TRANSLATE)                      *
                          2255+*           1 - MLTA 1050 SUPPORT                                     *
                          2256+*           4 - MLTA 2741 SUPPORT                                     *
                          2257+*                                                                     *
                          2258+* EXTERNAL REFERENCES:                                              *
                          2259+*           $CCCOM:                                                   *
                          2260+*              FIELDS IN $CMWK                                        *
                          2261+*              @CMTCB,@CPTCB                                          *
                          2262+*              @CKLST                                                 *
                          2263+*              @LCB#1                                                 *
                          2264+*              @PRLQ
                          2265+*              #CMERP                                                 *
                          2266+*              #GMS                                                   *
                          2267+*              #OPEND                                                 *
                          2268+*                                                                     *
                          2269+* CHANGE ACTIVITY - $CC4CM.                                          *
                          2270+*  RELEASE 1 :                                                        *
                          2271+*  @01/S309284/CORRECTS A -09 (WAIT TIME EXCEEDED) ERROR.             *
                          2272+*  @02/S309280/ENSURES A RVI IS SENT ON GET/RVI OPERATION.            *
                          2273+*  @03/S309527/ENSURES THE CORRECT TERMINAL IS POLLED ON CPU-TO-CPU.  *
                          2274+*  @04/       /CORRECTS DATA TRUNCATED INDICATOR SETTING.             *
                          2275+*  @05/S309470/CORRECTS TERMINALS DROPPING FROM POLL LIST.            *
                          2276+*  @06/S309822/CORRECTS CONTINUOUS -14 RETURN CODE FROM 3270X PRINTER.*
                          2277+*  @07/S309525/CANCELS A 2 SECOND TIME OUT WITH NO P.L.'S ON DA.      *
                          2278+*  @08/       /CORRECTS A LOOP IN $CC4NQ.                             *
                          2279+*  RELEASE 3 :                                                       *
                          2280+*  @09/OS0309 /SUPPORT FOR BUSY 328X PRINTERS.                       *
                          2281+*  @10/OS0330 /SUPPORT FOR LOWER CASE INPUT WITH THE PF1 KEY.        *
                          2282+*  @11/OS0311 /SUPPORT FOR AUTOMATIC ERP BYPASS.                     *
                          2283+*  @12/S311275/GIVES USER AN OPTION TO SET OFF TUBRUF AT ACCEPT INPUT.*
                          2284+*  @13/S311871/CORRECTS A -10 ON A BSCC ONLY GEN.                    *
                          2285+*  @14/S3     /CORRECTS PROCCHK IF STOP INVITE AND CLEAR KEY.        *
                          2286+*  @15/S310611/CORRECTS A SYSTEM HANG CONDITION AFTER PUT OPERATION.  *
                          2287+*  @16/OS0364 /TERMINATES THE SYSTEM IF A POLL FOR STATUS FAILS.      *
                          2288+*  @17/S312525/CORRECTS TRANSPARENCY HANDLING.                       *
                          2289+*  RELEASE 4 :                                                       *
                          2290+*  @18/OS4102 /PORTLINE AND MULTIPORT ENHANCEMENT FOR RELEASE 4.     *
                          2291+*  @19/INCR/OS4301 - TP BUFFER IMPROVEMENTS FOR RELEASE 4            *
                          2292+*  RELEASE 5                                                                 @20
                          2293+*  @20/INCR/OS5107 - U-NS ERROR RECOVERY IMPROVEMENT          $E072 @20
                          2294+*  @21/APAR/S315205- LOOP IN CM                               $E092 @21
                          2295+*  @22/APAR/S315705- U-GE ON TASK TO TASK                     $E093 @22
                          2296+*  @23/APAR/S315837- U-FE ON TASK TO TASK                     $E093 @23
                          2297+*  @24/APAR/S315721- U-GE ON TASK TO TASK                     $E080 @24
                          2298+*  @25/APAR/S316069- PREVENT RED LIGHT WITH EXTRA OPEND       $E093 @25
                          2299+*  @26/APAR/S316097- SPANNING RECORDS                         $E093 @26
                          2300+*  @27/APAR/S316347- LOSE RECORD NON-DFF PRINT                $E085 @27
```

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                          2301+*  @28/APAR/S315667- ICF CHANGES (SYSTEM/3 TO SYSTEM/34)      $E092 @30
                          2302+*  @29/APAR/S316540- DA STOPS POLLING                         $E080 @29
                          2303+*  @30/APAR/S316650- U-GE HALT                                $E092 @30
                          2304+*****************************************************************
```

```
ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  56

                            2306+*************************************************************
                            2307+*      $CC4CM ENTRY POINT                                   *
                            2308+*************************************************************


                       0005 2310+$CC4CM EQU   *                        'CM' ENTRY POINT.
    0005 3B 82 15B5         2311+       SBF   CMSWIT,CMSPSI+CMFMPS     RESET STOP II AND FM POST FLAGS
    0009 3A 40 4729         2312+       SBN   #CMSWT,#CMFMD            RESET $CC4GR TO 1ST LCB.
    000D 3D 00 47AB         2313+       CLI   CORCNT,NOBIT             CM WAITING FOR CORE ?
    0011 F2 81 04           2314+       JE    CMNWAT                   NO - EXECUTE WAIT.
    0014 3B 20 473C         2315+       SBF   $CMFM,SKIP               SET TO EXECUTE FREE MAIN POST.
                       0018 2316+CMNWAT EQU   *                        * LOCAL
    0018 C2 01 15BE         2317+       LA    ECBLST,XR1               ADDRESS OF ECB WAIT LIST
    001C F4 10 00           2318+       SVC   0                        WAIT FOR WORK - RECEIVE CONTROL
    001F 04                 001F 2319+  DC    AL1(WAITRB)              * WHEN:
                            2320+*                                     *    NEW TP REQUEST ($CC4II/IS)
                            2321+*                                     *    TP OP END      ($CC4IB/IM)
                            2322+*                                     *    FREEMAIN DONE AND
                            2323+*                                     *      REQUEST WAITING
                            2324+*                                     *      FOR SPACE.   ($CC4FM)
                            2325+*      SET OFF WAIT BITS TO PREVENT TASK FROM BEING DISPATCHED AT
                            2326+*        ANOTHER WAIT POINT BECAUSE OF A POST TO ONE OF THESE ECBS.

    0020 38 40 473C         2328+       TBN   $CMFM,POST               IF FREEMAIN HAS OCCURRED AND
    0024 3D 00 47AB         2329+       CLI   CORCNT,NOBIT             * CM IS WAITING FOR ONE,
    0028 F2 91 04           2330+       JC    CMCKCN,FLSOEQ            NO-GO CHECK COUNT
    002B 3A 80 15B5         2331+       SBN   CMSWIT,CMFMPS            YES- SET INTERNAL FREEMAIN BIT.
                       002F 2332+CMCKCN EQU   *                        * LOCAL
    002F 3B C0 473C         2333+       SBF   $CMFM,WAIT+POST          RESET FREEMAIN ECB WAIT/POST.
    0033 3B C0 4739         2334+       SBF   $CMECB,WAIT+POST         RESET GENERAL ECB WAIT/POST.
    0037 3C 20 1600         2335+       MVI   TIMIOB+7,SKIP            SET TO SKIP TIMER POSTING     NB
    003B F2 01 04           2336+       JNE   CMNOZ0                   IF CORE COUNT > 0 - JUMP
    003E 3C 20 473C         2337+       MVI   $CMFM,SKIP               SET TO SKIP FREE MAIN POST
                       0042 2338+CMNOZ0 EQU   *                        *
                            2339+*    BEGIN BY CHECKING FOR OP ENDS
```

```
                          2341+*************************************************************************
                          2342+*  TITLE-- CONTROL LOGIC FOR $CC4CM.                                    *
                          2343+*                                                                       *
                          2344+*  FUNCTION--DISPATCH WORK TO SECTIONS OF RESIDENT $CC4CM.              *
                          2345+*                                                                       *
                          2346+*  OPERATION--                                                          *
                          2347+*       .   IF OPERATION HAS COMPLETED:                                 *
                          2348+*             . SET UP BSCA DTF                                         *
                          2349+*             . CALL IOCS CHECK ROUTINE TO GET DATA.                    *
                          2350+*             . IF '56' RETURN CODE (NOT COMPLETE), ADJUST OP END       *
                          2351+*                COUNT AND CHECK FOR OTHER OP ENDS.                     *
                          2352+*             . IF DATA RECEIVED, EXIT TO CMBOPE (BSCA) OR CMMOPE (MLTA)
                          2353+*       .   IF NEW PUT REQUEST ON QUEUED,                               *
                          2354+*             . DEQUEUE PL.                                             *
                          2355+*             . EXIT TO CMBREQ (BSCA) OR CMMREQ (MLTA).                 *
                          2356+*       .   IF REQUEST WAITING FOR GETMAIN CAN BE RETRIED:              *
                          2357+*             . IF GETMAIN FAILED AT QUEUE TIME, EXIT TO                *
                          2358+*                 CMBSOX (BSCA) OR CMPNWX (MLTA).                       *
                          2359+*             . IF GETMAIN FAILED AT SCHEDULE TIME, EXIT TO             *
                          2360+*                 CMBTBY (BSCA), OR CMMTBY (MLTA).                      *
                          2361+*       .   IF NEW READ REQUEST IS ON QUEUE:                            *
                          2362+*             . DEQUEUE PL.                                             *
                          2363+*             . IF ACCEPT, GO TO CMACI.                                 *
                          2364+*             . EXIT TO CMBREQ (BSCA) OR CMMREQ (MLTA).                 *
                          2365+*       .   IF LINE WAS IN ERP AND NOW CAN BE RESCHEDULED, DO IT.       *
                          2366+*       .   IF INTERVAL POLLING, SET INTERVAL AS NECESSARY.             *
                          2367+*                                                                       *
                          2368+*  ENTRY POINTS--                                                       *
                          2369+*         CMOPND - CHECK FOR OP ENDS.                                   *
                          2370+*         CMFRMN,CMREQ - CHECK FOR REQUESTS TO HANDLE.                  *
                          2371+*                                                                       *
                          2372+*  INPUT--                                                              *
                          2373+*         #OPEND - OP END PENDING COUNT.                                *
                          2374+*         @CKLST - ADDRESS IF CCP CHECK LIST.                           *
                          2375+*         @PRLQ  - QUEUE OF NEW REQUESTS FROM $CC4II OR $CC4DF.         *
                          2376+*                                                                       *
                          2377+*  OUTPUT--                                                             *
                          2378+*         #OPEND - ADJUSTED FOR OP ENDS HANDLED.                        *
                          2379+*         CMSDTF - DTF TO BE HANDLED.                                   *
                          2380+*         CMSPL  - PL TO BE HANDLED.                                    *
                          2381+*                                                                       *
                          2382+*  EXTERNAL REFERENCES--                                                *
                          2383+*         CMDTFS  - SETUP BSCA DTFS FOR CHECK ROUTINE                   *
                          2384+*         CMBMCH  - CHECK ROUTINE                                       *
                          2385+*         CMBSKP - BSCA SKIP BIT ON/OFF ROUTINE.                        *
                          2386+*         $CC4GR - GETMAIN FAIL RECOVERY TRANSINET.                     *
                          2387+*         CMPRLS - SEARCH @PRLQ FOR NEW PL.                             *
                          2388+*         $@TMIH - START/STOP INTERVAL TIMER.                           *
                          2389+*         $TRACE - SYSTEM TRACE ROUTINE.                                *
                          2390+*                                                                       *
                          2391+*  EXIT, NORMAL--                                                       *
                          2392+*                TO CMBOPE OR CMMOPE TO HANDLE OP END                   *
                          2393+*                TO CMACI IF NEW ACCEPT REQUEST.                        *
                          2394+*                TO CMBREQ OR CMMREQ TO HANDLE NEW REQUESTS.            *
                          2395+*                TO CMBSOX OR CMPNWX IF GETMAIN RETRY AT QUEUE TIME.    *
                          2396+*                TO CMBTBY OR CMMTBY IF GETMAIN RETRY AT SCHED TIME.    *
```

```
                              2397+*                                                                *
                              2398+*************************************************************************



                              2400+*************************************************************************
                              2401+*    CHECK FOR IOCS OP ENDS.                                     *
                              2402+*************************************************************************

                         0042 2404+CMOPND EQU   *                        TEST OP END COUNT
    0042 3D 00 472A           2405+       CLI   #OPEND,NOBIT            CHECK OP END COUNT FOR ZERO
    0046 C0 81 0090           2406+       BE    CMFRMN                  IF ZERO, BR TO FREEMAIN ANALYSIS

                              2408+*************************************************************************  B
                              2409+*   SETUP ANY BSCA DTF WITH OP END                                      *  B
                              2410+*************************************************************************  B

                         004A 2412+CMOPNT EQU   *                        ENTRY POINT USED BY TTASK    @18
    004A C0 87 14BB           2413+       B     CMDTFS                  DTF SETUP FOR BSCA LINES       B

                              2415+*************************************************************************
                              2416+*    CALL CHECK ROUTINE  (CCP VERSION OF $$BMCH)                        *
                              2417+*************************************************************************

    004E C0 87 124B           2419+       B     CMBMCH                  CALL OP END CHECK ROUTINE

    0052 0F 00 472A 4633      2421+       SLC   #OPEND,X$0001(1)        SUBTRACT 1 FROM OP END COUNT
    0058 BD 56 0E             2422+       CLI   $BDCMP(,DTF),$BCCMP     '56' COMPLETION CODE ?         B
    005B F2 01 13             2423+       JNE   CMNT56                  NO-NOT 56, CHECK OTHERS.       B

    005E 8F 00 6C 4633        2425+       SLC   LCBOPE(1,DTF),X$0001    DECREMENT OP END BY ONE.       B
    0063 B5 01 52             2426+       L     LCBPL@(,DTF),PL         POINT TO THE PARM LIST.        B
    0066 C0 87 1042           2427+       B     CMTRCE                  CALL TRACE TO LOG THISOP END.  B
    006A 01              006A 2428+       DC    AL1(CCPRIB)             CCP RIB
    006B 09              006B 2429+       DC    AL1(TRRIB)              TRACE SUB RIB
    006C EA              006C 2430+       DC    AL1(TTMOPN)             TRACE OP END ID.               B

                         006D 2432+CMEXOP EQU   *                        *  LOCAL                       B
    006D C0 87 0042           2433+       B     CMOPND                  GO CHECK FOR MORE OP ENDS.     B

                         0071 2435+CMNT56 EQU   *                        *  LOCAL                       B
                              2436+*-------------------------------------------------------------------*
                              2437+*    OP END TO HANDLE (NOT '56')  - GO TO BSCA OR MLTA OP END ROUT.*
                              2438+*-------------------------------------------------------------------*

    0071 34 02 15CD           2440+       ST    CMSDTF,XR2              SAVE DTF ADDR                  B
    0075 8F 00 6C 4633        2441+       SLC   LCBOPE(1,DTF),X$0001    DECREMENT LINE OP END COUNT.   B
    007A B5 01 52             2442+       L     LCBPL@(,DTF),PL         POINT TO THE PARM LIST.        B
    007D B8 01 56             2443+       TBN   LCBAT2(,DTF),LCBRCI     RECEIVE INITIAL ?              B
    0080 C0 90 0176           2444+       BF    CMBOPE                  NO-GO CHECK BSCA ABORT.        B
    0084 3C 7A 12F5           2445+       MVI   CMB#SB,SBN1             SET FOR POLL SKIP BIT ON.      B

    0088 C0 87 12C7           2447+       B     CMBSKP                  SKIP TO POLL SKIP BIT RTN.     B
    008C C0 87 0176           2448+       B     CMBOPE                  GO HANDLE BSCA OP END          B
```

```
                                2450+*****************************************************************
                                2451+*   CHECK FOR NEW PUT REQUEST.                                  *
                                2452+*****************************************************************

                           0090 2454+CMFRMN EQU   *                          FREEMAIN ANALYSIS ROUTINE
    0090 3D 00 4644             2455+       CLI   @PRLQ-1,NOBIT              ANY NEW TP REQUESTS ?
    0094 F2 81 0A               2456+       JE    CMFRPS                     NO - CHECK FOR FREEMAINS

                                2458+* HAVE TP REQUEST -IF PUT REQUEST HANDLE IT BEFORE CHECKING TO SEE
                                2459+*          IF REQUESTS WAITING FOR FREEMAIN CAN BE SATISFIED NOW.

    0097 C0 87 0BFD             2461+       B     CMPRLS                     SEARCH PRLQ FOR PUT
                                2462+*                                       *   XR1 - PL FOUND
                                2463+*                                       *   XR2 - LEFT BYTE OF CHAIN
                                2464+*                                       *     ADDR POINTING TO PL FOUND.
    009B 78 02 03               2465+       TBN   PLOPC(,PL),OPPUT           DOES IT INVOLVE PUT
    009E F2 10 40               2466+       JT    CMRDEQ                     YES - JUMP TO HANDLE NOW

                                2468+*****************************************************************
                                2469+*    CHECK FOR REQUEST WAITING GETMAIN THAT CAN BE RETRIED.       *
                                2470+*****************************************************************

                           00A1 2472+CMFRPS EQU   *                          *  LOCAL
    00A1 38 80 15B5             2473+       TBN   CMSWIT,CMFMPS              HAS FREEMAIN BEEN POSTED
    00A5 F2 90 2E               2474+       JF    CMREQ                      IF NOT, JUMP TO HANDLE TP REQST

                                2476+*   HAVE HAD FREEMAIN - FIND REQUEST AWAITING TPBUF SPACE.

    00A8 F4 10 00               2478+       SVC   0                          ***** TRANSIENT CALL ******
    00AB 01                00AB 2479+       DC    AL1(CCPRIB)                CCP RIB
    00AC 2D                00AC 2480+       DC    AL1(CC4GR)                 GETMAIN RECOVERY TRANSIENT

                                2482+* --->  RETURN HERE IF NO REQUEST NEEDING GETMAIN WAS FOUND
    00AD F2 87 22               2483+       J     CMFMGG

                                2485+* --->  RETURN HERE IF REQUEST NEEDS TO BE RETRIED (XR1 POINTS TO IT)
                                2486+*                 XR1-PL ADDRESS, XR2-DTF TO BE RESCHEDULED.
    00B0 34 02 15CD             2487+       ST    CMSDTF,DTF                 SAVE THIS DTF @
    00B4 34 01 15CB             2488+       ST    CMSPL,PL                   SAVE THIS PL  @
    00B8 78 40 0C               2489+       TBN   PL$OPM(,PL),OPGETQ         DOES REQ NEED GM AT QUEUE TIME
    00BB 7B C0 0C               2490+       SBF   PL$OPM(,PL),OPGETM+OPGETQ  RESET GETMAIN NEEDED BITS
    00BE C0 90 06FC             2491+       BF    CMBTBY                     NO- NEED BUF AT SCHED TIME.    B

                                2493+*   GETMAIN NEEDED AT REQUEST QUEUE TIME
    00C2 34 01 15D3             2494+       ST    CMNWPL,PL                  SAVE ORIG PL @ FOR NO WAIT POST
    00C6 C0 87 1170             2495+       B     CMDEQ                      DEQUEUE PL IN TCB
    00CA 3A 20 15B5             2496+       SBN   CMSWIT,CMTPRQ              NEW REQUEST
    00CE C0 87 06E7             2497+       B     CMBSOX                     BSCA NEW REQUEST         ONLY  B

                           00D2 2499+CMFMGG EQU   *                          *   LOCAL
    00D2 3B 80 15B5             2500+       SBF   CMSWIT,CMFMPS              TURN OFF FREEMAIN POSTED FLAG


                                2502+*****************************************************************
                                2503+*    CHECK FOR NEW READ REQUEST ON @PRLQ.                       *
                                2504+*****************************************************************
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                          00D6 2506+CMREQ  EQU   *                        HANDLE TP REQUESTS
    00D6 3D 00 4644            2507+       CLI   @PRLQ-1,NOBIT            ANY NEW TP REQUESTS TO HANDLE ?
    00DA F2 81 51              2508+       JE    CMNWRK                   NO - CHECK FOR TERMINAL IN
                               2509+*                                     ERROR RECOVERY

                               2511+* CM HAS BEEN POSTED WITH A TP REQUEST, FIND THE NEW REQ AND HANDLE IT.

    00DD C0 87 0BFD            2513+       B     CMPRLS                   SEARCH PRLQ FOR PUT
                               2514+*                                     *   XR1 - PL FOUND
                               2515+*                                     *   XR2 - LEFT BYTE OF CHAIN
                               2516+*                                     *     ADDR POINTING TO PL FOUND.
                          00E1 2517+CMRDEQ EQU   *                        *  LOCAL
    00E1 34 01 15CB            2518+       ST    CMSPL,PL                 SAVE THE PARM LIST ADDRESS
    00E5 34 01 15D3            2519+       ST    CMNWPL,PL                SAVE PL TO POST FOR NO WAIT OP
    00E9 9C 01 01 01           2520+       MVC   1(2,XR2),PLCHN(,PL)      DEQUEUE PL OFF PRLQ
    00ED 5F 01 01 01           2521+       SLC   PLCHN(2,PL),PLCHN(,PL)   ZERO CHAIN FIELD
    00F1 75 02 0B              2522+       L     PLTUBA(,PL),XR2          POINT XR2 AT THE TUB
    00F4 78 01 03              2523+       TBN   PLOPC(,PL),OPGET         INVITE/GET OP ?                 B
                               2524+*                                     -START-----------------------@14
    00F7 79 04 02              2525+       TBF   PLOPM(,PL),OPSTOP        AND NOT STOP?                   B
                               2526+*                                     --END-------------------------@14
    00FA F2 90 03              2527+       JF    CMRSCL                   NO - CONTINUE                   B

                               2529+*  SET OFF THE CLEAR INDICATOR IN THE TUB FOR ANY GET TYPE OP         B
                               2530+*  THAT IS NOT A STOP INVITE.

    00FD BB 80 09              2532+       SBF   TUBSCS(,XR2),TUBCLR      SET OFF CLEAR INDICATOR         B
                          0100 2533+CMRSCL EQU   *                        *                               B
    0100 B9 80 0B              2534+       TBF   TUBAT1(,XR2),TUBKNM      THIS A CONSOLE TUB OR
    0103 B9 80 0E              2535+       TBF   TUBAT4(,XR2),TUBCHN      * A DUMMY TASKCHAIN TUB ?
    0106 B5 02 16              2536+       L     TUBDTF(,XR2),DTF         SAVE DTF ADDRESS
    0109 34 02 15CD            2537+       ST    CMSDTF,DTF               *  FOR THIS REQUEST.
    010D F2 90 05              2538+       JF    CMRNDQ                   YES-DON'T DECREMENT REQ COUNT

    0110 8F 00 7C 4633         2540+       SLC   LCBNW#(,DTF),X$0001      DECREMENT NEW REQ COUNT FOR LINE

                               2542+*-------------------------------------------------------------------*
                               2543+*    SET INTERNAL OP CODE   AND   ROUTE NEW REQUEST.                 *
                               2544+*-------------------------------------------------------------------*

                          0115 2546+CMRNDQ EQU   *                        * LOCAL
    0115 7B FF 0C              2547+       SBF   PL$OPM(,PL),ALLBIT       SET ALL OP MOD BITS OFF
    0118 58 03 0C 03           2548+       MNN   PL$OPM(,PL),PLOPC(,PL)   MOVE LAST 4 BITS OF OP CODE

    011C 7D 04 03              2550+       CLI   PLOPC(,PL),OPACI         IS OP IS ACCEPT INPUT ?
    011F 79 40 02              2551+       TBF   PLOPM(,PL),OPOLT         AND NOT OLT ?
    0122 C0 16 0B38            2552+       BC    CMACI,TRUAEQ             YES - GO HANDLE.

    0126 3A 20 15B5            2554+       SBN   CMSWIT,CMTPRQ            SET SWITCH TO INDICATE TP
                               2555+*                                     REQUEST IS NOW BEING HANDLED
    012A C0 87 05FF            2556+       B     CMBREQ                   PROCESS THE BSCA REQUEST. ONLY B
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                                2558+*****************************************************************
                                2559+*    RESCHEDULE DTF THAT WAS IN ERP.                            *
                                2560+*****************************************************************

                           012E 2562+CMNWRK EQU   *                          *  LOCAL
    012E 3D 00 4727             2563+       CLI   #CMERP-1,NOBIT            IS THERE A DTF THAT WAS IN ERP
                                2564+*                                       *  TO RESCHEDULE ?
    0132 F2 81 10               2565+       JE    CMWTST                    NO- CHECK FOR TIMER RESCHED.
    0135 35 02 4728             2566+       L     #CMERP,DTF                XR2--> ERP DTF ADDRESS
    0139 3C 00 4727             2567+       MVI   #CMERP-1,NOBIT            CLEAR ERP DTF ADDRESS
    013D 34 02 15CD             2568+       ST    CMSDTF,DTF                SAVE DTF ADDRESS
    0141 C0 87 06FC             2569+       B     CMBTBY                    GO TEST LINE FOR BUSY          B

                                2571+*****************************************************************
                                2572+*  NO WORK                                                      *
                                2573+*****************************************************************

                           0145 2575+CMWTST EQU   *                          *   LOCAL

                                2577+*   RESTART POLLING IF NECESSARY                                 NB

    0145 35 02 464D             2579+       L     @LCB#1,DTF                XR2-->FIRST LCB                NB
                           0149 2580+CMWTS1 EQU   *                          *                              NB
    0149 B8 01 70               2581+       TBN   LCBATR(,DTF),LCBTIM       RESCHEDULE NEEDED?
    014C B9 20 56               2582+       TBF   LCBAT2(,DTF),LCBACT       LINE ACTIVE ?
    014F F2 10 03               2583+       JT    CMTMRS                    YES-GO RESCHEDULE THIS LINE
                           0152 2584+CMWOTR EQU   *                          *
    0152 F2 87 19               2586+       J     CMWAIT                    GO WAIT                        NB

                           0155 2588+CMTMRS EQU   *                          *                              NB
    0155 34 02 15CD             2589+       ST    CMSDTF,XR2                SAVE DTF ADDRESS FOR CM
    0159 3A 02 15F8             2590+       SBN   TIMOPE,POL1MN             INDICATE POLL 1 MINUTE         NB
    015D 3A 20 4630             2591+       SBN   $FLGC,#NTRAC              INDICATE NO TRACE              NB
                                2592+* PUT TWO SECONDS IN TIMER IOB BEFORE RESCHEDULE(RESCHEDULE WILL     NB
                                2593+*              ACTUALLY START THE TIMER RUNNIG)                     NB

    0161 C2 02 15F9             2595+       LA    TIMIOB,XR2                XR2-->TIMER IOB                NB
    0165 8C 03 06 479E          2596+       MVC   TITIME(4,XR2),PLTIME      SET TIME INTERVAL AS SPEC'ED   NB
    016A C0 87 07BA             2597+       B     CMBSCH                    GO RESCHEDULE BSCA LINE       2/B
                           016E 2598+CMWAIT EQU   *                          *
    016E 3C 00 1600             2599+       MVI   TIMIOB+7,NOBIT            SET TO WAIT ON TIMER ALSO      NB
    0172 C0 87 0005             2600+       B     $CC4CM
                                2601 *      $E072                                                    CCP00286
                                2602+* R-05,C-00   CHANGE LEVEL
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                          2604+*********************************************************************
                          2605+*                                                                   *
                          2606+*  NAME--CMBOPE                                                     *
                          2607+*                                                                   *
                          2608+*  TITLE--BSCA OP END ANALYSIS                                      *
                          2609+*                                                                   *
                          2610+*  FUNCTION--ANALYSE  EACH OP END FOR A TP LINE AND DETERMINE WHAT  *
                          2611+*            IF ANYTHING MUST BE DONE TO COMPLETE THE CURRENT TP    *
                          2612+*            OPERATION.  ROUTE COMPLETED OPERATION BACK TO THE USER.*
                          2613+*            RESCHEDULE WORK ON THE LINE IF NO MORE OP ENDS TO BE   *
                          2614+*            HANDLED.                                               *
                          2615+*                                                                   *
                          2616+*  OPERATION--                                                      *
                          2617+*                                                                   *
                          2618+*            . IF ABORT OPERATION, HANDLE THE ABORT UNTIL IT IS      *
                          2619+*              COMPLETE.  THEN RESCHEDULE THE LINE.                 *
                          2620+*                                                                   *
                          2621+*            . IF STOP INVITE REQUEST CALL $CC4BQ                   *
                          2622+*                                                                   *
                          2623+*            . FIND THE OP ENDED PARAMETER LIST AND SET ON THE POLL *
                          2624+*              SKIP BIT.                                            *
                          2625+*                                                                   *
                          2626+*            . TRACE THE OP END AFTER CALLING CHECK                 *
                          2627+*                                                                   *
                          2628+*            . IF AN ERROR OCCURRED CALL $CC4BE.   ON RETURN       *
                          2629+*              EITHER POST THE RESULTS TO THE USER, RESCHEDULE THE   *
                          2630+*              LINE, OR HANDLE THE DATA IN THE LINE BUFFER.          *
                          2631+*                                                                   *
                          2632+*            . IF WRITE OP END, THEN                                *
                          2633+*              - IF BSCA RECORD WAS SHORTED THEN DEFINED AT          *
                          2634+*                ASSIGNMENT TIME, CALL TRANSIENT TO FILL OUT THE    *
                          2635+*                RECORD TO CORRECT LENGTH.                          *
                          2636+*                                                                   *
                          2637+*              - SET UP THE RETURN CODE FOR THE RESULTS OF THE      *
                          2638+*                OPERATION.                                         *
                          2639+*                                                                   *
                          2640+*              - IF BSCA IS NOT COMPLETE, CALL RESCHEDULE FUNCTION  *
                          2641+*                TO COMPLETE THE OPERATION.                         *
                          2642+*                - EOT MUST BE SENT.                                *
                          2643+*                - OPERATION NOT COMPLETE BECAUSE CLEAR KEY IS      *
                          2644+*                  BEING HANDLED.                                   *
                          2645+*                                                                   *
                          2646+*              - IF BSCA OPERATION IS COMPLETE, THEN                *
                          2647+*                - FREE THE DFF HOLD BUFFER IF DFF PUT.             *
                          2648+*                                                                   *
                          2649+*              - IF PUT-THEN-GET, THEN SET UP THE GET OPERATION IN  *
                          2650+*                THE INTERNAL OP CODE, THEN RESCHEDULE THE LINE.    *
                          2651+*                                                                   *
                          2652+*              - IF OPERATION IS COMPLETED SET UP TO POST THE       *
                          2653+*                REQUESTOR OF THE RESULTS.                          *
                          2654+*                                                                   *
                          2655+*            . IF READ OP END, THEN                                 *
                          2656+*              - IF BSCA RECEIVE INITIAL WAS LAST OP, CHECK FOR ANY *
                          2657+*                CONFLICTING OPERATION IN THE LINE QUEUE, AND REJECT*
                          2658+*                THEM IF ANY FOUND.                                 *
                          2659+*                                                                   *
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                          2660+*              - IF BSCA MESSAGE MODE INPUT, SET UP TO CONSOLIDATE    *
                          2661+*                ALL BLOCKS INTO ONE MESSAGE.  SET UP TO RESCHEDULE   *
                          2662+*                LINE AND GET TO EOT BEFORE RETURNING TO THE USER.    *
                          2663+*                                                                     *
                          2664+*              - IF DATA MODE ESCAPE RECOGNIZED IN THE INPUT DATA     *
                          2665+*                STREAM THEN SET UP POST OF THE COMMAND PROCESSOR.    *
                          2666+*                                                                     *
                          2667+*              - IF VALID INPUT DATA, MOVE, TRANSLATE, TRUNCATE THE   *
                          2668+*                DATA AS REQUIRED.                                    *
                          2669+*                                                                     *
                          2670+*              - IF 3270 BSCA INPUT CHECK FOR CLEAR KEY HIT AND       *
                          2671+*                HANDLE IT.                                           *
                          2672+*                                                                     *
                          2673+*            . IF COMPLETED DATA OPERATION, THEN                      *
                          2674+*              - REMOVE THE TP REQUEST FROM THE LINE QUEUE.           *
                          2675+*              - FREE UP PUT-NO-WAIT HOLD BUFFERS.                    *
                          2676+*              - POST THE REQUESTOR OF THE TP OPERATION THAT IT IS    *
                          2677+*                COMPLETE.                                            *
                          2678+*              - QUEUE INVITE INPUT PARAMETER LIST ONTO THE TCB.      *
                          2679+*              - CHECK FOR MORE OP ENDS AND HANDLE IF THERE ARE       *
                          2680+*                SOME, OTHERWISE GO AND RESCHEDULE LINE.              *
                          2681+*                                                                     *
                          2682+*  ENTRY POINT--                                                      *
                          2683+*               CMBOPE                                                *
                          2684+*                                                                     *
                          2685+*  INPUT--                                                            *
                          2686+*  OUTPUT--                                                           *
                          2687+*         #OPEND - ADJUSTED FOR OP ENDS HANDLED.                      *
                          2688+*         CMSLCB - ADDRESS OF DTF HANDLED FOR LAST OP END.            *
                          2689+*         CMSPL  - ADDRESS TO TP PARAMETER LIST FOR LAST OP END.      *
                          2690+*         TCBINQ - QUEUE OF INVITES THAT HAVE COMPLETED.              *
                          2691+*                                                                     *
                          2692+*  EXTERNAL REFERENCES--                                              *
                          2693+*         $CC4BQ - BSCA STOP II QUEUE ANALYSIS TRANSIENT.             *
                          2694+*         $CC4TT - CCP TRACE ROUTINE.                                 *
                          2695+*         $CC4BE - BSCA ERP TRANSIENT.                                *
                          2696+*         $CC4BR - BSCA REJECT TRANSIENT.                             *
                          2697+*         $CC4B5 - 3735 SENSE/STATUS TRANSIENT.                       *
                          2698+*         $CC4BA - 3270 SENSE/STATUS TRANSIENT.                       *
                          2699+*         $CC4JE - TRANSLATE ASCII TO EBCDIC                          *
                          2700+*         $CC4B0 - 3270 INPUT FORMAT TRANSIENT.                       *
                          2701+*         $CC4BB - BSCA RECORD BLANK TRANSIENT.                       *
                          2702+*         CMBSKP - BSCA SKIP BIT ON/OFF ROUTINE.                      *
                          2703+*         CMGINL - INPUT RECORD LENGTH ROUTINE.                       *
                          2704+*         CMFMRT - FREEMAIN ROUTINE.                                  *
                          2705+*         CMGMRT - GETMAIN ROUTINE.                                   *
                          2706+*         CMPSRQ - POST TP SCHEDULED ROUTINE.                         *
                          2707+*         CMPOST - POST OP END FOR READ OR PUT NO WAIT                *
                          2708+*         CMPWGY - OP END FOR PUT PART OF PUT THEN GET.               *
                          2709+*                                                                     *
                          2710+*  EXIT, NORMAL--                                                     *
                          2711+*                TO CMBSCH TO RESCHEDULE THE LINE                     *
                          2712+*                                                                     *
                          2713+*********************************************************************
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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  64

                          0176 2715+CMBOPE EQU   *                       *                              B
    0176 38 20 4630            2716+       TBN   $FLGC,#NTRAC            NO TRACE AND -
    017A BD 44 0E              2717+       CLI   $BDCMP(,DTF),$BCNEG     *      44 COMP CODE ?
    017D F2 16 04              2718+       JC    CMTRAC,TRUAEQ           YES- CONTINUE
    0180 3B 20 4630            2719+       SBF   $FLGC,#NTRAC            NO-SET OFF NO TRACE IND
                          0184 2720+CMTRAC EQU   *                       *
                               2722+*   TRACE THE OP END COMPLETION CODE.                              B
    0184 C0 87 1042            2724+       B     CMTRCE                  CALL TRACE.                    B
    0188 01                0188 2725+       DC    AL1(CCPRIB)             CCP RIB                        B
    0189 09                0189 2726+       DC    AL1(TRRIB)              TRACE SUBRIB                   B
    018A EA                018A 2727+       DC    AL1(TTMOPN)             TRACE OP END STATUS.           B
                               2729+*                          ----------START-----------------------@16
    018B B5 01 52              2730+       L     LCBPL@(,DTF),PL         XR1--> PARM LIST                 B
    018E 34 01 15CB            2731+       ST    CMSPL,PL                SAVE THE PARM LIST REG.        @20
    0192 75 01 0B              2732+       L     PLTUBA(,PL),XR1         XR1 -> TUB.                      B
    0195 B8 04 6F              2733+       TBN   LCBAT3(,DTF),LCBSTS     STATUS POLL CURRENT OP -         B
    0198 7D 06 23              2734+       CLI   TUBPHY(,XR1),TUB5M2     * AND 3270 TYPE TERMINAL ?       B
    019B F2 94 0F              2735+       JC    CMRSEN,FLSOHI           NO - PROCESS THE OP END.         B
    019E B5 01 0D              2736+       L     $BDWKB(,DTF),XR1        XR1 -> RECORD AREA.              B
    01A1 4D 01 01 15F3         2737+       CLC   SNSTAS(2,XR1),CMSTUS    STATUS MESSAGE RECEIVED ?        B
                          01A6 2738+CMYSAS EQU   *                       @20
    01A6 B5 01 52              2739+       L     LCBPL@(,DTF),PL         XR1--> PARAMETER LIST          @20
    01A9 C0 01 02A4            2740+       BNE   CMBYNS                  NO - GO CALL $CC4BE            @20
                               2741+*                          ----------END-------------------------@16
                          01AD 2742+CMRSEN EQU   *
    01AD BB 04 6F              2743+       SBF   LCBAT3(,DTF),LCBSTS     SET OFF STATUS POLL OP.        @20
    01B0 BD 59 0E              2744+       CLI   $BDCMP(,DTF),CPURGE     IS PURGE OPERATION COMPLETE
    01B3 F2 01 06              2745+       JNE   CMRSEP                  NO, CHECK OP END
    01B6 B5 01 30              2746+       L     $BDWKA(,DTF),WKA        POINT TO BSCA WORK AREA
    01B9 7B 04 24              2747+       SBF   ACKSD(,WKA),AKERR       SET OFF MLMP ERROR INDICATOR
                          01BC 2748+CMRSEP EQU   *                       LOCAL
    01BC B5 01 52              2749+       L     LCBPL@(,DTF),PL         XR1--> PARM LIST
                               2750+*                          ----------START-------------------@06-@02
    01BF 78 02 0C              2751+       TBN   PL$OPM(,PL),OPPUT       PUT IN PROCESS ?                 B
    01C2 F2 10 03              2752+       JT    CMCABT                  YES - LEAVE ON RVI MASK.         B
    01C5 BB 20 7D              2753+       SBF   LCBOPC(,DTF),LCBRVI     SET OFF SEND RVI INDICATOR.      B
                          01C8 2754+CMCABT EQU   *                       * LOCAL                          B
                               2755+*                          ----------END---------------------@06-@02
    01C8 B8 08 56              2756+       TBN   LCBAT2(,DTF),LCBABT     LINE ABORT IN PROCESS ?          B
    01CB F2 90 24              2757+       JF    CMSTPX                  NO-GO CHECK FOR STOP RECEIVE .   B

                               2759+************************************************************       B
                               2760+* ABORT IN PROCESS                                          *       B
                               2761+************************************************************       B

    01CE B8 02 7D              2763+       TBN   LCBOPC(,DTF),OPPUT      ABORT OF A PUT OPERATION ?       B
    01D1 F2 90 09              2764+       JF    CMRABT                  NO - MUST BE READ ABORT          B

                               2766+*    ABORT OF A PUT                                                 B

    01D4 B5 01 30              2768+       L     $BDWKA(,DTF),WKA        POINT TO BSCA WORK AREA.         B
    01D7 7B 04 24              2769+       SBF   ACKSD(,WKA),AKERR       SET OFF MLMP ERROR IND.          B
    01DA F2 87 0D              2770+       J     CMRNAR                  GO RESCHEDULE THE LINE.          B
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                              2772+*     ABORT OF A READ                                                B

                         01DD 2774+CMRABT EQU   *                          *  LOCAL                      B
    01DD BD 40 0E             2775+       CLI   $BDCMP(,DTF),$BCDNE       CCP PURGE COMPLETE ?          B
    01E0 C0 81 031E           2776+       BE    CMPBMP                    NO-GO BUMP TO NEXT BLOCK.     B
    01E4 B5 01 30             2777+       L     $BDWKA(,DTF),WKA          POINT TO BSCA WORK AREA.      B
    01E7 7B 04 23             2778+       SBF   BSFLGD(,WKA),FWDABT       SET OFF FORWARD ABORT.        B
                         01EA 2779+CMRNAR EQU   *                          * LOCAL                      B
    01EA AF 01 56 56          2780+       SLC   LCBAT2(2,DTF),LCBAT2(,DTF) CLEAR  LCBAT1 AND LCBAT2.    B
    01EE C0 87 07BA           2781+       B     CMBSCH                    GO TO RESCHEDULE THE LINE.    B


                         01F2 2783+CMSTPX EQU   *                          *   LOCAL                    B
    01F2 B8 80 55             2784+       TBN   LCBAT1(,DTF),LCBCRI       STOP INVITE REQUESTED ?       B
    01F5 F2 90 17             2785+       JF    CMBCMP                    NO-GO HANDLE THE OP END.      B

                              2787+*************************************************************    B
                              2788+* STOP INVITE                                                 *    B
                              2789+*************************************************************    B

                         12C7 2791+       USING CMBSKP,XR1
    01F8 C2 01 12C7           2792+       LA    CMBSKP,XR1                LOAD @ OF POLL SKIP BIT RTN.C/SB
    01FC 7C 7A 2E             2793+       MVI   CMB#SB(,XR1),SBN1         SET OP: SET SKIP BIT ON.    C/SB
    01FF F4 10 00             2794+       SVC   0                         #### TRANSIENT CALL #####      B
    0202 01              0202 2795+       DC    AL1(CCPRIB)               CCP SVC RIB                   B
    0203 3F              0203 2796+       DC    AL1(CC4BQ)                *                             B

                              2798+*   $CC4BQ RETURNS CONTROL TO:                                      B
                              2799+*     NSI, IF LINE IS STOPPED SUCCESSFULLY.                         B
                              2800+*     NSI+4, IF STOP FAILED, BUT CONTINUE OP END HANDLING.          B
                              2801+*     NSI+7, IF STOP FAILED, AND ABORT IS REQUIRED.

    0204 C0 87 07BA           2803+       B     CMBSCH                    LINE STOPPED, RESCHEDULE WORK. B
    0208 F2 87 04             2804+       J     CMBCMP                    NOT STOPPED, HANDLE THE OP END.B
    020B C0 87 0625           2805+       B     CMBSTP                    NOT STOPPED, ABORT THE LINE.   B


                              2807+************************************************************** B
                              2808+*            COMPLETION CODE ANALYSIS FOR BSCA                 * B
                              2809+************************************************************** B

                         020F 2811+CMBCMP EQU   *                          * LOCAL                      B
    020F 34 01 15CB           2812+       ST    CMSPL,PL                  SAVE THE PARM LIST REG.       B
    0213 BD 40 0E             2813+       CLI   $BDCMP(,DTF),$BCDNE       SUCCESSFUL DATA ?             B
    0216 F2 81 98             2814+       JE    CMBSCS                    YES-GO HANDLE IT.             B
    0219 BD 42 0E             2815+       CLI   $BDCMP(,DTF),$BCEOT       EOT RECEIVED, AND             B
    021C B9 01 56             2816+       TBF   LCBAT2(,DTF),LCBRCI       * NOT RECEIVE INITIAL ?       B
    021F F2 16 8F             2817+       JC    CMBSCS,TRUAEQ             YES-GO HANDLE THE EOT.        B
    0222 F2 01 06             2818+       JNE   CMBERR                    NOT EOT-GO TO ERP TRANSIENT.  B
    0225 B9 C0 55             2819+       TBF   LCBAT1(,DTF),LCBCRI+LCBPRI EOT TO CANCEL REQUEST ?      B
    0228 F2 90 86             2820+       JF    CMBSCS                    YES-EOT IS OK THEN.           B

                              2822+*   EOT TO RECEIVE INITIAL IS INVALID.                              B

                         022B 2824+CMBERR EQU   *                          *  LOCAL                      B
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                              2826+*  INSTITUTE INTERVAL TIMER POLLING IF APPLICABLE                    NB

    022B BD 44 0E             2828+       CLI   $BDCMP(,DTF),$BCNEG       44 COMPLETION CODE          NB
    022E B8 80 02             2829+       TBN   $BDATT(,DTF),$BCINP       AND POLLING ?               NB
    0231 F2 96 68             2830+       JC    CMBSER,FLSNEQ             NO-CALL TRANSIENT           NB

    0234 75 02 0B             2832+       L     PLTUBA(,PL),XR2           XR2--> TUB                  NB
    0237 BD 07 23             2833+       CLI   TUBPHY(,XR2),TUB375       3735'S ?                    NB
    023A B5 02 16             2834+       L     TUBDTF(,DTF),XR2          XR2-->DTF                   NB
    023D F2 81 5C             2835+       JE    CMBSER                    YES-CALL TRANSIENT          NB

                              2837+*************************************************************  NB
                              2838+*   NO RESPONSE TO POLL OF 3270S                              *  NB
                              2839+*************************************************************  NB

                              2841+*  CLEAN UP THE LCB AND TUB                                       NB

    0240 AF 01 56 56          2843+       SLC   LCBAT2(2,DTF),LCBAT2(,DTF) SET OFF LCB ATTRIBUTES   NB
    0244 75 02 0B             2844+       L     PLTUBA(,PL),XR2           XR2-->TUB                   NB
    0247 BB 01 0C             2845+       SBF   TUBAT2(,XR2),TUBOWN       RESET TUB OWNERSHIP         NB
    024A 3A 20 4630           2846+       SBN   $FLGC,#NTRAC              IND NO TRACING TO BE DONE

                              2848+* SET UP THE INTERVAL TIMER FOR A WAIT                            NB

    024E C2 02 15F9           2850+       LA    TIMIOB,XR2                XR2-->TIMER IOB             NB
    0252 BC FF 00             2851+       MVI   TIFLAG(,XR2),ALLBIT       SET TO CANCEL REMAINING TIME NB
    0255 F4 10 00             2852+       SVC   0                         *                           NB
    0258 16             0258  2853+       DC    AL1(TTMRIB)               RETURN TIME REMAINING       NB

    0259 38 01 15F8           2855+       TBN   TIMOPE,VALOPE             OP END SINCE LAST HERE?     NB
    025D 3B 01 15F8           2856+       SBF   TIMOPE,VALOPE             RESET IT                    NB
    0261 F2 10 2B             2857+       JT    ST1MIN                    YES-GO PUT 1 MIN. IN THE IOB NB

    0264 38 02 15F8           2859+       TBN   TIMOPE,POL1MN             POLLING FROM A MINUTE AND-  NB
    0268 8D 03 06 15F7        2860+       CLC   TITIME(4,XR2),ZROTIM       TIME ZERO ?                 NB
    026D 3B 02 15F8           2861+       SBF   TIMOPE,POL1MN             SET OFF INDICATER           NB
    0271 F2 11 20             2862+       JC    SETIND,TRUNEQ             NO-GO SET 'POLL FOR A MIN.'  NB

    0274 8C 02 06 47A1        2864+       MVC   TITIME(3,XR2),WATIME      MAKE IT TIME SPECIFIED      NB
                        0279  2865+USETIM EQU   *                         *                           NB
    0279 BC 02 00             2866+       MVI   TIFLAG(,XR2),X'02'        INTERRUPT WHEN TIME EXPIRED NB
    027C 3B FF 1600           2867+       SBF   TIMIOB+7,ALLBIT           SET TO  POST ON TIMER OP END NB
    0280 F4 10 00             2868+       SVC   0                         *                           NB
    0283 15             0283  2869+       DC    AL1(STMRIB)               START TIMER RUNNING         NB

                              2871+*  INDICATE THAT A WAIT ON THE INTERVAL TIMER HAS STARTED SO       NB
                              2872+*   THAT CM WILL RESCHEDULE THE LINE  WHEN NEXT ENTERED            NB

    0284 35 02 15CD           2874+       L     CMSDTF,XR2                XR2-->CURRENT DTF           NB
    0288 BA 01 70             2875+       SBN   LCBATR(,DTF),LCBTIM       SET IND. IN LCB             NB

    028B C0 87 0005           2877+       B     $CC4CM                    GO ISSUE THE WAIT           NB

                        028F  2879+ST1MIN EQU   *                         *   LOCAL                   NB
    028F 8C 03 06 479E        2880+       MVC   TITIME(4,XR2),PLTIME      PUT POLL TIME IN TIME IOB   NB
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                          0294 2882+SETIND EQU   *                          *   LOCAL                        NB
    0294 3A 02 15F8            2883+       SBN   TIMOPE,POL1MN              SET IND.'POLL FOR A MINUTE'    NB

    0298 C0 87 07BA            2885+       B     CMBSCH                     GO RESCHEDULE THE LINE         NB

                               2887+*   HAVE BSCA ERROR (DETECTED BY MLMP), CALL BSCA ERROR TRANSIENT     B

                          029C 2889+CMBSER EQU   *                          *                              B
    029C 3B 20 4630            2890+       SBF   $FLGC,#NTRAC               INDICATE TRACE TO RESUME
    02A0 3A 01 15F8            2891+       SBN   TIMOPE,VALOPE              IND. OP END TO TIMER CODE      NB
                          02A4 2892+CMBYNS EQU   *                          * LOCAL                        B
    02A4 F4 10 00              2893+       SVC   0                          #### TRANSIENT CALL #####      B
    02A7 01               02A7 2894+       DC    AL1(CCPRIB)                CCP SVC RIB                    B
    02A8 39               02A8 2895+       DC    AL1(CC4BE)                 ERROR DETERMINATION TRANSIENT. B

                               2897+*   $CC4BE RETURNS CONTROL TO                                          B
                               2898+*     NSI, POST COMPLETE AND RESCHEDULE LINE (HARD ERROR, NO DATA,     B
                               2899+*          JUST LET USER KNOW AND FORGET IT).  ALSO USED IF ERROR ON B
                               2900+*          SYSTEM READ AND NEED TO BYPASS NORMAL ERP.                  B
                               2901+*     NSI+4,  TO ONLY RESCHEDULE THE LINE (TUB IN ERP, PL @ SAVED,     B
                               2902+*               OPERATION MAY BE RETRIED  SO DON'T FREE OR POST.)       B
                               2903+*     NSI+8,  TO ANALYZE OP END AS IF NO ERROR. ALSO FOR AUTOMATIC     B
                               2904+*               BYPASS OF NORMAL ERP IF SYSTEM PUT THAT CANNOT BE PUT B
                               2905+*               INTO ERP OPERATOR WAIT.                                 B

    02A9 C0 87 05A4            2907+       B     CMRETC                     SET UP TO RETURN TO USER.      B
    02AD C0 87 07BA            2909+       B     CMBSCH                     GO RESCHEDULE WORK ON THE LINE.B
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                              2911+*****************************************************************   B
                              2912+*  OP COMPLETED SUCCESSFULLY                                     *   B
                              2913+* DETEMINE WHAT KIND OF OPERATION IT WAS AND HANDLE IT ACCORDINGLY*   B
                              2914+*****************************************************************   B

                         02B1 2916+CMBSCS EQU   *                        *  LOCAL  *                    B
    02B1 3A 01 15F8           2917+       SBN   TIMOPE,VALOPE            IND. OP END TO TIMER CODE
    02B5 3B 20 4630           2918+       SBF   $FLGC,#NTRAC             INDICATE TRACE TO RESUME     @28
    02B9 B9 40 7D             2919+       TBF   LCBOPC(,DTF),LCBERP      IF NOT WAITING FOR EOT TO      B
                              2920+*                                     * STATUS MESSAGE.(IF ON PL$OPM B
                              2921+*                                     * IS NOT ORIG OP,IT IS A INV.) B
    02BC 78 02 0C             2922+       TBN   PL$OPM(,PL),OPPUT        WAS IT WRITE                   B
    02BF C0 10 0517           2923+       BT    CMWEND                   BRANCH IF WRITE                B
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                               2925+*****************************************************************  B
                               2926+* BSCA  READ  OP  END HANDLER                                    *  B
                               2927+*****************************************************************  B

                               2929+*   CHECK FOR SEARCH EOT OPERATION. IF SEARCH FOR EOT, AND EOT IS NOT B
                               2930+*     FOUND, CONTINUE SEARCH.  IF EOT WAS FOUND, THEN DETERMINE       B
                               2931+*     IF PARM LIST MUST BE DEQ'D.   IF EOT IS FOUND FOR GET-MSG,      B
                               2932+*     GO TO GET-MSG EOT PROCESSING LOGIC.                             B

    02C3 B8 02 55              2934+       TBN   LCBAT1(,DTF),LCBEOT       SEARCH FOR EOT ON LINE ?       B
    02C6 F2 90 5D              2935+       JF    CMPSAV                    NO-GO CHECK COMPLETION CODE.   B
    02C9 BD 42 0E              2936+       CLI   $BDCMP(,DTF),$BCEOT       EOT FOUND ?                    B
    02CC F2 01 4F              2937+       JNE   CMPBKL                    NO-GO UPDATE BLK LEN TO NXT BLKB
    02CF 78 04 02              2938+       TBN   PLOPM(,PL),OPSTOP         STOP INVITE AND           0/5/7B
    02D2 78 40 0D              2939+       TBN   PL$OPC(,PL),OPLSNS        *  POLL FOR STATUS ?      0/5/7B
    02D5 F2 90 0D              2940+       JF    CMCKDQ                    NO - GO CHECK FOR DEQUEUE 0/5/7B
    02D8 BA 04 55              2941+       SBN   LCBAT1(,DTF),LCBDEQ       SET TO DEQUEUE            0/5/7B
    02DB BA 40 7D              2942+       SBN   LCBOPC(,DTF),LCBERP       SET SEARCH FOR EOT TO     0/5/7B
                               2943+*                                      *  TO INSURE DEQUEUE.     0/5/7B
    02DE 3A 02 15B5            2944+       SBN   CMSWIT,CMSPSI             SET INTERNAL IND. ON      0/5/7B
    02E2 7C 0A 0F              2945+       MVI   PL$RTC(,PL),RCXSPI        MOVE IN STOPPED RTN CODE. 0/5/7B
                         02E5  2946+CMCKDQ EQU   *                         *  LOCAL                  0/5/7B

                               2948+*----------------------------------------------------------------*    B
                               2949+*  EOT FOUND DURING SEARCH FOR EOT                                *  B
                               2950+*----------------------------------------------------------------*    B

    02E5 B8 04 55              2952+       TBN   LCBAT1(,DTF),LCBDEQ       DEQUE WHEN EOT FOUND ?         B
    02E8 AF 01 56 56           2953+       SLC   LCBAT2(2,DTF),LCBAT2(,DTF) CLEAR  LCBAT1 AND LCBAT2.     B
    02EC 75 02 0B              2954+       L     PLTUBA(,PL),XR2           LOAD REG TO THE TUB.           B
    02EF BB 01 0C              2955+       SBF   TUBAT2(,XR2),TUBOWN       SET OFF TUB OWN INDICATOR.     B
    02F2 C0 90 05E4            2956+       BF    CMREDO                    DON'T DEQ-GO RESCHEDULE LINE.  B
    02F6 78 01 0D              2957+       TBN   PL$OPC(,PL),OPGET         GET OP BEING HANDLED ?         B
    02F9 F2 90 12              2958+       JF    CMRERP                    NO-GO CHECK FOR ERP.           B
    02FC BB 10 0C              2959+       SBF   TUBAT2(,XR2),TUBIIS       SET OFF INVITE SCHEDULED.      B
    02FF B8 C0 0C              2960+       TBN   TUBAT2(,XR2),TUBDTA+TUBCMD DME ?                         B
    0302 F2 90 09              2961+       JF    CMRERP                    IF NOT DME, CAN REUSE LINE BUF.B
    0305 B5 02 16              2962+       L     TUBDTF(,XR2),DTF          DTF ADDRESS                    B
    0308 BC 00 77              2963+       MVI   LCBIBA-1(,DTF),NOBIT      IF DME - ASSIGN BUFF TO PL     B
    030B 75 02 0B              2964+       L     PLTUBA(,PL),XR2           TUB ADDRESS                    B
                         030E  2965+CMRERP EQU   *                         *  LOCAL                       B
    030E BD C0 0C              2966+       CLI   TUBAT2(,XR2),TUBDTA+TUBCMD DATA MODE ESCAPE RECOGNIZED ? B
    0311 B5 02 16              2967+       L     TUBDTF(,XR2),DTF          POINT TO THE DTF.              B
    0314 B9 40 7D              2968+       TBF   LCBOPC(,DTF),LCBERP       SEARCHING FOR EOT TO STATUS MSGB
    0317 C0 95 05C3            2969+       BC    CMBDEQ,FLSNLO             ERP/DME-GO DEQ THE REQUEST.    B
    031B F2 87 3D              2970+       J     CMREXT                    GO TO EXIT FROM READ OP END.   B

                               2972+*----------------------------------------------------------------*    B
                               2973+*  EOT NOT FOUND  DURING SEARCH FOR EOT                           *    B
                               2974+*----------------------------------------------------------------*    B

                         031E  2976+CMPBKL EQU   *                         *  LOCAL                       B
                         031E  2977+CMPBMP EQU   *                         *                              B
    031E AE 01 25 21           2978+       ALC   $BDBKX(2,DTF),$BDBKL(,DTF) UPDATE BLK PTR TO GET NEXT BLKB
    0322 C0 87 083B            2979+       B     CMFORB                    GO FORM NEXT OP ON THE LINE.   B
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                                2981+*-------------------------------------------------------------*    B
                                2982+*  NOT SEARCH FOR EOT                                           *  B
                                2983+*-------------------------------------------------------------*    B

                          0326  2985+CMPSAV EQU   *                          *   LOCAL                  B
    0326 6C 00 0F 0E            2986+       MVC   PL$RTC(1,PL),$BDCMP(,DTF) SAVE THE COMPLETION CODE.  B
    032A 7B 40 0F               2987+       SBF   PL$RTC(,PL),BIT1          SET OFF X'40' IN RETURN CODE. B

                                2989+*   HAVE A SUCCESSFUL READ OPERATION.                             B
                                2990+*     CHECK FOR RECEIVE INITIAL AND DATA RETURNED. IF YES, CHECK FOR  B
                                2991+*       CONFLICTING REQUESTS IN THE BSCA LINE QUEUE.                B
                                2992+*     IF NOT RECEIVE INITIAL AND DATA IS RETURNED, GO HANDLE THE DATA B
                                2993+*       ONLY SITUATION.                                             B
                                2994+*     IF EOT WAS RECEIVED FOR CANCEL RECEIVE INITIAL OPERATION, THEN  B
                                2995+*       CHECK WHETHER PRIORITY CANCEL OR STOP POLLING REQUEST.       B
                                2996+*     OTHERWISE EOT WAS RECEIVED FOR DATA. CHECK FOR MESSAGE MODE     B
                                2997+*       PROCESSING. IF GET-MSG, CLEAN UP THE OPERATION.             B

    032D 79 02 0F               2999+       TBF   PL$RTC(,PL),$BCEOT-BIT1   DATA RECEIVED FOR A         B
    0330 B8 01 56               3000+       TBN   LCBAT2(,DTF),LCBRCI       RECEIVE INITIAL ON THE LINE ?  B
    0333 BB 03 56               3001+       SBF   LCBAT2(,DTF),LCBRCI+LCBPUT SET OFF RCVI AND PUT IND'S.   B
    0336 F2 10 3D               3002+       JT    CMREJC                    YES-DATA HIT, CHECK CONFLICTS. B
    0339 75 01 0B               3003+       L     PLTUBA(,PL),TUB           LOAD TUB REG.                  B
    033C BD 42 0E               3004+       CLI   $BDCMP(,DTF),$BCEOT       EOT RECEIVED ?                 B
    033F C0 01 03D5             3005+       BNE   CMB327                    NOT EOT, DATA FOR NON-RCVI.    B

                                3007+*-------------------------------------------------------------*    B
                                3008+*  EOT RECEIVED - NO DATA                                       *    B
                                3009+*-------------------------------------------------------------*    B

    0343 B8 40 55               3011+       TBN   LCBAT1(,DTF),LCBPRI       PRIORITY CANCEL REQUESTED ?    B
    0346 AF 01 56 56            3012+       SLC   LCBAT2(2,DTF),LCBAT2(,DTF) CLEAR  LCBAT1 AND LCBAT2.     B
    034A 7B 01 0C               3013+       SBF   TUBAT2(,TUB),TUBOWN       SET OFF TUB OWN INDICATOR.     B
    034D F2 90 08               3014+       JF    CMNRX1                    NOT PROIRITY CANCEL JUMP       B
    0350 AC 00 6D 15            3015+       MVC   LCBLID(1,DTF),$BDIND(,DTF) SAVE LAST POLLED TERM ID      B
    0354 C0 87 07BA             3016+       B     CMBSCH                    RESCHEDULE IF EOT TO PRI.      B
                          0358  3017+CMNRX1 EQU   *                          * LOCAL
    0358 7B 10 0C               3018+       SBF   TUBAT2(,TUB),TUBIIS       SET OFF INPUT SCHEDULED.       B

                                3020+*************************************************************  B
                                3021+*  COMMON EOT HANDLING CODE                                    *  B
                                3022+*************************************************************  B

                          035B  3024+CMREXT EQU   *                          *   LOCAL                  B
    035B B5 01 52               3025+       L     LCBPL@(,DTF),PL           POINT TO THE PARM LIST         B
    035E 7D 80 02               3026+       CLI   PLOPM(,PL),OP$SYS         USER REQUEST, AND              B
    0361 C0 02 05C3             3027+       BNL   CMBDEQ                    IF SYSTEM INVITE, PASS RECA    B
                                3028+*                                      * TO $CC4CP ALWAYS.            B

                                3030+*    USER INPUT OP  -- EOT AND NOT MESSAGE MODE - NO HOLD BUFFER      B

    0365 5F 01 05 05            3032+       SLC   PLEFFL(2,PL),PLEFFL(,PL)  ZERO EFFL. SO II WON'T FREE    B
    0369 75 02 0B               3033+       L     PLTUBA(,PL),XR2           POINT TO THE TUB.              B
    036C 7C 00 08               3034+       MVI   PLRECA-1(,PL),NOBIT       MAKE SURE PLRECA 0,NO BUFFER   B
    036F B5 02 16               3035+       L     TUBDTF(,XR2),DTF          POINT TO THE DTF.              B
    0372 C0 87 05C3             3036+       B     CMBDEQ                    GO DEQUE THIS REQUEST.         B
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                               3038+*****************************************************************  B
                               3039+*  DATA RECEIVED FOR RECEIVE INITIAL                            *  B
                               3040+*****************************************************************  B

                               3042+*   IF THE TASK THAT THIS REQUEST IS FOR HAS A WAIT TYPE OP OR A      B
                               3043+*      PUT NO WAIT BLOCK OR RECORD ON THE LINE QUEUE, THEN HE ISNT    B
                               3044+*      WAITING FOR THIS OP END. REJECT THAT OP ON THE LINE QUEUE SO   B
                               3045+*      HE CAN RECEIVE THIS DATA AND WE CAN FREE THE HOLD BUFFER.      B

                               3047+*   REMOVE CONFLICTING    ACCEPTED REQUESTS. ONLY INVITES AND/OR      B
                               3048+*     PUT-NO-WAITS-MESSAGE REQUESTS MAY STAY IN THE QUEUE. BECAUSE OF B
                               3049+*     BSCA LINE HANDLING, AT OP END TIME NO MORE THAN ONE GET OR PUT  B
                               3050+*     FOR RECORD, BLOCK, MESSAGE, OR PUT-NO-WAIT FOR RECORD OR BLOCK  B
                               3051+*     COULD BE IN THE LINE QUEUE AND THEREFORE HAVE TO BE REMOVED.    B

                          0376 3053+CMREJC EQU   *                          *   LOCAL                      B
    0376 B5 01 52              3054+       L     LCBPL@(,DTF),PL           RELOAD THE PL REG.            RB

                               3056+*   SAVE PARM LIST AND DTF DATA  ADDR'S AND LENGTHS. THEY WILL BE    RB
                               3057+*USED ONLY BY GET-MESSAGE PROCESSING.                               RB

    0379 BB 40 55              3059+       SBF   LCBAT1(,DTF),LCBPRI       SET OFF PRIORITY CANCEL IND.  RB
    037C 2C 01 15DF 5C         3060+       MVC   CMIIND,LCBOWN(2,DTF)      SAVE TCB @ OF OWNER.          RB
    0381 79 C0 0D              3061+       TBF   PL$OPC(,PL),OPLSNS+OPRFSH POLL FOR STATUS,OR REFRESH OR RB
    0384 39 20 15D8            3062+       TBF   SAVTA2,TASMSG             * GET-MESSAGE MODE            RB
    0388 F2 90 47              3063+       JF    CMRECX                    YES-GO READY FOR RECORD CHECK.RB
    038B E2 01 65              3064+       LA    LCBPLQ-1(,DTF),PL         LOAD REG. TO DTF PL QUEUE.    RB
                          038E 3065+CMREQR EQU   *                          *  LOCAL                      RB
    038E 4D 01 01 15CB         3066+       CLC   PLCHN(2,PL),CMSPL         NEXT PL SAME AS OP ENDED ?    RB
    0393 75 01 01              3067+       L     PLCHN(,PL),PL             LOAD REG TO NEXT PARM LIST.   RB
    0396 F2 81 2B              3068+       JE    CMRZRO                    YES-SKIP IT, CHECK FOR ANOTHERRB
    0399 75 02 0B              3069+       L     PLTUBA(,PL),XR2           LOAD WORK REG WITH TUB @.     RB
    039C 2D 01 15DF 12         3070+       CLC   CMIIND,TUBTCB(2,XR2)      THIS TUB FOR SAME OWNER ?     RB
    03A1 F2 01 20              3071+       JNE   CMRZRO                    NO-GO CHECK FOR ANOTHER.      RB
    03A4 78 04 03              3072+       TBN   PLOPC(,PL),OPNOW          NO WAIT OPERATION ?           RB
    03A7 F2 90 12              3073+       JF    CMRCAN                    NO-GO CANCEL ANY WAIT OP'S.   RB
    03AA 78 05 03              3074+       TBN   PLOPC(,PL),OPINV          THIS AN INVITE INPUT ?        RB
    03AD F2 10 14              3075+       JT    CMRZRO                    YES-GO CHECK FOR ANOTHER.     RB
    03B0 78 80 02              3076+       TBN   PLOPM(,PL),OP$SYS         SYSTEM REQUEST ?              RB
    03B3 F2 10 0E              3077+       JT    CMRZRO                    YES-TREAT AS PUT-MSG/NOWAIT.  RB
    03B6 78 30 03              3078+       TBN   PLOPC(,PL),OPMSG          PUT/MSG REQUEST ?             RB
    03B9 F2 10 08              3079+       JT    CMRZRO                    YES - OK TO KEEP              RB

                               3081+*    REJECT THIS OP SO TASK CAN ACCEPT THE DATA RECEIVED FOR HIM     RB

                          03BC 3083+CMRCAN EQU   *                          *   LOCAL                      RB
    03BC F4 10 00              3084+       SVC   0                         #### TRANSIENT CALL #####     RB
    03BF 01                   03BF 3085+       DC    AL1(CCPRIB)           CCP SVC RIB                   RB
    03C0 42                   03C0 3086+       DC    AL1(CC4BR)            * BSCA OP REJECT TRANSIENT    RB
    03C1 F2 87 0E              3087+       J     CMRECX                    GO CHECK THE RECORD AREA.     RB

                          03C4 3089+CMRZRO EQU   *                          *  LOCAL                      RB
    03C4 7D 00 00              3090+       CLI   PLCHN-1(,PL),NOBIT        ANOTHER PARM LIST IN CHAIN ?  RB
    03C7 C0 01 038E            3091+       BNE   CMREQR                    YES-GO CHECK FOR REQUEST REJ  RB
    03CB 35 02 15CD            3092+       L     CMSDTF,DTF                RELOAD THE DTF REG.           RB
    03CF B5 01 52              3093+       L     LCBPL@(,DTF),PL           RELOAD THE PL REG.            RB
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                          03D2 3094+CMRECX EQU   *                        *  LOCAL                    RB
    03D2 75 01 0B              3095+       L     PLTUBA(,PL),TUB          POINT TO THE TUB.          B
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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  73

                               3097+************************************************************ B
                               3098+*  DATA RECEIVED FOR NON-RECEIVE INITIAL (ALSO EXECUTED FOR RECV INT* B
                               3099+************************************************************ B

                          03D5 3101+CMB327 EQU   *                        *   LOCAL
    03D5 78 80 09              3102+       TBN   TUBSCS(,TUB),TUBCLR      CLEAR KEY HIT ?               0B
    03D8 7B 80 09              3103+       SBF   TUBSCS(,TUB),TUBCLR      SET OFF CLEAR KEY HIT.        0B
    03DB F2 90 0D              3104+       JF    CMR327                   NO-GO CHECK TERMINAL TYPE.    0B
                               3105+*    CLEAR KEY.
                          03DE 3106+CMRCRC EQU   *                        *  LOCAL                      0B
    03DE B5 01 52              3107+       L     LCBPL@(,DTF),PL          POINT TO THE PARM LIST.       0B
    03E1 7C 07 0F              3108+       MVI   PL$RTC(,PL),RCXCLR       SET CLEAR RETURN CODE.        0B
                          03E4 3109+CMREOT EQU   *                        *  LOCAL                    0/DB
    03E4 BA 06 55              3110+       SBN   LCBAT1(,DTF),LCBEOT+LCBDEQ SET SEARCH EOT AND THEN DEQ0/DB
    03E7 C0 87 083B            3111+       B     CMFORB                   GO FORM THE OPERATION.      0/DB

                          03EB 3113+CMR327 EQU   *                        *  LOCAL                    0/DB
    03EB 7D 07 23              3114+       CLI   TUBPHY(,TUB),TUB375      THIS A 3270 OR 3735 ?       0/5B
    03EE B5 01 0D              3115+       L     $BDWKB(,DTF),XR1         POINT TO LOGICAL DATA AREA 0/57B
    03F1 F2 02 5B              3116+       JNL   CMRCMD                   NOT 3270, GO CHECK COMMAND MOD0B

                               3118+************************************************************ 0B
                               3119+*  3270 - NOT CLEAR KEY                                      * 0B
                               3120+************************************************************ 0B

                               3122+*     IGNORE CHECKING FOR CLEAR KEY IF NOT THE FIRST TEXT BLOCK.     0B
                               3123+*      ALL NON-FIRST TEXT BLOCKS BEGIN WITH A 'SBA' = X'11'.         0B

    03F4 B8 04 56              3125+       TBN   LCBAT2(,DTF),LCBSEC      SECOND BLOCK OF DATA ?        0B
    03F7 F2 10 55              3126+       JT    CMRCMD                   YES-DON'T CHECK FOR CLEAR KEY 0B
                          03FA 3127+CMRSTS EQU   *                        *  LOCAL                      0B
    03FA 4D 01 01 15F3         3128+       CLC   SNSTAS(2,XR1),CMSTUS     THIS A STATUS MESSAGE ?       0B
                          03FF 3129+CMRNEB EQU   *                        *  LOCAL                      0B
    03FF F2 01 09              3130+       JNE   CMRAID                   NO-GO CHECK AID.              0B
    0402 F4 10 00              3131+       SVC   0                        #### TRANSIENT CALL #####     0B
    0405 01                    0405 3132+  DC    AL1(CCPRIB)              CCP SVC RIB                   0B
    0406 30                    0406 3133+  DC    AL1(CC4BA)               THE 3270 SENSE STATUS XIENT.  0B

    0407 C0 87 083B            3135+       B     CMFORB                   GO FORM NEXT OP ON THE LINE.  0B

                          040B 3137+CMRAID EQU   *                        *  LOCAL                      0B
    040B D2 01 02              3138+       LA    2(,XR1),XR1              BUMP POINTER FOR CONTROL STA. 0B
                          040E 3139+CMSAID EQU   *                        *  LOCAL
    040E 7D 6D 00              3140+       CLI   AID(,XR1),AIDCLR         CLEAR KEY HIT ?               0B

                               3142+********************----------------------**************************
                               3143+* WHEN ENTERING AT THIS LABEL EQUAL CONDITION MUST BE OFF
                               3144+* UNLESS THE 3270 CLEAR KEY HAS BEEN DEPRESSED
                               3145+********************----------------------**************************

                          0411 3147+CMRPLS EQU   *                        *   LOCAL                     0B
    0411 35 01 15CB            3148+       L     CMSPL,PL                 GET PARM LIST @ TO.         0/7B
    0415 78 40 0D              3149+       TBN   PL$OPC(,PL),OPLSNS       POLLING FOR STATUS ?        0/7B
    0418 7B 40 0D              3150+       SBF   PL$OPC(,PL),OPLSNS       SET OFF POLL FOR STATUS IND.0/7B
    041B F2 90 0D              3151+       JF    CMRCLR                   NO-GO SET CLEAR INDICATOR.  0/7B
    041E 75 02 0B              3152+       L     PLTUBA(,PL),XR2          POINT TO THE TUB.           0/7B
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    0421 BB 08 09             3153+       SBF   TUBSCS(,XR2),TUBSSP       SET OFF STATUS POLL IND.    0/7B
    0424 B5 02 16             3154+       L     TUBDTF(,XR2),DTF          RELOAD THE DTF REG.         0/7B
    0427 58 03 0C 0D          3155+       MNN   PL$OPM(,PL),PL$OPC(,PL)   RESTORE ORIGINAL OP CODE.   0/7B
                         042B 3156+CMRCLR EQU   *                         *   LOCAL                   0/7B
    042B F2 01 21             3157+       JNE   CMRCMD                    NOT CLEAR KEY-CHK COMD MODE 0/7B

                              3159+*   INDICATE CLEAR KEY HIT IF NOT SYSTEM USER.                       0B

                              3161+*  ZERO OUT PLRECA IN THE PL(AT THIS TIME THE GETMAINED ADDRESS
                              3162+*                            IS IN IBA AND PLRECA)

    042E 7C 00 08             3164+       MVI   PLRECA-1(,PL),NOBIT       ZERO OUT PLRECA              0B
    0431 78 80 02             3165+       TBN   PLOPM(,PL),OP$SYS         SYSTEM USER ?                0B
    0434 BA 02 55             3166+       SBN   LCBAT1(,DTF),LCBEOT       SET SEARCH EOT, DON'T DEQUE. 0B
    0437 7A 80 0D             3167+       SBN   PL$OPC(,PL),OPRFSH        SET REFRESH OPERATION NEEDED. 0B
    043A 58 03 0D 0C          3168+       MNN   PL$OPC(,PL),PL$OPM(,PL)   SAVE THE CURRENT OP CODE.    0B
    043E 75 01 0B             3169+       L     PLTUBA(,PL),TUB           XR1 --> TUB                  0B
    0441 F2 10 07             3170+       JT    CMGOFB                    GO TO FORM OP FOR MLMP       0B
                              3171+*                                      -START-----------------------@14
    0444 7A 80 09             3172+       SBN   TUBSCS(,TUB),TUBCLR       INDICATE CLEAR KEY DEPRESSED 0B
    0447 C0 87 03DE           3173+       B     CMRCRC                    GO GIVE 07 RETURN CODE       0B
                              3174+*                                      --END-----------------------@14
                         044B 3175+CMGOFB EQU   *                         * * * * * *
    044B C0 87 083B           3176+       B     CMFORB                    GO FORM NEXT OP FOR MLMP     0B
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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  75

                               3179+*************************************************************  B
                               3180+*  ANY TERMINAL AND NOT A STATUS MESSAGE                     *  B
                               3181+*************************************************************  B

                               3183+* ZERO LCB BUFFER ADDRESS BECAUSE BUFFER NOW ASSIGNED TO OP ENDED PL. B

                          044F 3185+CMRCMD EQU   *                        *  LOCAL                  B
    044F BC 00 77              3186+       MVI   LCBIBA-1(,DTF),NOBIT    ZERO HIGH ORDER BYTE OF BUF AD B

    0452 B5 01 52              3188+       L     LCBPL@(,DTF),PL         POINT TO THE PARM LIST.        B
    0455 78 80 02              3189+       TBN   PLOPM(,PL),OP$SYS       SYSTEM REQUEST ?               B
    0458 F2 90 03              3190+       JF    CMRDAT                  NO-GO HANDLE DATA MODE.        B
    045B BA 06 55              3191+       SBN   LCBAT1(,DTF),LCBEOT+LCBDEQ SET SEARCH EOT AND DEQ THEN  B
                          045E 3192+CMRDAT EQU   *                        *  LOCAL                  B
                               3193+*   NON USER GET-MSG OR WHEN EOT RECEIVED FOR GET-MSG (CMRGOM)       B
                          045E 3194+CMRBMV EQU   *                        *                         B

                               3196+*************************************************************  B
                               3197+*  TRANSLATE DATA                                           *  B
                               3198+*************************************************************  B

    045E 2C 01 4797 1F         3200+       MVC   #CMTRL+TLFRML,$BDREL(2,DTF) SET  TRANSLATE PARM LIST    B
    0463 1C 01 4791 07         3201+       MVC   #CMTRL+TLTOL,PLINL(2,PL)  *                         B
    0468 1C 01 4795 09         3202+       MVC   #CMTRL+TLFRMA,PLRECA(2,PL) *                        B
    046D 1C 01 4793 09         3203+       MVC   #CMTRL+TLTOA,PLRECA(2,PL) *                         B
    0472 79 80 02              3204+       TBF   PLOPM(,PL),OP$SYS         USER REQUEST, AND         B
    0475 38 80 15D7            3205+       TBN   SAVTA1,TASTRN             DON'T TRANSLATE ?         B
    0479 F2 10 37              3206+       JT    CMSETL                    YES-SET LENGTH            B
                               3207+*                          ----------START----------------------@10
    047C 78 80 02              3208+       TBN   PLOPM(,PL),OP$SYS         SYSTEM REQUEST ?
    047F F2 10 31              3209+       JT    CMSETL                    YES - DON'T FORCE UPPER CASE
                               3210+*                          ----------END------------------------@10
    0482 39 40 15D7            3211+       TBF   SAVTA1,TASCAS             FORCE UPPER CASE CHARS ?  B
    0486 F2 90 2A              3212+       JF    CMSETL                    NO-SET LENGTH             B

                               3214+*   FIND AND USE SHORTEST OF PLINL OR $BDREL FOR FORCE UPPER CASE.   B

    0489 9C 01 54 07           3216+       MVC   LCBWRK(2,DTF),PLINL(,PL)  SAVE INL IN WORK AREA.    B
    048D 9D 01 1F 07           3217+       CLC   $BDREL(2,DTF),PLINL(,PL)  FROM AREA  GT  THAN TO AREA ? B
    0491 F2 84 04              3218+       JH    CMRUCX                    YES-THEN USE PLINL AS IS SET. B
    0494 AC 01 54 1F           3219+       MVC   LCBWRK(2,DTF),$BDREL(,DTF) ELSE USE DTF RECORD LENGTH.  B

                               3221+*************************************************************  B
                               3222+*  UPPER CASE TRANSLATE                                     *  B
                               3223+*************************************************************  B

                          0498 3225+CMRUCX EQU   *                        *  LOCAL                  B
    0498 75 01 09              3226+       L     PLRECA(,PL),XR1           LOAD ADDR OF START OF BUFFER. B
                          049B 3227+CMRUPX EQU   *                        *  LOCAL                  B
    049B 7D 40 00              3228+       CLI   0(,XR1),BLANK             THIS CHAR BLANK OR GREATER ?  B
    049E F2 82 03              3229+       JL    CMRUPC                    NO-GO UP TO NEXT CHARACTER.   B
    04A1 7A 40 00              3230+       SBN   0(,XR1),BLANK             SET ON UPPER CASE ZONE BIT.   B
                          04A4 3231+CMRUPC EQU   *                        *  LOCAL                  B
    04A4 D2 01 01              3232+       LA    1(,XR1),XR1               INCREMENT REG TO NEXT CHAR.   B
    04A7 8F 01 54 4633         3233+       SLC   LCBWRK(2,DTF),X$0001      DECREMENT COUNT, ANY LEFT ?   B
    04AC C0 01 049B            3234+       BNZ   CMRUPX                    YES-GO CHECK NEXT CHAR.       B
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    04B0 B5 01 52             3235+       L     LCBPL@(,DTF),PL           RELOAD THE PARM LIST REG.      B

                              3237+*****************************************************************  B
                              3238+*  SET USER RECORD LENGTH                                       *  B
                              3239+*****************************************************************  B

                         04B3 3241+CMSETL EQU   *                         *   LOCAL                     B
    04B3 79 80 02             3242+       TBF   PLOPM(,PL),OP$SYS         USER REQUEST, AND             B
    04B6 B8 80 56             3243+       TBN   LCBAT2(,DTF),LCBTRC       * TRUNCATED BLOCK INDICATED ?  B
                              3244+*                          ----------START----------------------@04
    04B9 BB 80 56             3245+       SBF   LCBAT2(,DTF),LCBTRC       SET OFF TRUNCATED IND.        B
    04BC F2 90 1B             3246+       JF    CMSBFL                    NO-GO SET BSCA EFFL COUNT.    B
                              3247+*                          ----------END------------------------@04
    04BF 38 40 15D8           3248+       TBN   SAVTA2,TASBLK             BLOCK READ OPERATION ?        B
    04C3 F2 10 0C             3249+       JT    CMSBLK                    YES-GO BUMP BKX PAST THIS BLK. B
    04C6 4D 01 07 15DA        3250+       CLC   PLINL(2,PL),SAVRCL        INL LESS THAN TAS RECL ?      B
    04CB F2 02 0C             3251+       JNL   CMSBFL                    NO-MORE REC'S IN THE BLOCK.   B
    04CE 9F 01 25 07          3252+       SLC   $BDBKX(2,DTF),PLINL(,PL)  ADJUST BKX TO GET THE NEXT REC.B
                         04D2 3253+CMSBLK EQU   *                         *                             B
    04D2 8E 01 25 15DA        3254+       ALC   $BDBKX(2,DTF),SAVRCL      BUMP TO NEXT REC/BLK.         B
    04D7 7A 01 0F             3255+       SBN   PL$RTC(,PL),RCXDTR        SET TRUNCATED IND TO USEER.   B
                         04DA 3256+CMSBFL EQU   *                         *                             B
    04DA 6C 01 05 1F          3257+       MVC   PLEFFL(,PL),$BDREL(2,DTF) MOVE IN RETURNED RECORD LEN.  B
    04DE 78 80 02             3258+       TBN   PLOPM(,PL),OP$SYS         SYSTEM REQUEST, AND          0B
    04E1 3D 06 15DB           3259+       CLI   CMSPHY,TUB5M2             A 3270 TERMINAL ?            0B
    04E5 F2 94 BC             3260+       JC    CMRETC,FLSOHI             NO-GO SET RETURN CODE.       0B
    04E8 75 02 0B             3261+       L     PLTUBA(,PL),XR2           XR2 -> TUB                    B
    04EB B8 04 09             3262+       TBN   TUBSCS(,XR2),TUBRUF       RUF DAT ON THE SCREEN ?       B
    04EE F2 90 1B             3263+       JF    CMCFRM                    NO-CALL FORMAT TRANSIENT      B
    04F1 2C 01 15BB 26        3264+       MVC   CMRFCK(2),TUBPIL(,XR2)    SAVE MAX COMMAND LEN FOR PRUF B
    04F6 0F 01 15BB 15BD      3265+       SLC   CMRFCK(2),CMSEVN          SUBTRACT SEVEN FOR RIGHT SHIFT B
    04FC 4D 01 05 15BB        3266+       CLC   PLEFFL(2,PL),CMRFCK       INPUT DAT > MAXIMUM LENGTH ?  B
    0501 F2 04 08             3267+       JNH   CMCFRM                    NO-CALL FORMATTING TRANSIENT  B
    0504 4C 01 05 15BB        3268+       MVC   PLEFFL(2,PL),CMRFCK       SET DATA LEN TO MAX DATA      B
    0509 7A 01 0F             3269+       SBN   PL$RTC(,PL),RCXDTR        SET TRUNCATED DATA TO USER    B
                         050C 3270+CMCFRM EQU   *                         * LOCAL                       B
    050C B5 02 16             3271+       L     TUBDTF(,XR2),DTF          XR2 -> DTF(LCB)               B
                         050F 3272+CMB0C1 EQU   *                         *  LOCAL
    050F F4 10 00             3273+       SVC   0                         #### TRANSIENT CALL #####     B
    0512 01                  0512 3274+       DC    AL1(CCPRIB)           CCP SVC RIB                   B
    0513 48                  0513 3275+       DC    AL1(CC4B0)            * 3270 COMMAND INPUT FORMATING0B
                              3276+*                                     * ALWAYS RETURNS HERE        0B
    0514 F2 87 8D             3277+       J     CMRETC                    GO SET RETURN CODE.           B
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$CC4#2 $E072/CMWEND---WRITE-OP-END

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                               3280+*****************************************************************    B
                               3281+*     BSCA   WRITE OP END HANDLING                               *    B
                               3282+*****************************************************************    B

                               3284+* COME HERE ON SUCCESSFUL OP END OF A WRITE OPERATION                B
                               3285+* IF NOT PUT THEN GET - DEQUEUE THE PARAMETER LIST.                  B
                               3286+* IF PUT THEN GET, REFORMAT PARM LIST AND GO BACK TO RESCHED LINE.    B

                          0517 3288+CMWEND EQU   *                        WRITE OP END HANDLER
    0517 75 01 0B              3289+       L     PLTUBA(,PL),XR1          XR1 --> TUB                  @28
    051A 78 20 1B              3290+       TBN   TUBOTC(,XR1),X'20'       IS THIS A SYS/34 DEVICE ?    @28
    051D F2 90 04              3291+       JF    CMBN34                   NO - CONTINUE                @28
    0520 5F 01 05 05           3292+       SLC   TUBER@(2,XR1),TUBER@(,XR1) YES - CLEAR THE SYS/34     @28
                               3293+*                                     RETRY COUNTER                @28
                          0524 3294+CMBN34 EQU   *                        @28
    0524 B5 01 52              3295+       L     LCBPL@(,DTF),PL          XR1 --> CURRENT P.L.         @28
    0527 79 80 02              3296+       TBF   PLOPM(,PL),OP$SYS        USER REQUEST, AND              B
    052A B8 80 56              3297+       TBN   LCBAT2(,DTF),LCBTRC      * BLOCK TRUNCATED  IND ON ?    B
    052D BB 80 56              3298+       SBF   LCBAT2(,DTF),LCBTRC      SET OFF THE TRUNCATED IND.     B
    0530 F2 90 18              3299+       JF    CMWRVI                   NO-GO CHECK FOR RVI RECEIVED.  B
    0533 4D 01 05 15DA         3300+       CLC   PLOUTL(2,PL),SAVRCL      OUTL LESS THAN TAS RECL ?      B
    0538 F2 02 0D              3301+       JNL   CMWTRC                   NO-THEN OUTPUT WAS TRUNCATED.  B

                               3303+*****************************************************************  B
                               3304+*  USER REQUEST - PAD WITH BLANKS                                 *  B
                               3305+*****************************************************************  B

    053B F4 10 00              3307+       SVC   0                        #### TRANSIENT CALL #####      B
    053E 01                053E 3308+       DC    AL1(CCPRIB)              CCP SVC RIB                    B
    053F 33                053F 3309+       DC    AL1(CC4BB)               * PAD RECORD AREA WITH BLANKS  B
    0540 0001              0541 3310+       DC    AL2($$BSMS)              ADCON FOR MLMP IOCS.           B
    0542 124B              0543 3311+       DC    AL2($$BMCH)              ADCON FOR CHECK.               B

                               3313+*   BB RETURNS TO NSI+4 IF AN ERROR OCCURS.                          B
                               3314+*   BB RETURNS TO NSI+11 IF A NORMAL OPERATION OCCURRED (CMWRVI).    B

    0544 C0 87 0176            3316+       B     CMBOPE                   GO HANDLE ERROR CASE.          B

                          0548 3318+CMWTRC EQU   *                        *  LOCAL                       B
                               3319+*                                     SKIPPED BY BB RETURN.          B
    0548 7A 01 0F              3320+       SBN   PL$RTC(,PL),RCXDTR       SET TRUNCATED RETURN CODE.     B

                          054B 3322+CMWRVI EQU   *                        *  LOCAL                       B
    054B B8 20 7D              3323+       TBN   LCBOPC(,DTF),LCBRVI      RVI RECEIVED ?                 B
                               3324+*                          ----------START----------------------@06
    054E BB 20 7D              3325+       SBF   LCBOPC(,DTF),LCBRVI      SET OFF SEND RVI INDICATOR.    B
                               3326+*                          ----------END------------------------@06
    0551 F2 90 03              3327+       JF    CMWEOT                   NO-GO CHECK FOR SEND EOT NEED  B
    0554 7C 06 0F              3328+       MVI   PL$RTC(,PL),RCXRVI       SET RVI RETURN CODE.           B
                          0557 3329+CMWEOT EQU   *                        *  LOCAL                       B
    0557 B8 40 56              3330+       TBN   LCBAT2(,DTF),LCBSET      SEND EOT OPERATION ?           B
    055A F2 90 2B              3331+       JF    CMWETX                   NO-CHECK FOR SEND EOT.         B

                               3333+*****************************************************************  B
                               3334+*  SENT EOT - OPERATION REQUIRED IT.                            *  B
                               3335+*****************************************************************  B
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    055D AF 01 56 56           3337+       SLC   LCBAT2(2,DTF),LCBAT2(,DTF) CLEAR  LCBAT1 AND LCBAT2.     B
    0561 75 02 0B              3338+       L     PLTUBA(,PL),XR2            LOAD REG TO THE TUB.          B
    0564 BB 01 0C              3339+       SBF   TUBAT2(,XR2),TUBOWN        SET OFF TUB OWN INDICATOR.    B
    0567 B5 02 16              3340+       L     TUBDTF(,XR2),DTF           RELOAD THE DTF REG.           B

                               3342+*  WAS THIS A  EOT FOR SCREEN REFRESH OPTION, THEN GO TO RESCHEDULE. 0B

    056A 78 80 0D              3344+       TBN   PL$OPC(,PL),OPRFSH         REFRESH OPERATION ?           0B
    056D 7B 80 0D              3345+       SBF   PL$OPC(,PL),OPRFSH         SET OFF REFRESH INDICATOR.    0B
    0570 F2 90 08              3346+       JF    CMWPGX                     NO-GO TEST FOR PUT THEN GET   0B
    0573 58 03 0C 0D           3347+       MNN   PL$OPM(,PL),PL$OPC(,PL)    RESTORE ORIGINAL OP CODE.     0B
    0577 C0 87 05E4            3348+       B     CMREDO                     GO TO REDO WORK CHECK ON LINE.0B

                          057B 3350+CMWPGX EQU   *                          *   LOCAL                         B

                               3352+* DETERMINE IF OP WAS PUT THEN GET                                        B

    057B 78 01 03              3354+       TBN   PLOPC(,PL),OPGET           WAS IT PUT THEN GET           B
    057E F2 90 23              3355+       JF    CMRETC                     JUMP IF NOT                   B

    0581 C0 87 0C2E            3357+       B     CMWPGY                     HANDLE PUT THE GET            B

    0585 F2 87 5C              3359+       J     CMREDO                     JUMP TO RESTART THE LINE      B

                               3361+*************************************************************** B
                               3362+*  NOT A SEND EOT OPERAION - DETERMINE IF EOT NEEDED ANYWAY       *  B
                               3363+*************************************************************** B

                          0588 3365+CMWETX EQU   *                          *   LOCAL                         B
    0588 78 20 0D              3366+       TBN   PL$OPC(,PL),OPUSER         SYSTEM FUNCTION ?             B
    058B F2 10 0F              3367+       JT    CMWSET                     YES-GO SET SEND EOT.          B
    058E 78 30 03              3368+       TBN   PLOPC(,PL),OPMSG           IS THIS A PUT-MSG             B
    0591 79 80 03              3369+       TBF   PLOPC(,PL),OPORDR-OPRUF    *                 OPERATION ? B
    0594 F2 10 06              3370+       JT    CMWSET                     YES-GO SET SEND EOT.          B
    0597 78 01 03              3371+       TBN   PLOPC(,PL),OPGET           GET FOLLOW PUT OPERATION ?    B
    059A F2 90 07              3372+       JF    CMRETC                     NO                            B
                          059D 3373+CMWSET EQU   *                          *                             B
    059D BA 40 56              3374+       SBN   LCBAT2(,DTF),LCBSET        SET SEND EOT.                 B
    05A0 C0 87 083B            3375+       B     CMFORB                     GO TO FORM NEXT OP ON LINE.   B
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                              3377+*****************************************************************  B
                              3378+*   FINAL BSCA READ/WRITE OP END HANDLING (COULD BE IN ERP)       *  B
                              3379+*****************************************************************  B

                         05A4 3381+CMRETC EQU   *                        *                            B
    05A4 B8 02 55             3382+       TBN   LCBAT1(,DTF),LCBEOT      SEARCH EOT ?                 B
    05A7 C0 10 083B           3383+       BT    CMFORB                   YES-GO FORM NEXT OP FOR LINE.  B

    05AB 78 01 03             3385+       TBN   PLOPC(,PL),OPGET         GET OPERATION ?              B
    05AE F2 90 09             3386+       JF    CMRACT                   NO-GO TEST LINE ACTIVE.      B
    05B1 75 02 0B             3387+       L     PLTUBA(,PL),XR2          POINT TO THE TUB.            B
    05B4 BB 10 0C             3388+       SBF   TUBAT2(,XR2),TUBIIS      SET OFF INVITE SCHEDULED.    B
    05B7 B5 02 16             3389+       L     TUBDTF(,XR2),DTF         POINT TO THE DTF.            B
                         05BA 3390+CMRACT EQU   *                        *  LOCAL                     B
    05BA B8 20 56             3391+       TBN   LCBAT2(,DTF),LCBACT      LINE ACTIVE ?                B
    05BD F2 90 03             3392+       JF    CMBDEQ                   NO-GO AND JUST DEQUE.        B
    05C0 BA 08 55             3393+       SBN   LCBAT1(,DTF),LCBNTQ      SET ID ACTIVE PARM LST REMOVED B

                              3395+*****************************************************************  B
                              3396+*            DEQUEUE                  THE PARAMETER LIST           *  B
                              3397+*****************************************************************  B

                         05C3 3399+CMBDEQ EQU   *                        *                            B

    05C3 78 01 0D             3401+       TBN   PL$OPC(,PL),OPGET        GET OPERATION IN PROCESS ?   B
    05C6 F2 90 13             3402+       JF    CMNCCT                   NO - DON'T UPDATE DATA COUNT.  B
    05C9 B5 02 30             3403+       L     $BDWKA(,DTF),XR2         XR1 -> BSCA WORKAREA.        B
    05CC 1C 01 15B9 05        3404+       MVC   WCOUNT(2),PLEFFL(,PL)    SAVE IN TEMPORARY COUNTER.   B
    05D1 8E 03 BA 15B9        3405+       ALC   $BWRCT(4,XR2),WCOUNT     TOTAL DATA COUNT.            B
    05D6 75 02 0B             3406+       L     PLTUBA(,PL),XR2          POINT TO THE TUB.            B
    05D9 B5 02 16             3407+       L     TUBDTF(,XR2),DTF         POINT TO THE DTF.            B
                         05DC 3408+CMNCCT EQU   *                        *                            B

    05DC C0 87 1170           3410+       B     CMDEQ                    DEQUEUE PL FROM LINE QUEUE   B


    05E0 C0 87 0C67           3413+       B     CMPOST                   POST REQUESTOR AND FREE BUFS   B

                              3415+*****************************************************************  B
                              3416+*   IF LINE NOT ACTIVE - GO RESTART LINE, OTHERWISE HANDLE AN OP END  B
                              3417+*****************************************************************  B

                         05E4 3419+CMREDO EQU   *                        *                            B
    05E4 75 02 0B             3420+       L     PLTUBA(,PL),XR2          POINT TO THE TUB             B
    05E7 B5 02 16             3421+       L     TUBDTF(,XR2),DTF         POINT TO THIS LINES DTF.     B
    05EA 78 40 0D             3422+       TBN   PL$OPC(,PL),OPLSNS       POLLING FOR STATUS ?      7/0/5B
    05ED F2 10 04             3423+       JT    CMEACT                   YES-DON'T DESTROY USER OP.7/0/5B
    05F0 58 03 0D 0C          3424+       MNN   PL$OPC(,PL),PL$OPM(,PL)  SAVE CURRENT OP FOR ERP.     B
                         05F4 3425+CMEACT EQU   *                        *  LOCAL                     B
    05F4 B8 20 56             3426+       TBN   LCBAT2(,DTF),LCBACT      LINE ACTIVE ?                B
    05F7 C0 10 0042           3427+       BT    CMOPND                   YES-GO CHECK OP END COUNT.   B
    05FB C0 87 07BA           3428+       B     CMBSCH                   BR TO RESTART THE LINE       B
                              3429 *      $E080                                                       CCP00287
                              3430+* R-02,C-00 CHANGE LEVEL
```

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                         3432+*************************************************************************
                         3433+*                                                                       *
                         3434+*  NAME--CMBREQ                                                         *
                         3435+*                                                                       *
                         3436+*  TITLE--ACCEPT NEW BSCA TP REQUEST                                    *
                         3437+*                                                                       *
                         3438+*  FUNCTION--ACCEPT NEW TP PARAMETER LIST FOR BSCA TERMINAL.            *
                         3439+*            PERFORM THE FUNCTION REQUESTED IF IT CAN BE HANDLED        *
                         3440+*            IMMEDIATELY, OTHERWISE, PLACE THE PARAMETER INTO THE       *
                         3441+*            LCB LINE QUEUE OF WORK TO BE DONE.                         *
                         3442+*                                                                       *
                         3443+*  OPERATION--                                                          *
                         3444+*            . IF THIS IS A DISCONNECT REQUEST, THEN INSURE THAT THE   *
                         3445+*              LINE IS NOT CONNECTED TO THE SPECIFIEC TERMINAL.  IF     *
                         3446+*              NO INVITE REQUEST IS INVOLVED, THEN POST TP COMPLETED    *
                         3447+*              TO THE SYSTEM.  IF AN INVITE IS INDICATED THEN TREAT     *
                         3448+*              LIKE AN INVITE ONLY REQUEST.                             *
                         3449+*                                                                       *
                         3450+*            . IF A PUT OPERATION TO A TERMINAL IN CCP ERP, IGNORE     *
                         3451+*              THE PUT OPERATION.  POST THE USER TP COMPLETE IF NO       *
                         3452+*              INPUT OPERATION INDICATED.  IF A PUT-THEN-GET TREAT       *
                         3453+*              LIKE A GET/INVITE ONLY OPERATION.                        *
                         3454+*                                                                       *
                         3455+*            . IF A STOP INVITE OR PURGE I/O CALL $CC4BP TO HANDLE.     *
                         3456+*              ON RETURN FINISH SCHEDULING. IF THE                      *
                         3457+*              BSCA TRANSIENT INDICATES AN ABORT OF THE LINE IS          *
                         3458+*              REQUIRED, SET UP THE ABORT OPERATION.                    *
                         3459+*                                                                       *
                         3460+*            . IF A REGULAR TP DATA OPERATION TO A BSCA LINE,           *
                         3461+*              CHECK TO INSURE THAT IT DOES NOT CONFLICT WITH WHAT       *
                         3462+*              IS CURRENTLY BEING PERFORMED ON THE LINE.                 *
                         3463+*                                                                       *
                         3464+*            . IF PUT-NO-WAIT AND SPACE IS AVAILABLE FOR PARM LIST     *
                         3465+*              AND DATA, MOVE THE PARAMETER LIST AND DATA TO A HOLD      *
                         3466+*              BUFFER AND USE THE HOLD BUFFER FOR ANY FURTHER            *
                         3467+*              REFERENCE TO THIS OPERATION.  OTHERWISE, TREAT THE        *
                         3468+*              REQUEST LIKE A PUT-WAIT OPERATION.  NOTE: A PUT-NO-WAIT*
                         3469+*              MESSAGE TO A BSCA SWITCHED LINE IS ALSO TREATED LIKE A *
                         3470+*              PUT-WAIT.                                                *
                         3471+*                                                                       *
                         3472+*            . IF A TP REQUEST THAT REQUIRES DATA TRANSFER, THEN QUEUE*
                         3473+*              THE REQUEST ONTO THE LINE QUEUE FOR THE APPROPRIATE      *
                         3474+*              LCB.                                                     *
                         3475+*                                                                       *
                         3476+*            . AFTER QUEUEING UP A NEW TP REQUEST, CHECK THE STATUS     *
                         3477+*              OF LINE TO:                                              *
                         3478+*              - INCLUDE A NEW GET/INVITE IF POLLING IS ALREADY         *
                         3479+*                GOING ON.                                              *
                         3480+*              - STOP A POLLING SEQUENCE IF A PUT REQUEST WAS           *
                         3481+*                JUST RECEIVED.                                         *
                         3482+*              - CONTINUE OPERATION IF THE REQUEST JUST RECEIVED IS     *
                         3483+*                THE CONTINUATION OF A PREVIOUSLY STARTED BSCA LINE     *
                         3484+*                OPERATION.                                             *
                         3485+*                                                                       *
                         3486+*            . EXIT TO THE RESCHEDULE LOGIC TO:                         *
                         3487+*              - POST COMPLETION OF THE TP SCHEDULED OPERATION.         *
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                          3488+*             - TO PERFORM THE NEXT PRIORITY ACTION ON THE LINE.     *
                          3489+*             - TO CHECK FOR OTHER WORK WITHIN 'CM' THAT CAN BE DONE *
                          3490+*               AT THIS TIME.                                        *
                          3491+*                                                                    *
                          3492+*   ENTRY POINTS:                                                    *
                          3493+*         CMBREQ - HANDLE NEW TP REQUEST.                            *
                          3494+*         CMBSTP - ABORT LINE (FROM CMBOPE).                         *
                          3495+*         CMBTBY - TEST IF LINE BUSY (FROM CMFRMN AND CMNWRK) .      *
                          3496+*                                                                    *
                          3497+*  INPUT--                                                           *
                          3498+*         CMSPL  - ADDRESS OF THE TP REQUEST BEING HANDLED.          *
                          3499+*         CMSDTF - ADDRESS OF THE DTF THAT PL IS FOR.                *
                          3500+*                                                                    *
                          3501+*  OUTPUT--                                                          *
                          3502+*         LCBPLQ - NEW REQUEST ADDED TO THIS QUEUE. ANDLED.          *
                          3503+*                                                                    *
                          3504+*  EXTERNAL REFERENCES--                                             *
                          3505+*         $BSCL  - CLOSE BSCA SWITCHED LINE FOR DISCONNECT OPERATION.*
                          3506+*         $BSOB  - RE-OPEN THE BSCA SWITCHED LINE AFTER A DISCONNECT *
                          3507+*                  OPERATION.                                        *
                          3508+*         $CC4MP - TRANSIENT TO IGNORE A PUT TO A TERMINAL IN CCP ERP.*
                          3509+*         $CC4BP - TRANSIENT TO HANDLE BSCA STOP II/PURGE I/O.       *
                          3510+*         $CC4BR - TRANSIENT TO REJECT A TP REQUEST THAT CONFLICTS   *
                          3511+*                  WITH A CURRENT LINE OPERATION.                    *
                          3512+*         $CC4BC - PRIORITY CANCEL OF READ ON LINE, PUT PENDING.     *
                          3513+*         CMIVGM - HANDLE A NEW INVITE INPUT REQUEST.                *
                          3514+*         CMPOST - POST REQUEST REJECTED.                            *
                          3515+*         CMQUE  - QUEUE TP REQUEST ON LINE QUEUE.                   *
                          3516+*                                                                    *
                          3517+*  EXIT, NORMAL--                                                    *
                          3518+*                TO CMNOBY, TO SCHEDULE ANOTHER OP FROM OWNER OF LINE.*
                          3519+*                TO CMNOBY, TO SCHEDULE ANOTHER OP FROM OWNER OF LINE.*
                          3520+*                TO CMBSCH, THE BSCA LINE RESCHEDULING FUNCTION.     *
                          3521+*                TO CMPAII, IF LINE CAN NOT BE SCHEDULED NOW.        *
                          3522+*                TO CMPAII, IF LINE CAN NOT BE SCHEDULED NOW.        *
                          3523+*                                                                    *
                          3524+**************************************************************************
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                         05FF 3526+CMBREQ EQU   *                          *                                B
                         05FF 3527+CMBPTG EQU   *                          *  LOCAL                         B
    05FF 78 03 03             3528+       TBN   PLOPC(,PL),OPPUT+OPGET    IS OP A PUT THEN GET          B
    0602 F2 90 03             3529+       JF    CMBERP                    NO  - SKIP SET OFF GET BIT    B
                              3531+*************************************************************    B
                              3532+* IF PUT THEN GET - SCHEDULE A PUT                            *    B
                              3533+*************************************************************    B
    0605 7B 01 0C             3535+       SBF   PL$OPM(,PL),OPGET         SET OFF GET BIT               B
                         0608 3536+CMBERP EQU   *                          *   LOCAL                     B
                              3538+*************************************************************    B
                              3539+* IGNORE PUT TO TERMINAL IN ERP                              *    B
                              3540+*************************************************************    B
    0608 C0 87 12A7           3542+       B     CMERPC                    GO CHECK FOR AND HANDLE PUT   B
                              3543+*                                      * TO TERMINAL IN ERP.         B
                              3544+*       IF TERMINAL IS IN ERP AND OP WAS A PUT-ONLY CMERPC WILL GO   B
                              3545+*        DIRECTLY TO CMPAII. IF IN ERP AND OP WAS PUT THEN GET       B
                              3546+*        CMERPC RETURNS HERE TO SCHEDULE GET.                        B
    060C 78 04 02             3548+       TBN   PLOPM(,PL),OPSTOP         IS STOP BIT ON                B
    060F F2 90 38             3549+       JF    CMBNSP                    NO-CONTINUE NON STOP CHECKING B
                              3551+*************************************************************    B
                              3552+* STOP INVITE  REQUEST                                       *    B
                              3553+*************************************************************    B
    0612 D2 02 00             3555+       LA    0(,PL),XR2                LOAD PL @ INTO XR2 FOR XIENT. B
                         12C7 3556+       USING CMBSKP,XR1
    0615 C2 01 12C7           3557+       LA    CMBSKP,XR1                LOAD @ OF SKIP BIT RTN.     C/SB
    0619 7C 7A 2E             3558+       MVI   CMB#SB(,XR1),SBN1         SET OP TO SET POLL BIT ON.  C/SB
    061C F4 10 00             3559+       SVC   0                         ##### TRANSIENT CALL #####    B
    061F 01                  061F 3560+   DC    AL1(CCPRIB)               CCP SVC RIB                   B
    0620 3C                  0620 3561+   DC    AL1(CC4BP)                ID FOR BSCA PURGE/STOP INVITE. B
                              3563+* TRANSIENT WILL RETURN HERE IF NO ABORT NEEDED, STOP SUCCESSFUL.     B
                              3564+*   $CC4BC MAY SET UP CANCEL WHICH WILL BE HANDLED ON THE NEXT CALL   B
                              3565+*   TO CCP CHECK ROUTINE (CMBMCH). #OPEND INCREMENTED TO CAUSE CALL.  B
    0621 C0 87 0BF5           3567+       B     CMRQBF                    GO SET TP REQ'T BITS OFF.     B
                              3569+* TRANSIENT WILL RETURN HERE IF    ABORT   OF LINE NEEDED.           B
                              3570+*        DATA WAS BEING TRANSMITTED.                                 B
                              3572+*************************************************************    B
                              3573+* SET UP FOR ABORT OF LINE                                   *    B
                              3574+*************************************************************    B
                         0625 3576+CMBSTP EQU   *                          *  (FROM CMBOPE FOR STOP FAIL) B
    0625 B8 02 7D             3577+       TBN   LCBOPC(,DTF),OPPUT        ABORT OF A PUT ?              B
    0628 C0 10 063F           3578+       BT    CMBEOT                    YES-GO SET WRITE EOT.         B
    062C B5 01 30             3579+       L     $BDWKA(,DTF),WKA          POINT TO BSCA WORK AREA.      B
    062F 7C 59 88             3580+       MVI   WKDELL+4(,WKA),CPURGE     SET CCP PURGE RETURN CODE.    B
    0632 7A 04 23             3581+       SBN   BSFLGD(,WKA),FWDABT       SET FORWARD ABORT REQUEST.    B
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    0635 75 01 1C             3582+       L     WKIOBD(,WKA),IOB          POINT TO IOB OUT OF WORK AREA. B
    0638 7B 20 05             3583+       SBF   IOBFLA(,IOB),TDLAY         SET OFF TIME DELAY SEQUENCE.   B
    063B C0 87 083B           3584+       B     CMFORB                    GO TO FORM OP FOR MLMP.        B

                         063F 3586+CMBEOT EQU   *                         *  LOCAL                       B
    063F BA 40 56             3587+       SBN   LCBAT2(,DTF),LCBSET       SET SEND EOT                   B
    0642 AE 01 25 21          3588+       ALC   $BDBKX(2,DTF),$BDBKL(,DTF) UPDATE BLK PTR SO WONT GET    B
                              3589+*                                       * ANY MORE DATA                B
    0646 C0 87 083B           3590+       B     CMFORB                    FORM NEXT MLMP OPERATION       B
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                              3592+*****************************************************************  B
                              3593+* NON-STOP REQUEST                                              *  B
                              3594+*****************************************************************  B

                         064A 3596+CMBNSP EQU   *                          *  LOCAL                     B
                              3597+* IF THIS OPERATION IS TO A TUB IN CCP ERP - THEN CANNOT HAVE A PUT   B
                              3598+* THAT WILL BE SCHEDULED                                            B

    064A B8 10 0D             3600+       TBN   TUBAT3(,XR2),TUBERP       IS TUB IN CCP ERP          B
    064D B5 02 16             3601+       L     TUBDTF(,XR2),DTF          POINT XR2 AT THE DTF       B
    0650 F2 10 12             3602+       JT    CMBSOP                    JUMP IF IN CCP ERP.        B
    0653 78 06 0C             3603+       TBN   PL$OPM(,PL),OPPNW         IS IT PUT NO WAIT
    0656 F2 90 0C             3604+       JF    CMBSOP                    IF NOT JUMP TO END OF PNW CHECK.

                              3606+*  PUT NO WAIT REQUESTED - CONVERT IF NOT ALLOWED

    0659 79 80 02             3608+       TBF   PLOPM(,PL),OP$SYS         USER REQUEST, AND          B
    065C 7D 30 03             3609+       CLI   PLOPC(,PL),OPMSG          LESS THAN MESSAGE LEVEL PUT ?  B
    065F F2 95 03             3610+       JC    CMBSOP,ANY+FALSE+HI+EQ    NO- SKIP SET TO WAIT OP .  B
                         0662 3611+CMBPW  EQU   *                         *  LOCAL
    0662 7B 04 0C             3612+       SBF   PL$OPM(,PL),OPNOW         MAKE OPERATION A WAIT

                              3614+*****************************************************************   B
                              3615+*   REJECT INVALID BSCA OPERATION REQUEST SEQUENCES.             *   B
                              3616+*****************************************************************   B

                         0665 3618+CMBSOP EQU   *                          *  LOCAL                     B
                              3619+*  XR1 CONTAINS ADDRESS OF PARM LIST TO BE SCHEDULED.                B

    0665 B8 80 00             3621+       TBN   $BDDEV(,DTF),BSCA         BSCA LINE ?                B
    0668 C0 90 06E7           3622+       BF    CMBSOX                    NO-GO TO END OF BSCA OP CHECK  B
    066C C0 87 13AD           3623+       B     CMTASV                    GO SET UP TAS SAVE AREAS.  B

    0670 28 03 06D4 7D        3625+       MNN   CMTOPT+1,LCBOPC(,DTF)     USE LAST OP ON LINE FOR CHECK. B
    0675 3B 04 06D4           3626+       SBF   CMTOPT+1,OPNOW            SET OFF NO WAIT BIT.       B
    0679 0C 00 073E 06D4      3627+       MVC   CMTOP2+1(1),CMTOPT+1      SET UP TEST FOR BUSY CHECK.    B
    067F B8 20 56             3628+       TBN   LCBAT2(,DTF),LCBACT       LINE ACTIVE WITH DATA ?    B
    0682 F2 90 62             3629+       JF    CMBSOX                    NO-GO TO END OF BSCA OP CHECK. B

                              3631+*   LINE ACTIVE                                                    B

    0685 B8 01 56             3633+       TBN   LCBAT2(,DTF),LCBRCI       RECEIVE INITIAL ?          B
    0688 F2 10 5C             3634+       JT    CMBSOX                    YES-TREAT LIKE LINE NOT ACTIVE.B
    068B 75 01 0B             3635+       L     PLTUBA(,PL),TUB           LOAD TUB @ INTO REG.       B
    068E 6D 01 12 5C          3636+       CLC   TUBTCB(2,TUB),LCBOWN(,DTF) THIS TASK OWN THE LINE ?    B
    0692 35 01 15CB           3637+       L     CMSPL,PL                  RELOAD PARM LIST REG.      B
    0696 F2 01 4E             3638+       JNE   CMBSOX                    NO-NO OP CONFLICT, SKIP CHECKS.B

                              3640+*   ACCEPT THE OPERATION IF AN INVITE OR PUT-NO-WAIT MESSAGE.      B

    0699 7D 05 03             3642+       CLI   PLOPC(,PL),OPINV          INVITE INPUT ?             B
    069C 79 80 02             3643+       TBF   PLOPM(,PL),OP$SYS         * OR SYSTEM REQUEST ?      B
    069F F2 91 45             3644+       JC    CMBSOX,FLSOEQ             YES-OP OK, SKIP OTHER CHECKS.  B
    06A2 78 36 03             3645+       TBN   PLOPC(,PL),OPMSG+OPPNW    PUT-NO WAIT/MESSAGE, AND   B
    06A5 78 06 0C             3646+       TBN   PL$OPM(,PL),OPPNW         * STILL A PUT-NO WAIT ?    B
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    06A8 F2 10 3C              3647+       JT    CMBSOX                      YES-ACCEPT THE OPERATION.      B

                               3649+*   ACCEPT THE OPERATION IF THE CURRENT LINE OP IS INVITE-MESSAGE, OR B
                               3650+*     PUT-NO-WAIT-MESSAGE.                                           B

    06AB B8 05 7D              3652+       TBN   LCBOPC(,DTF),OPINV        INVITE OP ON LINE, AND         B
    06AE 38 20 15D8            3653+       TBN   SAVTA2,TASMSG             * IS IT MESSAGE MODE ?         B
    06B2 F2 10 32              3654+       JT    CMBSOX                    YES-ACCEPT THIS OP REQUEST.    B
    06B5 B9 08 55              3655+       TBF   LCBAT1(,DTF),LCBNTQ       PARM LIST QUEUED, AND          B
    06B8 B5 02 52              3656+       L     LCBPL@(,DTF),XR2          POINT TO CURRENT PARM LIST.    B
    06BB B8 36 03              3657+       TBN   PLOPC(,XR2),OPPNW+OPMSG   * IS IT A PUT-NO-WAIT-MESSAGE ?B
    06BE F2 10 26              3658+       JT    CMBSOX                    YES-ACCEPT THIS OP REQUEST.    B
    06C1 B9 80 0D              3659+       TBF   PL$OPC(,XR2),OPRFSH       NOT ACTIVE WAITING REFRESH OR  B
    06C4 B9 80 02              3660+       TBF   PLOPM(,XR2),OP$SYS        NO A SYSTEM REQUEST ?          B
    06C7 F2 90 1D              3661+       JF    CMBSOX                    YES-ACCEPT THIS OP REQUEST     B
    06CA 75 02 0B              3662+       L     PLTUBA(,PL),XR2           POINT TO THE TUB.              B
    06CD B8 01 0C              3663+       TBN   TUBAT2(,XR2),TUBOWN       THIS TUB OWN THE LINE, AND     B
    06D0 B5 02 16              3664+       L     TUBDTF(,XR2),DTF          POINT TO THE DTF.              B

                               3666+*   LINE ACTIVE WITH SAME TERMINAL AS THIS OP IS FOR  - ONLY OK IF    B
                               3667+*    THIS IS ANOTHER SUCH OPERATION  ( E.G. PUT BLOCK, GET BLOCK)     B

                         06D3  3669+CMTOPT EQU   *                         *  LOCAL AND MODIFICATION      B
    06D3 78 00 0C              3670+       TBN   PL$OPM(,PL),#             SAME TYPE OP AS LAST TIME ?    B
    06D6 F2 10 0E              3671+       JT    CMBSOX                    YES-GO CONTINUE,PARM LIST OK.  B

                               3673+*************************************************************
                               3674+*   SET  REJECTED OPERATION COMPLETION RETURN CODE, ALSO GO TO DEQ IT.
                               3675+*************************************************************

                         06D9  3677+CMTREJ EQU   *                         *   LOCAL                      B
                               3678+*                                      *  XR1-PL,XR2-DTF FOR BR       B
    06D9 F4 10 00              3679+       SVC   0                         ##### TRANSIENT CALL #####     B
    06DC 01                    06DC 3680+  DC    AL1(CCPRIB)               CCP SVC RIB                    B
    06DD 42                    06DD 3681+  DC    AL1(CC4BR)                * BSCA REJECT CLEAN-UP.        B
    06DE 40                    06DE 3682+BLANKC DC  XL1'40'                CONSTANT OF A BLANK,           B
                               3683+*                                      AND, INLINE PARM VALUE FOR     B
                               3684+*                                      REJECT PARM LIST NOT Q'D.      B
    06DF 3B 20 15B5            3685+       SBF   CMSWIT,CMTPRQ             TURN OFF TP REQUEST SWITCH.    B
    06E3 C0 87 05E4            3686+       B     CMREDO                    PREPARE TO RESCHEDULE          B


                               3688+*************************************************************** B
                               3689+*   REQUEST ACCEPTED                                           *  B
                               3690+*************************************************************** B

                         06E7  3692+CMBSOX EQU   *                         *                          B

                               3694+*************************************************************** B
                               3695+*   QUEUE THE REQUEST  (NON- DFF)                              *  B
                               3696+*************************************************************** B

                         06E7  3698+CMQIT  EQU   *                         *  QUEUE NEW REQUEST         FB
    06E7 C0 87 1074            3699+       B     CMQUE                     QUEUE REQUEST ON LINE QUEUE

    06EB 58 03 0D 0C           3701+       MNN   PL$OPC(,PL),PL$OPM(,PL)   SAVE INTERNAL OP CODE.         B
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    06EF 78 02 03             3702+       TBN   PLOPC(,PL),OPPUT          PUT OPERATION ?                B
    06F2 F2 90 07             3703+       JF    CMBTBY                    NO-SKIP SETTING PUT PENDING.   B
    06F5 35 02 15CD           3704+       L     CMSDTF,DTF                XR2 --> DTF                    B
    06F9 BA 02 56             3705+       SBN   LCBAT2(,DTF),LCBPUT       SET IND. PUT PENDING Q'D.      B
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```
                              3707+*****************************************************************   B
                              3708+*            CHECK THE TP LINE AND SEE IF IT IS BUSY             *   B
                              3709+*****************************************************************   B

                         06FC 3711+CMBTBY EQU   *                          *  ( FROM CMRQBF, CMFRMN)      B

                              3713+* IF LINE IS NOT ACT  WE CAN START AN OPERATION NOW - ELSE WILL HAVE TO
                              3714+* WAIT FOR AN OP END BEFORE RESCHEDULING THE LINE

                         06FC 3716+CMBTAC EQU   *                          *  LOCAL                       B
    06FC 35 02 15CD           3717+       L     CMSDTF,DTF                POINT XR2 AT LCB            B
    0700 B8 20 56             3718+       TBN   LCBAT2(,DTF),LCBACT       LINE ACTIVE ?               B
    0703 F2 90 B4             3719+       JF    CMBSCH                    NO-GO SCHEDULE WORK ON LINE.  B
    0706 B8 01 56             3720+       TBN   LCBAT2(,DTF),LCBRCI       RECEIVE INITIAL ON LINE ?   B
    0709 F2 90 25             3721+       JF    CMTPLQ                    NO-GO CHECK PARM LIST Q'D.    B
    070C 78 02 0C             3722+       TBN   PL$OPM(,PL),OPPUT         THIS A PUT REQUEST ?        B
    070F F2 10 80             3723+       JT    CMTRYC                    YES-GO TO TRY PRIORITY CANCEL. B

                              3725+*****************************************************************   B
                              3726+*     READ REQUEST - LINE BUSY WITH RECEIVE INITIAL               *   B
                              3727+*****************************************************************   B

    0712 34 01 15CB           3729+       ST    CMSPL,PL                  SAVE PARM LIST ADDR         B
    0716 C0 87 0D8F           3730+       B     CMIVGM                    GO ASSURE SIZE FOR NEW READ.  B

    071A 35 01 15CB           3732+       L     CMSPL,PL                  POINT TO PARM LIST          B
    071E 78 80 0C             3733+       TBN   PL$OPM(,PL),OPGETM        GETMAIN ALREADY INDICATED ?   B
    0721 F2 10 09             3734+       JT    CMNOID                    YES - DON'T START 2 SEC T.O.  B
    0724 B5 01 30             3735+       L     $BDWKA(,DTF),WKA          XR1--> BSC WORK AREA        B
    0727 78 01 59             3736+       TBN   $BWKMC(,WKA),X'01'        IDA RUNNING NOW ?           B
    072A F2 10 65             3737+       JT    CMTRYC                    YES  - GO TRY PROIRITY CANCEL B
                         072D 3738+CMNOID EQU   *                          *                           B
    072D C0 87 0BD7           3739+       B     CMPAII                    GO TO POST RESULTS.         B

                              3741+*****************************************************************   B
                              3742+*     LINE BUSY WITH NON-RECEIVE INITIAL                          *   B
                              3743+*****************************************************************   B

                         0731 3745+CMTPLQ EQU   *                          *  LOCAL                       B
    0731 B8 08 55             3746+       TBN   LCBAT1(,DTF),LCBNTQ       PARM LIST NOT QUEUED, AND   B
    0734 75 02 0B             3747+       L     PLTUBA(,PL),XR2           POINT TO THE TUB.           B
    0737 B8 01 0C             3748+       TBN   TUBAT2(,XR2),TUBOWN       * THIS REQUEST FOR LINE OWNER? B
    073A B5 02 16             3749+       L     TUBDTF(,XR2),DTF          POINT TO THE DTF.           B
    073D 78 00 0C             3750+CMTOP2 TBN   PL$OPM(,PL),#             SAME OP AS ON THE LINE ?    B
    0740 F2 90 48             3751+       JF    CMBBSY                    NO-GO TO CHECK LINE FOR BUSY. B

                              3753+*---------------------------------------------------------------*   B
                              3754+*    ANOTHER  BLOCK OR RECORD OPERATION TO THE OWNED TERMINAL.    *   B
                              3755+*    IF A READ JUST GO SCHEDULE IT ON THE LINE (POLL IT).         *   B
                              3756+*---------------------------------------------------------------*   B

    0743 BB 08 55             3758+       SBF   LCBAT1(,DTF),LCBNTQ       PARM LIST IS BACK IN QUE.   B
    0746 78 01 0C             3759+       TBN   PL$OPM(,PL),OPGET         IF A READ                   B
    0749 F2 90 29             3760+       JF    CMNNGT                    GO DO PUT OPERATION         B
    074C B8 10 55             3761+       TBN   LCBAT1(,DTF),LCBINT       OP END WITH NO PARM LIST QUED ?B
    074F BB 10 55             3762+       SBF   LCBAT1(,DTF),LCBINT       SET OFF OP END QUE'D IND.    B
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    0752 F2 90 0B             3763+       JF    CMNPLQ                    NO - DON'T FAKE OP END.        B
    0755 0E 00 472A 4633      3764+       ALC   #OPEND(1),X$0001           UP OP END COUNT BY ONE.        B
    075B 8E 00 6C 4633        3765+       ALC   LCBOPE(1,DTF),X$0001       BUMP LINE OP END COUNT.        B
                         0760 3766+CMNPLQ EQU   *                          * LOCAL
    0760 7D 00 08             3767+       CLI   PLRECA-1(,PL),NOBIT       GETMAIN NEEDED ?               B
    0763 F2 01 96             3768+       JNE   CMNOBY                    GO SCHEDULE GET OPERATION.     B
                         0766 3769+CMNYGM EQU   *                          * LOCAL                        B
    0766 34 01 15CB           3770+       ST    CMSPL,PL                  SAVE PARM LIST ADDR            B
    076A C0 87 0D8F           3771+       B     CMIVGM                    GO ASSURE SIZE FOR NEW GET.    B

    076E 35 01 15CB           3773+       L     CMSPL,PL                  POINT TO PARM LIST             B
    0772 F2 87 87             3774+       J     CMNOBY                    GO SCHEDULE GET OPERATION.     B
                         0775 3775+CMNNGT EQU   *                          * LOCAL                        B

                              3777+*-------------------------------------------------------------*   B
                              3778+*    ANOTHER  PUT BLOCK OR RECORD  - GETMAIN AND START OPERATION  *   B
                              3779+*-------------------------------------------------------------*   B

    0775 75 02 0B             3781+       L     PLTUBA(,PL),XR2           TUB ADDRESS                    B
    0778 B8 01 1E             3782+       TBN   TUBTA1(,XR2),TASDFF       IF DFF SKIP GETMAIN            B
    077B F2 10 7E             3783+       JT    CMNOBY                    YES - ALREADY HAVE BUFFER      B
    077E 78 04 0C             3784+       TBN   PL$OPM(,PL),OPNOW         IF NO WAIT                     B
    0781 F2 10 78             3785+       JT    CMNOBY                    YES - ALREADY HAVE BUFFER      B

    0784 C0 87 0FD5           3787+       B     CMGMPT                    GETMAIN BUFFER, MOVE DATA IN   B

    0788 F2 87 71             3789+       J     CMNOBY                    GO START OPERATION             B



                              3791+*************************************************************  B
                              3792+*     BSCA   TP LINE BUSY - DETERMINE IF ABORT NEEDED          *  B
                              3793+*************************************************************  B

                              3795+* LINE IS BUSY AND MAY HAVE MORE HONORABLE REQUEST WAITING IN THE Q   B

                              3797+* IF PREVIOUS OP WAS READ - TRY TO ABORT                          B
                              3798+* DON'T CARE IF STARTED OR NOT BECAUSE RETURN CODE OF 44 OR NON-44   B
                              3799+* WILL REFLECT THIS.                                              B

                         078B 3801+CMBBSY EQU   *                          *  LOCAL                       B
    078B B8 03 56             3802+       TBN   LCBAT2(,DTF),LCBRCI+LCBPUT RECEIVE INIT AND PUT PENDING. B
    078E C0 90 0BD7           3803+       BF    CMPAII                    NO-GO POST AS NECESSARY.       B

                              3805+*************************************************************  B
                              3806+*    PUT REQUEST  - LINE BUSY WITH RECEIVE INITIAL - PRIORITY CANCEL  B
                              3807+*************************************************************  B

                         0792 3809+CMTRYC EQU   *                          *
                              3810+*  FOR CONTROL STATION LINES PERFORM THE CANCEL FROM RESIDENT CODE C/LB
                              3811+*  FOR OTHER LINE TYPES - CALL $CC4BC TO STOP THE LINE             C/LB

    0792 B9 C0 55             3813+       TBF   LCBAT1(,DTF),LCBCRI+LCBPRI CANCEL ALREADY STARTED?      CB
    0795 BA 40 55             3814+       SBN   LCBAT1(,DTF),LCBPRI       SET CANCEL STARTED             CB
    0798 F2 90 1B             3815+       JF    CMGPST                    YES-JUST GO POST               CB
    079B B5 01 30             3816+       L     $BDWKA(,DTF),WKA          XR1--> BSC WORK AREA           CB
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    079E 78 01 59              3817+       TBN   $BWKMC(,WKA),X'01'        IDA RUNNING NOW ?             CB
    07A1 F2 90 0F              3818+       JF    CMNIDA                    NO - GO SET CANCEL FOR MLMP   CB
    07A4 7A 10 17              3819+       SBN   $BPOLD(,WKA),$BPRES       SET CANCEL FLAG FOR MLMP      CB
    07A7 BD 00 6C              3820+       CLI   LCBOPE(,DTF),X'00'        ANY OPENDS FOR DA LINE       @29
    07AA F2 01 09              3821+       JNE   CMNODA                    YES- ALREADY OPENDED ON POLL @29
    07AD F38806          07AF  3822+       DC    XL3'F38806'               NO- DO A STOP POLL OPERATION @29
    07B0 F2 87 03              3823+       J     CMNODA                    JUMP OVER CANCEL SETTING      CB
                         07B3  3824+CMNIDA EQU   *                         *                             CB
    07B3 7A 10 17              3825+       SBN   $BPOLD(,WKA),$BPRES       SET CANCEL FLAG FOR MLMP      CB
                         07B6  3826+CMNODA EQU   *                         *  LOCAL                      CB
                         07B6  3827+CMGPST EQU   *                         *                              B
    07B6 C0 87 0BD7            3828+       B     CMPAII                    GO TO POST USER.               B
                               3829 *      $E085                                                      CCP00288
                               3830+* R-05,C-00 CHANGE LEVEL
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                         3832+*****************************************************************
                         3833+*                                                               *
                         3834+*  NAME--CMBSCH, RESCHEDULE A BSCA LINE.                        *
                         3835+*                                                               *
                         3836+*  FUNCTION--TO SCHEDULE WORK ON AN INACTIVE LINE.              *
                         3837+*                                                               *
                         3838+*  OPERATION--                                                  *
                         3839+*                                                               *
                         3840+*            . CLEAR ANY BSCA OP ENDS LEFT IN THE LCB, AND ADJUST THE *
                         3841+*              OP END TOTAL COUNT (#OPEND).                     *
                         3842+*                                                               *
                         3843+*            . IF QUEUE FOR LINE IS EMPTY THEN POST THE REQUESTOR IF  *
                         3844+*              TP WAS JUST SCHEDULED, CHECK FOR OTHER FUNCTION THAT   *
                         3845+*              CAN BE PERFORMED BY 'CM'.                        *
                         3846+*                                                               *
                         3847+*            . IF A BSCA POLL FOR STATUS OPERATION IN THE QUEUE HANDLE*
                         3848+*              IT BEFORE ANY OTHER OPERATION.                   *
                         3849+*                                                               *
                         3850+*            . IF A PUT OPERATION CAN BE STARTED, PERFORM IT NEXT.    *
                         3851+*                                                               *
                         3852+*            . IF NEITHER OF ABOVE TWO, THEN TRY TO SCHEDULE AN INPUT *
                         3853+*              OPERATION.  IF NO INPUT TO SCHEDULE THEN POST THE      *
                         3854+*              REQUESTOR IF TP WAS JUST SCHEDULED.  THEN CHECK FOR    *
                         3855+*              OTHER 'CM' FUNCTION THAT CAN BE PERFORMED NOW.         *
                         3856+*                                                               *
                         3857+*            . IF A WRITE OPERATION CAN BE STARTED, THEN SET UP THE   *
                         3858+*              OUTPUT DATA BUFFER FOR THE LINE.  TRANSLATE THE DATA   *
                         3859+*              AS REQUIRED OR SPECIFIED.  ADD DEVICE DEPENDENT        *
                         3860+*              CONTROL CHARACTERS.                              *
                         3861+*                                                               *
                         3862+*            . IF NEW OPERATION ON A BSCA CARVE UP THE IOB(S) AND LINE*
                         3863+*              BUFFER(S) AS NECESSARY TO PERFORM THE OPERATION.  SET   *
                         3864+*              UP THE LINE DEPENDENT SECTION OF THE DTF.  (POLLING/    *
                         3865+*              ADDRESSING CHARACTERS, SWITCH ID VERIFICATION IDS,      *
                         3866+*              SWITCH LINE CALL/ANSWER OPTIONS).                *
                         3867+*                                                               *
                         3868+*            . IF BSCA OPERATION SET UP TO DO THE GET OR PUT-NORMAL,  *
                         3869+*              PUT-BLOCK, PUT-END OF FILE, OR PUT EOT-TO-WACK          *
                         3870+*              OPERATION AS APPROPRIATE.                        *
                         3871+*                                                               *
                         3872+*            . ISSUE OF IOCS CALL AFTER THE DTF IS SET-UP.  FOR BSCA,  *
                         3873+*              CALL $$BSMS.                                     *
                         3874+*                                                               *
                         3875+*            . AFTER ISSUING THE IOCS CALL, TRACE THE RESULTS.        *
                         3876+*                                                               *
                         3877+*            . IF BSCA OPERATION IS COMPLETED WITHOUT AN OP END        *
                         3878+*              INTERRUPT THEN FAKE AN OP END INTERRUPT TO KEEP THE     *
                         3879+*              FUNCTION GOING TIL COMPLETION.  POST THE REQUESTOR IF   *
                         3880+*              TP WAS JUST SCHEDULED.  CHECK FOR MORE WORK TO DO AT    *
                         3881+*              THIS TIME.                                       *
                         3882+*                                                               *
                         3883+*  ENTRY POINTS                                                 *
                         3884+*         CMBSCH - SCHEDULE WORK ON A BSCA LINE                 *
                         3885+*         CMNOBY - SCHEDULE FOLLOWING REQUEST BY OWNER OF LINE(CMBREQ)*
                         3886+*         CMFORB - FORM OP CODE FOR MLMP FOR INTERNAL REQUEST.  *
                         3887+*                                                               *
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                              3888+*  INPUT--                                                      *
                              3889+*         CMSDTF - ADDRESS OF DTF TO BE SCHEDULED.              *
                              3890+*         CMSPL  - ADDRESS OF TP PARAMETER LIST TO BE SCHEDULED.*
                              3891+*         #OPEND - OP END PENDING COUNT.                        *
                              3892+*                                                               *
                              3893+*  OUTPUT--                                                     *
                              3894+*         CMSDTF - ADDRESS OF DTF FOR LINE SCHEDULED.           *
                              3895+*         CMSPL  - ADDRESS OF TP REQUEST SCHEDULED.             *
                              3896+*         DTF(LCB),TUB - SET UP FOR THE OPERATION PERFORMED.    *
                              3897+*                                                               *
                              3898+*  EXTERNAL REFERENCES--                                        *
                              3899+*         $CC4B0 - FORMAT 3270 COMMAND OUTPUT.                  *
                              3900+*         $CC4JD - TRANSLATE FROM EBCDIC TO ASCII.              *
                              3901+*         $CC4WR - HANDLE TRANSLATE ERRORS IN OUTPUT.           *
                              3902+*         $CC4WC - SWITCH LINE CALL/ANSWER LOG TRANSIENT.       *
                              3903+*         $TRACE - CCP TRACE ROUTINE.                           *
                              3904+*         CMSRPL - SEARCH LINE QUEUE FOR PL TO SCHEDULE ON LINE.*
                              3905+*         CMTASV - SAVE TERMINAL ATTRIBUTES.                    *
                              3906+*         CMBTAS - SETUP DTF AND IOB.                           *
                              3907+*         CMGINL - SET UP INPUT RECORD LENGTH.                  *
                              3908+*         CMPSCH - FIND SWITCH ID ENTRY IN SWITCH ID LIST.      *
                              3909+*         CMASCH - FIND ADDRESSING ENTRY IN ADDRESSING LIST.    *
                              3910+*                                                               *
                              3911+*  EXIT, NORMAL--                                               *
                              3912+*           - TO CMFRMN IF FREEMAIN POSTED OR TP REQUEST TO BE  *
                              3913+*             HANDLED.                                          *
                              3914+*           - TO CMPOND IF AN OP END TO BE HANDLED.             *
                              3915+*                                                               *
                              3916+***************************************************************

                    07BA 3918+CMBSCH EQU   *                        RESCHEDULE THE LINE           B
07BA 35 02 15CD               3919+       L     CMSDTF,DTF          POINT XR2 AT DTF              B

                              3921+*************************************************************** B
                              3922+*  LINE INACTIVE AFTER OP END -                              *  B
                              3923+*      MAKE SURE OP END COUNTS AND OWNERSHIP FLAG ARE ZERO    *  B
                              3924+*************************************************************** B

07BE AF 01 5C 5C              3926+       SLC   LCBOWN(2,DTF),LCBOWN(,DTF) CLEAR LINE OWNERSHIP STATUS. B
                    07C2 3927+CMROPE EQU   *                        *  LOCAL                      B
07C2 2F 00 472A 6C            3928+       SLC   #OPEND,LCBOPE(1,DTF)      REMOVE LINE OP END RESIDUAL. B
07C7 BC 00 6C                 3929+       MVI   LCBOPE(,DTF),NOBIT        CLEAR LINE OP END COUNT.     B

                              3931+*  FREE INPUT HOLD BUFFER NOW IN CASE A PUT NEEDS THE CORE       B

07CA BD 00 77                 3933+       CLI   LCBIBA-1(,DTF),NOBIT      ANY TO FREE?                 B
07CD F2 81 10                 3934+       JE    CMNROP                    NO-SKIP FREE MAIN CALL       B
07D0 E2 01 00                 3935+       LA    0(,DTF),XR1               XR1-->DTF                    B
07D3 B5 02 78                 3936+       L     LCBIBA(,DTF),XR2          XR2-->AREA TO BE FREED       B
07D6 7C 00 77                 3937+       MVI   LCBIBA-1(,XR1),NOBIT      ZERO OUT IBA                 B
07D9 C0 87 0F55               3938+       B     CMFMRT                    GO FREE  THE AREA            B
07DD D2 02 00                 3939+       LA    0(,XR1),XR2               RESTORE DTF POINTER          B
                    07E0 3940+CMNROP EQU   *                        *                            B
07E0 B8 04 6F                 3941+       TBN   LCBAT3(,DTF),LCBSTS       IS A POLL FOR STATUS PENDING ? B
07E3 F2 10 0E                 3942+       JT    CMPOLS                    YES - THEN DO RESCHEDULE NOW B
07E6 BA 01 70                 3943+       SBN   LCBATR(,DTF),LCBTIM       SET DEFAULT TO RESCHED NEEDED B
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    07E9 39 80 15B5            3944+       TBF   CMSWIT,CMFMPS             FREEMAIN POSTED                 B
    07ED BD 00 7C              3945+       CLI   LCBNW#(,DTF),NOBIT        * OR NEW REQT TO HANDLE ?       B
    07F0 C0 96 0BD7            3946+       BC    CMPAII,FLSNEQ             YES - HANDLE WHILE LINE INACT.  B

                               3948+*****************************************************************  B
                               3949+*  NEW REQUEST SCHEDULE --                                       *  B
                               3950+*      SEARCH PARAMETER LIST QUEUE FOR PUT REQUEST TO SCHEDULE OR  *  B
                               3951+*       IF NO PUT, ALL READS THAT CAN BE SCHEDULED.               *  B
                               3952+*****************************************************************  B

                         07F4  3954+CMPOLS EQU   *                       * LOCAL                         B
    07F4 C0 87 119D            3955+       B     CMSRPL                    LCB PL QUEUE SEARCH ROUTINE     B
                               3956+*                                      XR1 RETURNS PL ADDRESS          B

                               3958+* XR1 CONTAINS ADDRESS OF PUT PARAMETER LIST TO BE SCHEDULED OR THE   B
                               3959+*   LAST READ PL THAT A BUFFER COULD BE OBTAINED FOR.                  B

    07F8 C0 87 13AD            3961+       B     CMTASV                    NOW GO SET UP TAS SAVE AREAS.   B

                         07FC  3963+CMNOBY EQU   *                       *                               B
    07FC 35 02 15CD            3964+       L     CMSDTF,DTF                POINT XR2 AT DTF                B
    0800 B4 01 52              3965+       ST    LCBPL@(,DTF),PL           SAVE THE PARM LIST IN LCB.      B

                               3967+*****************************************************************  B
                               3968+*   DETERMINE IF OPERATION IS A READ OR WRITE                    *  B
                               3969+*****************************************************************  B

    0803 78 01 0C              3971+       TBN   PL$OPM(,PL),OPGET         IS IT READ                      B
    0806 F2 10 32              3972+       JT    CMFORB                    JUMP IF TRUE TO READ ROUTINE    B

    0809 BD 00 2F              3974+       CLI   $BDWKA-1(,DTF),NOBIT      WORK AREA ADDRESS SET YET ?     B
    080C F2 81 0D              3975+       JE    CMNWK2                    NO - DONT ADD TO TEXT SENT.     B
    080F B5 02 30              3976+       L     $BDWKA(,DTF),XR2          XR2 -> BSCA WORKAREA.           B
    0812 1C 01 15B9 05         3977+       MVC   WCOUNT(2),PLOUTL(,PL)     SAVE TEXT LENGTH FOR COUNT.     B
    0817 8E 03 B6 15B9         3978+       ALC   $BWSCT(4,XR2),WCOUNT      TOTAL OUTPUT TEXT COUNT.        B
                         081C  3979+CMNWK2 EQU   *                       *
    081C 75 02 0B              3980+       L     PLTUBA(,PL),XR2           XR2--> TUB.                     B
    081F B5 02 16              3981+       L     TUBDTF(,XR2),DTF          RESTORE DTF REGISTER.
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                               3983+*****************************************************************   B
                               3984+*            START A WRITE OPERATION ON THE BSCA LINE             *   B
                               3985+*****************************************************************   B

    0822 3D 06 15DB            3987+       CLI   CMSPHY,TUB5M2             THIS A 3270 ?                 0B
    0826 78 20 0D              3988+       TBN   PL$OPC(,PL),OPUSER        SYSTEM FUNCTION ?             0B
    0829 F2 94 0F              3989+       JC    CMWXLT,FLSOHI             NO-GO CHECK FOR TRANSLATION.  0B
                          082C 3990+CMB0C2 EQU   *                         *  LOCAL                       B
    082C F4 10 00              3991+       SVC   0                         ##### TRANSIENT CALL #####    0B
    082F 01               082F 3992+       DC    AL1(CCPRIB)               CCP SVC RIB                   0B
    0830 48               0830 3993+       DC    AL1(CC4B0)                BRING IN 3270 FORMAT XIENT.   0B
                          0831 3994+CMREFH EQU   *                         * LOCAL                       0B
    0831 78 80 0D              3995+       TBN   PL$OPC(,PL),OPRFSH        REFRESH OPERATION ?           0B
    0834 F2 10 04              3996+       JT    CMWXLT                    YES-DON'T UPDATE LENGTH       0B
    0837 AF 01 58 60           3997+       SLC   LCBADJ(2,DTF),LCBSRT(,DTF) DETERMINE LENGTH OF OUTPUT  0B

                          083B 3999+CMWXLT EQU   *                         *  LOCAL                       0B
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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE  94

                            4001+*****************************************************************  B
                            4002+*  FORM BSCA TP REQUEST FOR MLMP  -- READ OR WRITE                *  B
                            4003+*****************************************************************  B

                       083B 4005+CMFORB EQU   *                          *                          B

                            4007+* IF LINE IS ACTIVE GO FORM NEXT OPERATION - DTF ALREADY SET UP.      B

    083B B8 20 56           4009+       TBN   LCBAT2(,DTF),LCBACT       LINE ACTIVE?  (BETWEEN EOT)    B
    083E C0 10 0965         4010+       BT    CMFVFY                    YES - GO SET UP NEXT OP.       B

                            4012+*----------------------------------------------------------------  B
                            4013+*  LINE NOT ACTIVE                                               *  B
                            4014+*----------------------------------------------------------------  B

    0842 BB C8 02           4016+       SBF   $BDATT(,DTF),$BCCNV+$BCGET SET OFF INPUT/OUTPUT IND'S.  RB
    0845 BB 40 7D           4017+       SBF   LCBOPC(,DTF),LCBERP       RESET BSCA TERM ERP IND.      RB
    0848 98 03 7D 0C        4018+       MNN   LCBOPC(,DTF),PL$OPM(,PL)  SAVE OP FOR CNFLICT CHECK.    RB
    084C 78 01 0C           4019+       TBN   PL$OPM(,PL),OPGET         THIS A GET OPERATION ?        RB
    084F 75 01 0B           4020+       L     PLTUBA(,PL),TUB           POINT TO THE TUB.             RB
    0852 F2 10 17           4021+       JT    CMFGET                    YES-GO SET UP DTF FOR GET OP. RB

                            4023+*****************************************************************  RB
                            4024+*   SET UP DTF FOR  ** PUT **  OPERATION.                        *  RB
                            4025+*****************************************************************  RB

    0855 BB 02 56           4027+       SBF   LCBAT2(,DTF),LCBPUT       SET OFF PUT PENDING IND.      RB
    0858 BA 40 02           4028+       SBN   $BDATT(,DTF),$BCOUT       SET OUTPUT FILE INDICAOR.     RB
    085B BC 40 0F           4029+       MVI   $BDOPC(,DTF),$BOPUT       SET OP CODE FOR PUT.          RB

                            4031+*   SET CURRENT ATTRIBUTTES, BLOCK LENGTH, AND OWNERSHIP STATUS.     RB

    085E C0 87 1330         4033+       B     CMBTAS                    GO SET UP DTF/IOB/TUB/LCB.    RB

    0862 BA 08 34           4035+       SBN   $BDAT1(,DTF),$BCPUT       SET PUT SPAN FILE INDICATOR.  RB
    0865 AC 01 21 64        4036+       MVC   $BDBKL(2,DTF),LCBKLC(,DTF) FILL IN DTF BLOCK LENGTH.    RB
    0869 F2 87 11           4037+       J     CMFLIN                    GO DETERMINE LINE SETUP NEEDS.RB
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                              4039+************************************************************* RB
                              4040+*   SET UP DTF FOR  ** GET **  OPERATION.                     RB
                              4041+************************************************************* RB

                         086C 4043+CMFGET EQU   *                        *  LOCAL                 RB
    086C BA 88 02             4044+       SBN   $BDATT(,DTF),$BCINP+$BCGET SET INPUT FILE INDICATORS.  RB
    086F BC 80 0F             4045+       MVI   $BDOPC(,DTF),$BOGET       SET OP CODE FOR GET.      RB
    0872 AC 01 21 72          4046+       MVC   $BDBKL(2,DTF),LCBBFL(,DTF) USE MAXIMUM LINE BLOCK LEN. RB
    0876 AC 01 64 21          4047+       MVC   LCBKLC(2,DTF),$BDBKL(,DTF) FILL IN CURRENT MAX BLOCK LENRB
    087A BA 01 56             4048+       SBN   LCBAT2(,DTF),LCBRCI       INDICATE RECEIVE INITIAL.    RB


                              4050+************************************************************  B
                              4051+*  COMMON GET AND PUT DTF SETUP                             B
                              4052+************************************************************  B

                         087D 4054+CMFLIN EQU   *                        *  LOCAL                  B

                              4056+************************************************************* CB
                              4057+*  SET CONTROL STATION ONLY DTF FIELDS                      * CB
                              4058+************************************************************* CB

    087D AC 01 14 4D          4060+       MVC   $BDLST(2,DTF),LCBPOL(,DTF) MOVE IN POLLING LIST ADDR.  CB
    0881 AC 00 15 6D          4061+       MVC   $BDIND(1,DTF),LCBLID(,DTF) FILL DESIRED ID IN THE LIST CB
    0885 AC 00 18 6D          4062+       MVC   $BDLID(1,DTF),LCBLID(,DTF) FILL DESIRED ID IN THE LIST CB
    0889 B8 80 0F             4063+       TBN   $BDOPC(,DTF),$BOGET       GET 'POLL' REQUEST ?         CB
    088C F2 10 1E             4064+       JT    CMFIGR                    YES-GO FIGURE BUFFER CONFIG. CB
    088F 9C 00 50 08          4065+       MVC   LCBID#(1,DTF),TUBSID(,TUB) FILL ID OF DESIRED TERM.    CB
    0893 E2 01 7E             4066+       LA    LCBADL(,DTF),XR1          FILL IN SELECTION 'ADDRESSING'CB
    0896 B4 01 14             4067+       ST    $BDLST(,DTF),XR1          * LIST ADDRESS.              CB
    0899 C0 87 130B           4068+       B     CMASCH                    GO TO FIND THE SEL'T ENTRY.  CB

    089D 9C 08 86 08          4070+       MVC   LCBADL+8(9,DTF),8(,POL)   MOVE IN MAX LEN SEL'T ENTRY. CB
    08A1 3C 81 08AC           4071+       MVI   CMFLA+2,LCBADL+3          REFRESH INSTRUCTION DISPL.   CB
    08A5 1E 00 08AC 01        4072+       ALC   CMFLA+2,POLCNT(1,POL)     SET TO END OF SELECT LIST.   CB
                         08AA 4073+CMFLA  EQU   *                        *  MODIFICATION              CB
    08AA BC FE 00             4074+       MVI   #(,DTF),ONETIM            END OF LIST: OPEN LIST IND.  CB

                              4076+*************************************************************
                              4077+*    FIGURE OUT THE SPACE REQUIREMENTS FOR IOBS AND BUFFERS.     B
                              4078+*************************************************************

                         08AD 4080+CMFIGR EQU   *                        *                          B
    08AD AC 01 23 60          4081+       MVC   $BDIOB(2,DTF),LCBSRT(,DTF) RESTORE BUFFER START ADDRESS. B
    08B1 BD 00 2F             4082+       CLI   $BDWKA-1(,DTF),NOBIT      WORK AREA ADDRESS SET YET ?  B
    08B4 F2 81 0B             4083+       JE    CMNWKA                    NO - DON'T SET RETRY COUNT   B
    08B7 B5 01 30             4084+       L     $BDWKA(,DTF),WKA          XR1-->WORK AREA               B
    08BA 6C 00 1A 44          4085+       MVC   WKERRD(1,WKA),$BDERR(,DTF) RESTORE ERROR RETRY COUNT    B
                              4086+*                                  ------START----------------------@01
    08BE 5F 01 7B 7B          4087+       SLC   DCOUNT(2,WKA),DCOUNT(,WKA) INITIALIZE DELAY COUNT.      B
                              4088+*                                  ------START----------------------@01
                         08C2 4089+CMNWKA EQU   *                        * LOCAL                     B
    08C2 B5 01 52             4090+       L     LCBPL@(,DTF),PL           RELOAD THE PL REG.           0B

                              4092+*   IF SYSTEM OR REFRESH OF 3270 SYSTEM, THEN RESERVE THE FIRST PART 0B
                              4093+*     OF THE LINE BUFFER FOR THE OUTPUT.                          0B
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    08C5 3D 06 15DB             4095+       CLI   CMSPHY,TUB5M2             THIS A 3270 TERMINAL ?        0B
    08C9 78 02 0C               4096+       TBN   PL$OPM(,PL),OPPUT         PUT OPERATION ?               0B
    08CC 78 20 0D               4097+       TBN   PL$OPC(,PL),OPUSER        SYSTEM FUNCTION ?             0B
    08CF F2 94 09               4098+       JC    CMFIGL,FLSOHI             NO-GO HANDLE REGULARILY.      0B
    08D2 8E 01 23 15F1          4099+       ALC   $BDIOB(2,DTF),MAXMSG      RESERVE LINE BUFFER SPACE.    0B
    08D7 AC 01 64 58            4100+       MVC   LCBKLC(2,DTF),LCBADJ(,DTF) USE ADJUSTED LEN FOR BLK LEN. B
                          08DB  4101+CMFIGL EQU   *                         *  LOCAL                      0B
    08DB B5 01 64               4102+       L     LCBKLC(,DTF),WORK         BLOCK SIZE REQUIRED IN WORK   RB
    08DE D2 01 15               4103+       LA    LINFO(,WORK),WORK         ALLOW FOR MAX LINE CONTROL    RB
    08E1 B4 01 54               4104+       ST    LCBWRK(,DTF),WORK         SAVE COMPUTED VALUE.          RB

                                4106+*************************************************************** RB
                                4107+*  INITIALIZE IOB                                              * RB
                                4108+*************************************************************** RB

    08E4 B5 01 23               4110+       L     $BDIOB(,DTF),IOB          LOAD PTR TO IOB.              RB
    08E7 6C 00 02 00            4111+       MVC   IOBQ(1,IOB),$BDDEV(,DTF)  BUILD IOB Q CODE.             RB
    08EB 6C 01 04 54            4112+       MVC   IOBDBL(2,IOB),LCBWRK(,DTF) PUT BUFFER LENGTH INTO IOB.  RB
    08EF 74 01 01               4113+       ST    IOBNXT(,IOB),IOB          POINT 1ST IOB TO SELF.        RB
    08F2 74 02 14               4114+       ST    IOBDTF(,IOB),DTF          POINT IOB BACK TO DTF.        RB
    08F5 7C 00 0C               4115+       MVI   IOBERR(,IOB),X'00'        SET ERROR COUNT TO ZERO.      RB
    08F8 74 01 09               4116+       ST    IOBDAT(,IOB),IOB          SET @ OF IOB                  RB
    08FB 4E 01 09 15ED          4117+       ALC   IOBDAT(2,IOB),IOBLEN      *             DATA AREA.      RB
    0900 6C 00 06 02            4118+       MVC   IOBFLG(1,IOB),$BDATT(,DTF) SET IOB FLAG BYTE.           RB
    0904 7C 01 05               4119+       MVI   IOBFLA(,IOB),TXTSNT       INITIALIZE TEXT INDICATORS.   RB
    0907 7C 40 07               4120+       MVI   IOBCMP(,IOB),DONE         INITIALIZE BUFFER STATUS.     RB
    090A B8 80 02               4121+       TBN   $BDATT(,DTF),$BCINP       GET FILE ?                    RB
    090D F2 90 06               4122+       JF    CMFMOR                    NO-GO CONTINUE CARVING.       RB
    0910 7C 84 07               4123+       MVI   IOBCMP(,IOB),READY        ELSE SET BUFFER STATUS TO READRB
    0913 7C 00 05               4124+       MVI   IOBFLA(,IOB),X'00'        ZERO TEXT DIRECTION INDICATOR.RB
                          0916  4125+CMFMOR EQU   *                         *   LOCAL                     RB
    0916 5C 01 16 09            4126+       MVC   IOBNEX(2,IOB),IOBDAT(,IOB) DETERMINE START ADDRESS FOR  RB
    091A 5E 01 16 04            4127+       ALC   IOBNEX(2,IOB),IOBDBL(,IOB) * ANOTHER IOB.               RB
                          091E  4128+CMFMUL EQU   *                         *   LOCAL                     RB
    091E 5C 01 18 16            4129+       MVC   IOBDBN(2,IOB),IOBNEX(,IOB) DETERMINE ADDRESS OF NEXT    RB
    0922 4E 01 18 15ED          4130+       ALC   IOBDBN(2,IOB),IOBLEN      *  DATA AREA.                 RB
    0927 5C 01 1A 18            4131+       MVC   IOB2NX(2,IOB),IOBDBN(,IOB) DETERMINE END ADDRESS FOR    RB
    092B 5E 01 1A 04            4132+       ALC   IOB2NX(2,IOB),IOBDBL(,IOB) * POSSIBLE NEXT IOB/BUFFER.  RB
    092F 6D 01 1A 62            4133+       CLC   IOB2NX(2,IOB),LCBBND(,DTF) ANOTHER IOB/BUFFER FIT ?     RB
    0933 F2 84 1C               4134+       JH    CMFCLN                    NO-GO CLEAN-UP THIS OPEN.     RB
    0936 75 02 16               4135+       L     IOBNEX(,IOB),IBX          LOAD REG WITH IOB NEXT @.     RB
    0939 9C 14 14 14            4136+       MVC   IOBDTF(IOBDTF+1,IBX),IOBDTF(,IOB) COPY THE IOB.         RB
    093D 74 02 01               4137+       ST    IOBNXT(,IOB),IBX          CHAIN NEXT IOB TO LAST.       RB
    0940 9C 01 09 18            4138+       MVC   IOBDAT(2,IBX),IOBDBN(,IOB) MOVE IN NEW DATA BUFFER @.   RB
    0944 9C 01 16 1A            4139+       MVC   IOBNEX(2,IBX),IOB2NX(,IOB) MOVE PTR TO NEXT IOB AREA.   RB
    0948 E2 01 00               4140+       LA    0(,IBX),IOB               MAKE LAST IOB IN CHAIN CURRENTRB
    094B 75 02 14               4141+       L     IOBDTF(,IOB),DTF          RESTORE DTF REGISTER.         RB
    094E C0 87 091E             4142+       B     CMFMUL                    GO TO MULTIPLE IOB LOGIC      RB

                                4144+*   IOB AND BUFFER ALLOCATION DONE, PERFORM FINAL CLEAN-UP ACTIVITY. RB

                          0952  4146+CMFCLN EQU   *                         *   LOCAL                     RB
    0952 BC 40 0E               4147+       MVI   $BDCMP(,DTF),$BCDNE       MARK DTF DONE.                RB
    0955 AC 01 32 5E            4148+       MVC   $BDINT(2,DTF),LCB$L0(,DTF) RESTORE C/S @ OF $$BSL0.     RB
    0959 BC 00 2E               4149+       MVI   $BDNDX(,DTF),X'00'        SET LINE INIT TRANS. ID TO    RB
    095C 75 01 01               4150+       L     IOBNXT(,IOB),IOB          POINT TO 1ST IOB.             RB
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    095F 7A 04 05             4151+       SBN   IOBFLA(,IOB),FIRST        SET FIRST BUFFER INDICATOR.   RB
    0962 B5 01 52             4152+       L     LCBPL@(,DTF),PL           RELOAD THE PARM LIST REG      RB



                              4155+*************************************************************  B
                              4156+*   FINAL SETUP OF OP CODE AND RECORD LENGTH BEFORE IOS CALL     B
                              4157+*************************************************************  B

                         0965 4159+CMFVFY EQU   *                         *                         B
    0965 B9 08 56             4160+       TBF   LCBAT2(,DTF),LCBABT       OPERATION AN ABORT, OR        B
    0968 B9 02 55             4161+       TBF   LCBAT1(,DTF),LCBEOT       SEARCH FOR EOT INDICATED ?    B
    096B F2 10 1C             4162+       JT    CMFVUR                    NO-GO USE USER RECORD AREA.   B

                              4164+*-----------------------------------------------------------*  B
                              4165+* SEARCH FOR EOT-- SET TO READ 1 CHAR INTO DUMMY BUFFER      *  B
                              4166+*-----------------------------------------------------------*  B

    096E 8C 01 1F 4633        4168+       MVC   $BDREL(2,DTF),X$0001      SET RECORD LENGTH TO ONE.     B
    0973 8C 01 0D 15E4        4169+       MVC   $BDWKB(2,DTF),FNDEOT      USE DUMMY DATA AREA TO FIND EOTB
    0978 B5 01 30             4170+       L     $BDWKA(,DTF),WKA          XR1-->WORK AREA
    097B 7C 01 1A             4171+       MVI   WKERRD(,WKA),BIT7         SET RETRY COUNT TO 1
    097E B5 01 52             4172+       L     LCBPL@(,DTF),PL           XR1--> ACTIVE PARM LIST
    0981 B8 02 7D             4173+       TBN   LCBOPC(,DTF),OPPUT        PUT OP CODE ?                  B
    0984 F2 10 37             4174+       JT    CMFVPT                    YES-MUST BE ABORT, GO SEND EOT.B
    0987 F2 87 31             4175+       J     CMBSCL                    GO TO CALL MLMP IOCS.          B

                         098A 4177+CMFVUR EQU   *                         *   LOCAL                     B
    098A 9C 01 0D 09          4178+       MVC   $BDWKB(2,DTF),PLRECA(,PL) FILL IN DATA AREA @ IN DTF.   B
    098E B8 80 02             4179+       TBN   $BDATT(,DTF),$BCINP       GET OPERATION ?               B
    0991 F2 90 2A             4180+       JF    CMFVPT                    NO-GO SET UP FINAL PUT DTF.   B

                              4182+*-----------------------------------------------------------*  B
                              4183+*  GET OPERATION                                             *  B
                              4184+*-----------------------------------------------------------*  B

                              4186+*    START THE INTERVAL TIMER RUNNING                           NB

    0994 C2 02 15F9           4188+       LA    TIMIOB,XR2                XR2-->TIMER IOB               NB
    0998 BC 02 00             4189+       MVI   TIFLAG(,XR2),X'02'        IND.'TIME IS IN TIMER UNITS'  NB
    099B F4 10 00             4190+       SVC   0                         *                             NB
    099E 15                   099E 4191+  DC    AL1(STMRIB)               START THE TIMER               NB

    099F 75 02 0B             4193+       L     PLTUBA(,PL),XR2           XR2-->TUB                     NB
    09A2 B5 02 16             4194+       L     TUBDTF(,XR2),DTF          XR2--->DTF                    NB
    09A5 78 10 03             4195+       TBN   PLOPC(,PL),OPRVI          RVI                            B
    09A8 79 E0 03             4196+       TBF   PLOPC(,PL),OPORDR-OPRVI   SEND OP CODE?                  B
    09AB F2 90 03             4197+       JF    CMFGIL                    NO-GO GET INPUT LENGTH.        B
    09AE BA 20 7D             4198+       SBN   LCBOPC(,DTF),LCBRVI       SET SEND RVI INDICATOR         B
                         09B1 4199+CMFGIL EQU   *                         *  LOCAL                       B
    09B1 B8 01 56             4200+       TBN   LCBAT2(,DTF),LCBRCI       RECEIVE INITIAL ON A        C/SB
    09B4 F2 10 B4             4201+       JT    CMBSIO                    YES-GO TO BSCA IOCS CALL.   C/SB

                              4203+*    IF NOT RECEIVE INITIAL,MLMP MAY MOVE DATA PRIOR TO $$BMCH CALL   B
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                                4204+*      ,THEREFORE GETMAIN AND SET UP DTF TO BE READY.                B

    09B7 C0 87 13E8             4206+       B     CMGINL                    COMPUTE BUFFER LENGTH AND     B
                                4207+*                                      * GETMAIN.                    B
                          09BB  4208+CMBSCL EQU   *                         *
    09BB F2 87 AD               4209+       J     CMBSIO                    GO TO BSCA IOCS CALL.         B


                                4211+*-------------------------------------------------------------*  B
                                4212+*  PUT OPERATION                                               *  B
                                4213+*-------------------------------------------------------------*  B

                          09BE  4215+CMFVPT EQU   *                         *   LOCAL                     B
    09BE BC 40 0F               4216+       MVI   $BDOPC(,DTF),$BOPUT       SET OP CODE TO NORMAL PUT.    B
    09C1 BC 00 0E               4217+       MVI   $BDCMP(,DTF),$BCREQ       SET CMP TO OP REQUESTED.      B
    09C4 B8 40 56               4218+       TBN   LCBAT2(,DTF),LCBSET       SEND EOT ORDERED ?            B
    09C7 F2 10 5A               4219+       JT    CMFVET                    YES-GO SETUP SEND EOT.        B
    09CA 9C 01 1F 05            4220+       MVC   $BDREL(2,DTF),PLOUTL(,PL) PUT OUTL INTO DTF RECORD LEN. B

                                4222+*   IF SYSTEM REQUEST OR REFRESH OPERATION, THEN USE RESERVED AREA IN0B
                                4223+*     THE LINE BUFFER.                                             0B

    09CE 3D 06 15DB             4225+       CLI   CMSPHY,TUB5M2             THIS A 3270 ?                 0B
    09D2 78 20 0D               4226+       TBN   PL$OPC(,PL),OPUSER        SYSTEM FUNCTION ?             0B
    09D5 F2 94 08               4227+       JC    CMFVMD,FLSOHI             NO-GO VERIFY THE MODE.        0B
    09D8 AC 01 0D 60            4228+       MVC   $BDWKB(2,DTF),LCBSRT(,DTF) SET CORRECT ADDRESS FOR OUTPU0B
    09DC AC 01 1F 58            4229+       MVC   $BDREL(2,DTF),LCBADJ(,DTF) USE CORRECT LENGTH OF THE DAT0B
                          09E0  4230+CMFVMD EQU   *                         *   LOCAL                     0B
    09E0 78 01 03               4231+       TBN   PLOPC(,PL),OPGET          GET TO BE PERFORMED NEXT ?    0B
    09E3 F2 10 09               4232+       JT    CMFPEW                    YES-GO DO PUT EOT TO WACK.    0B
    09E6 78 30 03               4233+       TBN   PLOPC(,PL),OPMSG          IS OP REQUESTED A             0B
    09E9 79 80 03               4234+       TBF   PLOPC(,PL),OPORDR-OPRUF   *                 PUT-EOT ?   0B

                                4236+*   SET PUT-EOT TO ACK OR WACK FOR 3270 SYSTEM FOR PUT-MSG.          0B

    09EC F2 90 1B               4238+       JF    CMFPT0                    NO-NOT PUT-MSG, USE REGULAR OP0B
                          09EF  4239+CMFPEW EQU   *                         *   LOCAL                     0B
    09EF 75 01 0B               4240+       L     PLTUBA(,PL),TUB           POINT TO THE TUB.             0B
    09F2 7D 06 23               4241+       CLI   TUBPHY(,TUB),TUB5M2       3270 SYSTEM ?                 0B
    09F5 B5 01 52               4242+       L     LCBPL@(,DTF),PL           XR1 --> PARM LIST
    09F8 F2 84 0F               4243+       JH    CMFPT0                    NO-GO CHECK FOR PUT OF ZERO LE0B
    09FB BC 44 0F               4244+       MVI   $BDOPC(,DTF),$BOPEW       SET PUT-EOT TO ACK/WACK.      0B
    09FE BA 40 56               4245+       SBN   LCBAT2(,DTF),LCBSET       SET SEND EOT IND.             0B
    0A01 78 20 0D               4246+       TBN   PL$OPC(,PL),OPUSER        IF INTERNALLY SET UP SYS OP   0B
    0A04 F2 10 64               4247+       JT    CMBSIO                    YES - DONT DO CHECK ON PLOUTL 0B
                                4248+*                                      *  DTF IS SET UP DIFFERENTY.  0B
    0A07 F2 87 3B               4249+       J     CMFVPM                    GO CHECK LENGTH               0B

                          0A0A  4251+CMFPT0 EQU   *                         *   LOCAL                     0B
    0A0A 79 20 0D               4252+       TBF   PL$OPC(,PL),OPUSER        USER FUNCTION, AND             B
    0A0D 79 30 03               4253+       TBF   PLOPC(,PL),OPMSG          RECORD MODE ?                  B
    0A10 F2 10 40               4254+       JT    CMFVRC                    YES-GO HANDLE RECORDS.         B
    0A13 78 30 03               4255+       TBN   PLOPC(,PL),OPMSG          IS OP REQUESTED A              B
    0A16 79 80 03               4256+       TBF   PLOPC(,PL),OPORDR-OPRUF   *  PUT EOT?                   B
    0A19 8D 01 1F 4632          4257+       CLC   $BDREL(2,DTF),X$0000      ZERO LENGTH PUT-MSG ?          B
    0A1E F2 96 21               4258+       JC    CMFVPB,FLSNEQ             NO-GO SET PUT BLOCK OP CODE.   B
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    0A21 BA 40 56             4259+       SBN   LCBAT2(,DTF),LCBSET       SET SEND EOT IND.              B
                         0A24 4260+CMFVET EQU   *                         *   LOCAL                      B
    0A24 B8 08 56             4261+       TBN   LCBAT2(,DTF),LCBABT       ABORT OF A -
    0A27 B8 02 7D             4262+       TBN   LCBOPC(,DTF),OPPUT        *            PUT ?
    0A2A F2 90 0F             4263+       JF    CMFABT                    NO-CONTINUE
    0A2D B5 01 30             4264+       L     $BDWKA(,DTF),WKA          XR1-->WORK AREA
    0A30 7C 00 1A             4265+       MVI   WKERRD(,WKA),NOBIT        SET RETRY COUNT TO 0
    0A33 4C 01 7B 15B2        4266+       MVC   DCOUNT(2,WKA),X$FFFC      SET DELAY COUNT VERY HIGH
    0A38 C0 87 0B31           4267+       B     CMFRTN                    GO WAIT FOR OP END
                         0A3C 4268+CMFABT EQU   *                         LOCAL
    0A3C BC 42 0F             4269+       MVI   $BDOPC(,DTF),$BOPEF       SET PUT END OF FILE OP CODE    B
    0A3F F2 87 E4             4270+       J     CMFAKE                    GO FAKE CALL TO MLMP, FORCE CHKB

                         0A42 4272+CMFVPB EQU   *                         *   LOCAL                      B
    0A42 BC 41 0F             4273+       MVI   $BDOPC(,DTF),$BOPEB       SET OP CODE TO PUT END OF BLOCKB
                         0A45 4274+CMFVPM EQU   *                         *  LOCAL                      0B
    0A45 6D 01 05 64          4275+       CLC   PLOUTL(2,PL),LCBKLC(,DTF) OUTL GREATER THAN BLOCK LEN ?  B
    0A49 F2 04 1F             4276+       JNH   CMBSIO                    NO-GO CALL MLMP IOCS.          B
    0A4C AC 01 1F 64          4277+       MVC   $BDREL(2,DTF),LCBKLC(,DTF) TRUNCATE TO BLOCK LENGTH.     B
    0A50 F2 87 15             4278+       J     CMFVSM                    GO SET TRUNCATED IND.          B

                         0A53 4280+CMFVRC EQU   *                         *   LOCAL                      B
    0A53 75 01 0B             4281+       L     PLTUBA(,PL),TUB           LOAD THE TUB REG.              B
    0A56 39 13 15D8           4282+       TBF   SAVTA2,TASITB+TASPAN+TASVRL MLMP VARIABLE SUPPORT ?      B
    0A5A 9D 01 1F 21          4283+       CLC   $BDREL(2,DTF),TUBRCL(,TUB) OUTL LT TAS RECORD LEN ?      B
    0A5E F2 91 0A             4284+       JC    CMBSIO,FLSOEQ             YES-CALL MLMP, ALL IS SET.     B
    0A61 F2 82 04             4285+       JL    CMFVSM                    OUTL LT TAS RECL, BLANKS NEEDEDB
    0A64 9C 01 1F 21          4286+       MVC   $BDREL(2,DTF),TUBRCL(,TUB) USE TAS RECORD LEN FOR PUT.   B
                         0A68 4287+CMFVSM EQU   *                         *   LOCAL                      B
    0A68 BA 80 56             4288+       SBN   LCBAT2(,DTF),LCBTRC       SET TRUNCATED INDICATOR.       B
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                               4290+*****************************************************************    B
                               4291+*    ISSUE START I/O OPERATION TO MLMP (BSCA IOS) - READ OR WRITE*    B
                               4292+*****************************************************************    B

                          0A6B 4294+CMBSIO EQU   *                          *   LOCAL                      B
    0A6B B8 02 7D              4295+       TBN   LCBOPC(,DTF),OPPUT        PUT OPERATION
    0A6E F2 90 04              4296+       JF    CMTROF                    NO-CONTINUE
    0A71 3B 20 4630            4297+       SBF   $FLGC,#NTRAC              SET OFF NO TRACE INDICATOR
                          0A75 4298+CMTROF EQU   *                          *
    0A75 B5 01 52              4300+       L     LCBPL@(,DTF),PL           RELOAD THE PL REG.         B
    0A78 BB 04 56              4301+       SBF   LCBAT2(,DTF),LCBSEC       SET OFF SECOND BLOCK IND.  B
    0A7B B8 01 56              4302+       TBN   LCBAT2(,DTF),LCBRCI       RECEIVE INITIAL ?          B
    0A7E F2 10 40              4303+       JT    CMSDTX                    YES-GO TO MLMP             B
    0A81 BA 04 56              4304+       SBN   LCBAT2(,DTF),LCBSEC       SET ON SECOND BLOCK IND.   B
    0A84 78 01 0C              4305+       TBN   PL$OPM(,PL),OPGET         GET OPERATION AND          B
    0A87 B9 02 55              4306+       TBF   LCBAT1(,DTF),LCBEOT       * NOT SEARCH EOT AND       B
    0A8A F2 90 34              4307+       JF    CMSDTX                    NO-CALL MLMP               B
                               4308+*  GET OPERATION AND NOT RECEIVE INITIAL AND NOT SEARCH EOT, THEN     B
                               4309+*  DON'T CALL MLMP. MLMP HAS ALREADY STARTED THE NEXT GET. WAIT FOR   B
                               4310+*  THE OP-END AND CALL CHECK TO MOVE THE DATA.                        B
    0A8D 39 C0 15D8            4311+       TBF   SAVTA2,TASREC+TASBLK      MESSAGE MODE TERMINAL ?    B
    0A91 F2 10 1B              4312+       JT    CMBNOG                    YES - DON'T GO TO MLMP.    B
    0A94 38 80 15D8            4313+       TBN   SAVTA2,TASREC             RECORD MODE TERMINAL ?     B
    0A98 B5 01 23              4314+       L     $BDIOB(,DTF),XR1          XR1 --> IOB.               B
    0A9B 7D 80 07              4315+       CLI   IOBCMP(,XR1),PROCES       IOB IN PROCESS ?           B
    0A9E B5 01 52              4316+       L     LCBPL@(,DTF),PL           XR1 --> PARM LIST.         B
    0AA1 F2 96 0B              4317+       JC    CMBNOG,FLSNEQ             NO - DON'T FAKE AN OP-END. B
    0AA4 0E 00 472A 4633       4318+       ALC   #OPEND(1),X$0001          UP OPEND COUNT BY ONE.     B
    0AAA 8E 00 6C 4633         4319+       ALC   LCBOPE(1,DTF),X$0001      BUMP LINE OP END COUNT.    B
                          0AAF 4320+CMBNOG EQU   *                          * LOCAL.
    0AAF BC 00 0E              4321+       MVI   DTFCMP(,DTF),OPACC        SET COMP TO OP ACCEPTED.   B
    0AB2 BB 04 34              4322+       SBF   $BDAT1(,DTF),$BCNOW       SET OFF SPANNED RECORDS    B
    0AB5 B5 01 30              4323+       L     $BDWKA(,DTF),WKA          XR1 -> MLMP WORKAREA       B
    0AB8 7B 04 1D              4324+       SBF   $BWFG3(,WKA),F3MOVE       SET OFF DATA MOVED IND.    B
    0ABB B5 01 52              4325+       L     LCBPL@(,DTF),PL           XR1 -> PARAMETER LIST      B
    0ABE F2 87 04              4326+       J     CMTRGT                    GO AROUND CALL FOR MLMP    B
                          0AC1 4327+CMSDTX EQU   *                          * LOCAL                    B
    0AC1 C0 87 0001            4328+       B     $$BSMS                    ##### MLMP IOS CALL ######   B

                          0AC5 4330+CMTRGT EQU   *                          * LOCAL                    B
    0AC5 C0 87 1042            4331+       B     CMTRCE                    TRACE SIO                  B
    0AC9 01               0AC9 4332+       DC    AL1(CCPRIB)               CCP RIB                    B
    0ACA 09               0ACA 4333+       DC    AL1(TRRIB)                TRACE SUBRIB               B
    0ACB FB               0ACB 4334+       DC    AL1(TTBSIO)               ID FOR BSCA START IO       B

    0ACC BA 20 56              4336+       SBN   LCBAT2(,DTF),LCBACT       SET LINE ACTIVE IND.       B
    0ACF B5 01 30              4337+       L     $BDWKA(,DTF),WKA          XR1-> MLMP WORK AREA.      B
                          0AD2 4338+CMFAKR EQU   *                          *   LOCAL                  B
    0AD2 78 04 24              4339+       TBN   ACKSD(,WKA),AKERR         ERROR POST PENDING FROM MLMP ? B
    0AD5 F2 90 09              4340+       JF    CMNFAK                    NO - CHECK OTHERS          B
    0AD8 7B 04 24              4341+       SBF   ACKSD(,WKA),AKERR         SET OFF ERROR CONDITION
    0ADB BD 00 6C              4342+       CLI   LCBOPE(,DTF),NOBIT        OP ENDS = 00 ?
    0ADE F2 81 45              4343+       JE    CMFAKE                    YES - FAKE AN OP END
                          0AE1 4344+CMNFAK EQU   *                          * LOCAL                    B
    0AE1 78 04 1D              4345+       TBN   $BWFG3(,WKA),F3MOVE       RECORD MOVED INDICATOR ON ?  B
```

```
    0AE4 F2 90 36             4346+       JF    CMFEOT                    NO-GO CHECK EOT POSTED IN IOB. B
    0AE7 BA 80 7D             4347+       SBN   LCBOPC(,DTF),LCBMVD       SET ON DATA MOVED INDICATOR.   B
    0AEA B9 FF 6C             4348+       TBF   LCBOPE(,DTF),ALLBIT       OP END COUNT = 0 ?
    0AED F2 10 36             4349+       JT    CMFAKE                    YES - GO FAKE AN OP END


                              4351+* IF A BLOCK MODE TERMINAL,THEN MLMP HAS ALREADY MOVED THE DATA;
                              4352+* HOWEVER,THE MAX RECORD LENGTH WAS USED. WE MUST CALCULATE THE
                              4353+* TRUE RECORD LENGTH BEFORE POSTING THE USER.


    0AF0 39 20 15D8           4355+       TBF   SAVTA2,TASMSG             NOT MESSAGE MODE ?
    0AF4 F2 90 26             4356+       JF    CMFEOT                    NO-CHECK EOT POSTED
    0AF7 0F 01 15CF 15D1      4357+       SLC   SAVCAT-2(2),SAVCAT        SUB TAR FROM CAR
    0AFD 0F 01 15CF 4633      4358+       SLC   SAVCAT-2(2),X$0001        DECREMENT FOR SOH OR STX
                              4359+*                                 ------START----------------------@17
    0B03 B5 01 23             4360+       L     $BDIOB(,DTF),IOB          POINT TO THE IOB.              B
    0B06 78 10 06             4361+       TBN   IOBFLG(,IOB),$BCRAN       TRANSPARENCY ?                B
                              4362+*                                 ------START----------------------@17
    0B09 F2 90 06             4363+       JF    CMNXPR                    NO-GOPOST
    0B0C 0F 01 15CF 4633      4364+       SLC   SAVCAT-2(2),X$0001        DECREMENT FOR DLE
                         0B12 4365+CMNXPR EQU   *                         *
    0B12 B5 01 52             4366+       L     LCBPL@(,DTF),PL           XR1-->PARM LIST
    0B15 4C 01 05 15CF        4367+       MVC   PLEFFL(2,PL),SAVCAT-2     PLUG NEW LENGTH
    0B1A F2 87 14             4368+       J     CMFRTN                    GO TO POSTING LOGIC


                         0B1D 4370+CMFEOT EQU   *                         *   LOCAL                      B
    0B1D B5 01 23             4371+       L     $BDIOB(,DTF),IOB          POINT TO THE IOB.              B
    0B20 7D 42 07             4372+       CLI   IOBCMP(,IOB),$BCEOT       EOT POSTED IN THE IOB ?        B
    0B23 F2 01 0B             4373+       JNE   CMFRTN                    NO-GO EXIT NORMALLY.           B
                         0B26 4374+CMFAKE EQU   *                         *   LOCAL                      B
    0B26 0E 00 472A 4633      4375+       ALC   #OPEND(1),X$0001          UP OP END COUNT BY ONE.        B
    0B2C 8E 00 6C 4633        4376+       ALC   LCBOPE(1,DTF),X$0001      BUMP LINE OP END COUNT.        B
                         0B31 4377+CMFRTN EQU   *                         *   LOCAL                      B
    0B31 BB 01 70             4378+       SBF   LCBATR(,DTF),LCBTIM       SET TIMER IND. OFF             B
    0B34 C0 87 0BD7           4379+       B     CMPAII                    GO TO POSTING LOGIC            B
                              4380 *      $E090                                                          CCP00289
                              4381+* R-02,C-00
```

```
                              4383+*********************************************************************
                              4384+*                                                                   *
                              4385+*  TITLE: 'CMACI'                                                   *
                              4386+*                                                                   *
                              4387+*  FUNCTION: SATISFY ACCEPT OPERATION AFTER AN INVITE OP ENDS.       *
                              4388+*                                                                   *
                              4389+*  OPERATION:                                                       *
                              4390+*     .  SET FIELDS IN ACCEPT PARAMETER LIST TO REFLECT DATA RECEIVED.*
                              4391+*     .  IF DFF TERMINAL, QUEUE ACCEPT REQUEST FOR $CC4DF AND EXIT.  *
                              4392+*     .  MOVE DATA TO THE ACCEPT RECORD AREA.                       *
                              4393+*     .  FREEMAIN INVITE GETMAIN AREAS.                             *
                              4394+*     . EXIT TO CMPAII TO POST ACCEPT COMPLETE.                     *
                              4395+*                                                                   *
                              4396+*  INPUT:   XR1 -> ACCEPT PARAMETER LIST ADDRESS.                   *
                              4397+*                                                                   *
                              4398+*  OUTPUT:  OUTPUT WILL BE THE DATA IN THE USER RECORD AREA.        *
                              4399+*                                                                   *
                              4400+*  EXTERNAL ROUTINES USED:                                          *
                              4401+*           CMMVRT - CM MOVE ROUTINE INTERFACE.                     *
                              4402+*           $CC4FR - CM FREEMAIN AREAS ASSOCIATED WITH PL.          *
                              4403+*                                                                   *
                              4404+*  EXITS-NORMAL: TO CMPAII TO POST ACCEPT SATISFIED.                *
                              4405+*                                                                   *
                              4406+*********************************************************************


                         0B38 4408+CMACI  EQU   *                          ACCEPT INPUT SATISFIED

                              4410+*********************************************************************
                              4411+* SET UP USER RECORD AREA
                              4412+*********************************************************************

 0B38 75 02 0B                4414+       L     PLTUBA(,PL),XR2           LOAD POINTER TO THE TUB

                              4416+*      BEGIN TO PLUG USER'S ACCEPT INPUT PARM LIST

 0B3B B8 20 0C                4418+       TBN   TUBAT2(,XR2),TUBIMI       IS THIS A PROGRAM REQUEST?
 0B3E F2 90 04                4419+       JF    CMNOPR                    BRANCH IF NOT
 0B41 5F 01 05 0F             4420+       SLC   PLEFFL(2,PL),PL$RTC(,PL)  DECR DATA LENGTH PROGRAM NAME
                              4421+*                                      * LENGTH IN ACCEPT PL.
                         0B45 4422+CMNOPR EQU   *                          *  LOCAL
 0B45 B5 02 03                4423+       L     TUBPL@(,XR2),XR2          POINT TO 'INVITE' PARM LIST
 0B48 6C 01 01 01             4424+       MVC   PLRTC(2,PL),PLRTC(,XR2)   MOVE RETURN CODE FROM INV PARM
                              4425+*     XR1 POINTS TO 'ACCEPT' PARM LIST AND XR2 POINTS TO 'INVITE'.

                              4427+* DETERMINE IF OPERATION WAS SUCCESSFUL OR NOT

 0B4C BD 03 01                4429+       CLI   PLRTC(,XR2),RCXEDT        CHECK AGAINST HIGHEST RETURN FOR
                              4430+*                                      WHICH DATA  ACCOMPANIES THE PL.
 0B4F F2 04 04                4431+       JNH   CMBGPG                    DATA WITH PARAMETER LIST.

                              4433+*-------------------------------------------------------------------*
                              4434+*  NO DATA WITH INVITE PARAMETER LIST                                *
                              4435+*-------------------------------------------------------------------*

                              4437+*   ZERO INPUT LENGTH - $CC4MX WILL BLANK USERS REC AREA IF PLEFFL=0.
```

```
    0B52 AF 01 05 05           4439+       SLC   PLEFFL(2,XR2),PLEFFL(,XR2) ZERO EFFECTIVE INPUT LENGTH

                               4441+*-------------------------------------------------------------*
                               4442+*     DATA WITH INVITE PARAMETER LIST                          *
                               4443+*-------------------------------------------------------------*

                          0B56 4445+CMBGPG EQU   *                          BEGIN TO PLUG USER PARM LIST
    0B56 1C 01 4791 07         4446+       MVC   #CMMVL+MVLTOL,PLINL(2,PL) MOVE TARGET LENGTH TO MOVE LIST
    0B5B 6C 01 05 05           4447+       MVC   PLEFFL(2,PL),PLEFFL(,XR2) MOVE INVITE EFFL LENGTH TO ACEPT
    0B5F 75 01 0B              4448+       L     PLTUBA(,XR1),XR1          POINT TO THE TUB
    0B62 38 20 4729            4449+       TBN   #CMSWT,PRUFOF             IS THE TERMINAL TO BE RESET? @12
    0B66 F2 90 03              4450+       JF    CMNFOF                    NO - DO NOT SET OFF TUBRUF   @12
    0B69 7B 04 09              4451+       SBF   TUBSCS(,XR1),TUBRUF       RESET TERMINAL TO NON-PRUF   @12
                          0B6C 4452+CMNFOF EQU   *                          @12
    0B6C 75 01 12              4453+       L     TUBTCB(,XR1),XR1          POINT TO THE USER'S TCB
    0B6F 75 01 D8              4454+       L     TCBWK(,XR1),XR1           POINT TO USER'S RECORD AREA
    0B72 D2 01 06              4455+       LA    6(,XR1),XR1               BUMP XR1 TO 1ST BYTE OF DATA
    0B75 34 01 4793            4456+       ST    #CMMVL+MVLTOA,XR1         STORE ADDRESS IN MOVE LIST

    0B79 35 01 15CB            4458+       L     CMSPL,PL                  RESTORE ACCEPT PL ADDRESS
    0B7D 75 02 0B              4459+       L     PLTUBA(,PL),XR2           POINT TO THE TUB
    0B80 B5 02 03              4460+       L     TUBPL@(,XR2),XR2          XR2-> INVITE PARM LIST.
                          0B83 4461+CMNMAP EQU   *                          *
    0B83 6D 01 07 05           4462+       CLC   PLINL(2,PL),PLEFFL(,XR2)  DOES INVITE HAVE MORE DATA
                               4463+*                                      * THAN ACCEPT WANTS ?
    0B87 F2 02 07              4464+       JNL   CMGTRA                    NO - CAN RETURN ALL INVITE DATA.

                               4466+* HAVE ACCEPT INPUT WHOSE INPUT LENGTH IS LESS THAN THE EFFECTIVE
                               4467+* LENGTH OF THE INVITE, THEREFORE SET ACCEPT EFFECTIVE LENGTH TO ITS
                               4468+* REQUESTED LENGTH, AND TRUNCATE DATA.

    0B8A 7A 01 01              4470+       SBN   PLRTC(,PL),RCXDTR         SET DATA TRUNCATED BIT IN RT COD
    0B8D 5C 01 05 07           4471+       MVC   PLEFFL(2,PL),PLINL(,PL)   SET ACCEPT EFFL TO REQ'D LENGTH

                          0B91 4473+CMGTRA EQU   *                          * LOCAL

                               4475+*************************************************************
                               4476+*            MOVE DATA FROM INVITE HOLD BUFFER TO USER RECORD AREA
                               4477+*************************************************************

    0B91 2C 01 4795 09         4479+       MVC   #CMMVL+MVLFRA(2),PLRECA(,XR2) MOVE IN SOURCE ADDR FOR MOVE

    0B96 B5 01 0B              4481+       L     PLTUBA(,XR2),XR1          POINT TO THE TUB
    0B99 78 20 0C              4482+       TBN   TUBAT2(,XR1),TUBIMI       IS PROGRAM NAME SITTING IN SOURC
                               4483+*                                      FILED AREA
    0B9C F2 90 05              4484+       JF    CMDOIT                    JUMP IF NO PROGRAM NAME IN AREA

                               4486+* BUMP THE SOURCE RECORD AREA ADDRESS PAST THE PROGRAM NAME
                               4487+* THE AMOUNT TO BUMP THE ADRESS BY RESIDES IN PL$RTC OF THE INVITE
                               4488+* PARAMETER LIST.

    0B9F 2E 01 4795 0F         4490+       ALC   #CMMVL+MVLFRA(2),PL$RTC(,XR2) BUMP ADDR PAST PROGRAM NAME

                          0BA4 4492+CMDOIT EQU   *                          DO THE MOVE NOW
    0BA4 BD 03 01              4493+       CLI   PLRTC(,XR2),RCXEDT        RETURN CODE > THREE AND
    0BA7 78 01 1E              4494+       TBN   TUBTA1(,XR1),TASDFF       THIS A DFF TERMINAL ?
```

```
$CC4#2 $E090 - PROCESS SATISFIED ACCEPT INPUT

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE 104

    0BAA F2 13 0B             4495+       JC    CMNOBK,TRUAHI             YES-DON'T BLANK USER'S REC AREA
    0BAD 3C 02 4798           4496+       MVI   #CMMVL+MVLTYP,SWAPTO      SET TRANSLATE ON FOR MOVE
    0BB1 E2 01 00             4497+       LA    0(,XR2),XR1               POINT TO INVITE PARAMETER LIST

                              4499+*  MOVE DATA -  FROM LENGTH IS SET FROM PLEFFL OF INVITE PARAMETER LIST
                              4500+*               IF ZERO (NO DATA), THE ACCEPT RECORD AREA WILL BE
                              4501+*                BLANKED.

    0BB4 C0 87 1025           4503+       B     CMMVRT                    BR TO MOVE AND CLEAR ROUTINE


                              4505+*************************************************************
                              4506+*      FREEMAIN THE INVITE INPUT HOLD BUFFER
                              4507+*************************************************************

                         0BB8 4509+CMNOBK EQU   *                         * LOCAL
    0BB8 35 01 15CB           4510+       L     CMSPL,XR1                 RESTORE PARAMETER LIST POINTER
    0BBC 75 02 0B             4511+       L     PLTUBA(,XR1),XR2          RESTORE TUB POINTER
    0BBF BB 20 0C             4512+       SBF   TUBAT2(,XR2),TUBIMI       SET IMPLICIT INVITE BIT OFF
    0BC2 B8 80 0B             4513+       TBN   TUBAT1(,XR2),TUBKNM       IS CONSOLE PGM REQ DATA ?
    0BC5 F2 90 04             4514+       JF    CMNOKN                    NO - BYPASS RESET OF CONSOLE
    0BC8 3B 04 46F7           4515+       SBF   $AMFLG,$AMPF9             YES- RESET PF9 FOR CONSOLE
                         0BCC 4516+CMNOKN EQU   *                         *  LOCAL
    0BCC B5 01 03             4517+       L     TUBPL@(,XR2),PL           POINT TO INVITE PARM LIST

    0BCF C0 87 0F66           4519+       B     $CC4FR                    FREE INVITE GETMAINED AREAS

    0BD3 3A 20 15B5           4521+       SBN   CMSWIT,CMTPRQ             SET BIT SO ACCEPT PL WILL BE
                              4522+*                                      * POSTED
```

```
                          4524+*********************************************************************
                          4525+*                                                                   *
                          4526+*  NAME--CMPAII                                                     *
                          4527+*                                                                   *
                          4528+*  TITLE--DETERMINE IF POST IS NEEDED                               *
                          4529+*                                                                   *
                          4530+*  FUNCTION--POST CALLER THAT THE IO REQUEST NEEDED TO ACCOMPLISH   *
                          4531+*            HIS REQUEST HAS BEEN SCHEDULED AND THEN CHECK FOR      *
                          4532+*            DTF TO BE RESCHEDULED AFTER OLT FAILED.                *
                          4533+*                                                                   *
                          4534+*  ENTRY POINTS- CMPAII -POST REQUESTOR IF TP SCHEDULED             *
                          4535+*                CMRQBF -CHECK FOR MORE WORK TO BE PERFORMED        *
                          4536+*                                                                   *
                          4537+*  EXITS-NORMAL:                                                    *
                          4538+*            TO CMMTBY - IF MLTA DTF TO START AFTER OLT.           *
                          4539+*            TO CMOPND - CHECK FOR MORE WORK.                      *
                          4540+*                                                                   *
                          4541+*********************************************************************

                     0BD7 4543+CMPAII EQU   *                        DETERMINE IS POST NEEDED
0BD7 38 20 15B5           4544+       TBN   CMSWIT,CMTPRQ            WAS TP REQUEST SCHEDULED
0BDB F2 90 1B             4545+       JF    CMTSRQ                   JUMP IF NOT ON

0BDE 35 01 15D3           4547+       L     CMNWPL,PL                ORIGINAL PL TO BE POSTED
0BE2 78 20 02             4548+       TBN   PLOPM(,PL),OPDISC        DISCONNECT OPERATION ?
0BE5 F2 10 06             4549+       JT    CMDISC                   YES - POST
0BE8 79 04 0C             4550+       TBF   PL$OPM(,PL),OPNOW        IS IT WAIT OP
0BEB F2 10 07             4551+       JT    CMRQBF                   IF WAIT OP, SKIP POST

                          4553+*********************************************************************
                          4554+*   PUT NO WAIT,  INVITE  OR PUT DISCONNECT  -  POST SCHEDULED     *
                          4555+*********************************************************************
                     0BEE 4556+CMDISC EQU   *                        * LOCAL

0BEE D2 01 10             4558+       LA    PLECB(,PL),XR1           ADDRESS OF ECB FOR REQUEST
0BF1 F4 10 00             4559+       SVC   0                        POST $CC4II OR $CC4IS
0BF4 05              0BF4 4560+       DC    AL1(POSTRB)              *  THAT NO WAIT OP SCHEDULED


                          4562+*********************************************************************
                          4563+*    DETERMINE IF OLT FAILED, IF SO RESCHEDULE LINE.                *
                          4564+*       (ENTER HERE WHEN NO POST NEEDED - AFTER STOP INVITE)        *
                          4565+*********************************************************************

                     0BF5 4567+CMRQBF EQU   *                        *
0BF5 3B 20 15B5           4568+       SBF   CMSWIT,CMTPRQ            TURN OFF TP REQUEST SWITCH
                     0BF9 4569+CMTSRQ EQU   *                        *   LOCAL                    @17
0BF9 C0 87 0042           4570+       B     CMOPND                   CHECK FOR MORE WORK
                          4571 *      $E092                                                      CCP00290
                          4572+* R-05,C-00 CHANGE LEVEL
```

```
                          4575+*************************************************************************
                          4576+*                                                                       *
                          4577+*                                                                       *
                          4578+*                                                                       *
                          4579+*           COMMON   M L T A  /  B S C A   SUBROUTINES                  *
                          4580+*                                                                       *
                          4581+*                                                                       *
                          4582+*                                                                       *
                          4583+*************************************************************************
```

```
                              4585+*********************************************************************
                              4586+*                                                                   *
                              4587+* NAME--CMPRLS                                                      *
                              4588+*                                                                   *
                              4589+*    TITLE--SEARCH NEW REQUEST PARAMETER LIST QUEUE FOR NEW REQUEST. *
                              4590+*                                                                   *
                              4591+*    FUNCTION--                                                     *
                              4592+*              FIND FIRST NEW PUT ON PARAMETER LIST QUEUE AND       *
                              4593+*               AND RETURN ITS ADDRESS. IF NO NEW PUTS RETURN ADDRESS *
                              4594+*               OF FIRST INPUT PARAMETER LIST.                      *
                              4595+*    OUTPUT                                                         *
                              4596+*               XR1 - ADDRESS OF PL TO HANDLED NEXT.                *
                              4597+*               XR2 - ADDRESS OF POINTER TO PL TO HANDLED.          *
                              4598+*                                                                   *
                              4599+*                                                                   *
                              4600+*********************************************************************

                         0BFD 4602+CMPRLS EQU   *                        ONLY ENTRY POINT
    0BFD 34 08 0C2D           4603+       ST    CMPRLX+3,ARR              SAVE RETURN ADDRESS
    0C01 3B 20 4630           4604+       SBF   $FLGC,#NTRAC              SET OFF NO TRACE IND
    0C05 C2 02 4644           4605+       LA    @PRLQ-1,XR2               LEFT BYTE OF POINTER TO 1ST PL.
                         0C09 4606+CMCKNX EQU   *                        *  LOCAL
    0C09 B5 01 01             4607+       L     PLCHN(,XR2),PL            @ OF NEXT PARAMETER LIST IN Q
    0C0C 78 02 03             4608+       TBN   PLOPC(,PL),OPPUT          IS OP A PUT ?
    0C0F 79 04 02             4609+       TBF   PLOPM(,PL),OPSTOP         * AND NOT STOP  ?
    0C12 F2 10 15             4610+       JT    CMPRLX                    YES - RETURN IT TO CALLER.
    0C15 D2 02 00             4611+       LA    0(,PL),XR2                ADDR OF CHAIN ADDRESS IN PL
    0C18 BD 00 00             4612+       CLI   0(,XR2),NOBIT             ANY MORE PARM LISTS ON QUEUE ?
    0C1B F2 81 04             4613+       JE    CMRDPL                    NO - NO PUTS, CHECK FOR READ
    0C1E C0 87 0C09           4614+       B     CMCKNX                    YES - CHECK THE NEXT ONE FOR PUT

                         0C22 4616+CMRDPL EQU   *                        *  LOCAL
    0C22 35 01 4645           4617+       L     @PRLQ,PL                  ADDRESS OF FIRST PL ON QUEUE
                              4618+*                                      * RETURN IT TO USER.
    0C26 C2 02 4644           4619+       LA    @PRLQ-1,XR2               ADDRESS OF POINTER TO IT.
    0C2A C0 87 0000           4620+CMPRLX B     ##
```

```
                                4622+*************************************************************************
                                4623+*                                                                       *
                                4624+* NAME--CMWPGY                                                         *
                                4625+*                                                                       *
                                4626+*    TITLE--COMMON OP END ROUTINE FOR  PUT  PART OF PUT THEN GET.       *
                                4627+*                                                                       *
                                4628+*    FUNCTION--                                                         *
                                4629+*              WHEN THE PUT PART HAS OP ENDED, SCHEDULE A READ          *
                                4630+*              OPERATION USING THE SAME PARAMETER LIST THAT WAS         *
                                4631+*              USED FOR THE WRITE.                                      *
                                4632+*                                                                       *
                                4633+*************************************************************************

                          0C2E 4635+CMWPGY EQU   *
    0C2E 34 08 0C66             4636+       ST    CMWPSV+3,ARR              SAVE RETURN ADDRESS

                                4638+*  REFORMAT THE PARAMETER LIST FOR THE READ PORTION

    0C32 5F 01 0F 0F            4640+       SLC   PL$RTC(2,PL),PL$RTC(,PL)  CLEAR INTERNAL RETURN CODE
    0C36 7B 02 0C               4641+       SBF   PL$OPM(,PL),OPPUT         SET OFF PUT BIT
    0C39 7A 01 0C               4642+       SBN   PL$OPM(,PL),OPGET         SET ON GET BIT

    0C3C 79 04 03               4644+       TBF   PLOPC(,PL),OPNOW          USER PUT THEN GET ?
    0C3F F2 10 17               4645+       JT    CMNWFM                    YES - JUST FREEMAIN, NO POST.

    0C42 78 04 0C               4647+       TBN   PL$OPM(,PL),OPNOW         IF STILL A NO WAIT OPERATION
    0C45 F2 10 11               4648+       JT    CMNWFM                    JUMP IF YES TO FREEMAIN

                                4650+*************************************************************************
                                4651+*  PUT WAIT - PART OF   SYSTEM PUT NO WAIT INVITE   CHANGED TO      *
                                4652+*              PUT WAIT INVITE.                                         *
                                4653+*************************************************************************

    0C48 7A 04 0C               4655+       SBN   PL$OPM(,PL),OPNOW         SET NO WAIT BIT ON IN INTERNAL
                                4656+*                                      OP CODE MODIFIER FOR INVITE.
    0C4B D2 01 10               4657+       LA    PLECB(,PL),XR1            ECB FOR THIS REQUEST
    0C4E F4 10 00               4658+       SVC   0                         POST THIS ECB
    0C51 05                0C51 4659+       DC    AL1(POSTRB)               * POST *

    0C52 35 01 15CB             4661+       L     CMSPL,PL                  RESTORE PL ADDRESS
    0C56 F2 87 07               4662+       J     CMWPGE                    JUMP TO RESTART THE LINE

                                4664+*************************************************************************
                                4665+*  PUT WAIT - PART OF   USER PUT THEN GET   -- JUST FREE PUT BUFFER *
                                4666+*  PUT NO WAIT - PART OF   SYSTEM PUT NO WAIT INVITE                    *
                                4667+*************************************************************************

                          0C59 4669+CMNWFM EQU   *                         FREEMAIN PUT NO WAIT AREA
    0C59 75 02 09               4670+       L     PLRECA(,PL),XR2           POINT XR2 AT RECORD AREA OF
                                4671+*                                      AREA TO BE FREEMAINED.
    0C5C C0 87 0F55             4672+       B     CMFMRT                    BR TO FREEMAIN INTERFACE ROUT.

                          0C60 4674+CMWPGE EQU   *                         *
    0C60 7C 00 08               4675+       MVI   PLRECA-1(,PL),NOBIT       ZERO HOLD BUFFER ADDRESS
```

```
$CC4#2 $E092/CMWPGY---COMMON PUT THEN GET OP END
ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE 109
    0C63 C0 87 0000            4676+CMWPSV B     *-*                    RETURN
```

```
                          4678+*********************************************************************
                          4679+*                                                                   *
                          4680+* NAME--CMPOST                                                      *
                          4681+*                                                                   *
                          4682+*    TITLE--COMMON POST ROUTINE                                     *
                          4683+*                                                                   *
                          4684+*    FUNCTION--                                                     *
                          4685+*              POST THE REQUESTOR THAT HIS REQUEST WAS              *
                          4686+*                 COMPLETED AND FREE UNNEEDED GETMAINED AREAS.      *
                          4687+*                                                                   *
                          4688+*   OPERATION: 1. IF REQUEST IS A USER INVITE, POST TCBECB FOR OWNING *
                          4689+*               TASK THAT THE OPERATION IS COMPLETE.                *
                          4690+*                                                                   *
                          4691+*              2. IF REQUEST IS SYSTEM INVITE  OR COMMAND INTERRUPT *
                          4692+*                 GET POST $CC4CP.                                  *
                          4693+*              3. IF REQUEST IS AN INVITE OR COMMAND INTERRUPT GET  *
                          4694+*                 PUT TUB ON TCBINQ.                                *
                          4695+*              4  IF REQUEST IS A NON COMMAND INTERRUPT GET OR A PUT *
                          4696+*                 POST PLECB OF THE REQUESTS PARAMETER LIST.        *
                          4697+*              5. FREE ALL UNNEEDED GETMAINED AREAS.                *
                          4698+*********************************************************************

                     0C67 4700+CMPOST EQU   *                        POST THE PROPER TCB
    0C67 34 08 0D8E       4701+       ST    CMMKRT+3,ARR              RETURN ADDRESS
    0C6B 75 02 0B         4702+       L     PLTUBA(,PL),XR2           POINT XR2 AT TUB

    0C6E 78 06 0C         4704+       TBN   PL$OPM(,PL),OPPNW         PUT NO WAIT
    0C71 C0 10 0D62       4705+       BT    CMPSFM                    YES - NO POST, JUST FREEMAIN @21

                          4707+* CHECK NO POST BIT TO SEE IF NO TCB IS TO BE POSTED DUE TO THE
                          4708+* COMPLETION OF THIS OPERATION

    0C75 78 10 0C         4710+       TBN   PL$OPM(,PL),OPBNOP        IS  NO POST BIT ON ?          B
                          4711+*                                -----START--------------------------@05
    0C78 C0 10 0D8B       4712+       BT    CMMKRT                    BRANCH IF NO POST BIT IS ON.   B
                          4713+*                                -----END----------------------------@05

                          4715+*    IF REQUESTING TASK TERMINATED DO NOT POST -  THIS IS
                          4716+*       DETERMINED BY OP BEING A USER OPERATION BUT TERMINATION
                          4717+*       SYSTEM TASK TCB IS NOW POINTED TO BY TUBTCB.

    0C7C B5 02 12         4719+       L     TUBTCB(,XR2),XR2          POINT XR2 AT  TUB TCB
    0C7F B8 84 04         4720+       TBN   TCBFG1(,XR2),TCBUSR+TCBNCL IS IT A SYSTEM TASK
    0C82 79 80 02         4721+       TBF   PLOPM(,PL),OP$SYS         IS IT USER REQUEST
    0C85 C0 10 0D87       4722+       BT    CMJTFR                    YES- NO POST BUT FREE AREAS

                          4724+*********************************************************************
                          4725+*      OKAY TO POST
                          4726+*********************************************************************

                          4728+* DETERMINE WHICH TCB TO POST

    0C89 34 02 0D1A       4730+       ST    PSTCB,XR2                 SET DEFAULT TO POST TCB FROM TUB

    0C8D 75 02 0B         4732+       L     PLTUBA(,PL),XR2           POINT XR2 AT TUB
    0C90 78 05 0C         4733+       TBN   PL$OPM(,PL),OPINV         WAS OPERATION A SYSTEM        D
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    0C93 78 80 02             4734+       TBN   PLOPM(,PL),OP$SYS         * INVITE INPUT ?              D
                              4735+*                                 -----START--------------------------@05
    0C96 F2 90 15             4736+       JF    CMPTRM                      NO SYS INVITE, CHK IN TERM.   D
    0C99 B8 40 0E             4737+       TBN   TUBAT4(,XR2),TUBTRM         RESIDENT TERM SYS INVITE ?
    0C9C F2 10 25             4738+       JT    CMQINQ                      YES - PUT ON USER'S TCBINQ.
                              4739+*                                 -----END----------------------------@05
                         0C9F 4740+CMPCIM EQU   *                           * LOCAL                       D
                              4741+* TERMINAL IN COMMAND INTERRUPT MODE OR SYS INVITE - POST CP TSB.    D

    0C9F 78 01 0C             4743+       TBN   PL$OPM(,PL),OPGET           DID OP INVOLVE A READ         D
    0CA2 0C 01 0D1A 462B      4744+       MVC   PSTCB(2),@CPTCB             USE C.P.'S TCB FOR Q'ING
    0CA8 F2 10 19             4745+       JT    CMQINQ                      IF YES, PUT REQUEST ON TCBINQ D
    0CAB F2 87 A2             4746+       J     CMPSPL                      NO - JUST POST CP, MUST BE    D
                              4747+*                                        *  SYS PUT NO WAIT MADE WAIT. D

                              4749+*                                 -----START--------------------------@05
                         0CAE 4750+CMPTRM EQU   *                           * LOCAL
    0CAE B5 02 12             4751+       L     TUBTCB(,XR2),XR2            XR2 POINT AT THE TCB.
    0CB1 B8 80 05             4752+       TBN   TCBFG2(,XR2),TCBTRC         TASK IN TERMINATION ?
    0CB4 F2 10 D0             4753+       JT    CMJTFR                      YES - GO FREE DON'T POST.
    0CB7 75 02 0B             4754+       L     PLTUBA(,PL),XR2             XR2 --> TUB.
                              4755+*                                 -----END----------------------------@05
                              4756+* DETERMINE WHO TO POST.

                         0CBA 4758+CMPSII EQU   *                           DETERMINE WHAT ECB TO POST
    0CBA 78 05 0C             4759+       TBN   PL$OPM(,PL),OPINV           WAS OP AN INVITE INPUT
    0CBD 39 02 15B5           4760+       TBF   CMSWIT,CMSPSI               STOP INV AND STATUS POLL
    0CC1 F2 90 63             4761+       JF    CMTSGT                      IF NOT INVITE-CHECK FOR GET.

                              4763+*****************************************************************
                              4764+*  INVITE INPUT OR COMMAND INTERRUPT READ - PUT TUB ON TCBINQ     *
                              4765+*****************************************************************

                         0CC4 4767+CMQINQ EQU   *                           *  LOCAL

    0CC4 7D 00 08             4769+       CLI   PLRECA-1(,PL),NOBIT         NO PLRECA ?                   @21
    0CC7 78 80 02             4770+       TBN   PLOPM(,PL),OP$SYS           AND A SYSTEM OP?              @21
    0CCA C0 16 0D8B           4771+       BC    CMMKRT,TRUAEQ               YES-LEAVE, CAN'T QUEUE IT     @21
    0CCE B4 01 03             4772+       ST    TUBPL@(,XR2),PL             PL ADDRESS INTO TUB
                              4773+*                                 -----START--------------------------@11
    0CD1 BB 08 0E             4774+       SBF   TUBAT4(,XR2),TUBEMS         ALLOW ERROR MESSAGE TO CONSOLE
                              4775+*                                 -----END----------------------------@11
    0CD4 BA 18 0C             4776+       SBN   TUBAT2(,XR2),TUBIIQ+TUBIIS INVITE DATA ON TCBINQ FOR THIS
                              4777+*                                        * TERMINAL. INPUT STILL OUT-
                              4778+*                                        * STANDING UNTIL ACCEPT RECVED.

    0CD7 BC 00 0F             4780+       MVI   TUBINQ-1(,XR2),NOBIT        ZERO THIS TUB'S CHAIN POINTER
    0CDA 35 02 0D1A           4781+       L     PSTCB,XR2                   POINT XR2 AT TCB
    0CDE BD 00 67             4782+       CLI   TCBINQ-1(,XR2),NOBIT        ARE THERE ANY TUBS IN THE QUEUE
    0CE1 F2 01 0A             4783+       JNE   CMTUBC                      IF TUBS IN QUEUE - JUMP

                              4785+* NO TUBS AT ALL IN THE QUEUE
                              4786+* ADD THIS TUB TO QUEUE BY PLACING IN THE TCB POINTER

    0CE4 9C 01 68 0B          4788+       MVC   TCBINQ(2,XR2),PLTUBA(,PL) PLACE TUB ADDR IN TCB TUB Q.
    0CE8 75 02 0B             4789+       L     PLTUBA(,PL),XR2             XR2---> TUB
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    0CEB F2 87 14              4790+       J     CMTBQD                    JUMP SINCE TUB IS QUEUED

                               4792+* HAVE TUBS IN THE QUEUE

                          0CEE 4794+CMTUBC EQU   *                         CHECK FURTHER DOWN TUB CHAIN
    0CEE B5 02 68              4795+       L     TCBINQ(,XR2),XR2          POINT XR2 AT 1ST TUB IN THE
    0CF1 BD 00 0F              4796+CMQLOP CLI   TUBINQ-1(,XR2),NOBIT      ANYMORE TUBS IN THE QUEUE
    0CF4 F2 81 07              4797+       JE    CMATUB                    JUMP IF NOT TO ADD NOW

                               4799+* HAVE MORE TUBS IN THE QUEUE
                               4800+* GET ADDR OF NEXT TUB AND CONTINUE TO CHECK FOR END

    0CF7 B5 02 10              4802+       L     TUBINQ(,XR2),XR2          POINT XR2 AT NEXT TUB
    0CFA C0 87 0CF1            4803+       B     CMQLOP                    BR TO TEST FOR END

                               4805+* FOUND END OF QUEUE SO ADD TUB TO QUEUE NOW

                          0CFE 4807+CMATUB EQU   *                         *  LOCAL
    0CFE 9C 01 10 0B           4808+       MVC   TUBINQ(2,XR2),PLTUBA(,PL) ADD THIS TUB TO THE QUEUE
                          0D02 4809+CMTBQD EQU   *                         TUB HAS BEEN QUEUED

    0D02 78 80 02              4811+       TBN   PLOPM(,PL),OP$SYS         SYSTEM  INVITE  ?
    0D05 F2 90 0F              4812+       JF    CMPSTB                    NO  - GO POST TCB ECB.

                               4814+*-----------------------------------------------------------------*
                               4815+*  SYSTEM INVITE OR COMMAND INTERRUPT READ  -  POST $CC4CP        *
                               4816+*-----------------------------------------------------------------*
                          0D08 4817+CMCIRD EQU   *                         *

    0D08 C2 01 46DE            4819+       LA    $CPCM,XR1                 ADDRESS OF $CC4CP ECB
    0D0C F4 10 00              4820+       SVC   0                         POST ECB
    0D0F 05                    0D0F 4821+  DC    AL1(POSTRB)               * POST *
    0D10 35 01 15CB            4822+       L     CMSPL,PL                  RESTORE PL ADDRESS
    0D14 F2 87 74              4823+       J     CMMKRT                    RETURN


                               4825+*-----------------------------------------------------------------*
                               4826+*  USER INVITE        POST TCBECB IF $CC4II IS WAITING             *
                               4827+*-----------------------------------------------------------------*

                          0D17 4829+CMPSTB EQU   *                         *  LOCAL
    0D17 C2 01 0000            4830+       LA    ##,XR1                    LOAD TCB ADDRESS TO POSTED
                          0D1A 4831+PSTCB  EQU   *-1
    0D1B 78 01 DB              4832+       TBN   TCBECB(,XR1),TCBACW       IF $CC4II NOT WAITING
    0D1E F2 90 41              4833+       JF    CMPSFM                    * DO NOT POST TCBECB BECAUSE
                               4834+*                                    * IT MAY BE BEING USED DURING
                               4835+*                                    * TRANSIENT LOAD. II WILL TEST
                               4836+*                                    * TCBIIQ WHEN AN ACCEPT COMES.
    0D21 D2 01 DB              4837+       LA    TCBECB(,XR1),XR1          ECB WITHIN TCB FOR TCBINQ
    0D24 F2 87 30              4838+       J     CMPSOE                    GO POST $CC4CP


                               4840+*****************************************************************
                               4841+*  ANY PUT OR NON-COMMAND INTERRUPT GET   - POST PLECB            *
                               4842+*****************************************************************
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                          0D27 4844+CMTSGT EQU   *                          *  LOCAL
    0D27 78 01 0C              4845+       TBN   PL$OPM(,PL),OPGET          *  GET OPERATION  ?
    0D2A 79 80 02              4846+       TBF   PLOPM(,PL),OP$SYS          IS THIS A USER
                               4847+*                                 -----START-------------------------@08
    0D2D 7D 03 0F              4848+       CLI   PL$RTC(,PL),RCXEDT         AND RET CODE > THREE ?
    0D30 F2 94 1D              4849+       JC    CMPSPL,FLSOHI              YES OR SYS OP - JUST POST
                               4850+*                                 -----END---------------------------@08

                               4852+*-----------------------------------------------------------------*
                               4853+*  USER GET  --  MOVE DATA FROM HOLD BUFFER TO USERS RECORD AREA  *
                               4854+*-----------------------------------------------------------------*

    0D33 3C 02 4798            4856+       MVI   #CMMVL+MVLTYP,SWAPTO       INDICATE TO ADDR IN USER PGM
    0D37 1C 01 4791 07         4857+       MVC   #CMMVL+MVLTOL,PLINL(2,PL) DESIRED LENGTH IS TO LENGTH
    0D3C 1C 01 4795 09         4858+       MVC   #CMMVL+MVLFRA,PLRECA(2,PL) HOLD BUFFER ADDR IS FROM ADDR
    0D41 75 02 0B              4859+       L     PLTUBA(,PL),XR2            TUB ADDRESS
    0D44 B5 02 12              4860+       L     TUBTCB(,XR2),XR2           TCB ADDRESS
    0D47 2C 01 4793 D8         4861+       MVC   #CMMVL+MVLTOA,TCBWK(2,XR2) USERS RECORD AREA ADDRESS

    0D4C C0 87 1025            4863+       B     CMMVRT                     INTERFACE TO SYSTEM MOVE ROUTINE

                               4865+*****************************************************************
                               4866+*  ANY PUT OR NON-COMMAND INTERRUPT GET   - POST PLECB           *
                               4867+*****************************************************************

                               4869+*                                 -----START-------------------------@09
                          0D50 4870+CMPSPL EQU   *                          *  LOCAL
    0D50 C0 87 0F66            4871+       B     $CC4FR                     FREE GETMAINED AREA FOR REQUEST.

    0D54 D2 01 10              4873+       LA    PLECB(,PL),XR1             ADDRESS OF ECB IN PARM LIST

                          0D57 4875+CMPSOE EQU   *                          *  LOCAL
    0D57 F4 10 00              4876+       SVC   0                          POST ECB
    0D5A 05                   0D5A 4877+       DC    AL1(POSTRB)                * POST *

    0D5B 35 01 15CB            4879+       L     CMSPL,PL                   PL ADDRESS
    0D5F F2 87 29              4880+       J     CMMKRT                     EXIT POST ROUTINE
                               4881+*                                 -----END---------------------------@09

                               4883+*****************************************************************
                               4884+*  FREEMAIN PARAMETER LIST AND HOLD AREAS AS NECESSARY            *
                               4885+*****************************************************************

                          0D62 4887+CMPSFM EQU   *                          *  LOCAL
    0D62 35 01 15CB            4888+       L     CMSPL,PL                   PL ADDRESS
    0D66 78 05 0C              4889+       TBN   PL$OPM(,PL),OPINV          INVITE REQUEST ?
    0D69 F2 10 1F              4890+       JT    CMMKRT                     YES- NO FREEMAIN NEEDED
                               4891+*                                     * MUST BE PRESERVED UNTIL AN
                               4892+*                                     * ACCEPT OR STOP INVITE.

                               4894+*-----------------------------------------------------------------*
                               4895+*   GET OR PUT  --  FREE HOLD BUFFER AND PARAMETER LIST            *
                               4896+*-----------------------------------------------------------------*

    0D6C 75 02 0B              4898+       L     PLTUBA(,PL),XR2            TUB ADDRESS
    0D6F B5 02 16              4899+       L     TUBDTF(,XR2),DTF           DTF ADDRESS
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    0D72 B8 80 00             4900+       TBN   $BDDEV(,DTF),BSCA         BSCA DTF AND                    B
    0D75 78 04 02             4901+       TBN   PLOPM(,PL),OPSTOP         STOP INVITE AND                 B
    0D78 B8 40 7D             4902+       TBN   LCBOPC(,DTF),LCBERP       IF WAITING FOR EOT TO STATUS    B
    0D7B F2 10 0D             4903+       JT    CMMKRT                    YES - EXIT, NO FREEMAIN         B
                              4904+*  IF THE ERROR OCCURED ON  A SYSTEM OP - C.P. WILL  FREE  THE AREA    B
    0D7E B8 40 7D             4905+       TBN   LCBOPC(,DTF),LCBERP       ERROR ON -                      B
    0D81 78 80 02             4906+       TBN   PLOPM(,PL),OP$SYS         A SYSTEM OP ?                   B
    0D84 F2 10 04             4907+       JT    CMMKRT                    YES  -  NO FREE NEEDED          B

                         0D87 4909+CMJTFR EQU   *                         *
    0D87 C0 87 0F66           4910+       B     $CC4FR                    FREE GETMAINED AREA FOR REQUEST

    0D8B C0 87 0000           4912+CMMKRT B     *-*                       RETURN
```

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                          4914+*********************************************************************
                          4915+*                                                                   *
                          4916+* NAME--CMIVGM                                                      *
                          4917+*                                                                   *
                          4918+*    TITLE--INPUT OPERATION BUFFER ANALYSIS                         *
                          4919+*                                                                   *
                          4920+*    FUNCTION--ANALYSIS AND OBTAINING OF GETMAIN BUFFER FOR ALL     *
                          4921+*              INPUT OPERATIONS IN THE LINE QUEUE THAT WE CAN GET   *
                          4922+*              BUFFER SPACE FOR.                                    *
                          4923+*    OPERATION--                                                    *
                          4924+*               . IF BSCA POLL FOR STATUS IS IN THE QUEUE SET ALL  *
                          4925+*                 POLLING SKIP BITS ON.                             *
                          4926+*               . IF LCB CURRENTLY HAS A HOLD AREA FREEMAIN IT.     *
                          4927+*               . IF GET OPERATION TO BE SCHEDULED SET UP TO HANDLE *
                          4928+*                 IT.                                               *
                          4929+*               . IF SYSTEM INVITE TO BSCA SWITCHED LINE OWNED BY A *
                          4930+*                 USER PROGRAM, THEN IGNORE THE SYSTEM REQUEST FOR  *
                          4931+*                 NOW.                                              *
                          4932+*               . DETERMINE STORAGE REQUIREMENTS TO SCHEDULE EACH   *
                          4933+*                 INVITE OPERATION.                                 *
                          4934+*               . IF STORAGE NOT AVAILABLE IGNORE THE REQUEST.      *
                          4935+*               . IF STORAGE IS AVAILABLE SET UP TO HANDLE IT.      *
                          4936+*               . IF BSCA POLL FOR STATUS, SCHEDULE IT BY ITSELF.   *
                          4937+*               . GETMAIN THE SPACE NEEDED TO SCHEDULE OPERATIONS ON *
                          4938+*                 THE LINE.                                         *
                          4939+*              . SET UP THE LCB HOLD AREA TO REFLECT THE SPACE     *
                          4940+*                ACQUIRED.                                          *
                          4941+*              . SET UP GETMAIN PARAMETER LIST IN THE ACQUIRED AREA.*
                          4942+*                                                                   *
                          4943+*    ENTRY POINT--CMIVGM                                            *
                          4944+*                                                                   *
                          4945+*    INPUT--AT LEAST ONE PARM LIST IN THE LINE QUEUE.               *
                          4946+*                                                                   *
                          4947+*    OUTPUT--XR1-ADDRESS OF THE LAST TP PARAMETER LIST IN THE QUEUE. *
                          4948+*            XR2-ADDRESS OF THE DTF.                                *
                          4949+*            CMSPL-ADDRESS OF LAST GET/INVITE PARAMETER LIST NOT IN  *
                          4950+*                  CCPERP.                                          *
                          4951+*                                                                   *
                          4952+*    EXTERNAL REFERENCES--                                          *
                          4953+*                         CMFMR2-FREE LCB HOLD BUFFER BEFORE STARTING *
                          4954+*                                ANALYSIS.                          *
                          4955+*                         CMSTOR-DETERMINE STORAGE NEED FOR INVITES. *
                          4956+*                         CMBSKP-SET BSCA POLL SKIP BITS ON/OFF.     *
                          4957+*                         CMONSK/CMOFSK-SET MLTA POLL SKIP BITS      *
                          4958+*                                        ON/OFF.                    *
                          4959+*                         CMGMRT-GETMAIN HOLD BUFFER TO SCHEDULE     *
                          4960+*                                INVITES ON THE LINE.               *
                          4961+*                                                                   *
                          4962+*    EXIT, NORMAL--TO NSI OF CALLER.                                *
                          4963+*                                                                   *
                          4964+*    EXIT, ERROR--TO CPHALT WITH A 4 BLITZ HALT IF THE GETMAIN FAILS. *
                          4965+*                                                                   *
                          4966+*********************************************************************
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                          0D8F 4968+CMIVGM EQU   *                        GETMAIN ANALYSIS OF INVITE
                               4969+*                                     INPUTS IN LINE QUEUE
    0D8F 34 08 0E8D            4970+       ST    CMIVGX+3,ARR             SAVE RETURN ADDRESS
    0D93 35 02 15CD            4971+       L     CMSDTF,DTF               POINT XR2 AT THE LCB
    0D97 3B 40 15B5            4972+       SBF   CMSWIT,CMRSLN            SET OFF INDICATION THAT LINE
                               4973+*                                     CAN BE SCHEDULED FOR READ

                               4975+* POINT TO FIRST PARAMETER LIST IN THE LINE QUEUE

    0D9B B5 01 66              4977+       L     LCBPLQ(,DTF),PL          POINT XR1 AT 1ST PARM LIST

                               4979+*   IF BSCA POLL FOR STATUS ON TOP OF THE QUEUE, THEN SET ALL SKIP   0B
                               4980+*     BITS ON IN THE POLLING LIST.                                    0B

    0D9E 78 40 0D              4982+       TBN   PL$OPC(,PL),OPLSNS       POLLING FOR STATUS, AND       0B
    0DA1 B8 80 00              4983+       TBN   $BDDEV(,DTF),BSCA        BSCA LINE, AND                0B
    0DA4 B8 88 03              4984+       TBN   $BDATR(,DTF),$BCMCN      CONTROL STATION LINE ?        0B
    0DA7 F2 90 1B              4985+       JF    CMINOR                   NO-GO HANDLE NORMAL REQUESTS. 0B
    0DAA B5 01 4D              4986+       L     LCBPOL(,DTF),XR1         POINT TO THE POLLING LIST.    0B
                          0DAD 4987+CMIALL EQU   *                        *                             0B
    0DAD 7D F0 00              4988+       CLI   POLID(,XR1),POLEND       END OF LIST ?                 0B
    0DB0 F2 02 12              4989+       JNL   CMINOR                   YES-GO TO NORMAL PROCESSING.  0B
    0DB3 1C 00 0DBA 01         4990+       MVC   CMISTS+2,POLCNT(1,XR1)   SET UP REG UPDATE.            0B
    0DB8 D2 01 00              4991+CMISTS LA    #(,XR1),XR1              UPDATE FOR POLL CHAR COUNT.   0B
    0DBB 7A 80 02              4992+       SBN   2(,XR1),POLSKP           SET ON THE SKIP BIT.          0B
    0DBE D2 01 03              4993+       LA    POLNXT(,XR1),XR1         POINT TO NEXT ENTRY.          0B
    0DC1 C0 87 0DAD            4994+       B     CMIALL                   GO CHECK NEXT ENTRY.          0B

                          0DC5 4996+CMINOR EQU   *                        *                             0B
    0DC5 B5 01 66              4997+       L     LCBPLQ(,DTF),PL          POINT TO FIRST PARM LIST.     0B

    0DC8 0F 01 15DF 15DF       4999+       SLC   CMIIND(2),CMIIND         ZERO LINE BUFFER NEEDED SIZE

                               5001+* DETERMINE IF OPERATION IS A READ

                          0DCE 5003+CMDTII EQU   *                        *  LOCAL  (LOOP BACK FROM CMINPL
    0DCE 78 01 0C              5004+       TBN   PL$OPM(,PL),OPGET        DOES OP INVOLVE READ
    0DD1 F2 90 87              5005+       JF    CMNXPL                   JUMP IF NO READ

                               5007+* HAVE READ - NOW ASSURE THE TERMINAL IS NOT IN ERP

    0DD4 75 02 0B              5009+       L     PLTUBA(,PL),XR2          POINT XR2 ATHE TUB
    0DD7 B9 10 0D              5010+       TBF   TUBAT3(,XR2),TUBERP      IS TERMINAL IN ERROR RECOVERY
    0DDA 35 02 15CD            5011+       L     CMSDTF,DTF               POINT XR2 BACK AT LCB
    0DDE F2 90 3B              5012+       JF    CMGSBN                   JUMP IF TERMINAL IN ERP      @30


                               5015+* DOES THIS LCB CURRENTLY POSSESS A GETMAIN AREA FOR ITS INPUTS.
                               5016+* IF YES - FREEMAIN IT SO THAT THERE WILL BE A BETTER CHANCE OF
                               5017+* GETTING  ENOUGH STORAGE TO HANDLE ALL THE OUTSTANDING INVITE INPUTS

    0DE1 BD 00 77              5019+       CLI   LCBIBA-1(,DTF),NOBIT     IS INVITE BUFFER ADDR NULL
    0DE4 F2 81 0E              5020+       JE    CMSZND                   JUMP IF NULL

                               5022+* HAVE GETMAIN AREA WHICH WE WILL NOW FREEMAIN
                               5023+* GET ADDRESS OF RECORD AREA IN THE STORAGE AREA TO BE FREEMAINED
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                              5024+* FREEMAIN THE LCB HOLD BUFFER

    0DE7 B5 02 78             5026+       L     LCBIBA(,DTF),XR2          POINT XR2 AT RECORD TO BE FM
    0DEA C0 87 0F59           5027+       B     CMFMR2                    BRANCH TO ISSUE FREEMAIN
                              5028+*                                      WE WILL GET BACK AT LEAST THIS
                              5029+*                                      MUCH SO BYPASS SETTING FREEMAIN
                              5030+*                                      DONE FLAG.

                              5032+* REFLECT THE FREEMAIN BY ZEROING THE LCB FIELD WHICH CONTAINS THE
                              5033+* LENGTH OF THE LCB HOLD BUFFER

    0DEE 35 02 15CD           5035+       L     CMSDTF,DTF                POINT XR2 AT THE LCB
    0DF2 BC 00 77             5036+       MVI   LCBIBA-1(,DTF),NOBIT      ZERO HIGH ORDER BYTE OF BUFFER
                              5037+*                                      TO INDICATE NULLL BUFFER ADDR

                         0DF5 5039+CMSZND EQU   *                         SET SIZE NEEDED NOW TO ZERO
    0DF5 C0 87 0EE5           5040+       B     CMSTOR                    BR TO DETERMINE SIZE NEEDED BY
                              5041+*                                      THIS TP REQUEST
                              5042+* SIZE NEEDED RETURNED IN #BUFND

                              5044+* COMPARE WHAT IS NEEDED AGAINST WHAT IS AVAILABLE WITH A GETMAIN

    0DF9 0D 01 15DD 47AA      5046+       CLC   #BUFND,#ANYS+1            COMPARE NEEDED VS AVAILABLE
    0DFF F2 04 25             5047+       JNH   CMGMAV                    JUMP IF ENOUGH STORAGE AVAILABLE

                              5049+*************************************************************
                              5050+*THERE IS NOT ENOUGH STORAGE AVAILABLE IN THE TP BUFFER TO
                              5051+* SATISFY THIS READ          -- CHECK THE NEXT ONE ON THE QUEUE
                              5052+*************************************************************

                              5054+* SET GETMAIN NEEDED BIT ON

    0E02 3A 20 473C           5056+       SBN   $CMFM,SKIP                INDICATE  NO  POST FOR FREEMAIN
    0E06 BA 20 70             5057+       SBN   LCBATR(,DTF),LCBGMN       SET LCB GETMAIN NEEDED
    0E09 78 80 0C             5058+       TBN   PL$OPM(,PL),OPGETM        GETMAIN ALREADY INDICATED?
    0E0C F2 10 0D             5059+       JT    CMNDCR                    YES -
    0E0F 7A 80 0C             5060+       SBN   PL$OPM(,PL),OPGETM        SET GETMAIN NEEDED FOR PL
    0E12 0E 00 47AB 4633      5061+       ALC   CORCNT(1),X$0001          UP CORE COUNT +1
    0E18 3B 60 473C           5062+       SBF   $CMFM,SKIP+POST           SET OFF WAIT/POST IND.
                         0E1C 5063+CMNDCR EQU   *                         *

                              5065+* SET POLL SKIP BIT ON IF STATION CONTROL

                         0E1C 5067+CMGSBN EQU   *                         *                              @30
    0E1C 3C 7A 12F5           5068+       MVI   CMB#SB,SBN1               SET OP TO SET ON SKIP BIT.  C/SB
    0E20 C0 87 12C7           5069+       B     CMBSKP                    GO TO BSCA SKIP BITS RTN.  C/SB

    0E24 F2 87 34             5071+       J     CMNXPL                    GO TO CHECK NEXT PARM LIST.    B

                              5073+*************************************************************
                              5074+*      STORAGE IS AVAILABLE                                    *
                              5075+*************************************************************

                         0E27 5077+CMGMAV EQU   *                         STORAGE IS AVAILABLE
    0E27 3A 40 15B5           5078+       SBN   CMSWIT,CMRSLN             INDICATE READ CAN BE SCHEDULED
    0E2B 34 01 15D5           5079+       ST    CMLPL,PL                  SAVE LAST SCHEDULED READ PL @
```

```
                              5080+*                                        *  WILL BE USED IN THE TRACE
    0E2F 7B 80 0C             5081+       SBF   PL$OPM(,PL),OPGETM          SET OFF GETMAIN NEEDED BIT

                              5083+* SET THE SKIP BIT OFF FOR THIS TERMINAL

                              5085+*                                  -----START--------------------------@03
    0E32 B9 01 56             5086+       TBF   LCBAT2(,DTF),LCBRCI         NO RECEIVE INITIAL AND          B
    0E35 B8 20 56             5087+       TBN   LCBAT2(,DTF),LCBACT         * LINE ACTIVE ?                 B
    0E38 F2 10 08             5088+       JT    CMGNSB                      YES-DON'T SET SKIP BIT.         B
    0E3B 3C 7B 12F5           5089+       MVI   CMB#SB,SBF1                 SET OP TO SET OFF SKIP BIT. C/SB
    0E3F C0 87 12C7           5090+       B     CMBSKP                      GO TO BSCA SKIP BITS RTN.   C/SB

                         0E43 5092+CMGNSB EQU   *                           * LOCAL
                              5093+*                                 -----END----------------------------@03
                         0E43 5094+CMNOSO EQU   *                           COMPARE HOLD BUFFER SIZE NEEDED
    0E43 0D 01 15DF 15DD      5095+       CLC   CMIIND(2),#BUFND            COMPARE PARM SIZE NEEDED VS
                              5096+*                                        LINE QUEUE SIZE NEEDED
    0E49 F2 02 06             5097+       JNL   CMIV40                      JUMP UNLESS PARM NEED GT LINE

                              5099+* STORAGE NEEDED BY CURRENT PARM LIST IS GREATER THAN THAT NEEDED BY
                              5100+* PREVIOUS        INPUTS TESTED FOR THIS LINE
                              5101+* RESET THE BUFFER SIZE NEEDED FOR THIS LINE

    0E4C 0C 01 15DF 15DD      5103+       MVC   CMIIND(2),#BUFND            MOVE BUFFER SIZE NEEDED TO FIELD

                              5105+* GET THE NEXT PARAMETER LIST IN THE LINE QUEUE
                              5106+* FIRST TEST TO SEE IF THERE IS ANOTHER PARM LIST IN THE LINE QUEUE

                         0E52 5108+CMIV40 EQU   *

                              5110+*   BSCA POLL FOR STATUS IS HIGHEST PRIORITY OPERATION ON THE LINE.  0B

    0E52 B8 80 00             5112+       TBN   $BDDEV(,DTF),BSCA           BSCA DTF, AND                   0B
    0E55 78 40 0D             5113+       TBN   PL$OPC(,PL),OPLSNS          POLLING FOR STATUS ?            0B
    0E58 F2 10 0D             5114+       JT    CMIV60                      YES-GO HANDLE, TOP PRIORITY.    0B
                         0E5B 5115+CMNXPL EQU   *                           GET NEXT PARM LIST
    0E5B 7D 00 00             5116+       CLI   PLCHN-1(,PL),NOBIT          IS CHAIN POINTER NULL
    0E5E F2 81 07             5117+       JE    CMIV60                      JUMP IF NO MORE PARM LISTS
    0E61 75 01 01             5118+       L     PLCHN(,PL),PL               LOAD ADDR OF NEXT PARM LIST
    0E64 C0 87 0DCE           5119+       B     CMDTII                      LOOP BACK TO CHECK NEW PL

                              5121+*****************************************************************
                              5122+*      HAVE LOOKED AT EVERY PARM LIST IN THE QUEUE                *
                              5123+*****************************************************************

                         0E68 5125+CMIV60 EQU   *

                              5127+* DETERMINE IF WE ARE TO DO GETMAIN BY CHECKING STORAGE AREA NEEDED
                              5128+* AND AVAILABLE WITH GETMAIN
                              5129+* IF GREATER THAN ZERO - DO THE GETMAIN

    0E68 0D 01 15DF 4632      5131+       CLC   CMIIND(2),X$0000            IS SIZE GREATER THAN ZERO
    0E6E F2 81 19             5132+       JE    CMIV80                      IF NOT, JUMP

                              5134+* MUST DO GETMAIN WHICH MUST WORK ELSE HAVE CCP INTERNAL ERROR
                              5135+* PUT SIZE NEEDED INTO GETMAIN LIST AND THEN GO TO GETMAIN INTERFACE
```

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    0E71 0C 01 15C9 15DF       5137+       MVC   GMLIST+GMSIZE(2),CMIIND   MOVE SIZE NEEDED TO GETMAIN LIST
    0E77 C0 87 0F12            5138+       B     CMGMRT                    BR TO GETMAIN INTERFACE ROUTINE

                               5140+* SET UP LCBIBA AND LCBIBL FIELDS IN THE LCB

    0E7B 8C 01 78 15C7         5142+       MVC   LCBIBA(2,DTF),GMLIST+GMADDR MOVE RECORD ADDR TO LCB
    0E80 8E 01 78 4637         5143+       ALC   LCBIBA(2,DTF),X$0004      BYPASS FREE LIST
    0E85 8C 01 76 15DF         5144+       MVC   LCBIBL(2,DTF),CMIIND      REQUESTED LENGTH

                          0E8A 5146+CMIV80 EQU   *
    0E8A C0 87 0000            5147+CMIVGX B     *-*                       RETURN
```

```
                                5149+*****************************************************************
                                5150+*  NAME - CMGBUF                                                *
                                5151+*                                                               *
                                5152+*  FUNCTION - ADJUST INPUT HOLD BUFFER SIZE AFTER OP END BECAUSE *
                                5153+*             IT IS KNOWN HOW MUCH DATA CAME IN PRIOR TO CALLING *
                                5154+*             THE CHECK ROUTINE TO ACTUALLY CAUSE THE DATA TO BE *
                                5155+*             MOVED.  THE BUFFER GETMAINED ORIGINALLY FOR THE LINE *
                                5156+*             JUST SAVES TPBUFF SPACE SO WE KNOW WE CAN GET SPACE *
                                5157+*             WHEN THE DATA COMES IN (OP END).                  *
                                5158+*****************************************************************

                           0E8E 5160+CMGBUF EQU   *
    0E8E 34 08 0ED6             5161+       ST    CMGBFX+3,ARR              SAVE RETURN ADDRESS

    0E92 BD 00 77               5163+       CLI   LCBIBA-1(,DTF),NOBIT      IS THERE A CURRENT INVITE BUF ?
    0E95 F2 81 16               5164+       JE    CMGIGM                    NO-GO RIGHT TO GETMAIN.

                                5166+*   IF CURRENT BUFFER FOR READ   IS LARGER THAN NEED, THEN FREE THE
                                5167+*     CURRENT BUFFER, AND GET ONLY WHAT IS NEEDED.

    0E98 2D 01 15DD 76          5169+       CLC   #BUFND,LCBIBL(2,DTF)      CURRENT LARGER THAN NEEDED ?
    0E9D F2 81 33               5170+       JE    CMGBFX                    NO-THEN MUST BE EQ, USE CURRENT
    0EA0 B5 02 78               5171+       L     LCBIBA(,DTF),XR2          LOAD @ OF CURRENT BUFFER.
    0EA3 C0 87 0F55             5172+       B     CMFMRT                    GO TO FREEMAIN RTN, FREE CUR'NT

    0EA7 35 02 15CD             5174+       L     CMSDTF,DTF                RELOAD DTF REG.
    0EAB BC 00 77               5175+       MVI   LCBIBA-1(,DTF),NOBIT      ZERO INVITE BUF ADDR.
                           0EAE 5176+CMGIGM EQU   *                         *
    0EAE 0D 01 15DD 465F        5177+       CLC   #BUFND(2),#GMS+1          MAX AVAIL TO SATISFY GETMAIN ?
    0EB4 F2 84 20               5178+       JH    CMGINO                    NO-GO SET UP TO WAIT ON FREEMAN
    0EB7 0C 01 15C9 15DD        5179+       MVC   GMLIST+GMSIZE(2),#BUFND   MOVE NEEDED LENGTH TO GM LIST.
    0EBD C0 87 0F12             5180+       B     CMGMRT                    GO TO GETMAIN RTN.

    0EC1 F2 A0 13               5182+       JOL   CMGINO                    GETMAIN FAILED, GO WAIT.

    0EC4 8C 01 78 15C7          5184+       MVC   LCBIBA(2,DTF),GMLIST+GMADDR ADDR OF GOT BUF IN LCB.
    0EC9 8E 01 78 4637          5185+       ALC   LCBIBA(2,DTF),X$0004      BYPASS FREE LIST IN 1ST 4 BYTES
    0ECE 8C 01 76 15DD          5186+       MVC   LCBIBL(2,DTF),#BUFND      LENGTH REQUESTED

                                5188+*                                      * LENGTH RECEIVED BECAUSE OF
                                5189+*                                      * ROUND UP IN GETMAIN ROUTINE.
                                5190+*                                      * IF USED AMOUNT RECVED WE
                                5191+*                                      * WOULD FREE/GETMAIN AT OP END.
                           0ED3 5192+CMGBFX EQU   *                         *
    0ED3 C0 87 0000             5193+       B     ##                        RETURN


                                5195+*   INDICATE GETMAIN NEEDED FOR THIS LINE.
                           0ED7 5196+CMGINO EQU   *                         *
    0ED7 7A 80 0C               5197+       SBN   PL$OPM(,PL),OPGETM        SET GETMAIN NEEDED IN PARM LST.
    0EDA BA 20 70               5198+       SBN   LCBATR(,DTF),LCBGMN       SET GETMAIN NEEDED FOR LINE.
    0EDD 3B 60 473C             5199+       SBF   $CMFM,SKIP+POST           SET OFF WAIT/POST IND.
    0EE1 C0 87 0BD7             5200+       B     CMPAII                    GO POST USER AS NECESSARY.
```

```
                          5202+*********************************************************************
                          5203+*                                                                   *
                          5204+* NAME--CMSTOR                                                      *
                          5205+*                                                                   *
                          5206+*    TITLE--GETMAIN SIZE DETERMINATION                              *
                          5207+*                                                                   *
                          5208+*    FUNCTION--THIS ROUTINE CALCULATES THE AMOUNT OF MAIN STORAGE   *
                          5209+*              NEEDED FOR A PARTICULAR TYPE OF TP REQUEST.          *
                          5210+*                                                                   *
                          5211+*    OPERATION--                                                    *
                          5212+*               . ALWAYS ADD FOUR BYTES FOR THE GETMAIN PARM LIST.  *
                          5213+*               . IF A POLL FOR STATUS OPERATION ADD 20.            *
                          5214+*               . IF SYSTEM INVITE ONLY ADD #CCMCL, AND MOVE #CCMCL *
                          5215+*                 INTO PLINL.                                       *
                          5216+*               . IF USER INVITE ONLY ADD PLINL.                    *
                          5217+*                                                                   *
                          5218+*    INPUT--                                                        *
                          5219+*           XR1--ADDRESS OF THE TP PARAMETER LIST.                  *
                          5220+*           XR2--ADDRESS OF THE DTF FOR THE TP PARAMETER LIST.      *
                          5221+*                                                                   *
                          5222+*    OUTPUT--                                                       *
                          5223+*            XR1--NOT ALTERED                                       *
                          5224+*            XR2--NOT ALTERED                                       *
                          5225+*            #BUFND--TOTAL AMOUNT OF STORAGE NEED FOR THE TP REQUEST. *
                          5226+*                                                                   *
                          5227+*    EXIT-- TO NSI OF CALLER.                                       *
                          5228+*********************************************************************

                     0EE5 5230+CMSTOR EQU   *                        *
0EE5 34 08 0F11           5231+       ST    CMSTOX+3,ARR              SAVE RETURN ADDRESS           R
0EE9 0C 01 15DD 4637      5232+       MVC   #BUFND(2),X$0004          ADD 4 FOR GETMN LIST          R

                          5234+* DETERMINE WHETHER IT IS SYSTEM OR USER REQUEST                    R

0EEF 78 40 0D             5236+       TBN   PL$OPC(,PL),OPLSNS        AND POLL FOR STATUS ?    7/R0/5B
0EF2 F2 90 09             5237+       JF    CMSUSR                    NO-GO CHECK WHO IS USER. 7/R0/5B
0EF5 0E 01 15DD 15EF      5238+       ALC   #BUFND(2),RELSNS          USE RECL FOR SENSE OP    7/R0/5B
0EFB F2 87 10             5239+       J     CMSTOX                    GO TO EXIT.              7/R0/5B

                     0EFE 5241+CMSUSR EQU   *                        *                        7/R0/5B
0EFE 78 80 02             5242+       TBN   PLOPM(,PL),OP$SYS         IS IT SYSTEM REQUEST          R
0F01 F2 90 05             5243+       JF    CMSTOY                    JUMP IF USER REQUEST          R

                          5245+* HAVE SYSTEM READ  - USE MAX COMMAND LENGTH AS INPUT LENGTH        R

0F04 4C 01 07 472C        5247+       MVC   PLINL(2,PL),#CCMCL        MOVE MAX COMMAND LGTH TO PARM R
                     0F09 5248+CMSTOY EQU   *                        ADD INPUT LENGTH              R
0F09 1E 01 15DD 07        5249+       ALC   #BUFND(2),PLINL(,PL)      ADD INPUT LENGTH              R
0F0E C0 87 0000           5250+CMSTOX B     *-*                       RETURN                        R
```

```
                          5252+*********************************************************************
                          5253+*                                                                   *
                          5254+* NAME: CMGMRT                                                      *
                          5255+*                                                                   *
                          5256+* FUNCTION:                                                         *
                          5257+*      PROVIDES A GENERALIZED INTERFACE FOR THE COMMUNICATIONS MANAGER*
                          5258+*      TO PERFORM A GETMAIN FOR HOLD BUFFER SPACE.                  *
                          5259+*      IT WILL STORE THE GETMAIN LIST IN THE 1ST FOUR BYTES OF      *
                          5260+*      GETMAINED AREA FOR FUTURE FREEMAIN CALL.                     *
                          5261+*                                                                   *
                          5262+* ENTRY POINT: CMGMRT.                                             *
                          5263+*                                                                   *
                          5264+* INPUT:                                                           *
                          5265+*      THE SIZE OF THE HOLD BUFFER NEEDED IS IN FIELD GMSIZE OF THE *
                          5266+*      GETMAIN PARAMETER LIST GMLIST IN THE COMMUNICATIONS MANAGER  *
                          5267+*      MODULE.                                                      *
                          5268+*                                                                   *
                          5269+* OUTPUT:                                                          *
                          5270+*      ADDRESS OF THE HOLD BUFFER GOTTEN WILL BE IN FIELD GMADDR OF *
                          5271+*      THE GETMAIN PARAMETER LIST GMLIST IN THE COMMUNICATIONS      *
                          5272+*      MANAGER MODULE.                                              *
                          5273+*                                                                   *
                          5274+*      XR2 - ADDRESS OF 1ST BYTE PAST FREEMAIN LIST                 *
                          5275+*      CONDITION REGISTER - PRESERVED AS SET BY $CC4GM. THE BINARY  *
                          5276+*           OVERFLOW CONDITION IS SET IF GETMAIN FAILED.             *
                          5277+*                                                                   *
                          5278+* EXTERNAL REFERENCES:                                             *
                          5279+*      . GETMAIN SERVICE ROUTINE ENTRY POINT ($CC4GM)               *
                          5280+*                                                                   *
                          5281+* EXITS, NORMAL:                                                   *
                          5282+*      TO INSTRUCTION FOLLOWING THE INVOKING OF THIS ROUTINE (ARR)  *
                          5283+*                                                                   *
                          5284+* ATTRIBUTES:                                                      *
                          5285+*      RESIDENT, REUSABLE                                           *
                          5286+*                                                                   *
                          5287+*********************************************************************
```

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                          0F12 5289+CMGMRT EQU   *                        INTERFACE TO THE GETMAIN
    0F12 34 08 0F38            5290+       ST    CMGMR9+3,ARR             SAVE THE ARR
    0F16 34 02 0F34            5291+       ST    CMGMR2+3,XR2             SAVE XR2
    0F1A C2 02 15C6            5292+       LA    GMLIST,XR2               POINT XR2 AT GETMAIN LIST
    0F1E BC 00 00              5293+       MVI   0(,XR2),NOBIT            NON WAIT REQUEST

    0F21 F4 10 00              5295+       SVC   0                        SVC    TO GETMAIN ROUTINE
    0F24 01                0F24 5296+       DC    AL1(CCPRIB)              CCP RIB
    0F25 03                0F25 5297+       DC    AL1(GMRIB)               GETMAIN  SUB RIB
    0F26 F2 A0 10              5298+       JOL   CMGMER                   IF GETMAIN FAILED, SET FLAGS

                               5300+*  MOVE FREEMAIN LIST INTO 1ST 4 BYTES OF GETMAINED AREA

    0F29 B5 02 01              5302+       L     GMADDR(,XR2),XR2         ADDRESS OF GETMAINED AREA
    0F2C 8C 03 03 15C9         5303+       MVC   GMSIZE(4,XR2),GMLIST+GMSIZE FREEMAIN LIST TO 1ST 4 BYTES
    0F31 C2 02 0000            5304+CMGMR2 LA    *-*,XR2                  RESTORE XR2
    0F35 C0 87 0000            5305+CMGMR9 B     *-*                      RETURN TO CALLER

                               5307+*   INDICATE GETMAIN NEEDED FOR THIS LINE.
                          0F39 5308+CMGMER EQU   *                        *
    0F39 7A 80 0C              5309+       SBN   PL$OPM(,PL),OPGETM       SET GETMAIN NEEDED IN PARM LST.
    0F3C 0E 00 47AB 4633       5310+       ALC   CORCNT(1),X$0001         ADD ONE TO COUNT OF WAITERS
    0F42 35 04 15B4            5311+       L     GMFAIL,PSR               INDICATE THE GETMAIN BOMBED
    0F46 35 02 15CD            5312+       L     CMSDTF,DTF               DTF ADDRESS
    0F4A BA 20 70              5313+       SBN   LCBATR(,DTF),LCBGMN      SET GETMAIN NEEDED FOR LINE.
    0F4D 3B 60 473C            5314+       SBF   $CMFM,SKIP+POST          SET OFF WAIT/POST IND.
    0F51 C0 87 0F31            5315+       B     CMGMR2                   GO RETURN
```

```
                          5317+*********************************************************************
                          5318+*                                                                   *
                          5319+* NAME: CMFMRT                                                      *
                          5320+*                                                                   *
                          5321+* FUNCTION:                                                         *
                          5322+*      PROVIDES A GENERALIZED INTERFACE TO PERFORM A FREEMAIN OF HOLD *
                          5323+*      BUFFER SPACE.  IT WILL SET A CM FREEMAIN INDICTOER.          *
                          5324+*                                                                   *
                          5325+* ENTRY POINT:                                                     *
                          5326+*      CMFMRT - MAIN ENTRY POINT - SET CM FREEMAIN INDICATOR.       *
                          5327+*      CMFMR2 - THIS ENTRY POINT WILL NOT SET THE INTERNAL FREEMAIN  *
                          5328+*               INDICATION.                                         *
                          5329+*                                                                   *
                          5330+* INPUT:                                                           *
                          5331+*      INDEX REGISTER 2 CONTAINS THE ADDRESS OF THE 1ST BYTE BEYOND  *
                          5332+*      THE GETMAIN/FREEMAIN PARAMETER LIST.                         *
                          5333+*                                                                   *
                          5334+* OUTPUT:                                                          *
                          5335+*      THE HOLD BUFFER IS FREEMAINED                                *
                          5336+*                                                                   *
                          5337+* EXTERNAL REFERENCES:                                             *
                          5338+*      . FREEMAIN SERVICE ROUTINE ENTRY POINT ($CC4FM)              *
                          5339+*                                                                   *
                          5340+* EXITS, NORMAL:                                                   *
                          5341+*      TO INSTRUCTION FOLLOWING THE INVOKING OF THIS ROUTINE (ARR)  *
                          5342+*                                                                   *
                          5343+* ATTRIBUTES:                                                      *
                          5344+*      RESIDENT, REUSABLE                                           *
                          5345+*                                                                   *
                          5346+*********************************************************************

                    0F55  5348+CMFMRT EQU   *                       FREEMAIN INTERFACE ROUTINE
0F55 3A 40 4729           5349+       SBN   #CMSWT,#CMFMD           SET SWITCH TO INDICATE FREEMAIN
                          5350+*                                    OCCURRED IN CM
                    0F59  5351+CMFMR2 EQU   *                       ENTRY POINT WHICH DOES NOT SET
                          5352+*                                    INTERNAL FREEMAIN INDICATION
0F59 34 08 0F65           5353+       ST    CMFMRX+3,ARR            SAVE THE ARR

                          5355+* XR2 POINTS AT GETMAIN/FREEMAIN PARAMETER LIST

                    0F5D  5357+CMFMR5 EQU   *                       .                              @19
0F5D F4 10 00             5358+       SVC   0                       GO     TO FREEMAIN ROUTINE
0F60 01             0F60  5359+       DC    AL1(CCPRIB)             CCP RIB
0F61 04             0F61  5360+       DC    AL1(FMRIB)              FREEMAIN SUB RIB

0F62 C0 87 0000           5362+CMFMRX B     *-*                     RETURN
```

```
                                5364+*****************************************************************
                                5365+* NAME--$CC4FR                                                  *
                                5366+*                                                               *
                                5367+* FUNCTION : FREE GETMAINED AREAS FOR A SPECIFIC TP REQUEST.    *
                                5368+*      ROUTINE USED BY TRANSIENTS AND RESIDENT CM CODE.         *
                                5369+*                                                               *
                                5370+* OPERATION:                                                    *
                                5371+*     . IF SYSTEM PUT WAIT, EXIT                                *
                                5372+*     . IF PLRECA IS NON ZERO, FREE HOLD BUFFER,                *
                                5373+*          ZERO PLRECA-1,                                       *
                                5374+*          ZERO LCBIBA-1, IF IT POINTS TO AREA FREED.           *
                                5375+*     . IF INVITE,ZERO TUBPL@-1.                                *
                                5376+*     . IF PUT NO WAIT OR USER INVITE, FREE PARAMETER LIST AREA. *
                                5377+*                                                               *
                                5378+* INPUT--                                                       *
                                5379+*       XR1 - PARAMETER LIST ADDRESS                            *
                                5380+*                                                               *
                                5381+* OUTPUT -                                                      *
                                5382+*       XR1,XR2 - UNCHANGED                                     *
                                5383+*                                                               *
                                5384+* EXTERNAL ROUTINES USED:                                       *
                                5385+*       CMFMRT - FREEMAIN INTERFACE.                            *
                                5386+*                                                               *
                                5387+* EXITS: TO NEXT INSTRUCTION FOLLOWING CALL.                   *
                                5388+*                                                               *
                                5389+*****************************************************************

                          0F66  5391+$CC4FR EQU   *
0F66 34 08 0FD4                 5392+       ST    CMFRRT+3,ARR              SAVE RETURN ADDRESS
0F6A 34 02 0FD0                 5393+       ST    CMFRX2+3,XR2              SAVE XR2
0F6E 78 80 02                   5394+       TBN   PLOPM(,PL),OP$SYS         IF SYSTEM
0F71 78 02 0C                   5395+       TBN   PL$OPM(,PL),OPPUT         *  PUT
0F74 79 04 0C                   5396+       TBF   PL$OPM(,PL),OPNOW         *     WAIT,
0F77 F2 10 53                   5397+       JT    CMFRXT                    YES - NO FREEMAIN, NO GETMAINS
0F7A 7D 00 08                   5398+       CLI   PLRECA-1(,PL),NOBIT       IS PLRECA NON ZER0
0F7D F2 81 1A                   5399+       JE    CMPLCK                    GO CHECK ON FREEING PL

                                5401+*-----------------------------------------------------------*
                                5402+*  FREE HOLD BUFFER  IF NOT A SYSTEM PUT WAIT                *
                                5403+*-----------------------------------------------------------*

0F80 75 02 09                   5405+       L     PLRECA(,PL),XR2           ADDRESS OF HOLD BUFFER.

0F83 C0 87 0F55                 5407+       B     CMFMRT                    GO FREE HOLD BUFFER.

0F87 75 02 0B                   5409+       L     PLTUBA(,PL),XR2           TUB ADDRESS
0F8A B5 02 16                   5410+       L     TUBDTF(,XR2),DTF          DTF ADDRESS
0F8D 9D 01 78 09                5411+       CLC   LCBIBA(2,DTF),PLRECA(,PL) IS AREA FREED THE CURRENT BUFF
0F91 F2 01 03                   5412+       JNE   CMIBOK                    NO - SKIP ZERO
0F94 BC 00 77                   5413+       MVI   LCBIBA-1(,DTF),NOBIT      ZERO LINE BUFFER ADDRESS
                          0F97  5414+CMIBOK EQU   *                         *
0F97 7C 00 08                   5415+       MVI   PLRECA-1(,PL),NOBIT       ZERO HOLD BUFFER ADDRESS.
                          0F9A  5416+CMPLCK EQU   *                         *  LOCAL
                                5417+*                              -----START-------------------------@15
0F9A 78 02 0C                   5418+       TBN   PL$OPM(,PL),OPPUT         PUT OP JUST COMPLETE AND
0F9D 3D 00 47AB                 5419+       CLI   CORCNT,NOBIT              PARM LISTS WAITING FOR CORE ?
```

```
$CC4#2 $E092/$CC4FR--FREE GETMAINED AREAS

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    0FA1 F2 91 04             5420+       JC    CMPMPS,FLSOEQ             NO - CONTINUE FREE PROCESSING.
    0FA4 3A 80 15B5           5421+       SBN   CMSWIT,CMFMPS             INDICATE P L WAITING FOR CORE.
                         0FA8 5422+CMPMPS EQU   *                         * LOCAL
                              5423+*                              -----END----------------------------@15
    0FA8 79 04 0C             5424+       TBF   PL$OPM(,PL),OPNOW         IF WAIT OPERATION ?
    0FAB F2 10 1F             5425+       JT    CMFRXT                    DO NOT FREE PARAMETER LIST.
    0FAE 78 04 03             5426+       TBN   PLOPC(,PL),OPNOW          ORIGINALLY A NO WAIT OP?
    0FB1 F2 90 19             5427+       JF    CMFRXT                    NO - NO FREE NEEDED
    0FB4 78 05 03             5428+       TBN   PLOPC(,PL),OPINV          INVITE ?
    0FB7 F2 90 0C             5429+       JF    CMFRPL                    NO -  JUST FREE PL
    0FBA 75 02 0B             5430+       L     PLTUBA(,PL),XR2           TUB ADDRESS
    0FBD BC 00 02             5431+       MVI   TUBPL@-1(,XR2),NOBIT      NO LONGER AN OP ENDED INVITE
                              5432+*                                    * OUTSTANDING FOR TUB.
    0FC0 78 80 02             5433+       TBN   PLOPM(,PL),OP$SYS         IF SYSTEM INVITE - PL IN TUB
    0FC3 F2 10 07             5434+       JT    CMFRXT                    YES - DONT FREE PL

                              5436+*-------------------------------------------------------------------*
                              5437+*   PUT-NO-WAIT OR USER INVITE  --- FREE PARAMETER LIST              *
                              5438+*-------------------------------------------------------------------*

                         0FC6 5440+CMFRPL EQU   *                         *  LOCAL
    0FC6 D2 02 00             5441+       LA    0(,PL),XR2                ADDR OF PARAMETER LIST

    0FC9 C0 87 0F55           5443+       B     CMFMRT                    FREE PL AREA

                         0FCD 5445+CMFRXT EQU   *                         * LOCAL
    0FCD C2 02 0000           5446+CMFRX2 LA    *-*,XR2                   RESTORE XR2
    0FD1 C0 87 0000           5447+CMFRRT B     *-*                       RETURN
```

```
                              5450+*********************************************************************
                              5451+*                                                                   *
                              5452+* NAME--CMGMPT                                                      *
                              5453+*                                                                   *
                              5454+*    TITLE--GETMAIN PUT HOLD BUFFER AND MOVE DATA INTO IT.          *
                              5455+*                                                                   *
                              5456+*     FUNCTION  :                                                   *
                              5457+*                 GETMAIN FOR :                                     *
                              5458+*                       USER PUT                                    *
                              5459+*                       USER PUT NO WAIT                            *
                              5460+*                       SYSTEM PUT NO WAIT                          *
                              5461+*                                                                   *
                              5462+*********************************************************************

                         0FD5 5464+CMGMPT EQU   *
    0FD5 34 08 1024           5465+       ST    CMPTEX+3,ARR              SAVE RETURN ADDRESS
    0FD9 1C 01 15C9 05        5466+       MVC   GMLIST+GMSIZE(2),PLOUTL(,PL) LENGTH OF RECORD AREA
    0FDE 0E 01 15C9 4637      5467+       ALC   GMLIST+GMSIZE(2),X$0004   ADD 4 FOR FREEMAIN LIST

    0FE4 C0 87 0F12           5469+       B     CMGMRT                    GETMAIN HOLD BUFFER
    0FE8 F2 A0 36             5470+       JOL   CMPTEX                    IF FAILED, EXIT (FLAGS ARE SET)

                              5472+*  MOVE USERS RECORD AREA TO HOLD BUFFER

    0FEB 3C 00 4798           5474+       MVI   #CMMVL+MVLTYP,NOBIT       ASSUME SYSTEM REQ WITH NO SWAP
    0FEF 1C 01 4795 09        5475+       MVC   #CMMVL+MVLFRA,PLRECA(2,PL) ASSUME SYS REQ,REC AREA IN PL
    0FF4 78 80 02             5476+       TBN   PLOPM(,PL),OP$SYS         IF SYS REQUEST
    0FF7 F2 10 0F             5477+       JT    CMMVDT                    YES- MOVE DATA
    0FFA 3C 01 4798           5478+       MVI   #CMMVL+MVLTYP,SWAPFR      FROM ADDR IS IN USER PGM AREA
    0FFE 75 02 0B             5479+       L     PLTUBA(,PL),XR2           TUB ADDRESS
    1001 B5 02 12             5480+       L     TUBTCB(,XR2),XR2          TCB ADDRESS
    1004 2C 01 4795 D8        5481+       MVC   #CMMVL+MVLFRA,TCBWK(2,XR2) MOVE USERS REC AREA @ INTO FM@

                         1009 5483+CMMVDT EQU   *                        *  LOCAL
    1009 4C 01 09 15C7        5484+       MVC   PLRECA(2,PL),GMLIST+GMADDR ADDR OF GETMAINED BUFF INTO PL
    100E 4E 01 09 4637        5485+       ALC   PLRECA(2,PL),X$0004       BYPASS FREEMAIN LIST
    1013 1C 01 4793 09        5486+       MVC   #CMMVL+MVLTOA,PLRECA(2,PL) HOLD BUFF  DATA AREA IS  TO @
    1018 1C 01 4791 05        5487+       MVC   #CMMVL+MVLTOL,PLOUTL(2,PL) LGTH  OF FROM AREA IS SAME

                         101D 5489+CMGMP4 EQU   *
    101D C0 87 1025           5490+       B     CMMVRT                    MOVE INTERFACE ROUTINE

    1021 C0 87 0000           5492+CMPTEX B     *-*                       RETURN
```

```
                              5494+*************************************************************************
                              5495+*                                                                       *
                              5496+* NAME--CMMVRT                                                         *
                              5497+*                                                                       *
                              5498+*    TITLE--MOVE INTERFACE ROUTINE                                      *
                              5499+*                                                                       *
                              5500+*    FUNCTION--                                                         *
                              5501+*       MOVE TO OR FROM AREA IN USERS PROGRAM                           *
                              5502+*                                                                       *
                              5503+*    CHANGE ACTIVITY--                                                  *
                              5504+*       @01-INCR/OS0301    CCP TRACE                                    *
                              5505+*                                                                       *
                              5506+*************************************************************************

                         1025 5508+CMMVRT EQU   *
    1025 34 08 1041           5509+       ST    CMMVEX+3,ARR              SAVE RETURN ADDRESS
    1029 75 02 0B             5510+       L     PLTUBA(,PL),XR2           ADDRESS OF TUB
    102C 2C 01 479A 12        5511+       MVC   #CMMVL+MVLTCB,TUBTCB(2,XR2) USERS TCB ADDR  FOR ATR S
    1031 C2 02 4790           5512+       LA    #CMMVL,XR2                ADDR OF MOVE PARAMETER LIST
    1035 9C 01 07 05          5513+       MVC   MVLFRL(2,XR2),PLEFFL(,PL) LENGTH OF FROM AREA FROM PL
                              5514+*                                      * FIELD PLOUTL/PLEFFL.

    1039 F4 10 00             5516+       SVC   0
    103C 01                   103C 5517+  DC    AL1(CCPRIB)               SVC TO MOVE ROUTINE
    103D 02                   103D 5518+  DC    AL1(MVRIB)

    103E C0 87 0000           5520+CMMVEX B     *-*                       RETURN TO CALLER




                              5522+* THIS ROUTINE SKIPS A TRACE ENTRY IF TRACE NOT ACTIVE
                         1042 5523+CMTRCE EQU   *
    1042 34 08 1051           5524+       ST    CMTR03,ARR                SAVE RETURN ADDRESS
    1046 0E 01 1051 4635      5525+       ALC   CMTR03,X$0002(2)          POINT TO TRACE ID
                         1051 5526+CMTR03 EQU   *+5                       *
    104C 0C 00 106F 0000      5527+       MVC   CMTR09(1),#               PUT IN TRACE ID
    1052 0E 01 1051 4633      5528+       ALC   CMTR03(2),X$0001          BUMP ARR TO RETURN ADDRESS
    1058 34 01 1066           5529+       ST    CMTR05,XR1                SAVE REG 1
    105C 35 01 0011           5530+       L     NCSYS@,XR1                XR1--> SYS COM
    1060 79 B0 0A             5531+       TBF   NCDSP1(,XR1),NCTCCP+NCTALL+NCTRCA TRACE ACTIVE ?       @01
                         1066 5532+CMTR05 EQU   *+3
    1063 C2 01 0000           5533+       LA    #,XR1                     RESTORE REG 1
    1067 F2 10 06             5534+       JT    CMTR20                    NO RETURN                     @01
    106A F4 10 00             5535+       SVC   0                         SUPVSR CALL
    106D 01                   106D 5536+  DC    AL1(CCPRIB)               CCP RIB
    106E 09                   106E 5537+  DC    AL1(TRRIB)                CCP RIB FOR TRACE
    106F 00                   106F 5538+CMTR09 DC    AL1(#)                TRACE ID
                         1070 5539+CMTR20 EQU   *                         *
    1070 35 10 1051           5540+       L     CMTR03,IAR                RETURN
```

```
                          5542+*********************************************************************
                          5543+*                                                                   *
                          5544+* NAME--CMQUE                                                       *
                          5545+*                                                                   *
                          5546+*    TITLE--ADD TP REQUEST TO LINE QUEUE                            *
                          5547+*                                                                   *
                          5548+*    FUNCTION--                                                     *
                          5549+*  ADD THIS REQUEST TO THE LINE QUEUE                               *
                          5550+* MUST CHECK TO SEE IF THIS PARAMETER LIST IS TO BE ADDED TO THE    *
                          5551+* END OF THE LINE QUEUE OR IS TO BE PUT AT THE TOP OF THE QUEUE     *
                          5552+* IE IF RETRY OF PARM LIST IN ERP - IT WILL GO TO TOP OF QUEUE TO   *
                          5553+* MAINTAIN THE ORIGINAL ORDER OF THE LINE QUEUE                     *
                          5554+* XR2 WILL BE USED TO POINT TO THE VARIOUS PARAMETER LISTS IN THE QUE *
                          5555+* POINT XR2 AT LOCATION OF 1ST PARM LIST POINTER                    *
                          5556+*                                                                   *
                          5557+*      EXIT - IF GETMAINS NECESSARY ARE SUCCESSFUL, TO NSI OF CALLER  *
                          5558+*             IF NOT,  TO CMPAII.                                   *
                          5559+*********************************************************************

                     1074 5561+CMQUE  EQU   *                        QUEUE THIS TP REQUEST
    1074 34 08 116F       5562+       ST    CMQRET+3,ARR              RETURN ADDRESS
    1078 3A 08 4630       5563+       SBN   $FLGC,#INVPL              SET IND-G.M. FROM PL AREA ONLY

    107C 35 01 15CB       5565+       L     CMSPL,PL                  POINT TO THE TP PARM LIST.     B

    1080 79 04 0C         5567+       TBF   PL$OPM(,PL),OPNOW         WAIT OPERATION
    1083 C0 10 113A       5568+       BT    CMQOP                     YES - SKIP GETMAIN, JUST QUEUE
    1087 78 80 02         5569+       TBN   PLOPM(,PL),OP$SYS         IF SYSTEM
    108A 7D 05 03         5570+       CLI   PLOPC(,PL),OPINV          * INVITE, PL IN TUB.
    108D C0 16 113A       5571+       BC    CMQOP,TRUAEQ              YES - SKIP GETMAINS

    1091 0C 01 15C9 1606  5573+       MVC   GMLIST+GMSIZE(2),PLGMLN   LENGTH OF GM FOR INVITE PL   @19
    1097 79 80 02         5574+       TBF   PLOPM(,PL),OP$SYS         IF A USER
    109A 78 05 03         5575+       TBN   PLOPC(,PL),OPINV          * INVITE,
    109D F2 10 71         5576+       JT    CMPLGT                    YES - JUST GETMAIN FOR PL
    10A0 3B 08 4630       5577+       SBF   $FLGC,#INVPL              SET OFF INV PL ONLY IND.
    10A4 3A 10 4630       5578+       SBN   $FLGC,#PUTTP              SET IND-G.M.FROM ANYWHERE

                          5580+*-------------------------------------------------------------------*
                          5581+*  PUT NO WAIT OR SYS PNW/INVITE  - GETMAIN HOLD BUFFER
                          5582+*-------------------------------------------------------------------*

    10A8 1C 01 15C9 05    5584+       MVC   GMLIST+GMSIZE(2),PLOUTL(,PL) PNW DATA LENGTH
    10AD 0E 01 15C9 4637  5585+       ALC   GMLIST+GMSIZE(2),X$0004   * + 4  = TOTAL GETMAIN AREA
    10B3 78 80 02         5586+       TBN   PLOPM(,PL),OP$SYS         SYSTEM
    10B6 78 07 03         5587+       TBN   PLOPC(,PL),OPPUT+OPINV    *  PNW/INVITE ?
    10B9 F2 90 0C         5588+       JF    CMPNWP                    NO-ALSO NEED PNW PARM LIST.

                          5590+*   SYSTEM PUT-NO-WAIT/INVITE

    10BC 0D 01 15C9 465F  5592+       CLC   GMLIST+GMSIZE(2),#GMS+1   WILL GETMAIN WORK ?
    10C2 F2 04 23         5593+       JNH   CMPNWG                    YES-GO DO.
    10C5 F2 87 2A         5594+       J     CMPNWS                    NO-MAKE WAIT OP AND DO IT.

                          5596+*   SYSTEM PUT NO WAIT  OR   USER PUT NO WAIT
```

```
                          10C8 5598+CMPNWP EQU   *                          *
    10C8 0E 01 15C9 1604       5599+       ALC   GMLIST+GMSIZE(2),PLGMLG   * + PL LENGTH
    10CE 0D 01 15C9 465F       5600+       CLC   GMLIST+GMSIZE(2),#GMS+1   IS THERE ENOUGH ROOM ?
    10D4 F2 04 11              5601+       JNH   CMPNWG                    YES - GO DO GETMAINS
    10D7 78 80 02              5602+       TBN   PLOPM(,PL),OP$SYS         IF SYSTEM PUT NO WAIT ?
    10DA F2 10 15              5603+       JT    CMPNWS                    YES - MAKE PUT WAIT AND DO IT.
    10DD 35 02 15CD            5604+       L     CMSDTF,DTF                DTF ADDRESS
    10E1 7B 04 0C              5605+       SBF   PL$OPM(,PL),OPNOW         MAKE WAIT OPERATION
    10E4 C0 87 0665            5606+       B     CMBSOP                    GO CHECK REJECT          ONLY  B

                          10E8 5608+CMPNWG EQU   *                          *  LOCAL
    10E8 C0 87 0FD5            5609+       B     CMGMPT                    GETMAIN HOLD BUFFER AND MOVE
                               5610+*                                     * DATA INTO IT.
    10EC F2 20 09              5611+       JNOL  CMHBOK                    IF GETMAIN OK
                               5612+*                                     (PNW OP WILL NOT FAIL BECAUSE
                               5613+*                                      OF TEST ABOVE)
                               5614+*   HOLD BUFFER GETMAIN FAILURE
                          10EF 5615+CMPNWF EQU   *                          *
    10EF 7A 40 0C              5616+       SBN   PL$OPM(,PL),OPGETQ        GETMAIN FAILED AT QUEUE TIME.
                          10F2 5617+CMPNWS EQU   *                          *
    10F2 7B 04 0C              5618+       SBF   PL$OPM(,PL),OPNOW         MAKE WAIT OP
    10F5 F2 87 42              5619+       J     CMQOP                     QUEUE IT TO WAIT FOR FREEMAIN

                          10F8 5621+CMHBOK EQU   *                          *   LOCAL
    10F8 78 07 03              5622+       TBN   PLOPC(,PL),OPPUT+OPINV    IF SYS PNW/INV ONLY GET BUFFER
    10FB F2 10 3C              5623+       JT    CMQOP                     YES - GO QUEUE IT
    10FE 78 80 02              5624+       TBN   PLOPM(,PL),OP$SYS         IF SYSTEM
    1101 78 05 03              5625+       TBN   PLOPC(,PL),OPINV          * INVITE, PL IN TUB.
    1104 F2 10 33              5626+       JT    CMQOP                     YES - SKIP GETMAINS
    1107 3A 10 4630            5627+       SBN   $FLGC,#PUTTP              SET 'GETMAIN FROM ANYWHERE'

                               5629+*-------------------------------------------------------------------*
                               5630+*   PUT-NO-WAIT OR USER INVITE - GETMAIN FOR PARAMETER LIST
                               5631+*-------------------------------------------------------------------*

    110B 0C 01 15C9 1604       5633+       MVC   GMLIST+GMSIZE(2),PLGMLG   LENGTH OF GETMAIN FOR PL
                          1111 5634+CMPLGT EQU   *                          *  LOCAL                    @19
    1111 C0 87 0F12            5635+       B     CMGMRT                    GETMAIN FOR PARAMETER LIST
    1115 F2 20 06              5636+       JNOL  CMPTGT                    IF GETMAIN OK
                               5637+*                                     (PNW OP WILL NOT FAIL BECAUSE
                               5638+*                                      OF TEST ABOVE)
    1118 7A 40 0C              5639+       SBN   PL$OPM(,PL),OPGETQ        FAILED - MUST QUEUE AFTER FREE
    111B F2 87 1C              5640+       J     CMQOP                     QUEUE IT TO WAIT FOR FREEMAIN

                          111E 5642+CMPTGT EQU   *                          *   LOCAL
    111E 35 02 15C7            5643+       L     GMLIST+GMADDR,XR2         ADDRESS OF GETMAINED AREA
    1122 9C 0F 13 0F           5644+       MVC   PLLNG+3(PLLNG,XR2),PLENDS(,PL) MOVE PL TO GETMAIN AREA @19
    1126 79 FF 02              5645+       TBF   PLOPM(,PL),ALLBIT         Q-USER ........          @19
    1129 7D 05 03              5646+       CLI   PLOPC(,PL),OPINV          .......INVITE?           @19
    112C F2 16 04              5647+       JC    CMPTG1,TRUAEQ             YES-DO NOT MOVE ECB      @19

    112F 9C 02 16 12           5649+       MVC   PLLEN+3(3,XR2),PLECB+2(,PL) NO-MOVE IN ECB           @19
    1133 E2 01 04              5650+CMPTG1 LA    4(,XR2),PL                ADDR OF PL INTO XR1      @19
    1136 34 01 15CB            5651+       ST    CMSPL,PL                  SAVE ADDR OF PL WORKING WITH

                               5653+*-------------------------------------------------------------------*
```

```
                              5654+*   QUEUE THE REQUEST ON LINE QUEUE                                *
                              5655+*-----------------------------------------------------------------*

                         113A 5657+CMQOP  EQU   *
    113A 3B 18 4630           5658+       SBF   $FLGC,#PUTTP+#INVPL       SET BOTH IND.S  OFF
    113E 35 02 15CD           5659+       L     CMSDTF,XR2                RESTORE DTF ADDR TO XR2
    1142 B8 04 70             5660+       TBN   LCBATR(,XR2),LCB1PL       IS THIS TO BE 1ST PL IN Q
    1145 BB 04 70             5661+       SBF   LCBATR(,XR2),LCB1PL       SET OFF LCB1PL BIT

    1148 E2 02 65             5663+       LA    LCBPLQ-1(,XR2),XR2        POINT XR2 AT PARM LIST ADDR

    114B F2 90 07             5665+       JF    CMTQND                    JUMP IF ADD TO END OF LINE Q

                              5667+* PUT THIS PARM LIST AT THE TOP OF THE QUEUE

    114E 6C 01 01 01          5669+       MVC   PLCHN(2,PL),PLCHN(,XR2)   CHAIN CURRENT Q OFF THIS PL
    1152 F2 87 0D             5670+       J     CMADDQ                    JUMP TO ADD THIS GUY TO Q

                              5672+* DETERMINE IF POINTER IS NULL
                              5673+* IF NULL STORE ADDR OF THIS PARM LIST IN THAT LOCATION

                         1155 5675+CMTQND EQU   *                         TEST FOR END OF QUEUE
    1155 BD 00 00             5676+       CLI   PLCHN-1(,XR2),NOBIT       IS PARM LIST POINTER NULL
    1158 F2 81 07             5677+       JE    CMADDQ                    JUMP IF NULL TO ADD TO QUEUE

                              5679+*POINTER NOT NULL - SO TRY NEXT PARM LIST POINTER

                              5681+*THIS PARM LIST PTS TO ANOTHER PARM LIST IN LINE QUEUE
                              5682+* GO DOWN LIST LOOKING FOR END OF QUEUE
                              5683+*(HIGH ORDER BYTE OF ADDRESS - X'00')

    115B B5 02 01             5685+       L     PLCHN(,XR2),XR2           POINT XR2 AT NEXT PARM LIST
                              5686+*                                      IN THE LINE QUEUE
    115E C0 87 1155           5687+       B     CMTQND                    BR TO TEST FOR QUEUE END

                              5689+*  FOUND END OF QUEUE SO ADD THIS PARAMETER LIST TO CHAIN HERE

                         1162 5691+CMADDQ EQU   *                         ADD PARM LIST TO QUEUE
    1162 B4 01 01             5692+       ST    PLCHN(,XR2),PL            ADD PARM LIST TO QUEUE

                              5694+*  IF GETMAIN FAILED, LEAVE ON QUEUE UNTIL FREEMAIN DONE
    1165 79 C0 0C             5695+       TBF   PL$OPM(,PL),OPGETM+OPGETQ IF GETMAIN FAILED DO NOT RETURN
    1168 C0 90 0BD7           5696+       BF    CMPAII                    * TO SCHEDULE OPERATION.
    116C C0 87 0000           5697+CMQRET B     *-*                       RETURN
```

```
                                5699+*****************************************************************
                                5700+*                                                               *
                                5701+*  NAME:  CMDEQ                                                 *
                                5702+*                                                               *
                                5703+*  FUNCTION: DEQUEUE PARAMETER LIST FROM THE LINE QUEUE.        *
                                5704+*                                                               *
                                5705+*  OPERATION: MOVE CHAIN POINTER OF THIS PARAMETER LIST TO THE CHAIN
                                5706+*          POINTER OF PARAMETER LIST PRECEDING THIS ONE IN THE Q.  *
                                5707+*                                                               *
                                5708+*  INPUT:  XR1 -> PL,  XR2 -> DTF.                              *
                                5709+*                                                               *
                                5710+*  OUTPUT: XR1 -> PL,  XR2 -> CURRENT DTF.                      *
                                5711+*                                                               *
                                5712+*****************************************************************

                                5714+* TAKE THE POINTER FROM THIS PARM LIST AND PLACE IN PTR ADDR OF
                                5715+* LOCATION THAT POINTED TO THE COMPLETED OPERATION

                           1170 5717+CMDEQ  EQU   *                        DEQUEUE THE PARM LIST
    1170 34 08 119C             5718+       ST    CMDEQR+3,ARR             SAVE RETURN ADDRESS
    1174 E2 02 65               5719+       LA    LCBPLQ-1(,DTF),XR2       LOAD PTR TO FIRST PARM LIST.
                           1177 5720+CMDQCK EQU   *                        *  LOCAL
    1177 8D 01 01 15CB          5721+       CLC   PLCHN(2,XR2),CMSPL       NEXT PARM LIST TO DEQ ?
    117C F2 81 0E               5722+       JE    CMDCHN                   YES-GO TO DE-CHAIN IT.
    117F BD 00 00               5723+       CLI   PLCHN-1(,XR2),X'00'      IS THIS THE END OF CHAIN ?
    1182 F2 01 01               5724+       JNE   CMDQOK                   NO - THEN CONTINUE
    1185 00                1185 5725+       DC    XL1'00'                  YES - BAD NEWS - PROC CHECK
                           1186 5726+CMDQOK EQU   *
    1186 B5 02 01               5727+       L     PLCHN(,XR2),XR2          UPDATE TO NEXT PARM LIST.
    1189 C0 87 1177             5728+       B     CMDQCK                   GO BACK AND CHECK THIS ONE.
                                5729+* MOVE PTR TO NEXT PARM LIST TO PREVIOUS PARM LIST POINTER
                           118D 5730+CMDCHN EQU   *                        *   LOCAL
    118D 9C 01 01 01            5731+       MVC   1(2,XR2),PLCHN(,PL)      MOVE POINTER
    1191 5C 01 01 0F            5732+       MVC   PLRTC(2,PL),PL$RTC(,PL)  SET EXTERNAL RETURN CODE NOW
                                5733+*                                     * THAT PLCHN ISNT USED.
    1195 35 02 15CD             5734+       L     CMSDTF,DTF               RESTORE DTF ADDR TO XR2.
    1199 C0 87 0000             5735+CMDEQR B     #                        RETURN
```

```
                                5737+*************************************************************************
                                5738+*                                                                       *
                                5739+* NAME--CMSRPL                                                         *
                                5740+*                                                                       *
                                5741+*    TITLE--SEARCH PARAMETER LIST CHAIN FOR LINE FOR PL TO SCHEDULE     *
                                5742+*                                                                       *
                                5743+*    FUNCTION--                                                         *
                                5744+* LOOK FOR NON-READ IF ANY TO EXECUTE NOW                              *
                                5745+* ELSE SEARCH THE QUEUE FOR A READ AND START ALL READS FOR WHICH       *
                                5746+* THE NECESSARY HOLD BUFFER SPACE CAN BE OBTAINED                      *
                                5747+* ASSURE NO OP SCHEDULED TO TERMINAL IN ERROR RECOVERY                 *
                                5748+*                                                                       *
                                5749+*   OUTPUT  - XR1 WILL POINT TO PARAMETER LIST TO SCHEDULE             *
                                5750+*             XR2 WILL POINT TO THE TUB.                              *
                                5751+*************************************************************************

                           119D 5753+CMSRPL EQU   *
    119D 34 08 124A             5754+       ST    CMSRRT+3,ARR
    11A1 B8 80 00               5755+       TBN   $BDDEV(,DTF),BSCA         BSC DTF ?
    11A4 F2 90 03               5756+       JF    CMSRP1                    NO-DON'T SET TIMER IND. OFF
    11A7 BB 01 70               5757+       SBF   LCBATR(,DTF),LCBTIM       SET TIMER IND. OFF
                           11AA 5758+CMSRP1 EQU   *                         *
    11AA BD 00 65               5759+       CLI   LCBPLQ-1(,XR2),NOBIT      IS QUEUE EMPTY                B
    11AD F2 01 19               5760+       JNE   CMSRP2                    NO - CHECK THE QUEUE.         B
                                5761+*                                -----START--------------------------@07
    11B0 B5 01 30               5762+       L     $BDWKA(,DTF),XR1          XR1 --> BSCA WORK AREA.       B
    11B3 B8 80 00               5763+       TBN   $BDDEV(,DTF),BSCA         BSC DTF AND                   B
    11B6 78 01 59               5764+       TBN   $BWKMC(,XR1),X'01'        IS DISPLAY ADAPTER RUNNING ?  B
    11B9 F2 90 09               5765+       JF    CMSRP3                    NO - DON'T CANCEL 2 SEC. T.O. B
    11BC B9 18 55               5766+       TBF   LCBAT1(,DTF),LCBNTQ+LCBINT PARM LIST REMOVED FROM QUEUE ?B
    11BF F2 90 03               5767+       JF    CMSRP3                    YES - DON'T CANCEL T.O.       B
    11C2 F38802            11C4 5768+       DC    XL3'F38802'               SIO TO CANCEL 2 SEC. T.O.     B
                           11C5 5769+CMSRP3 EQU   *                         * LOCAL                       B
                                5770+*                                -----END----------------------------@07
    11C5 C0 87 0BD7             5771+       B     CMPAII                    GO TO CHECK OP END COUNT.     B
                           11C9 5772+CMSRP2 EQU   *                         * LOCAL

                                5774+*************************************************************************
                                5775+*  REQUEST IN QUEUE FOR THE LINE READY TO GO
                                5776+*************************************************************************

    11C9 B5 01 66               5778+       L     LCBPLQ(,XR2),PL           POINT XR1 AT 1ST PARM LIST IN Q
                           11CC 5779+CMRDCK EQU   *
    11CC 75 02 0B               5780+       L     PLTUBA(,PL),XR2           POINT XR2 AT THE TUB

                                5782+*   IF OPERATION IS REFRESH OF SCREEN, THE SET TEMP OP CODE FOR PUT. 0B

    11CF 78 04 02               5784+       TBN   PLOPM(,PL),OPSTOP         STOP INVITE AND -             B
    11D2 B8 80 09               5785+       TBN   TUBSCS(,XR2),TUBCLR       *       CLEAR KEY DEPRESSED ? B
    11D5 F2 90 11               5786+       JF    CMRXE1                    NO-CONTINUE                   B

                                5788+*  PUT CLEAR RETURN CODE INTO PARM LIST AND GO DE-QUEUE IT            B

    11D8 7C 07 0F               5790+       MVI   PL$RTC(,PL),RCXCLR        INT. RETURN CODE = CLEAR      B
    11DB BB 80 09               5791+       SBF   TUBSCS(,XR2),TUBCLR       SET OFF CLEAR IND.            B
    11DE 34 01 15CB             5792+       ST    CMSPL,PL                  SAVE PL ADDRESS               B
```

```
    11E2 B5 02 16             5793+       L     TUBDTF(,XR2),XR2          XR2--> DTF                        B
    11E5 C0 87 05A4           5794+       B     CMRETC                    GO DE-Q AND POST                  B
                         11E9 5795+CMRXE1 EQU   *                         *                                 B


    11E9 78 80 0D             5797+       TBN   PL$OPC(,PL),OPRFSH        REFRESH OPERATION REQUESTED ? 0B
    11EC F2 90 08             5798+       JF    CMRXER                    NO-GO TEST FOR TERM IN ERP.   0B
    11EF 48 03 0C 15D6        5799+       MNN   PL$OPM(,PL),CCPUT         ALTER OP CODE TO A PUT.       0B
    11F4 F2 87 49             5800+       J     CMSCHO                    GO HANDLE NOW                 0B
                         11F7 5801+CMRXER EQU   *                         *                             0B

                              5803+*   IF POLL FOR STATUS OPERATION , HANDLE AS HIGHEST PRIORITY.       0B

    11F7 78 40 0D             5805+       TBN   PL$OPC(,PL),OPLSNS        POLLING FOR STATUS ?          0B
    11FA F2 10 33             5806+       JT    CMTSRS                    YES-GO HANDLE STATUS POLL.    0B

                         11FD 5808+CMRXPT EQU   *                         *                             0B
    11FD 75 02 0B             5809+       L     PLTUBA(,PL),XR2           POINT TO TUB                 @19
    1200 79 80 0C             5810+       TBF   PL$OPM(,PL),OPGETM        GETMAIN NOT FAILED
    1203 78 02 0C             5811+       TBN   PL$OPM(,PL),OPPUT         IS IT PUT
    1206 B9 10 0D             5812+       TBF   TUBAT3(,XR2),TUBERP       ASSURE NOT IN ERROR RECOVERY
    1209 F2 90 17             5813+       JF    CMNXTP                    NO- CHECK NEXT ONE
    120C 7D 00 08             5814+       CLI   PLRECA-1(,PL),NOBIT       IF BUFFER IS ALREADY GETMAINED
    120F F2 01 08             5815+       JNE   CMBFOK                    YES - SKIP GETMAIN
                              5816+*                                      *  SKIPPED FOR PUT NO WAIT,
                              5817+*                                      *  MLTA PUT-NOT FIRST TIME THRU,
                              5818+*                                      *  DFF PUT WAIT( ALREADY DONE)OR
                              5819+*                                      *  SYS PUT WAIT ( NONE NEEDED).

                              5821+*    NON-DFF USER PUT WAIT - GETMAIN BUFFER FOR ADDRESSABILITY

    1212 3A 10 4630           5823+       SBN   $FLGC,#PUTTP              INDICATE 'GETMAIN FOR PUT' REQ.
    1216 C0 87 0FD5           5824+       B     CMGMPT                    GETMAIN HOLD BUFFER  AND MOVE
                              5825+*                                      * DATA INTO IT.

                         121A 5827+CMBFOK EQU   *                         *  LOCAL
    121A 78 80 0C             5828+       TBN   PL$OPM(,PL),OPGETM        IF WAITING FOR GETMAIN
    121D F2 10 03             5829+       JT    CMNXTP                    YES - GET NEXT PL IN QUEUE
    1220 F2 87 1D             5830+       J     CMSCHO                    NO - RETURN IT TO BE SCHEDULED

                         1223 5832+CMNXTP EQU   *                         CHECK NEXT PARM LIST
    1223 7D 00 00             5833+       CLI   PLCHN-1(,PL),NOBIT        ANY MORE PARM LISTS IN QUEUE
    1226 F2 81 07             5834+       JE    CMTSRS                    NO-GO TRY TO SCHEDULE READ.

                              5836+*MORE REQUESTS IN QUEUE-CHECK THAM FOR NON-READ

    1229 75 01 01             5838+       L     PLCHN(,PL),PL             PT XR1 AT NEXT PARM LIST
    122C C0 87 11CC           5839+       B     CMRDCK                    BR TO CHECK FOR NON READ

                              5841+* ALL READS IN THE QUEUE SO DO ANALYSIS IN TERMS OF ELIGIBLITY
                              5842+* BECAUSE RECORD AREA OR HOLD BUFFER IS AVAILABLE
                              5843+* MAY HAVE NON-READS IN QUEUE BUT THEY WILL BE TO TERMINALS IN ERROR
                              5844+* RECOVERY

                         1230 5846+CMTSRS EQU   *                         TEST READ ELIGIBILITY
    1230 C0 87 0D8F           5847+       B     CMIVGM                    BRANCH TO DO READ GETMAIN ANALYS
```

```
    1234 38 40 15B5            5849+       TBN    CMSWIT,CMRSLN             IS RESCHEDULE SWITCH ON
    1238 C0 90 0BD7            5850+       BF     CMPAII                    NO- CANNOT RESCHEDULE NOW.

    123C 35 01 15D5            5852+       L      CMLPL,PL                  LAST READ PL SCHEDULED - WILL
                               5853+*                                       * GO INTO TRACE FROM CMSPL
                          1240 5854+CMSCHO EQU    *                         SCHEDULE THE PARM LIST REQUEST
    1240 34 01 15CB            5855+       ST     CMSPL,PL                  SAVE PARM LIST ADDR
    1244 75 02 0B              5856+       L      PLTUBA(,PL),XR2           POINT XR2 AT THE TUB
    1247 C0 87 0000            5857+CMSRRT B      *-*                       RETURN
```

```
                          5859+*****************************************************************
                          5860+*                                                               *
                          5861+*TITLE: $$BMCH - TELEPROCESSING MULTIPLE WAIT.                  *
                          5862+*                                                               *
                          5863+*FUNCTION: THE FUNCTION OF THIS WAIT ROUTINE IS TO SCAN A LIST OF DTFS*
                          5864+*   AND, IF NECESSARY, PASS CONTROL AND THE DTF TO THE APPROPRIATE    *
                          5865+*   DEVICE WAIT ROUTINE (BSCA, OR MLTA).  THE USER IS THEN NOTIFIED   *
                          5866+*   OF A COMPLETION VIA THE APPROPRIATE DTF.                         *
                          5867+*                                                               *
                          5868+*INPUT:  INPUT TO THE ROUTINE IS THE WAIT LIST OF DTF'S.         *
                          5869+*                                                               *
                          5870+*OUTPUT: OUTPUT FROM THE ROUTINE WILL BE REGISTER 2 POINTING AT THE   *
                          5871+*   COMPLETED DTF, WHICH CONTAINS THE COMPLETION CODE.  ON RETURN WITH*
                          5872+*   NO COMPLETIONS OR NO ACTIVE DTF'S, XR2 WILL POINT TO THE LAST DTF *
                          5873+*   IN THE LIST, ALSO WITH THE APPROPRIATE COMPLETION CODE.          *
                          5874+*                                                               *
                          5875+*EXTERNAL ROUTINES:                                            *
                          5876+*        MSBSCH - BSCA PROGRAM WAIT ROUTINE.(ADDR STORED AT CHBMBS BY *
                          5877+*                 MLMP).                                        *
                          5878+*        $MLCK0 - MLTA CHECK ROUTINE. (ADDR STORED AT CHBMML BY MLTA) *
                          5879+*                                                               *
                          5880+*****************************************************************

                   124B 5882+$$BMCH EQU   *                       ENTRY POINT NAME FOR MLMP/MLTA
                   124B 5883+CMBMCH EQU   *                       INTERNAL CM ENTRY POINT.
 124B 34 08 12A6        5884+       ST    CHSTOR,ARR              SAVE RETURN @
 124F 3C 87 129A        5885+       MVI   CHACTV,UNCOND           INITIALIZE SWITCH TO FALL THRU
 1253 35 01 4738        5886+       L     @CKLST,LISTRG           POINT REGISTER AT WAIT LIST
                   1257 5887+CHSTRT EQU   *                       *
 1257 75 02 02          5888+       L     DTFADR(,LISTRG),DTF     POINT REG 2 TO DTF
 125A 78 08 00          5889+       TBN   CHLSTS(,LISTRG),OPGONE  COMPL. CODE DESTROYED ?
 125D F2 90 03          5890+       JF    CHNODS                  NO - DONT RESTORE IT
 1260 BC 00 0E          5891+       MVI   DTFCMP(,DTF),OPACC      RESTORE COMPLETION CODE
                   1263 5892+CHNODS EQU   *                       *
 1263 78 80 00          5893+       TBN   CHLSTS(,LISTRG),CHLSKP  IS ENTRY TO BE SKIPPED ?
 1266 F2 10 21          5894+       JT    CHSTND                  YES - GO TEST FOR END
 1269 B8 03 03          5895+       TBN   DTFATR(,DTF),FILOPN+FILEAC THIS FILE OPEN AND ACTIVE ?
 126C F2 90 1B          5896+       JF    CHSTND                  NO - GO CHECK FOR END


                          5898+*****************************************************************  B
                          5899+*                      PROCESS BSCA DTF                         *  B
                          5900+*****************************************************************  B

                   126F 5902+CHBSCA EQU   *                       *   LOCAL                        B
 126F 3D 00 1282        5903+       CLI   CHCKBS,NOBSCA           IS BSCA IN THE PROGRAM?          B
 1273 F2 81 14          5904+       JE    CHSTND                  BRANCH IF NOT                    B
 1276 BD 00 0E          5905+       CLI   DTFCMP(,DTF),OPACC      BSCA OPERATION PENDING ?         B
 1279 F2 01 0E          5906+       JNE   CHSTND                  NO - TEST FOR END OF LIST        B
 127C 3C 80 129A        5907+       MVI   CHACTV,NOOP             SET ACTIVE DTF FOUND             B
                   1282 5908+CHCKBS EQU   *+2                     *                                B
 1280 C0 87 0000        5909+       B     *-*                     GO TO BSCA WAIT ROUTINE          B
                   1283 5910+CHBMBS EQU   *-1                     ADDRESS OF MLMP WAIT(IOCS SETS)B
 1284 BD 00 0E          5911+       CLI   DTFCMP(,DTF),OPACC      COMPLETION POSTED ?              B
 1287 F2 01 16          5912+       JNE   CHPNTR                  NO - BRANCH                      B
```

```
                              5914+*****************************************************************
                              5915+*                    CHECK FOR END OF WAIT LIST                 *
                              5916+*****************************************************************


                         128A 5918+CHSTND EQU   *


                              5920+*****************************************************************
                              5921+*                  PROCESS END OF LIST CONDITIONS               *
                              5922+*****************************************************************

                         128A 5924+CHEND  EQU   *                          *
    128A 75 02 02             5925+       L     DTFADR(,LISTRG),DTF       POINT XR2 TO DTF
    128D BD 00 0E             5926+       CLI   DTFCMP(,DTF),OPACC        IS CODE OP ACCEPTED ?
    1290 F2 01 03             5927+       JNE   CHNOOP                    NO - BRANCH
    1293 7A 08 00             5928+       SBN   CHLSTS(,LISTRG),OPGONE    SET BIT FOR DESTROYED CODE
                         1296 5929+CHNOOP EQU   *                          *
    1296 BC 57 0E             5930+       MVI   DTFCMP(,DTF),INACTV       SET COMPLETION TO NO ACT DTF'S
                              5931+** THE FOLLOWING BRANCH IS SET TO NOOP IF AN ACTIVE DTF IS FOUND   **
                         129A 5932+CHACTV EQU   *+1                        ACTIVE DTF SWITCH
    1299 C0 87 12A0           5933+       BC    CHPNTR,UNCOND             BRANCH IF NO ACTIVE DTF'S
    129D BC 56 0E             5934+       MVI   DTFCMP(,DTF),NOCOMP       SET NO COMPLETION RETURN CODE
```

```
                               5936+*************************************************************
                               5937+*                  RESTORE POINTERS AND EXIT                *
                               5938+*************************************************************


                          12A0 5940+CHPNTR EQU   *                          *
    12A0 75 02 02              5941+       L     DTFADR(,LISTRG),DTF       POINT REGISTER TO DTF
                          12A6 5942+CHSTOR EQU   *+3                       RETURN ADDRESS PLUGGED HERE
    12A3 C0 87 0000            5943+       B     #                         RETURN
```

```
                                5945+*****************************************************************
                                5946+*  NAME -- CMERPC                                               *
                                5947+*                                                               *
                                5948+*  TITLE - CHECK FOR PUT TO TERMINAL IN ERP AND HANDLE IT.      *
                                5949+*                                                               *
                                5950+*  OPERATION -                                                  *
                                5951+*          CHECK FOR ERP.                                       *
                                5952+*          IF TERMINAL IN ERP GOTO TRANSIENT $CC4MP.            *
                                5953+*          ON RETURN , CHECK FOR PUT THEN GET.                  *
                                5954+*          IF ONLY PUT - IGNORE IT AND GO POST REQUESTER.       *
                                5955+*          IF PUT THEN GET - RETURN TO ALLOW SCHEDULING OF GET. *
                                5956+*                                                               *
                                5957+*   INPUT : XR1 - PL ADDRESS                                    *
                                5958+*                                                               *
                                5959+*   OUTPUT : XR1 - PL,  XR2 - TUB.                              *
                                5960+*                                                               *
                                5961+*   EXITS : IF PUT ONLY TO TERMINAL IN ERP - CMPAII             *
                                5962+*           IF TERMINAL NOT IN ERP OR NOT PUT ONLY - RETURN     *
                                5963+*****************************************************************

                           12A7 5965+CMERPC EQU   *                        *
    12A7 34 08 12C6             5966+       ST    CMERPR+3,ARR             SAVE RETURN ADDRESS
    12AB 75 02 0B               5967+       L     PLTUBA(,PL),XR2          TUB ADDRESS
    12AE B8 10 0D               5968+       TBN   TUBAT3(,XR2),TUBERP      IS TUB IN CCP ERP
    12B1 78 02 03               5969+       TBN   PLOPC(,PL),OPPUT         DOES OP INVOLVE PUT
    12B4 79 04 02               5970+       TBF   PLOPM(,PL),OPSTOP        TEST FOR NOT PURGE OPERATION
    12B7 F2 90 09               5971+       JF    CMERPR                   JUMP IF PUT WILL NOT BE IGNORED

                                5973+*****************************************************************
                                5974+* IGNORE PUT OPERATION BECAUSE TERMINAL IN ERROR RECOVERY
                                5975+*****************************************************************

    12BA F4 10 00               5977+       SVC   0                        ##### TRANSIENT CALL ######
    12BD 01                12BD 5978+       DC    AL1(CCPRIB)              CCP SVC RIB
    12BE 27                12BE 5979+       DC    AL1(CC4MP)               IGNORE PUT TRANSIENT
                                5980+*     RETURNS TO ARR   IF PUT ONLY
                                5981+*              TO ARR+4,IF PUT THEN INVITE

    12BF C0 87 0BD7             5983+       B     CMPAII                   BRANCH TO PERFORM POST CHECK
                                5984+* IF THE OPERATION INVOLVED A READ     - THE TRANSIENT WILL RETURN
                                5985+* HERE  -- CONTINUE TO DROP THROUGH AND SCHEDULE THE READ.

    12C3 C0 87 0000             5987+CMERPR B     *-*                      RETURN
                                5988 *      $E093                                                CCP00291
                                5989+* R-03,C-00 CHANGE LEVEL
```

```
                          5991+*************************************************************  C/SB
                          5992+*                                                           *  C/SB
                          5993+* NAME--CMBSKP                                             *  C/SB
                          5994+*                                                           *  C/SB
                          5995+*    TITLE--BSCA POLL SKIP BIT ROUTINE                      *  C/SB
                          5996+*                                                           *  C/SB
                          5997+*    FUNCTION--SET THE SKIP ENTRY INDICATOR ON/OFF IN THE BSCA  *  C/SB
                          5998+*              POLLING LIST OR THE BSCA SWITCHED LINE ID     *  C/SB
                          5999+*              VERIFICATION LIST.                            *  C/SB
                          6000+*                                                           *  C/SB
                          6001+*    OPERATION--                                            *  C/SB
                          6002+*               . IF THIS DTF OR THIS PARTICULAR OPERATION DOES *  C/SB
                          6003+*                 NOT INVOLVE ONE OF THE BSCA LIST THEN RETURN  *  C/SB
                          6004+*                 WITHOUT SETTING SKIP BIT.                  *  C/SB
                          6005+*               . OTHERWISE, FIND THE ENTRY IN THE APPROP LIST. *  C/SB
                          6006+*               . SET THE SKIP BIT AS SPECIFIED FOR ALL ENTRIES *  C/SB
                          6007+*                 FOR THE SAME TERMINAL.                     *  C/SB
                          6008+*                                                           *  C/SB
                          6009+*    ENTRY POINTS--CMBSKP-ALL FUNCTIONS ABOVE.              *  C/SB
                          6010+*                                                           *  C/SB
                          6011+*    INPUT--                                                *  C/SB
                          6012+*           XR1--ADDRESS OF THE TP PARAMETER LIST.          *  C/SB
                          6013+*           XR2--SAVED AD RESTORED.                         *  C/SB
                          6014+*           CMB#SB--SBN2(X'7A') SET THE SKIP BIT ON, OR     *  C/SB
                          6015+*                   SBF2(X'7B') SET THE SKIP BIT OFF.       *  C/SB
                          6016+*         TUBSID--ID OF THE ENTRY(S) TO PERFORM THE OPERATION *  C/SB
                          6017+*                 FOR.                                      *  C/SB
                          6018+*    OUTPUT--                                               *  C/SB
                          6019+*           XR1-ADDRESS OF THE TP PARAMETER LIST.           *  C/SB
                          6020+*           XR2-RESTORED TO ENTRY VALUE.                    *  C/SB
                          6021+*           POLLING/SWITCHED ID LIST-SKIP BIT FOR APPROPRIATE  *  C/SB
                          6022+*                           ID SET    AS SPECIFIED.        *  C/SB
                          6023+*                                                           *  C/SB
                          6024+*    EXIT, NORMAL--TO NSI OF CALLER.                        *  C/SB
                          6025+*                                                           *  C/SB
                          6026+*************************************************************  C/SB

                    12C7  6028+CMBSKP EQU   *                    *                          C/SB

 12C7 34 08 130A          6030+       ST    CMBXIT+3,ARR         SAVE THE ARR               C/SB
 12CB 34 01 1302          6031+       ST    CMON1B+3,PL          SAVE XR1                   C/SB
 12CF 34 02 1306          6032+       ST    CMBXR2+3,XR2         SAVE XR2                   C/SB
 12D3 75 01 0B            6033+       L     PLTUBA(,PL),TUB      POINT XR1 AT TUB           C/SB
 12D6 75 02 16            6034+       L     TUBDTF(,TUB),DTF     POINT XR2 AT DTF           C/SB
 12D9 9C 00 50 08         6035+       MVC   LCBID#(1,DTF),TUBSID(,TUB) MOVE POLL LIST ID TO SAVE. C/SB
 12DD B5 01 4D            6036+       L     LCBPOL(,DTF),POL     LOAD PTR TO POLLING LIST   C/SB
                    12E0  6037+CMOCHK EQU   *                    *                          C/SB
 12E0 7D F0 00            6038+       CLI   POLID(,POL),POLEND   END OF LIST ?              C/SB
 12E3 F2 02 19            6039+       JNL   CMOEXT               YES-GO EXIT.               C/SB
 12E6 1C 00 12F1 01       6040+       MVC   CMOSTS+2,POLCNT(1,POL)  SET UP LA TO STATUS BYTE  C/SB
 12EB 6D 00 00 50         6041+       CLC   POLID(1,POL),LCBID#(,DTF) THIS ENTRY SAME AS REQ D? C/SB
 12EF D2 01 00            6042+CMOSTS LA    #(,POL),POL          UP PTR TO STATUS BYTE      C/SB
 12F2 F2 01 03            6043+       JNE   CMONXT               NO-IGNORE IT, GOTO NXT ENT. C/SB
                    12F5  6044+CMB#SB EQU   *                    *                          C/SB
 12F5 7A 80 02            6045+       SBN   POLCNT+1(,POL),POLSKP  SET POLL SKIP BIT ON / OFF. C/SB
                    12F8  6046+CMONXT EQU   *                    *                          C/SB
```

```
$CC4#2 $E093/CMBSKP---BSCA-POLL-SKIP-BIT-ROUTINE

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT           SCP GENERATOR  08/08/10  PAGE 141

    12F8 D2 01 03              6047+       LA    POLNXT(,POL),POL          UP PTR TO NEXT POLL LIST ENTC/SB
    12FB C0 87 12E0            6048+       B     CMOCHK                    GO CHECK THIS NEXT ENTRY.   C/SB

                          12FF 6050+CMOEXT EQU   *                         *                           C/SB
                          12FF 6051+CMON1B EQU   *                         *                           C/SB
    12FF C2 01 0000            6052+       LA    *-*,PL                    RESTORE PARM LIST REG.      C/SB
                          1303 6053+CMBXR2 EQU   *                         *                           C/SB
    1303 C2 02 0000            6054+       LA    #,XR2                     RELOAD CALLER'S XR2.        C/SB
                          1307 6055+CMBXIT EQU   *                         *                           C/SB
    1307 C0 87 0000            6056+       B     #                         RETURN TO CALLER.           C/SB
```

```
                          6058+*************************************************************  C/SB
                          6059+*                                                           *  C/SB
                          6060+*   ENTRY POINT- CMASCH - ADDRESS LIST SEARCH                *  C/SB
                          6061+*                CMPSCH - POLL LIST SEARCH                  *  C/SB
                          6062+*                                                           *  C/SB
                          6063+*   FUNCTION :  GIVEN ID ENTRY BYTE IN DTF SAVE AREA, FIND THE  *  C/SB
                          6064+*           CORRESPONDING ENTRY IN THE POLL LIST AND RETURN A   *  C/SB
                          6065+*           POINTER TO THE PHYSICAL TERMINAL ADDRESS.           *  C/SB
                          6066+*                                                           *  C/SB
                          6067+*   INPUT:  XR1-> DON'T CARE,        XR2-> DTF.             *  C/SB
                          6068+*                                                           *  C/SB
                          6069+*   OUTPUT: XR1-> POLL LIST ENTRY,   XR2-> DTF.             *  C/SB
                          6070+*                                                           *  C/SB
                          6071+*   EXITS-NORMAL: TO NSI OF CALLER.                         *  C/SB
                          6072+*        -ERROR:  CMASCH/CMPSCH WILL RETURN TO NSI+3 IF THE     *  C/SB
                          6073+*                   ENTRY IS NOT FOUND.                     *  C/SB
                          6074+*                                                           *  C/SB
                          6075+*************************************************************  C/SB

                     130B 6077+CMASCH EQU   *                       ADDRESS LIST ENTRY POINT.   C/SB
130B B5 01 4F             6078+       L     LCBSEL(,DTF),POL         LOAD ADDR LIST REGISTER.    C/SB
130E F2 87 03             6079+       J     CMPNXT                   GO ENTER MAINLINE CODE.     C/SB

                     1311 6081+CMPSCH EQU   *                       FIRST LEVEL SUBROUTINE.     C/SB
1311 B5 01 4D             6082+       L     LCBPOL(,DTF),POL         LOAD POLL LIST REGISTER.    C/SB
                     1314 6083+CMPNXT EQU   *                       *                           C/SB
1314 B4 08 54             6084+       ST    LCBWRK(,DTF),ARR         SAVE RETURN NSI.            C/SB
                     1317 6085+CMPCHK EQU   *                       *                           C/SB
1317 6D 00 00 50          6086+       CLC   POLID(1,POL),LCBID#(,DTF) THIS WANTED TERMINAL ENTRY? C/SB
131B F2 81 0F             6087+       JE    CMPFND                   YES-GO SET UP RETURN REG.   C/SB
131E 1C 00 1325 01        6088+       MVC   CMPLA+2,POLCNT(1,POL)    USE COUNT TO GET NEXT ENTRY C/SB
                     1323 6089+CMPLA  EQU   *                       *                           C/SB
1323 D2 01 00             6090+       LA    #(,POL),POL              UP REG PAST PHYSICAL ADDR   C/SB
1326 D2 01 03             6091+       LA    POLNXT(,POL),POL         UP REG PAST ID/COUNT/STATUS C/SB
1329 C0 87 1317           6092+       B     CMPCHK                   GO TO CHECK NEXT ENTRY.       CB

                     132D 6094+CMPFND EQU   *                       *                           C/SB
132D B5 10 54             6095+       L     LCBWRK(,DTF),IAR         RETURN TO CALLER.           C/SB
```

```
                          6097+*****************************************************************
                          6098+*                                                               *
                          6099+* NAME--CMBTAS                                                  *
                          6100+*                                                               *
                          6101+*    TITLE--BSCA SET DTF AND IOB FROM TAS                       *
                          6102+*                                                               *
                          6103+*    FUNCTION--SET DTF AND IOB ATTRIBUTES AND OWNERSHIP STATUS. *
                          6104+*                                                               *
                          6105+*   ENTRY REGS: XR2=DTF                                         *
                          6106+*   EXIT REGS: XR1=TUB, XR2=DTF.                                *
                          6107+*                                                               *
                          6108+*****************************************************************

                     1330 6110+CMBTAS EQU   *                        *                        RB
    1330 34 08 13E7       6111+       ST    CMBTXT+3,ARR             SAVE RETURN @.           RB
                          6112+*   ------------------------------------ START ------------ @17
    1334 0C 00 135B 15D8  6113+       MVC   CMBTS1+1(1),SAVTA2       MOVE IN TAS ATTR 2.      RB
    133A B5 01 52         6114+       L     LCBPL@(,DTF),PL          LOAD PARM LIST REG.      RB
    133D 78 01 0D         6115+       TBN   PL$OPC(,PL),OPGET        GET OPERATION IN PROCESS ?RB
    1340 F2 90 0A         6116+       JF    CMBTST                   NO-HANDLE ITB / TRANSPARENCYRB
    1343 BB 20 02         6117+       SBF   $BDATT(,DTF),$BCITB      SET OFF ITB INDICATOR.   RB
    1346 3B EF 135B       6118+       SBF   CMBTS1+1,ALLBIT-TASITB   LEAVE ITB INDICATOR SET.RB
    134A F2 87 07         6119+       J     CMBTTT                   GO TO SET ITB OPERATION. RB
                     134D 6120+CMBTST EQU   *                        * LOCAL                  RB
    134D BB 30 02         6121+       SBF   $BDATT(,DTF),$BCRAN+$BCITB SET OF CURRENT TRANSP AND ITBRB
    1350 3B E7 135B       6122+       SBF   CMBTS1+1,ALLBIT-TASITB-TASTSP LEAVE TRANSP AND ITB SET  RB
                     1354 6123+CMBTTT EQU   *                        * LOCAL                  RB
                          6124+*   ------------------------------------ END -------------- @17
    1354 0E 00 135B 135B  6125+       ALC   CMBTS1+1(1),CMBTS1+1     CORRECT TO DTF BIT DEFINITION.RB
                     135A 6126+CMBTS1 EQU   *                        *                        RB
    135A BA 00 02         6127+       SBN   $BDATT(,DTF),#           SET TAS TRANSP AND ITB   RB
    135D 88 03 34 15D8    6128+       MNN   $BDAT1(,DTF),SAVTA2      MOVE IN SPAN AND RECSEP IND'S.RB
    1362 BB BC 34         6129+       SBF   $BDAT1(,DTF),ALLBIT-$BCSEP-$BCSPN-$BCPLR SET OTHERS OFF.RB
    1365 B5 01 52         6130+       L     LCBPL@(,DTF),PL          LOAD PARM LIST REG.      RB
    1368 78 20 0D         6131+       TBN   PL$OPC(,PL),OPUSER       SYSTEM FUNCTION ?        RB
    136B 75 01 0B         6132+       L     PLTUBA(,PL),TUB          LOAD REG TO POINT TO TUB.RB
    136E F2 10 18         6133+       JT    CMBSYS                   YES-GO SET SYSTEM BLOCK LEN.RB

                          6135+*   DETERMINE THE BLOCK LENGTH GIVEN THE TAS RECORD LENGTH AND   RB
                          6136+*     BLOCKING FACTOR.                                           RB

    1371 9C 01 64 21      6138+       MVC   LCBKLC(2,DTF),TUBRCL(,TUB) MOVE IN CURRENT RECORD LGTH.RB
    1375 9C 00 5C 22      6139+       MVC   LCBOWN(1,DTF),TUBBKF(,TUB) PUT BLOCK FACTOR IN WRK AREA.RB
                     1379 6140+CMBLAD EQU   *                        *                        RB
    1379 8F 00 5C 4633    6141+       SLC   LCBOWN(1,DTF),X$0001     DECREMENT BLOCKING FACTOR. 0 ?RB
    137E F2 81 0D         6142+       JE    CMBOWN                   YES-GO SET OWNERSHIP STATUS.B RB
    1381 9E 01 64 21      6143+       ALC   LCBKLC(2,DTF),TUBRCL(,TUB) ADD ANOTHER RECORD LENGTH.  RB
    1385 C0 87 1379       6144+       B     CMBLAD                   GO TO CHECK FOR MORE RECORDS.RB

                     1389 6146+CMBSYS EQU   *                        SET SYSTEM BLOCK LENGTH. RB
    1389 8C 01 64 472C    6147+       MVC   LCBKLC(2,DTF),#CCMCL     MOVE IN MAX COMMAND LENGTH.RB

                          6149+*   SET OWNERSHIP STATUS IN THE TUB AND THE LCB.                RB

                     138E 6151+CMBOWN EQU   *                        SET OWNERSHIP.           RB
                          6152+*  DON'T SET TUB OWNERSHIP IF ERROR COMP CODE
```

```
    138E B5 01 23             6154+       L     $BDIOB(,DTF),XR1          XR1--> CURRENT IOB
    1391 7D 42 07             6155+       CLI   IOBCMP(,XR1),$BCEOT       HIGHER THAN X'42' AND ------|
    1394 79 80 07             6156+       TBF   IOBCMP(,XR1),BIT0         *        LESS THAN X'80'----|
    1397 B8 20 56             6157+       TBN   LCBAT2(,DTF),LCBACT       *        AND LINE ACTIVE ?--|
    139A B5 01 52             6158+       L     LCBPL@(,DTF),PL           XR1--> PARM LIST            |
    139D 75 01 0B             6159+       L     PLTUBA(,PL),TUB           XR1 --> TUB                 |
    13A0 F2 13 03             6160+       JC    CMNOWN,TRUAHI             JUMP IF ERROR RETURN CODE<--|
    13A3 7A 01 0C             6161+       SBN   TUBAT2(,TUB),TUBOWN       SET TUB OWNERSHIP.            RB
                         13A6 6162+CMNOWN EQU   *                         *
    13A6 9C 01 5C 12          6163+       MVC   LCBOWN(2,DTF),TUBTCB(,TUB) SAVE TCB @ OF OWNER IN LCB.  RB
    13AA F2 87 37             6164+       J     CMBTXT                    GO TO RETURN.                 RB
```

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                          6166+************************************************************** RB
                          6167+*                                                              * RB
                          6168+* NAME--CMTASV                                                * RB
                          6169+*                                                              * RB
                          6170+*    TITLE--SET AND SAVE TERMINAL ATTRIBUTES                   * RB
                          6171+*                                                              * RB
                          6172+*    FUNCTION--SET  AND SAVE TAS BYTES 1 AND 2 , TUBPHY AND TUBRCL.* RB
                          6173+*                                                              * RB
                          6174+*   ENTRY REGS: XR1-> PL.                                      * RB
                          6175+*   EXIT REGS:  SAME AS ENTRY.                                 * RB
                          6176+************************************************************** RB

                     13AD 6178+CMTASV EQU   *                         RB
    13AD 34 08 13E7       6179+       ST    CMBTXT+3,ARR              SAVE THE RETURN ADDRESS.      RB
    13B1 34 01 13E3       6180+       ST    CMTSX1+3,PL               SAVE THE PL REG.              RB
    13B5 7B 20 0D         6181+       SBF   PL$OPC(,PL),OPUSER        RESET FUNCTION INDICATOR.     RB
    13B8 79 80 02         6182+       TBF   PLOPM(,PL),OP$SYS         USER REQUEST, AND             RB
    13BB 79 C0 0D         6183+       TBF   PL$OPC(,PL),OPRFSH+OPLSNS * NOT POLL STATUS OR REFRESH ?RB
    13BE 75 01 0B         6184+       L     PLTUBA(,PL),TUB           LOAD THE TUB REG.             RB
    13C1 1C 00 15DB 23    6185+       MVC   CMSPHY,TUBPHY(1,TUB)      SAVE THE TUBPHY BYTE IN CORE. RB
    13C6 F2 90 08         6186+       JF    CMTSYS                    NO-GO SET SYSTEM TAS VALUES.  RB
    13C9 1C 03 15DA 21    6187+       MVC   SAVRCL,TUBRCL(4,TUB)      SAVE THE USER TAS VALUES.     RB
    13CE F2 87 0F         6188+       J     CMTSX1                    GO TO EXIT.                   RB

                     13D1 6190+CMTSYS EQU   *                         FILL SYSTEM TAS VALUE.        RB
    13D1 3C 10 15D7       6191+       MVI   SAVTA1,TASAUT             SET SET AUTO CONNECT VALUE    RB
    13D5 3C 20 15D8       6192+       MVI   SAVTA2,TASMSG             SET MESSAGE MODE IN TAS 2.    RB
    13D9 35 01 13E3       6193+       L     CMTSX1+3,PL               RELOAD THE PL REG.            RB
    13DD 7A 20 0D         6194+       SBN   PL$OPC(,PL),OPUSER        INDICATE SYSTEM FUNCTION.     RB
                     13E0 6195+CMTSX1 EQU   *                         *                             RB
    13E0 C2 01 0000       6196+       LA    #,PL                      RELOAD THE USER PL REG.       RB
                     13E4 6197+CMBTXT EQU   *                         *                             RB
    13E4 C0 87 0000       6198+       B     #                         RETURN.                       RB
```

```
                          6200+*****************************************************************  B
                          6201+*                                                               *  B
                          6202+*  NAME--CMGINL                                                 *  B
                          6203+*                                                               *  B
                          6204+*  TITLE--DETERMINE THE OPERATION INPUT LENGTH                  *  B
                          6205+*                                                               *  B
                          6206+*  FUNCTION--                                                   *  B
                          6207+*            DETERMINE THE INPUT RECORD LENGTH.  SET TRUNCATED  *  B
                          6208+*            INDICATOR IF INPUT LENGTH IS LESS THAN ACTUAL DATA  *  B
                          6209+*            LENGTH.                                            *  B
                          6210+*                                                               *  B
                          6211+*  OPERATION--                                                  *  B
                          6212+*            . SET THE INPUT LENGTH FOR THE OPERATION.          *  B
                          6213+*              - POLL FOR STATUS, USE 20.                       *  B
                          6214+*              - RECORD MODE INPUT - USE PLINL IF PLINL LESS THAN  *  B
                          6215+*                                    TUBRCL                     *  B
                          6216+*                                  - USE TUBRCL IF PLINL GREATER  *  B
                          6217+*                                    THAN TUBRCL.               *  B
                          6218+*                                                               *  B
                          6219+*            . IF NOT MLMP VARIABLE LENGTH RECORD SUPPORT ADJUST  *  B
                          6220+*              INPUT LENGTH IF LESS DATA IS AVAILABLE IN THE ACTUAL*  B
                          6221+*              LINE BUFFER THAN IS REQUESTED.                   *  B
                          6222+*                                                               *  B
                          6223+*            . IF MORE DATA IS AVAILABLE IN LINE BUFFER THAN     *  B
                          6224+*              REQUESTED, THEN SET THE TRUNCATED DATA INDICATOR.  *  B
                          6225+*                                                               *  B
                          6226+*            . IF PURE GET REQUEST OR A MESSAGE MODE INPUT AT    *  B
                          6227+*              OTHER THAN RECEIVE INITIAL TIME RETURN TO USER    *  B
                          6228+*              AFTER PERFORMING THE ABOVE FUNCTIONS.             *  B
                          6229+*                                                               *  B
                          6230+*            . OTHERWISE, ADD 4 BYTES FOR GETMAIN PARAMETER LIST.  *  B
                          6231+*                                                               *  B
                          6232+*            . FREE THE CURRENT LCB HOLD BUFFER IF IT IS LARGER THAN  B
                          6233+*              NEEDED, AND GETMAIN THE EXACT HOLD AREA NEEDED.   *  B
                          6234+*                                                               *  B
                          6235+*            . IF GETMAIN AREA NOT AVAILABLE, WAIT FOR IT TO BE  *  B
                          6236+*              AVAILABLE.                                        *  B
                          6237+*                                                               *  B
                          6238+*            . OTHERWISE, SET UP THE ACQUIRED AREA FOR THE INVITE  *  B
                          6239+*              INPUT OPERATION.                                  *  B
                          6240+*                                                               *  B
                          6241+*  ENTRY POINT--CMGINL                                          *  B
                          6242+*                                                               *  B
                          6243+*  INPUT--                                                      *  B
                          6244+*         XR2 - ADDRESS OF THE DTF                              *  B
                          6245+*                                                               *  B
                          6246+*  OUTPUT--                                                     *  B
                          6247+*          XR1 - NOT RESTORED.                                  *  B
                          6248+*          XR2 - ADDRESS OF THE DTF.                            *  B
                          6249+*          $BDREL - SET UP FOR INPUT LENGTH OF THE NEXT RECORD.  *  B
                          6250+*                                                               *  B
                          6251+*  EXTERNAL REFERENCES--                                        *  B
                          6252+*                  CMFMRT - FREEMAIN CURRENT HOLD BUFFER IF LARGER *  B
                          6253+*                           THAN IS NEEDED.                     *  B
                          6254+*                  CMGMRT - GETMAIN EXACT BUFFER NEEDED.        *  B
                          6255+*                                                               *  B
```

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                                6256+*  EXIT, NORMAL--TO NSI OF CALLER.                                 *  B
                                6257+*                                                                  *  B
                                6258+*  EXIT, ERROR--IF SPACE IS NOT AVAILABLE, EXIT TO CMPAII AND WAIT *  B
                                6259+*               UNTIL THE REQUIRED SPACE IS AVAILABLE.             *  B
                                6260+*                                                                  *  B
                                6261+****************************************************************** B

                           13E8 6263+CMGINL EQU   *                          *                          B
    13E8 34 08 14BA             6264+       ST    CMGIXT+3,ARR               SAVE RETURN @.             B
    13EC B5 01 52               6265+       L     LCBPL@(,DTF),PL            LOAD PARM LIST PTR TO GET THE  B
    13EF B9 10 34               6266+       TBF   $BDAT1(,DTF),$BCRES        SPANNING RECORD IN PROCESS ?   B
    13F2 B9 02 55               6267+       TBF   LCBAT1(,DTF),LCBEOT        OR SENDING EOT ?               B
    13F5 C0 90 14B7             6268+       BF    CMGIXT                     YES-GO EXIT EVERYTING'S DONE.  B

                                6270+*------------------------------------------------------------------*  B
                                6271+*  NOT PROCESSING SPANNED RECORD                                    *  B
                                6272+*------------------------------------------------------------------*  B

    13F9 9C 01 1F 07            6274+       MVC   $BDREL(2,DTF),PLINL(,PL)   MOVE INL TO DTF RECL AREA.     B
    13FD 9C 01 0D 09            6275+       MVC   $BDWKB(2,DTF),PLRECA(,PL)  MOVE CURRENT RECORD ADDR TO DTFB
    1401 78 40 0D               6276+       TBN   PL$OPC(,PL),OPLSNS         POLL FOR STATUS OP ?      7/0/5B
    1404 F2 90 08               6277+       JF    CMGIUT                     NOGO CHECK UNIT TYPE OF OP7/0/5B

                                6279+*------------------------------------------------------------------7/0/5B
                                6280+*  POLL FOR STATUS                                                 7/0/5B
                                6281+*------------------------------------------------------------------7/0/5B

    1407 8C 01 1F 15EF          6283+       MVC   $BDREL(2,DTF),RELSNS       USE STANDARD STATUS RECL. 7/0/5B
    140C F2 87 7A               6284+       J     CMGIRL                     GO USE THIS LENGTH FOR GET7/0/5B

                                6286+*------------------------------------------------------------------*  B
                                6287+*  NOT POLL FOR STATUS                                              *  B
                                6288+*------------------------------------------------------------------*  B

                           140F 6290+CMGIUT EQU   *                          *                          B
    140F 38 80 15D8             6291+       TBN   SAVTA2,TASREC              RECORD MODE ?              B
    1413 F2 90 16               6292+       JF    CMGIBK                     NO-GO CHECK DATA LEFT IN BLOCK.B
    1416 AC 01 0D 78            6293+       MVC   $BDWKB(2,DTF),LCBIBA(,DTF) USE INVITE BUF AREA FOR MLMP. B
    141A 75 01 0B               6294+       L     PLTUBA(,PL),TUB            LOAD THE TUB REG.          B
    141D 9D 01 1F 21            6295+       CLC   $BDREL(2,DTF),TUBRCL(,TUB) INL LT TAS RECL ?          B
    1421 F2 82 04               6296+       JL    CMGIMX                     YES-GO FILL MAX RECL ACCEPTABLEB
    1424 9C 01 1F 21            6297+       MVC   $BDREL(2,DTF),TUBRCL(,TUB) OTHERWISE USE TAS RECORD LEN. B
                           1428 6298+CMGIMX EQU   *                          *                          B
    1428 AC 01 11 1F            6299+       MVC   $BDMRL(2,DTF),$BDREL(,DTF) FILL MAX REC LEN ACCEPTABLE.  B

                           142C 6301+CMGIBK EQU   *                          *                          B
    142C 39 13 15D8             6302+       TBF   SAVTA2,TASITB+TASVRL+TASPAN MLMP VARIABLE RECORD SUPPORT?B
    1430 F2 90 4D               6303+       JF    CMGII@                     YES-GO GET II RECORD @.    B
    1433 B5 01 23               6304+       L     $BDIOB(,DTF),IOB           POINT TO THE IOB.          B
    1436 7D 80 07               6305+       CLI   IOBCMP(,IOB),PROCES        IOB BEING PROCESSED ?      B
    1439 F2 81 1D               6306+       JE    CMGIDX                     YES-IOB READY, GO CK DATA LEN. B
    143C 7D 42 07               6307+       CLI   IOBCMP(,IOB),$BCEOT        EOT OR IOB COMPLETE ?      B
    143F 39 20 15D8             6308+       TBF   SAVTA2,TASMSG              AND NOT MESSAGE MODE INPUT ?   B
    1443 F2 16 2F               6309+       JC    CMGI00,TRUAEQ              EOT TO RECORD/BLOCK, 0 IN-LEN. B
    1446 39 20 15D8             6310+       TBF   SAVTA2,TASMSG              MESSAGE MODE?              B
    144A F2 13 3C               6311+       JC    CMGIRL,TRUAHI              REC OR BLK AND MSG MODE--JUMP  B
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    144D F2 02 67             6312+       JNL   CMGIXT                    NOT COMPLETE, WAIT FOR OP END. B
    1450 9C 01 25 10          6313+       MVC   $BDBKX(2,DTF),IOBTAR(,IOB) SET UP BKX LIKE MLMP WILL.    B
    1454 8E 01 25 4633        6314+       ALC   $BDBKX(2,DTF),X$0001      UPDATE FOR -STX-.              B
                         1459 6315+CMGIDX EQU   *                          *                              B
    1459 9D 01 25 0E          6316+       CLC   $BDBKX(2,DTF),IOBCAR(,IOB) DATA LEFT IN BUFFER ?          B
    145D F2 02 57             6317+       JNL   CMGIXT                    NO-GO EXIT, WAIT FOR OP END.   B
    1460 9C 01 54 0E          6318+       MVC   LCBWRK(2,DTF),IOBCAR(,IOB) FIND THE NUMBER OF DATA       B
    1464 AF 01 54 25          6319+       SLC   LCBWRK(2,DTF),$BDBKX(,DTF) * CHARACTERS LEFT IN BUFFER.  B
    1468 AD 01 1F 54          6320+       CLC   $BDREL(2,DTF),LCBWRK(,DTF) INL LT MAX LINE DATA LEFT.    B
    146C F2 02 0D             6321+       JNL   CMGIAL                    NO-GO SET TO GET ALL DATA.     B
    146F BA 80 56             6322+       SBN   LCBAT2(,DTF),LCBTRC       SET BLOCK TRUNCATED IND.       B
    1472 F2 87 0B             6323+       J     CMGII@                    GO CHECK INVITE RECORD @.      B

                         1475 6325+CMGI00 EQU   *                          *
    1475 AF 01 1F 1F          6326+       SLC   $BDREL(2,DTF),$BDREL(,DTF) ZERO OUT INPUT RECORD LENGTH. B
    1479 F2 87 04             6327+       J     CMGII@                    GO CHECK INVITE RECORD LENGTH. B

                         147C 6329+CMGIAL EQU   *                          *                              B
                              6330+*   ACTUAL AMOUNT OF DATA FOR MLMP TO MOVE, MAY BE LESS THAN PLINL    B
    147C AC 01 1F 54          6331+       MVC   $BDREL(2,DTF),LCBWRK(,DTF) MOVE MAX LINE LEN TO RECL.    B

                              6333+*-----------------------------------------------------------------*  B
                              6334+*  DETERMINE SIZE OF HOLD BUFFER NEEDED                            *  B
                              6335+*-----------------------------------------------------------------*  B

                         1480 6337+CMGII@ EQU   *                          *                              B
    1480 B5 01 52             6338+       L     LCBPL@(,DTF),PL           LOAD @ OF CURRENT PARM LIST.   B
    1483 78 80 02             6339+       TBN   PLOPM(,PL),OP$SYS         SYSTEM REQUEST ?               B
    1486 F2 10 08             6340+       JT    CMGISR                    YES-GO SET UP SYSTEM RECORD LENB
                         1489 6341+CMGIRL EQU   *                          *                              B
    1489 2C 01 15DD 1F        6342+       MVC   #BUFND,$BDREL(2,DTF)      USE CURRENT RECORD LEN AND ADD B
    148E F2 87 05             6343+       J     CMGICB                    GO ADD GETMAIN CONTROL BYTES.  B

                              6345+*-----------------------------------------------------------------*  B
                              6346+*  SYSTEM REQUEST  OR USER GET MESSAGE                             *  B
                              6347+*-----------------------------------------------------------------*  B

                         1491 6349+CMGISR EQU   *                          *                              B
    1491 1C 01 15DD 07        6350+       MVC   #BUFND,PLINL(2,PL)        USE PARM LIST INL FOR SYST.    B

                              6352+*-----------------------------------------------------------------*  B
                              6353+*  ANY CALL EXCEPT  USER GET MESSAGE PRIOR TO 1ST OP END.          *  B
                              6354+*-----------------------------------------------------------------*  B

                         1496 6356+CMGICB EQU   *                          *                              B
    1496 0E 01 15DD 4637      6357+       ALC   #BUFND(2),X$0004          * GETMAIN PARM LIST REQ'MTS.   B

    149C C0 87 0E8E           6359+       B     CMGBUF                    GETMAIN RIGHT SIZE BUFFER      B
                              6360+*                                      IF SPACE NOT AVAILABLE, CMGBUF B
                              6361+*                                      *DOES NOT RETRUN, B CMPAII.    B

    14A0 AC 01 0D 78          6363+       MVC   $BDWKB(2,DTF),LCBIBA(,DTF) USE INVITE BUF AREA FOR MLMP. B
    14A4 B5 01 52             6364+       L     LCBPL@(,DTF),PL           LOAD PARM LIST REG.            B
    14A7 78 40 0D             6365+       TBN   PL$OPC(,PL),OPLSNS        POLLING FOR STATUS ?      0/5/7B
    14AA F2 90 06             6366+       JF    CMGMOV                    NO-GO DO MOVE OF RECORD @.0/5/7B
    14AD 78 01 0D             6367+       TBN   PL$OPC(,PL),OPGET         IF OP WAS INPUT , PLRECA  0/5/7B
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                               6368+*                                  * MUST BE SET TO GET      0/5/7B
                               6369+*                                  * DATA RATHER THAN STATUS.0/5/7B
    14B0 F2 90 04              6370+       JF    CMGIXT                NO-NOT INVITE, SKIP MOVE. 0/5/7B
                               6371+*                                  (PUT MUST PRESERVE REC @) 0/5/7B
                          14B3 6372+CMGMOV EQU   *                     *   LOCAL                 0/5/7B
    14B3 6C 01 09 0D           6373+       MVC   PLRECA(2,PL),$BDWKB(,DTF) PUT INVITE @ INTO PARM LIST.   B
                          14B7 6374+CMGIXT EQU   *                     *                             B
    14B7 C0 87 0000            6375+       B     ##                    RETURN                        B
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                          6377+*****************************************************************  B
                          6378+*                                                               *  B
                          6379+*  NAME : CMDTFS                                                *  B
                          6380+*                                                               *  B
                          6381+*  FUNCTION : SET UP DTF FOR BSCA LINE PRIOR TO GOING TO IOCS CHECK*  B
                          6382+*             ROUTINE.                                          *  B
                          6383+*                                                               *  B
                          6384+*  OPERATION :                                                  *  B
                          6385+*   CHECK FOR BSCA DTF'S WITH OPERATION COMPLETE, WHEN FIND ONE  *  B
                          6386+*   DO 1 OF THE FOLLOWING:                                      *  B
                          6387+*    1. IF ABORTING THE LINE, GO TO CHECK WITH NO DTF SETTING UP.  *  B
                          6388+*    2 .IF OLT RUNNING/OUTPUT SELECT/OR DATA MOVED, NO DTF SETUP   *  B
                          6389+*        NEEDED PRIOR TO CALLING CHECK.                         *  B
                          6390+*    3. IF RECEIVE INITIAL, SET UP DTF AND IOB FOR TERMINAL READING*  B
                          6391+*          UNLESS EOT RECEIVED TO RECEIVE INITIAL, IF SO CALL CHECK*  B
                          6392+*    4. IF NOT RECEIVE INITIAL, VALIDATE INPUT LINE BUFFER SIZE.  *  B
                          6393+*                                                               *  B
                          6394+*  EXTERNAL SUBROUTINES USED:                                   *  B
                          6395+*       CMCSKP - SET CHECK LIST SKIP BITS.                      *  B
                          6396+*       CMTASV - SAVE TERMINAL ATTRIBUTES.                      *  B
                          6397+*       CMBTAS - FILL DTF/IOB OWNERSHIP.                        *  B
                          6398+*       CMGINL - GETMAIN BUFFER FOR AMOUNT OF DATA RECEIVED.    *  B
                          6399+*       $CC4BI - CHECK FOR DATA MODE ESCAPE.                    *  B
                          6400+*                                                               *  B
                          6401+*  INPUT:                                                       *  B
                          6402+*       LCB#1  - ADDRESS LCB CHAIN.                             *  B
                          6403+*       @CKLST - ADDRESS OF CHECK LIST.                         *  B
                          6404+*                                                               *  B
                          6405+*  OUTPUT:                                                      *  B
                          6406+*       CHECK LIST - SKIP BITS SET SO CMBMCH WILL HANDLE OP END.*  B
                          6407+*       DTF - THE OP ENDING DTF IS SETUP FOR MLMP.              *  B
                          6408+*       XR1, XR2 - DESTROYED.                                   *  B
                          6409+*                                                               *  B
                          6410+*  EXITS-NORMAL: 1- TO NSI OF CALLER.                           *  B
                          6411+*       2 - IF OP END WHILE PARAMETER LIST HAS TEMPORARILY BEEN  *  B
                          6412+*           RETURNED TO USER PROGRAM (BLOCK/RECORD MODE), EXIT   *  B
                          6413+*           TO CMOPND.                                          *  B
                          6414+*                                                               *  B
                          6415+*****************************************************************  B

                    14BB  6417+CMDTFS EQU   *                     *  ENTRY POINT               B
14BB 34 08 15AE           6418+       ST    CMDTFX+3,ARR          SAVE RETURN ADDRESS          B

                          6420+*   LOCATE ANY BSCA DTF'S.                                       B

14BF 3B 04 15B5           6422+       SBF   CMSWIT,CMBSCK         RESET BSCA DTF CHECK SCDEDULED.B
14C3 35 02 464D           6423+       L     @LCB#1,DTF            LOAD @ 1ST LCB.              B
                    14C7  6424+CMENTR EQU   *                     *                            B

14C7 34 02 15CD           6426+       ST    CMSDTF,DTF            SAVE THE DTF ADDRESS.        B

                          6428+*****************************************************************  B
                          6429+*    BSCA DTF WITH OP END FOUND - CHECK FOR PARAMETER LIST       *  B
                          6430+*****************************************************************  B

                          6432+*   EXAMINE THE PARM LIST, IGNORE OP END INTERRUPT IF PARM LIST NOT   B
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                              6433+*     QUEUED.                                                    B

                         14CB 6435+CMEXPM EQU   *                        *   LOCAL                  B
    14CB B8 08 55             6436+       TBN   LCBAT1(,DTF),LCBNTQ      PARM LIST REMOVED FROM QUEUE ? B
    14CE F2 90 12             6437+       JF    CMBDTF                   NO-GO SETUP DTF FOR $$BMCH     B
                              6438+*                                     *  WILL RETURN TO CMEANR       B
    14D1 BA 10 55             6439+       SBN   LCBAT1(,DTF),LCBINT      SET OP END W/ NO PARM LIST Q'D.B
    14D4 8F 00 6C 4633        6440+       SLC   LCBOPE(1,DTF),X$0001     DECREMENT LINE OP END COUNT.   B
    14D9 0F 00 472A 4633      6441+       SLC   #OPEND,X$0001(1)         SUBTRACT 1 FROM OP END COUNT.  B
    14DF C0 87 0042           6442+       B     CMOPND                   GO CHECK FOR OTHER OP END'S.   B


                              6444+*************************************************************  B
                              6445+*   SET UP DTF FOR THIS LINE                                 *  B
                              6446+*************************************************************  B

                         14E3 6448+CMBDTF EQU   *                        *                          B
    14E3 3A 04 15B5           6449+       SBN   CMSWIT,CMBSCK            SET DTF SCHEDULED FOR CHECK    B

                              6451+*************************************************************   B
                              6452+*   IF LINE IS BEING ABORTED, THEN GO TO CHECK WITH NO SETTING UP.*   B
                              6453+*************************************************************   B

    14E7 B8 08 56             6455+       TBN   LCBAT2(,DTF),LCBABT      LINE ABORT IN PROCESS ?        B
    14EA C0 10 15AB           6456+       BT    CMEBCK                   YES-NO DTF SETTING UP,NEXT DTF B

                              6458+*   SAVE THE TAS ATTRIBUTES FROM THE TUB IN SAVE AREA.                B

    14EE B5 01 52             6460+       L     LCBPL@(,DTF),PL          LOAD PARM LIST OF ACTIVE TERM, B

    14F1 C0 87 13AD           6462+       B     CMTASV                   GO TO TAS SAVE SUBROUTINE.     B


                              6465+*************************************************************  B
                              6466+*  IF OUTPUT OPERATION - NO DTF SETUP NEEDED PRIOR TO CHECK      *  B
                              6467+*************************************************************  B

    14F5 B9 80 7D             6469+       TBF   LCBOPC(,DTF),LCBMVD      DATA MOVED OR                  B
    14F8 79 02 0C             6470+       TBF   PL$OPM(,PL),OPPUT        OUTPUT (SELECTION) OPERATION ? B
    14FB BB 80 7D             6471+       SBF   LCBOPC(,DTF),LCBMVD      SET OFF DATA MOVED IND.        B
    14FE C0 90 15AB           6472+       BF    CMEBCK                   YES-GO CHECK FOR ANOTHER DTF.  B

    1502 B8 01 56             6474+       TBN   LCBAT2(,DTF),LCBRCI      RECEIVE INITIAL ON LINE ?      B
    1505 C0 90 15A7           6475+       BF    CMEREC                   NO-GO HANDLE DATA REC LENGTH @18

                              6477+*************************************************************  B
                              6478+*   RECEIVE INITIAL ON THE LINE                              *  B
                              6479+*      IF LINE INIT OR ONLINE TEST STILL IN PROGRESS - DTF SETUP   *  B
                              6480+*       IS ALREADY DONE.                                        *  B
                              6481+*************************************************************  B

    1509 B5 01 23             6483+       L     $BDIOB(,DTF),IOB         POINT TO THE IOB               B
    150C 78 04 05             6484+       TBN   IOBFLA(,IOB),FIRST       LINE INIT STILL IN PROCESS ?   B
    150F C0 10 15AB           6485+       BT    CMEBCK                   YES-GO TO CHECK OTHER DTF'S.   B
    1513 B5 01 30             6486+       L     $BDWKA(,DTF),$BWK        POINT TO BSCA WORK AREA.       B
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    1516 B8 10 56              6487+       TBN   LCBAT2(,DTF),LCBRFT       WAS DTF SETUP FOR OLT ON PRIOR B
                               6488+*                                       *  PASS ?                     B
    1519 F2 90 0D              6489+       JF    CMERFF                      NO-CHECK FOR RFT COMING IN.    B
    151C 78 08 1D              6490+       TBN   $BWFG3(,$BWK),$BWRFT        OLT STILL RUNNING OR STATUS MSGB
    151F C0 10 15AB            6491+       BT    CMEBCK                      YES-GO CHECK FOR OTHER DTF'S.  B
    1523 BB 10 56              6492+       SBF   LCBAT2(,DTF),LCBRFT         OLT NO LONGER RUNNING, SET OFF.B
    1526 F2 87 09              6493+       J     CMERCI                      GO HANDLE THE RECEIVE INITIAL. B

                          1529 6495+CMERFF EQU   *                           *  LOCAL                       B
    1529 78 08 1D              6496+       TBN   $BWFG3(,$BWK),$BWRFT        OLT RUNNING OR STATUS MESSAGE  B
    152C F2 90 03              6497+       JF    CMERCI                      NO-GO HANDLE RECEIVE INITIAL.  B
    152F BA 10 56              6498+       SBN   LCBAT2(,DTF),LCBRFT         SET RFT STARTED AND RUNNING.   B
                          1532 6499+CMERCI EQU   *                           *  LOCAL                       B

                               6501+*-------------------------------------------------------------*    B
                               6502+*  IF CANCEL SUCCESSFUL (NO DATA) -- NO DTF SETUP PRIOR TO CHECK *    B
                               6503+*-------------------------------------------------------------*    B

    1532 B5 01 23              6505+       L     $BDIOB(,DTF),IOB            LOAD THE IOB REG.              B
    1535 7D 44 07              6506+       CLI   IOBCMP(,IOB),$BCNEG         NEGATIVE RESPONSE ?            B
    1538 C0 81 15AB            6507+       BE    CMEBCK                      YES-GO CHECK OTHER DTFS      @18
    153C B9 C0 55              6508+       TBF   LCBAT1(,DTF),LCBCRI+LCBPRI CANCEL PENDING ON THE LINE ?  B
    153F F2 10 07              6509+       JT    CMERCL                      NO - SET UP FOR RECEIVE        B
    1542 7D 42 07              6510+       CLI   IOBCMP(,IOB),$BCEOT         CANCEL OK ?                    B
    1545 C0 81 15AB            6511+       BE    CMEBCK                      YES-GO CHECK FOR OTHER DTF'S.  B

                               6513+*-------------------------------------------------------------*    B
                               6514+*  DATA RECEIVED -- SET UP DTF                                 *    B
                               6515+*-------------------------------------------------------------*    B

                          1549 6517+CMERCL EQU   *                           *  LOCAL                       B
    1549 AC 00 50 15           6518+       MVC   LCBID#(1,DTF),$BDIND(,DTF) MOVE IN CONTROL STATION ID.  CB
    154D B8 88 03              6519+       TBN   $BDATR(,DTF),$BCMCN         CONTROL STATION ?              CB
    1550 F2 10 00              6520+       JT    CMECTL                      YES-GO FIND PARM LIST FOR CS. CB

                               6522+*   FIND PARM LIST FOR MULTI-TERMINAL LINE.                       C/SB

                          1553 6524+CMECTL EQU   *                           *  LOCAL                       C/SB
    1553 B5 01 66              6525+       L     LCBPLQ(,DTF),PL             LOAD PTR TO FIRST PARM LIST.C/SB
                          1556 6526+CMEXID EQU   *                           *  LOCAL                       C/SB
    1556 B4 01 52              6527+       ST    LCBPL@(,DTF),PL             SAVE @ OF CURRENT PARM LIST.C/SB
    1559 78 10 0D              6528+       TBN   PL$OPC(,PL),OPSTCM          IS STOP INVITE TURNED GET   C/SB
                               6529+*                                       * STILL RECVING DATA.       C/SB
    155C F2 10 09              6530+       JT    CMESIJ                      YES - HANDLE IT LIKE GET.   C/SB
    155F 78 01 0C              6531+       TBN   PL$OPM(,PL),OPGET           THIS A GET PARM LIST ?      C/SB
    1562 79 04 02              6532+       TBF   PLOPM(,PL),OPSTOP           * AND NOT A STOP            C/SB
    1565 F2 90 0D              6533+       JF    CMENXT                      NO-GO TO GET NEXT PARM LIST.C/SB
                          1568 6534+CMESIJ EQU   *                           *  LOCAL                       C/SB
    1568 75 01 0B              6535+       L     PLTUBA(,PL),TUB             LOAD @ OF THIS TERMS TUB.   C/SB
    156B 6D 00 08 50           6536+       CLC   TUBSID(1,TUB),LCBID#(,DTF) THIS RESPONDING TERM'S TUB C/SB
                          156F 6537+CMEPRT EQU   *
    156F B5 01 52              6538+       L     LCBPL@(,DTF),PL             RELOAD PARM LIST @.         C/SB
    1572 F2 81 0E              6539+       JE    CMESKP                      YES-GO SET SKIP BIT ON.     C/SB
                          1575 6540+CMENXT EQU   *                           *  LOCAL                       C/SB
    1575 7D 00 00              6541+       CLI   PLCHN-1(,PL),NOBIT          IS THIS THE END OF THE CHAIN @25
    1578 F2 01 01              6542+       JNE   CMESLP                      NO - THEN CONTINUE NORMALLY  @25
```

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$CC4#2 $E093/CMDTFS---BSCA DTF SETUP FOR CHECK

ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT           SCP GENERATOR  08/08/10  PAGE 153

    157B 00               157B 6543+       DC    XL1'00'                    NO PARM LIST - U-PC          @25
                          157C 6544+CMESLP EQU   *                          @25
    157C 75 01 01              6545+       L     PLCHN(,PL),PL              LOAD REG TO NEXT PARM LIST @C/SB
    157F C0 87 1556            6546+       B     CMEXID                     GO BACK TO EXAMINE THIS ID. C/SB

                          1583 6548+CMESKP EQU   *                          *  LOCAL                     C/SB

    1583 AC 00 6D 50           6550+       MVC   LCBLID(1,DTF),LCBID#(,DTF) SAVE LAST TERMINAL ID      C/SB

                               6552+*   SAVE THE TAS ATTRIBUTTES FOR NEW TERMINAL.

    1587 C0 87 13AD            6554+       B     CMTASV                     GO TO TAS SAVE SUBROUTINE.     B

                               6556+*   SET DTF AND IOB ATTRIBUTES, OWN, RECEIVE IND'S, AND BLOCK LENGTH. B
                               6557+*     ALSO SET LINE OWNERSHIP STATUS.

                          158B 6559+CMEOWN EQU   *                          *  LOCAL                     B

    158B C0 87 1330            6561+       B     CMBTAS                     RTN TO FILL DTF/IOB/OWNERSHIP. B


                               6564+*   CORRECT ALL IOB'S IN THE CHAIN FOR ANY NEW ATTRIBUTTES SET.

                          158F 6566+CMEIOB EQU   *                          *  LOCAL                     B
    158F B5 01 23              6567+       L     $BDIOB(,DTF),IOB           LOAD THE IOB POINTER.          B
                          1592 6568+CMBTIB EQU   *                          *  LOCAL                     B
    1592 6C 00 06 02           6569+       MVC   IOBFLG(1,IOB),$BDATT(,DTF) MOVE ATTR. BYTE TO IOB.        B
    1596 6D 01 01 23           6570+       CLC   IOBNXT(2,IOB),$BDIOB(,DTF) ANOTHER IOB IN THE CHAIN ?     B
    159A 75 01 01              6571+       L     IOBNXT(,IOB),IOB           LOAD @ OF NEXT IOB.            B
    159D C0 01 1592            6572+       BNE   CMBTIB                     YES-GO FILL THE NEXT IOB.      B

                               6574+*   IF NOT A GOOD DATA BLOCK, DON'T CHECK DME, RECORD LENGTH, ETC.    B

    15A1 79 BD 07              6576+       TBF   IOBCMP(,IOB),ALLBIT-$BCEOT GOOD DATA BLOCK?               B
    15A4 F2 90 04              6577+       JF    CMEBCK                     NO-GO CHECK OTHER DTF'S.       B

                               6579+*-----------------------------------------------------------------*    B
                               6580+*  GOOD DATA RECEIVED                                              *    B
                               6581+*-----------------------------------------------------------------*    B


                               6584+*****************************************************************    B
                               6585+*  ALL READS  --- DETERMINE BUFFER SIZE NEEDED - ADJUST HOLD BUFFER*  B
                               6586+*****************************************************************    B

                          15A7 6588+CMEREC EQU   *                          *                              B
    15A7 C0 87 13E8            6589+       B     CMGINL                     COMPUTE AMOUNT OF DATA TO MOVE B
                               6590+*                                       GETMAIN RIGHT SIZE BUFFER      B
                               6591+*                                       * NOW THAT WE KNOW HOW MUCH    B
                               6592+*                                       * DATA CAME IN.                B

                          15AB 6594+CMEBCK EQU   *                          *   (WITHIN CMBDTF)            B
                          15AB 6595+CMECHK EQU   *                          * EXIT                         B
    15AB C0 87 0000            6596+CMDTFX B     *-*                        RETURN                         B
                               6597 *       $E095                                                          CCP00292
                               6598+* R-03,C-00
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                              6600+*****************************************************************
                              6601+*   CM WORK AREA                                                *
                              6602+*****************************************************************


    15AF 0003                 15B0 6604+X$0003 DC    XL2'0003'                CONSTANT OF 0003             @18
    15B1 FFFC                 15B2 6605+X$FFFC DC    XL2'FFFC'                CONSTANT OF FFFC
    15B3 0020                 15B4 6606+GMFAIL DC    XL2'0020'                PSR SETTING = BINARY OVERFLOW
    15B5 00                   15B5 6607+CMSWIT DC    BL1'0'                   SET OF EIGHT BINARY SWITCHES
                              0080 6608+CMFMPS EQU   BIT0                     CM WAS POSTED BY $CC4FM
                              0040 6609+CMRSLN EQU   BIT1                     1-INDICATES LINE CAN BE RESCHED
                              0020 6610+CMTPRQ EQU   BIT2                     1-INDICATES REQUEST JUST
                                   6611+*                                     SCHEDULED WAS RESULT OF TP REQ
                                   6612+*                                     POST BIT BEING SET
                              0008 6613+CMNOST EQU   BIT4                     1-ONLINE TEST START FAILED
                              0004 6614+CMBSCK EQU   BIT5                     1-BSCA DTF SET UP FOR CHECK CALL
                              0002 6615+CMSPSI EQU   BIT6                     1-CM HAS HANDLED STOP INVITE TO
                                   6616+*                                     * A STATUS POLL TERMINAL.
    15B6 00000000             15B9 6617+WCOUNT DC    XL4'00000000'            WORK AREA COUNTER FOR TEXT LEN
    15BA 0000                 15BB 6618+CMRFCK DC    XL2'0000'                PRUF PGM LENGTH CHECK FIELD
    15BC 0007                 15BD 6619+CMSEVN DC    XL2'0007'                PGM LENGTH FOR PRUF COMPARE


                              6621+*   ECB LIST USED BY $CC4CM TO WAIT FOR MORE WORK


                              15BE 6623+ECBLST EQU   *                        * WAIT LIST FOR CM
    15BE 4739                 15BF 6624+       DC    AL2($CMECB)              ECB FOR II,IB,IM,DF TO POST CM.
    15C0 473C                 15C1 6625+       DC    AL2($CMFM)               ECB FOR $CC4FM TO POST THAT
                                   6626+*                                     *  FREEMAIN HAS OCCURRED.
    15C2 1600                 15C3 6627+       DC    AL2(TIMIOB+7)            INTERVAL TIMER ECB           NB
    15C4 FFFF                 15C5 6628+       DC    XL2'FFFF'


                              6631+*  GETMAIN PARAMETER LIST

                              15C6 6633+GMLIST EQU   *                        START OF GETMAIN PARM LIST
    15C6                      15C7 6634+       DS    AL2                      GETMAIN ADDRESS
    15C8                      15C9 6635+       DS    XL2                      SIZE OF GETMAIN AREA


                              6637+*  SAVE AREAS


                              6639+*   THE FOLLOWING 4 BYTES MUST REMAIN TOGETHER FOR PARAMETER LIST
                              15CA 6640+CMOCPL EQU   *                        *  4 BYTE PL FOR MLMP OPEN/CLOSE
    15CA                      15CB 6641+CMSPL  DS    AL2                      SAVE AREA FOR PARM LIST ADDR
    15CC                      15CD 6642+CMSDTF DS    AL2                      SAVE AREA FOR TP DTFADDR
    15CE 00000000             15D1 6643+SAVCAT DC    XL4'0'                   SAVE AREA FOR IOBCAR + IOBTAR  B

    15D2 0000                 15D3 6645+CMNWPL DC    AL2(0)                   ADDR OF NO WAIT OP PL FROM II
    15D4 0000                 15D5 6646+CMLPL  DC    AL2(0)                   LAST READ PL SCHEDULED BY CMIVGM

    15D6 02                   15D6 6648+CCPUT  DC    XL1'02'                  PUT OP CODE (FOR REFRESH)     B
                                   6649+*    SAVE AREA FOR TERMINAL ATTRIBUTES                           R
                                   6650+*       NOTE: SAVTA1 AND SAVTA2 ARE SET BY ONE MOVE INTO SAVRCL OR   R
                                   6651+*             SAVTA2.                                               R
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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE 155

    15D7 00              15D7 6652+SAVTA1 DC    XL1'0'                    TERMINAL ATTRIBUTE SET BYTE 1.R
    15D8 00              15D8 6653+SAVTA2 DC    XL1'0'                    TERMINAL ATTRIBUTE SET BYTE 2.R
    15D9 0000            15DA 6654+SAVRCL DC    XL2'00'                   TERM ATTR SET RECORD LENGTH.  RB

    15DB 00              15DB 6656+CMSPHY DC    AL1(0)                    SAVE AREA FOR TUBPHY.         R
    15DC                 15DD 6657+#BUFND DS    CL2                       CONTAINS STORAGE BUFFER       R
                              6658+*                                      * SIZE NEEDED.                R
    15DE                 15DF 6659+CMIIND DS    XL2                       SIZE OF BUFFER NEEDED FOR LINE
                              6660+*       ADDRESS PLUGGED BY MLMP/MLTA IOCS -  NO EXPLICITLY USED BUT
                              6661+*         THE IOCS(S) ASSUME IT IS ALWAYS IN $$BMCH WHICH WE REPLACE
    15E0 000000          15E2 6662+CHBMHL DC    XL3'0'                    BOGUS DC FOR BRACKET HALT


                              6664+*************************************************************
                              6665+*  CM CONSTANT AREA                                         *
                              6666+*************************************************************

    15E3 15E5            15E4 6669+FNDEOT DC    AL2(BBUCKT)               @ OF BIT BUCKET AREA FOR SEARCHB
    15E5 00              15E5 6670+BBUCKT DC    XL1'00'                   DUMMY AREA FOR SEARCH EOT.     B

    15E6 0005            15E7 6672+FIVE   DC    XL2'0005'                 CONSTANT OF FIVE.             RB
    15E8 0007            15E9 6673+OLTLNG DC    AL2(7)                    LENGTH OF OLT PARM LIST.       B
    15EA 07FF            15EB 6674+RND2K  DC    XL2'07FF'                 CONSTANT TO ROUND TO 2K      @19
                         0007 6675+BND2K  EQU   X'07'                     EQUATE TO ROUND TO 2K        @19
    15EC 0015            15ED 6676+IOBLEN DC    AL2(IOBL)                 LENGTH OF BSCA IOB.           RB
                         0015 6677+LINFO  EQU   IOBL                      MAX # LINE CONTROL CHARS MLMP. B
    15EE 0014            15EF 6678+RELSNS DC    XL2'0014'                 MAX RECL FOR STATUS POLL.  0/57B
    15F0 0066            15F1 6679+MAXMSG DC    AL2(80+FORMTL)            MAX SPACE FOR SYSTEM MSG.     0B
    15F2 6CD9            15F3 6680+CMSTUS DC    AL2(SSID)                 CHECK VALUE FOR 3270 STATUS MS0B
    15F4 00000000        15F7 6681+ZROTIM DC    XL4'00000000'             CONSTANT FOR TIME CHECK       NB
    15F8 01              15F8 6682+TIMOPE DC    XL1'01'                   TIMER INTERNAL SWITCH         NB
                         0001 6683+VALOPE EQU   BIT7                      BIT 7=1 - DON'T WAIT ON TIMER NB
                              6684+*                                      *  AN OP END OCCURRED.        NB
                         0002 6685+POL1MN EQU   BIT6                      BIT 6=1 - POLL UNTIL TIME = 0 NB

                         15F9 6687+TIMIOB EQU   *                         INTERVAL TIMER IOB            NB
    15F9 00              15F9 6688+       DC    XL1'0'                    FLAG BYTE                     NB
                              6689+*                                      02 = TIME IS IN TIMER UNITS  NB
                              6690+*                                        (1 TU = 3.33 MS )          NB
                              6691+*                                      FF = CANCEL REMAINING TIME   NB
    15FA 000000000258    15FF 6692+       DC    XL6'000000000258'         TIME(INITIAL = 2 SEC.)        NB
    1600 000000          1602 6693+       DC    XL3'0'                    ECB FOR TIMER                 NB

    1603 0017            1604 6695+PLGMLG DC    AL2(PLLEN+4)              PL GETMAIN LENGTH INCL FREELIST
    1605 0014            1606 6696+PLGMLN DC    AL2(PLLEN+1)              PL GM LENGTH, USER INVITE    @19
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                               6698+* COMMON MLTA/BSCA EQUATES

                          0000 6700+GMCCP  EQU   0                        BEGINNING OF GETMAIN PARM LIST
                          0001 6701+GMADDR EQU   GMCCP+2-1                GETMAIN ADDRESS
                          0003 6702+GMSIZE EQU   GMADDR+2                 SIZE OF GETMAIN AREA

                          0006 6704+DMELEN EQU   6                        LENGTH OF DME STRING          D
                          0001 6705+TLERR  EQU   BIT7                     BIT IN TRANSLATE RETURN CODE TO
                               6706+*                                     INDICATE INVALID CHAR TRANSLATED
                          0002 6707+HEX512 EQU   X'02'                    VALUE OF HEX 02
                          0002 6708+DTF    EQU   2                        DTF REG.
                          0001 6709+PL     EQU   1                        PARAMETER LIST REGISTER.
                          0001 6710+TUB    EQU   1                        PTR TO TERMINAL UNIT BLOCK.
                          0001 6711+SWAPFR EQU   X'01'                    MOVE TYPE FOR FROM ATR SWAP
                          0002 6712+SWAPTO EQU   X'02'                    MOVE TYPE FOR  TO  ATR SWAP
                               6713+*              EQUATES FOR COMMON CHECK                                *

                          0002 6715+DTFADR EQU   2                        DISPLACEMENT TO DTF IN WAIT LIST
                          0001 6716+LISTRG EQU   1                        WAIT LIST POINTER - REGISTER 1
                          0003 6717+NEXT   EQU   3                        DISPLACEMENT TO NEXT LIST ENTRY
                          0000 6718+NOBSCA EQU   X'00'                    MASK TO TEST FOR BSCA PRESENCE
                          0000 6719+NOMLTA EQU   X'00'                    MASK TO CHECK FOR NO MLTA PRESEN
                          0008 6720+OPGONE EQU   X'08'                    CODE DESTROYED BIT
                          0087 6721+UNCOND EQU   X'87'                    UNCONDITIONAL Q-CODE FOR BRANCH
                          0000 6722+CHLSTS EQU   0                        CHECK LIST STATUS BYTE
                          0080 6723+CHLSKP EQU   X'80'                    CHECK LIST: SKIP ENTRY BIT
                          0020 6724+CHLAST EQU   X'20'                    CHECK LIST: LAST ENTRY INDICATOR

                               6726+*           DTF EQUATES.

                          0000 6728+DTFDEV EQU   0                        DTF DEVICE TYPE.
                          0003 6729+DTFATR EQU   3                        DTF ATTRIBUTE BYTE.
                          0002 6730+FILEAC EQU   X'02'                    FILE ACTIVE.
                          0001 6731+FILOPN EQU   X'01'                    FILE OPENED.
                          000E 6732+DTFCMP EQU   14                       DTF COMPLETION CODE.
                          0000 6733+OPACC  EQU   X'00'                    OPERATION ACCEPTED.
                          0056 6734+NOCOMP EQU   X'56'                    NO COMPLETED DTF'S.
                          0057 6735+INACTV EQU   X'57'                    NO ACTIVE DTF'S.

                               6737+*  SVC RIB EQUATES

                          0005 6739+POSTRB EQU   X'05'                    SVC RIB FOR POST SINGLE ECB.
                          0004 6740+WAITRB EQU   X'04'                    SVC RIB FOR WAIT ON ECB LIST.
                          0002 6741+MVRIB  EQU   X'02'                    SVC SUBRIB FOR MOVE ROUTINE
                          0003 6742+GMRIB  EQU   X'03'                    SVC SUBRIB FOR CCP GETMAIN.
                          0004 6743+FMRIB  EQU   X'04'                    SVC SUBRIB FOR CCP FREEMAIN
                          0009 6744+TRRIB  EQU   X'09'                    SVC SUBRIB FOR TRACE
                          0080 6745+LDRIB  EQU   X'80'                    SVC RIB FOR LOAD DSM XIENT (C/S)
                          0016 6746+TTMRIB EQU   X'16'                    SVC RIB FOR TEST TIMER
                          0015 6747+STMRIB EQU   X'15'                    SVC RIB FOR START TIMER
                          0001 6748+CCPRIB EQU   X'01'                    SVC RIB FOR CCP REQUEST.($CC4IG)


                          0096 6750+FLSNEQ EQU   X'96'                    CONDITION: FALSE OR NOT EQUAL.
                          0095 6751+FLSNLO EQU   X'95'                    CONDITION: FALSE OR NOT LOW.
                          0091 6752+FLSOEQ EQU   X'91'                    CONDITION: FALSE OR EQUAL.
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ERR LOC  OBJECT CODE      ADDR STMT SOURCE STATEMENT          SCP GENERATOR  08/08/10  PAGE 157

                          0094 6753+FLSOHI EQU   X'94'                  CONDITION: FALSE OR HI.
                          0016 6754+TRUAEQ EQU   X'16'                  CONDITION; TRUE AND EQUAL.
                          0015 6755+TRUALO EQU   X'15'                  CONDITION: TRUE AND LOW.
                          0011 6756+TRUNEQ EQU   X'11'                  CONDITION: TRUE AND NOT EQUAL.
                          0013 6757+TRUAHI EQU   X'13'                  CONDITION: TRUE AND HIGH.
```

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                               6760+*   BSCA EQUATES                                                    B
                               6761+*                                                                   B
                          0040 6762+BLANK  EQU   X'40'                    MASK FOR A BLANK CHARACTER.    B
                          0080 6763+BSCA   EQU   X'80'                    Q CODE FOR BSCA.               B
                          0040 6764+DONE   EQU   X'40'                    NORMAL COMPLETION.             B
                          0020 6765+POLBIT EQU   X'20'                    ON-ADDRESSING, OFF-POLLING.    B
                          0084 6766+READY  EQU   X'84'                    IOB READY FOR TRANSMIT.        B
                          007B 6767+SBF1   EQU   X'7B'                    SBF BASED ON XR1.              B
                          007A 6768+SBN1   EQU   X'7A'                    SBN BASED ON XR1.              B
                          00BB 6769+SBF2   EQU   X'BB'                    SBF BASED ON XR2.              B
                          00BA 6770+SBN2   EQU   X'BA'                    SBN BASED ON XR2.              B
                          0008 6771+STPRT  EQU   X'08'                    MASK FOR START PRINT BIT IN WCCB
                          0001 6772+TXTSNT EQU   X'01'                    INITIAL SETTING TEXT INDICATORSB
                          0002 6773+WCC    EQU   2                        DISPLACEMENT OF WCC IN PLRECA. B
                          0002 6774+IBX    EQU   2                        IOB WORK REG FOR BUFFER CARVE. B
                          0001 6775+IOB    EQU   1                        PTR TO INPUT/OUTPUT BLOCK      B
                          0001 6776+POL    EQU   1                        POLL LIST WORK REGISTER.       B
                          0001 6777+WKA    EQU   1                        WORK AREA REGISTER.            B
                          0001 6778+WORK   EQU   1                        GENERAL WORK REG.              B
                          00FC 6779+FC     EQU   X'FC'                    USED FOR LESS THAN 3 CHECK    FB
                          0080 6780+POLSKP EQU   X'80'                    SKIP BIT FOR POLLING LIST     CB
                          0059 6781+CPURGE EQU   X'59'                    CCP ABORT COMPLETION CODE      B
                          0007 6782+NSECS  EQU   7                        NUMBER OF SECTORS-1 FOR C/S    B
                               6783+*                                     TRANSIENT LOAD                 B
                               6784+*  EQUATES FOR TIMER INITIATED POLLING                               NB
                               6785+*                                                                    NB
                          0000 6786+TIFLAG EQU   0                        TIMER FLAG BYTE                NB
                               6787+*                                     02=TIME IS IN TIMER UNITS      NB
                               6788+*                                     FF=CANCEL REMAINING TIME       NB
                          0006 6789+TITIME EQU   6                        TIME FIELD                     NB
                          0000 6790        END   $CC4#2                                                      CCP00293
```

SYMBOL	LEN	VALUE	DEFN	REFERENCES
$$BMCH	001	124B	5882	2174 3311
$$BSMS	001	0001	2184	3310 4328
$AM	001	46F7	0347	0349
$AMA1	001	0010	0353	
$AMA2	001	0008	0354	
$AMBSY	001	0080	0350	
$AMDFF	001	0020	0352	
$AMERR	001	0002	0356	
$AMFLG	001	46F7	0349	0358 4515*
$AMID	001	46FC	0382	0383
$AMPA	001	46F9	0368	0379
$AMPF9	001	0004	0355	4515
$AMSA	001	46FA	0379	0381
$AMSHR	001	46FB	0381	0382
$AMUR	001	46F8	0358	0368
$AMUSE	001	46FD	0383	0384
$AMWK	001	46F7	0346	0347
$AMWRK	001	46FF	0384	
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CC4WC	001	0021	2137	
CC4WR	001	0024	2138	
CHACTV	001	129A	5932	5885* 5907*
CHBMBS	001	1283	5910	2178
CHBMHL	003	15E2	6662	2176
CHBSCA	001	126F	5902	
CHCKBS	001	1282	5908	5903
CHEND	001	128A	5924	
CHLAST	001	0020	6724	
CHLSKP	001	0080	6723	5893
CHLSTS	001	0000	6722	5889 5893 5928*
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CHNOOP	001	1296	5929	5927
CHPNTR	001	12A0	5940	5912 5933

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CKLEN   001  0003 1859
CKLSKP  001  0080 1860
CKLSTS  001  0000 1857
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CMBREQ  001  05FF 3526   2556
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CMBTXT  001  13E4 6197   6111* 6164  6179*
CMBXIT  001  1307 6055   6030*
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CMB0C1  001  050F 3272
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CMDQOK  001  1186 5726   5724
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CMFAKR  001  0AD2 4338
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CMFEOT  001  0B1D 4370   4346  4356
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CMFLA   001  08AA 4073   4071* 4072*
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CMREJC  001  0376 3053   3002
CMREOT  001  03E4 3109
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CMRERP  001  030E 2965   2958  2961
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CMRSEN   001  01AD 2742   2735
CMRSEP   001  01BC 2748   2745
CMRSLN   001  0040 6609   4972  5078  5849
CMRSTS   001  03FA 3127
CMRUCX   001  0498 3225   3218
CMRUPC   001  04A4 3231   3229
CMRUPX   001  049B 3227   3234
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CMRXE1   001  11E9 5795   5786
CMRXPT   001  11FD 5808
CMRZRO   001  03C4 3089   3068  3071  3075  3077  3079
CMR327   001  03EB 3113   3104
CMSAID   001  040E 3139
CMSBFL   001  04DA 3256   3246  3251
CMSBLK   001  04D2 3253   3249
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                          4510  4661  4822  4879  4888  5565  5651* 5721  5792* 5855*
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CMSRP1   001  11AA 5758   5756
CMSRP2   001  11C9 5772   5760
CMSRP3   001  11C5 5769   5765  5767
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CMSTOX   004  0F0E 5250   5231* 5239
CMSTOY   001  0F09 5248   5243
CMSTPX   001  01F2 2783   2757
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CMSUSR   001  0EFE 5241   5237
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CMTSYS  001  13D1 6190   6186
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CPSHUT  001  0010 0147
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CPSOB2  001  0020 0146
CPSU    001  0008 0148
CPURGE  001  0059 6781   2744  3580
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CS#TRL  001  0000 0535
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CSPKF2  001  47D5 0505   0508
CSPKR1  001  47CF 0502   0503
CSPKR2  001  47D3 0504   0505
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CTFORB  001  0006 1870
CTREJC  001  0003 1867
CTRLB   001  0007 1871
CTSTOR  001  0004 1868
CTTASV  001  0001 1866
CU      001  0000 1903
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				3391 3393 3403 3407* 3421* 3426 3577 3579 3587 3588 3588 3601*
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				6474 6483 6486 6487 6492 6498 6505 6508 6518 6518 6519 6525
				6527 6536 6538 6550 6550 6567 6569 6570
DTFADR	001	0002	6715	5888 5925 5941
DTFATR	001	0003	6729	5895
DTFCMP	001	000E	6732	4321* 5891* 5905 5911 5926 5930* 5934*
DTFDEV	001	0000	6728	
DUP	001	001C	1891	
ECBLST	001	15BE	6623	2317
EQ	001	0001	0080	3610
ERSUPT	001	006F	1883	
ERSWRT	001	00F5	1884	
ERTIME	001	4744	0470	
ESC	001	0027	1880	
ETBRCV	001	0001	1837	
EUA	001	0012	1892	
FALSE	001	0010	0076	3610
FC	001	00FC	6779	
FEHLT@	001	4784	0271	0272

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SYMBOL  LEN VALUE DEFN   REFERENCES
FILEAC  001  0002 6730   5895
FILOPN  001  0001 6731   5895
FIRST   001  0004 1799   4151  6484
FIVE    002  15E7 6672
FLSNEQ  001  0096 6750   2830  3946  4258  4317
FLSNLO  001  0095 6751   2969
FLSOEQ  001  0091 6752   2330  3644  4284  5420
FLSOHI  001  0094 6753   2735  3260  3989  4098  4227  4849
FM      001  001E 1893
FMRIB   001  0004 6743   5360
FNDEOT  002  15E4 6669   4169
FORMTL  001  0016 1954   6679
FWDABT  001  0004 1832   2778  3581
F3AUTO  001  0001 1827
F3MOVE  001  0004 1828   4324  4345
GMADDR  001  0001 6701   5142  5184  5302  5484  5643  6702
GMCCP   001  0000 6700   6701
GMFAIL  002  15B4 6606   5311
GMLIST  001  15C6 6633   5137* 5142  5179* 5184  5292  5303  5466* 5467* 5484  5573* 5584* 5585*
                         5592  5599* 5600  5633* 5643
GMRIB   001  0003 6742   5297
GMSIZE  001  0003 6702   5137* 5179* 5303  5303* 5466* 5467* 5573* 5584* 5585* 5592  5599* 5600
                         5633*
HEX512  001  0002 6707
HI      001  0004 0078   3610
IAR     001  0010 0048   5540* 6095*
IBX     001  0002 6774   4135* 4136  4137  4138  4139  4140
IC      001  0013 1890
INACTV  001  0057 6735   5930
INTIOB  001  0020 1829
INTNSP  001  0002 0171
INTPNO  001  0004 0170
IOB     001  0001 6775   3582* 3583  4110* 4111  4112  4113  4113  4114  4115  4116  4116  4117
                         4118  4119  4120  4123  4124  4126  4126  4127  4127  4129  4129  4130
                         4131  4131  4132  4132  4133  4135  4136  4137  4138  4139  4140* 4141
                         4150  4150* 4151  4360* 4361  4371* 4372  6304* 6305  6307  6313  6316
                         6318  6483* 6484  6505* 6506  6510  6567* 6569  6570  6571  6571* 6576
IOBCAR  001  000E 1807   1808  6316  6318
IOBCMP  001  0007 1802   1804  4120* 4123* 4315  4372  6155  6156  6305  6307  6506  6510  6576
IOBDAT  001  0009 1804   1805  4116* 4117* 4126  4138*
IOBDBL  001  0004 1796   1797  4112* 4127  4132
IOBDBN  001  0018 1813   1814  4129* 4130* 4131  4138
IOBDTF  001  0014 1810   1811  1812  1815  4114* 4136  4136  4136* 4141
IOBERR  001  000C 1806   1807  4115*
IOBFLA  001  0005 1797   1801  3583* 4119* 4124* 4151* 6484
IOBFLG  001  0006 1801   1802  4118* 4361  6569*
IOBL    001  0015 1815   6676  6677
IOBLEN  002  15ED 6676   4117  4130
IOBMSG  001  0016 1811
IOBNEX  001  0016 1812   1813  4126* 4127* 4129  4135  4139*
IOBNXT  001  0001 1794   1795  4113* 4137* 4150  6570  6571
IOBQ    001  0002 1795   1796  4111*
IOBSAR  001  0012 1809   1810
IOBSNS  001  000B 1805   1806
IOBTAR  001  0010 1808   1809  6313
IOB2NX  001  001A 1814   4131* 4132* 4133  4139
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SYMBOL   LEN VALUE DEFN   REFERENCES
JF2SAR   001  0020 1823
JF2SR2   001  0010 1838
KNPL     001  476C 0267   0270
KNTUB    001  4745 0266   0267
LCB$L0   001  005E 1652   1653  4148
LCBABT   001  0008 1644   2756  4160  4261  6455
LCBACT   001  0020 1642   2582  3391  3426  3628  3718  4009  4336  5087  6157
LCBADJ   001  0058 1649   1650  3997* 4100  4229
LCBADL   001  007E 1735   1736  4066  4070* 4071
LCBADN   001  0088 1736   1745
LCBATA   001  0069 1662   1667
LCBATC   001  007B 1718   1720
LCBATL   001  005A 1650   1651
LCBATO   001  0010 1688
LCBATR   001  0070 1694   1711  2581  2875* 3943* 4378* 5057* 5198* 5313* 5660  5661* 5757*
LCBAT1   001  0055 1630   1639  2784  2819  2934  2941* 2952  3011  3059* 3110* 3166* 3191* 3382
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LCBBFL   001  0072 1711   1712  4046
LCBBLN   001  0089 1745
LCBBND   001  0062 1654   1655  4133
LCBBYP   001  0008 1689
LCBCCP   001  0065 1659   1660
LCBCHN   001  0068 1661   1662
LCBCRI   001  0080 1631   2784  2819  3813  6508
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LCBDFB   001  0001 1665
LCBDFF   001  0002 1664
LCBDTR   001  006B 1668   1672
LCBELC   001  006A 1667   1668
LCBENB   001  0020 1687
LCBEOT   001  0002 1636   2934  3110  3166  3191  3382  4161  4306  6267
LCBERP   001  0040 1726   2919  2942  2968  4017  4902  4905
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LCBIBA   001  0078 1715   1716  2963* 3186* 3933  3936  3937* 5019  5026  5036* 5142* 5143* 5163
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LCBIGN   001  0080 1663
LCBINT   001  0010 1633   3761  3762  5766  6439
LCBITB   001  0080 1685
LCBKLC   001  0064 1655   4036  4047* 4100* 4102  4275  4277  6138* 6143* 6147*
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LCBLLE   001  006E 1677   1682
LCBMIL   001  0081 1741   1743
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LCBMRL   001  007F 1740   1741
LCBMVD   001  0080 1725   4347  6469  6471
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LCBOLT  001  006F 1682   1684  1694
LCBOPC  001  007D 1724   1735  1740  1749  2753* 2763  2919  2942* 2968  3323  3325* 3577  3625
                         3652  4017* 4018* 4173  4198* 4262  4295  4347* 4902  4905  6469  6471*
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LCBPLQ  001  0066 1660   1661  3064  4977  4997  5663  5719  5759  5778  6525
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LCBPOR  001  0001 1692
LCBPRI  001  0040 1632   2819  3011  3059  3813  3814  6508
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LCBRCI  001  0001 1647   2443  2816  3000  3001  3633  3720  3802  4048  4200  4302  5086  6474
LCBREP  001  0002 1691
LCBRFT  001  0010 1643   6487  6492  6498
LCBRS3  001  0074 1712   1713
LCBRVI  001  0020 1727   2753  3323  3325  4198
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LCBSEC  001  0004 1645   3125  4301  4304
LCBSEL  001  004F 1622   1623  1624  6078
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LCBSRT  001  0060 1653   1654  3997  4081  4228
LCBSTP  001  0010 1700
LCBSTS  001  0004 1690   2733  2743  3941
LCBSWL  001  0008 1701
LCBSWN  001  008D 1751
LCBTBK  001  0002 1706
LCBTCB  001  007A 1716   1718
LCBTEL  001  007E 1749   1750
LCBTIM  001  0001 1709   2581  2875  3943  4378  5757
LCBTL@  001  008C 1750   1751
LCBTRC  001  0080 1640   3243  3245  3297  3298  4288  6322
LCBTSP  001  0040 1686
LCBWRK  001  0054 1626   1630  3216* 3219* 3233* 4104* 4112  6084* 6095  6318* 6319* 6320  6331
LCB1PL  001  0004 1703   5660  5661
LCPPMR  001  0040 0050
LDRIB   001  0080 6745
LINFO   001  0015 6677   4103
LISTRG  001  0001 6716   5886* 5888  5889  5893  5925  5928  5941
LO      001  0002 0079
LSTSIZ  001  0016 2159
LVBIAR  001  00A0 0054
LVCIAR  001  00C0 0055
LVIIAR  001  0080 0052
LVMIAR  001  0090 0053
MAXMSG  002  15F1 6679   4099
MVLCCP  001  0000 1770   1771
MVLFRA  001  0005 1773   1774  4479* 4490* 4858* 5475* 5481*
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NC@NEW	001	0009	1018	1020
NCAEND	001	0065	1156	
NCAFML	001	000D	1041	1042
NCC	001	0000	1013	1014
NCCCP	001	0043	1174	
NCCECB	001	0048	1177	
NCCMTQ	001	002B	1095	1097
NCCNFG	001	0049	1141	1142
NCCONF	001	002F	1098	1110
NCDATE	001	001B	1050	1051
NCDENT	001	0041	1173	
NCDSKQ	001	0021	1090	1091
NCDSK5	001	0023	1091	1092
NCDSP1	001	000A	1020	1027 5531
NCDSP2	001	000B	1027	1036
NCENTR	001	0004	1163	
NCETQ@	001	0029	1094	1095
NCEXTR	001	0034	1113	1114
NCHIMG	001	0700	1178	
NCL2PR	001	00C0	1182	
NCMPLC	001	0063	1154	1155
NCMPSZ	001	0062	1153	1154
NCMSVA	001	001A	1165	
NCMVT1	001	0037	1136	1137
NCMVT2	001	003B	1137	1138
NCMVT3	001	003F	1138	1139
NCMVT4	001	0043	1139	1140
NCOLIB	001	0015	1049	1050
NCPCHK	001	0100	1180	
NCPENT	001	003F	1172	
NCPFKT	001	0061	1152	1153
NCPL1	001	0001	1014	1015
NCPL2	001	0003	1015	1016
NCPRTB	001	0048	1140	1141
NCRCSS	001	002E	1097	1098
NCRQE	001	0033	1112	1113
NCSBUF	001	077C	1179	
NCSCH	001	001F	1085	1090
NCSCH1	001	001C	1051	1066
NCSCH3	001	0030	1110	1111
NCSCH4	001	0031	1111	1112
NCSGEN	001	000C	1036	1041
NCSIPT	001	005B	1148	1149
NCSLOG	001	0010	1042	1047
NCSMV1	001	001D	1066	1076
NCSMV2	001	001E	1076	1085
NCSMV3	001	0035	1114	1125
NCSMV4	001	0036	1125	1136
NCSPCH	001	005D	1150	1151
NCSPRT	001	005C	1149	1150
NCSPVN	001	005F	1151	1152
NCSVCE	001	0036	1170	

SYMBOL	LEN	VALUE	DEFN	REFERENCES
NCSVCJ	001	0032	1169	
NCSWRK	001	0012	1047	1048
NCSYS@	001	0011	1164	5530
NCSYSQ	001	0013	1048	1049
NCTA@	001	0800	1181	
NCTALL	001	0010	1024	5531
NCTAPQ	001	0025	1092	1093
NCTCB	001	0005	1016	1017
NCTCB@	001	002E	1167	
NCTCCP	001	0020	1023	5531
NCTERM	001	0031	1168	
NCTMRQ	001	0065	1155	1156
NCTRAC	001	002A	1166	
NCTRAP	001	003B	1171	
NCTRCA	001	0080	1021	5531
NCTRCS	001	0040	1022	
NCTRDK	001	0008	1025	
NCURQ	001	0027	1093	1094
NCUTL1	001	005A	1142	1148
NCXTAB	001	0007	1017	1018
NCXTB@	001	0045	1175	
NCXTE@	001	0047	1176	
NEXT	001	0003	6717	
NOBIT	001	0000	0024	2313 2329 2405 2455 2507 2563 2567 2599 2963 3034 3090 3164 3186 3767 3929 3933 3937 3945 3974 4082 4265 4342 4612 4675 4769 4780 4782 4796 5019 5036 5116 5163 5175 5293 5398 5413 5415 5419 5431 5474 5676 5759 5814 5833 6541
NOBSCA	001	0000	6718	5903
NOCOMP	001	0056	6734	5934
NOMLTA	001	0000	6719	
NONE	001	0000	0074	
NOOP	001	0080	0059	5907
NOP	001	0007	0058	
NPATTR	001	0083	0806	0808
NPBEG	001	0071	0795	0796
NPBEGL	001	0076	0797	0798
NPBPSD	001	0092	0860	0870
NPCYL	001	007A	0799	0800
NPDATE	001	0089	0808	0809
NPDTF@	001	006E	0794	0795
NPECOM	001	00B2	1005	
NPEND	001	0074	0796	0797
NPEOJ	001	006B	0777	0786
NPEOJ@	001	002A	0785	
NPHALT	001	0052	0762	0773
NPJOB	001	005A	0773	0774
NPLEVL	001	0090	0858	
NPLNK@	001	009F	0962	0964
NPLPSZ	001	0050	0760	0761
NPMANT	001	009B	0950	0960
NPMPFL	001	009E	0961	0962
NPNAME	001	0068	0775	0776
NPOBJQ	001	0091	0859	0860
NPOCAF	001	00B0	1002	1003
NPOLIB	001	007C	0800	0801
NPORLF	001	007E	0801	0802

SYMBOL	LEN	VALUE	DEFN	REFERENCES
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NPQ	001	0081	0804	0805
NPRLF	001	0078	0798	0799
NPRPSZ	001	0051	0761	0762
NPSCHA	001	0099	0929	0939
NPSCHB	001	009A	0939	0950
NPSCHC	001	00A6	0997	0998
NPSCHD	001	00A8	0998	0999
NPSCHE	001	00AA	0999	1000
NPSCHF	001	00AC	1000	1001
NPSCHG	001	00AE	1001	1002
NPSCH1	001	008E	0822	0832
NPSCH2	001	008F	0832	0844
NPSCH3	001	0090	0844	0858 0859
NPSCH4	001	0093	0870	0882
NPSCH5	001	0094	0882	0893
NPSCH6	001	0095	0893	0907
NPSCH7	001	0096	0907	0917
NPSCH8	001	0097	0917	0927
NPSCH9	001	0098	0927	0929
NPSPCM	001	006A	0776	0777
NPSPFL	001	00B2	1004	1005
NPSPLZ	001	00B1	1003	1004
NPSPOL	001	006C	0786	0794
NPSRAA	001	009D	0960	0961
NPSTEP	001	0062	0774	0775
NPSTP#	001	008A	0809	0810
NPSYSI	001	008D	0810	0822
NPSYSP	001	00A1	0971	0975
NPTXT	001	0080	0802	0804
NPUNCH	001	00A0	0964	0971
NPUPSI	001	0082	0805	0806
NPUTIL	001	00A2	0975	0981
NPUTL1	001	00A3	0981	0991
NPUTL2	001	00A4	0991	0997
NSECS	001	0007	6782	
OLTLNG	002	15E9	6673	
ONETIM	001	00FE	1850	4074
OP$SYS	001	0080	1227	3026 3076 3165 3189 3204 3208 3242 3258 3296 3608 3643 3660
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				5586 5602 5624 6182 6339
OPACC	001	0000	6733	4321 5891 5905 5911 5926
OPACI	001	0004	1266	1267 1268 2550
OPACQ	001	0009	1272	
OPANW	001	0044	1267	
OPAQG	001	0069	1274	
OPBLK	001	0020	1251	
OPBNOP	001	0010	1339	4710
OPCMDT	001	0029	1273	
OPCOPY	001	0040	1253	
OPDISC	001	0020	1229	4548
OPDLY	001	0001	1239	
OPDMY	001	003D	1279	
OPEATT	001	470D	0423	0424
OPEAU	001	0050	1254	
OPEOL	001	0001	1236	

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				6115	6367	6531									
OPGETM	001	0080	1334	2490	3733	5058	5060	5081	5197	5309	5695	5810	5828		
OPGETQ	001	0040	1336	2489	2490	5616	5639	5695							
OPGONE	001	0008	6720	5889	5928										
OPGTA	001	0008	1271												
OPINV	001	0005	1269	3074	3642	3652	4733	4759	4889	5428	5570	5575	5587	5622	5625
				5646											
OPJRSH	001	0080	1280												
OPKPL	001	0010	1247												
OPLINE	001	0010	1250	1265											
OPLIST	001	0008	1231												
OPLSNS	001	0040	1347	2939	3061	3149	3150	3422	4982	5113	5236	5805	6183	6276	6365
OPMSG	001	0030	1252	1278	1279	3078	3368	3609	3645	3657	4233	4253	4255		
OPNOW	001	0004	1259	1269	1270	1279	3072	3612	3626	3784	4550	4644	4647	4655	5396
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OPNPST	001	0020	1338												
OPOLT	001	0040	1228	2551											
OPOPTN	001	0010	1246	1268											
OPORDR	001	00F0	1256	3369	4196	4234	4256								
OPPCR	001	003A	1278												
OPPNW	001	0006	1270	3603	3645	3646	3657	4704							
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OPPTG	001	0003	1264												
OPPURG	001	0013	1265												
OPPUT	001	0002	1260	1264	1265	1270	1275	1276	1277	1278	2465	2751	2763	2922	3528
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OPREQR	001	0080	1225	1227											
OPRFSH	001	0080	1346	3061	3167	3344	3345	3659	3995	5797	6183				
OPRTC	001	004A	1276												
OPRUF	001	0070	1255	3369	4234	4256									
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OPSATT	001	470B	0422	0423											
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OPSHQ	001	0000	1263												
OPSOL	001	0002	1233												
OPSTA	001	0010	1248												
OPSTAT	001	0008	1258	1271	1272	1273	1274	1275	1276	1277	1278	1279			
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OPSTD	001	0000	1245												
OPSTOP	001	0004	1232	2525	2938	3548	4609	4901	5784	5970	6532				
OPTCHN	001	002A	1277												
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PL$MCT  001  000D 1210
PL$OPC  001  000D 1209  1210  1212  2939  2957  3061  3149  3150* 3155  3167* 3168* 3344  3345*
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PL$RTC  001  000F 1212  1213  1217  2945* 2986* 2987* 2999  3108* 3255* 3269* 3320* 3328* 4420
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PLECB   001  0010 1217  1219  1221  4558  4657  4873  5649
PLEFFL  001  0005 1198  3032  3032* 3257* 3266  3268* 3404  4367* 4420* 4439  4439* 4447  4447*
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PLENDS  001  000F 1215  5644
PLGMLG  002  1604 6695  5599  5633
PLGMLN  002  1606 6696  5573
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PLLEN   001  0013 1221  5649* 6695  6696
PLLNG   001  0010 1219  5644  5644*
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PLOUTL  001  0005 1197    1198  1199  1201  3300  3977  4220  4275  5466  5487  5584
PLRECA  001  0009 1203    1205  3034* 3164* 3202  3203  3226  3767  4178  4479  4670  4675* 4769
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PLRTC   001  0001 1191    1192  1194  4424  4424* 4429  4470* 4493  5732*
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PLTUBA  001  000B 1205    1207  2522  2732  2832  2844  2954  2964  3003  3033  3069  3095  3152
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PL1EOT  001  0040 1820
PMR     001  0030 0049
PMRINS  001  0010 0084
PMRINT  001  0001 0087
PMRI12  001  0070 0081
PMROP1  001  0020 0083
PMROP2  001  0040 0082
PMRPRT  001  0002 0086
PMRPRV  001  0008 0085
POL     001  0001 6776    4070  4072  6036* 6038  6040  6041  6042  6042* 6045  6047  6047* 6078*
                          6082* 6086  6088  6090  6090* 6091  6091*
POLACT  001  00F1 1852
POLBIT  001  0020 6765
POLCH1  001  0002 1846
POLCH2  001  0003 1847
POLCNT  001  0001 1845    4072  4990  6040  6045* 6088
POLEND  001  00F0 1851    4988  6038
POLID   001  0000 1844    4988  6038  6041  6086
POLNXT  001  0003 1848    4993  6047  6091
POLSKP  001  0080 6780    4992  6045
POLTIM  001  47C6 0490    0491
POL1MN  001  0002 6685    2590  2859  2861  2883
POST    001  0040 0040    2328  2333  2334  5062  5199  5314
POSTRB  001  0005 6739    4560  4659  4821  4877
PROCES  001  0080 1803    4315  6305
PRUFOF  001  0020 0450    4449
PSR     001  0004 0046    5311*
PSTCB   001  0D1A 4831    4730* 4744* 4781
PT      001  0005 1894
RA      001  003C 1895
RCOK    001  0000 1359
RCOKTC  001  000E 1360
RCRTRM  001  0040 1387
RCXCLR  001  0007 1372    3108  5790
RCXDPD  001  0005 1370
RCXDTR  001  0001 1364    3255  3269  3320  4470
RCXEDT  001  0003 1366    4429  4493  4848
RCXEOT  001  0002 1365
RCXNAC  001  0010 1380
RCXNAQ  001  000B 1376
RCXNAV  001  0008 1373
RCXNIQ  001  007E 1382
RCXNTC  001  000C 1377
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SYMBOL	LEN	VALUE	DEFN	REFERENCES
RCXNTP	001	000D	1378	
RCXNTR	001	000F	1379	
RCXOFF	001	0009	1374	
RCXRVI	001	0006	1371	3328
RCXSHD	001	0004	1369	
RCXSHP	001	0011	1381	
RCXSPF	001	007F	1383	
RCXSPI	001	000A	1375	2945
READY	001	0084	6766	4123
RELSNS	002	15EF	6678	5238 6283
RND2K	002	15EB	6674	
SAVCAT	004	15D1	6643	2179 4357 4357* 4358* 4364* 4367
SAVLOP	001	47A2	0280	0281
SAVRCL	002	15DA	6654	3250 3254 3300 6187*
SAVTA1	001	15D7	6652	3205 3211 6191*
SAVTA2	001	15D8	6653	3062 3248 3653 4282 4311 4313 4355 6113 6128 6192* 6291 6302 6308 6310
SBA	001	0011	1896	
SBF1	001	007B	6767	5089
SBF2	001	00BB	6769	
SBN1	001	007A	6768	2445 2793 3558 5068
SBN2	001	00BA	6770	
SETIND	001	0294	2882	2862
SF	001	001D	1897	
SHDECB	001	477F	0270	0271
SHDSAV	001	478F	0272	0275
SKIP	001	0020	0041	2315 2335 2337 5056 5062 5199 5314
SNSTAS	001	0001	1928	2737 3128
SSBYT1	001	0005	1933	
SSBYT2	001	0006	1934	
SSCU	001	0003	1931	
SSDA	001	0004	1932	
SSETX	001	0007	1935	
SSID	001	6CD9	1929	6680
SSTX	001	0002	1930	
STMRIB	001	0015	6747	2869 4191
STPRT	001	0008	6771	
ST1MIN	001	028F	2879	2857
SVLOOP	001	47C7	0491	0492
SV1TAX	001	4621	0132	0133
SV2TAX	001	4623	0133	0136
SWAID	001	0000	1907	
SWAPFR	001	0001	6711	5478
SWAPTO	001	0002	6712	4496 4856
SWTEXT	001	0003	1924	
S374ST	001	0001	1949	
S375B1	001	0003	1942	
S375B2	001	0004	1943	
S375ID	001	0001	1940	
S375NL	001	0002	1941	
TAONE	001	4000	0107	0108
TASAT1	001	0000	1400	1418
TASAT2	001	0001	1418	1439
TASAUT	001	0010	1408	6191
TASBKF	001	0004	1441	1443
TASBLK	001	0040	1422	3248 4311

SYMBOL	LEN	VALUE	DEFN	REFERENCES					
TASCAS	001	0040	1404	3211					
TASCCP	001	0000	1396	1400	1443				
TASCNC	001	0020	1406						
TASDFF	001	0001	1413	3782	4494				
TASINX	001	0008	1410						
TASITB	001	0010	1426	4282	6118	6122	6302		
TASLN	001	0005	1443						
TASMSG	001	0020	1424	3062	3653	4355	6192	6308	6310
TASPAN	001	0002	1432	4282	6302				
TASRCL	001	0003	1439	1441					
TASREC	001	0080	1420	4311	4313	6291			
TASRSV	001	0006	1412						
TASTRN	001	0080	1402	3205					
TASTSP	001	0008	1428	6122					
TASVFY	001	0004	1430						
TASVRL	001	0001	1434	4282	6302				
TATWO	001	4300	0108						
TCB@AS	001	0064	0563	0564					
TCBACW	001	0001	0587	4832					
TCBALC	001	0020	0576						
TCBARR	001	0019	0711	0715					
TCBATR	001	00E0	0597	0599					
TCBATS	001	010D	0627	0628					
TCBATT	001	004E	0747	0749	0754	0755	0756	0759	
TCBB	001	0000	0661	0662					
TCBCAL	001	0000	0543						
TCBCHN	001	0040	0612						
TCBCM	001	0008	0578						
TCBCMP	001	002B	0561						
TCBCSN	001	001C	0715	0716					
TCBDMG	001	00AE	0573						
TCBDS1	001	0006	0693	0700					
TCBDS2	001	0007	0700	0703					
TCBECB	001	00DB	0594	0595	4832	4837			
TCBEJC	001	002B	0724	0736					
TCBEJE	001	002A	0723	0724	0785				
TCBEJS	001	002C	0736	0746					
TCBEMG	001	0002	0580						
TCBEPL	001	010E	0628	0629					
TCBFBM	001	00E3	0607	0608	0650				
TCBFDT	001	0066	0565	0566					
TCBFG1	001	0004	0682	0690	4720				
TCBFG2	001	0005	0690	0693	4752				
TCBFSA	001	0116	0630						
TCBHAV	001	0047	0749						
TCBIAR	001	000F	0706	0707					
TCBID	001	0003	0664	0682					
TCBIIC	001	00DE	0595	0596					
TCBINQ	001	0068	0566	4782	4788*	4795			
TCBIR	001	00A7	0568	0569					
TCBKRQ	001	0040	0575						
TCBLOW	001	0020	0613						
TCBMAP	001	0026	0721	0722					
TCBMAX	001	00DF	0596	0597	0648				
TCBMFU	001	0004	0604						
TCBMTS	001	0004	0579						

SYMBOL	LEN	VALUE	DEFN	REFERENCES			
TCBNCL	001	0004	0550	4720			
TCBNEP	001	0010	0577				
TCBNXT	001	0001	0662	0663			
TCBOFG	001	00E5	0610	0620	0651		
TCBPAS	001	0065	0564	0565			
TCBPCA	001	004C	0755				
TCBPCB	001	00E7	0620	0621			
TCBPCS	001	004E	0756				
TCBPL	001	00C4	0589	0590	0622	0637	
TCBPLE	001	00D6	0590	0591			
TCBPMR	001	0011	0707	0708			
TCBPR	001	00A9	0569	0570			
TCBPRI	001	0002	0663	0664			
TCBPRS	001	0080	0600				
TCBPRT	001	0010	0602				
TCBPSR	001	0013	0708	0709			
TCBRBF	001	000B	0704	0705			
TCBRBP	001	0009	0703	0704			
TCBRIB	001	001D	0716	0717			
TCBROC	001	0112	0629	0630			
TCBRSV	001	001E	0717	0718			
TCBRS1	001	0024	0718	0721			
TCBRS3	001	004A	0754				
TCBRTC	001	002E	0746	0747			
TCBRUF	001	0080	0574				
TCBRV	001	00EB	0622				
TCBSAD	001	00C4	0637	0638			
TCBSAS	001	00C8	0639	0640			
TCBSAT	001	00C6	0638	0639			
TCBSAV	001	00CA	0640				
TCBSHQ	001	0001	0581				
TCBSRT	001	0080	0611				
TCBSUS	001	0040	0557				
TCBTCB	001	000D	0705	0706			
TCBTIM	001	0028	0722	0723			
TCBTRC	001	0080	0554	4752			
TCBTRM	001	0020	0558				
TCBTUB	001	00DA	0593	0594			
TCBURA	001	00E1	0599	0607	0649		
TCBUSE	001	00E4	0608	0610			
TCBUSR	001	0080	0549	4720			
TCBWID	001	00FF	0546				
TCBWK	001	00D8	0592	4454	4861	5481	
TCBXQ	001	00D8	0591	0592	0593		
TCBXR@	001	00E9	0621				
TCBXR1	001	0017	0710	0711			
TCBXR2	001	0015	0709	0710			
TCBX1	001	00AD	0571	0573			
TCBX2	001	00AB	0570	0571			
TCB142	001	0008	0603				
TCB501	001	0020	0601				
TCB741	001	0040	0605				
TDLAY	001	0020	1798	3583			
TEXT	001	0005	1923				
TIAC	001	0005	0033	0034			
TIBC	001	0001	0029	0030			

SYMBOL	LEN	VALUE	DEFN	REFERENCES
TICR	001	0008	0036	0037
TICS	001	0007	0035	0036
TIFE	001	0000	0028	0029
TIFLAG	001	0000	6786	2851* 2866* 4189*
TIMIOB	001	15F9	6687	2335* 2595 2599* 2850 2867* 4188 6627
TIMOPE	001	15F8	6682	2590* 2855 2856* 2859 2861* 2883* 2891* 2917*
TINS	001	0009	0037	
TIRC	001	0002	0030	0031
TISS	001	0006	0034	0035
TITIME	001	0006	6789	2596* 2860 2864* 2880*
TITR	001	0003	0031	0032
TIWRK1	001	4709	0412	0413
TIWRK2	001	470B	0413	0414
TIWRK3	001	470D	0414	0415
TIWRK4	001	470F	0415	0416
TIWRK5	001	4711	0416	0417
TIWRK6	001	4713	0417	0418 0419
TIYA	001	0004	0032	0033
TLCCP	001	0000	1761	1762
TLERR	001	0001	6705	
TLFRMA	001	0005	1764	1765 3202*
TLFRML	001	0007	1765	1766 3200*
TLRTC	001	0008	1766	
TLTOA	001	0003	1763	1764 3203*
TLTOL	001	0001	1762	1763 3201*
TNTATT	001	47B1	0478	0479
TNTOUT	001	0080	0523	
TRRIB	001	0009	6744	2429 2726 4333 5537
TRUAEQ	001	0016	6754	2552 2718 2817 4771 5571 5647 6309
TRUAHI	001	0013	6757	4495 6160 6311
TRUALO	001	0015	6755	
TRUNEQ	001	0011	6756	2862
TTBSIO	001	00FB	0095	4334
TTDFEN	001	00FC	0099	
TTDFEX	001	00FE	0100	
TTFREE	001	00E9	0092	
TTGETM	001	00E8	0091	
TTII	001	00EC	0096	
TTIIRT	001	00EE	0098	
TTIS	001	00ED	0097	
TTMOPN	001	00EA	0093	2430 2727
TTMRIB	001	0016	6746	2853
TTMSIO	001	00EB	0094	
TTTRAN	001	00E7	0090	
TUB	001	0001	6710	3003* 3013 3018 3095* 3102 3103 3114 3169* 3172 3635* 3636 4020*
				4065 4240* 4241 4281* 4283 4286 6033* 6034 6035 6132* 6138 6139
				6143 6159* 6161 6163 6184* 6185 6187 6294* 6295 6297 6535* 6536
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TUBAER	001	0010	1530	
TUBALC	001	0008	1516	
TUBALL	001	0040	1558	
TUBAPP	001	0002	1507	
TUBAPT	001	000A	1588	
TUBAT1	001	000B	1484	1494 2534 4513
TUBAT2	001	000C	1494	1511 2845* 2955* 2959* 2960 2966 3013* 3018* 3339* 3388* 3663 3748
				4418 4482 4512* 4776* 6161*

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SYMBOL  LEN VALUE DEFN   REFERENCES
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TUBBPT  001  0001 1468
TUBBSY  001  0002 1533
TUBCAS  001  0022 1574   1577
TUBCCP  001  0000 1450   1451
TUBCHN  001  0080 1527   2535
TUBCHR  001  000A 1474   1484
TUBCLR  001  0080 1460   2532  3102  3103  3172  5785  5791
TUBCMA  001  001C 1562   1565
TUBCMD  001  0040 1496   2960  2966
TUBCMN  001  0008 1479
TUBCNC  001  0020 1514
TUBCON  001  0000 1578
TUBCPU  001  0008 1586
TUBDCH  001  0026 1595
TUBDLN  001  002E 1551
TUBDM@  001  0007 1455   1457
TUBDME  001  0040 1461
TUBDMF  001  0020 1462
TUBDPL  001  001B 1550   1551
TUBDPY  001  0040 1486
TUBDTA  001  0080 1495   2960  2966
TUBDTF  001  0016 1543   2536  2834  2962  2967  3035  3154  3271  3340  3389  3407  3421  3601
                         3664  3749  3981  4194  4899  5410  5793  6034
TUBEMS  001  0008 1531   4774
TUBER@  001  0005 1454   1455  3292  3292*
TUBERP  001  0010 1515   3600  5010  5812  5968
TUBFSB  001  001A 1545   1555
TUBID   001  0001 1451   1453
TUBIIQ  001  0008 1504   4776
TUBIIS  001  0010 1503   2959  3018  3388  4776
TUBIMI  001  0020 1502   4418  4482  4512
TUBINP  001  0001 1482
TUBINQ  001  0010 1537   1539  4780* 4796  4802  4808*
TUBKNM  001  0080 1485   2534  4513
TUBLCB  001  0016 1542   1543  1544
TUBLN   001  0027 1597   1605
TUBLNC  001  003A 1605
TUBLNE  001  0080 1475
TUBLOP  001  0080 1557
TUBMCT  001  0004 1480
TUBMLT  001  0001 1579
TUBNID  001  0010 1478
TUBNPT  001  000B 1589
TUBOFF  001  0001 1492
TUBOLT  001  0004 1506
TUBONL  001  0020 1487
TUBOTC  001  001B 1555   1562  3290
TUBOUT  001  0002 1481
TUBOWN  001  0001 1508   2845  2955  3013  3339  3663  3748  6161
TUBPCB  001  0004 1532
TUBPCS  001  0024 1592   1593  1594
TUBPHY  001  0023 1577   1592  2734  2833  3114  4241  6185
TUBPIL  001  0026 1594   1595  1597  1601  3264
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TUBPL   001  0027 1601
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TUBPRG  001  0002 1467
TUBPST  001  0014 1541
TUBQUE  001  0008 1489
TUBRCL  001  0021 1569   1570  1572  4283  4286  6138  6143  6187  6295  6297
TUBREQ  001  0004 1490
TUBRTY  001  0080 1512
TUBRUF  001  0004 1466   3262  4451
TUBSCS  001  0009 1459   1470  2532* 3102  3103* 3153* 3172* 3262  4451* 5785  5791*
TUBSGN  001  0010 1488
TUBSID  001  0008 1457   1459  4065  6035  6536
TUBSPF  001  0040 1513
TUBSPP  001  0002 1522
TUBSSP  001  0008 1465   3153
TUBSTP  001  00FF 1610
TUBSWA  001  0010 1463
TUBSWC  001  0002 1491
TUBSWL  001  0001 1524
TUBTAS  001  001D 1565   1567  1574
TUBTA1  001  001E 1567   1568  3782  4494
TUBTA2  001  001F 1568   1569
TUBTCB  001  0012 1539   1540  3070  3636  4453  4719  4751  4860  5480  5511  6163
TUBTMA  001  0009 1470   1474
TUBTNR  001  000F 1559
TUBTNT  001  0018 1544   1545
TUBTRM  001  0040 1528   4737
TUBTUB  001  0014 1540   1541  1542  1549
TUBTYP  001  0020 1477
TUBVCS  001  0021 1570
TUBVFP  001  0004 1521
TUBVHR  001  0025 1593
TUBWAT  001  0001 1534
TUBYUK  001  0020 1529
TUB105  001  0002 1580
TUB374  001  0009 1587
TUB375  001  0007 1585   2833  3114
TUB5M1  001  0005 1583
TUB5M2  001  0006 1584   2734  3259  3987  4095  4225  4241
TUB7M1  001  0003 1581
TUB7M2  001  0004 1582
TXTSNT  001  0001 6772   4119
UNCON   001  00FF 0060
UNCOND  001  0087 6721   5885  5933
UNREC   001  0020 1839
USECW   001  4694 0243   0244
USETIM  001  0279 2865
VALOPE  001  0001 6683   2855  2856  2891  2917
WAIT    001  0080 0039   2333  2334
WAITIM  001  47CA 0492   0493
WAITRB  001  0004 6740   2319
WATIME  001  47A1 0279   0280  2864
WCC     001  0002 6773
WCOUNT  004  15B9 6617   3404* 3405  3977* 3978
WKA     001  0001 6777   2746* 2747  2768* 2769  2777* 2778  3579* 3580  3581  3582  3735* 3736
```

```
                        3816* 3817  3819  3825  4084* 4085  4087  4087  4170* 4171  4264* 4265
                        4266  4323* 4324  4337* 4339  4341  4345
WKDELL  001  0084 1835  3580*
WKDTFD  001  0014 1821
WKERRD  001  001A 1825  4085* 4171* 4265*
WKIOBD  001  001C 1824  3582
WORK    001  0001 6778  4102* 4103  4103* 4104
WRAP    001  00FF 1849
WRITE   001  00F1 1882
X$FFFC  002  15B2 6605  4266
X$FFFF  001  4639 0179  0182
X$0000  001  4632 0175  0176  4257  5131
X$0001  001  4633 0176  0177  2421  2425  2441  2540  3233  3764  3765  4168  4318  4319  4358
                        4364  4375  4376  5061  5310  5528  6141  6314  6440  6441
X$0002  001  4635 0177  0178  5525
X$0003  002  15B0 6604
X$0004  001  4637 0178  0179  5143  5185  5232  5467  5485  5585  6357
XR1     001  0001 0044  2317* 2732* 2734  2736* 2737  2791  2792* 2793  3115* 3128  3138  3138*
                        3140  3226* 3228  3230  3232  3232* 3289* 3290  3292  3292  3556  3557*
                        3558  3935* 3937  3939  4066* 4067  4314* 4315  4448  4448* 4451  4453
                        4453* 4454  4454* 4455  4455* 4456  4481* 4482  4494  4497* 4510* 4511
                        4558* 4657* 4819* 4830* 4832  4837  4837* 4873* 4986* 4988  4990  4991
                        4991* 4992  4993  4993* 5529  5530* 5531  5533* 5762* 5764  6154* 6155
                        6156
XR2     001  0002 0045  2440  2520  2522* 2532  2534  2535  2536  2589  2595* 2596  2832* 2833
                        2834* 2844* 2845  2850* 2851  2860  2864  2866  2874* 2880  2954* 2955
                        2959  2960  2962  2964* 2966  2967  3033* 3035  3069* 3070  3152* 3153
                        3154  3261* 3262  3264  3271  3338* 3339  3340  3387* 3388  3389  3403*
                        3405  3406* 3407  3420* 3421  3555* 3600  3601  3656* 3657  3659  3660
                        3662* 3663  3664  3747* 3748  3749  3781* 3782  3936* 3939* 3976* 3978
                        3980* 3981  4188* 4189  4193* 4194  4414* 4418  4423  4423* 4424  4429
                        4439  4439  4447  4459* 4460  4460* 4462  4479  4481  4490  4493  4497
                        4511* 4512  4513  4517  4605* 4607  4611* 4612  4619* 4670* 4702* 4719
                        4719* 4720  4730  4732* 4737  4751  4751* 4752  4754* 4772  4774  4776
                        4780  4781* 4782  4788  4789* 4795  4795* 4796  4802  4802* 4808  4859*
                        4860  4860* 4861  4898* 4899  5009* 5010  5026* 5171* 5291  5292* 5293
                        5302  5302* 5303  5304* 5393  5405* 5409* 5410  5430* 5431  5441* 5446*
                        5479* 5480  5480* 5481  5510* 5511  5512* 5513  5643* 5644  5649  5650
                        5659* 5660  5661  5663  5663* 5669  5676  5685  5685* 5692  5719* 5721
                        5723  5727  5727* 5731  5759  5778  5780* 5785  5791  5793  5793* 5809*
                        5812  5856* 5967* 5968  6032  6054*
ZROTIM  004  15F7 6681  2860

TOTAL STATEMENTS IN ERROR IN THIS GENERATION--     0

OL103 I  TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS   27
         NAME-$CC4#2,PACK-R2R2R2,UNIT-R1,RETAIN-P,LIBRARY-R,CATEGORY-000
OL105 I  THE CODE LENGTH OF $CC4#2 IS  5639 DECIMAL.
```

```
  1 CT EJ    I               $CGDRV01
PROGRAM END
```

```
XX   CALL  $CC1LE,R1          *** CREATE $CC4#2                          CCP00453
XX LOAD  $OLINK,R1    LINKEDIT $CC4#2                                    CCP00309
XX FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-100,RETAIN-S,           CCP00310
XX       SHARE-NO                                                        CCP00311
XX FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-040,RETAIN-S,             CCP00312
XX       SHARE-NO                                                        CCP00313
XX RUN                                                                   CCP00314
// OPTIONS  ENTRY-$CC4CM,MAP-XREF,LEVEL-4                               CCP00315
// PHASE  NAME-$CC4#2,UNIT-F2,RETAIN-R,LINKADD-X'0000'                  CCP00316
// CATEGORY NAME-$CC4V2,VALUE-100                                       CCP00317
// INCLUDE  NAME-'$CC4VT,$CC4#2,$CC4V2',UNIT-R1                         CCP00318
// INCLUDE  NAME-'$CC4IB,$CC4BT',UNIT-R1                                CCP00319
// INCLUDE  NAME-$CC4M1,UNIT-R1                                         CCP00320
// INCLUDE  NAME-$$BSLG,UNIT-F1                                         CCP00321
// INCLUDE  NAME-$$BSID,UNIT-F1                                         CCP00322
// END                                                                  CCP00323
```

OVERLAY LINKAGE EDITOR CORE USAGE MAP AND CROSS REFERENCE LIST 08/08/10

START ADDRESS	CATEGORY	NAME AND ENTRY	CODE LENGTH HEXADECIMAL	DECIMAL	REFERENCED BY
0000	0	$CC4VT	0015	21	$CC4V2
0015	0	$CC4#2	1607	5639	$CC4VT
0015		CMBEG			$CC4V2
001A		$CC4CM			
0F7B		$CC4FR			$CC4VT
1260		$$BMCH			$CC4M1
15F7		CHBMHL			$CC4M1
1298		CHBMBS			$CC4M1
15E6		SAVCAT			$CC4IB
161C	0	$CC4IB	0056	86	$CC4V2 $CC4VT
1672	0	$CC4BT	001F	31	$CC4V2 $CC4#2 $CC4VT
1672		$$BSMT			$CC4M1
1691	0	$CC4M1	0FCF	4047	$CC4#2 $CC4VT
1691		$$BSMS			$CC4V2 $CC4#2 $CC4VT
1B0F		MSBSIO			
1F11		MSBIOS			
1F4D		MSBSIH			
1958		MSBSCH			
1691		$$BSDM			
1F23		MSBSIR			
1F4C		SIOENB			
1F32		MSBSSA			$CC4VT
1DC6		WORKAD			
1D71		DMNSNS			
2660	0	$$BSLG	005A	90	$CC4M1 $CC4V2 $CC4VT
26BA	0	$$BSID	0190	400	$CC4M1
26C3		IDPOLL			
2796		IDSET			$CC4M1
284A	0,100	$CC4V2	00AA	170	$CC4VT
284A		MAINT2			
28AE		ADDRS2			$CC4VT

OL100 I THE TOTAL CORE USED BY $CC4#2 IS 10484 DECIMAL.
OL107 I THE PARTITION SIZE REQUIRED TO EXECUTE THIS PROGRAM IS 12K.
OL101 I THE START CONTROL ADDRESS OF THIS MODULE IS 001A.
OL104 I TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS   45
         NAME-$CC4#2,PACK-F2F2F2,UNIT-F2,RETAIN-P,LIBRARY-O

```
  1 CT EJ    I               $OLINK01
PROGRAM END
```

```
XX   CALL  $CC1BT,R1          *** CREATE BSCA TRACE MODULE              CCP00454
***  USE THE OVERLAY LINKAGE EDITOR TO CREATE THE LOADABLE BSCA TRACE   CCP00326
***  SERVICE AID                                                       CCP00327
*                                                                      CCP00328
XX LOAD  $OLINK,R1                                                     CCP00329
XX FILE  NAME-$SOURCE,UNIT-D1,PACK-PID001,TRACKS-100,RETAIN-S,         CCP00330
XX       SHARE-NO                                                      CCP00331
XX FILE  NAME-$WORK,UNIT-D1,PACK-PID001,TRACKS-40,RETAIN-S,            CCP00332
XX       SHARE-NO                                                      CCP00333
XX RUN                                                                 CCP00334
// PHASE  NAME-$CC$BS,UNIT-F2,RETAIN-R                                 CCP00335
// OPTIONS  LEVEL-4                                                    CCP00336
// INCLUDE  NAME-$CC$BS,UNIT-R1                                        CCP00337
// INCLUDE  NAME-$$BSTT,UNIT-F1                                        CCP00338
// END                                                                 CCP00339
```

```
        OVERLAY LINKAGE EDITOR CORE USAGE MAP    08/08/10


 START    CATEGORY  NAME AND       CODE LENGTH
ADDRESS               ENTRY    HEXADECIMAL DECIMAL

 4000         0     $CC$BS          0002       2
 4002                 MSBSSA
 4002         0     $$BSTT          028A     650
 4002                 $$BSTT
 4002                 $$BSMT
 4140                 MTBSML
 4282                 MTBSMM
 40DB                 INTTCB


OL100 I  THE TOTAL CORE USED BY $CC$BS IS   652 DECIMAL.
OL107 I  THE PARTITION SIZE REQUIRED TO EXECUTE THIS PROGRAM IS  08K.
OL101 I  THE START CONTROL ADDRESS OF THIS MODULE IS 4000.
OL104 I  TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS    3
         NAME-$CC$BS,PACK-F2F2F2,UNIT-F2,RETAIN-P,LIBRARY-O
```

```
  1 CT EJ    I               $OLINK01
PROGRAM END
```

```
XX   CALL  $CC1C1,R1          *** COPY REQUIRED CCP MODULES              CCP00455
*     ---  COPY REQUIRED LOAD MODULES FOR ALL STAGES OF CCP  ---         CCP00342
*                                                                       CCP00343
XX LOAD  $MAINT,F1                                                      CCP00344
XX RUN                                                                  CCP00345
// COPY  FROM-R1,TO-F2,LIBRARY-O,RETAIN-R,NAME-$CC1BF                   CCP00346
// COPY  FROM-R1,TO-F2,LIBRARY-O,RETAIN-R,NAME-$CC1DP                   CCP00347
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCPAS                   CCP00348
// COPY  FROM-R1,TO-F2,LIBRARY-O,RETAIN-R,NAME-$CCHRA,NEWNAME-$CCTRA    CCP00349
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCY.ALL,NEWNAME-$CC2    CCP00350
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCPAL                   CCP00351
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-CCPPGM                   CCP00352
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$HACCP                   CCP00353
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCUUN,NEWNAME-$CC4UN    CCP00354
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCP                     CCP00355
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CC3.ALL                 CCP00356
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CC4SU                   CCP00357
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CC4YA                   CCP00358
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCS.ALL,NEWNAME-$CC4    CCP00359
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCT.ALL,NEWNAME-$CC4    CCP00360
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCE.ALL,NEWNAME-$CC4    CCP00361
// END                                                                  CCP00362
```

```
  1 CT EJ    I               $MAINT01
PROGRAM END
```

```
XX   CALL  $CC1C3,R1          *** COPY REQUIRED CCP MODULES              CCP00456
XX LOAD  $MAINT,F1                                                      CCP00365
XX RUN                                                                  CCP00366
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCC.ALL,NEWNAME-$CC4    CCP00367
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCB.ALL,NEWNAME-$CC4    CCP00368
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCI.ALL,NEWNAME-$CC4    CCP00369
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCG.ALL,NEWNAME-$CC4    CCP00370
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCR.ALL,NEWNAME-$CC4    CCP00371
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCA.ALL,NEWNAME-$CC4    CCP00372
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCO.ALL,NEWNAME-$CC4    CCP00373
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCL.ALL,NEWNAME-$CC4    CCP00374
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCX.ALL,NEWNAME-$CC4    CCP00375
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CC5SH                   CCP00376
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CC5CL                   CCP00377
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CCPDD                   CCP00378
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-CCPIVP                   CCP00379
// COPY  FROM-R1,TO-F2,RETAIN-R,LIBRARY-O,NAME-$CC6.ALL,NEWNAME-$CCP    CCP00380
// COPY  FROM-R1,TO-F2,LIBRARY-S,NAME-$CGSST,RETAIN-R                   CCP00381
// END                                                                  CCP00382
```

```
  1 CT EJ    I               $MAINT01
PROGRAM END
```

```
XX   CALL  $CC1AS,R1          *** COPY ASSEMBLER MODULES                  CCP00457
***  COPY MACRO DEFINITIONS AND ANY REQUIRED SUBROUTINES FOR USE WITH    CCP00385
***  BASIC ASSEMBLER TO PROGRAM PREPARATION PACK                         CCP00386
*                                                                        CCP00387
XX PAUSE  ASSURE BASIC ASSEMBLER PACK ON UNIT F1 -- THEN CONTINUE        CCP00388
```

```
  1 CR 90    D 0  3          STEP
XX PAUSE  ASSURE BASIC ASSEMBLER PACK ON UNIT F1 -- THEN CONTINUE        CCP00388
0 1 CR 90    D 0  3          STEP
XX LOAD  $MAINT,F1                                                       CCP00389
XX RUN                                                                   CCP00390
// COPY  FROM-R1,TO-F1,RETAIN-R,LIBRARY-S,NAME-$N.ALL                    CCP00391
// END                                                                   CCP00392
```

```
  1 CT EJ    I               $MAINT01
PROGRAM END
```

```
XX   CALL  $CC1RG,R1          *** COPY RPGII MODULES                      CCP00458
***  COPY SUBROUTINES FOR USE WITH RPG II TO PROGRAM PREPARATION PACK    CCP00395
*                                                                        CCP00396
XX PAUSE  ASSURE RPG II PROGRAM PACK ON UNIT F1 -- THEN CONTINUE         CCP00397



  1 CR 90    D 0  3          STEP
XX PAUSE  ASSURE RPG II PROGRAM PACK ON UNIT F1 -- THEN CONTINUE         CCP00397
0 1 CR 90    D 0  3          STEP
XX LOAD  $MAINT,F1                                                       CCP00398
XX RUN                                                                   CCP00399
// COPY  FROM-R1,TO-F1,RETAIN-R,LIBRARY-R,NAME-SUBR.ALL                  CCP00400
// END                                                                   CCP00401
```

```
  1 CT EJ    I               $MAINT01
PROGRAM END
```

```
XX   CALL  $CC1ND,R1          *** COPY SAMPLE ASSIGNMENT                CCP00459
*                                                                      CCP00404
***    PRINT SAMPLE ASSIGNMENT SET TO BE USED WITH INSTALLATION        CCP00405
***    VERIFICATION PROGRAM                                            CCP00406
*                                                                      CCP00407
XX LOAD  $MAINT,F1                                                     CCP00408
XX RUN                                                                 CCP00409
// COPY  FROM-R1,TO-PRINT,LIBRARY-S,NAME-$CGSST                        CCP00410
```

```
MODULE-$CGSST, VOLUME ID-R2R2R2, DATE-08/08/10
******   SAMPLE ASSIGNMENT SET CONTROL STATEMENTS    ******              00010000
*                                                                       00020000
******   THE FOLLOWING STATEMENTS CAN BE MODIFIED FOR YOUR              00030000
******   CONFIGURATION BUT SOME MUST BE KEPT TO RUN CCPIVP.             00040000
*                                                                       00050000
*                                                                       00060000
// SET ID-@,ACTION-CREATE,DFLTEXEC-YES,ANYSPECS-NO                      00070000
// SYSTEM MINUPA-22K,MINTPBUF-2840,                                     00080000
// PASSWORD-FECD,                                                       00090000
// COMMANDL-50,DFFPACK-PROGRAM,PGMREQL-15                               00100000
*                                                                       00110000
// TERMATTR ATTRID-1,TRANSLAT-NO,BLKL-512,DATAFORM-MESSAGE,             00120000
// VERIFYID-NO,DFF3270-YES                                              00130000
*                                                                       00140000
******   THIS STMNT TYPE REQD FOR CCPIVP(OR MLTALINE STMNT)             00150000
// BSCALINE TYPE-CS,LINENUM-1,POLLLIST-'00,01,10,11'                    00160000
// BSCATERM TERMID-00,TYPE-3277M2,ATTRID-1,COMMAND-YES,OFFACTN-HOLD,    00170000
// ADDRCHAR-*60604040*,POLLCHAR-*40404040*                              00180000
// BSCATERM TERMID-01,TYPE-3277M2,ATTRID-1,COMMAND-YES,OFFACTN-HOLD,    00190000
// ADDRCHAR-*6060C1C1*,POLLCHAR-*4040C1C1*                              00200000
// BSCATERM TERMID-10,TYPE-3277M2,ATTRID-1,COMMAND-NO,                  00210000
// ADDRCHAR-*61614040*,POLLCHAR-*C1C14040*                              00220000
// BSCATERM TERMID-11,TYPE-3277M2,ATTRID-1,COMMAND-NO,                  00230000
// ADDRCHAR-*6161C1C1*,POLLCHAR-*C1C1C1C1*                              00240000
*                                                                       00250000
// TERMNAME NAME-CU0DV0,TERMID-00                                       00260000
// TERMNAME NAME-CU0DV1,TERMID-01                                       00270000
// TERMNAME NAME-CU1DV0,TERMID-10                                       00280000
// TERMNAME NAME-CU1DV1,TERMID-11                                       00290000
*                                                                       00300000
******   THIS STMNT TYPE REQD FOR CCPIVP                                00310000
// DISKFILE NAME-CGIVFILE,ORG-C,RECL-16                                 00320000
*                                                                       00330000
******   THIS STMNT NECESSARY FOR CCPIVP                                00340000
// PROGRAM NAME-CCPIVP,PGMDATA-YES,PRINTER-SHR,                         00350000
// FILES-'CGIVFILE/CO/NOSHR',                                           00360000
// PACK-PROGRAM                                                         00370000

// COPY  FROM-R1,TO-PRINT,LIBRARY-S,NAME-$CGCND                         CCP00411
```

```
MODULE-$CGCND, VOLUME ID-R2R2R2, DATE-08/08/10
*****************************************************************
*                                                               *
*           C C P   G E N E R A T I O N   C O M P L E T E       *
*                                                               *
*****************************************************************
*                                                               *
*      TO VERIFY THAT YOUR CCP SYSTEM HAS BEEN CORRECTLY        *
*      GENERATED, YOU SHOULD NOW DO THE FOLLOWING --            *
*                                                               *
*         1. FAMILIARIZE YOURSELF WITH THE PROCEDURES FOR       *
*            PERFORMING INSTALLATION VERIFICATION.  THESE       *
*            PROCEDURES ARE CONTAINED IN THE CCP SYSTEM         *
*            REFERENCE MANUAL, GC21-7579.                       *
*                                                               *
*         2. AS THE PROGRAM FOR PERFORMING INSTALLATION         *
*            VERIFICATION, USE THE SUPPLIED PROGRAM             *
*            'CCPIVP'.                                          *
*                                                               *
*         3. PERFORM AN ASSIGNMENT BUILD RUN TO CREATE          *
*            AN ASSIGNMENT SET SUFFICIENT FOR THE VERIFI-       *
*            CATION ACTIVITY.  USE THE SAMPLE ASSIGNMENT        *
*            SET PROVIDED FOR THIS PURPOSE -- SOURCE LIB-       *
*            RARY MEMBER -- $CGSST.                             *
*                                                               *
*         4. START UP CCP BY ENTERING THE FOLLOWING OCL:        *
*              // LOAD $CCP,R1                                   *
*              // FILE NAME-CGIVFILE,UNIT-  ,PACK-      ,RETAIN-T,    *
*              //      TRACKS-1                                  *
*              // RUN                                           *
*                                                               *
*                                                               *
*         5. WHEN EXECUTION BEGINS, REQUEST THE PROGRAM         *
*            'CCPIVP' FROM THE CONSOLE.                         *
*                                                               *
*         6. COMPARE THE RESULTS OF THE OPERATION OF THIS       *
*            PROGRAM WITH THOSE SPECIFIED IN THE CCP            *
*            SYSTEM REFERENCE MANUAL.                           *
*                                                               *
*      NOTE:                                                    *
*      -----                                                    *
*      IF YOUR SYSTEM HAS A PUNCH DEVICE, THE SAMPLE ASSIGNMENT *
*      SET ($CGSET) WITH REQUIRED OCL STATEMENTS MAY BE PRINTED *
*      AND PUNCHED BY ENTERING THE FOLLOWING OCL STATEMENTS:    *
*                                                               *
*            // LOAD $MAINT,DSUNIT                             *
*            // RUN                                            *
*            // COPY FROM-DIUNIT,TO-PRTPCH,LIBRARY-S,NAME-$CGSET   *
*            // END                                            *
*                                                               *
*      REFERENCE THE COMMUNICATION CONTROL PROGRAM SYSTEM REFERENCE  *
*      MANUAL FOR A DESCRIPTION OF THE SAMPLE ASSIGNMENT SETS.  *
*                                                               *
*****************************************************************

// END                                                    CCP00412
```

```
  1 CT EJ    I               $MAINT01
PROGRAM END
```

```
XX   CALL  $CC1BF,R1          *** CREATE $CCPFILE                          CCP00460
*     ---  ALLOCATE $CCPFILE AND WRITE INITIAL CONTENTS  ---               CCP00415
*                                                                          CCP00416
***  EXECUTE THE PREVIOUSLY CREATED LOAD MODULE $CC1BF TO WRITE THE       CCP00417
***  INITIAL CONTENTS OF $CCPFILE                                         CCP00418
*                                                                          CCP00419
XX PAUSE  ASSURE UNIT F2 CONTAINS PACK F2F2F2 -- THEN CONTINUE           CCP00420



  1 CR 90    D 0  3          STEP
XX PAUSE  ASSURE UNIT F2 CONTAINS PACK F2F2F2 -- THEN CONTINUE           CCP00420
0 1 CR 90    D 0  3          STEP
XX LOAD  $CC1BF,R1                                                       CCP00421
XX FILE  NAME-$CCPFILE,UNIT-F2,PACK-F2F2F2,TRACKS-2,RETAIN-P,            CCP00422
XX       SHARE-NO                                                        CCP00423
XX RUN                                                                   CCP00424
  1 CP U-    I               $CC1BF01
***  $CCPFILE NOW INITIALIZED FOR FIRST ASSIGNMENT  ***
```

```
  1 CT EJ    I               $CC1BF01
PROGRAM END
```

```
XX   CALL  $CC1DP,R1          *** CREATE $CCPDUMP FILE                    CCP00461
*     ---  ALLOCATE $CCPDUMP AND WRITE INITIAL CONTENTS  ---              CCP00427
*                                                                         CCP00428
***  EXECUTE THE LOAD MODULE $CC1DP TO WRITE THE INTITIAL                 CCP00429
***  CONTENTS OF $CCPDUMP                                                 CCP00430
*                                                                         CCP00431
XX PAUSE  ASSURE UNIT D2 CONTAINS PACK PID001 -- THEN CONTINUE            CCP00432



  1 CR 90    D 0  3          STEP
XX PAUSE  ASSURE UNIT D2 CONTAINS PACK PID001 -- THEN CONTINUE            CCP00432
0 1 CR 90    D 0  3          STEP
*** IF CCP WILL BE EXECUTED ON A SYSTEM HAVING A DIFFERENT MAIN STORAGE   CCP00433
*** SIZE, $CCPDUMP MUST BE RECREATED ON THAT SYSTEM USING $CC1DP.         CCP00434
XX LOAD  $CC1DP,R1                                                        CCP00435
XX FILE NAME-$CCPDUMP,UNIT-D2,PACK-PID001,TRACKS-49,                      CCP00436
XX      SHARE-NO,RETAIN-P                                                 CCP00437
XX RUN                                                                    CCP00438
  1 CP U-    I               $CC1DP01
// TRACE TRACKS-6                                                         CCP00439
  1 CP U-    I               $CC1DP01
***  $CCPDUMP   NOW INITIALIZED FOR 002 DUMPS  ***
```

```
  1 CT EJ    I               $CC1DP01
PROGRAM END

sim> at pch mlterfil.ocl
```

```
// READER MFCU1
// LOG 1403
*
*** ALLOCATE BSCA MLTERFIL FILE
*
// LOAD $$BSFI,F1
// FILE NAME-MLTERFIL,UNIT-F1,PACK-F1F1F1,TRACKS-5,RETAIN-P
// RUN
  1 CI LH F1 D   23          $$BSFI01
MLTERFIL
2 1 CI LH F1 D   23          $$BSFI01
```

```
  1 CT EJ    D               $$BSFI01
PROGRAM END ************** OPTION 2

sim> at pch ccprun.ocl
```

```
// LOAD $MAINT,F1
// RUN
// COPY FROM-READER,LIBRARY-P,RETAIN-R,NAME-$CCP,TO-F2
// END
```

```
  1 CT EJ    I               $MAINT01
PROGRAM END

sim> at pch cgset.ocl
```

```
*
// READER CONSOLE
// READER MFCU1
*******SAMPLE ASSIGNMENT AND SAMPLE START-UP DECK********************** 00010000
*                                                                       00020000
********* SAMPLE ASSIGNMENT SET ************************************** 00030000
*                                                                       00040000
*****FILL IN UNIT                                                       00050000
*                                                                       00060000
// LOAD $CCPAS,F2                                                       00070000
// FILE NAME-$CCPFILE,RETAIN-P,UNIT-F2,PACK-F2F2F2                      00110000
// FILE NAME-$CCPWORK,RETAIN-S,TRACKS-3,UNIT-R2,PACK-R2R2R2             00150000
// RUN                                                                  00160000
```

```
       // SET ID-V,ACTION-REPLACE,DFLTEXEC-YES                                  00220000

CA046 W   REPLACE SET ID NOT FOUND. ASSUME ACTION-CREATE
       // SYSTEM MINUPA-12K,MINTPBUF-2840,PASSWORD-IBMS3,                       00230000
       //      COMMANDL-50,PGMREQL-15                                           00250000
       *                                                                       00260000
       // TERMATTR ATTRID-1,TRANSLAT-NO,BLKL-512,DATAFORM-MESSAGE,              00270000
       //      VERIFYID-NO                                                      00280000
       *                                                                       00290000
       *********THIS STMNT TYPE REQD FOR CCPIVP(OR MLTALINE STMNT)             00300000
       *                                                                       00310000
       // BSCALINE TYPE-CS,LINENUM-1,POLLLIST-'00,01,10,11'                     00320000
       // BSCATERM TERMID-00,TYPE-3277M2,ATTRID-1,COMMAND-YES,OFFACTN-HOLD,     00330000
       //      ADDRCHAR-*60604040*,POLLCHAR-*40404040*                          00340000
       // BSCATERM TERMID-01,TYPE-3277M2,ATTRID-1,COMMAND-YES,OFFACTN-HOLD,     00350000
       //      ADDRCHAR-*6060C1C1*,POLLCHAR-*4040C1C1*                          00360000
       // BSCATERM TERMID-10,TYPE-3277M2,ATTRID-1,COMMAND-NO,                   00370000
       //      ADDRCHAR-*61614040*,POLLCHAR-*C1C14040*                          00380000
       // BSCATERM TERMID-11,TYPE-3277M2,ATTRID-1,COMMAND-NO,                   00390000
       //      ADDRCHAR-*6161C1C1*,POLLCHAR-*C1C1C1C1*                          00400000
       *                                                                       00410000
       // TERMNAME NAME-TERM00,TERMID-00                                        00420000
       // TERMNAME NAME-TERM01,TERMID-01                                        00430000
       // TERMNAME NAME-TERM02,TERMID-10                                        00440000
       // TERMNAME NAME-TERM03,TERMID-11                                        00450000
       *                                                                       00460000
       *********THIS STMNT TYPE REQD FOR CCPIVP                                00470000
       *                                                                       00480000
       // DISKFILE NAME-CGIVFIL1,ORG-C,RECL-16                                  00490000
       *                                                                       00500000
       *********THIS STMNT TYPE REQD FOR CCPIVP                                00510000
       *                                                                       00520000
       // DISKFILE NAME-CGIVFIL2,ORG-C,RECL-16                                  00530000
       *                                                                       00540000
       *********NOTE THAT ONE DISKFILE STATEMENT -CGIVFILE- WOULD BE NEEDED    00550000
       *********IF SYMBOLIC FILES ARE NOT BEING USED.                         00560000
       *                                                                       00570000
       * THE FOLLOWING TWO DISK FILE STATEMENTS ARE FOR EXAMPLE ONLY AND       00580000
       * SHOULD BE REMOVED PRIOR TO RUNNING THIS ASSIGNMENT SET.               00590000
       *                                                                       00600000
       // DISKFILE NAME-DUMMY1,ORG-D,RECL-256                                   00610000
       // DISKFILE NAME-DUMMY2,ORG-I,RECL-64,KEYL-8,KEYPOS-1                    00620000
       *                                                                       00630000
       *********THIS STMNT TYPE REQD FOR CCPIVP IF SYMBOLIC FILES ARE USED.    00640000
       *                                                                       00650000
       // SYMFILE NAME-CGIVFILE,DISKFILE-'CGIVFIL1,CGIVFIL2'                    00660000
       *                                                                       00670000
       *************THIS STMNT NECESSARY FOR CCPIVP,PACK AND PRINTER VALUES    00680000
       *************CAN BE CHANGED FOR YOUR CONFIG.                            00690000
       *                                                                       00700000
       // PROGRAM NAME-CCPIVP,PGMDATA-YES,                                      00710000
       //      FILES-'CGIVFILE/CO/NOSHR',                                       00720000
       //      PACK-PROGRAM,PRINTER-NO                                          00730000
       *                                                                       00740000
       *********NOTE THAT CCPIVP MUST BE ON CORRECT PACK AT STARTUP OF CCP.    00750000
       *                                                                       00760000
       * THE FOLLOWING TWO PROGRAM STATEMENTS ARE FOR EXAMPLE ONLY AND         00770000
```

```
* SHOULD BE REMOVED PRIOR TO RUNNING THIS ASSIGNMENT SET.                00780000
*                                                                        00790000
*// PROGRAM NAME-DUMMY1,MRTMAX-2,PGMDATA-YES,                           00800000
*// FILES-'DUMMY1/DU/SHR,DUMMY2/IRUA/SHR',PACK-SYSTEM,DFFMTERM-4,       00810000
*// DFFNDF-2,DFFSFDT-1006                                               00820000
*                                                                        00830000
*// PROGRAM NAME-DUMMY2,MRTMAX-2,PGMDATA-YES,                           00840000
*// FILES-'DUMMY1/DU/SHR,DUMMY2/IRA/SHR',PACK-SYSTEM,DFFMTERM-2,        00850000
*// DFFNDF-1,DFFSFDT-396                                                00860000
*                                                                        00870000
*                                                                        00880000
/*  REPLACE WITH /*                                                     00890000

CA244 W   UNREFERENCED FILE STATEMENTS ARE IGNORED
            DUMMY1
            DUMMY2

      2      WARNING MESSAGES

      0      TERMINATION MESSAGES
```

```
  1 CT EJ    I               $CCPAS01
PROGRAM END
```

```
*
// READER CONSOLE
// CALL $CCP,F2
*                                                                    00940000
***     RUN CCP - MODEL 15D.                                         00950000
*                                                                    00960000
XX LOAD $CCP,F2                                                      00970000
*                                                                    00980000
***FOLLOWING TWO // FILE STATEMENTS CORRESPOND TO SAMPLE ASSIGNMENT  00990000
***DECK SYMBOLIC FILES.                                              01000000
*                                                                    01010000
XX FILE NAME-CGIVFIL1,RETAIN-T,TRACKS-1,UNIT-F2,PACK-F2F2F2 ***ANY 5444 01020000
XX FILE NAME-CGIVFIL2,RETAIN-T,TRACKS-1,UNIT-F2,PACK-F2F2F2 ***ANY 5444 01030000
*                                                                    01040000
***IF SYMBOLIC FILES ARE NOT USED REPLACE THE PRECEEDING TWO STATEMENTS 01050000
***SINGLE // FILE STATEMENT****************************************** 01060000
*                                                                    01070000
XX FILE NAME-CGIVFILE,RETAIN-T,TRACKS-1,UNIT-F2,PACK-F2F2F2 ***ANY 5444 01080000
*                                                                    01090000
XX RUN                                                               01100000
// RUN  $CCP,F2
  1 CP U-    I               $CCP01
 SU001  SYSTEM/3 CCP
  1 CP U-    I               $CCP01
 SU002  $CCPFILE ON UNIT F2
  1 CP U-    I               $CCP01
 SU003  DEFAULT SET = V
  1 CP U-    I               $CCP01
*SU011  ANY SPECIFICATIONS?
* 1 CP U-    R016            $CCP01
N
  1 CP U-    I               $CCP01
 SU046  $CCPDUMP FILE ON UNIT D2
  1 CP U-    I               $CCP01
 SU051  00 DUMPS USED, 02 AVAILABLE IN $CCPDUMP FILE
  1 CP U-    I               $CCP01
 SU071  INITIALIZING CCP
  1 CP U-    I               $CCP01
 SU753  OPENING DISKFILES
  1 CP U-    I               $CCP01
 SU965  T/P BUFFER IS 04816 BYTES,  USER PROGRAM AREA IS  042K.
  P CP U-    I
000 CCP STARTED
```